SPALDING COUNTY WATER AUTHORITY

PROGRESSIVE DESIGN BUILD
SEWER IMPLEMENTATION
PERMIT REVIEW SUBMITTAL



VICINITY MAP

PROJECT SUMMARY

EXISTING SITE CONDITIONS:
CURRENTLY THE SITE LAND IS RESIDENTIAL WITH SOME COMMERCIAL PROPERTIES LOCATED WITHIN THE CONSTRUCTION CORRIDOR.
PROPOSED SITE CONDITIONS:
THE PROJECT INCLUDES THE INSTALLATION OF A 200,000 GPD WASTEWATER TREATMENT PLANT (WWTP), SANITARY SEWER LIFT STATION INCLUDING WET WELL, VALVE VAULT, BACKUP GENERATOR. ADDITIONALLY 2,840 LINEAR FEET OF 8" HDPE FORCE MAIN, 10,070 LINEAR FEET OF 16" PVC GRAVITY SEWER AND 34 MANHOLES. POST-CONSTRUCTION CONDITION WILL MATCH EXISTING SURFACE CONDITIONS. THE PROPOSED PROJECT WILL RESULT IN 466 LINEAR FEET TOTAL (6,640 SQUARE FEET TOTAL) OF BUFFER DISTURBANCE ALONG PERENNIAL STREAM CABIN CREEK IN THE UPPER OCMULGEE WATERSHED IN UNINCORPORATED SPALDING COUNTY.

spalding county SCWA water authority

OWNER (PRIMARY PERMITEE)

SPALDING COUNTY WATER AUTHORITY
119 EAST SOLOMON STREET
GRIFFIN, GA 30223
PHONE: (770) 467-4777
CONTACT: JOSEPH JOHNSON, PE

ANTICIPATED CONSTRUCTION SCHEDULE: ___ MONTHS

LAND DISTURBANCE PERMIT NO._____

ENGINEER

RIVER 2 TAP, INC
1841 PEELER RD, SUITE D
DUNWOODY, GA 30338
(770) 569-7038
CONTACT: ANDY RANKIN, PE

24 HOUR EMERGENCY CONTACT:
TBD
(###) ###-####

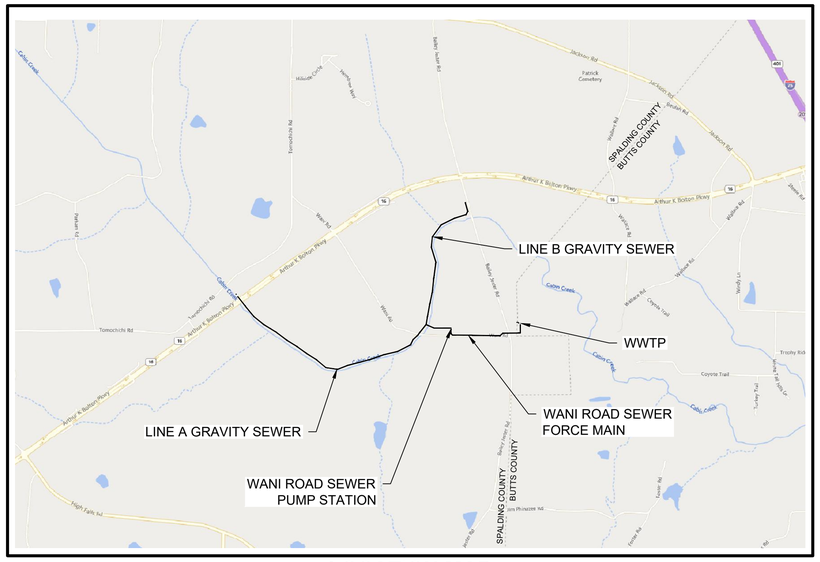
CONTRACTOR

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
(404) 355 3976
CONTACT: GARLAND LONG, PE

GEORGIA 811 Utilities Protection Center, Inc.
Know what's below. Call before you dig.
(770) 623-4332

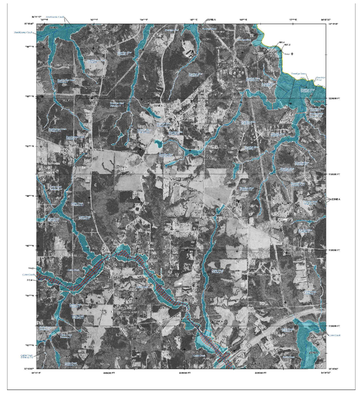
NPDES FEE TABLE

$40.00/ACRE x ##.## ACRES DISTRIBUTED = $###.## FEE TO PAY TO SPALDING COUNTY
$40.00/ACRE x ##.## ACRES DISTRIBUTED = $###.## FEE TO PAY TO GEORGIA EPD
TOTAL FEES TO PAY = $#####.##

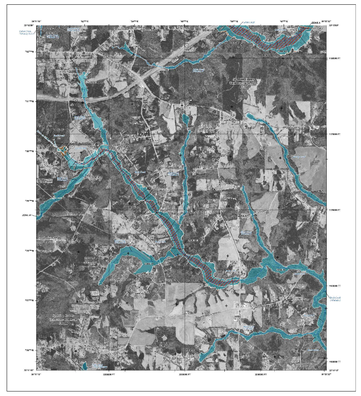


LOCATION MAP
SCALE: 1" = 2,000'

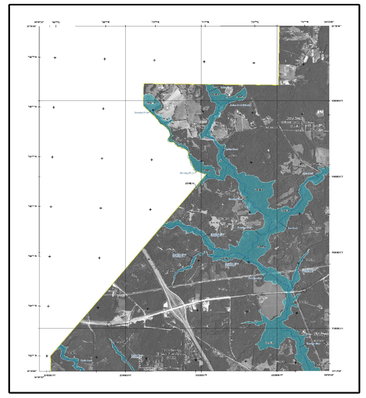
F.E.M.A MAPS



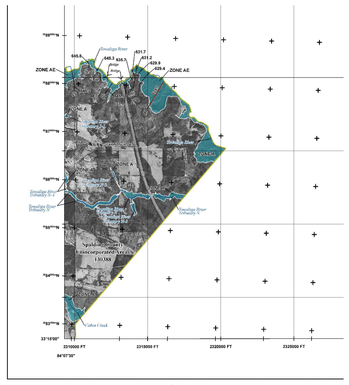
FIRM PANEL 13255C0095E, DATED JUNE 7, 2017



FIRM PANEL 13255C0210E, JUNE 7, 2017



FIRM PANEL 13035C0065D, DATED JUNE 7, 2017



FIRM PANEL 13255C0125E, DATED JUNE 7, 2017

SCWA BOARD MEMBERS:	
WADE CANNON - CHAIRMAN	GWEN FLOWERS-TAYLOR
DICK MORROW - VICE CHAIRMAN	JEFF BRANDON
WANDA HOWELL	CONTACT:
FANNIE DELANEY	SPALDING COUNTY WATER AUTHORITY
CAL OXFORD	119 EAST SOLOMON STREET, ROOM 205
CLAY DAVIS	GRIFFIN, GEORGIA 30223
JIM SKINNER	PHONE: (770) 467-4777

DISTRICT					
INSPECTOR					
PHONE					
PHONE (M)					

80% PERMIT REVIEW
APRIL-2025
NOT FOR CONSTRUCTION

D10000

SHEET INDEX

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		APPENDIX 2
		~~GEOTECHNICAL REPORT~~

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

GENERAL
SHEET INDEX

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

G-02
SHEET
1 OF 75

FD10000
PLOTTED: 4/3/2025 3:22 PM FILE: P:\01 Active Projects\G107 - Lakeshore Engineering\G1070001 - PDB Services For 2024 Sewer Implementation\31_Authoring\CAD\GENERAL\GENERAL NOTES AND LEGEND.dwg

FLOOD NOTES:

THE FLOOD PLAIN SHOWN ON THESE PLANS ARE PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON 13255C0095E, DATED JUNE 7, 2017; FIRM PANEL 13255C0210E, JUNE 7, 2017; FIRM PANEL 13255C0125E, DATED JUNE 7, 2017; FIRM PANEL 13035C0065D, DATED JUNE 7, 2017

WASTEWATER NOTES:

1. ALL WASTEWATER EASEMENTS MUST BE DRESSED AND GRASSED TO CONTROL EROSION PRIOR TO ACCEPTANCE. TREES SHALL NOT BE PLANTED IN THE PERMANENT EASEMENT AREA.
2. PIPE BEDDING SHALL BE AS REQUIRED IN SPECIFICATIONS AND SHALL EXTEND AS SHOWN ON THE STANDARD TRENCH DETAIL DRAWINGS.
3. PIPE ZONE BACKFILL AND FINAL BACKFILL SHALL BE AS REQUIRED IN SPECIFICATIONS.
4. COMPACTION SHALL BE AS REQUIRED IN SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE. GENERALLY, COMPACTION IN UNPAVED AREAS IS 85% OF STANDARD PROCTOR, PAVED AREAS REQUIRE GRADED AGGREGATE BASE BACKFILL TO THE BOTTOM OF THE PAVEMENT BASE, COMPACTED TO 95% STANDARD PROCTOR.
5. SUBMIT COMPLETE CONSTRUCTION SCHEDULE INCLUDING STANDARD TEMPORARY AND PERMANENT STABILIZATION METHODS.
6. ALL PVC FOR GRAVITY SEWER TO BE C900 DR 26 UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
7. ALL SANITARY SEWER MANHOLES LOCATED WITHIN FEMA FLOOD PLAIN SHALL BE EQUIPPED WITH BOLTED WATER TIGHT MANHOLE FRAME AND COVERS AND AS INDICATED ON THE DRAWINGS .
8. MANHOLES LOCATED WITHIN 100-YR FEMA FLOODPLAIN SHALL BE EQUIPPED WITH ANTI-FLOTATION COLLARS.
9. METHOD OF DEEP SEWER INSTALLATION AND BORED CROSSINGS SHALL BE DETERMINED BASED ON THE RESULTS OF A GEOTECHNICAL INVESTIGATION AND THE CONTRACTORS DISCRETION PENDING THE APPROVAL OF THE ENGINEER.
10. MICROTUNNELING INSTALLATION MAY REQUIRE STEEL CASINGS LARGER THAN THOSE SHOWN ON PLANS SHALL BE IN ACCORDANCE WITH SCWA STANDARDS..
11. ADDITIONAL STEEL CASING MAY BE REQUIRED FOR BORINGS RESULTING FROM CONDITIONS OBSERVED IN THE FIELD.

SPALDING COUNTY NOTES

1. ALL CONSTRUCTION FOR WATER, SEWER, FIRE LINES, LIFT STATIONS AND BACKFLOW PREVENTION SHALL COMPLY WITH SPALDING COUNTY WATER AUTHORITY DESIGN STANDARDS LATEST EDITION AND MASTER SPECIFICATIONS.
2. ACTUAL FIELD CONDITIONS COULD DICTATE MORE STRINGENT REQUIREMENTS IF DEEMED NECESSARY BY THE CONSTRUCTION INSPECTOR.
3. THE DESIGN STANDARDS CAN BE FOUND ON THE AUTHORITY'S WEB SITE.
4. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS "AS-BUILT PLANS" AND "FINAL PLANS" (IF APPLICABLE) IN HARD COPY AND ELECTRONIC (AUTOCAD OR MICROSTATION FORMAT), AS WELL AS RECORD ALL EASEMENTS THAT WILL BE DEDICATED TO SPALDING COUNTY IN THE COURTHOUSE, PRIOR TO APPROVAL OF AS-BUILT PLANS.
5. FIELD CHANGES DURING CONSTRUCTION MUST BE SUBMITTED FOR REVIEW & APPROVAL TO THE COUNTY ENGINEER.
6. CONTRACTOR MUST NOTIFY WATER & SEWER CONSTRUCTION INSPECTOR AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.

GENERAL NOTES:

1. CAUTION, UNDERGROUND SERVICE ALERT! THE CONTRACTOR SHALL TELEPHONE TOLL FREE 1-800-282-7411 A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN AND NOTED ON THE APPROVED PLANS.
2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO PERFORM THE WORK AS SHOWN AND NOTED HEREON SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
3. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE RULES, REGULATIONS, AND STANDARDS OF THE LOGICAL ISSUING AUTHORITY. MORE SPECIFICALLY, PER SPALDING COUNTY WATER AUTHORITY POTABLE WATER MAIN, GRAVITY SANITARY SEWER, AND SANITARY SEWER AND FORCE MAIN DESIGN STANDARDS, LATEST EDITION AND MASTER SPECIFICATIONS.
4. UNDERGROUND UTILITY LINE LOCATIONS ARE APPROXIMATE ONLY, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF ANY SUCH UTILITIES.
5. UTILITIES SHOWN ON PLANS ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY TO VERIFY UTILITY LOCATIONS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY EXISTING UTILITIES WILL EFFECT OR IMPEDE THE PROGRESSION OR COMPLETION OF THE DESIGN INTENT OF THESE CONSTRUCTION DOCUMENTS.
6. LIVE STREAMS AND WETLANDS DO EXIST WITHIN 200 FEET OF THIS SITE. (SEE EROSION AND SEDIMENT CONTROL PLAN NOTES).
7. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ANY EXISTING UTILITIES WITH THE APPROPRIATE UTILITY ENTITY PRIOR TO THE START OF ANY CONSTRUCTION.
8. THE OWNER SHALL DIRECT THE CONTRACTOR AS TO WHAT EXISTING VEGETATION ON SITE SHALL BE REMOVED BEYOND THE CLEARING LIMITS AS SHOWN AND NOTED HEREON. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN PROTECTING EXISTING TREES. COORDINATE ALL TREE REMOVAL WITH OWNER PRIOR TO THE START OF ANY CONSTRUCTION.
9. UTILITIES SHOWN ARE LOCATIONS OF GROUND IDENTIFIABLE ITEMS. ADDITIONAL UTILITIES MAY EXIST ABOVE OR BELOW THE GROUND. THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE COMPLETENESS OF THIS DATA.
10. THIS PROPERTY IS SUBJECT TO ALL RIGHT-OF-WAYS & EASEMENTS SHOWN OR NOT SHOWN, RECORDED OR NOT RECORDED.
11. THE CONTRACTOR SHALL REMOVE AND ABANDON EXISTING UTILITIES ONLY AFTER APPROVAL FROM ALL INTERESTED PARTIES. THESE FACILITIES MAY INCLUDE, BUT NOT BE LIMITED TO: EXISTING ON-SITE DRAINAGE PIPING, ON-SITE PRIVATE ELECTRICAL LINES AND APPURTENANCES.
12. EROSION CONTROL DEVICES AND STRUCTURES. THE CONTRACTOR SHALL COORDINATE ANY AND ALL ABANDONMENT AND/OR RELOCATION WITH THE APPROPRIATE UTILITY COMPANIES OR ENTITY. ANY DISPOSAL OF SAID FACILITIES SHALL BE DONE IN ACCORDANCE WITH LOCAL UTILITY AND/OR GOVERNMENTAL REGULATIONS. RELOCATION AND/OR ABANDONMENT OF SAID FACILITIES AND/OR UTILITIES SHALL BE DONE AT THE EXPENSE OF THE OWNER/DEVELOPER. PERMITS (IF ANY) SHALL BE OBTAINED BY THE CONTRACTOR AND/OR OWNER.
13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE PRIOR TO ORDERING PROJECT MATERIALS, THE MOST CURRENT SET OF CONSTRUCTION DOCUMENTS HAVE BEEN OBTAINED FROM THE PROJECT ENGINEER INCLUDING, BUT NOT LIMITED TO, THE PERMITTED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE. THE PROJECT ENGINEER ACCEPTS NO RESPONSIBILITY FOR IMPROPER ORDERING OF MATERIALS.
14. ALL CONSTRUCTION MUST CONFORM TO THE LOCAL AUTHORITIES' STANDARDS AND SPECIFICATIONS, WHETHER OR NOT REVIEW COMMENTS WERE MADE.
15. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER INSTALLATION AND STORMWATER MANAGEMENT FACILITIES ARE CONSTRUCTED.
16. SILT BARRIERS TO BE PLACED AS SHOWN IN THE CONTRACT DOCUMENTS AND OR THE LOCAL ISSUING AUTHORITY'S INSPECTOR.
17. NOTIFY INSPECTOR 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
18. NO BURIAL PITS OR BURNING WILL BE ALLOWED ON SITE WITHOUT PRIOR APPROVALS FROM THE PROPER PERMITTING AGENCIES AND SPALDING COUNTY.
19. THE ENGINEER HAS REVIEWED THE APPROPRIATE LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING DEVELOPMENT ACTIVITIES ADJACENT TO FLOOD PLAINS AND WETLANDS AND HAVE DETERMINED THAT THIS DEVELOPMENT PLAN SATISFIES THE STANDARDS PRESENTED IN APPLICABLE REGULATIONS.
20. ALL EROSION AND SEDIMENTATION CONTROLS, AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
21. EXISTING VEGETATION SHALL BE PRESERVED WITHIN BUFFER AREAS WHERE FEASIBLE.
22. ALL TRAFFIC CONTROL AND WARNING DEVICES MUST BE SHOWN AND PLACED PER 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
23. CURB AND GUTTER RESTORATION SHALL BE BUILT PER SPALDING COUNTY STANDARDS.
24. EQUIPMENT AND MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER'S REPRESENTATIVE. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN AT ALL TIMES.
25. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE DISCOVERY OF ANY GROUNDWATER, SUBSURFACE SEEPAGE OR SPRINGS DURING THE COURSE OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO CONSULT WITH A REGISTERED GEOTECHNICAL ENGINEER TO INSPECT THE SITE, AND TO MAKE ANY RECOMMENDATIONS REGARDING EVIDENCE AND REMEDIATION (IF ANY) OF SAID SUBSURFACE WATERS.

DEFINITIONS

1. OWNER - SPALDING COUNTY WATER AUTHORITY (SCWA)

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL FURNISH ALL MATERIALS FOR, AND PROPERLY RESTORE ALL PAVEMENTS, DRIVES, SIDEWALKS, AND CURBS, WHICH MAY HAVE BEEN DAMAGED, REMOVED OR DISTURBED AS A RESULT OF ACCOMPLISHING THE WORK. SIGNS AND MAIL BOXES REMOVED OR DAMAGED SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO OWNER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING GRADES AND DIMENSIONS AND NOTIFYING THE ENGINEER IN ADVANCE AND IN WRITING OF ANY DISCREPANCIES PRIOR TO PERFORMING THEIR WORK.
3. EXISTING UTILITY LOCATIONS SHOWN ARE BASED ON SURFACE OBSERVATIONS AND LIMITED DETECTION SERVICES AND ARE FOR INFORMATIONAL PURPOSES ONLY. NOT ALL EXISTING UTILITIES MAY BE SHOWN ON THE DRAWING.
4. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS OPERATIONS WITH ALL UTILITIES WHICH MAY BE EXISTING AND MAY BE IN CONFLICT WITH THE WORK.
5. A COPY OF THE APPROVED SET OF CONSTRUCTION PLANS MUST BE ON THE JOB SITE AT ALL TIMES THAT CONSTRUCTION IN UNDER WAY.
6. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES & TRAFFIC CONTROL DEVICES NEEDED FOR THIS PROJECT. NO OPEN TRENCHES ARE ALLOWED TO BE UNATTENDED ON THIS PROJECT AT ANY TIME. IN THE EVENT THE TRENCH WILL REQUIRE BEING OPEN, IT SHALL BE PROPERLY COVERED FOR BOTH VEHICULAR AND PEDESTRIAN TRAFFIC AND SAFETY AND APPROVED BY SPALDING COUNTY. THE CONTRACTOR SHALL PROVIDE THE PROPER COVER AND BARRICADES THAT MEETS ALL LOCAL, STATE, AND FEDERAL SAFETY STANDARDS FOR BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
7. THE PROJECT CONSTRUCTION SITE IS ADJACENT TO ACTIVE ROADWAYS AND BUSINESSES. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER THAT WILL PROVIDE THE ACCEPTABLE LEVELS OF SAFETY AND MAINTENANCE OF UTILITIES, ROADWAY, TRAFFIC, DRIVEWAY, SIDEWALKS, ETC. TO ALL OWNERS, SPALDING COUNTY WATER AUTHORITY AND ALL BUSINESSES. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN AND PROTECT ALL UTILITY SERVICES AND DRIVEWAY ACCESS TO, INCLUDING AS BUT NOT LIMITED TO, BUSINESSES, FIRE PROTECTION PERSONNEL, VEHICLES, AND ALL OTHER VEHICULAR AND PEDESTRIAN TRAFFIC, ETC.
8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD OPENING PERMITS FROM THE SPALDING COUNTY PUBLIC WORKS DEPARTMENT AT 770-467-4774. THE CONTRACTOR SHALL COORDINATE, OBTAIN APPROVAL, AND PROVIDE TEMPORARY TRAFFIC ROUTING PLANS PRIOR TO ANY LANE CLOSURES WITH THE SPALDING COUNTY DEPARTMENT OF TRANSPORTATION DIVISION.
9. ALL WORK AROUND THE EXISTING UTILITIES AND UTILITY STRUCTURES WHETHER ABOVE OR BELOW GROUND SHALL BE PERFORMED IN A MANNER THAT WILL AVOID DAMAGE TO THE UTILITIES AND STRUCTURES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL ACCURATELY LOCATE ABOVE AND BELOW UTILITIES, WHICH MAY BE AFFECTED BY THE WORK AND PROTECT ALL UTILITIES NOT DESIGNATED FOR REMOVAL, RESTORATION, OR REPLACEMENT IN THE COURSE OF CONSTRUCTION. PROVIDE SEVENTY-TWO (72) HOURS OF ADVANCE NOTICE TO THE UTILITY OWNER AND SPALDING COUNTY PRIOR TO BEGINNING CONSTRUCTION IN THE VICINITY OF THE EXISTING UTILITIES. FOR EXISTING UTILITY LOCATION ASSISTANCE CALL THE UNDERGROUND UTILITIES PROTECTION CENTER (UPC) AT 1-800-282-7411.
10. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR, CONTRACTOR'S CREW AND/OR EQUIPMENT SHALL BE AT THE CONTRACTOR'S COST AND RESPONSIBILITY TO REPLACE PER OWNER'S STANDARDS AND SPECIFICATIONS.
11. ALL SALVAGEABLE METAL MATERIAL, SUCH AS BUT NOT LIMITED TO FIRE HYDRANTS, MANHOLE FRAMES AND COVERS, SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE SALVAGED AND RETURNED TO A LOCATION AS DIRECTED BY THE OWNER. ALL OTHER MATERIALS WHICH ARE NOT DELIVERED TO OWNER AS SPECIFIED ABOVE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DEMOLISH AND DISPOSE OF PER SPALDING COUNTY STANDARDS AND REQUIREMENTS. ALL DEMOLISHED STRUCTURES, EQUIPMENT AND MATERIALS SHALL BE REMOVED FROM THE WORK SITE BY THE CONTRACTOR IN ACCORDANCE WITH THE REGULATIONS OF THE LOCAL ISSUING AUTHORITY.
12. THE REFUSE RESULTING FROM THE CLEARING AND/OR DEMOLITION SHALL BE HAULED TO A DISPOSAL SITE SECURED BY THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, COUNTY, & CITY MUNICIPAL REGULATIONS. NO DEBRIS OF ANY KIND SHALL BE DEPOSITED UPON ANY PRIVATE PROPERTY EXCEPT BY WRITTEN CONSENT OF THE PROPERTY OWNER. IN NO CASE SHALL ANY MATERIAL BE LEFT ON THE PROJECT, SHOVED ONTO ABUTTING PRIVATE PROPERTIES, OR BE BURIED IN THE EMBANKMENTS OR TRENCHES ON THE PROJECT.
13. FINISHED GRADING OF THE DISTURBED AREA SHALL BE RESTORED TO ORIGINAL GRADE. NO STANDING WATER OR PONDING OF ANY KIND IS ALLOWED. ALL DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED OR GRASSED AS INDICATED.
14. ALL PROPOSED EASEMENTS TO BE OBTAINED BY SPALDING COUNTY.

SYMBOL LEGEND

EXISTING

- PROPERTY/RIGHT-OF-WAY LINE
- STREAM LINE
- RIVER 25' BUFFER
- RIVER 75' BUFFER
- FLOOD ZONE
- P/E — PERMANENT EASEMENT
- T/E — TEMPORARY EASEMENT
- SITE SOIL TYPE BOUNDARY
- -W- — DISTRIBUTION WATER LINE
- -SFM- — FORCE MAIN SANITARY SEWER
- SS — GRAVITY SANITARY SEWER
- -E- — OVERHEAD ELECTRIC
- G — UNDERGROUND GAS
- COMM — UNDERGROUND CABLE
- -T- — UNDERGROUND TELEPHONE
- STM — STORM PIPE
- CHAIN LINK FENCE
- X — WOOD POST FENCE
- WV — WATER VALVE
- FH — FIRE HYDRANT
- W — WATER METER
- POWER POLE
- LIGHT POLE
- SIGN
- S — SANITARY SEWER MANHOLE
- CO. — SANITARY CLEAN OUT
- TREE
- TREE LINE
- WETLANDS

PROPOSED

- SANITARY SEWER MANHOLE
- SS — PROPOSED SANITARY SEWER
- SS-FM — PROP. SAN. SEWER FORCE MAIN
- SF — SILT FENCING
- PROPOSED ASPHALT PAVEMENT MILL AND OVERLAY RESURFACING

NOTE: THIS IS A STANDARD LEGEND AND ABBREVIATION SHEET.

ABBREVIATIONS

A	ARC LENGTH	IPS	IRON PIN SET (CAPPED)
AC	ACRE	N/F	NOW OR FORMERLY
AE	ACCESS EASEMENT	OTP	OPEN TOP PIPE
BSL	BUILDING SETBACK LINE	PB	PLAT BOOK
BW	BARBWIRE	P/E	PERMANENT SEWER EASEMENT
BWT	BOLTED WATER TIGHT	PG	PAGE
CH	CHORD LENGTH	POB	POINT OF BEGINNING
CLF	CHAINLINK FENCE	POC	POINT OF COMMENCEMENT
CMP	CORRUGATED METAL PIPE	R	RADIUS LENGTH
CONC	CONCRETE	R/W	RIGHT OF WAY
CTP	CRIMP TOP PIPE	R/W MON	RIGHT OF WAY MONUMENT
DB	DEED BOOK	RB	REBAR
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
EX	EXISTING	SDE	STORM DRAINAGE EASEMENT
FDC	FIRE DEPARTMENT CONNECTION	SQ. FT.	SQUARE FEET
FND	FOUND	SSE	SANITARY SEWER EASEMENT
HDPE	HIGH DENSITY POLYETHYLENE PIPE	T/E	TEMPORARY CONSTRUCTION EASEMENT
IPF	IRON PIN FOUND	VCP	VITRIFIED CLAY PIPE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

REVISIONS AND RECORD OF USE

DATE	
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

GENERAL
LEGEND AND GENERAL NOTES

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

G-03
SHEET
1 OF 75

FD10000
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GRAPHIC SCALE
500 0 500 1000
(IN FEET)
1 inch = 500 ft.

STA 67+20
END CABIN CREEK
GRAVITY SEWER
LINE A (UPSTREAM)

STA 38+00
END CABIN CREEK
GRAVITY SEWER
LINE B (UPSTREAM)

STA 0+00
BEGIN CABIN CREEK
GRAVITY SEWER
LINE B (DISCHARGE)

STA 0+00
BEGIN CABIN CREEK
GRAVITY SEWER
LINE A (DISCHARGE)

STA 25+04
BEGIN WRF
GRAVITY OUTFALL
(UPSTREAM)

STA 0+00
BEGIN WANI RD
PUMP STATION
SEWER FORCE MAIN

STA 22+36
END WANI ROAD
PUMP STATION
SEWER FORCE MAIN
(DISCHARGE TO WWTP)

STA 00+00
END WRF GRAVITY
OUTFALL (DISCHARGE
TO CABIN CREEK)

100 YEAR
FLOODPLAIN

100 YEAR
FLOODPLAIN

ARTHUR K BOLTON PKWY

CABIN CREEK

WANI RD

BAILEY JESTER RD

OVERALL PLAN
CABIN CREEK GRAVITY SEWER & WANI RD PUMP STATION FORCE MAIN

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

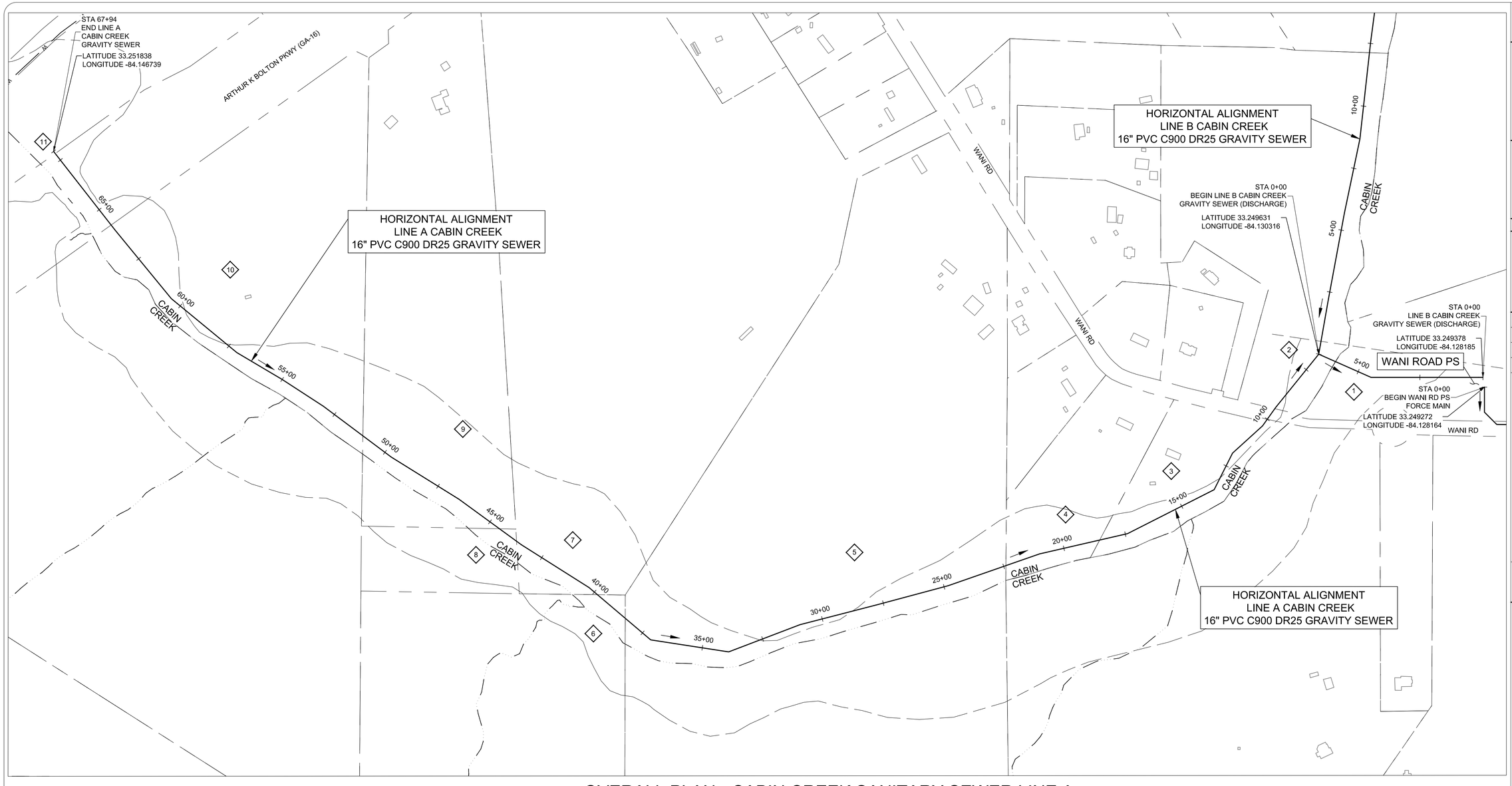
GENERAL
OVERALL PLAN
CABIN CREEK GRAVITY SEWER & WANI RD PS FM

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

G-03
SHEET
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OVERALL PLAN - CABIN CREEK SANITARY SEWER LINE A
STA: 00+00 - STA: 67+94

PROPERTY INFORMATION			
PARCEL NO.	PROPERTY OWNER	ADDRESS	PARCEL ID
1	N/F BUCHANAN VINCENT EBUCHANAN STACIE L	739 WANI RD	217 01003U
2	N/F NORTH COREY D & APRIL R	WANI RD	217 01032
3	N/F VAUGHN III ROBERT	360 WANI RD	217 01003P
4	N/F LYONS DAVID LESTER & KIMBERLY DAWN LYONS	340 WANI RD	217 01003T
5	N/F ADAMS RICHARD D & ADAMS JULIE	220 WANI RD	217 01004F
6	N/F BOLTON ROBYN K BOLTON RUSSELL D	155 BUCKSNORT RD	217 01005A
7	N/F NGUYEN KHANH B TRUST	210 WANI RD	217 01004D
8	N/F BOLTON ROBYN K BOLTON RUSSELL D	155 BUCKSNORT RD	217 01005A
9	N/F TRAUTWEIN JOHN B & PATRICIA	3108 ARTHUR K BOLTON PKWY	217 01004E
10	N/F KIRKLAND ROBERT E	3052 ARTHUR K BOLTON PKWY	218 02001D
11	N/F CHEN FRANK	3051 ARTHUR K BOLTON PKWY	218 01001J

200' 100' 0 200' 400'
SCALE 1"=200'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1250 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

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1	JAS	AR	GA
0	HB	AR	GA

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
CABIN CREEK SANITARY SEWER

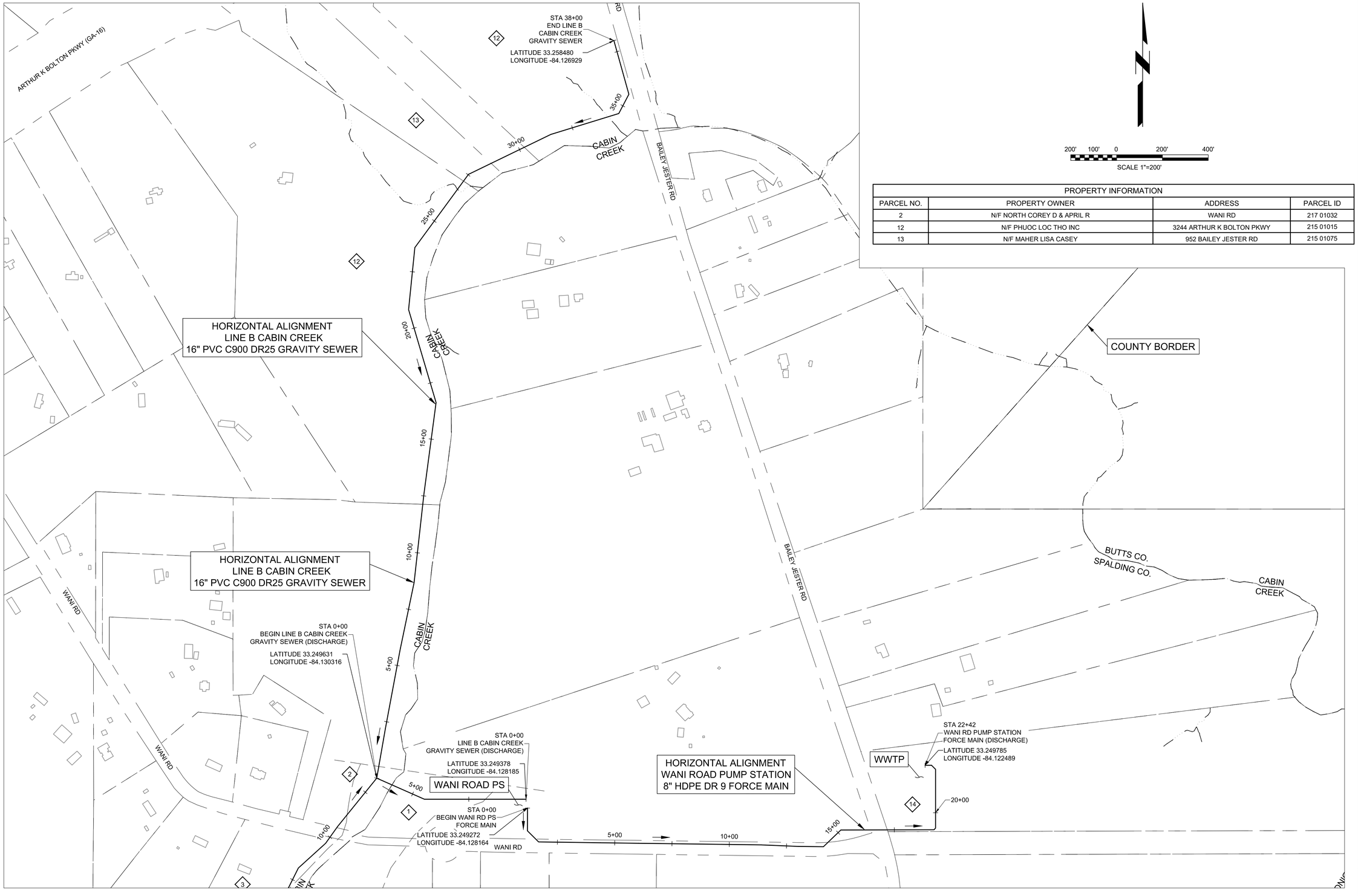
GENERAL
OVERALL PLAN
CABIN CREEK GRAVITY SEWER LINE A

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

G-04
SHEET
3 OF 75

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SCALE 1"=200'

PROPERTY INFORMATION			
PARCEL NO.	PROPERTY OWNER	ADDRESS	PARCEL ID
2	N/F NORTH COREY D & APRIL R	WANI RD	217 01032
12	N/F PHUOC LOC THO INC	3244 ARTHUR K BOLTON PKWY	215 01015
13	N/F MAHER LISA CASEY	952 BAILEY JESTER RD	215 01075

OVERALL PLAN - CABIN CREEK SANITARY SEWER LINE B
STA: 00+00 - STA: 38+00

PRELIMINARY - NOT FOR CONSTRUCTION

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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10/1/2024	HB	AR	GA	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
CABIN CREEK SANITARY SEWER

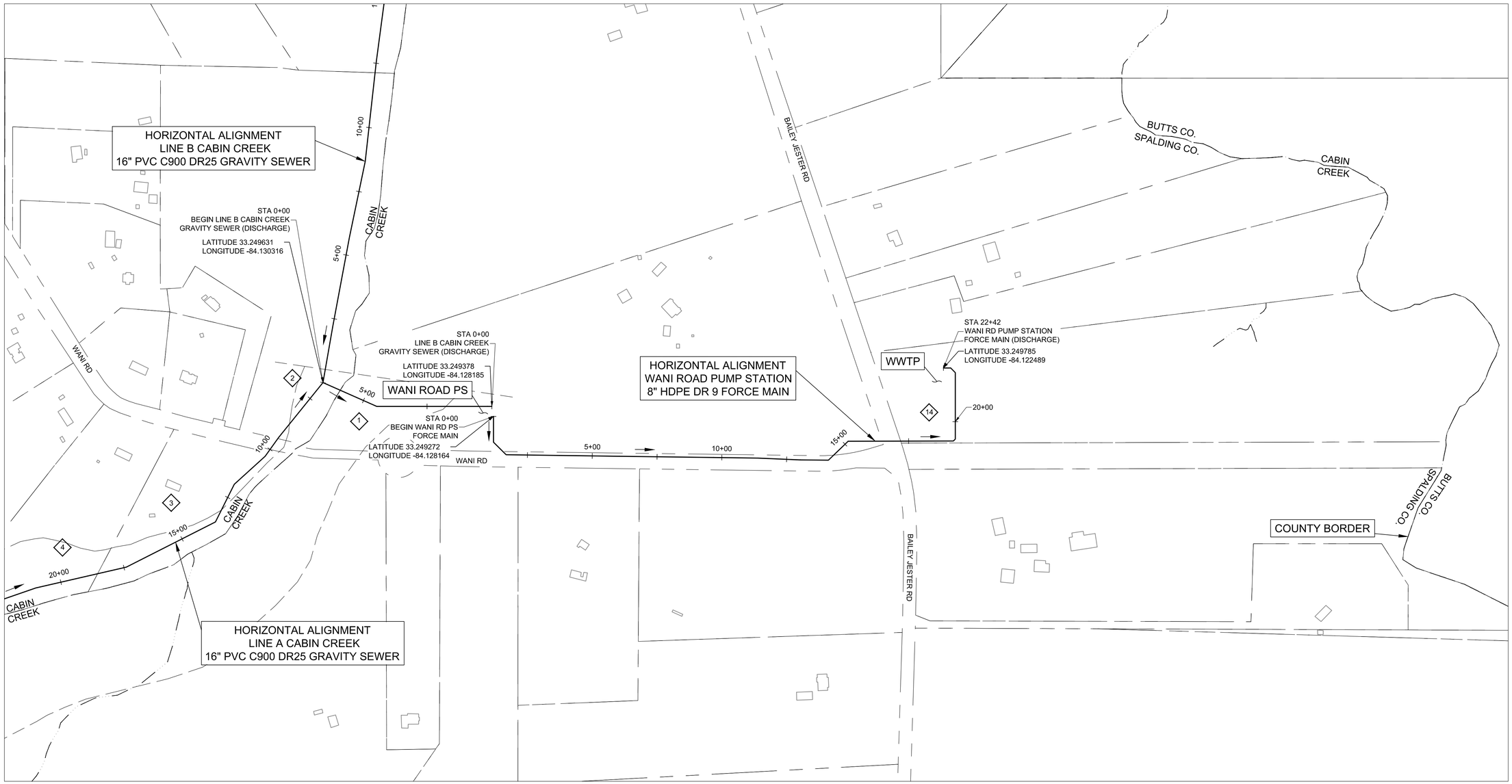
GENERAL
OVERALL PLAN
CABIN CREEK GRAVITY SEWER LINE B

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G107000
R2T TASK ORDER NO.
G1070001

G-05
SHEET
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OVERALL PLAN - WANI ROAD LIFT STATION SANITARY SEWER FORCE MAIN
STA: 00+00 - STA: 22+42

200' 100' 0 200' 400'
SCALE 1"=200'

PROPERTY INFORMATION			
PARCEL NO.	PROPERTY OWNER	ADDRESS	PARCEL ID
1	N/F BUCHANAN VINCENT EBUCHANAN STACIE L	739 WANI RD	217 01003U
14	SPALDING CO WATER & SEWERAGE	701 BAILEY JESTER RD	217 01002A

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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0	HB	AR	GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
CABIN CREEK SANITARY SEWER

GENERAL
OVERALL PLAN
WANI ROAD LIFT STATION FORCE MAIN

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G10700
R2T TASK ORDER NO.
G1070001

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GRAPHIC SCALE
500 0 500 1000
(IN FEET)
1 inch = 500 ft.

STA 67+20
END CABIN CREEK
GRAVITY SEWER
LINE A (UPSTREAM)

STA 38+00
END CABIN CREEK
GRAVITY SEWER
LINE B (UPSTREAM)

STA 0+00
BEGIN CABIN CREEK
GRAVITY SEWER
LINE A (DISCHARGE)

STA 0+00
BEGIN CABIN CREEK
GRAVITY SEWER
LINE B (DISCHARGE)

GS-09
GS-08
GS-07
GS-06
GS-05
GS-04
GS-10
GS-11
GS-12
GS-13

100 YEAR
FLOODPLAIN

ARTHUR K BOLTON PKWY
CABIN CREEK
WANI RD
BAILEY JESTER RD

KEY PLAN - GRAVITY SEWER LINE A & LINE B
CABIN CREEK GRAVITY SEWER & WANI RD PUMP STATION FORCE MAIN

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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ATLANTA, GA 30316
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UNIT C
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WWW.R2TINC.COM

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0	HB	AR GA

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

GENERAL
KEY PLAN - CONVEYANCE
CABIN CREEK GRAVITY SEWER & WANI RD PS FM

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-01
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LINE A SANITARY SEWER MANHOLE SCHEDULE

MH ID:	MH COORDINATES	MH DIAMETER (IN)	MH RIM ELEVATION (FT)	MH HEIGHT (FT)	MH TYPE	MH FRAME & COVER:
A-2	N: 1181943.08 E: 2307903.81	60"	652.38	24.63	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-3	N: 1182034.98 E: 2307696.07	60"	652.51	23.98	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-4	N: 1181823.72 E: 2307525.40	60"	655.08	23.48	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-5	N: 1181750.53 E: 2307473.01	60"	658.34	26.38	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-6	N: 1181642.37 E: 2307354.01	60"	653.08	20.54	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-7	N: 1181497.21 E: 2307281.41	60"	653.09	19.97	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-8	N: 1181322.81 E: 2306937.75	60"	654.48	20.10	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-9	N: 1181242.43 E: 2306588.84	60"	654.57	19.00	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-10	N: 1181115.75 E: 2306225.32	48"	655.57	18.75	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-11	N: 1181039.31 E: 2305940.52	48"	656.54	18.75	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-12	N: 1180961.25 E: 2305638.09	48"	659.58	20.75	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-13	N: 1180852.96 E: 2305354.93	48"	657.16	17.32	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-14	N: 1180900.72 E: 2305045.48	48"	657.55	16.67	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-15	N: 1181108.10 E: 2304800.40	48"	656.98	15.04	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-16	N: 1181277.47 E: 2304532.13	48"	659.36	16.37	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-17	N: 1181457.90 E: 2304284.54	48"	659.52	15.51	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-18	N: 1181624.90 E: 2304015.70	48"	660.96	15.80	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-19	N: 1181826.00 E: 2303746.59	48"	661.71	15.44	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-20	N: 1181933.03 E: 2303581.70	60"	660.56	13.60	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-21	N: 1182038.99 E: 2303402.74	48"	661.69	14.00	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-22	N: 1182252.64 E: 2303142.46	48"	663.42	14.63	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-23	N: 1182524.68 E: 2302919.23	48"	662.69	12.75	STD PRECAST MH	BOLT-DOWN WATERTIGHT
A-24	N: 1182836.39 E: 2302675.11	48"	663.33	12.10	STD PRECAST MH	BOLT-DOWN WATERTIGHT

LINE B SANITARY SEWER MANHOLE SCHEDULE

MH ID:	MH COORDINATES	MH DIAMETER (IN)	MH RIM ELEVATION (FT)	MH HEIGHT (FT)	MH TYPE	MH FRAME & COVER:
B-1	N: 1182252.64 E: 2307734.00	60"	651.55	22.38	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-2	N: 1182595.15 E: 2307797.65	60"	651.56	21.59	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-3	N: 1182888.27 E: 2307858.80	60"	649.22	18.55	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-4	N: 1183272.89 E: 2307901.27	60"	649.26	17.72	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-5	N: 1183674.59 E: 2307954.60	60"	651.64	19.19	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-6	N: 1184080.44 E: 2307834.41	48"	647.90	14.50	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-7	N: 1184351.11 E: 2307861.69	48"	647.84	13.80	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-8	N: 1184670.75 E: 2308095.40	48"	649.16	14.23	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-9	N: 1184845.21 E: 2308454.84	48"	648.45	12.62	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-10	N: 1184936.90 E: 2308751.24	48"	646.42	9.87	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-11	N: 1185020.90 E: 2308795.54	48"	647.49	9.74	STD PRECAST MH	BOLT-DOWN WATERTIGHT
B-12	N: 1185254.95 E: 2308730.11	48"	661.58	16.44	STD PRECAST MH	BOLT-DOWN WATERTIGHT

WANI ROAD PUMP STATION FORCE MAIN FITTING SCHEDULE

FITTING NAME	FITTING DESCRIPTION	STATION	MATERIAL	C/L ELEVATION (FT)	FITTING COORDINATES
FM-1	8 IN 45° ELBOW	0+99.25	HDPE DR 9	652.50	N: 1181805.24 E: 2308353.82
FM-2	8 IN 45° ELBOW	1+67.87	HDPE DR 9	653.05	N: 1181756.72 E: 2308402.35
FM-3	8 IN 45° ELBOW	14+11.16	HDPE DR 9	738.00	N: 1181736.07 E: 2309645.41
FM-4	8 IN 45° ELBOW	15+16.64	HDPE DR 9	738.03	N: 1181809.29 E: 2309721.33
FM-5	8 IN 45° ELBOW	19+22.82	HDPE DR 9	728.70	N: 1181810.44 E: 2310127.51
FM-6	8 IN 45° ELBOW	19+32.93	HDPE DR 9	728.81	N: 1181817.65 E: 2310134.60
FM-7	8 IN 45° ELBOW	21+89.43	HDPE DR 9	731.53	N: 1182074.15 E: 2310134.60
FM-8	8 IN 45° ELBOW	22+14.43	HDPE DR 9	731.80	N: 1182091.82 E: 2310116.92
FM-9	8 IN 90° ELBOW	22+37.39	HDPE DR 9	732.04	N: 1182091.87 E: 2310093.96
FM-10	8 IN 90° ELBOW	22+37.35	HDPE DR 9	753.50	N: 1182091.82 E: 2310094.00

LINE A PIPE SCHEDULE

PIPE ID	DIAMETER	LENGTH	SLOPE	MATERIAL
A-2_A-1	16"	426.98'	0.30%	PVC C900 DR 25
A-3_A-2	16"	227.16'	0.30%	PVC C900 DR 25
A-4_A-3	16"	271.59'	1.00%	PVC C900 DR 25
A-5_A-4	16"	90.00'	0.30%	PVC C900 DR 25
A-6_A-5	16"	160.81'	0.30%	PVC C900 DR 25
A-7_A-6	16"	162.31'	0.30%	PVC C900 DR 25
A-8_A-7	16"	385.38'	0.30%	PVC C900 DR 25
A-9_A-8	16"	358.04'	0.30%	PVC C900 DR 25
A-10_A-9	16"	384.96'	0.30%	PVC C900 DR 25
A-11_A-10	16"	294.88'	0.30%	PVC C900 DR 25
A-12_A-11	16"	312.34'	0.30%	PVC C900 DR 25
A-13_A-12	16"	303.17'	0.30%	PVC C900 DR 25
A-14_A-13	16"	313.11'	0.30%	PVC C900 DR 25
A-15_A-14	16"	321.05'	0.30%	PVC C900 DR 25
A-16_A-15	16"	317.26'	0.30%	PVC C900 DR 25
A-17_A-16	16"	306.35'	0.30%	PVC C900 DR 25
A-18_A-17	16"	316.49'	0.30%	PVC C900 DR 25
A-19_A-18	16"	335.95'	0.30%	PVC C900 DR 25
A-20_A-19	16"	196.58'	0.30%	PVC C900 DR 25
A-21_A-20	16"	207.98'	0.30%	PVC C900 DR 25
A-22_A-21	16"	336.74'	0.30%	PVC C900 DR 25
A-23_A-22	16"	351.90'	0.30%	PVC C900 DR 25
A-24_A-23	16"	395.93'	0.30%	PVC C900 DR 25

LINE B PIPE SCHEDULE

PIPE ID	DIAMETER	LENGTH	SLOPE	MATERIAL
B-1_A-3	16"	220.93'	0.20%	PVC C900 DR 25
B-2_B-1	16"	348.38'	0.20%	PVC C900 DR 25
B-3_B-2	16"	299.42'	0.20%	PVC C900 DR 25
B-4_B-3	16"	386.96'	0.20%	PVC C900 DR 25
B-5_B-4	16"	405.22'	0.20%	PVC C900 DR 25
B-6_B-5	16"	423.28'	0.20%	PVC C900 DR 25
B-7_B-6	16"	272.04'	0.20%	PVC C900 DR 25
B-8_B-7	16"	395.96'	0.20%	PVC C900 DR 25
B-9_B-8	16"	399.54'	0.20%	PVC C900 DR 25
B-10_B-9	16"	310.26'	0.20%	PVC C900 DR 25
B-11_B-10	16"	94.96'	1.00%	PVC C900 DR 25
B-12_B-11	16"	243.03'	3.00%	PVC C900 DR 25

WANI ROAD PUMP STATION FORCE MAIN PIPE SCHEDULE

DIAMETER	LENGTH	MATERIAL	START STA	END STA
8 IN	98.09'	HDPE DR 9	0+00	0+98
8 IN	66.29'	HDPE DR 9	1+00	1+67
8 IN	269.22'	HDPE DR 9	1+69	4+38
8 IN	103.15'	HDPE DR 9	14+12	15+15
8 IN	404.55'	HDPE DR 9	15+18	19+22
8 IN	7.78'	HDPE DR 9	19+24	19+32
8 IN	254.19'	HDPE DR 9	19+34	21+88
8 IN	22.67'	HDPE DR 9	21+91	22+13
8 IN	19.53'	HDPE DR 9	22+16	22+35
8 IN	2.85'	HDPE DR 9	22+40	22+42
8 IN	16.92'	HDPE DR 9	22+37	22+37
8 IN	108.06'	HDPE DR 9	14+10	13+02
8 IN	163.48'	HDPE DR 9	13+02	11+39
8 IN	171.78'	HDPE DR 9	11+39	9+68
8 IN	336.56'	HDPE DR 9	9+68	6+32
8 IN	28.37'	HDPE DR 9	6+32	6+04
8 IN	167.02'	HDPE DR 9	6+04	4+38

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LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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0	HB	AR	GA

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SPALDING COUNTY WATER AUTHORITY
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PDB SEWER IMPLEMENTATION

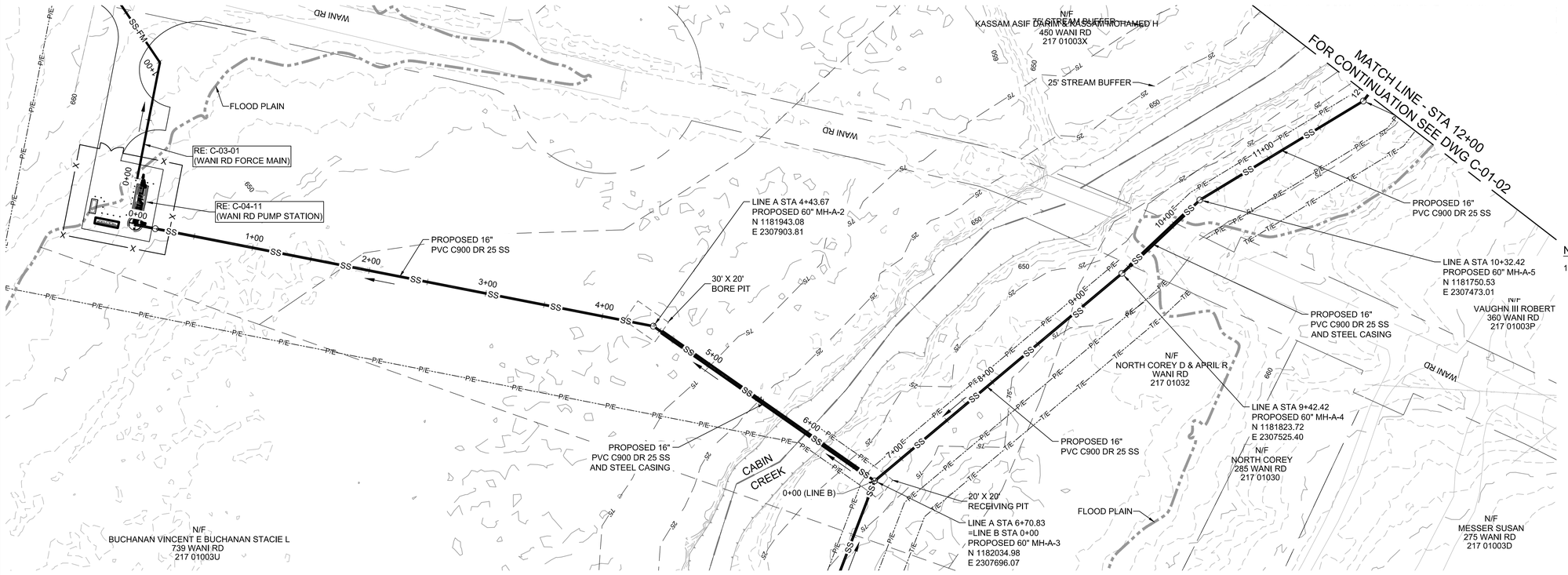
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SEWER MANHOLE & PIPE SCHEDULE
LINE A & LINE B GRAVITY SEWER

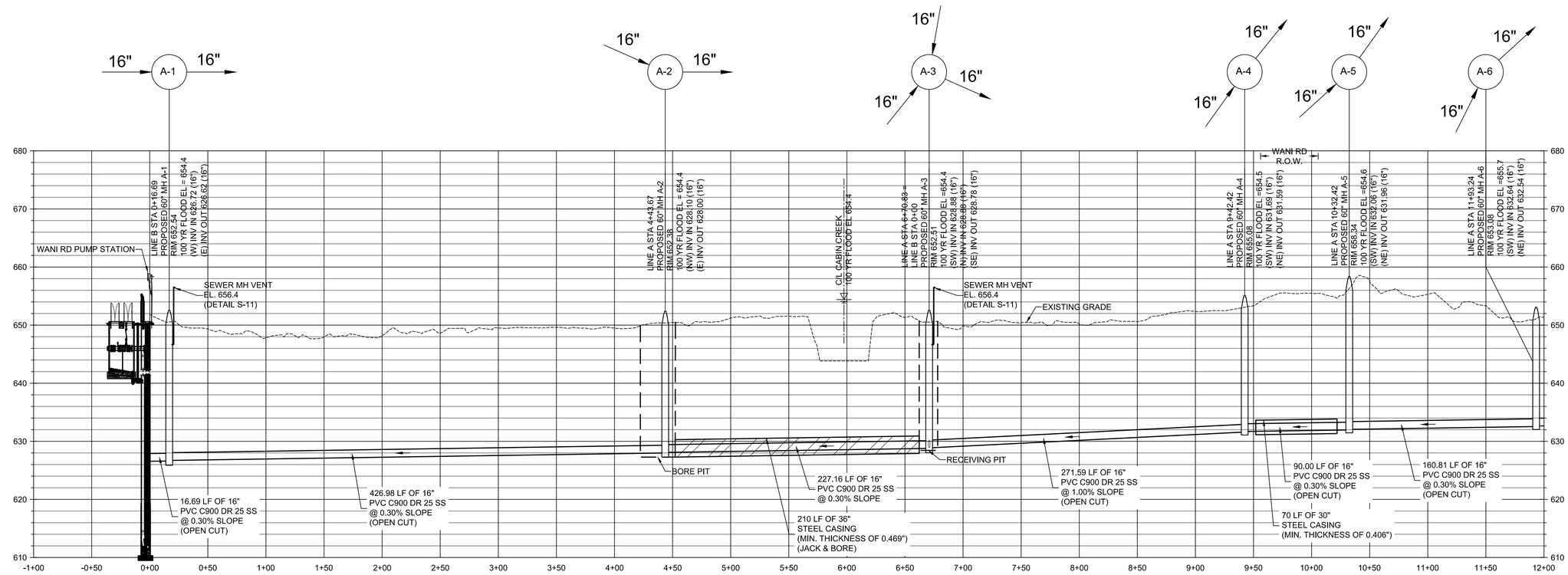
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APPROVED: GA
DATE: OCT-2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

GS-02
SHEET
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NOTES:

1. ALL EXTERIOR MANHOLE JOINTS SHALL BE WRAPPED.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
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R2T RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
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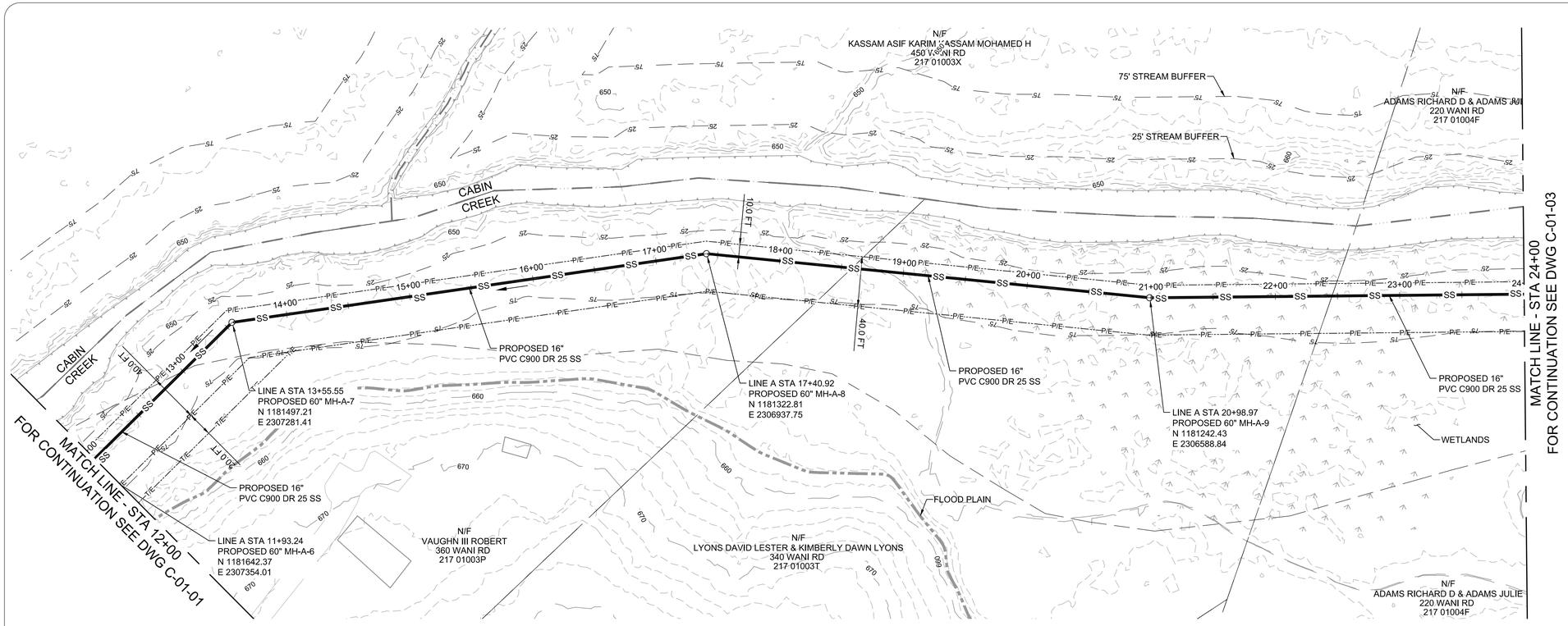
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CABIN CREEK GRAVITY SEWER LINE A

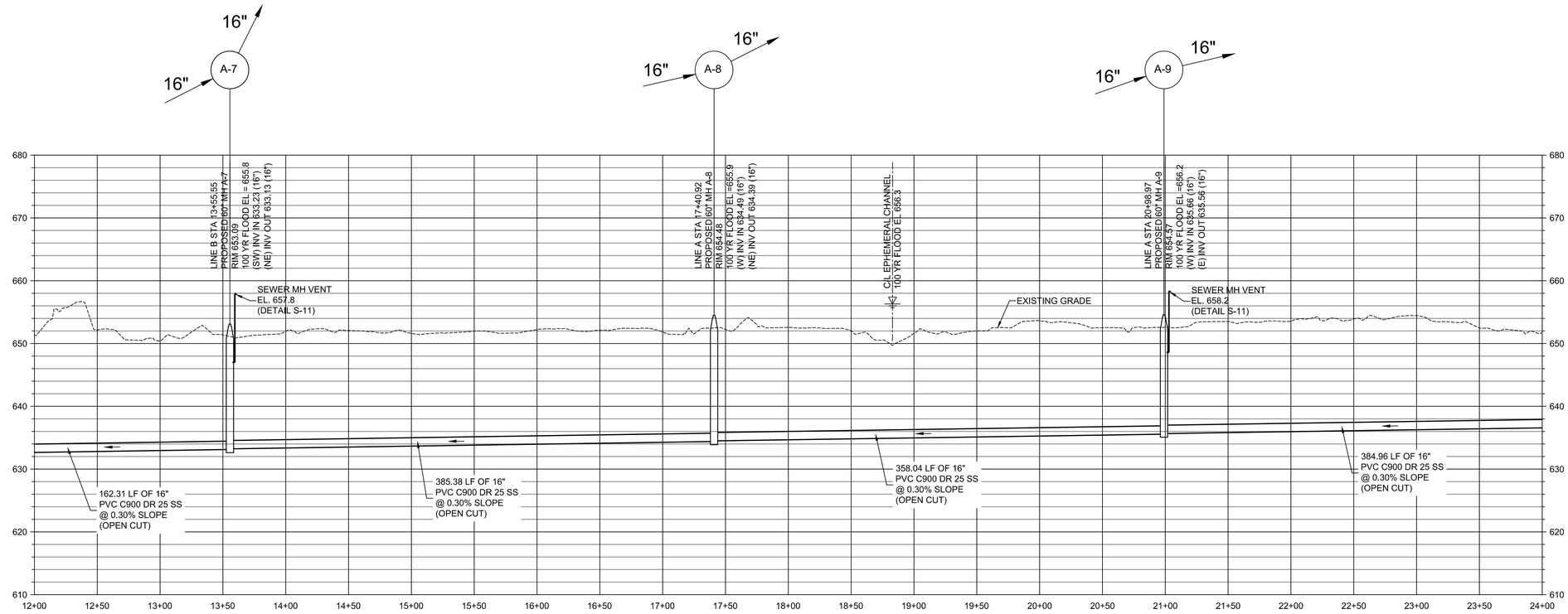
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-03
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6 OF 75

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10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

NOTES:

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ATLANTA, GA 30316
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ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
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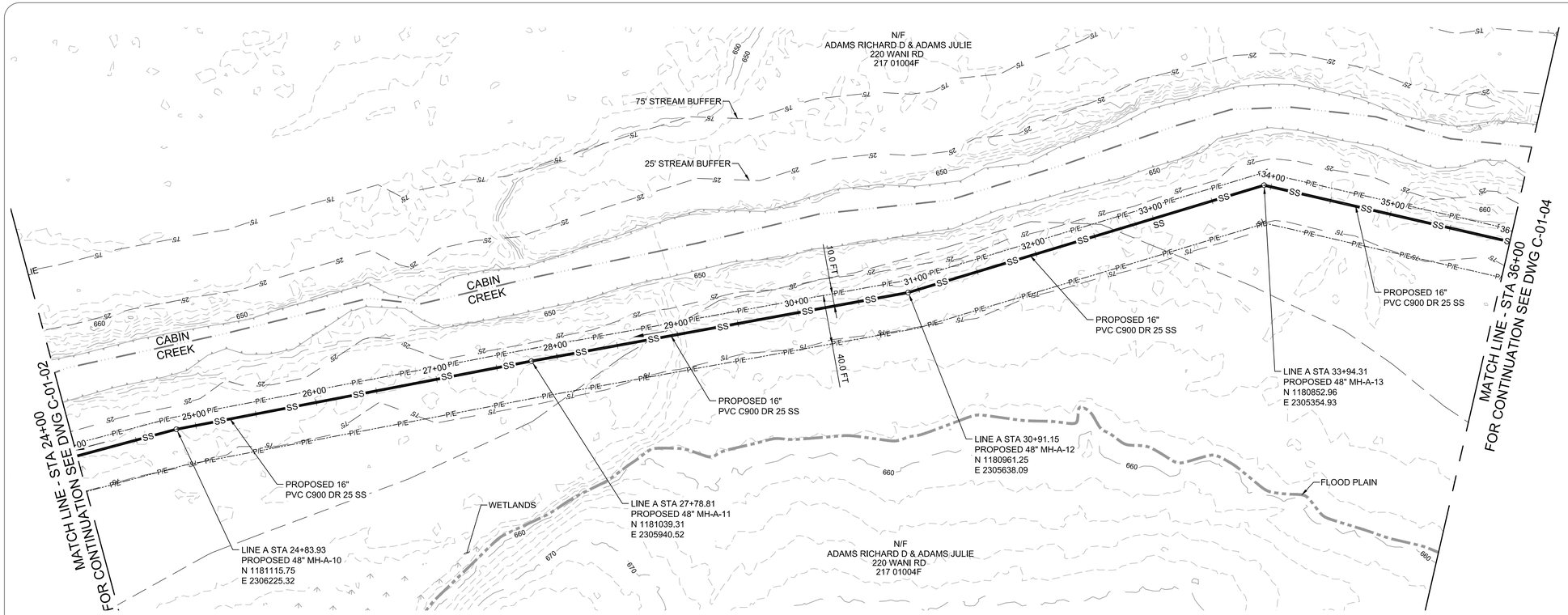
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CABIN CREEK GRAVITY SEWER LINE A

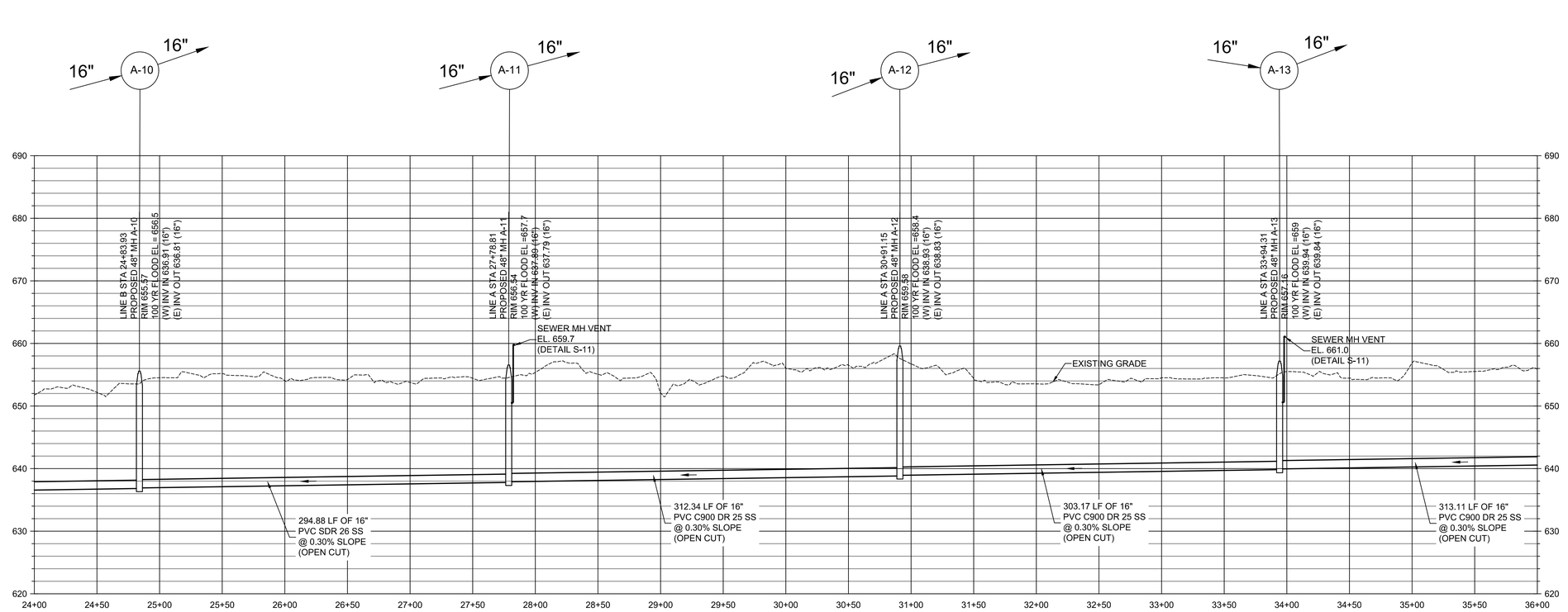
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-04
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7 OF 75

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50' 25' 0 50' 100'
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NOTES:

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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

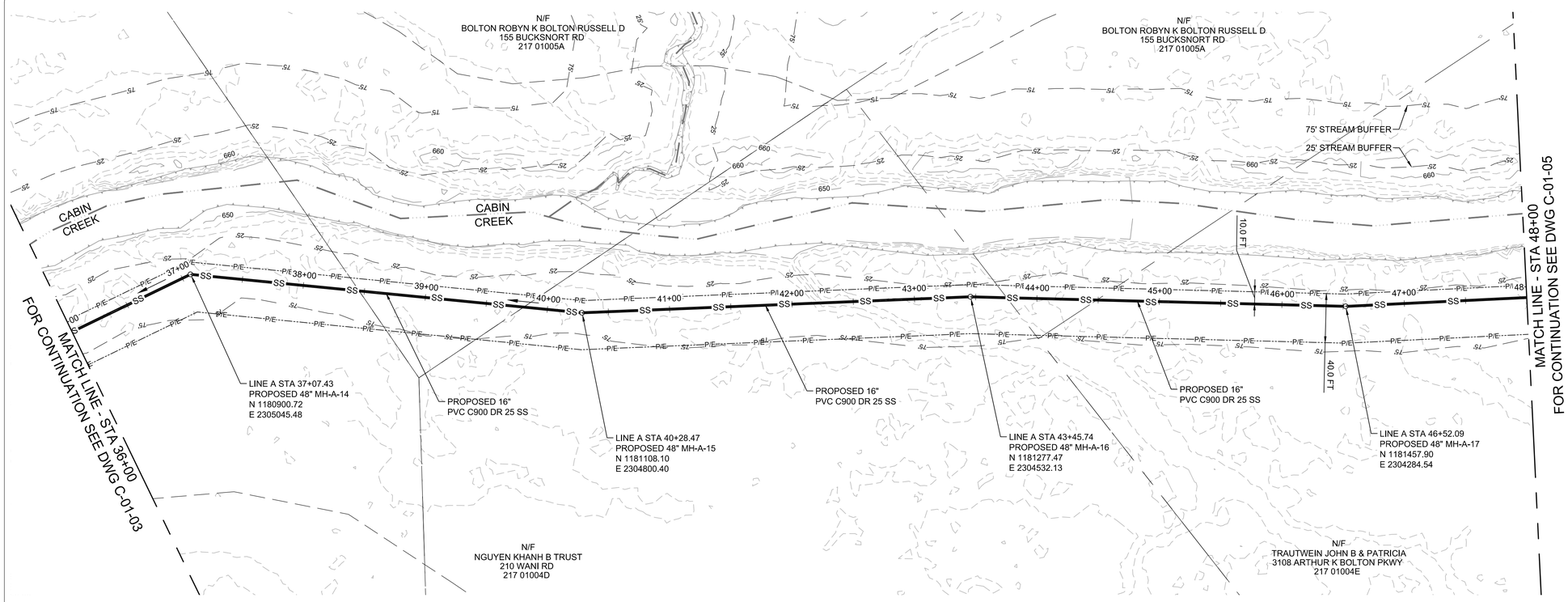
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PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE A

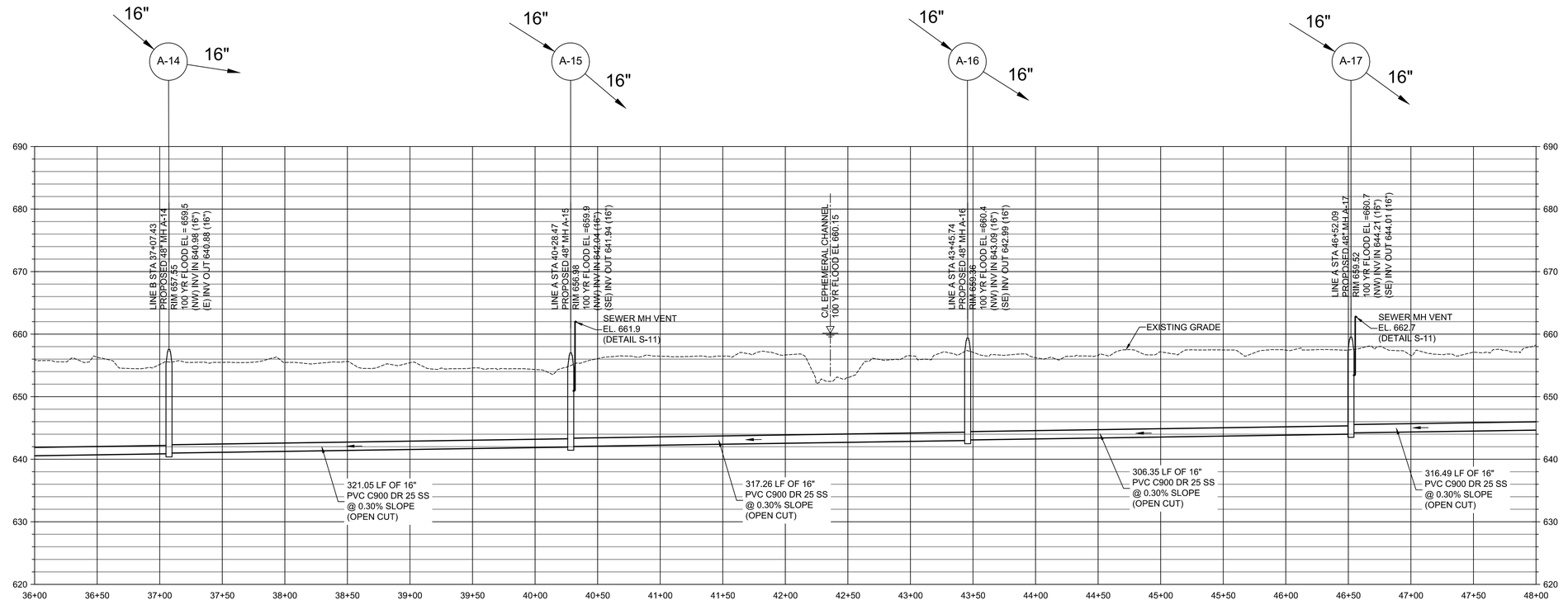
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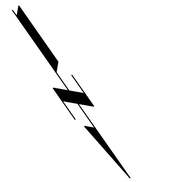
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GS-05
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NOTES:

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0 1/2 1
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SPALDING COUNTY WATER AUTHORITY
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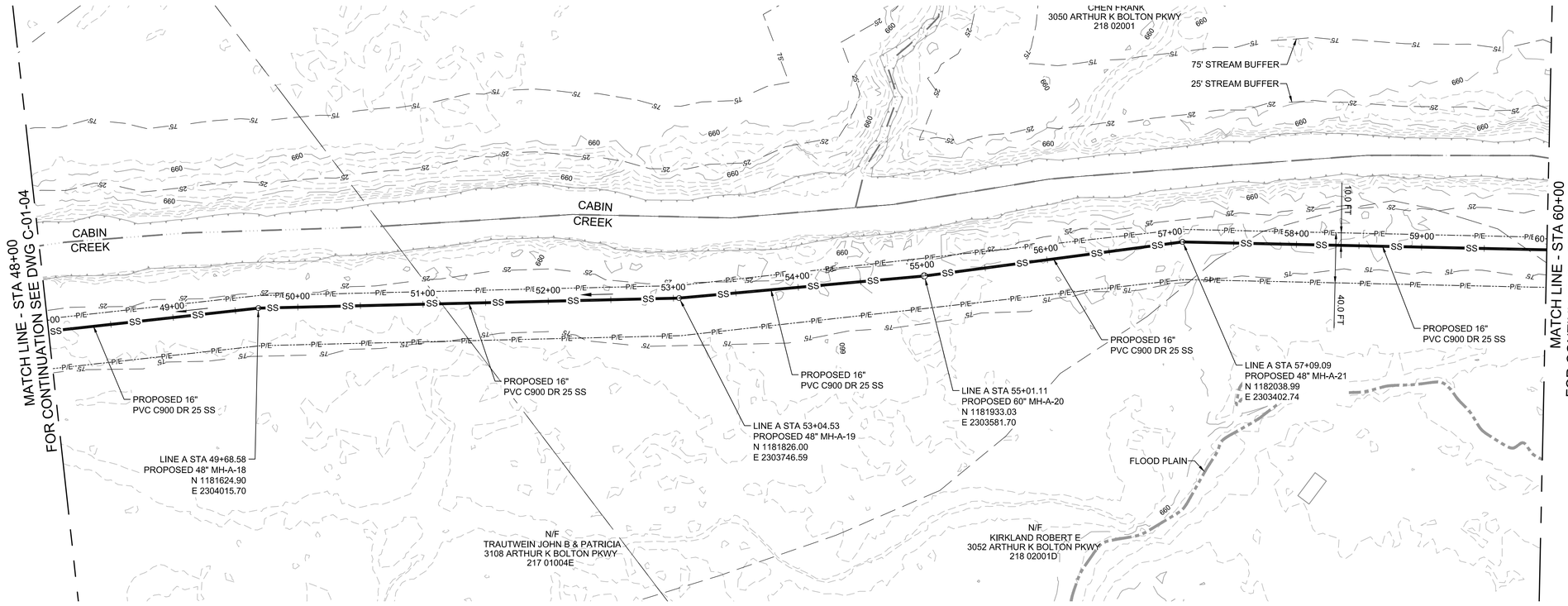
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CABIN CREEK GRAVITY SEWER LINE A

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SCWA CONTRACT #G1070001
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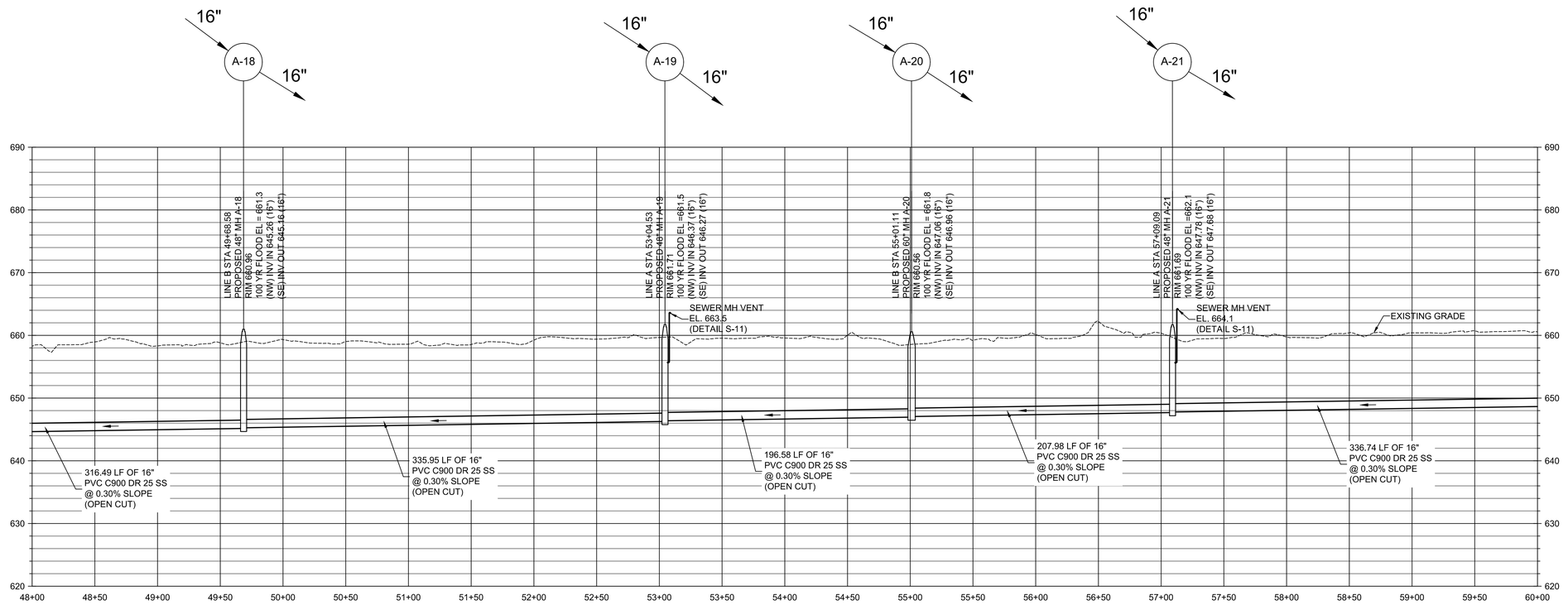


10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

NOTES:

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PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
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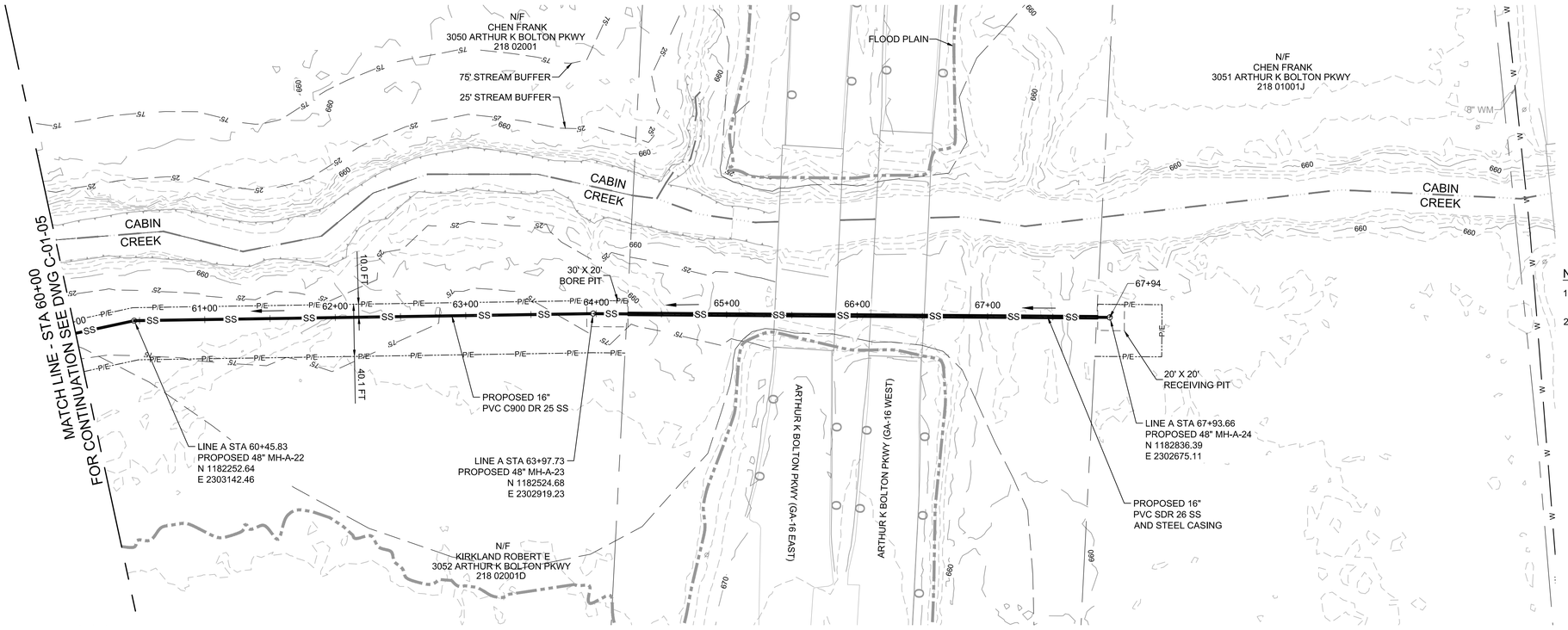
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PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE A

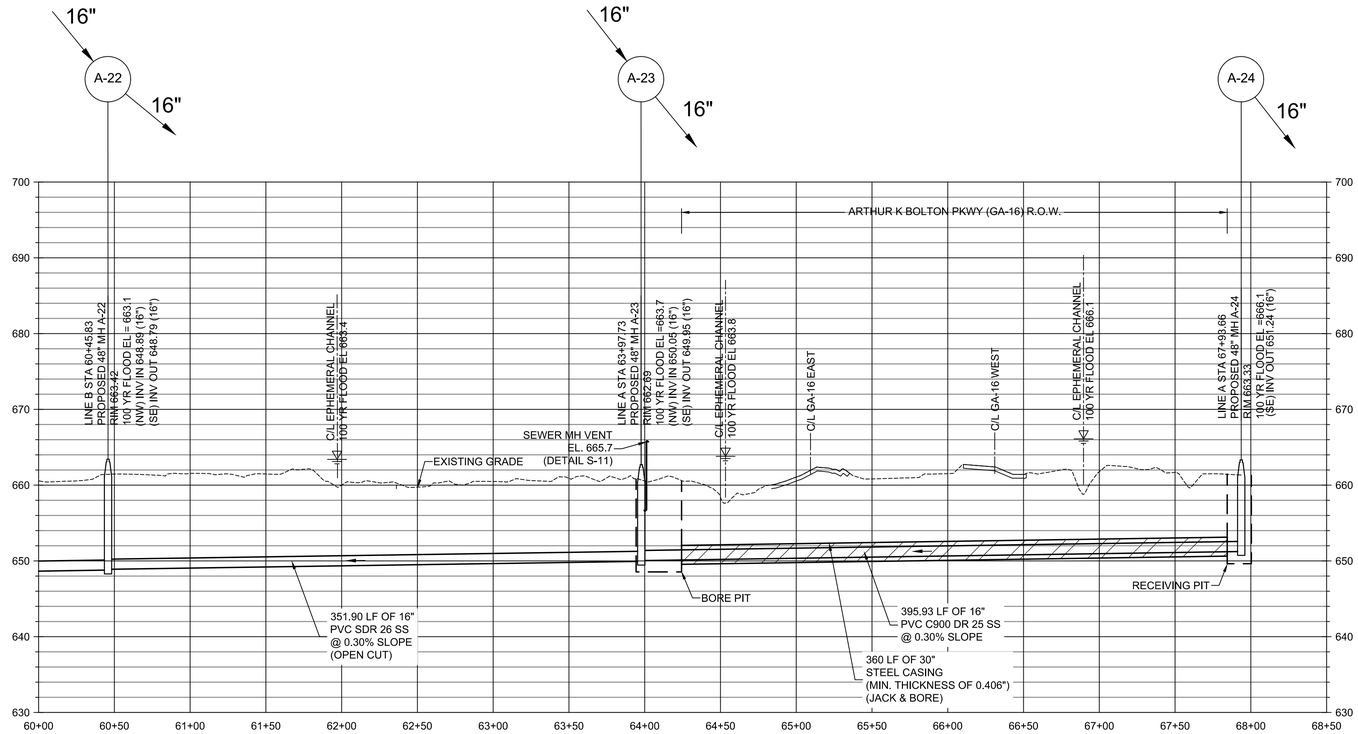
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
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GS-07
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10 OF 75

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NOTES:

1. ALL EXTERIOR MANHOLE JOINTS SHALL BE WRAPPED.
2. PROPOSED J&B SEWER UNDER ARTHUR K BOLTON PKWY (GA-16) TO BE ALTERNATIVE/ADDER OPTION TO BASE GMP SCOPE.

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VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

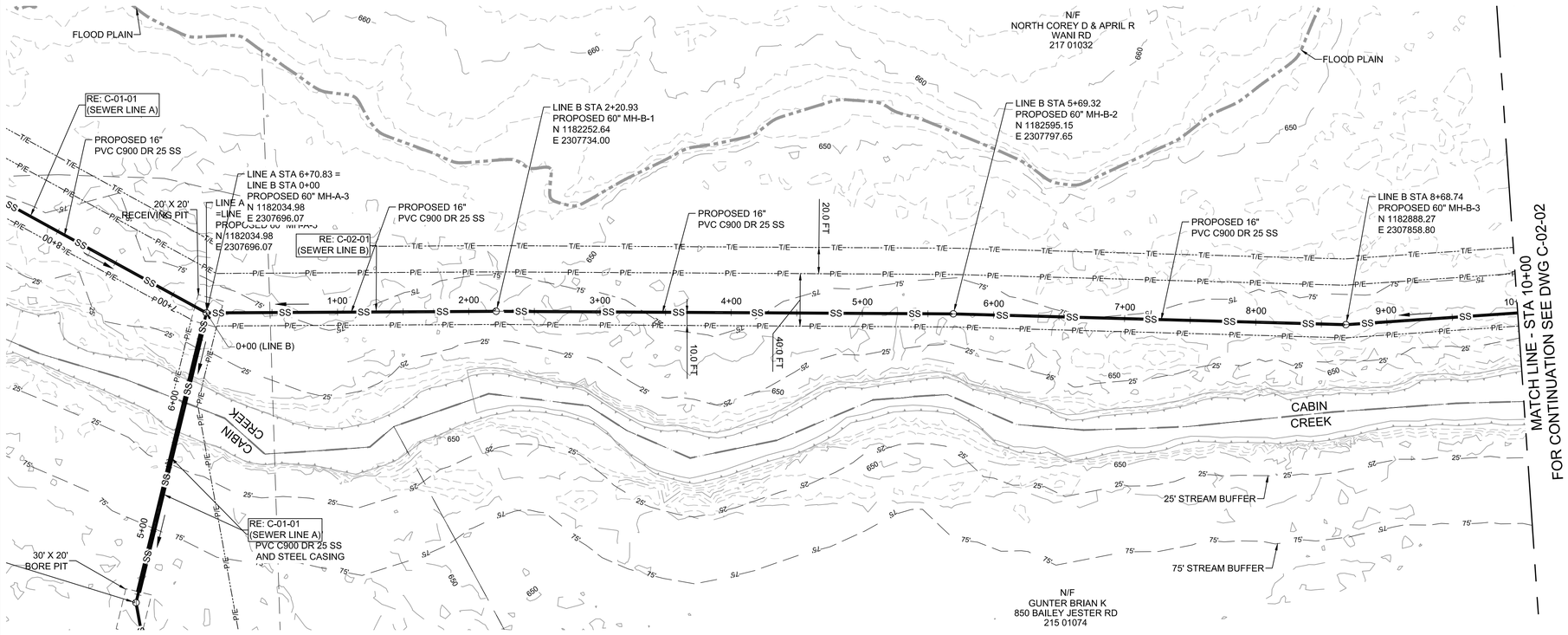
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PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE A

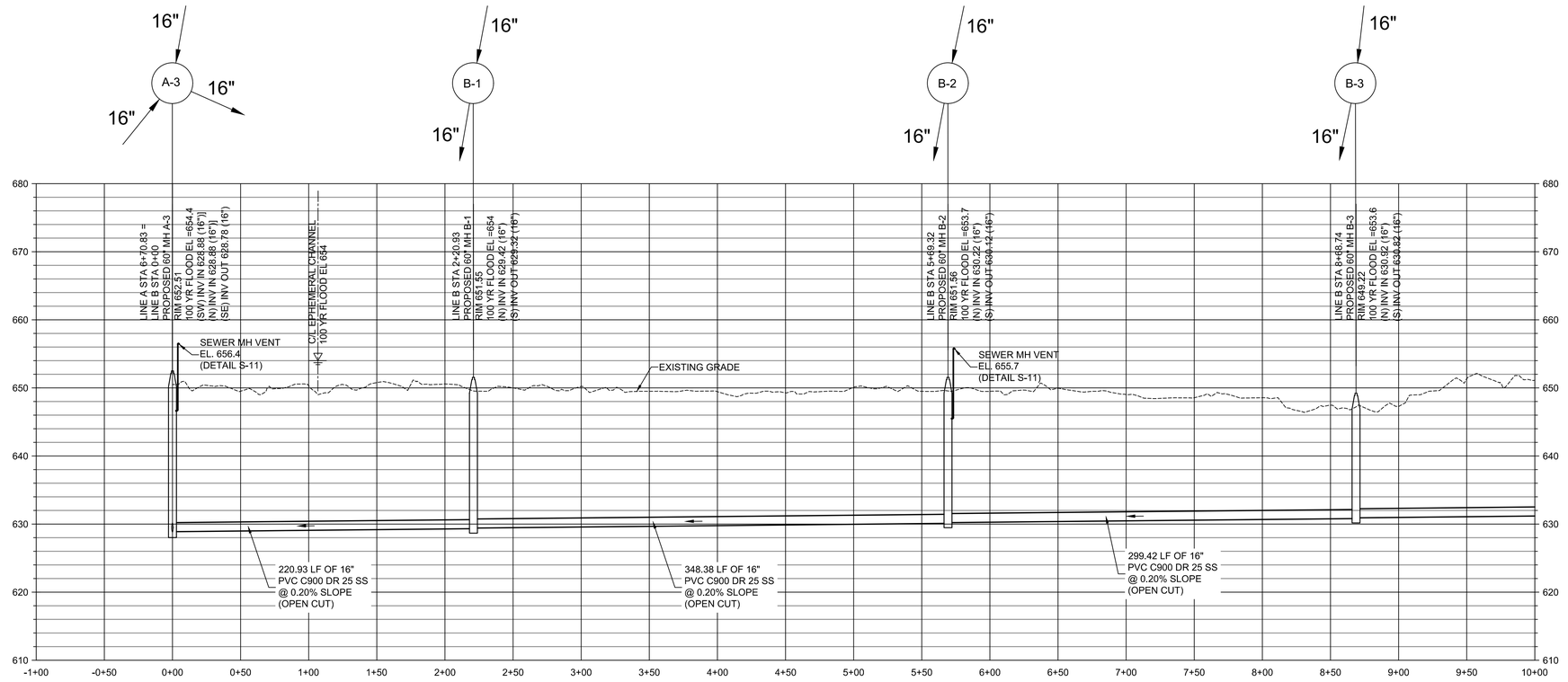
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SCWA CONTRACT #G1070001
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G1070001

GS-08
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PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

NOTES:

1. ALL EXTERIOR MANHOLE JOINTS SHALL BE WRAPPED.

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

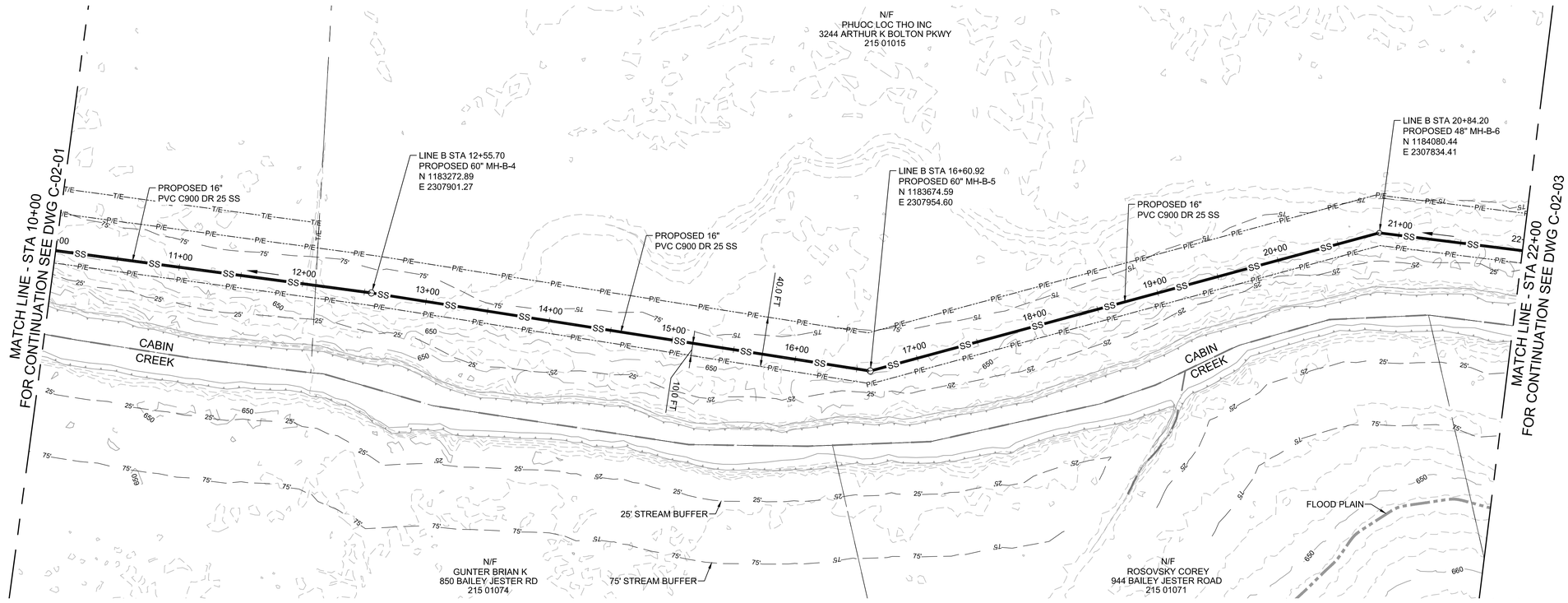
CIVIL
PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE B

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-09
SHEET
12 OF 75

FD10000
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PRELIMINARY - NOT FOR CONSTRUCTION

NOTES:

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0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

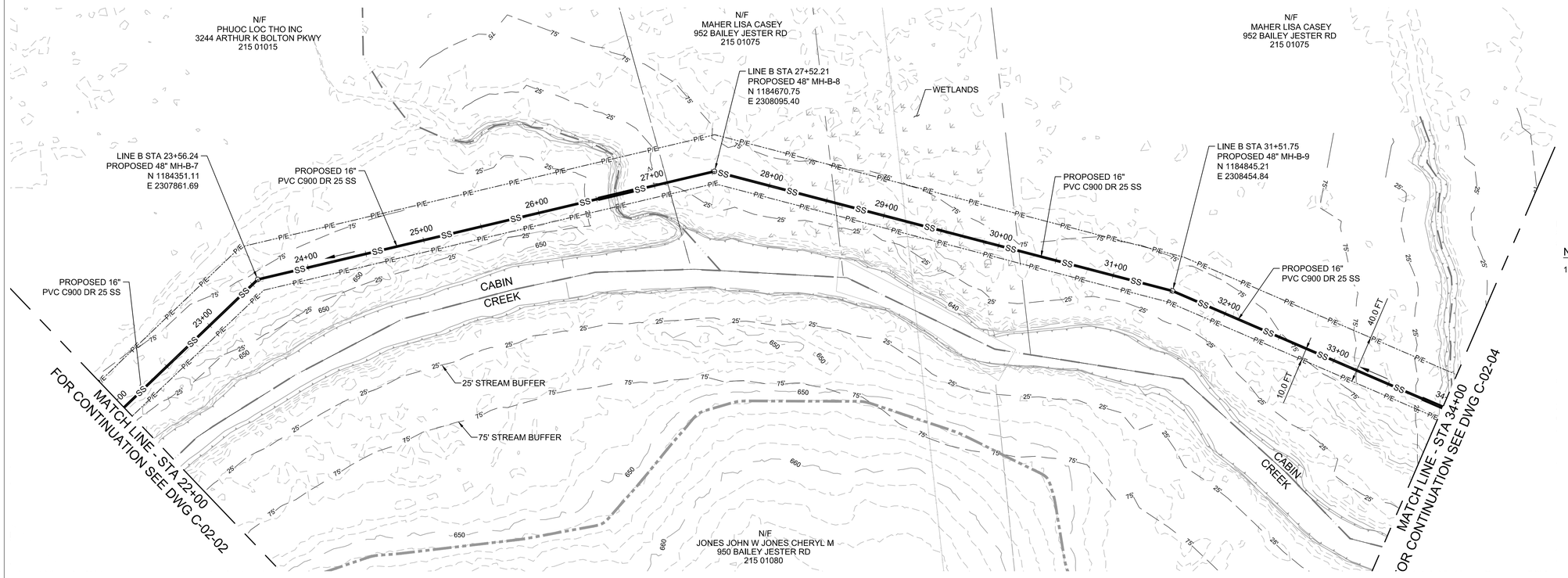
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PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE B

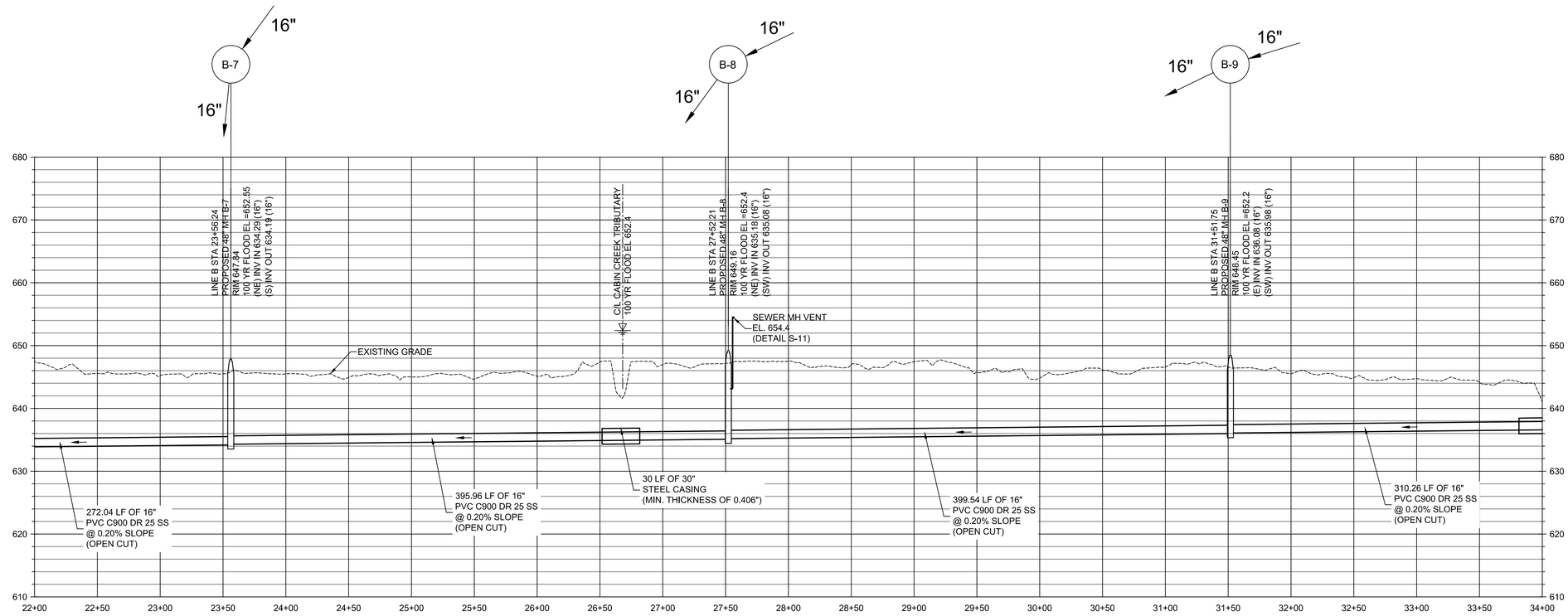
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

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SHEET
13 OF 75

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PRELIMINARY - NOT FOR CONSTRUCTION

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

NOTES:

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0 1/2 1
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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
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RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

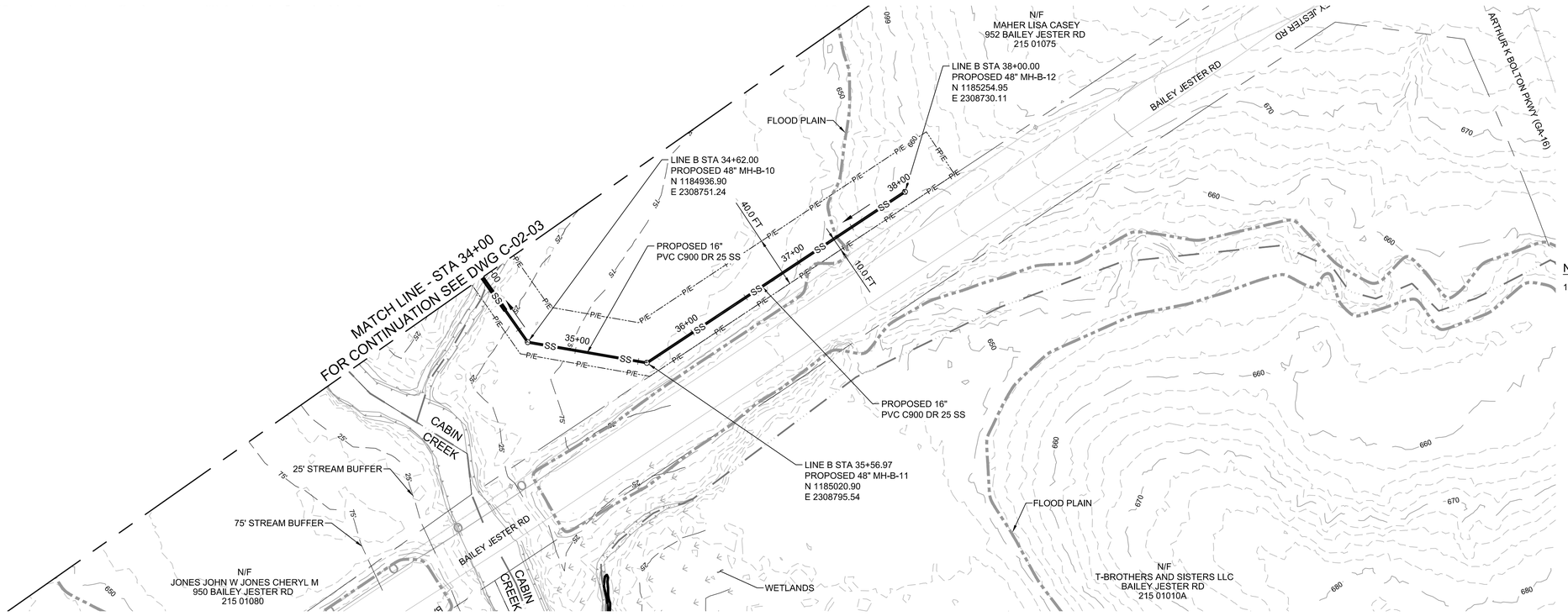
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PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE B

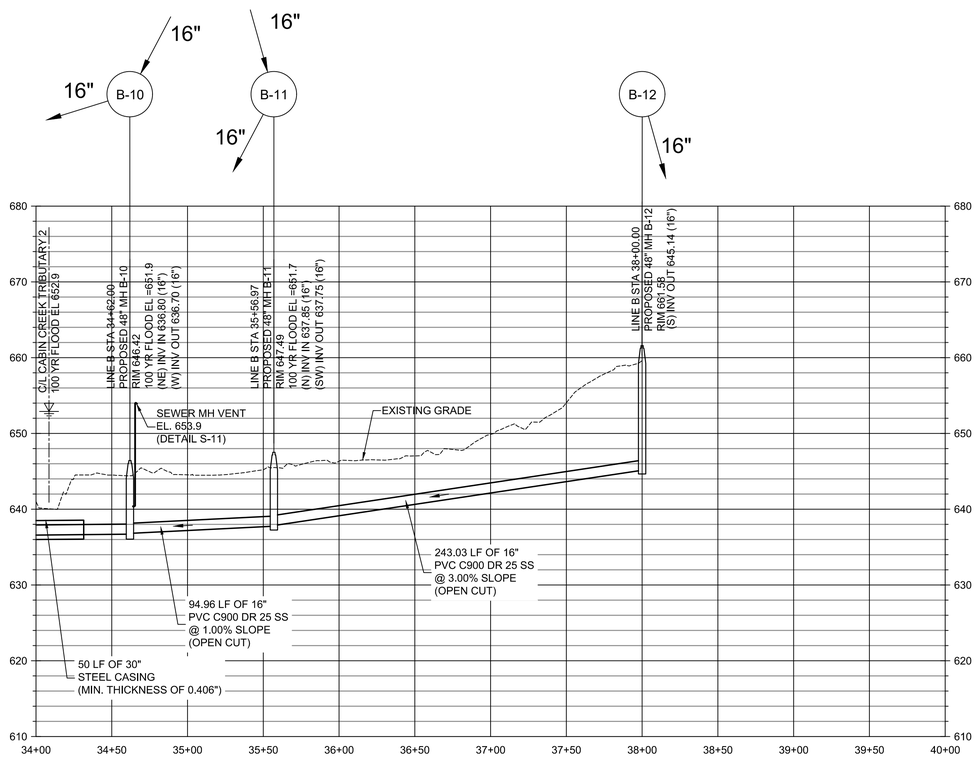
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DETAILED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-11
SHEET
14 OF 75

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10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

NOTES:

1. ALL EXTERIOR MANHOLE JOINTS SHALL BE WRAPPED.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
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SPALDING COUNTY WATER AUTHORITY
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CIVIL
PLAN AND PROFILE
CABIN CREEK GRAVITY SEWER LINE B

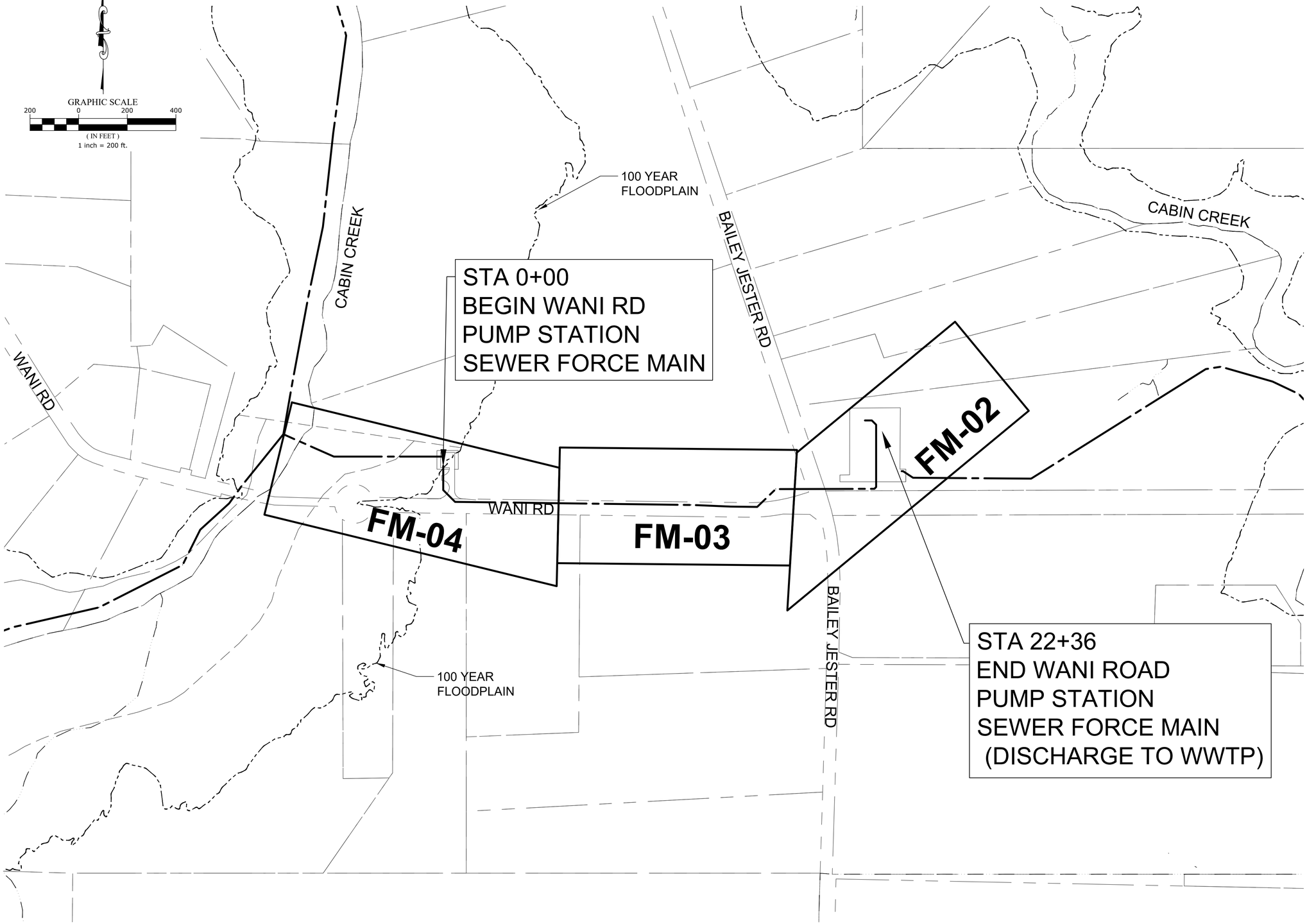
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GS-12
SHEET
15 OF 75

FD10000
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GRAPHIC SCALE
200 0 200 400
(IN FEET)
1 inch = 200 ft.



KEY PLAN - WANI RD LIFT STATION AND FORCE MAIN
CABIN CREEK GRAVITY SEWER & WANI RD PUMP STATION FORCE MAIN

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
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ATLANTA, GA 30338
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0	HB	AR GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

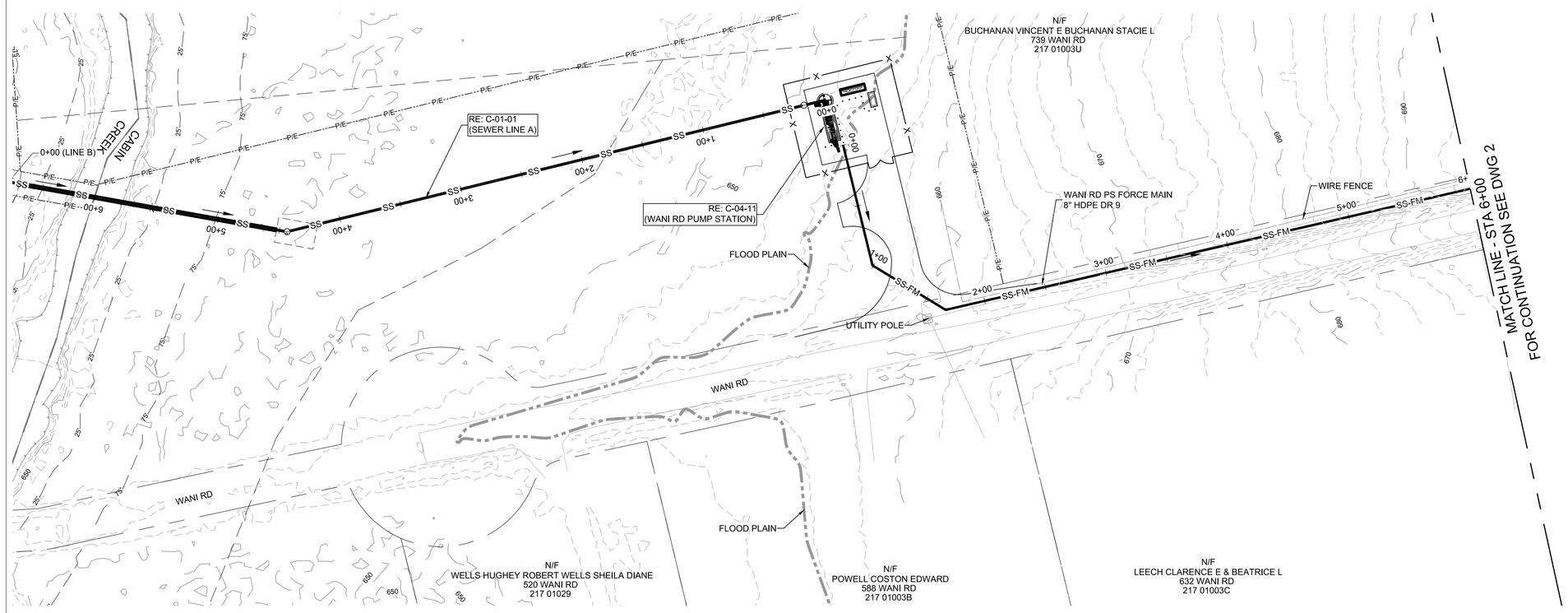
GENERAL
KEY PLAN - WANI RD LIFT STATION AND FORCE MAIN
CABIN CREEK GRAVITY SEWER & WANI RD PS FM

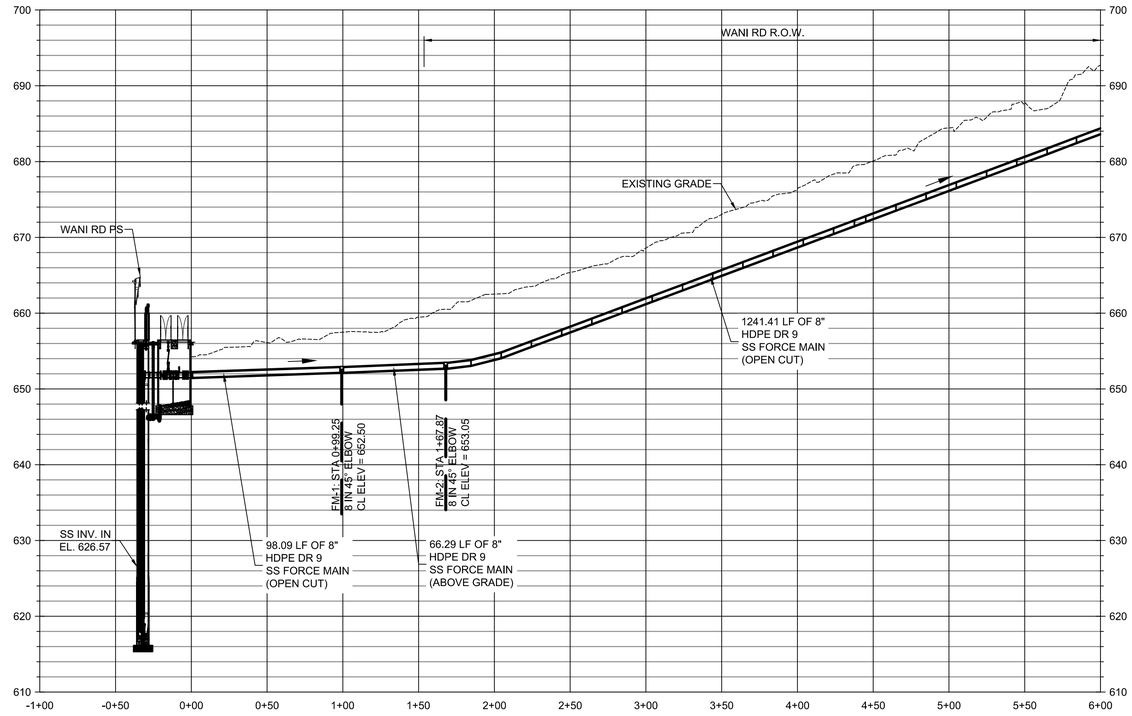
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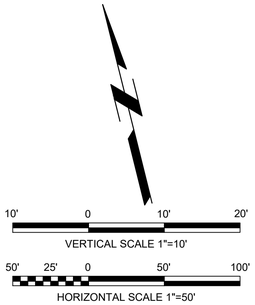
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

FM-01
SHEET 4 OF 75

FD10000
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0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
PLAN AND PROFILE
WANI ROAD PUMP STATION SEWER FORCE MAIN

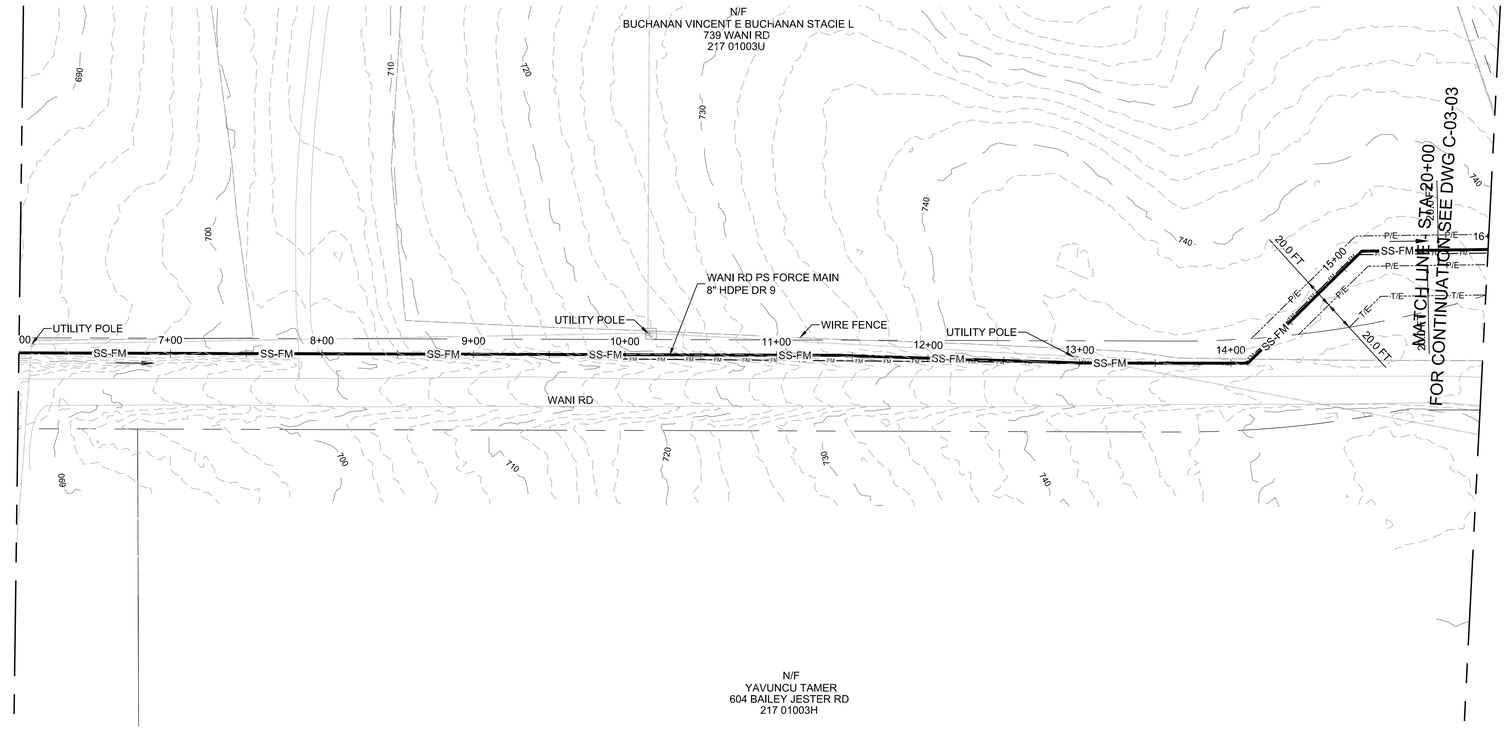
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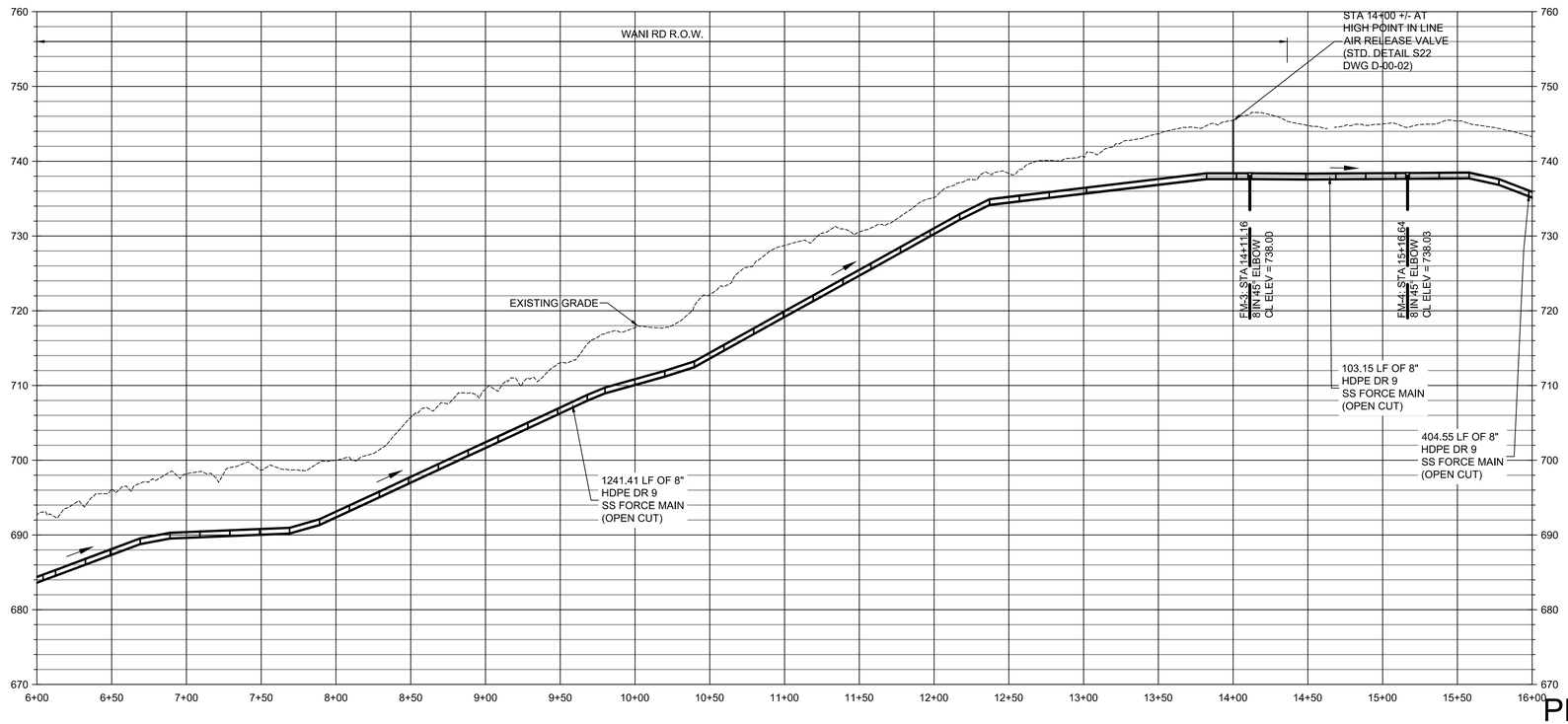
SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

FM-02
SHEET
16 OF 75

PRELIMINARY - NOT FOR CONSTRUCTION

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PRELIMINARY - NOT FOR CONSTRUCTION

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

VERTICAL SCALE 1"=10'

HORIZONTAL SCALE 1"=50'

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
STE C
ATLANTA, GA 30338
WWW.R2TINC.COM

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NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	
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10/1/2024	GMP SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
PLAN AND PROFILE
WANI ROAD PUMP STATION SEWER FORCE MAIN

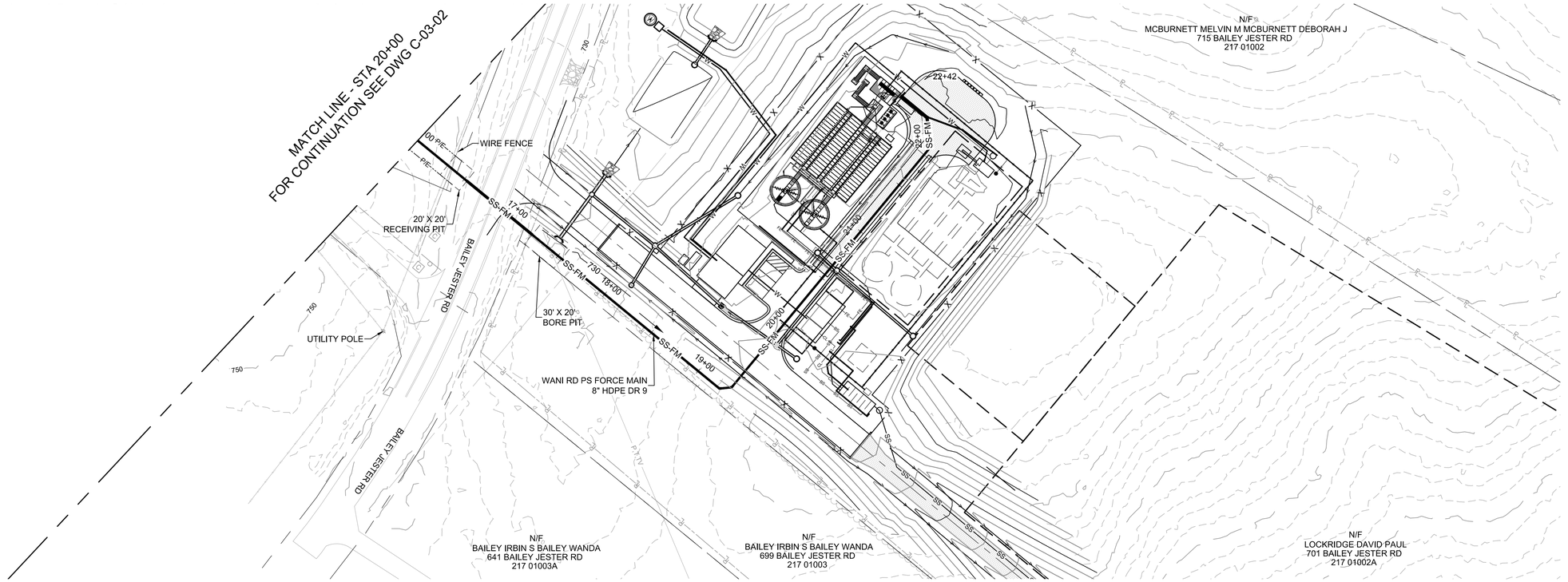
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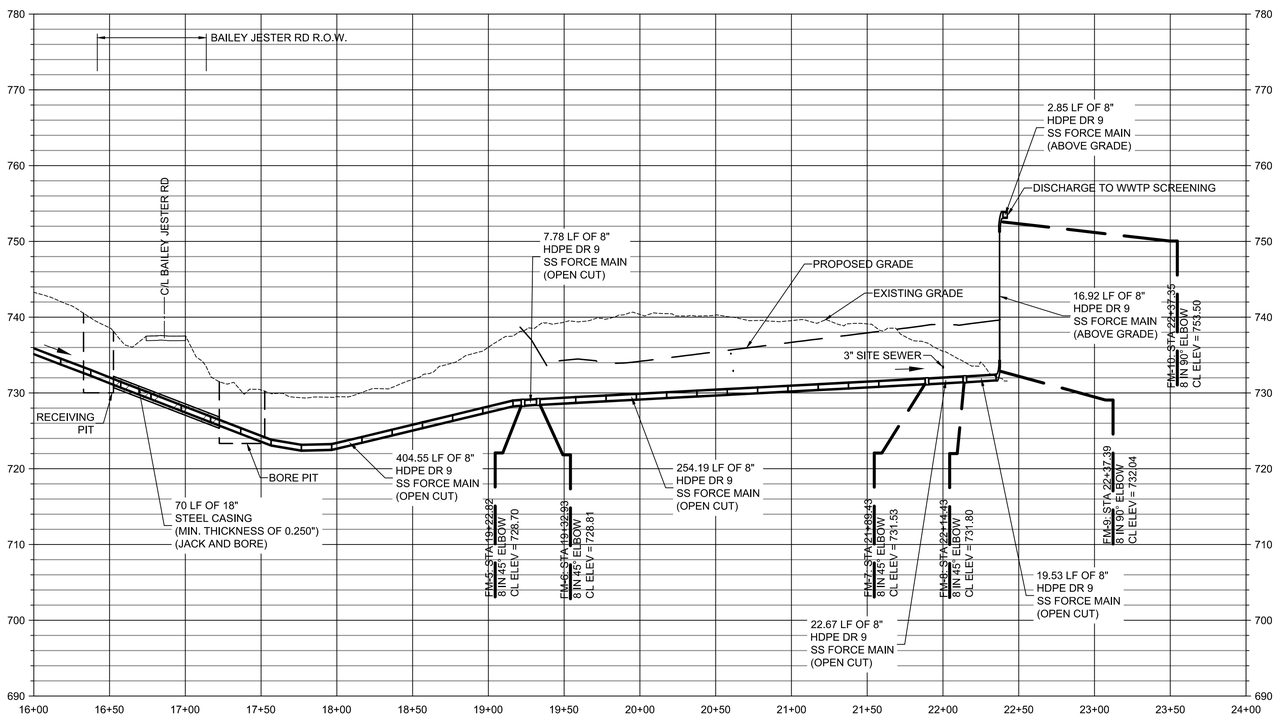
SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

FM-03
SHEET
17 OF 75

FD10000

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PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

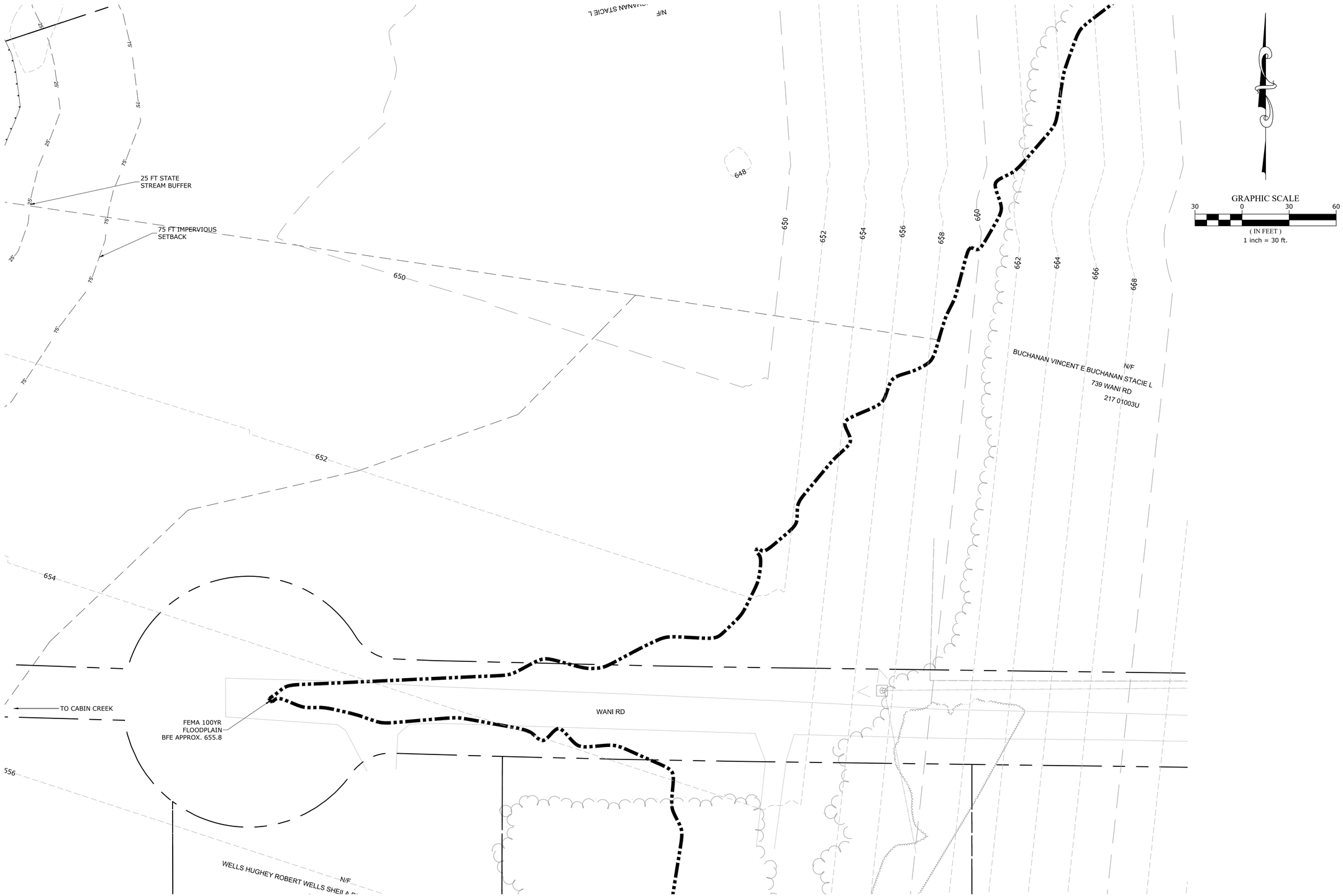
CIVIL
PLAN AND PROFILE
WANI ROAD PUMP STATION SEWER FORCE MAIN

DESIGNED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

FM-04
SHEET
18 OF 75

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GRAPHIC SCALE
30 0 30 60
(IN FEET)
1 inch = 30 ft.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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0	JAS	AR	GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WANI PUMP STATION
EXISTING CONDITIONS

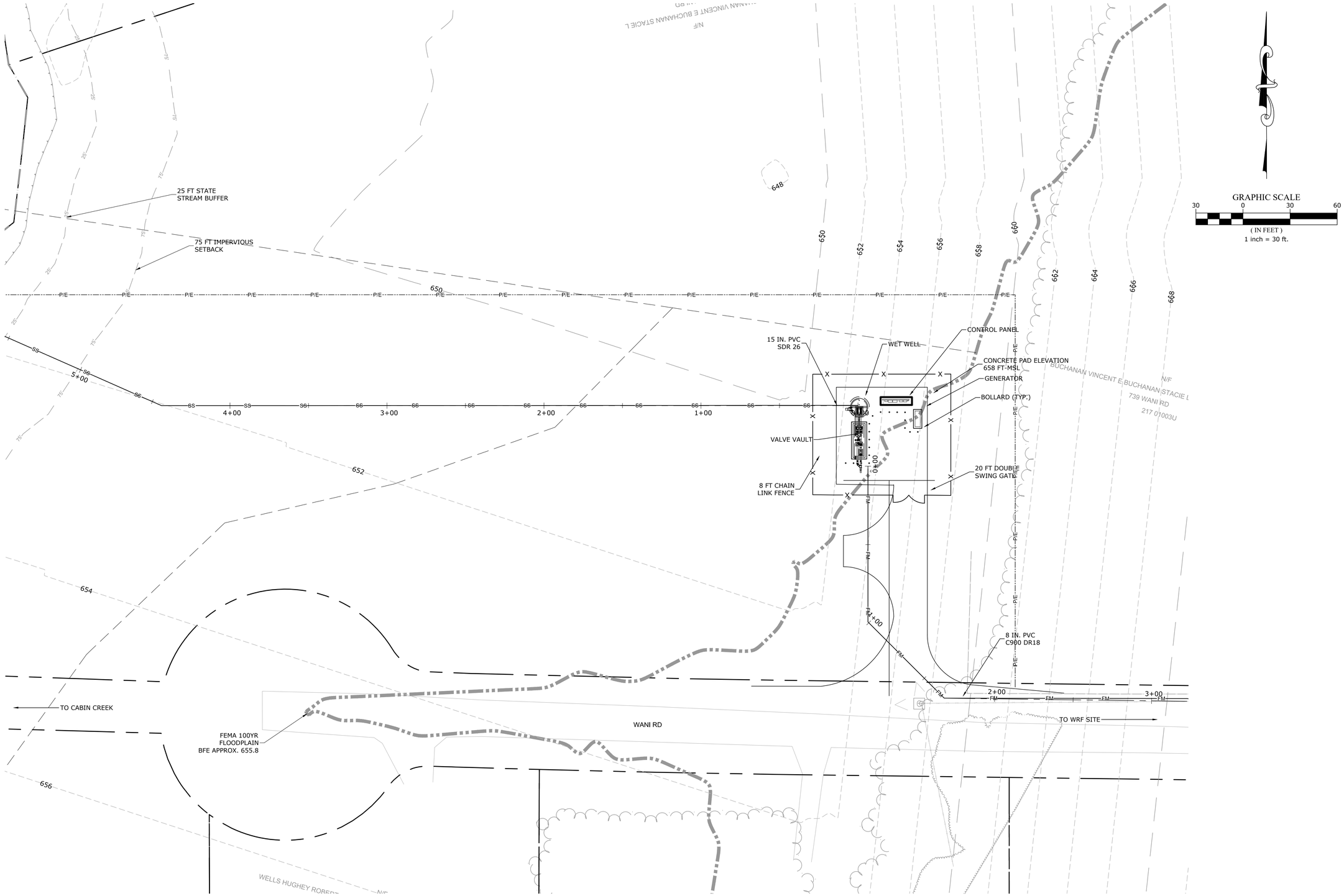
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

LS-01
SHEET
33 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

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GRAPHIC SCALE
30 0 30 60
(IN FEET)
1 inch = 30 ft.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

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1841 PEELER RD.
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ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WANI PUMP STATION
SITE PLAN

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

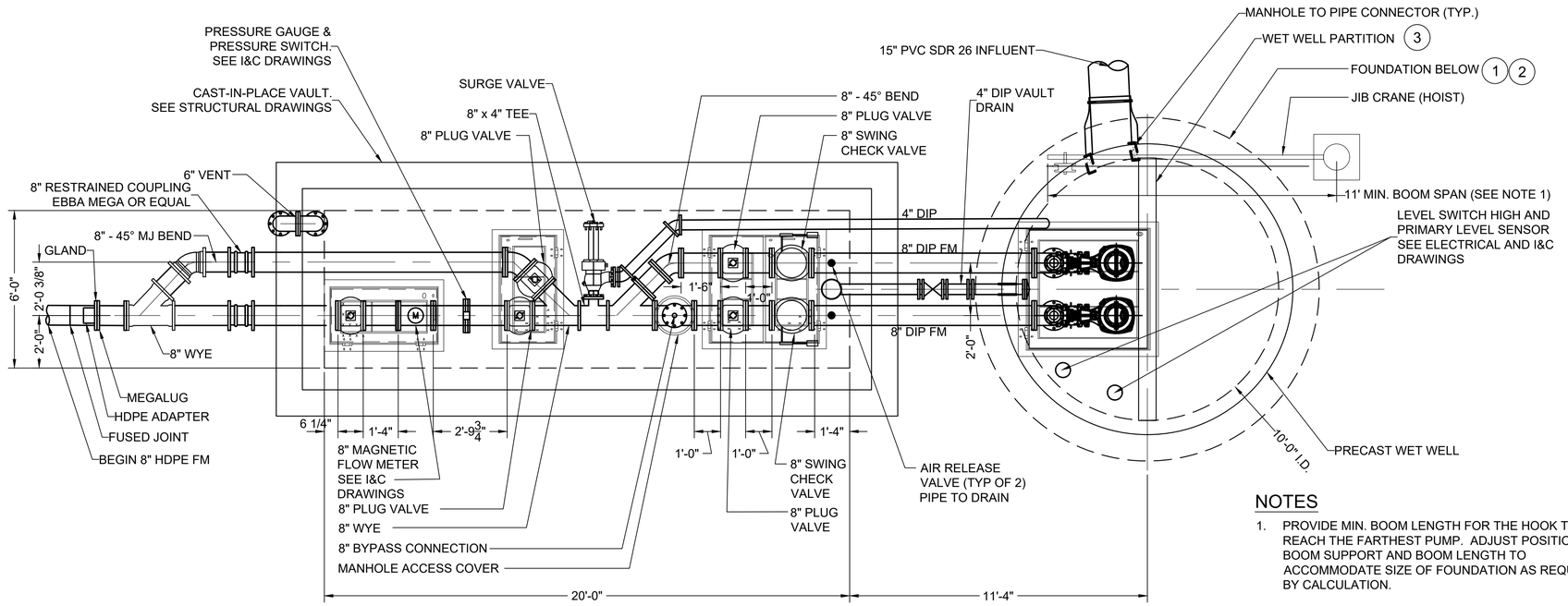
LS-02
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34 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

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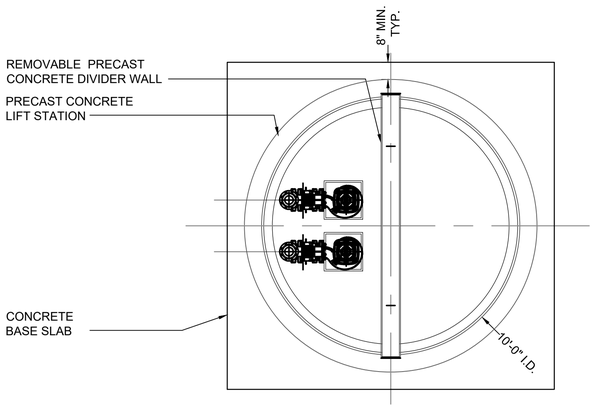
LIFT STATION DESIGN CRITERIA		
	Initial (0.2 MGD)	Intermediate (0.4 MGD)
Average Daily Flow, gpd	200,000	400,000
Peak Hourly Flow, gpd	600,000	1,200,000
Peak Factor	3	3
Force Main Diameter, in	8	
Pump Rated Flow, gpm	420	834[i]
Force Main Velocity @ Rated Flow, fps	3.5	7.1
Total Head @ Rated Flow, ft	150	193
Wet Well Diameter, ft	10	10
Volume per vertical ft, gal	290[ii]	580
PS Top of Slab, ft-msl	658	
High Level Alarm, ft-msl	625	
Lag Pump On, ft-msl	624	
Cycle Time, min	10	10
Cycles per Hour	6	6
Pump Off, ft-msl	621	
PS Floor Elevation, ft-msl	617	

[i] 2-pump operation
[ii] With vertical partition, only half of wet well utilized in early stage

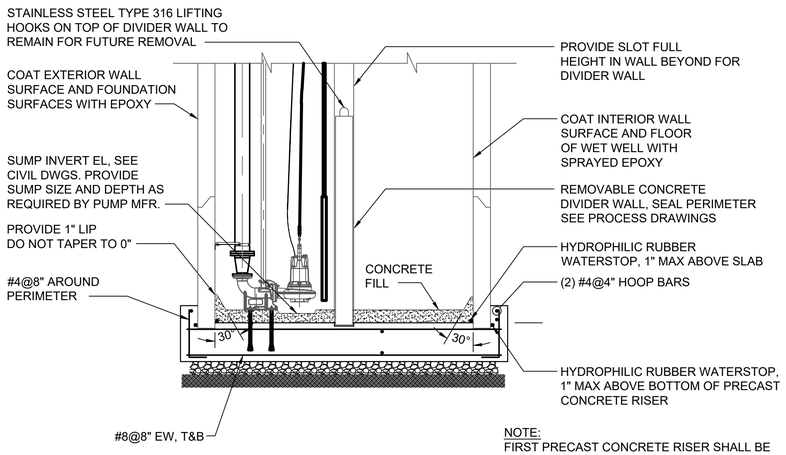


NOTES

1. PROVIDE MIN. BOOM LENGTH FOR THE HOOK TO REACH THE FARTHEST PUMP. ADJUST POSITION OF BOOM SUPPORT AND BOOM LENGTH TO ACCOMMODATE SIZE OF FOUNDATION AS REQUIRED BY CALCULATION.
2. PROVIDE MEANS OF LIFTING MANHOLE TOP FOR FUTURE REMOVAL.
3. THE PUMP MANUFACTURER SHALL SUPPLY THE PUMPS, MOTORS, CONTROL PANEL, LEVEL SENSOR, DISCHARGE CONNECTIONS, SLIDE RAILS, LIFTING CHAINS, AND FLYGT NP 3171 SH FM OR APPROVED EQUAL.

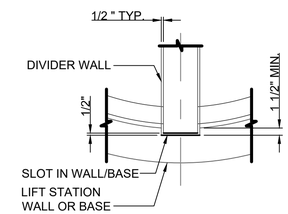


1 LIFT STATION FOUNDATION PLAN
NOT TO SCALE



NOTE:
FIRST PRECAST CONCRETE RISER SHALL BE CAST INTO THE BASE SLAB. SET RISER ON TOP MAT OF REBAR. PROVIDE ADEQUATE SUPPORT OF REBAR AND RISER TO PREVENT SETTLEMENT AND DISPLACEMENT OF REBAR AND RISER BEFORE CONCRETE HARDENS.

2 LIFT STATION SECTION
NOT TO SCALE



NOTES

1. PROVIDE SLOT ON BOTTOM OF DIVIDER WALL AND ALONG SIDES. SIDES SHALL EXTEND FULL HEIGHT OF PUMP STATION FOR FUTURE REMOVAL.
2. PROVIDE SEAL IN SLOT ON THREE SIDES OF DIVIDER WALL.
3. DIVIDER WALL SHALL BE DESIGNED AND DETAILED TO BE SET IN PLACE, RESIST LIQUID PRESSURE FROM PUMP SIDE AND PREVENT LIQUID FROM PASSING THROUGH SLOTS.

3 DIVIDER WALL SLOT DETAIL
NOT TO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318
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R2T RIVER TO TAP
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WWW.R2TINC.COM

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0	JAS	AR	GA

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10/01/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

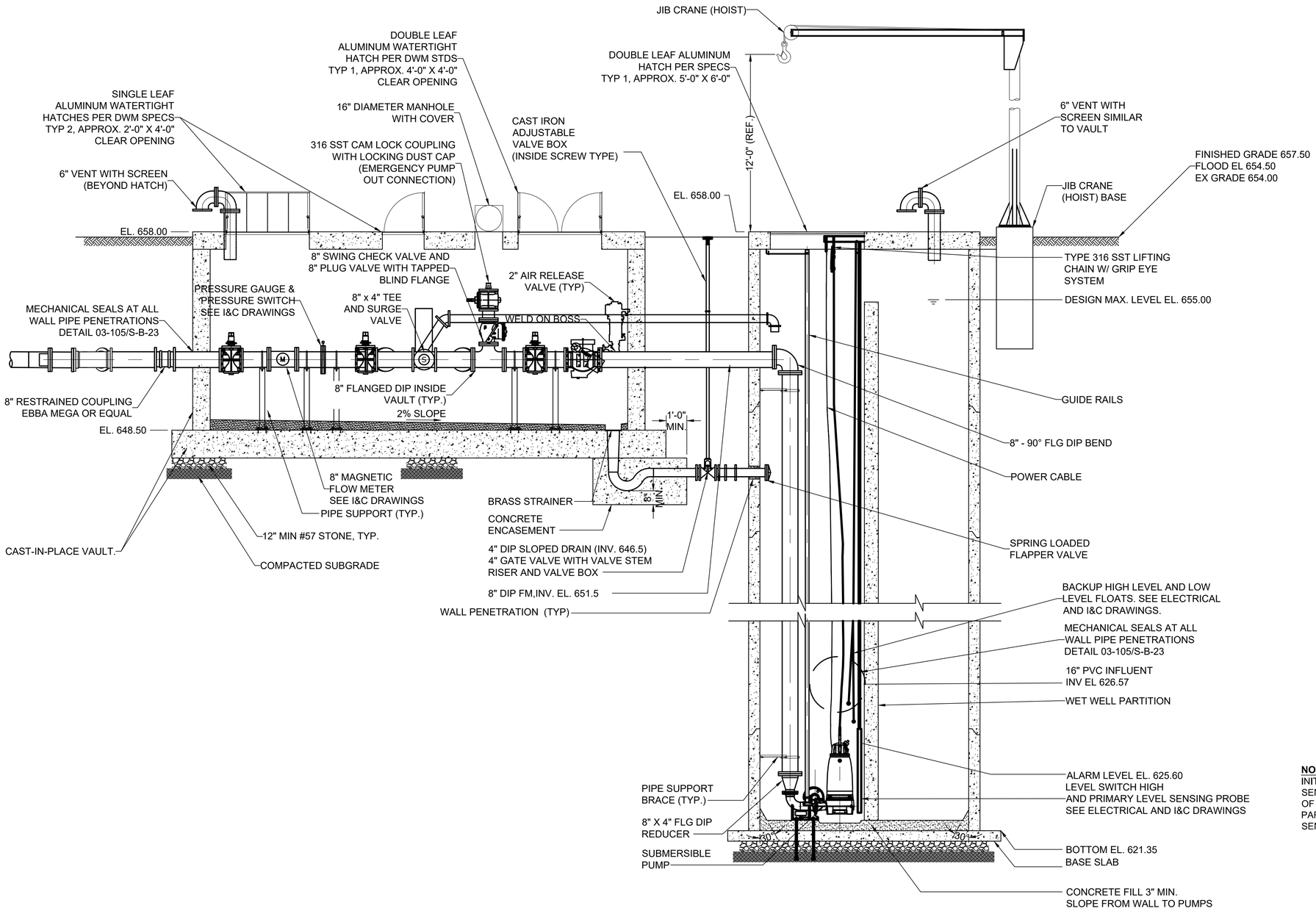
CIVIL
WANI ROAD PUMP STATION
STRUCTURAL MECHANICAL PLAN

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

LS-04
SHEET 35 OF 74

FD10000
PLOTTED: 4/3/2025 2:21 PM FILE: P:\01 Active Projects\G107 - Lakeshore Engineering\G1070001 - PDB Services For 2024 Sewer Implementation\31_Authoring\CAD\PROCESS\G1070001 WANI PUMP STATION PROCESS MECHANICAL.dwg



NOTE:
INITIAL INSTALLATION OF SENSORS TO BE ON SAME SIDE OF PARTITION AS PUMPS. AFTER PARTITION IS REMOVED, SENSORS CAN BE MOVED.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP
1	JAS	AR GA
0	JAS	AR GA

REVISIONS AND RECORD OF USE

DATE	
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/01/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WANI ROAD PUMP STATION
STRUCTURAL MECHANICAL SECTION

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

LS-05
SHEET
36 OF 74

PLOTTED: 4/3/2025 2:21 PM FILE: P:\01 Active Projects\G107 - Lakeshore Engineering\G1070001 - PDB Services For 2024 Sewer Implementation\31_AuthoringCAD\PROCESS\G1070001 WANI PUMP STATION PROCESS MECHANICAL.dwg
FD10000

GRAPHIC SCALE
100 0 100 200
(IN FEET)
1 inch = 100 ft.

CABIN CREEK

100 YEAR FLOODPLAIN

STA 25+04
BEGIN WRF
GRAVITY OUTFALL
(UPSTREAM)

WF-03

WF-09

WF-10

WF-11

WF-02

STA 00+00
END WRF GRAVITY
OUTFALL (DISCHARGE
TO CABIN CREEK)

BAILEY

CABIN CREEK

KEY PLAN - WATER RECLAMATION FACILITY AND OUTFALL
CABIN CREEK GRAVITY SEWER & WANI RD PUMP STATION FORCE MAIN

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP
1	JAS	AR GA
0	HB	AR GA

DATE	
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10/1/2024	GMP SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

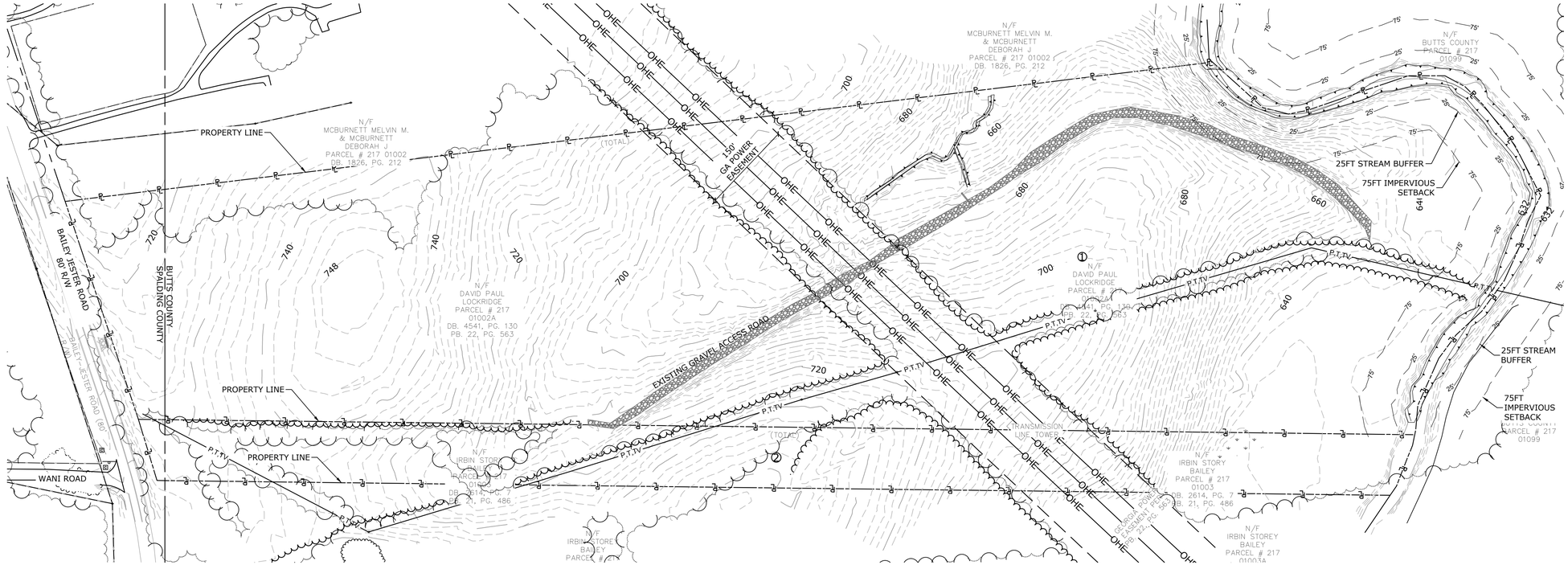
GENERAL
KEY PLAN - WRF AND OUTFALL
CABIN CREEK GRAVITY SEWER & WANI RD PS FM

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-01
SHEET
5 OF 75

FD10000
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GRAPHIC SCALE

100 0 100 200

(IN FEET)

1 inch = 100 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

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1	JAS	AR	GA
0	JAS	AR	GA

NO.	DATE	REVISIONS AND RECORD OF USE
3	04/21/25	80% PERMIT REVIEW SUBMITTAL
2	10/01/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WATER RECLAMATION FACILITY
EXISTING CONDITIONS

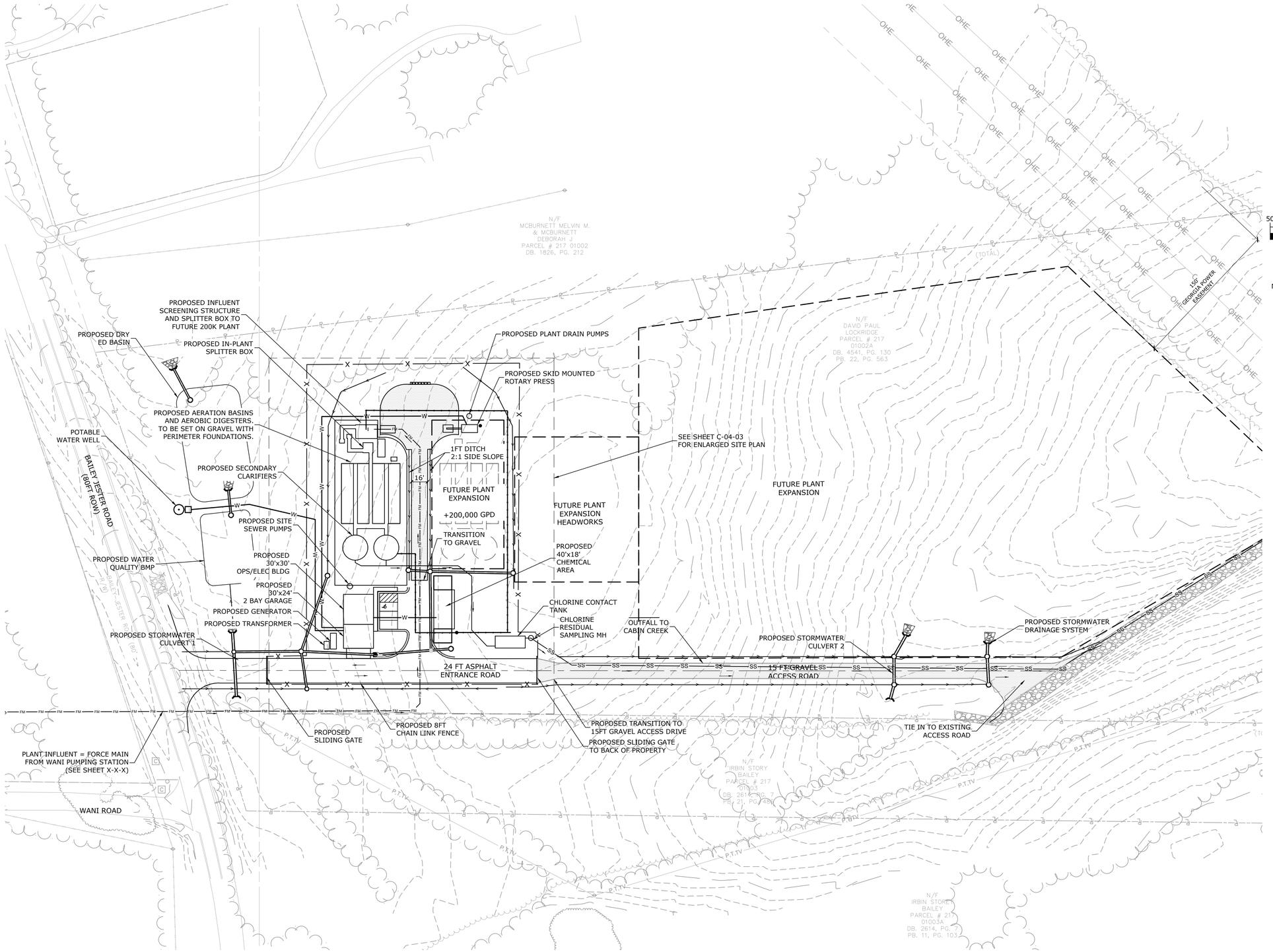
DESIGNED:
DETAILED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-02
SHEET
25 OF 74

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GRAPHIC SCALE

50 0 50 100

(IN FEET)

1 inch = 50 ft.

NOTES:

1. POTABLE WATER WELL TO BE EQUIPPED WITH BLADDER TANK. CONNECT TO BUILDING SERVICE LINE.

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

OVERALL SITE PLAN
WATER RECLAMATION FACILITY
PROPOSED SITE, ACCESS, AND CONTROL PLAN

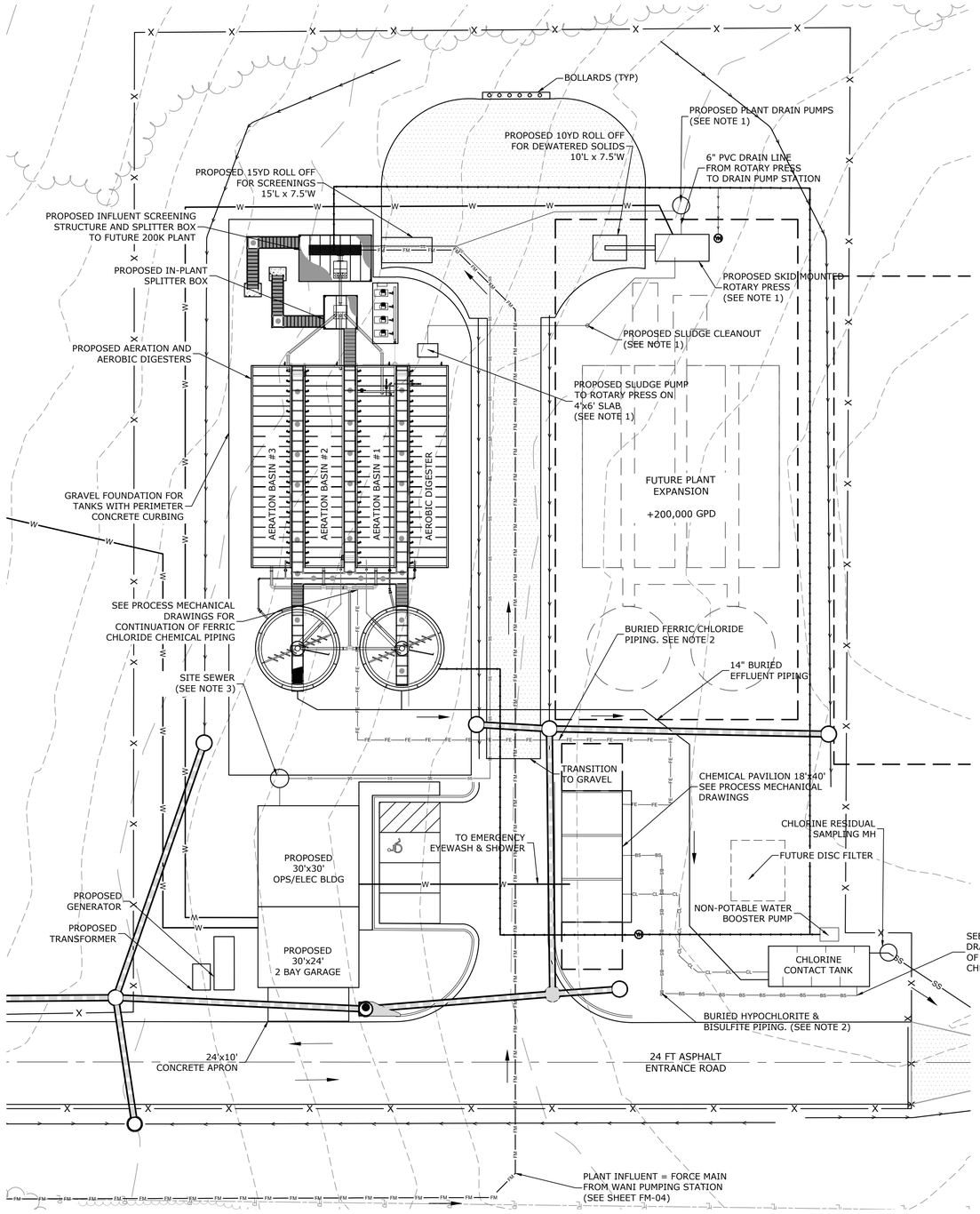
DESIGNED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

WF-03
SHEET
26 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

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GRAPHIC SCALE

20 0 20 40

(IN FEET)

1 inch = 20 ft.

LEGEND	
NAME	LINETYPE
FERRIC CHLORIDE	FE FE FE FE
HYPOCHLORITE	CL CL CL CL
BISULFITE	BS BS BS
SITE WASHWATER	

PIPE SCHEDULE

SERVICE	MATERIAL	SIZE	NOTES
RECLAIMED WASHDOWN WATER	PVC	2"	NEEDS TO BE SUPPLIED AT 80 PSI
SITE SEWER FORCE MAIN	PVC	3"	PIPED UP TO AND OVER INLET SCREEN CHANNEL
DUMPSTER PAD DRAIN	PVC	2"	
BUILDING DRAIN	PVC	4"	INCLUDES BATHROOM AND FLOOR DRAINS
WELL WATER SUPPLY	PVC	2"	
SLUDGE FORCE MAIN	PVC	3"	
CHEMICAL PIPING	PVC DOUBLE CONTAINMENT	3/4"	HEAT TRACE ALL EXPOSED PIPING

NOTES:

1. SOLIDS HANDLING SYSTEM TO CONSIST OF FOLLOWING: SLUDGE PUMP CONNECTED FROM DIGESTER DRAIN TO COMPLETE TRAILER-MOUNTED ROTARY PRESS SYSTEM, INCL. FLOCCULATOR. FILTRATE TO BE PUMPED BACK TO HEADWORKS, AND WASHWATER CONNECTS FROM TANK TO PRESS (NOT SHOWN FOR CLARITY). INCL. SCREW CONVEYOR AND 10 CY DUMPSTER WITH CANOPY. BASIS OF DESIGN IS FOURNIER MOBILE ROTARY PRESS. SEE PROCESS MECHANICAL DRAWINGS FOR MORE INFORMATION.
2. BURIED CHEMICAL PIPING TO BE 3/4" PVC SCH 80 WITH DOUBLE-WALLED CONTAINMENT. INLET OF CCT, ONE LINE TO CONVEY BISULFITE TO INTERIOR BAFFLE AREA, BOTH WITH DIFFUSERS. ONE LINE TO CONVEY FERRIC. HEAT TRACE FERRIC AND BISULFITE SHALLOW AND EXPOSED CHEMICAL LINES. HYPOCHLORITE LINES DO NOT REQUIRE HEAT TRACING. FOR PIPE ROUTING & DETAILS, SEE PROCESS MECHANICAL DRAWINGS.
3. FLOOR, SINK AND TOILET DRAINS TO BE PIPED TO SEWER PUMP TANK. INSTALL DRAIN LINE FROM DUMPSTER PAD TO PUMP TANK (NOT SHOWN FOR CLARITY). PIPE DISCHARGE TO HEADWORKS. BASIS OF DESIGN FOR PACKAGE SYSTEM IS LIBERTY PUMP PRO 680.
4. WASHWATER SYSTEM SHOULD CONNECT TO PLANT HOSE BIBS(NOT SHOWN FOR CLARITY) AND DELIVER FLOW AT 80 PSI.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

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LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

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DATE	REVISIONS AND RECORD OF USE
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

ENLARGED SITE PLAN
WATER RECLAMATION FACILITY
TREATMENT BASIN PLAN AND PROCESS PIPING

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-04
SHEET
27 OF 74

FD10000

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

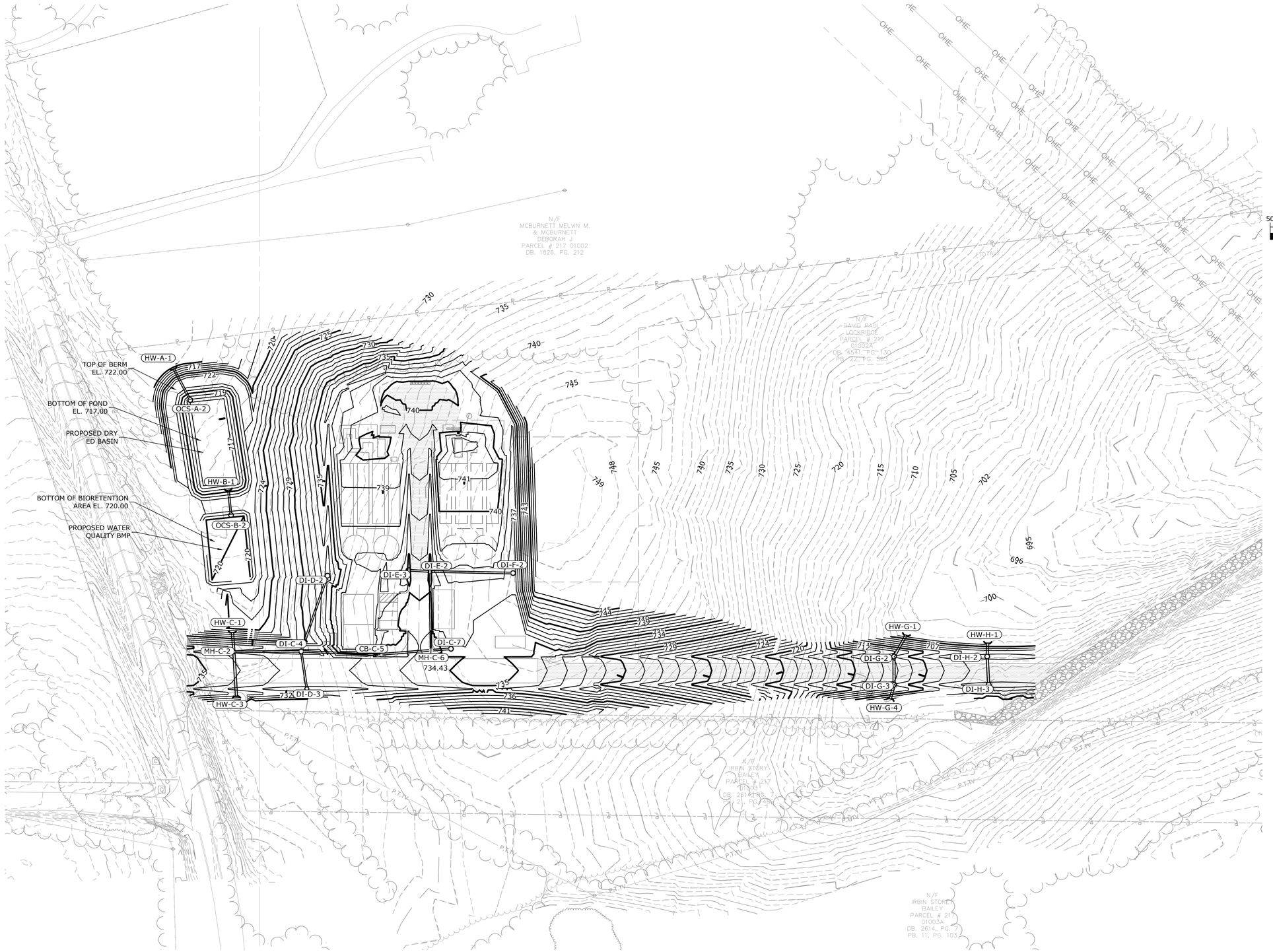
CIVIL
WATER RECLAMATION FACILITY
PROPOSED SITE, ACCESS AND CONTROL PLAN

DESIGNED:
DETAILED:
CHECKED:
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-05
SHEET
27 OF 74

FD10000
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GRAPHIC SCALE

50 0 50 100

(IN FEET)

1 inch = 50 ft.

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING

1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WATER RECLAMATION FACILITY
GRADING AND DRAINAGE PLAN

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-06
SHEET
28 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

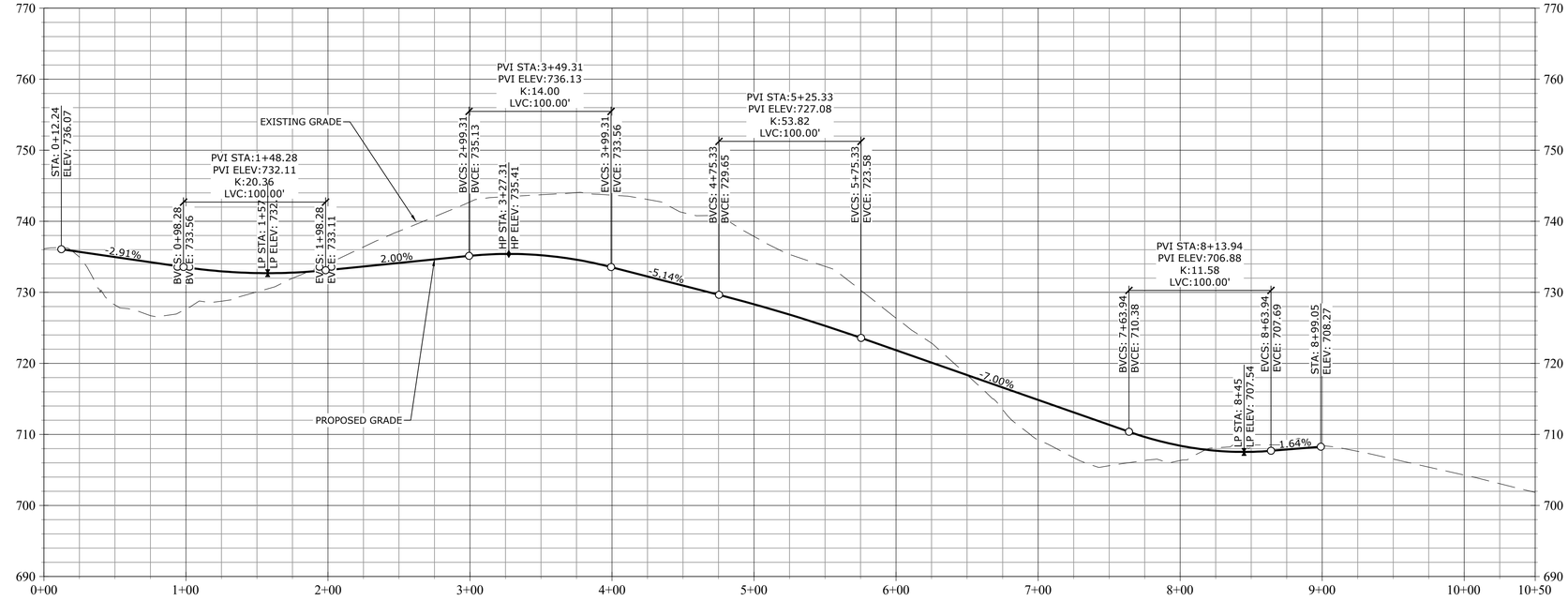
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FD10000

NOTES:

1. CONTRACTOR SHALL SUBMIT COPY OF PLAN AND PROFILES OF ACCESS ROAD FROM WATER RECLAMATION FACILITY SITE TO EXISTING ROAD OR STREET. SLOPE OF ACCESS ROAD SHALL COMPLY WITH SPALDING COUNTY REGULATIONS.
2. ACCESS DRIVEWAY SHALL INCLUDE EXPANSION JOINTS AS NEEDED.
3. ACCESS DRIVEWAY REINFORCEMENT SHALL BE DESIGNED TO WITHSTAND 100,000 LB LOAD.

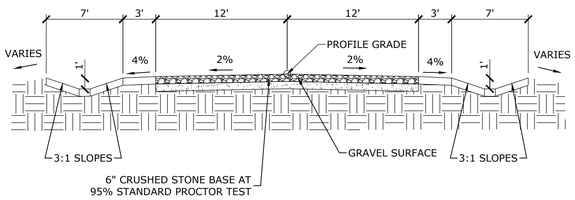
1 MAIN ACCESS ROAD PROFILE



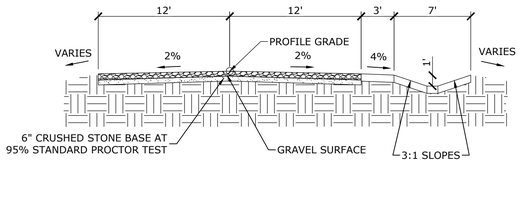
1" = 50'
0 25 50 100

1" = 10'
0 5 10 20

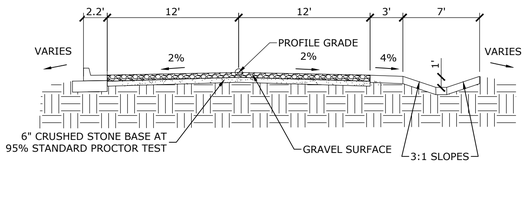
WRF ACCESS ROAD - TYPICAL SECTION
STA 0+30.17 TO STA 1+62.50
NTS



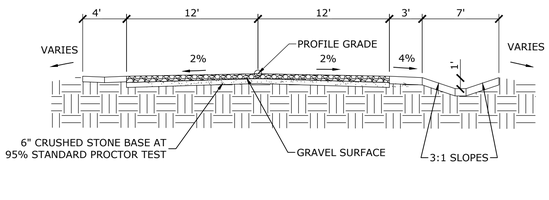
WRF ACCESS ROAD - TYPICAL SECTION
STA 1+66.00 TO STA 2+13.50
NTS



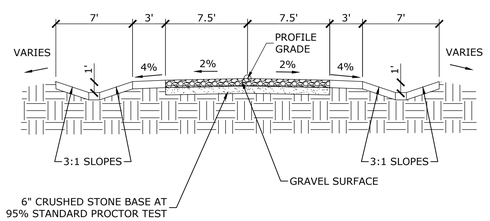
WRF ACCESS ROAD - TYPICAL SECTION
STA 2+13.50 TO STA 2+50
STA 2+75.00 TO STA 4+40.00
NTS



WRF ACCESS ROAD- TYPICAL SECTION
STA 2+50.00 TO STA 2+75.00
NTS



WRF ACCESS ROAD- TYPICAL SECTION
STA 4+40.00 TO STA 8+77.50
NTS



PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

REVISIONS AND RECORD OF USE

DATE	
04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

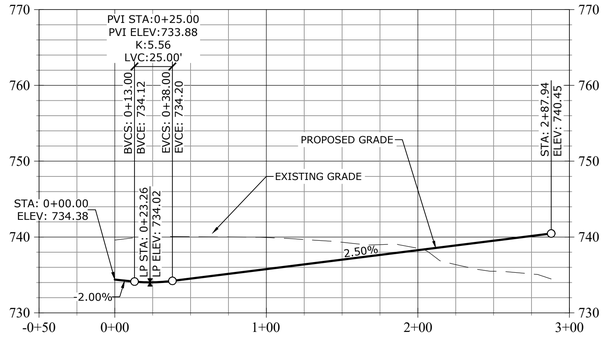
CIVIL
WATER RECLAMATION FACILITY
PROPOSED ROAD PROFILES

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-07
SHEET
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FD10000



NOTES:

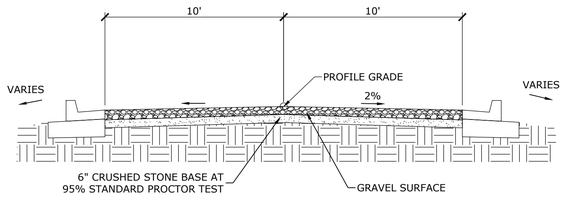
1. CONTRACTOR SHALL SUBMIT COPY OF PLAN AND PROFILES OF ACCESS ROAD FROM WATER RECLAMATION FACILITY SITE TO EXISTING ROAD OR STREET. SLOPE OF ACCESS ROAD SHALL COMPLY WITH SPALDING COUNTY REGULATIONS.
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(2) SIDE ACCESS ROAD PROFILE

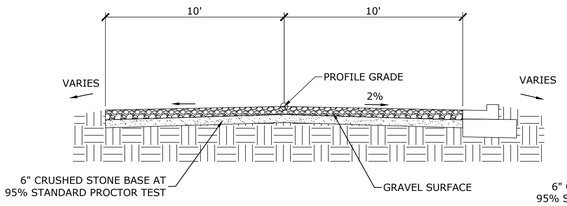
1" = 50'
0 25 50 100

1" = 10'
0 5 10 20

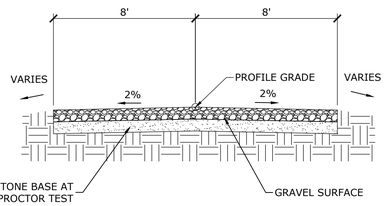
SIDE ACCESS ROAD - TYPICAL SECTION
STA 0+16.00 TO STA 0+38.89
NTS



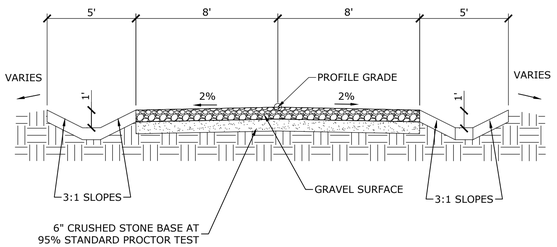
SIDE ACCESS ROAD - TYPICAL SECTION
STA 0+38.89 TO STA 0+83.05
NTS



SIDE ACCESS ROAD - TYPICAL SECTION
STA 0+90.00 TO STA 2+22.00
NTS



SIDE ACCESS ROAD - TYPICAL SECTION
STA 2+22.00 TO STA 2+56.00
NTS



PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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LAKESHORE ENGINEERING
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RIVER TO TAP
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WWW.R2TINC.COM

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

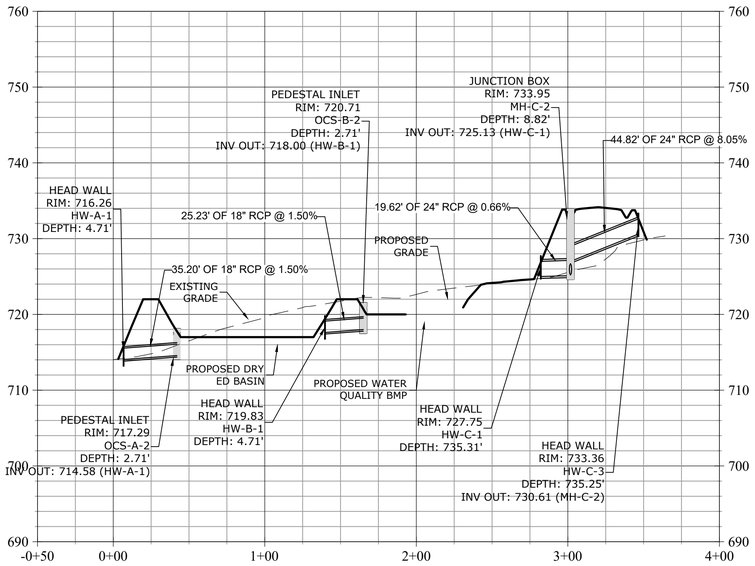
CIVIL
WATER RECLAMATION FACILITY
PROPOSED ROAD PROFILES

DESIGNED:
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-08
SHEET
29 OF 74

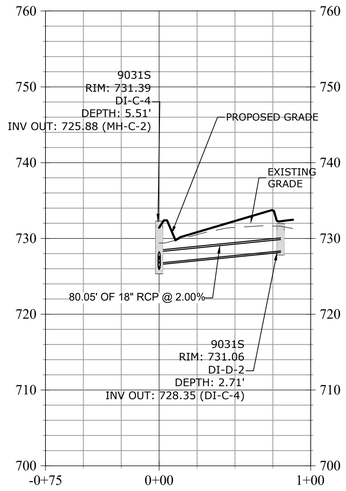
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1 STORM LINE 1

1" = 50' 0 25 50 100

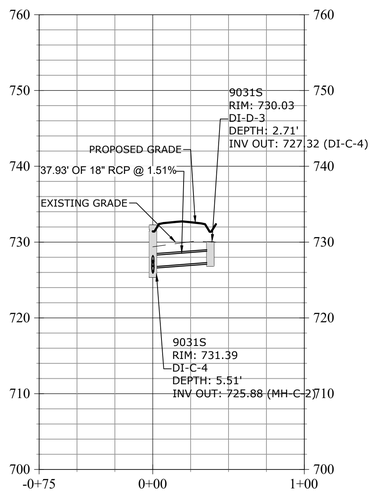
1" = 10' 0 5 10 20



2 STORM LINE 2

1" = 50' 0 25 50 100

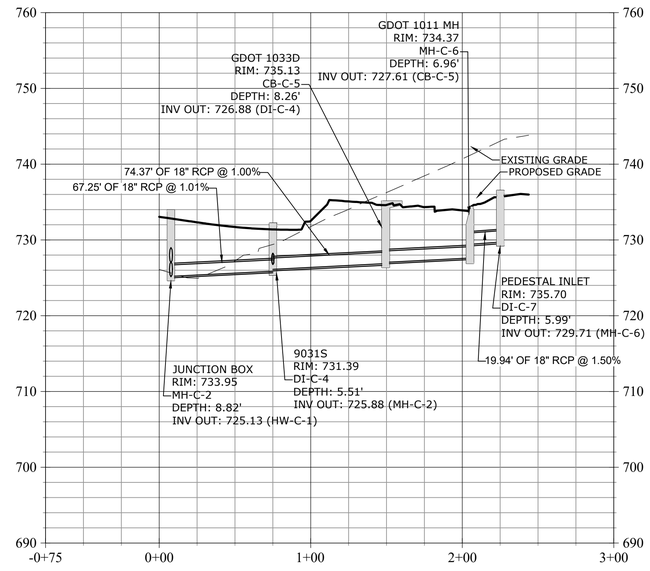
1" = 10' 0 5 10 20



3 STORM LINE 3

1" = 50' 0 25 50 100

1" = 10' 0 5 10 20



4 STORM LINE 4

1" = 50' 0 25 50 100

1" = 10' 0 5 10 20

HORIZONTAL GRAPHIC SCALE

40 0 40 80

(IN FEET)

1 inch = 40 ft.

VERTICAL GRAPHIC SCALE

10 0 10 20

(IN FEET)

1 inch = 10 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

NO.	DATE	REVISIONS AND RECORD OF USE
	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WATER RECLAMATION FACILITY
PROPOSED STORMWATER PROFILES

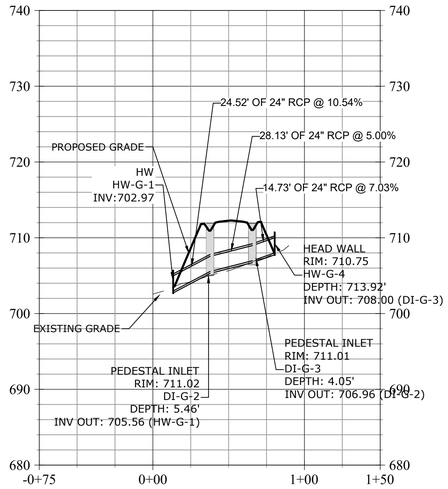
DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-09
SHEET
30 OF 74

FD10000

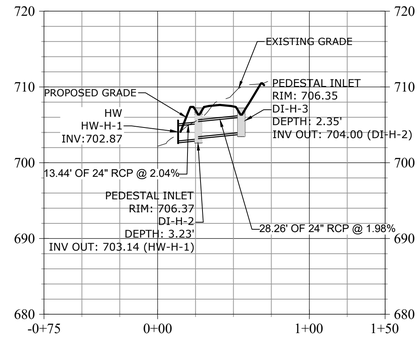
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5 STORM LINE 5

1" = 50'
0 25 50 100

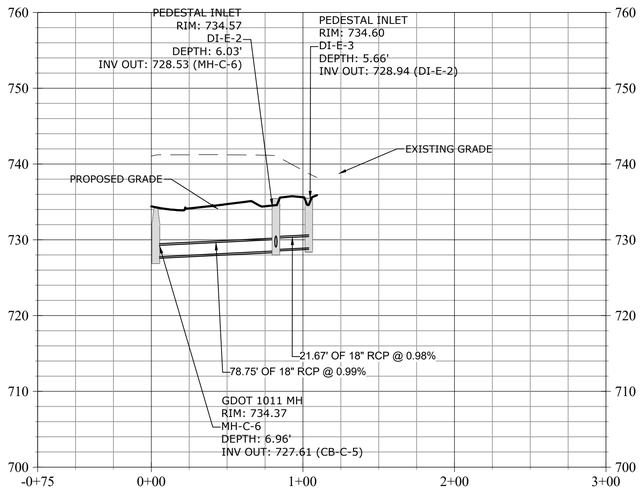
1" = 10'
0 5 10 20



6 STORM LINE 6

1" = 50'
0 25 50 100

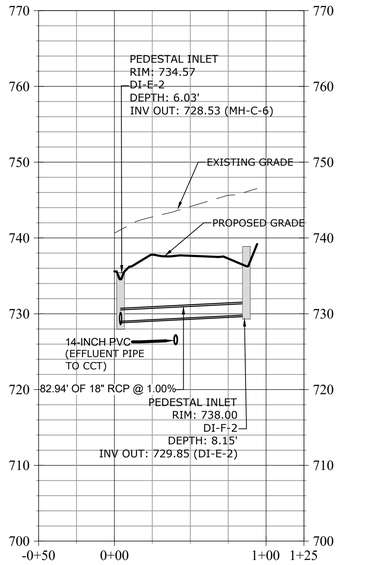
1" = 10'
0 5 10 20



7 STORM LINE 7

1" = 50'
0 25 50 100

1" = 10'
0 5 10 20



8 STORM LINE 8

1" = 50'
0 25 50 100

1" = 10'
0 5 10 20

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

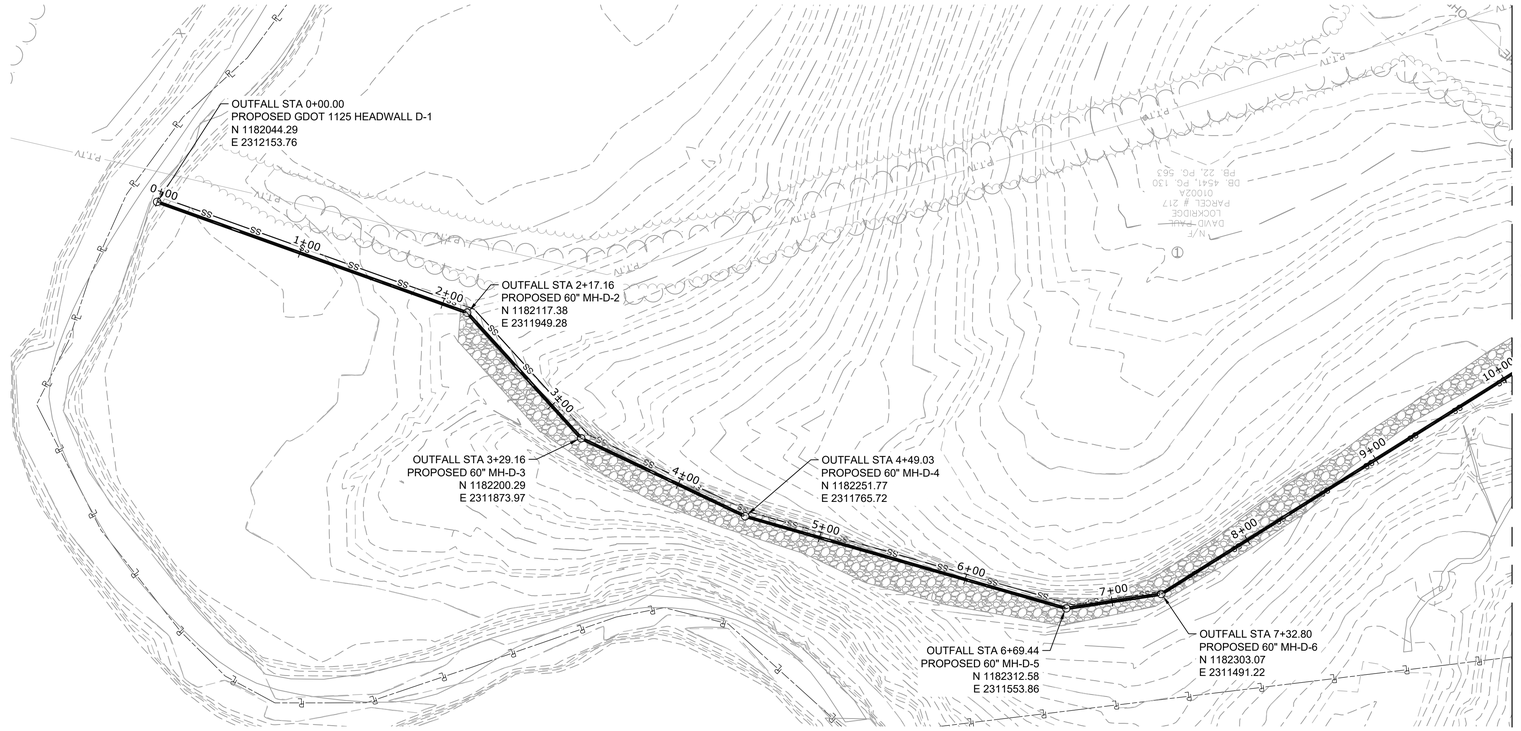
CIVIL
WATER RECLAMATION FACILITY
PROPOSED STORMWATER PROFILES

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

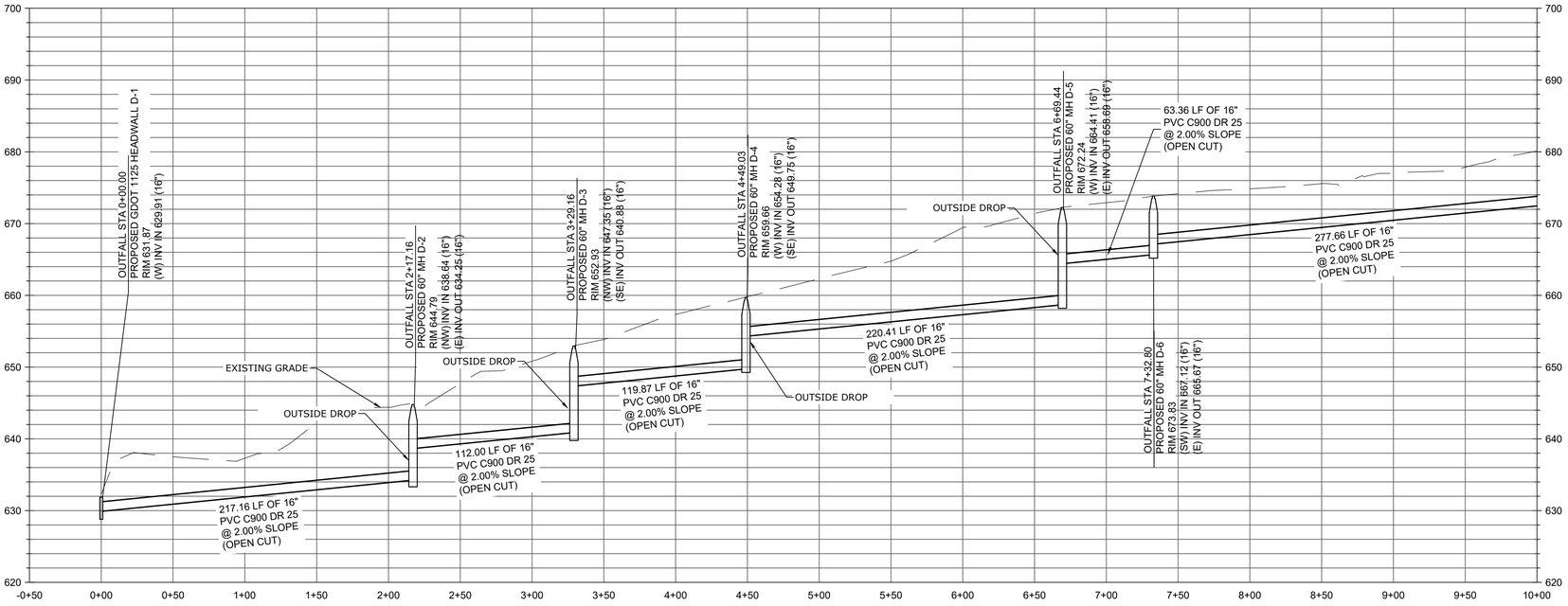
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R2T TASK ORDER NO.
G1070001

WF-10
SHEET
31 OF 74

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MATCHLINE - STA10+00
FOR CONTINUATION SEE SHEET WF-10



PRELIMINARY - NOT FOR CONSTRUCTION

10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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0	JAS	AR	GA

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10/01/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

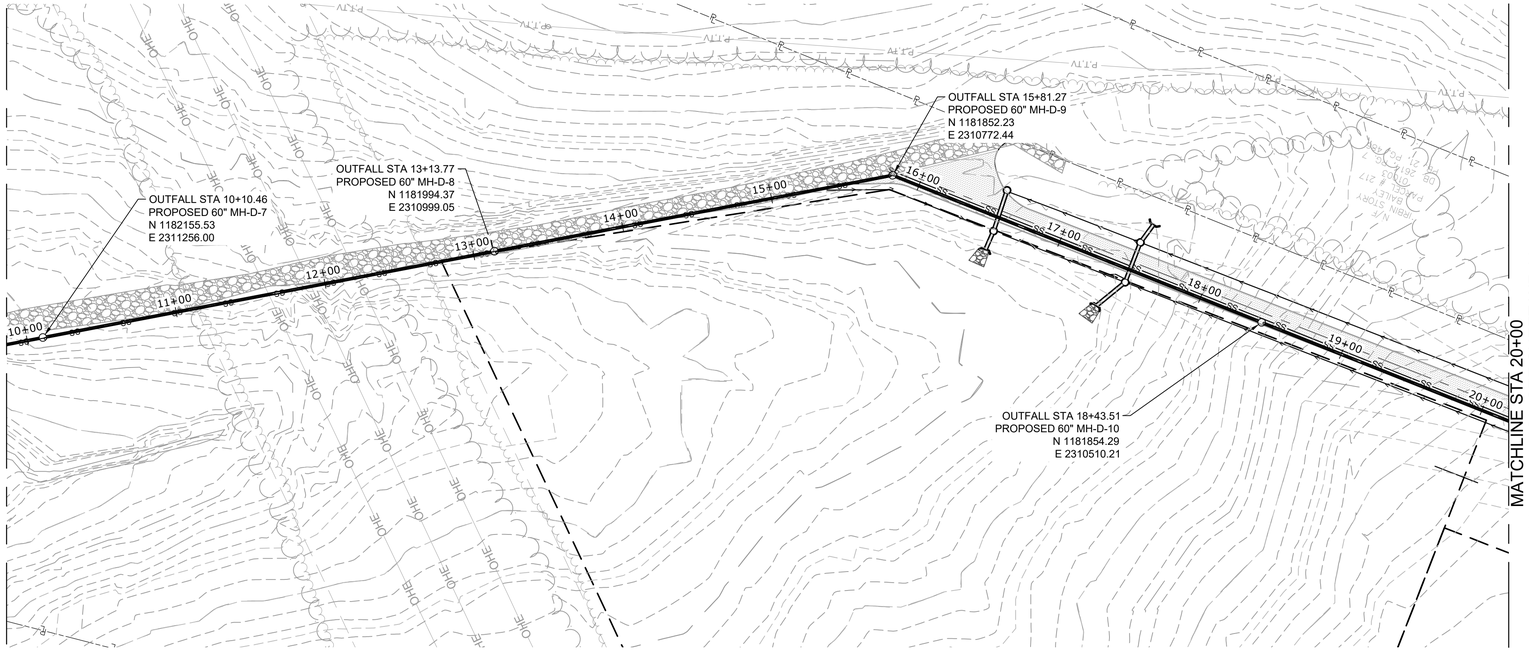
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WATER RECLAMATION FACILITY
OUTFALL PLAN AND PROFILE - STA 0+00 TO STA 10+00

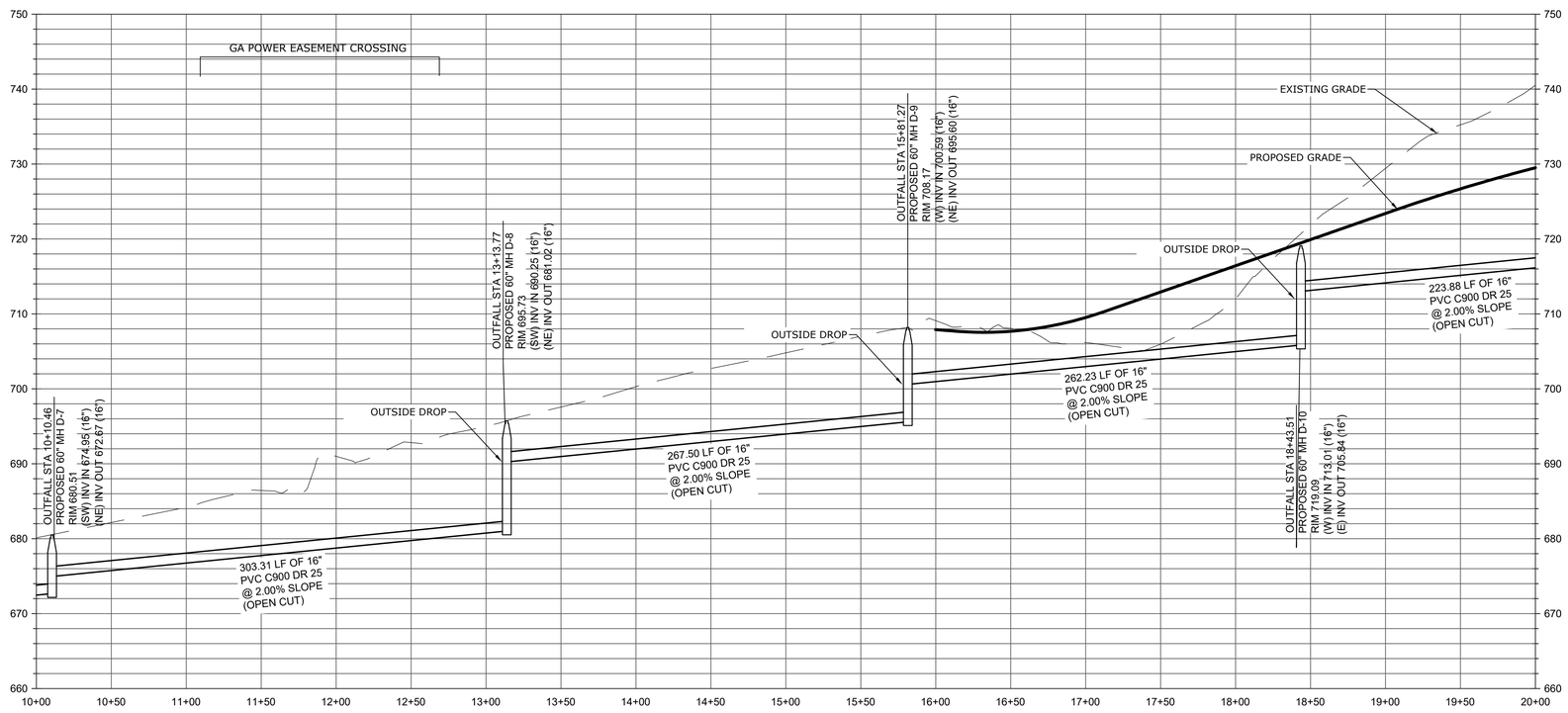
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-11
SHEET
30 OF 74

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PRELIMINARY - NOT FOR CONSTRUCTION



10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

0 1/2 1
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
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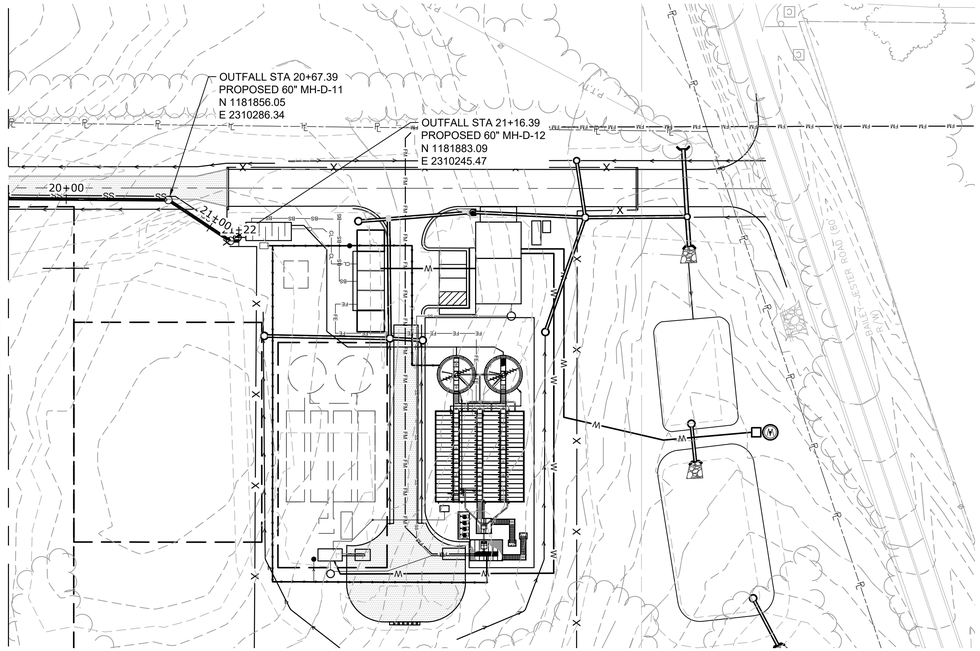
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WATER RECLAMATION FACILITY
OUTFALL PLAN AND PROFILE - STA 10+00 TO STA 20+00

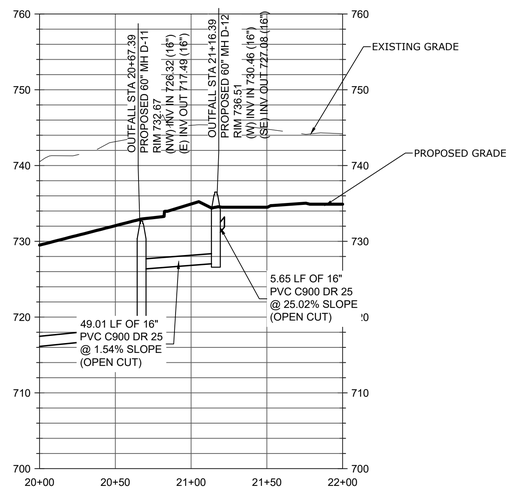
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-12
SHEET
31 OF 74

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10' 0 10' 20'
VERTICAL SCALE 1"=10'

50' 25' 0 50' 100'
HORIZONTAL SCALE 1"=50'

0 1/2 1
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STAMP:

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0	JAS	AR	GA	10/01/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
WATER RECLAMATION FACILITY
OUTFALL PLAN AND PROFILE - STA 20+00 TO STA 21+22

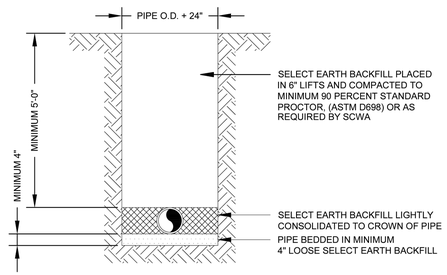
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

WF-13
SHEET
32 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

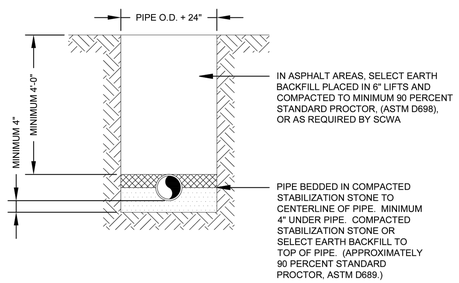
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NOTES:

1. DUCTILE IRON PIPE FOR SANITARY SEWAGE FORCE MAINS SHALL BE BEDDED IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51, TYPE 3 LAYING CONDITION.
2. MINIMUM DEPTH OF COVER SHALL BE 5'-0" UNLESS OTHERWISE APPROVED BY SCWA.

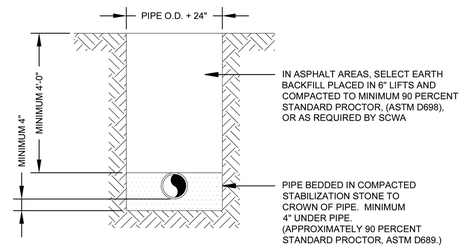
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
DUCTILE IRON SANITARY SEWAGE FORCE MAIN TRENCH DETAIL	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. PS26



NOTES:

1. DUCTILE IRON PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE BEDDED IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51, TYPE 5 LAYING CONDITION.

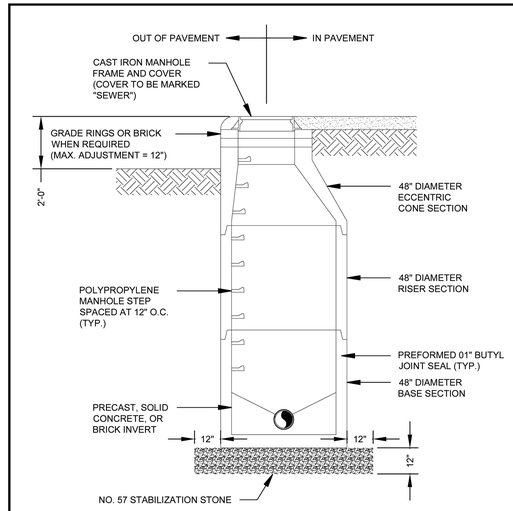
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
DUCTILE IRON GRAVITY SEWER TRENCH DETAIL	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S02



NOTES:

1. SDR 26 POLYVINYL CHLORIDE (PVC) PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE BEDDED IN ACCORDANCE WITH AWWA C605, TYPE 5 LAYING CONDITION.
2. MAXIMUM DEPTH OF COVER SHALL BE 16'-0".

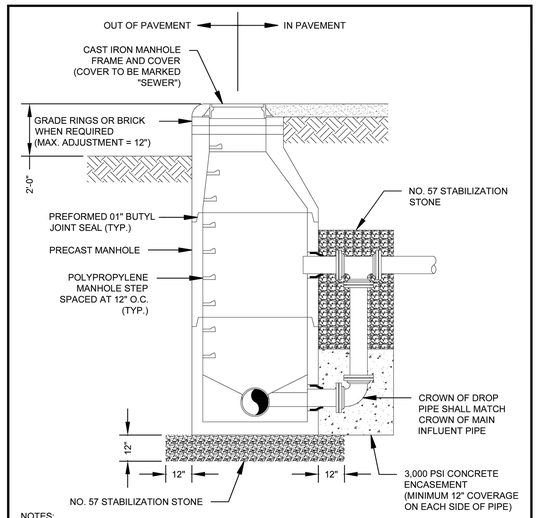
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
PVC SDR 26 GRAVITY SEWER TRENCH DETAIL	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S03



NOTES:

1. MANHOLES LOCATED OUTSIDE OF PAVEMENT SHALL HAVE WATER TIGHT BOLT-DOWN LIDS AND 2 FEET ABOVE FINISHED GRADE WITH FRAME CAST INTO THE CONE SECTION.
2. MANHOLES SHALL HAVE A MINIMUM DROP OF 0.10 FEET FROM INFLUENT INVERT TO EFFLUENT INVERT.

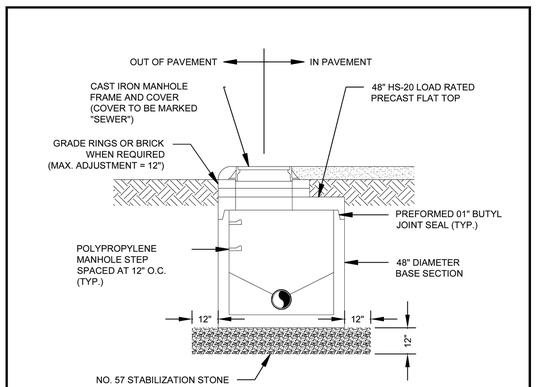
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
STANDARD SANITARY SEWER MANHOLE	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S05



NOTES:

1. OUTSIDE DROPS REQUIRED WHEN INSIDE DROP IS GREATER THAN 2 FEET.
2. MANHOLES LOCATED OUTSIDE OF PAVEMENT SHALL HAVE WATER TIGHT BOLT-DOWN LIDS AND 2 FEET ABOVE FINISHED GRADE WITH FRAME CAST INTO THE CONE SECTION.
3. PIPE ENCASED IN CONCRETE SHALL BE WRAPPED WITH MINIMUM 10 MIL PLASTIC.

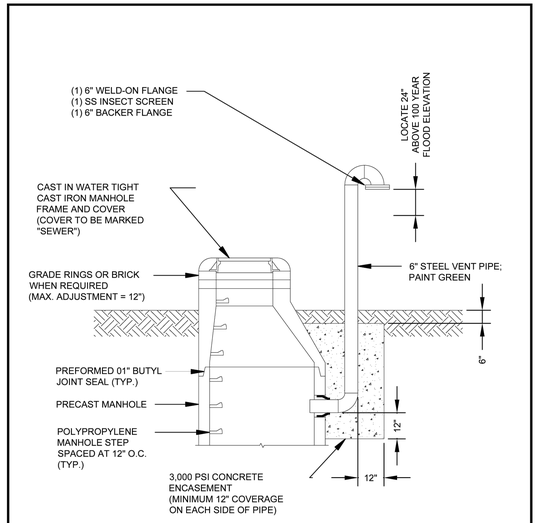
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
SANITARY MANHOLE WITH OUTSIDE DROP	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S06



NOTES:

1. MANHOLES LOCATED OUTSIDE OF PAVEMENT SHALL HAVE WATER TIGHT BOLT-DOWN LIDS AND 2 FEET ABOVE FINISHED GRADE WITH FRAME CAST INTO THE CONE SECTION.

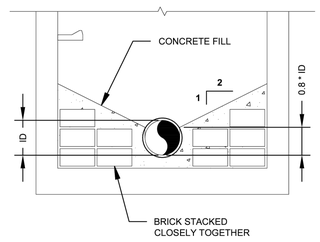
SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
SHALLOW SANITARY SEWER MANHOLE	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S08



NOTES:

1. MANHOLES LOCATED OUTSIDE OF PAVEMENT SHALL HAVE WATER TIGHT BOLT-DOWN LIDS AND 2 FEET ABOVE FINISHED GRADE WITH FRAME CAST INTO THE CONE SECTION.

SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
SANITARY SEWER MANHOLE VENT	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S09



NOTES:

1. CONCRETE FILL SHALL BE 3 PARTS SAND TO 1 PART CEMENT.
2. BRICK SHALL BE COMMON SMOOTH RED BRICK.
3. PROVIDE A MINIMUM OF 2" OF COVER OVER BRICK.

SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
STANDARD MANHOLE INVERT	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S10

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

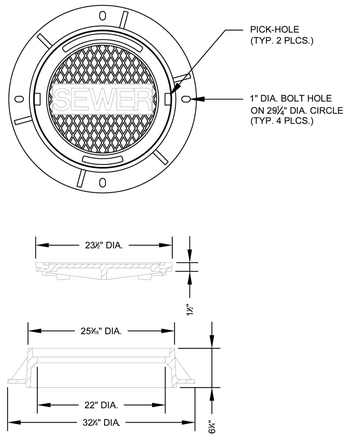
CIVIL
SEWER DETAILS

DESIGNED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-01
SHEET
19 OF 75

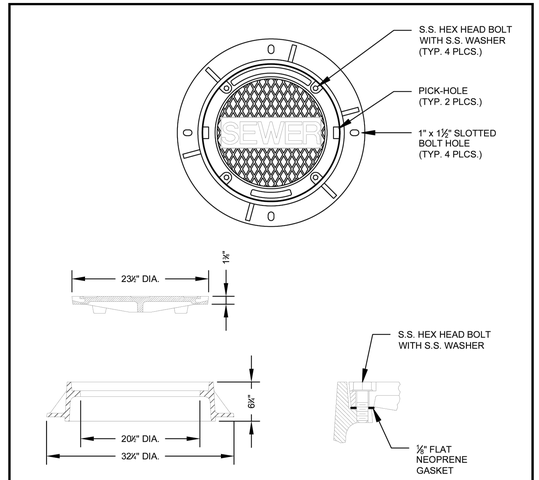
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NOTES:

1. MANHOLE FRAME AND COVER SHALL BE HEAVY DUTY DUCTILE IRON CASTINGS.
2. BEARING SURFACES SHALL BE MACHINED.

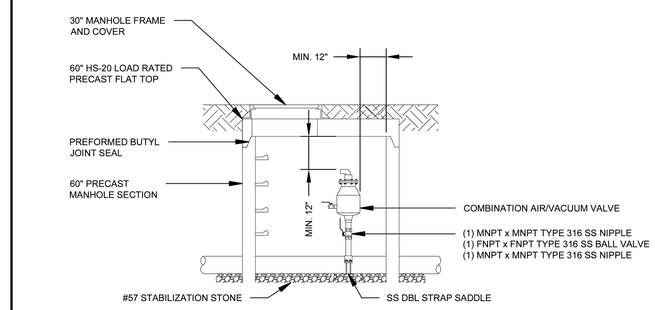
SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
STANDARD SANITARY SEWER MANHOLE LID		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. S11



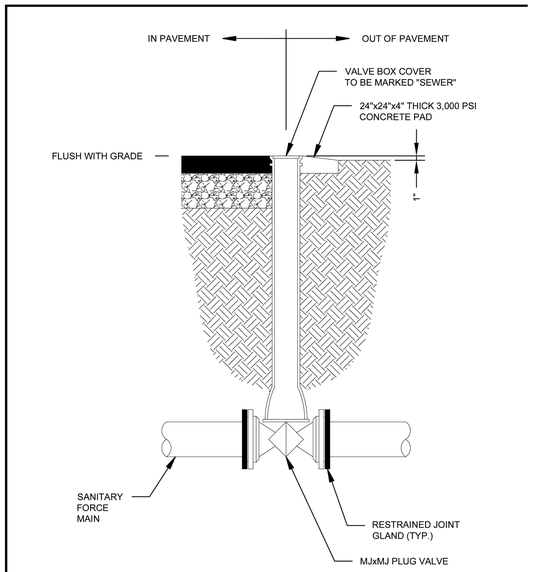
NOTES:

1. MANHOLE FRAME AND COVER SHALL BE HEAVY DUTY DUCTILE IRON CASTINGS.
2. BEARING SURFACES SHALL BE MACHINED.

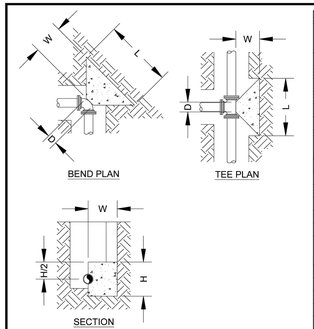
SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
WATERTIGHT SANITARY SEWER MANHOLE LID		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. S12



SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
SANITARY SEWAGE COMBINATION AIR/VACUUM VALVE (3" AND SMALLER)		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. PS30



SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
SANITARY SEWAGE FORCE MAIN ISOLATION VALVE		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. PS29



TEES

PIPE DIA. (IN)	D DIM.	L DIM.	H DIM.	W DIM.	CONC. VOLUME (YD³)	THRUST (LBF)
4	0'-6"	2'-4"	1'-2"	0'-11"	0.06	4,072
6	0'-8"	3'-4"	1'-8"	1'-4"	0.16	8,413
8	0'-9"	4'-5"	2'-3"	1'-10"	0.39	14,473
10	0'-11"	5'-5"	2'-9"	2'-3"	0.73	21,773
12	1'-1"	6'-5"	3'-3"	2'-8"	1.20	30,791

90° BENDS

PIPE DIA. (IN)	D DIM.	L DIM.	H DIM.	W DIM.	CONC. VOLUME (YD³)	THRUST (LBF)
4	0'-5"	2'-9"	1'-5"	1'-2"	0.10	5,758
6	0'-8"	4'-0"	2'-0"	1'-8"	0.29	11,898
8	0'-9"	5'-3"	2'-8"	2'-3"	0.67	20,468
10	0'-11"	6'-5"	3'-3"	2'-9"	1.21	30,792
12	1'-1"	8'-7"	3'-10"	3'-3"	2.00	43,545

45° BENDS

PIPE DIA. (IN)	D DIM.	L DIM.	H DIM.	W DIM.	CONC. VOLUME (YD³)	THRUST (LBF)
4	0'-4"	2'-0"	1'-0"	0'-10"	0.04	3,116
6	0'-7"	2'-11"	1'-6"	1'-2"	0.11	6,439
8	0'-8"	3'-10"	1'-11"	1'-7"	0.25	11,077
10	0'-11"	4'-9"	2'-5"	1'-11"	0.49	16,664
12	1'-1"	6'-7"	2'-10"	2'-3"	0.79	23,566

22½° BENDS

PIPE DIA. (IN)	D DIM.	L DIM.	H DIM.	W DIM.	CONC. VOLUME (YD³)	THRUST (LBF)
4	0'-5"	1'-5"	0'-9"	0'-6"	0.01	1,589
6	0'-7"	2'-1"	1'-1"	0'-9"	0.04	3,283
8	0'-9"	2'-9"	1'-5"	1'-0"	0.09	5,647
10	0'-10"	3'-4"	1'-8"	1'-3"	0.16	8,495
12	1'-0"	4'-0"	2'-0"	1'-6"	0.28	12,014

NOTES:

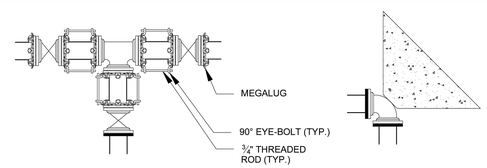
1. THRUST BLOCK DIMENSIONS ARE BASED ON THE FOLLOWING DESIGN CRITERIA.

   WORKING PRESSURE = 150 PSI
   SOIL BEARING CAPACITY = 1,500 PSF
   SAFETY FACTOR = 1.5

   THESE ARE THE MINIMUM DESIGN CRITERIA. IF ACTUAL WORKING PRESSURE IS GREATER THAN 150 PSI OR IF ACTUAL SOIL BEARING CAPACITY IS LESS THAN 1,500 PSF, DIMENSIONS SHALL BE RECALCULATED.

2. THRUST BLOCK CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
3. THRUST BLOCK SHALL BEAR AGAINST UNDISTURBED SOIL.
4. A MINIMUM 10 MIL PLASTIC SHEET SHALL BE PLACED BETWEEN CONCRETE AND PIPE.
5. ALL BOLTS SHALL REMAIN ACCESSIBLE. DO NOT COVER WITH CONCRETE.

SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
CONCRETE THRUST BLOCK		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. PS32



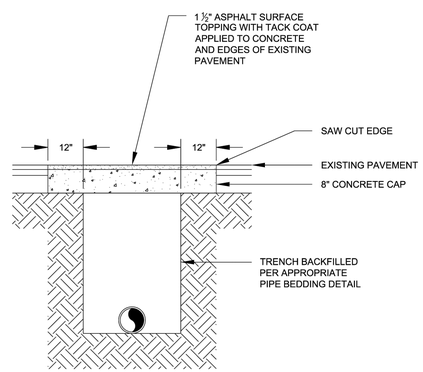
PIPE DIA. (IN)	ROD SIZE (IN)	# OF RODS
6	¾"	2
8	¾"	4
10	¾"	4
12	¾"	4
14	¾"	4
16	¾"	6

TIE-ROD CHART

NOTES:

1. RESTRAINED JOINT LENGTHS SHALL BE CALCULATED BY THE DESIGN ENGINEER. CALCULATIONS SHALL BE SUBMITTED TO SCWA.
2. THREADED ROD SHALL HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI.

SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2024
THRUST RESTRAINT		REVISED: N/A
		SCALE: N.T.S.
		DETAIL NO. PS34



NOTES:

1. THIS DETAIL IS THE MINIMUM PAVEMENT REPAIR REQUIREMENT. HENRY COUNTY DOT OR GEORGIA DOT PAVEMENT REPAIR DETAILS SHALL SUPERCEDE THIS DETAIL AND SHALL BE USED WHERE APPLICABLE.
2. CONCRETE FOR CONCRETE CAP SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI @ 28 DAYS.

SPALDING COUNTY WATER AUTHORITY		SPEC. DATE: 2023
PAVEMENT REPAIR		REVISED: 01/01/2018
		SCALE: N.T.S.
		DETAIL NO. S34

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
SEWER DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

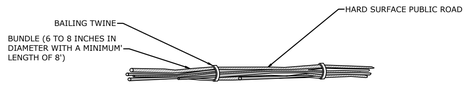
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-02
SHEET
20 OF 75

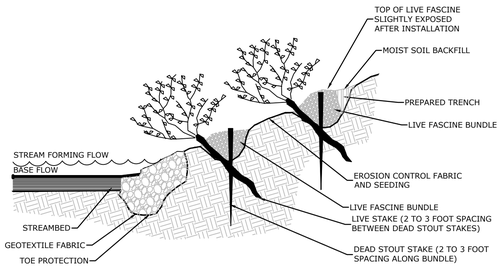
FD10000
PLOTTED: 4/4/2025 8:46 AM FILE: P:\01 Active Projects\g107 - Lakeshore Engineering\g1070001 - Pdb Services For 2024 Sewer Implementation\31_authoringcad\CIVIL\CIVIL DETAILS.dwg

STREAMBANK STABILIZATION

FASCINE BUNDLE DETAIL



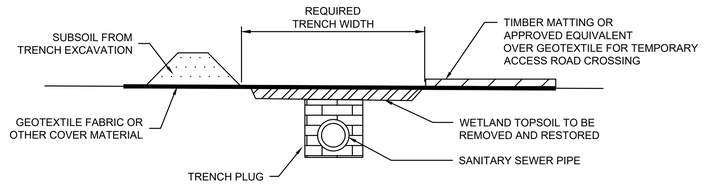
LIVE FASCINE CROSS-SECTION DETAIL



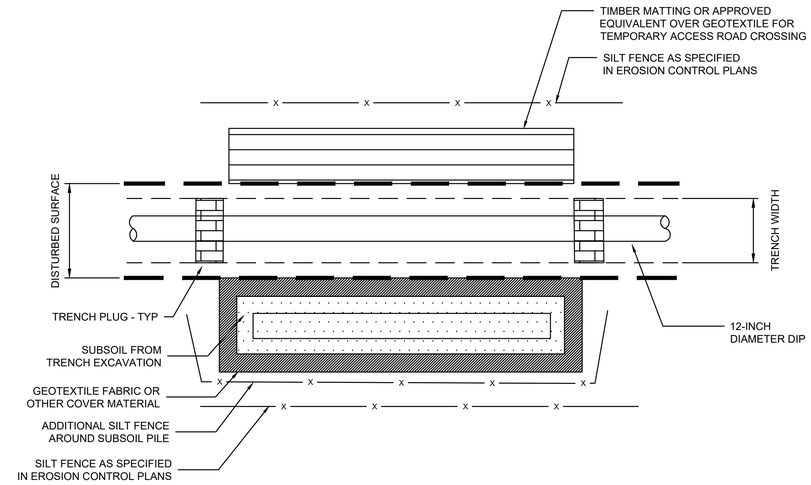
NOTES:
1. ROOTED/LEAFED CONDITION OF THE LIVING PLANT MATERIAL IS NOT REPRESENTATIVE OF THE TIME OF INSTALLATION.
2. LIVE FASCINES SHALL BE PREPARED FROM FRESHLY CUT DORMANT PLANTS AND INSTALLED WITHIN 8 HOURS OF THE TIME THE MATERIAL IS HARVESTED, UNLESS PROPERLY STORED.
3. LIVE FASCINE SHALL BE OBTAINED FROM SOURCES APPROVED BY ENGINEER.
4. LIVE FASCINES SHALL BE 4"-8" IN DIAMETER WITH MINIMUM 8' LENGTH.
5. BEGINNING AT THE BASE OF THE SLOPE, A TRENCH SHALL BE DUG LARGE ENOUGH TO CONTAIN THE LIVE FASCINES. THE LIVE FASCINES SHALL BE PLACED IN THE TRENCH. WHERE ENDS MEET IN THE TRENCH, THE FASCINES SHALL OVERLAP BY 18".
6. THE TRENCH SHALL BE BACKFILLEDWITH MOIST SOIL AND HAND TAMPED. THE TOP OF THE FASCINE SHALL BE SLIGHTLY EXPOSED WHEN THE INSTALLATION IS COMPLLETE AS SHOWN ON CROSS SECTION.
7. SEED OR OTHER EROSION CONTROL MATERIAL SHALL BE USED BETWEEN THE FASCINE ROWS, AS SPECIFIED IN THE CONTRACT DOCUMENTS.
8. LIVE FASCINE TRENCHES SHALL BE FROM 3' TO 8' APART, ACCORDING TO SLOPE AND/OR CONTRACT DOCUMENTS.

Sb

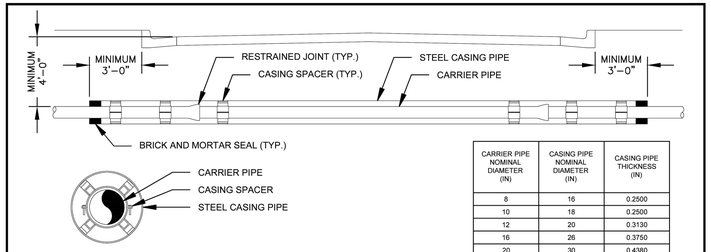
Figure 6-9.2 Illustration of a Live Fascine



WETLAND TRENCH CROSSING SECTION



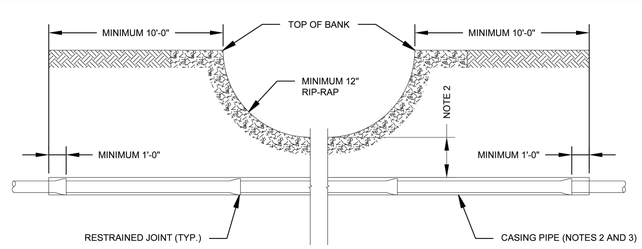
WETLAND TRENCH CROSSING PLAN



CARRIER PIPE NOMINAL DIAMETER (IN)	CASING PIPE NOMINAL DIAMETER (IN)	CASING PIPE THICKNESS (IN)
8	16	0.2500
10	18	0.2500
12	20	0.3130
16	26	0.3750
20	30	0.4380
24	36	0.5000
30	42	0.5000
36	48	0.6250
42	54	0.7500

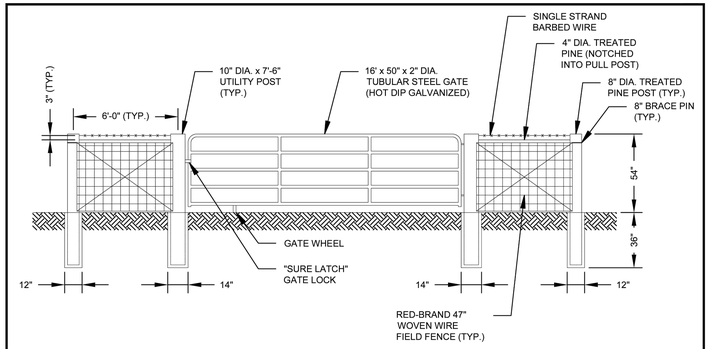
NOTES:
1. JOINTS INSIDE CASING PIPE SHALL BE RESTRAINED.
2. PROVIDE A MINIMUM OF 2 CASING SPACERS PER JOINT OF PIPE.
3. ENDS OF CASING PIPE SHALL BE SEALED WITH 8" BRICK AND CEMENT MORTAR.
4. ALL COUNTY ROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH SPALDING COUNTY DOT STANDARDS AND PERMIT REQUIREMENTS.
5. ALL STATE HIGHWAY CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT STANDARDS AND PERMIT REQUIREMENTS.
6. ALL RAILROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION REGULATIONS AND IN ACCORDANCE WITH PERMIT REQUIREMENTS.

SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
TYPICAL JACK AND BORE DETAIL	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S13



NOTES:
1. PIPE USED FOR CREEK CROSSINGS SHALL BE ENCASED. AT LEAST ONE JOINT BEYOND THE END OF CASING SHALL BE RESTRAINED, OR AS REQUIRED BY SCWA.
2. MINIMUM DEPTH OF COVER SHALL BE 12 INCHES.
3. REFER TO DETAIL S13 FOR GRAVITY SEWER AND P25 FOR FORCE MAIN CASING DIAMETERS.
4. PLACE STONE RIP-RAP APPROXIMATELY 5 FEET UPSTREAM AND 5 FEET DOWNSTREAM FROM CENTERLINE OF PIPE ALONG CREEK BED.

SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
CREEK CROSSING	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S14



NOTES:
1. FENCE POSTS SHALL BE EMBEDDED IN CLASS "B" CONCRETE.
2. WOVEN WIRE FIELD FENCE SHALL BE ATTACHED TO FENCE POSTS WITH 1 ½" GALVANIZED STAPLES.

SPALDING COUNTY WATER AUTHORITY	SPEC. DATE: 2024
SEWER EASEMENT ACCESS GATE	REVISED: N/A
	SCALE: N.T.S.
	DETAIL NO. S26

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

NO.	DATE	REVISIONS AND RECORD OF USE
1	04/21/25	80% PERMIT REVIEW SUBMITTAL
0	10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
SEWER DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

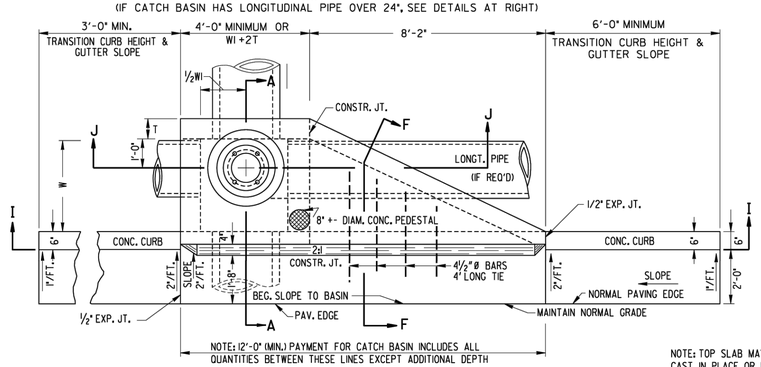
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-03
SHEET 21 OF 75

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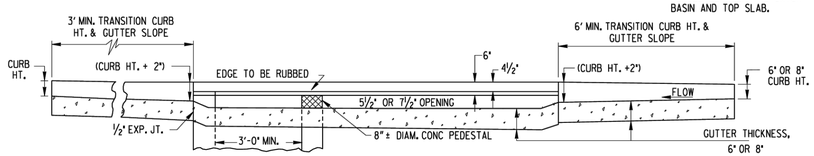
CATCH BASIN

(IF CATCH BASIN HAS LONGITUDINAL PIPE OVER 24", SEE DETAILS AT RIGHT)



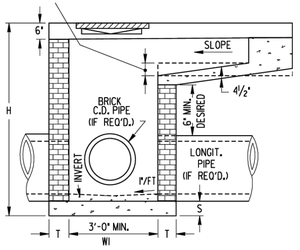
PLAN

NOTE: TOP SLAB MAY BE CAST IN PLACE OR PRECAST. IF SLAB IS CAST IN PLACE, BUILDERS PAPER IS TO BE PLACED BETWEEN THE CATCH BASIN AND TOP SLAB.

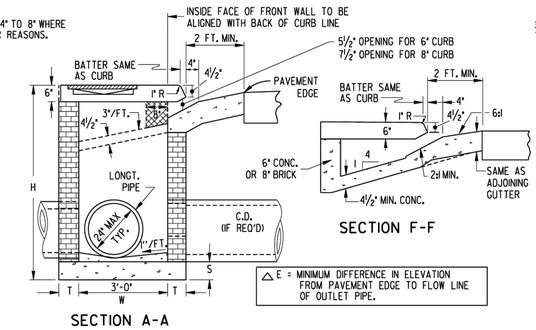


SECTION I-I

NOTE: NORMAL SLOPE OF CONCRETE APRON TO BE INCREASED BY 4" TO 8" WHERE "H" PERMITS AND LONGITUDINAL PIPE IS LOWERED FOR OTHER REASONS.



SECTION J-J

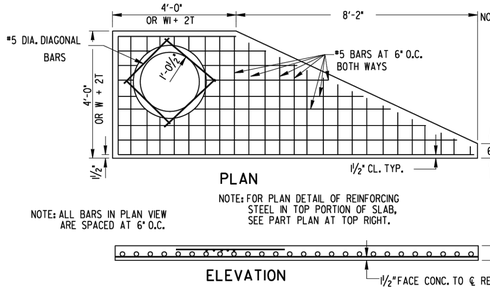


SECTION A-A

SECTION F-F

△E = MINIMUM DIFFERENCE IN ELEVATION FROM PAVEMENT EDGE TO FLOW LINE OF OUTLET PIPE.

DETAIL OF TOP REINFORCED CONCRETE SLAB



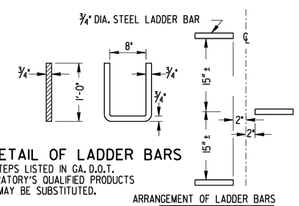
PLAN

NOTE: ALL BARS IN PLAN VIEW ARE SPACED AT 6" O.C.

NOTE: FOR PLAN DETAIL OF REINFORCING STEEL IN TOP PORTION OF SLAB, SEE PART PLAN AT TOP RIGHT.

ELEVATION

NOTE: ALL CATCH BASINS WILL HAVE STEPS OR LADDER BARS, NUMBER & LOCATION TO BE AS DIRECTED BY THE ENGINEER.



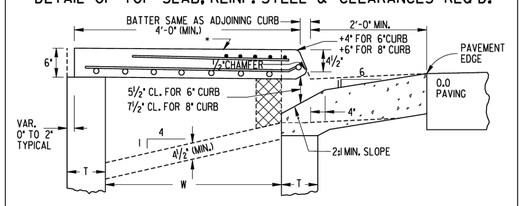
DETAIL OF LADDER BARS

NOTE: M.H. STEPS LISTED IN GA. D.O.T. LABORATORY'S QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED.

ARRANGEMENT OF LADDER BARS

W OR W1 (MAX.)	BOTTOM SLAB MATERIALS	S
TO 4'-6"	NON-REINF. CONCRETE	6"
	OR BRICK	8"
OVER 4'-6"	CONC. REINF. W1 *4 BARS (2" O.C. BOTH WAYS 2" CL FROM SLAB TOP	8"

DETAIL OF TOP SLAB, REINF. STEEL & CLEARANCES REQ'D.

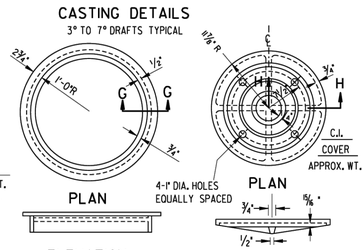


NOT TO SCALE

• SLOPE TOP TO MATCH ADJACENT SURFACES

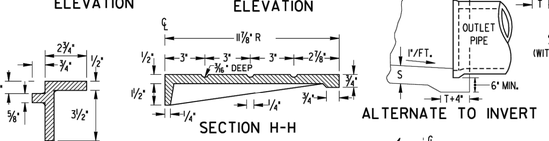
CASTING DETAILS

3° TO 7° DRAFTS TYPICAL



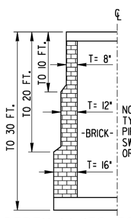
PLAN PLAN

ELEVATION ELEVATION



SECTION H-H

SECTION G-G

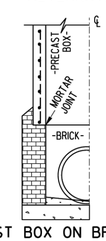


DEPTH LIMITS FOR INCREASING "T"

TYPICAL MIN. DIMENSIONS			
PIPE DIA.	H (MIN.)	W or W1	△E (MIN)
12	4'-4"	3'-0"	3'-3"
15	4'-7"	3'-0"	3'-6"
18	4'-10"	3'-0"	3'-9"
24	5'-6"	3'-0"	4'-4"
30	6'-2"	3'-7"	5'-0"
36	6'-10"	4'-6"	5'-7"
42	7'-4"	5'-3"	5'-11"
48	8'-0"	6'-0"	6'-6"
54	8'-6"	6'-8"	7'-0"
60	9'-2"	7'-4"	7'-7"

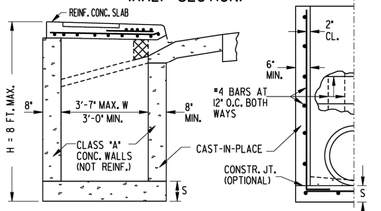
NOTE: THE MIN. H & MIN. △E GIVEN IN ABOVE TABLE ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONC. PIPE AND MAY BE VARIED IF CONDITIONS PERMIT WITH VARIED DIMENSIONS SPECIFIED IN THE PLANS OR DIRECTED BY THE ENGINEER. W. & W. DIMENSIONS DO NOT HAVE TO BE EQUAL.

NOTE: SEE SEPARATE STDS. FOR PRECAST ALTERNATES ADAPTERS (STD. 1040) WILL BE REQUIRED WITH CIRCULAR PRE-CAST UNITS. PRECAST BOX, CIRCULAR AND/OR BUILT-IN-PLACE CONSTR. MAY BE USED IN COMBINATIONS.



PRECAST BOX ON BRICK (HALF-SECTION)

NOTE: TYPICAL TREATMENT FOR SKEWED PIPE ARE; CIRCULAR PRECAST SWIVEL SECTIONS; PIPE ELBOWS OR INCREASED BOX SIZE.



NON-REINFORCED SMALL BASIN (W1 NOT OVER 3'-7")

REINFORCED CONCRETE (HALF-SECTION)

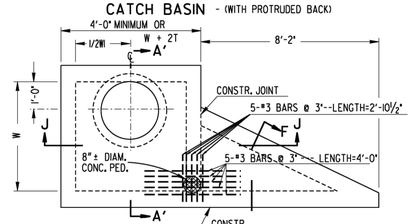
CONSTRUCTION ALTERNATES

NOTE: DETAILS NOT SHOWN ABOVE FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO BRICK CATCH BASIN DETAILS. SEE SEPARATE STANDARDS FOR PRECAST ALTERNATES.

GDOT Georgia Department of Transportation | P. I. No. XXXXXXX

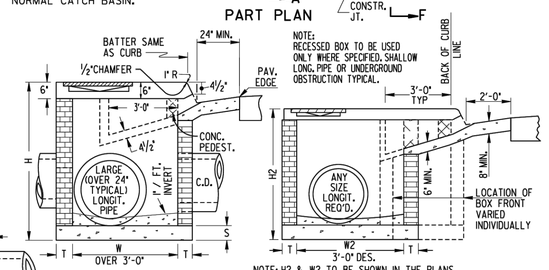
(TYPICAL FOR CATCH BASIN WITH LARGE LONGITUDINAL PIPE OR RECESSED BOX)

CATCH BASIN - (WITH PROTRUDED BACK)



PART PLAN

NOTE: CATCH BASIN DETAILS NOT SHOWN HERE WILL BE SIMILAR TO THOSE AT LEFT FOR NORMAL CATCH BASIN.

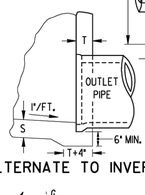


SECTION A'-A'
(WITH LARGE LONGITUDINAL PIPE)

NOTE:
RECESSED BOX TO BE USED ONLY WHERE SPECIFIED. SHALLOW LONG. PIPE OR UNDERGROUND OBSTRUCTION TYPICAL.

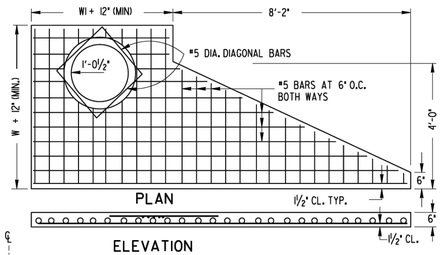
NOTE: H2 & W2 TO BE SHOWN IN THE PLANS

SECTION A'-A'
(WITH RECESSED BOX)



ALTERNATE TO INVERT

DETAIL OF TOP REINFORCED CONCRETE SLAB



PLAN ELEVATION

NOTE: PIPE SIZES, NUMBER, ALIGNMENT, AND INVERT SHOWN ARE ILLUSTRATIVE. SEE PLANS FOR SPECIFICS. INVERTS TO BE FORMED WITH GROUT OR CONCRETE AS DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD CATCH BASINS

FOR USE WITH CURB (6"HT. OR 8" HT.) & GUTTER

NOT TO SCALE REDRAWN JULY 2024 AUG. 1982

NUMBER 1033D

REVISION DATE

BY REV. & REDR. R.M.U. TRA. G.M.E. CHK. R.K.C.

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) STATE HIGHWAY ENGINEER

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

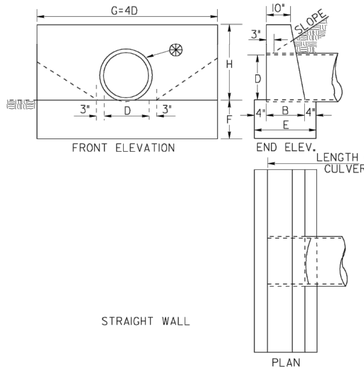
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R2T TASK ORDER NO. G1070001

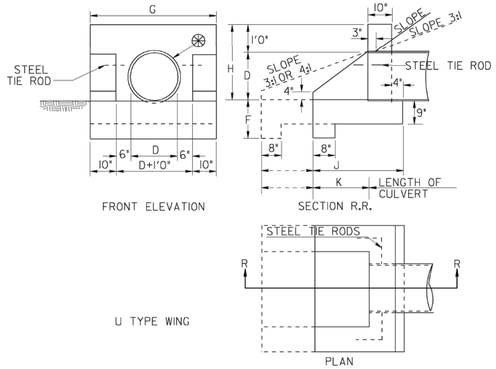
CD-04
SHEET 37 OF 74

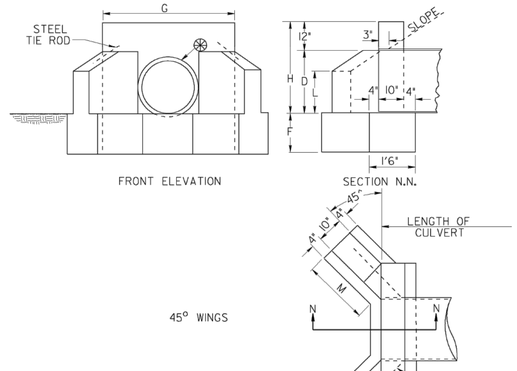
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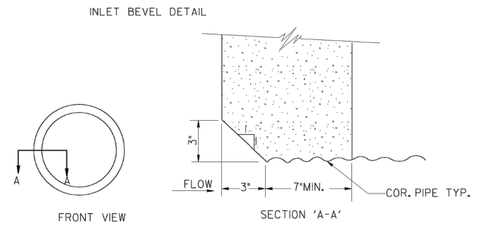
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STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



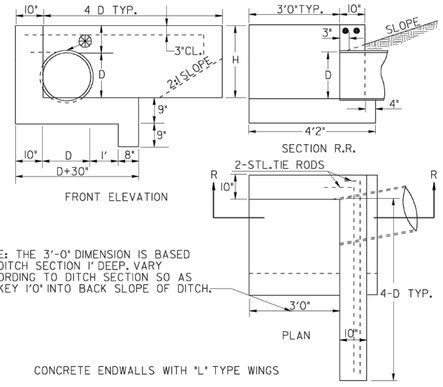






DIMENSIONS						QUANTITIES ONE STRAIGHT ENDWALL				CONC. IN WALL & FTG. FOR EACH ADDL. PIPE LINE
OPENING		WALL		FOOTING		CLASS "B" CONCRETE				
D	AREA SQ. FT.	G	H	E	F	CUBIC FEET WALL	CUBIC FEET FOOT	TOTAL CU. FT.	TOTAL CU.YD.	CU. YD.
12"	0.8	4'0"	2'0"	1'2"	1'10"	1'0"	7.2	7.3	14.5	0.54	0.25
15"	1.2	5'0"	2'3"	1'2"	1'10"	1'2"	9.9	10.7	20.6	0.76	0.36
18"	1.8	6'0"	2'6"	1'3"	1'11"	1'3"	13.6	14.4	28.0	1.04	0.48
24"	3.1	8'0"	3'0"	1'4"	2'0"	1'4"	22.3	21.3	43.6	1.62	0.74
30"	4.9	10'0"	3'6"	1'6"	2'2"	1'6"	34.7	32.5	67.2	2.49	1.13
36"	7.1	12'0"	4'0"	1'8"	2'4"	1'8"	50.5	46.7	97.2	3.60	1.62
42"	9.6	14'0"	4'6"	1'10"	2'6"	2'0"	70.3	70.0	140.3	5.20	2.13
48"	12.6	16'0"	5'0"	2'1"	2'9"	2'0"	96.9	88.0	184.9	6.85	2.58
54"	16.0	18'0"	5'6"	2'4"	3'0"	2'0"	129.4	108.0	237.4	8.79	3.07
60"	19.6	20'0"	6'0"	2'6"	3'2"	2'0"	164.6	126.7	291.3	10.79	3.53

FOR EACH ADDITIONAL PIPE LINE, ADD TO G: OD+(D OR 3 FEET, WHICHEVER IS SMALLER)



NOTE: THE 3'-0" DIMENSION IS BASED ON DITCH SECTION 1' DEEP. VARY ACCORDING TO DITCH SECTION SO AS TO KEY 1'0" INTO BACK SLOPE OF DITCH.

NOTE: THESE QUANTITIES WILL VARY ACCORDING TO DITCH SECTION AND ARE TO BE USED FOR ESTIMATING PURPOSES ONLY. PAYMENT TO BE MADE ACCORDING TO QUANTITIES MEASURED AS ACTUALLY PLACED.

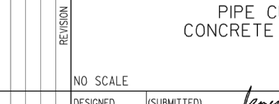
DIMENSIONS					QUANTITIES ONE "L" ENDWALL	
D	AREA SQ.FT.	H MIN.	4D TYP.	D+30 TYP.	CU. YD. CONC.	STEEL TIE RODS
15"	1.2	2'3"	5'0"	3'9"	1.08	2-¾"DIA.x5'0"
18"	1.8	2'6"	6'0"	4'0"	1.24	2-¾"DIA.x6'0"
24"	3.1	3'0"	8'0"	4'6"	1.59	2-¾"DIA.x8'0"
30"	4.9	3'6"	10'0"	5'0"	2.00	2-¾"DIA.x10'0"
36"	7.1	4'0"	12'0"	5'6"	2.46	2-¾"DIA.x12'0"
42"	9.6	4'6"	14'0"	6'0"	2.98	2-¾"DIA.x14'0"
48"	12.6	5'0"	16'0"	6'6"	3.53	2-¾"DIA.x16'0"
54"	16.0	5'6"	18'0"	7'0"	4.13	2-¾"DIA.x18'0"
60"	19.6	6'0"	20'0"	7'6"	4.85	2-¾"DIA.x20'0"

3:1 FILL SLOPES

DIMENSIONS							QUANTITIES ONE "U" ENDWALL				
OPENING		WALL			FOOTING		CLASS "B" CONCRETE				STEEL TIE RODS
D	AREA SQ.FT	G	H	K	F	J	CUBIC FEET WALL	CUBIC FEET FOOT	TOTAL CU.FT.	TOTAL CU.YD.	
2:1 FILL SLOPES											
12"	0.8	3'8"	2'0"	1'0"	1'3"	2'2"	6.6	7.3	13.9	0.52	NONE
15"	1.2	3'11"	2'3"	1'5"	1'3"	2'7"	8.3	9.1	17.4	0.64	NONE
18"	1.8	4'2"	2'6"	1'9"	1'3"	2'11"	9.9	10.7	20.6	0.76	NONE
24"	3.1	4'8"	3'0"	2'6"	1'6"	3'8"	13.9	15.5	29.4	1.09	2-¾"DIA.x2'0"
30"	4.9	5'2"	3'6"	3'3"	1'6"	4'5"	18.7	20.0	38.7	1.43	2-¾"DIA.x2'0"
36"	7.1	5'8"	4'0"	4'0"	1'9"	5'2"	21.2	26.2	50.4	1.87	2-¾"DIA.x2'0"
42"	9.6	6'2"	4'6"	4'9"	2'0"	5'11"	30.3	33.2	63.5	2.35	2-¾"DIA.x2'6"
48"	12.6	6'8"	5'0"	5'6"	2'0"	6'8"	37.3	39.6	76.9	2.85	2-¾"DIA.x3'0"
54"	16.0	7'2"	5'6"	6'3"	2'0"	7'5"	44.2	45.9	90.1	3.33	2-¾"DIA.x3'6"
60"	19.6	7'8"	6'0"	7'0"	2'0"	8'2"	51.1	49.1	100.2	3.71	2-¾"DIA.x4'0"
3:1 FILL SLOPES											
12"	0.8	3'8"	2'0"	2'0"	1'3"	3'2"	7.7	9.9	17.6	0.65	NONE
15"	1.2	3'11"	2'3"	2'9"	1'3"	3'11"	10.0	12.8	22.8	0.84	NONE
18"	1.8	4'2"	2'6"	3'6"	1'3"	4'8"	12.5	16.0	28.5	1.06	NONE
24"	3.1	4'8"	3'0"	5'0"	1'6"	6'2"	18.8	24.0	42.8	1.58	2-¾"DIA.x2'0"
30"	4.9	5'2"	3'6"	6'6"	1'6"	7'8"	26.3	32.3	58.6	2.17	2-¾"DIA.x2'0"
36"	7.1	5'8"	4'0"	8'0"	1'9"	9'2"	35.1	42.8	77.9	2.89	2-¾"DIA.x2'0"
42"	9.6	6'2"	4'6"	9'6"	2'0"	10'8"	45.4	54.5	99.9	3.70	2-¾"DIA.x2'6"
48"	12.6	6'8"	5'0"	11'0"	2'0"	12'2"	56.9	66.5	123.4	4.57	2-¾"DIA.x3'0"
54"	16.0	7'2"	5'6"	12'6"	2'0"	13'8"	66.7	79.5	146.2	5.41	2-¾"DIA.x3'6"
60"	19.6	7'8"	6'0"	13'4"	2'0"	17'2"	81.0	87.9	168.9	6.25	2-¾"DIA.x4'0"
4:1 FILL SLOPES											
12"	0.8	3'8"	2'0"	2'8"	1'3"	3'10"	8.4	11.8	20.2	0.75	NONE
15"	1.2	3'11"	2'3"	3'8"	1'3"	4'10"	11.2	15.5	26.6	0.98	NONE
18"	1.8	4'2"	2'6"	4'8"	1'3"	5'10"	14.3	19.6	33.9	1.26	NONE
24"	3.1	4'8"	3'0"	6'8"	1'6"	7'10"	22.0	29.8	51.8	1.92	2-¾"DIA.x2'0"
30"	4.9	5'2"	3'6"	8'8"	1'6"	9'10"	31.3	40.7	72.0	2.67	2-¾"DIA.x2'0"
36"	7.1	5'8"	4'0"	10'8"	1'9"	11'10"	42.5	54.1	96.6	3.58	2-¾"DIA.x2'0"
42"	9.6	6'2"	4'6"	12'8"	2'0"	13'10"	55.4	69.2	124.6	4.61	2-¾"DIA.x2'6"
48"	12.6	6'8"	5'0"	14'8"	2'0"	15'10"	70.0	84.8	154.8	5.73	2-¾"DIA.x3'0"
54"	16.0	7'2"	5'6"	16'8"	2'0"	17'10"	86.4	101.9	188.3	6.97	2-¾"DIA.x3'6"
60"	19.6	7'8"	6'0"	18'8"	2'0"	19'10"	104.7	120.5	225.2	8.34	2-¾"DIA.x4'0"

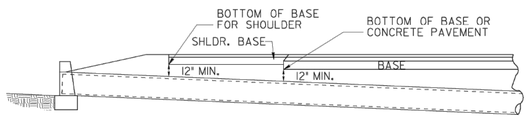
DIMENSIONS							QUANTITIES ONE ENDWALL WITH 45° WING WALLS				
OPENING		WALL			FOOTING		CLASS "B" CONCRETE				STEEL TIE RODS
D	AREA SQ. FT.	H	G	L	M	F	CUBIC FEET WALL	CUBIC FEET FOOT	TOTAL CU.FT.	TOTAL CU.YD.	
2:1 SLOPES											
18"	1.8	2'6"	3'10"	1'2"	1'7"	1'3"	9.3	10.7	20.0	0.74	NONE
24"	3.1	3'0"	4'4"	1'5"	2'1"	1'4"	13.1	14.4	27.5	1.02	2-¾"DIA.x2'0"
30"	4.9	3'6"	4'10"	1'9"	2'5"	1'6"	17.4	18.8	36.7	1.34	2-¾"DIA.x2'0"
36"	7.1	4'0"	5'4"	2'0"	2'11"	1'8"	22.6	24.6	47.2	1.75	2-¾"DIA.x3'0"
42"	9.6	4'6"	5'10"	2'3"	3'6"	2'0"	29.1	34.6	63.7	2.36	2-¾"DIA.x3'0"
48"	12.6	5'0"	6'4"	2'6"	4'0"	2'0"	35.9	39.1	75.0	2.78	2-¾"DIA.x3'0"
54"	16.0	5'6"	6'10"	2'9"	4'6¼"	2'0"	42.9	46.6	89.5	3.31	2-¾"DIA.x3'0"
60"	19.6	6'0"	7'4"	3'0"	5'0½"	2'0"	51.8	51.1	102.9	3.81	2-¾"DIA.x3'0"
3:1 SLOPES											
18"	1.8	2'6"	3'10"	1'2"	1'9"	1'3"	10.7	14.5	25.2	0.93	NONE
24"	3.1	3'0"	4'4"	1'5"	2'10"	1'4"	16.6	17.8	34.4	1.27	2-¾"DIA.x2'0"
30"	4.9	3'6"	4'10"	1'9"	3'6"	1'6"	22.9	24.4	47.3	1.71	2-¾"DIA.x2'0"
36"	7.1	4'0"	5'4"	2'1"	4'3"	1'8"	30.2	32.0	62.2	2.30	2-¾"DIA.x3'0"
42"	9.6	4'6"	5'10"	2'5"	4'11"	2'0"	38.8	44.0	82.8	3.07	2-¾"DIA.x3'0"
48"	12.6	5'0"	6'4"	2'8"	5'6"	2'0"	47.5	48.6	96.1	3.56	2-¾"DIA.x3'0"
54"	16.0	5'6"	6'10"	3'2"	6'1"	2'0"	57.0	53.4	110.4	4.09	2-¾"DIA.x3'0"
60"	19.6	6'0"	7'4"	3'6"	6'9"	2'0"	68.5	59.1	127.6	4.73	2-¾"DIA.x3'0"

METHOD OF EXTENDING PIPE AND RETAINING EXISTING HEADWALL



CONCRETE WITHIN THE HATCHED AREA TO BE REMOVED BY CHIPPING OR IN A MANNER APPROVED BY THE ENGINEER, FORMING A RECESS NO LESS THAN 1" LARGER THAN THE OUTSIDE DIMENSION OF THE PIPE.

SECTION SHOWING MINIMUM COVER OVER CULVERTS



NOTE: GRADE GENERALLY TO FOLLOW SLOPE OF STREAM.

NOTE:
QUANTITIES OF CONCRETE ARE BASED ON INSIDE DIAMETER OF PIPE. NO DEDUCTIONS SHALL BE MADE FOR SHELL THICKNESS OR SKEW OF PIPE IN COMPUTING PAY QUANTITIES.

⊛ IF PIPE HAS NEITHER A GROOVE NOR A SPIGOT AT ITS INLET, AN INLET BEVEL WILL BE REQ'D.

NOTE TO DESIGNER

THIS STANDARD IS LIMITED FOR USE ONLY AT SPECIAL CONDITIONS, OTHERWISE, SEE CURRENT STANDARDS 1120 & 1125.

HEADWALLS ARE NOT TO BE PLACED INSIDE THE CLEAR ZONE.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
PIPE CULVERT
CONCRETE HEADWALL

NO SCALE — REV. & REDR. AUG. 1999

DESIGNED / TRACED / CHECKED

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 1001-B

DATE	REVISION	BY

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80Z PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-05
SHEET 37 OF 74

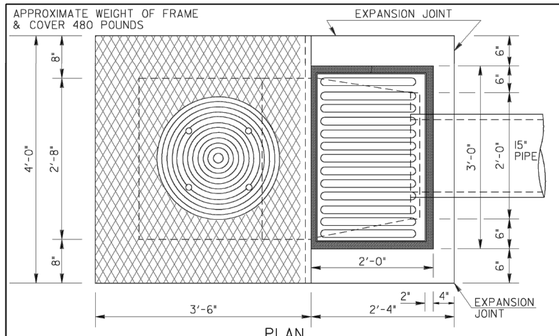
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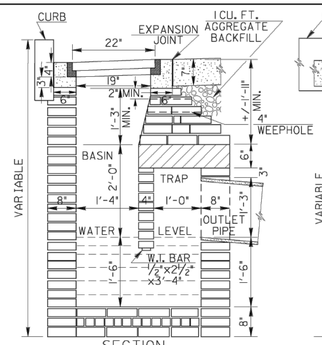
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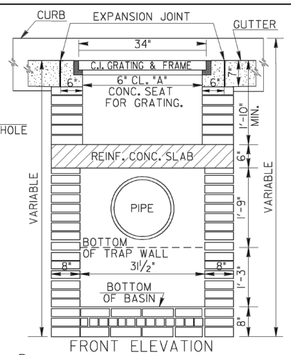
APPROXIMATE WEIGHT OF FRAME & COVER 480 POUNDS



PLAN



SECTION



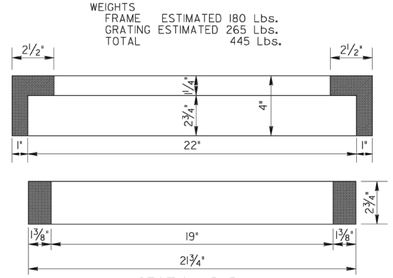
FRONT ELEVATION

TYPE - D

TRAPPED BRICK INLET WITH GRATE
SECTION OF FRAME AND COVER

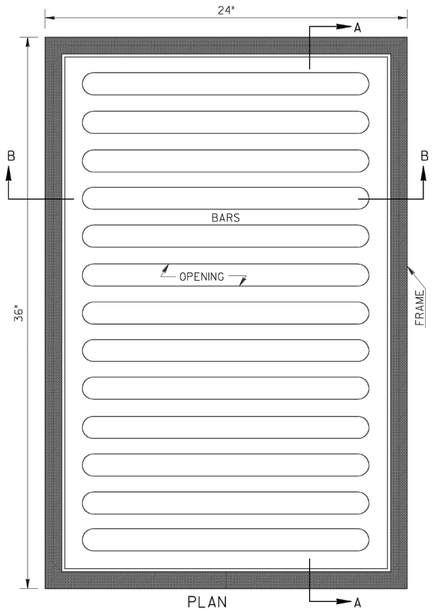
NOTE:
ALL CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WEIGHTS
FRAME ESTIMATED 180 Lbs.
GRATING ESTIMATED 265 Lbs.
TOTAL 445 Lbs.

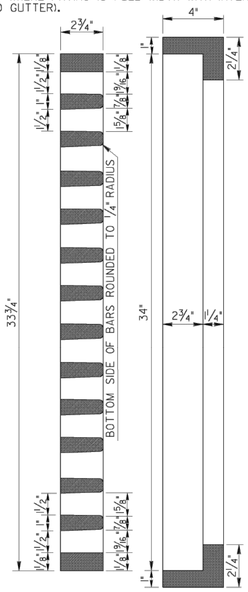


SECTION B-B

NOTE:
CASTINGS ARE CITY OF ATLANTA STD. AND MODIFICATION AS SHOWN FOR SECTION OF FRAME AND COVER.



PLAN



NOTE:
WEEPHOLES MAY BE 4" DIA. ROUND OR 4" SQUARE AT THE OPTION OF THE CONTRACTOR. AGGREGATE FOR BACKFILL SHALL CONSIST OF A MIXTURE OF 50% SIZE 57, M-58, 357, OR 467 COARSE AGGREGATE AND 50% SIZE 10 SAND AND SHALL BE PLACED IMMEDIATELY PRIOR TO COMPACTING OF THE BASE MATERIAL.

NOTE:
OPENINGS IN GRATES SHALL BE PERPENDICULAR TO DIRECTION OF TRAFFIC FOR ALL STRUCTURES.

STD. 1019B GRATE MAY BE SUBSTITUTED FOR IMPROVED HYDRAULIC CAPACITY.

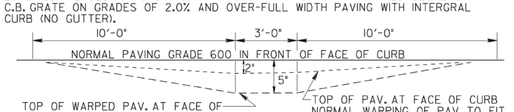
SPECIAL NOTE:
THIS STANDARD SHOULD BE USED ONLY IN SAGS OR LOW POINTS. SEE OTHER STANDARDS FOR MORE EFFICIENT DRAINAGE STRUCTURES ON GRADES.

6% GRADE
10'-0"
3'-0"
2'-6" MIN.
NORMAL PAV. GRADE 600 IN FRONT OF FACE OF CURB
5"

ON GRADES OF 2.0% AND OVER THE SLOPES OF C.B. GRATE TO BE WARPED TO MAXIMUM SLOPE OF 5" IN 24" AND THE TRANSITION OF THE WARPED PAVING AT FACE OF CURB TO BE SHORTENED IN PLACE OF NORMAL 10'-0" TRANSITION ON DOWNGRADE SIDE OF CATCH BASIN.

TOP OF WARPED PAVING AT FACE OF CURB (MAXIMUM WARP) WITH DOWNGRADE TRANSITION SHORTENED TO RETARD WATER FLOW.

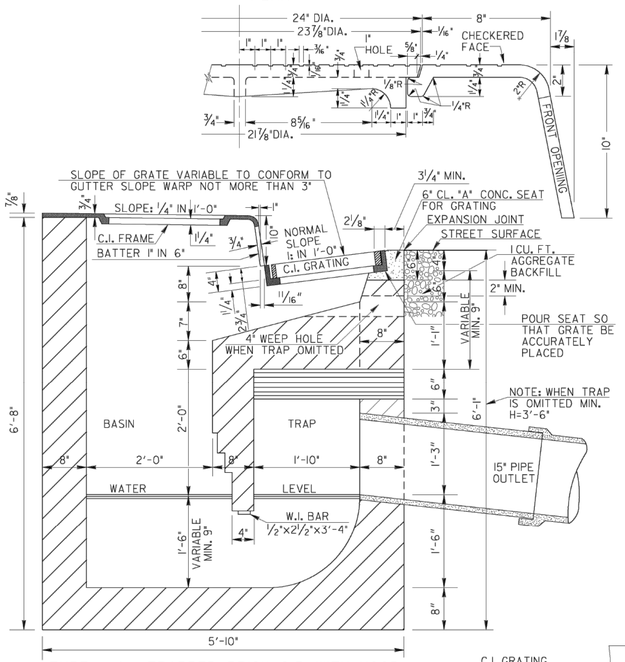
LONGITUDINAL SECTION SHOWING WARPING OF PAVING TO FIT WARPED SLOPE OF C.B. GRATE ON GRADES OF 2.0% AND OVER-FULL WIDTH PAVING WITH INTERGRAL CURB (NO GUTTER).



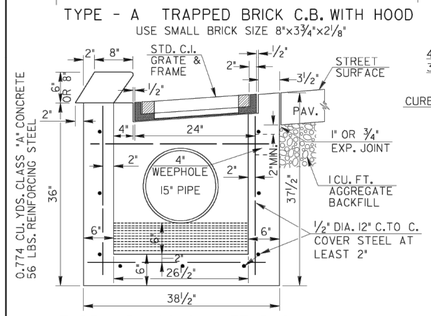
TOP OF WARPED PAV. AT FACE OF CURB SHOWING ADDITIONAL WARPING OF PAV. TO FIT ALLOWABLE 3" WARPING OF GRATE SLOPE.

TOP OF PAV. AT FACE OF CURB NORMAL WARPING OF PAV. TO FIT NORMAL SLOPE OF C.B. GRATE.

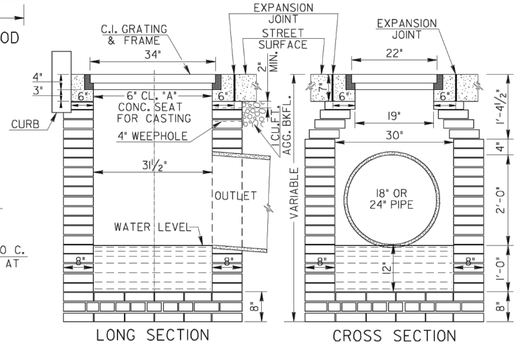
LONGITUDINAL SECTION SHOWING WARPING OF PAVING TO FIT SLOPE OF GRATING WHERE PAVING IS FULL WIDTH WITH INTERGRAL CURB (AND NO GUTTER).



TYPE - A TRAPPED BRICK C.B. WITH HOOD
USE SMALL BRICK SIZE 8"x3 3/4"x2 1/8"



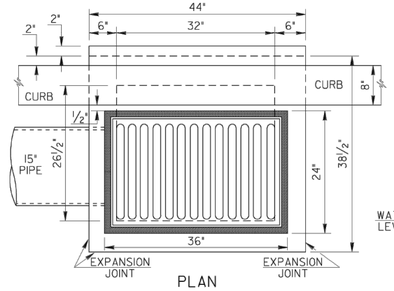
TYPE - B CONC. INLET BASIN



LONG SECTION

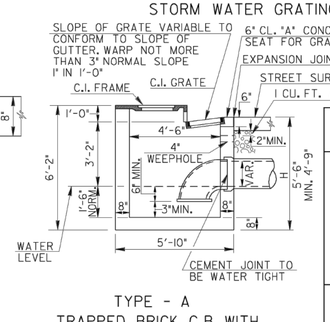
CROSS SECTION

TYPE - C BRICK INLET BASIN



PLAN
CONC. INLET BASIN

STORM WATER GRATING



TYPE - A
TRAPPED BRICK C.B. WITH HOOD WITH TYPE E TRAP

SECTION A-A
SCALE: HOR. 1"=3'-0"
VERT. 1"=1'-0"

GENERAL NOTE:
ALL TRAPS WILL BE OMITTED UNLESS SHOWN ON PLANS.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CATCH BASINS WITH
CAST IRON GRATE INLETS

REV. & REDR. SEPT. 1999

BY	DES.	(SUBMITTED) James A. Burnett STATE ROAD & AIRPORT DESIGN ENGINEER	NUMBER 1010
	DRW.		
	TRA.		
	CHK.	(APPROVED) Paul L. Liles CHIEF ENGINEER	

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

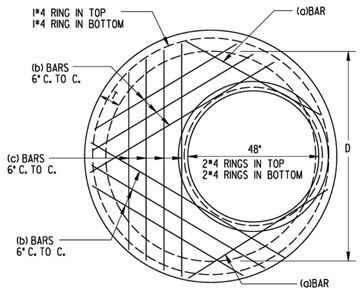
CD-06
SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

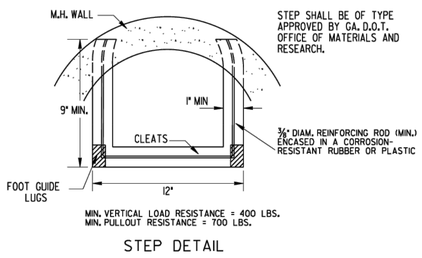
9/30/2005 4:15:47 PM \\GDOT-DSN1\GOPLOT\OCF\go_1ff_output.qcf aburnett M:\ANGEL_DESIGN SERVICES\CORRECTED ENGLISH-METRIC STANDARDS\1010.prf

PLOTTED: 4/4/2025 8:46 AM FILE: P:\01 Active Projects\g107 - Lakeshore Engineering\g1070001 - Pdb Services For 2024 Sewer Implementation\31_authoringcad\CIVIL\CIVIL DETAILS.dwg

FD10000



PLAN OF STEEL REINFORCEMENT



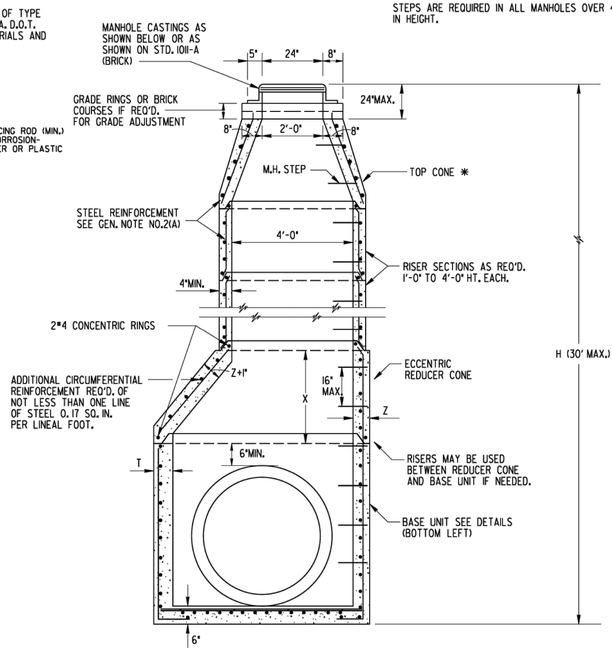
STEP SHALL BE OF TYPE APPROVED BY GA. D.O.T. OFFICE OF MATERIALS AND RESEARCH.

¾" DIAM. REINFORCING ROD (MIN.) ENCASED IN A CORROSION-RESISTANT RUBBER OR PLASTIC

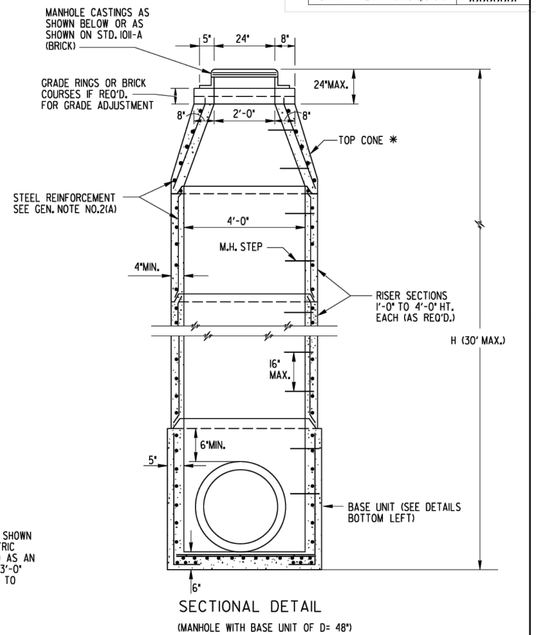
MIN. VERTICAL LOAD RESISTANCE = 400 LBS.
MIN. PULLOUT RESISTANCE = 700 LBS.

STEP DETAIL

STEPS ARE REQUIRED IN ALL MANHOLES OVER 4 FT. IN HEIGHT.

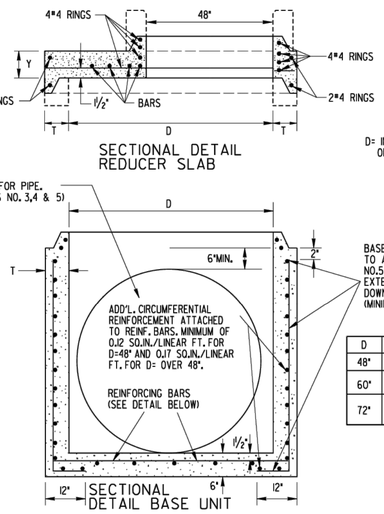


SECTIONAL DETAIL
(MANHOLE WITH BASE UNIT OF D=OVER 48")



SECTIONAL DETAIL
(MANHOLE WITH BASE UNIT OF D= 48")

* CONCENTRIC CONE SHOWN MIN. HT.=2'-0" ECCENTRIC CONES MAY BE USED AS AN ALTERNATE, MIN. HT.=3'-0" DESIGNED ACCORDING TO A.S.T.M. C-478



SECTIONAL DETAIL REDUCER SLAB

REDUCER SLAB - REINF. AND DIMENSIONS							
D	Y MIN.	(a) BARS		(b) BARS		(c) BARS	
		NO.	SIZE	NO.	SIZE	NO.	SIZE
60"	8"	2	#6	4	#6	2	#6
72"	9"	2	#6	6	#6	4	#6

NOTE:
10 FT. MAXIMUM ALLOWANCE COVER ABOVE TOP OF REDUCER SLABS. REDUCER CONES TO BE USED WHERE REDUCER SLABS NOT PERMITTED.

D= INSIDE DIAMETER OF BASE UNIT

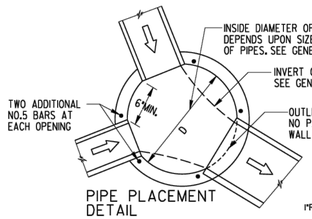
NOTE:
25 FT. MAXIMUM ALLOWABLE COVER ABOVE REDUCER CONE.

D	X(MIN)	Z(MIN)
60"	1'-6"	5"
72"	3'-0"	6"

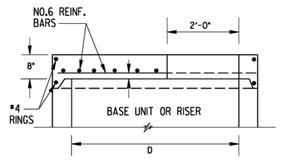
SECTIONAL DETAIL BASE UNIT

BASE UNIT SHALL CONTAIN IN ADDITION TO A.S.T.M. C-478 REINFORCEMENT, TWO NO.5 VERTICAL BARS AT EACH OPENING EXTENDING FROM WITHIN 2" OF JOINT DOWN WALL INTO BOTTOM SLAB AS SHOWN. (MINIMUM 2" CLEARANCE AROUND)

D	T(MIN.)
48"	5"
60"	5"
72"	6"



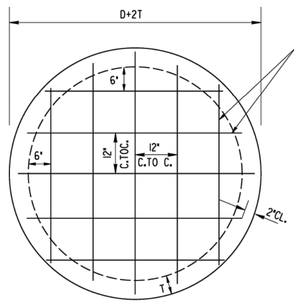
PIPE PLACEMENT DETAIL



SECTIONAL DETAIL

GENERAL NOTES:

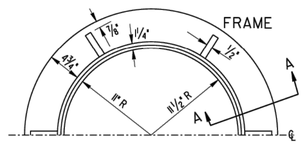
1. MATERIALS: ALL CONCRETE, STEEL BARS AND STEEL WIRE REINFORCEMENT SHALL COMPLY WITH SECTION 866.02 OF GEORGIA STANDARD SPECIFICATIONS AND SPECIAL PROVISION WHICH MODIFY SECTION 866.02.
2. REINFORCEMENT:
   (A) PLACEMENT AND DESIGN OF STEEL REINFORCEMENT IN RISER UNITS, CONE SECTIONS, GRADE RINGS AND JOINTS SHALL BE IN COMPLIANCE WITH A.S.T.M. C-478 UNLESS OTHERWISE NOTED.
   (B) BASE UNITS, REDUCER SLABS AND FLAT TOP SLABS SHALL HAVE STEEL REINFORCEMENT AS SHOWN IN DETAILS AT LEFT.
3. OPENINGS FOR PIPES LARGER THAN 6 INCHES IN DIAMETER ARE TO BE PRECAST. A MINIMUM OF 6" ALONG THE INTERCIRCUMFERENCE IS TO REMAIN BETWEEN THE EXTREMITIES OF HOLE FOR ADJACENT PIPE IN ANY SINGLE UNIT. A MINIMUM OF TWO REINF. BARS SHALL REMAIN IN WALL BETWEEN ANY TWO OPENINGS.
4. THE CONTRACTOR WILL FURNISH THE FABRICATOR WITH THE ANGLE OF ALIGNMENT AND SIZE OF ALL PIPES TO ENTER MANHOLE AND THE HEIGHT OF STRUCTURE.
5. BASE UNITS SHALL HAVE SUFFICIENT HEIGHT TO ALLOW FOR MINIMUM OF 6" OF WALL BETWEEN TOP OF HIGHEST OPENING FOR PIPES AND BOTTOM OF JOINT.
6. INVERT CHANNELS:
   (A) FOR SANITARY SEWER MANHOLES SEE GEORGIA STANDARD SPECIFICATIONS FOR CHANNEL REQUIREMENTS.
   (B) FOR STORM SEWER MANHOLES, CHANNELS BUILT TO SUIT PIPE SIZE AND LOCATION. HEIGHT OF CHANNEL EQUAL TO ½ DIAMETER OF OUTLET PIPE, CHANNEL BUILT FROM GROUT OR CLASS "A" CONCRETE.
7. PIPES ARE TO BE EXTENDED INTO STRUCTURE WALL A MINIMUM OF 4" BUT SHOULD NOT EXTEND BEYOND INTERIOR WALL OF STRUCTURE.
8. ALL JOINTS, EXCEPT FOR GRADE RINGS AND TOP OF TOP CONE, SHALL HAVE TONGUE AND GROOVE SECTION.

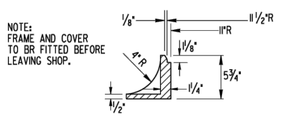


PLAN OF STEEL REINFORCEMENT IN BOTTOM SLAB

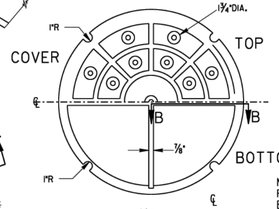
BASE UNIT

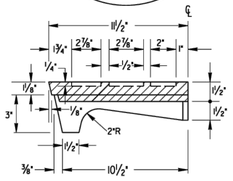
D	BAR SIZE
48"	#5
60"	#6
72"	#6



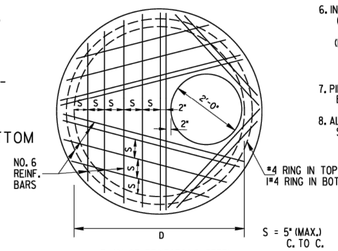


SECTION A-A





SECTION B-B



PLAN OF REINFORCING STEEL

FLAT TOP SLAB IS FOR USE IN AREA OF MINIMUM COVER ONLY. MAXIMUM HEIGHT OF MANHOLE WITH FLAT TOP SLAB SHALL BE 4FT. ABOVE TOP OF HIGHEST ENTERING PIPE.

FLAT TOP SLAB

MANHOLE CASTINGS (C.I.)

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA			
STANDARD PRECAST REINFORCED CONCRETE MANHOLES			
NOT TO SCALE	REDRAWN JULY 2024	AUGUST 1973	
DESIGNED G.C.L. R.M.U.	(SUBMITTED) STATE ROAD DESIGN ENGINEER		NUMBER 1011A PRECAST
DRAWN R.M.U.	(APPROVED)		
CHECKED J.R.C.	STATE HIGHWAY ENGINEER		

BY	DATE	REVISION
R.M.U.	6- I-75	CASTINGS & BASE U.

GDOT Georgia Department of Transportation — P. I. No. XXXXXXX

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318
LAKESHOREGENGINEERING.COM

RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

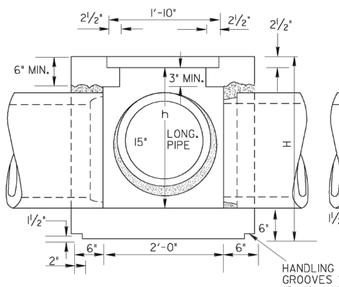
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SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

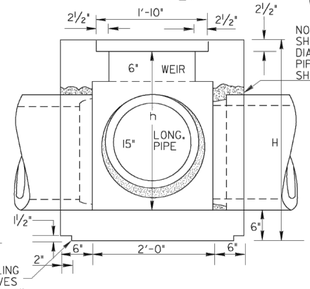
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TYPE "A"



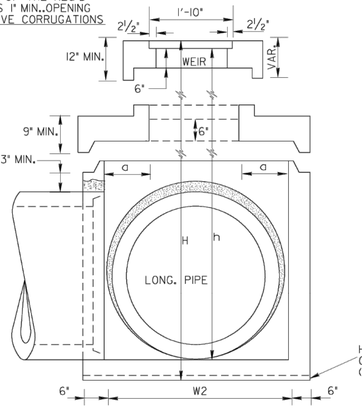
TYPE "B" WITH WEIR



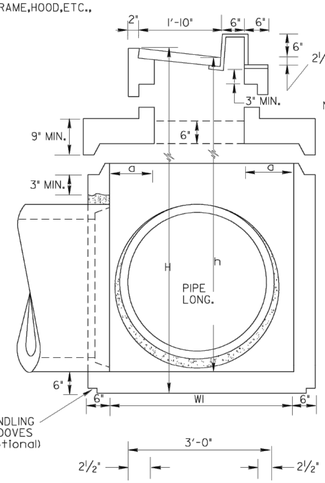
NOTE: OPENING FOR PIPE SHALL BE THE OUTSIDE DIAMETER OF THE REQ'D PIPE PLUS 1" MIN..OPENING SHALL HAVE CORRUGATIONS

NOTE:
SEE STANDARD 1019-A- BRICK DROP INLETS- FOR DETAIL OF GRATING FRAME,HOOD,ETC., WHERE NEEDED.

TYPE "C" (WITH OR WITHOUT WEIR)



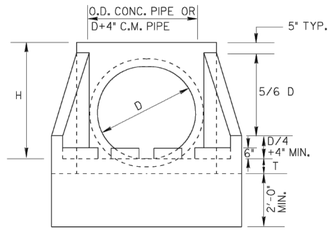
TYPE "E"



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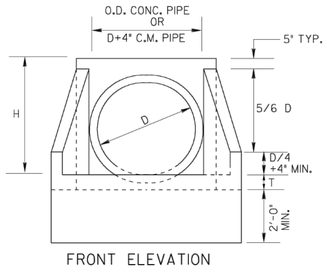
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET HEADWALL

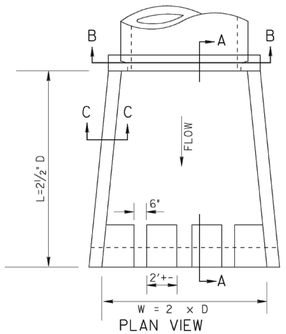


FRONT ELEVATION

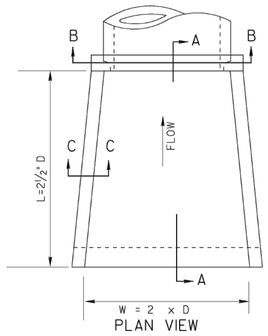
INLET HEADWALL



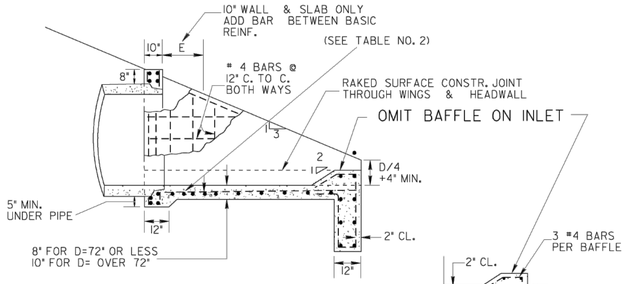
FRONT ELEVATION



PLAN VIEW

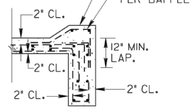


PLAN VIEW

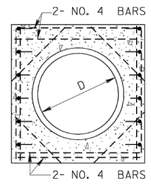


SECTION A-A

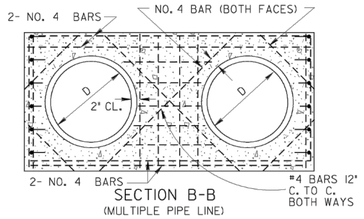
D = INSIDE DIAMETER OF PIPE



10" SLAB



SECTION B-B
(SINGLE PIPE LINE)



SECTION B-B
(MULTIPLE PIPE LINE)

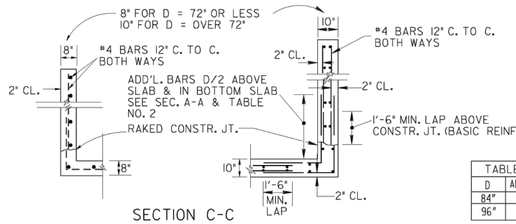
TABLE NO. 1 - QUANTITIES FOR HEADWALLS											
CU. YDS. CONCRETE (PAY QUANTITIES)*						LBS. STEEL (GIVEN FOR INFORMATION ONLY)					
	FOR SINGLE LINE			ADD FOR ADD'L LINE			FOR SINGLE LINE			ADD FOR EACH ADD'L LINE	
D	INLET	OUTLET		INLET	OUTLET		INLET	OUTLET		INLET	OUTLET
15"	0.87	0.93		0.60	0.66		102	113		73	83
18"	1.10	1.16		0.85	0.93		106	117		93	104
24"	1.61	1.69		1.29	1.37		127	138		124	134
30"	2.21	2.32		1.83	1.96		170	180		154	164
36"	2.92	3.05		2.49	2.63		238	254		196	212
42"	3.73	3.87		3.00	3.17		290	306		231	247
48"	4.62	4.80		3.58	3.74		335	351		265	281
54"	5.63	5.83		4.17	4.38		407	428		319	340
60"	6.72	6.95		4.82	5.01		456	477		360	391
72"	9.22	9.48		6.24	6.46		623	649		475	494
84"	14.84	15.19		9.05	9.29		1517	1539		1017	1044
96"	18.88	19.27		11.13	11.41		2118	2150		1323	1350

*NOTE:
QUANTITIES SHOWN WILL BE ACTUAL PAY QUANTITIES FOR CLASS 'A' CONCRETE, INCLUDING REINFORCED STEEL. NO ADJUSTMENT WILL BE MADE FOR AS BUILT QUANTITIES.

D - INSIDE DIAMETER OF PIPE CULVERT

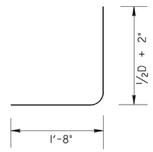
H = D + 10" MIN. FOR C.M. PIPE
H = D + PIPE WALL THICKNESS + 8" FOR CONC. PIPE
(13/12 D + 9" TYP.)

T = 8" FOR D = 72" OR LESS
T = 10" FOR D = OVER 72"



SECTION C-C

TABLE NO. 2		
D	ADD'L.BAR	E
84"	#4	5'
96"	#4	8'



ADDITIONAL BAR DETAIL

		DATE
	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REVISION	STANDARD TAPERED INLET HEADWALL - OUTLET HEADWALL (BUILT-IN-PLACE)	
	NO SCALE — REV. & REDR. OCT., 1999	
BY	DES. ____ (SUBMITTED) James A. Gowens STATE ROAD & AIRPORT DESIGN ENGR. DRW. ____ TRA. ____ CHK. ____ (APPROVED) Chad L. Tuggle CHIEF ENGINEER	NUMBER 1125

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

04/21/25 80% PERMIT REVIEW SUBMITTAL

DATE — REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

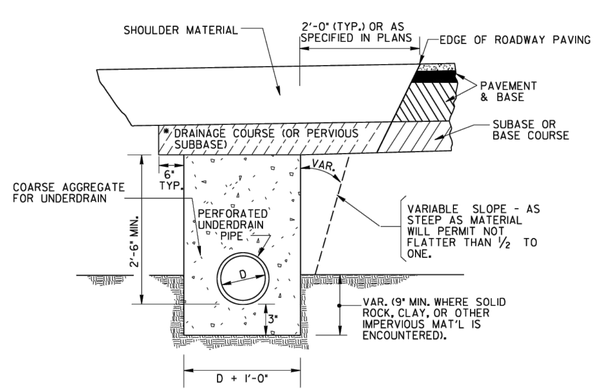
CD-09
SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

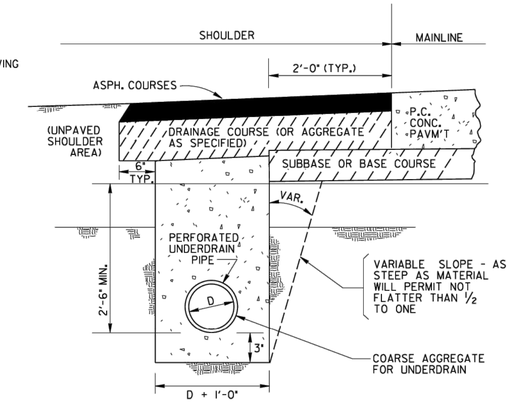
7/7/2004 10:49:45 AM \\GDOT-DSN1\GOPLOT\QCF\GO_TIFF_OUTPUT.QCF GOWENS M:\GARY\ENGLISH STANDARDS UPDATED AND UPDATED INDEX\1125.PRF

FD10000
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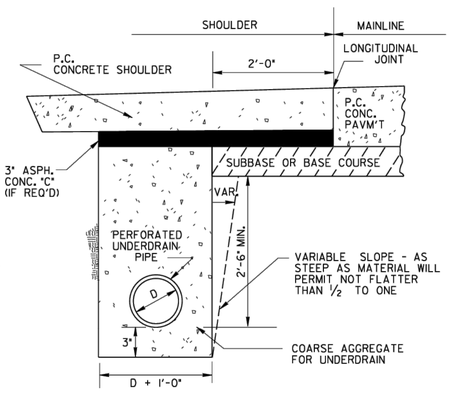
GDOT Georgia Department of Transportation | P. I. No. XXXXXXX



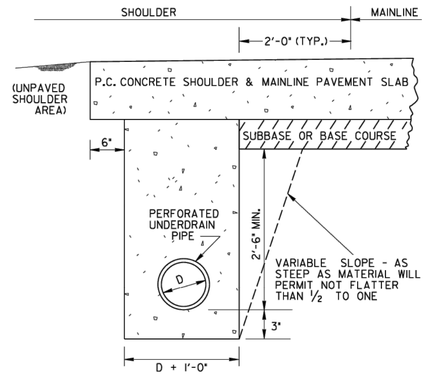
GENERAL DETAIL



ASPHALT SHOULDER - P.C.C. PAVEMENT



UNDER CONCRETE SHOULDER



UNDER CONCRETE SHOULDER *

* CONSTRUCTED MONOLITHIC WITH MAINLINE 4'-0" PAVED SHOULDER SHOWN

PERFORATED UNDERDRAIN - TYPICAL INSTALLATIONS

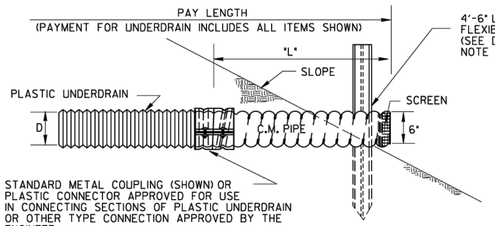
*NOTE: PERFORATED UNDERDRAIN PIPE WILL BE INSTALLED COMPLETE PRIOR TO PLACING PERVIOUS SUB-BASE OR DRAINAGE COURSE.

SPECIAL NOTE:
DETAILS SHOWN HERE ARE TYPICAL AND MAY BE USED BY THE DESIGNER AS A GUIDE IN PREPARING TYPICAL SECTIONS. MINIMUM TRENCH DEPTHS & OTRENCH WIDTHS SHOULD BE ADHERED TO AS SHOWN. HOWEVER, SHOULDER DETAILS, PAVEMENT DESIGNS, DRAINAGE COURSES, ETC., WILL BE AS SHOWN ON THE TYPICAL SECTIONS FOR THE PROJECT AND MAY VARY FROM THE DEPICTIONS ABOVE.

ON CONSTRUCTION, THE TYPICAL SECTIONS IN THE PLANS SHOULD BE USED FOR SPECIFIC DETAILS. IF UNDERDRAIN IS NOT SHOWN ON THE TYPICAL SECTIONS OR ELSEWHERE IN THE PROJECT PLANS, INSTALLATION WILL BE AS SHOWN ABOVE AND AS DIRECTED BY THE ENGINEER.

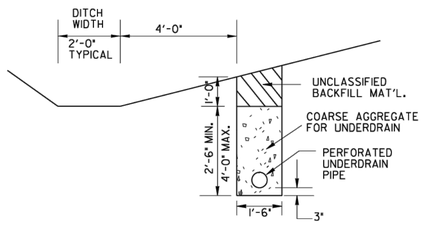
OUTLET DETAIL FOR PLASTIC UNDERDRAIN

(REQUIRED AT ALL OUTLETS WHERE PERFORATED PLASTIC UNDERDRAIN IS TERMINATED ON SLOPES).



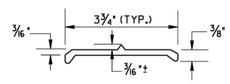
NOTE: 'L' = MINIMUM LENGTH OF CORRUGATED METAL PIPE SECTION. THE C.M. OUTLET STUB SECTION MAY BE PERFORATED OR MAY BE NON-PERFORATED.

C.M. OUTLET STUB -MINIMUM LENGTHS	
SLOPE	'L'
2:1 OR STEEPER	2'-10" MIN.
2+:1 TO 4:1	5'-0" MIN.
4+:1 TO 6:1	10'-0" MIN.
FLATTER THAN 6:1	14'-0" MIN.



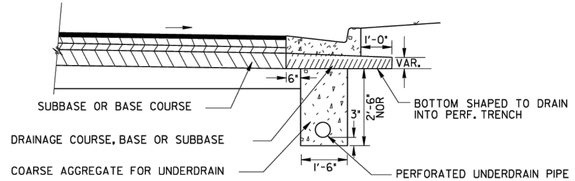
ADJACENT TO DITCH

NOTE: ALTERNATE FLEXIBLE DELINEATORS PERMITTED IF APPROVED BY THE D.O.T. LABORATORY.

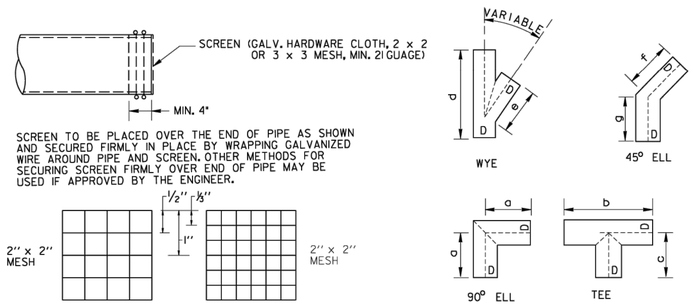


DELINEATOR POST SECTION (TYP.)

COLOR: WHITE
LENGTH: 4'-6" (from top to bottom point)
SPECIFICATION: SEC.911 (EXCEPT REFLECTIVE SHEETING IS NOT REQUIRED)



UNDER CURB & GUTTER



SCREEN FOR UNDERDRAIN

GENERAL NOTES

1. UNDERDRAINS MAY BE PLACED IN SHOULDER AREAS OR AS TRANSVERSE DRAINAGE UNDER PAVEMENT. SEE TYPICAL SECTION AND PLAN AND PROFILE SHEETS FOR SPECIAL CONDOITIONS.
2. TRENCH SHALL BE SHAPED WITH SIDES AS NEARLY VERTICAL AS IS PRACTICAL AND WITH A FLAT BOTTOM.
3. MINIMUM GRADIENT FOR UNDERDRAIN PIPE SHALL BE 0.15%.
4. MAXIMUM DISTANCE BETWEEN OUTLETS SHALL BE 400' TO 500' WHERE CONDITIONS PERMIT.
5. DEAD ENDS OF PIPE SHALL BE CLOSED WITH METAL OR PLASTIC CAPS OR CONCRETE PLUGS. OUTFALL ENDS OF PIPE SHALL BE EQUIPPED WITH SCREEN.
6. LATERAL CONNECTIONS SHALL BE MADE WITH SUITABLE STANDARD FITTINGS. (ELLS, WYES OR TEES AS DETAILED)
7. THE DIMENSIONS (a thru g) SHOWN ON THE LATERAL CONNECTIONS FOR THE VARIOUS KINDS AND SIZES OF PERFORATED UNDERDRAIN SHALL BE IN AGREEMENT WITH THE MANUFACTURERS' STANDARD PRACTICE.
8. PLAIN WHITE (NO REFLECTIVE SHEETING) FLEXIBLE DELINEATOR POSTS WILL BE REQUIRED AT ALL OUTLETS EXITING ON SLOPES, BUT NOT REQUIRED IF UNDERDRAIN EXITS IN CONC. DITCH PAVING, DROP INLETS, ETC.. POSTS WILL BE 2 FT. IN THE GROUND PLACED AS DIRECTED BY THE ENGINEER, SO AS TO BE MOST VISIBLE TO MOWERS. PAYMENT FOR UNDERDRAIN WILL INCLUDE THE DELINEATORS.

DATE	REVISION	BY
8-17-83	ADD C&G, DITCH INSTALL	R.M.U.
5-27-81	ADD MONOLITHIC CONC. SH.	R.M.U.
1-20-81	FLEXIBLE DELINEATOR	R.M.U.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

PERFORATED UNDERDRAIN

NOT TO SCALE REDRAWN JULY 2024 JULY 1980

REV. R.M.U.
TRA. G.M.E.
CHK. R.K.C.

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) CHIEF ENGINEER

NUMBER 9029B

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2, 1)

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318 LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338 WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

REVISIONS AND RECORD OF USE

DATE	REVISION
04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

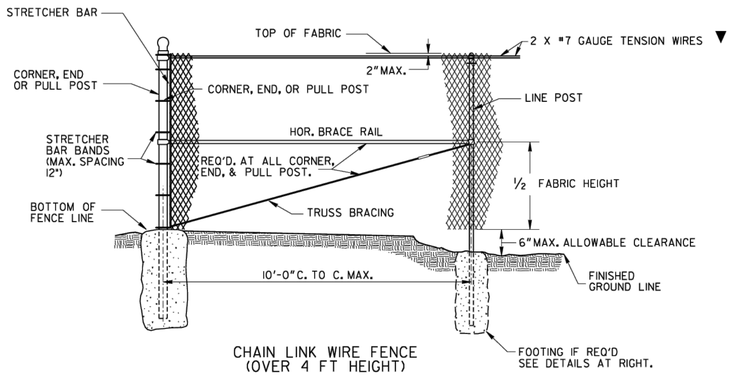
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-10
SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

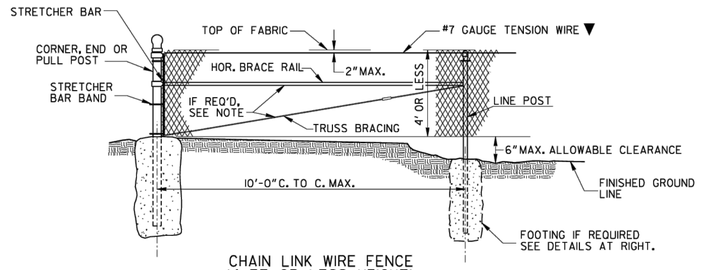
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DETAILS OF CHAIN-LINK WIRE FENCE

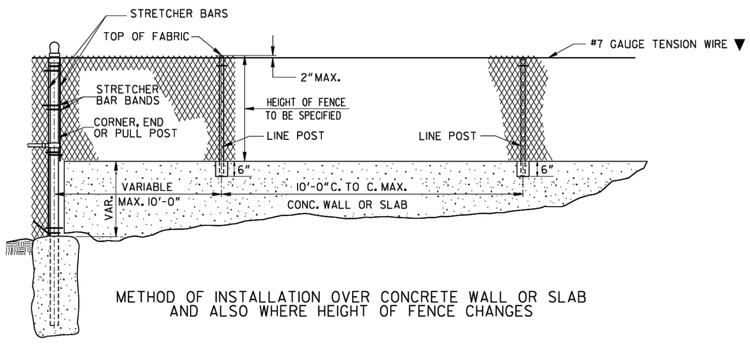


CHAIN LINK WIRE FENCE
(OVER 4 FT HEIGHT)

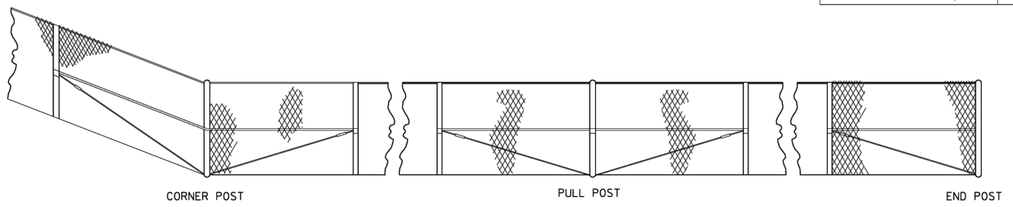
CONCRETE FOOTINGS ARE REQUIRED AT ALL CORNERS, END AND PULL POST.



CHAIN LINK WIRE FENCE
(4 FT. OR LESS HEIGHT)



METHOD OF INSTALLATION OVER CONCRETE WALL OR SLAB
AND ALSO WHERE HEIGHT OF FENCE CHANGES



METHOD OF BRACING END, CORNER, AND PULL POST

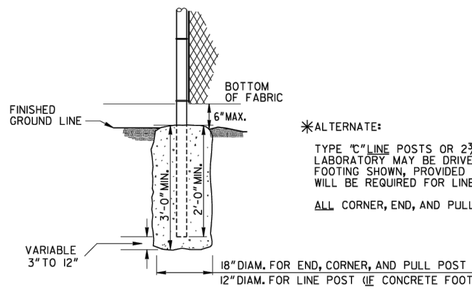
NOTES:

FABRIC SHALL BE FASTENED TO LINE POST AT INTERVALS NOT GREATER THAN 14".

TENSION WIRES SHALL BE TIED TO FABRIC WITH 9 GA. WIRE OR 11GA. HOG RINGS AT 24" C. TO C. MAX. SPACINGS.

▼ WHERE A PROPERTY OWNER'S CHAIN LINK WIRE FENCE HAS TO BE REPLACED BY THE DEPARTMENT AS PART OF THE CONSTRUCTION PROJECT, AND THE EXISTING FENCE HAD A TOP RAIL, THEN THE NEW REPLACEMENT FENCE SHALL ALSO HAVE A SIMILAR TYPE RAIL INSTEAD OF TENSION WIRES AT THE TOP OF THE FENCE.

HORIZONTAL BRACE RAILS AND TRUSS BRACING SHALL BE REQUIRED AT ALL CORNERS, END, AND PULL POSTS, EXCEPT WHERE A CONTINUOUS TOP RAIL IS SPECIFIED (SEE NOTE ABOVE) WITH A FENCE 4FT. OR LESS IN HEIGHT.

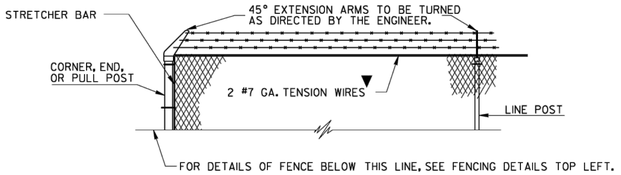


FOOTING DETAIL FOR FENCE POSTS

✳ALTERNATE:

TYPE "C" LINE POSTS OR 2⅜" Ø TUBE LINE POSTS OR OTHER TYPE LINE POSTS APPROVED BY THE D.O.T. LABORATORY MAY BE DRIVEN TO A MINIMUM DEPTH OF THREE (3) FEET INSTEAD OF THE CONCRETE FOOTING SHOWN, PROVIDED THE SOIL IS EITHER CLASS I, II, III, OR V SOIL. CONCRETE FOOTINGS WILL BE REQUIRED FOR LINE POSTS INSTALLED IN MARSHY OR SWAMPY AREAS (CLASS IV SOILS).

ALL CORNER, END, AND PULL POSTS SHALL HAVE CONCRETE FOOTINGS AS SHOWN.



DETAILS OF BARBED WIRE WITH EXTENSION ARMS FOR
CHAIN LINK WIRE FENCE

GDOT Georgia Department of Transportation | P. I. No. XXXXXXX

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

CHAIN LINK WIRE FENCE

NOT TO SCALE | REDRAWN, JULY 2024 | JUNE 1981

DES. 4-62
REV. R.M.U.
RETR. G.M.E.
CHK. B.K.C.

(SUBMITTED) Clay E. Leach — STATE ROAD & AIRPORT DESIGN ENGR.
(APPROVED) Thomas H. Merchant Jr. — STATE HIGHWAY ENGINEER.

NUMBER 903IN

REV. & ADDED NOTES — R.M.U. — 8-13-85

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

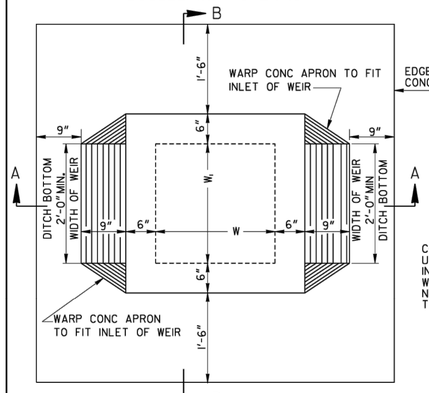
CD-11
SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

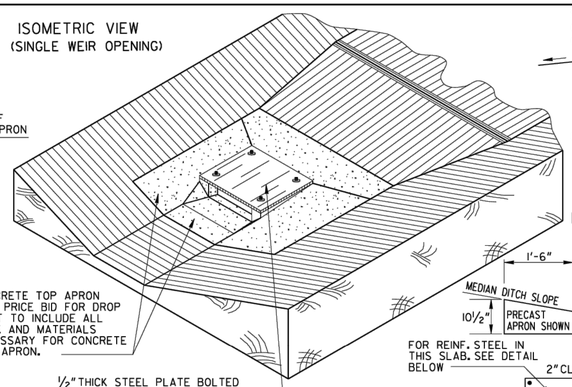
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GDOT Georgia Department of Transportation | P. I. No. XXXXXXX

DETAILS OF DROP INLET WITH DOUBLE WEIR OPENING



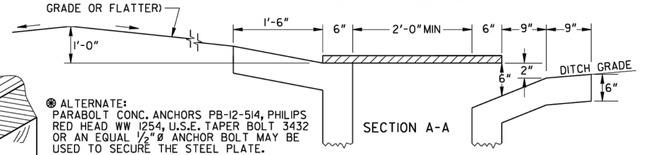
ISOMETRIC VIEW (SINGLE WEIR OPENING)



CONCRETE TOP APRON UNIT PRICE BID FOR DROP INLET TO INCLUDE ALL WORK AND MATERIALS NECESSARY FOR CONCRETE TOP APRON.

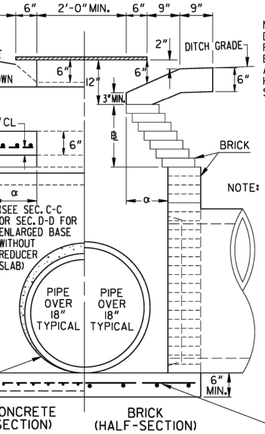
½" THICK STEEL PLATE BOLTED AT EACH CORNER WITH ½" X 6" ⊛ BOLT, NUT AND WASHER. BOLT, NUT AND WASHER GALVANIZED ACCORDING TO A.S.T.M. A-153.

DETAIL OF SINGLE WEIR OPENING



⊛ ALTERNATE: PARABOLT CONC. ANCHORS PB-12-514, PHILIPS RED HEAD WW 1254, U.S.E. TAPER BOLT 3432 OR AN EQUAL ½"ø ANCHOR BOLT MAY BE USED TO SECURE THE STEEL PLATE.

DROP INLET WITH ENLARGED BASE

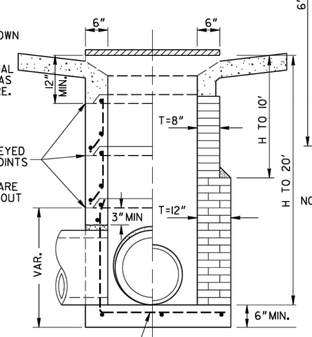


NOTE: HALF-SECTIONS ARE SYMMETRICAL ABOUT ℄ OF THE TYPE CONSTRUCTION UTILIZED.

DROP INLET WITH ADDITIONAL HEIGHT

(DETAILS SHOWN ARE TYPICAL BOX ENCLOSURE FOR PIPE MAY BE BRICK MASONRY WITH PRECAST RISERS, ALSO SEE STD. 1040 FOR ADAPTERS USED WITH CIRCULAR ALTERNATES).

NOTE: DETAILS NOT SHOWN FOR INLETS WITH ENLARGED BASES AND/OR ADDITIONAL HEIGHT WILL BE AS SHOWN ELSEWHERE.

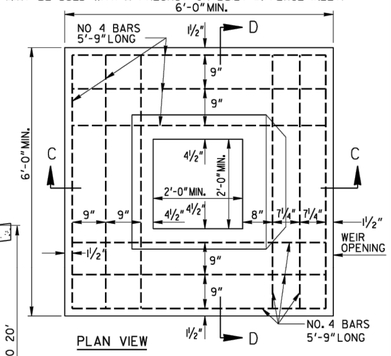


BOTTOM SLAB REINF. #4 BARS @ 12" O.C. BOTH WAYS FOR STRUCTURES SHOWN HERE.

BRICK WALL THICKNESS	
H	T
UP TO 10'	8"
10' TO 20'	12"
20' TO 30'	16"

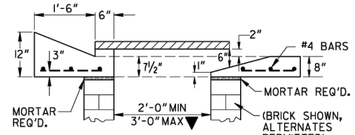
REINFORCING FOR OPTIONAL PRECAST APRON

(MAY BE USED WITH A PRECAST OR BUILT-IN-PLACE INLET)



PLAN VIEW

NOTE: 2/2, 6X6 WELDED WIRE FABRIC WITH 2 NO. 4 BARS 5'-9" LONG ON EACH SIDE MAY BE USED AS AN ALTERNATIVE.



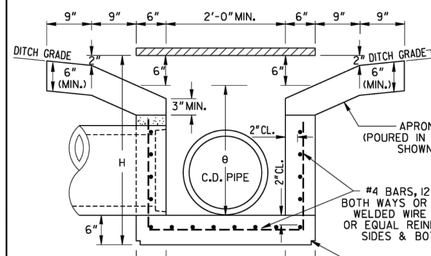
SECTION C-C

NOTE: WHEN USING PRECAST APRON, THE PLATE, BOLTS & OTHER REQUIREMENTS SHALL CONFORM TO THAT SHOWN FOR THE POURED IN PLACE APRON.

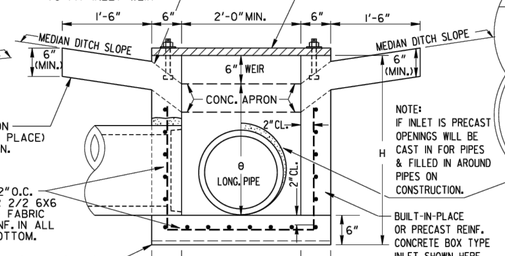
▼ MAXIMUM W OR WI PERMITTED WITH PRECAST APRON WITHOUT REDUCER SLAB.

SECTION D-D

SECTION A-A (CONC. BOX)

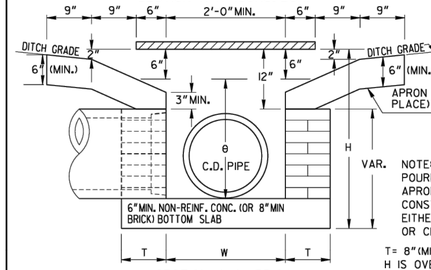


SECTION B-B (CONC. BOX)



NOTE: IF INLET IS PRECAST OPENINGS WILL BE CAST IN FOR PIPES & FILLED IN AROUND PIPES ON CONSTRUCTION.

SECTION A-A (BRICK)

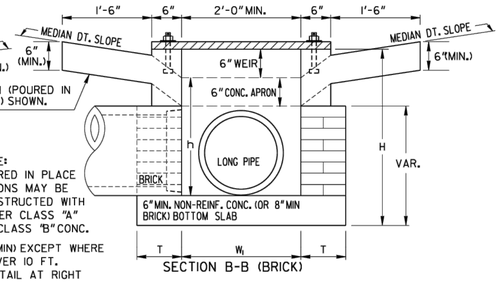


APRON (POURED IN PLACE) SHOWN.

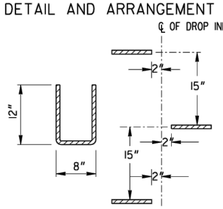
NOTE: POURED IN PLACE APRONS MAY BE CONSTRUCTED WITH EITHER CLASS "A" OR CLASS "B" CONC.

T= 8" (MIN) EXCEPT WHERE H IS OVER 10 FT. SEE DETAIL AT RIGHT

SECTION B-B (BRICK)



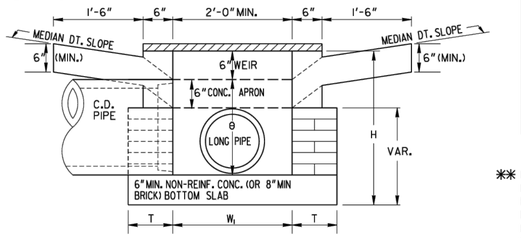
DETAIL AND ARRANGEMENT OF LADDER BARS

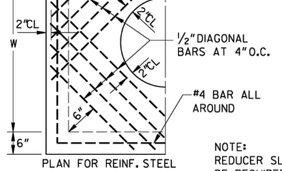


LADDER BARS ARE REQUIRED IN ALL INLETS, WHERE θ=OVER 4'-0". NUMBER AND LOCATION OF LADDER BARS TO BE AS DIRECTED BY THE ENGINEER. AN ALTERNATE STEP MAY BE SUBSTITUTED, IF APPROVED BY THE LABORATORY.

SECTION B-B MODIFIED

(C.D. PIPE IS 6" MIN. LARGER THAN LONGITUDINAL PIPE)



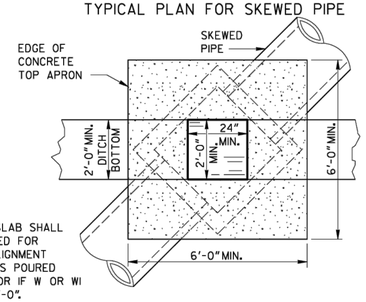


PLAN FOR REINF. STEEL

REDUCER SLAB (HALF-SECTION)

NOTE: REDUCER SLAB SHALL BE REQUIRED FOR SKEWED ALIGNMENT IF APRON IS POURED IN PLACE OR IF W OR WI IS OVER 3'-0".

TYPICAL PLAN FOR SKEWED PIPE



JOINT TO BE FLUSH TO GIVE MAXIMUM BEARING AREA.

✻✻ TYPICAL DROP INLET DIMENSIONS

PIPE SIZE	BRICK MASONRY MIN.W OR W1	MIN. H	MIN. θ	α (MAX.)	b (MIN.)	MODIFIED MIN. H	MODIFIED MIN. θ	REINF. CONCRETE ✻ MIN.W OR W1	MIN. H	MIN. θ	α (MAX.)
15"	2'-0"	3'-4"	2'-1"	——	——	2'-7½"	1'-7½"	2'-0"	3'-2"	2'-2"	——
18"	2'-3"	3'-10"	2'-10"	1½"	2 5/16"	2'-11"	1'-11"	2'-3"	3'-5"	2'-5"	——
24"	2'-10"	4'-11"	3'-11"	5"	8 5/16"	3'-6"	2'-6"	3'-0"	4'-10"	3'-10"	6"
30"	3'-5"	6'-0"	5'-0"	8½"	1'-2 11/16"	4'-1"	3'-1"	3'-6"	5'-5"	4'-5"	9"
36"	4'-0"	7'-1"	6'-1"	1'-0"	1'-8¾"	——	——	4'-0"	6'-0"	5'-0"	1'-0"
42"	4'-7"	8'-6"	7'-2"	1'-3½"	2'-2¾"	——	——	4'-6"	6'-7"	5'-7"	1'-3"
48"	5'-2"	9'-7"	8'-3"	1'-7"	2'-8⅞"	——	——	5'-0"	7'-2"	6'-2"	1'-6"

✻ BUILT-IN-PLACE OR PRECAST BOX

✻✻ DIMENSIONS ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONCRETE PIPE AND MAY BE VARIED IF CONDITIONS PERMIT, AND THE VARIED DIMENSIONS ARE SHOWN IN THE PLANS OR SPECIFIED BY THE ENGINEER. DIMENSIONS "α" ARE BASED UPON 2'-0" WEIR OPENING. MINIMUM H AND θ ARE BASED UPON LARGEST PIPE INVOLVED. BOX ENCLOSURE FOR PIPE DOES NOT HAVE TO BE SQUARE. W AND WI DIMENSIONS MAY DIFFER. (DIMENSIONS HAVE BEEN SPECIFIED FOR BOX SHAPED INLETS. SEE STD. 1040 FOR DIMENSIONS OF CIRCULAR ALTERNATES).

GENERAL NOTES:

1. SPECIFICATIONS: GA. STANDARD, CURRENT EDITION, & SUPPLEMENTS THERETO.
2. SEE STD. 9031-L FOR ADDITIONAL DETAILS WHERE INLET IS CONSTRUCTED ON BOX CULVERT.
3. SEE STD. 1040 FOR CIRCULAR PRECAST ALTERNATES.
4. PRECAST ON BRICK MASONRY: BRICK CONSTRUCTION SHALL EXTEND 6" ± ABOVE TOP OF PIPE. JOINTS BETWEEN PRECAST & BRICK SECTIONS SHALL BE FLUSH OR CONC. FILLED TO GIVE MAX. BEARING AREA.
5. TYPICAL TREATMENT FOR SKEWED PIPES:
   (A) WITH PRECAST APRON - CONSTRUCT BOX WITH WALLS PERPENDICULAR TO PIPE AND SET PRECAST APRON PARALLEL TO DITCH AND SKEWED RELATIVE TO PIPE OR USE CIRCULAR SECTIONS (STD. 1040)
   (B) WITH BUILT-IN-PLACE APRON - CONSTRUCT BOX AS DESCRIBED IN (A) AND USE REDUCER SLAB OR INCREASE W OR W1 DIMENSIONS AS NECESSARY OR USE CIRCULAR SECTIONS (STD. 1040).

GEN. REV. BY	DATE	REVISION
R.M.U.	4-17-96	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD MEDIAN DROP INLET
(PRECAST OR BUILT-IN-PLACE) & CONCRETE APRON

NOT TO SCALE — REDRAWN JULY 2024 — AUGUST 26, 1981

DES. 2-67 (SUBMITTED) Floyd E. Hardy — STATE ROAD & AIRPORT DESIGN ENGR.
REV. R.M.U.
TRA. G.M.C.
CHK. R.K.C.
(APPROVED) Thomas D. Moreland — STATE HIGHWAY ENGINEER

NUMBER 9031S

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318
LAKESHOREGREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

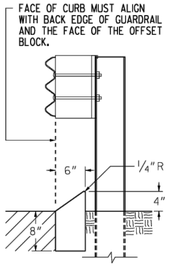
CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-12
SHEET 37 OF 74

FD10000
PLOTTED: 4/4/2025 8:47 AM FILE: P:\01 Active Projects\g107 - Lakeshore Engineering\g1070001 - Pdb Services For 2024 Sewer Implementation\31_authoring\cad\CIVIL\CIVIL DETAILS.dwg

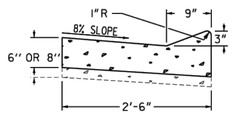


TYPE 8

TYPE 8 HEADER CURB IS USED IN CONJUNCTION WITH GUARDRAIL CONNECTIONS TO CONCRETE BARRIER AS NOTED ON GA. STD. 4382.

CURB TYPE	h	d
1	3" OR 4"	6" min.
2	6"	8" min.
3	8"	10" min.
4	10"	12" min.
6	6"	7" min.
7	6"	8" min.
9	3" OR 4"	8" min.

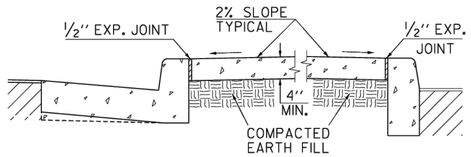
RAISED EDGE WITH CONCRETE GUTTER



RAISED EDGE TO BE CONSTRUCTED WITH SAME CONCRETE MIX AS THE GUTTER AND SHALL BE FORMED MONOLITHIC WITH GUTTER. JOINTS IN RAISED EDGE SHALL MATCH THOSE IN THE GUTTER.

CONCRETE MEDIAN (Between Curbs)

NOTE: CURB TYPES SHOWN ARE TYPICAL. OTHER TYPES MAY BE SPECIFIED.

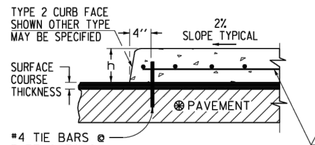


NOTE:
WIDTH OF CONCRETE MEDIAN WILL BE AS SHOWN IN PLANS

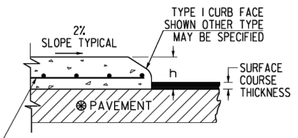
NOTE:
IF CONCRETE MEDIAN INTERCEPTS PEDESTRIAN CROSSWALKS, WHEELCHAIR RAMPS (CONSTRUCTION DETAIL A-3 AND A-4) WILL BE REQUIRED.

CONCRETE MEDIANS (Integral)

-WITH TIE BARS-

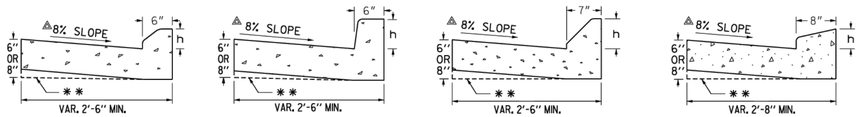


-WITHOUT TIE BARS-



NOTE:
IF FINAL SURFACE COURSE IS PRESENT OR MUST BE INSTALLED BEFORE THE CONCRETE MEDIAN CAN BE INSTALLED, THEN DOWELED IN CONCRETE MEDIAN IS REQUIRED.

CONCRETE CURB & GUTTER

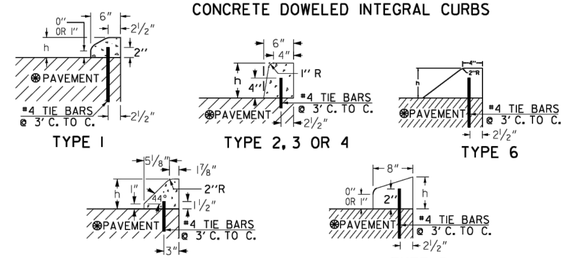


TYPE 1 | TYPE 2, 3 OR 4 | TYPE 7 | TYPE 9

** AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE, BUT THE GUTTER THICKNESS MUST NOT BE LESS THAN THE SPECIFIED 6" OR 8" AT ANY POINT.

△ WHEN POSITIVE SUPERELEVATION IS REQUIRED, THE SLOPE OF THE GUTTER ON THE HIGH SIDE SHALL BE A CONTINUATION OF THE SLOPE OF THE SUPERELEVATED PAVEMENT.

CONCRETE DOWELED INTEGRAL CURBS

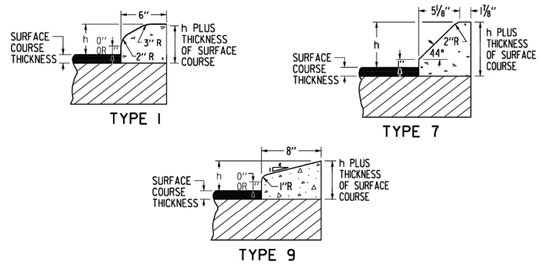


NOTES:
1. CONCRETE CURB CAN BE INSTALLED AFTER INTIAL SET AS LONG AS TIE BARS ARE DRILLED INTO UNDERLAYING CONCRETE PAVEMENT.
2. CONCRETE CURB CAN BE INSTALLED BEFORE INTIAL SET WITH DOWELS THAT ARE DRIVEN INTO UNDERLYING CONCRETE PAVMENT.
3. JOINTS IN CURB AND CONCRETE MEDIAN WILL MATCH THOSE IN THE CONCRETE PAVEMENT.
4. ALL TYPES OF CONCRETE CURB CAN BE PLACED ON ASPHALT PAVEMENTS WHERE TIE BARS MAY BE EITHER DRIVEN OR DRILLED INTO THE UNDERLYING PAVEMENT. CONTRACTION JOINTS SHALL BE CONSTRUCTED IN CURB OR CONCRETE MEDAIN AT 20 FT. SPACING.
5. TIE BARS FOR DOWLED CURBS MAY BE UNCOATED PLAIN OR DEFORMED BILLET-STEEL BARS (GRADE 40) AS USED FOR CONCRETE REINFORCEMENT. (AASHTO M-31)

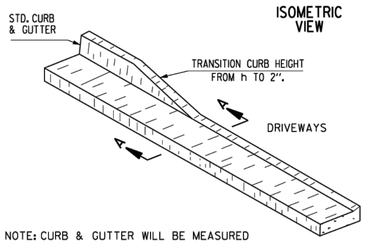
MINIMUM TIE BAR LENGTHS
(FOR CONC. DOWELED CURBS OR CONC. MEDIAN)

CURB TYPE	P.C. CONC. PAV.	ASPHALT PAV.
1	6"	8"
2, 3 OR 4	8"	12"
6	6"	8"
7	6"	8"
9	6"	8"

CONCRETE INTEGRAL CURB



DETAILS OF RECESSED CURB FOR DRIVEWAYS



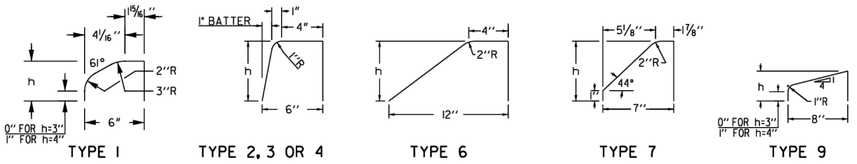
NOTE: CURB & GUTTER WILL BE MEASURED FOR PAYMENT THRU THE DRIVE



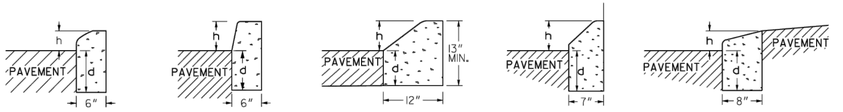
SECTIONAL VIEW
SECTION A-A

(SEE SEPARATE CONSTRUCTION DETAILS FOR DRIVEWAYS)

CURB FACE DESIGN



CONCRETE HEADER CURBS



THE DIMENSION d MAY BE INCREASED AT CONTRACTOR'S OPTION SO BOTTOM OF HEADER CURB WILL ALIGN WITH BOTTOM OF PAVEMENT TYPICAL SECTION.

ACP	ADD 3" HEIGHT TO TP 1 & 9	07-01-22	
ACP	REV TP 1 C.F.D. RADIUS DIMS.	01-25-21	
	REV TP 9 C.F.D. DIM HT. TO 1" FROM GR. LEVEL TO RADIUS	02-10-20	
JAHR	REVISED TP 1, C.F.D., TP 7 & TP 8		
	OFFSET BLOCK & TYP. 9 CURB		
	ADDED TP 9 CURB & GUTTER	II-15-11	
TC	REV. TYPE 9 CURB DETAIL		
	& REV. OVERALL LAYOUT	I-27-11	
GLO	REV. MEDIAN NOTE AND		
	ADDED TYPE 9 CURB DETAIL	3-03	
	ADDED TP 9 DETAIL		

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CONCRETE CURB & GUTTER
CONCRETE CURBS, CONCRETE MEDIANS

NOT TO SCALE — MAR. 2003

DES. ____ DRW. ____ TRA. ____ CHK. ____

(SUBMITTED) STATE DESIGN POLICY ENGINEER

(APPROVED) CHIEF ENGINEER

NUMBER 9032B

GDOT Georgia Department of Transportation — P. I. Number

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE
1	JAS	AR	GA	04/21/25

80% PERMIT REVIEW SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

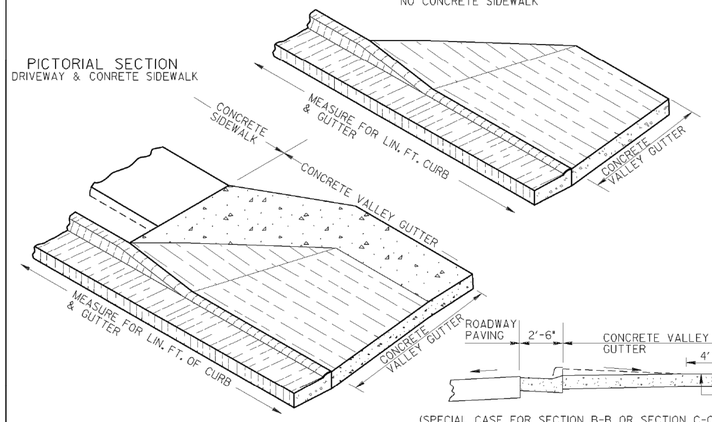
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

CD-13
SHEET 37 OF 74

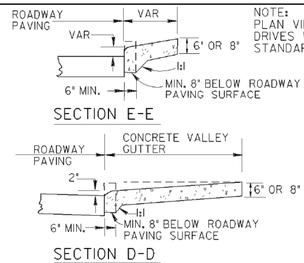
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7/22/2011 2:16:33 PM \\GDOT-DSN1\GOPLOT\OCF\GO_Ktp8000.gcf gowens V:\GARY\revised A-1, A-2\A-1.prf GO-RD6

PICTORIAL SECTION
NO CONCRETE SIDEWALK



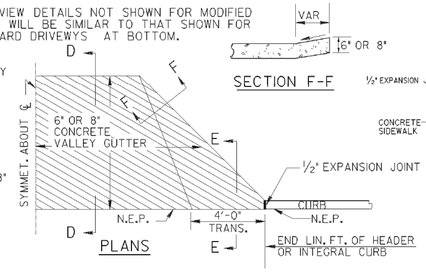
PICTORIAL SECTION
DRIVEWAY & CONRETE SIDEWALK



SECTION E-E

SECTION D-D

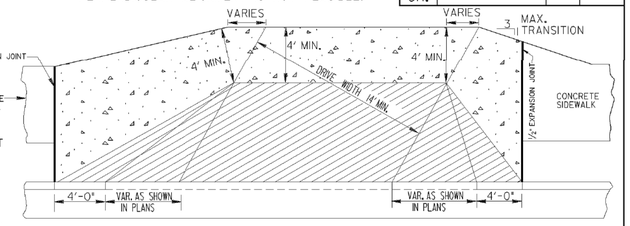
NOTE:
PLAN VIEW DETAILS NOT SHOWN FOR MODIFIED DRIVES WILL BE SIMILAR TO THAT SHOWN FOR STANDARD DRIVEWYS AT BOTTOM.



PLANS

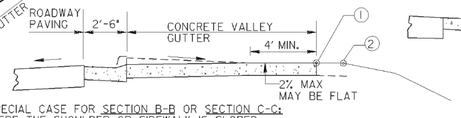
SECTION F-F

NOTE: DRIVEWAYS WILL NOT BE SKEWED EXCEPT WHERE PERPENDICULAR ALIGNMENT IS NOT FEASIBLE.

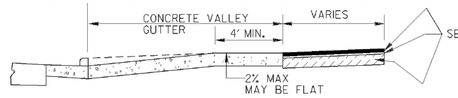


DRIVE ENTRANCE MODIFIED FOR SKEW

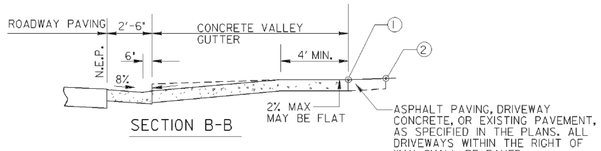
DRIVE MODIFIED FOR HEADER OR INTEGRAL CURB ALONG ROADWAY



(SPECIAL CASE FOR SECTION B-B OR SECTION C-C; WHERE THE SHOULDER OR SIDEWALK IS SLOPED AWAY FROM THE ROAD)



SECTION WITH ASPHALT PAVING

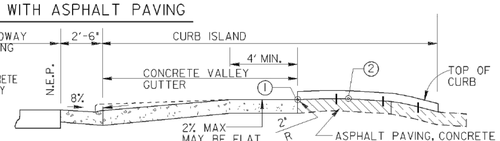


SECTION B-B

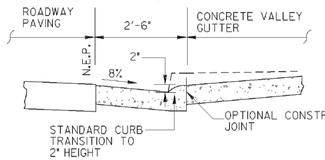
① IS THE BACK OF SIDEWALK SURFACE GRADE OR THE SHOULDER SURFACE GRADE 10'-0" BACK OF THE CURB, SLOPE OF THE CONCRETE VALLEY GUTTER WILL BE SUCH THAT THE BACK OF THE DRIVEWAY TAPER WILL BE THE SAME ELEVATION.

② IS BEGINNING OF DRIVEWAY TIE-IN.

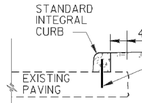
NOTE: ① AND ② MAY COINCIDE



SECTION C-C



NOTE:
ALTERNATES TO THE CURB ISLAND DESIGN SHOWN HERE MAY BE SPECIFIED IN THE PLANS.



DOWELED CURB DETAIL

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1" =25mm, 4"=100mm, and 12" or 1' =300mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

GENERAL NOTES:

1. QUANTITIES SHALL BE MEASURED AS FOLLOWS:
   (A) CONCRETE CURB & GUTTER ALONG ROADWAY---
   LIN. FT. OF CURB & GUTTER SHALL BE MEASURED FOR PAYMENT CONTINUOUS THRU THE DRIVE ENTRANCES. PAYMENT FOR CURB & GUTTER SHALL INCLUDE DAPPING DOWN THE TOP PORTION OF THE CURB. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE BACK OF THE CURB LINE.
   (B) HEADER (OR INTEGRAL) CURB ALONG ROADWAY---
   LIN. FT. OF CURB SHALL BE MEASURED FOR PAYMENT TO THE BEGINNING OF DRIVE WAY. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE EDGE OF THE ROADWAY PAVING.
2. N.E.P. IS DEFINED AS THE POINT WHERE THE ROADWAY PAVING MEETS THE CURB & GUTTER, OR HEADER CURB, OR FACE OR THE INTEGRAL CURB.
3. DRIVES RECONSTRUCTED SHALL BE REPLACED IN KIND, I.E, ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE, AND PAVED TO THE RIGHT OF WAY LINE.
4. SEE STANDARD 9032-B FOR DETAILS OF CONCRETE CURB & GUTTER, HEADER CURBS AND DOWELED INTEGRAL CURBS.
5. WIDTHS OF COMMERCIAL DRIVEWAYS SHALL COMPLY WITH CURRENT "RULES AND REGULATIONS FOR DRIVEWAY AND ENCROACHMENT CONTROL". WIDTHS OF RESIDENTIAL NON-COMMERCIAL DRIVEWAYS SHALL BE AS SPECIFIED IN THE PLANS.
6. THE SLOPE OF THE "TRANSITION AREA" OF THE CONCRETE VALLEY GUTTER SHALL NOT BE STEEPER THAN 8% (12) WHERE SIDEWALKS ARE LOCATED.
7. MAXIMUM DRIVEWAY GRADES SHOWN BELOW ARE INTENDED FOR RESIDENTIAL DRIVEWAYS WHERE FLATTER GRADES ARE NOT FEASIBLE. GRADES FOR COMMERCIAL DRIVEWAYS OR FOR TRUCKS SHALL NOT BE GREATER THAN 11% UNLESS SPECIFIED OTHERWISE.

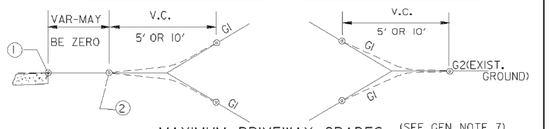
① IS THE BACK OF SIDEWALK SURFACE GRADE OR THE SHOULDER SURFACE GRADE 10'-0" BACK OF THE CURB, SLOPE OF THE CONCRETE VALLEY GUTTER WILL BE SUCH THAT THE BACK OF THE DRIVEWAY TAPER WILL BE THE SAME ELEVATION.

② IS BEGINNING OF DRIVEWAY TIE-IN.

NOTE: ① AND ② MAY COINCIDE

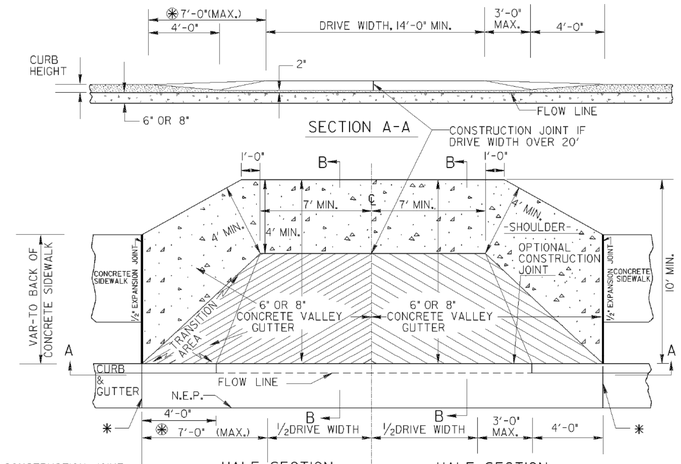
V.C.	MAXIMUM GI	
	CUT	FILL
5'	27%	16.67%
10'	28%	27%

V.C.	GI-G2 (MAX. ALGEBRAIC GRADE CHANGE)	
	SAG	CREST
5'	21%	25%
10'	25%	36%



MAXIMUM DRIVEWAY GRADES (SEE GEN. NOTE 7)

This Detail Replaces Ga Standard 6050



HALF SECTION — HALF SECTION

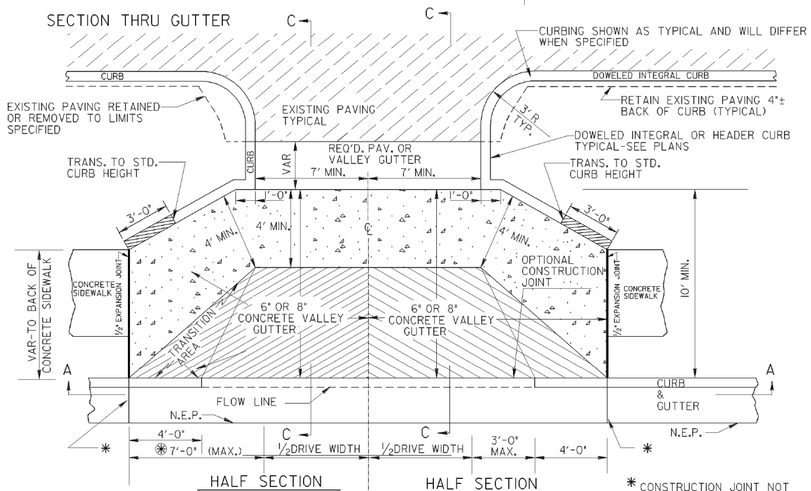
SYMMETRICAL ABOUT THIS SIDE OF CENTERLINE WHERE CONCRETE SIDEWALK OCCURS.

PLAN — PLAN

✱ CONSTRUCTION JOINT NOT REQUIRED IF THE OPTIONAL CONSTRUCTION JOINT IS PROVIDED AT BACK OF THE CURB.

RESIDENTIAL, COMMERCIAL OR NON-COMMERCIAL DRIVE

SECTION THRU GUTTER



HALF SECTION — HALF SECTION

SYMMETRICAL ABOUT THIS SIDE OF CENTERLINE WHERE CONCRETE SIDEWALK OCCURS.

PLAN — PLAN

(SHOWN ADJACENT TO EXISTING PAVED PARKING AREA)

✱ CONSTRUCTION JOINT NOT REQUIRED IF THE OPTIONAL CONSTRUCTION JOINT IS PROVIDED BACK OF CURB.

DRIVEWAY WITH CURB ISLAND

✱ 7'-0" OR DISTANCE EQUAL TO THAT FROM BACK OF CURB TO BACK OF SIDEWALK, WHICHEVER IS LESSER

NO.	BY	DATE	REVISION
	GLO	7-2-11	REV. PAVEMENT NOTES, REV. 12' TO 14' MIN., REV. SWALK
		4-11-02	REVISED
		4-3-02	REVISED

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

CONSTRUCTION DETAIL
DRIVEWAYS WITH TAPERED ENTRANCES
CONCRETE VALLEY GUTTERS

NO SCALE — MARCH 12, 2002

NUMBER A1

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
1	JAS	AR	GA	04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
STANDARD DETAIL

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

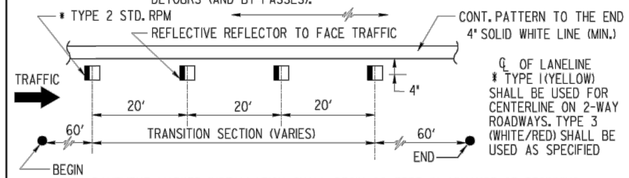
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SHEET 37 OF 74

PRELIMINARY - NOT FOR CONSTRUCTION

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TEMPORARY RAISED PAVEMENT MARKER DETAIL

INSTALLATION PATTERN FOR LATERAL MAINLINE SHIFTS AND CROSSOVER OPERATIONS. ALSO APPLICABLE FOR DETOURS (AND BY-PASSES).



PAVEMENT MARKER INSTALLATION SHALL BEGIN 60 FEET IN ADVANCE OF BEGINNING OF THE SHIFT OR TRANSITION ALIGNMENT, CONTINUE THRU THE TRANSITION AREA, & EXTEND 60 FEET BEYOND THE INTERSECTION WITH THE TEMPORARY ALIGNMENT. TEMPORARY RAISED PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND THE GA. STD. SPECIFICATIONS.

STANDARD LEGEND

- STRIPED DRUM
- TYPE III BARRICADES
- SPECIAL BARRICADE WITH BI-DIRECTIONAL, TYPE "C" STEADY BURNING LIGHT OR HIGHWAY SIGN AS SPECIFIED (SEE DETAIL)
- SEQUENTIAL OR FLASHING ARROW
- PORTABLE CHANGEABLE MESSAGE SIGN
- PERMANENT TYPE POST MOUNTED SIGN
- TEMPORARY POST MOUNTED SIGN
- PORTABLE MOUNTED SIGN - FLAGS NOT REQUIRED
- WORK AREA
- TRAFFIC CONE - 28" MIN. - (DAYTIME USE ONLY)
- FLAGGER WITH STOP-SLOW PADDLE
- TRAFFIC IMPACT ATTENUATOR (CRASH CUSHION)
- TYPE I CLEAR (WHITE) DELINEATOR - SINGLE FACE
- TYPE I YELLOW DELINEATOR - SINGLE FACE
- TYPE I CLEAR (WHITE) DELINEATOR DOUBLE FACE
- TYPE I YELLOW DELINEATOR DOUBLE FACE

GENERAL NOTES :

1. ALL TRAFFIC CONTROL DEVICES SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS; THE MUTCD; THE GEORGIA STANDARD SPECIFICATIONS, AND/OR SPECIAL PROVISIONS. (SEE SECTION 150)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE AS SHOWN, OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF 1FOOT ABOVE THE LEVEL OF PAVEMENT EDGE FOR DIRECTIONAL TRAFFIC OF TWO (2) LANES OR LESS AND A MINIMUM OF 7 FEET FOR DIRECTIONAL OF THREE (3) OR MORE LANES. ALL PORTABLE SIGNS AND SIGN MOUNTING DEVICES UTILIZED IN THE WORK SHALL BE NCHRP 350 COMPLIANT. PORTABLE SIGNS MAY BE USED WHEN THE DURATION OF THE WORK IS LESS THAN 3 DAYS.
4. WHEN THE CONSTRUCTION AREA HAS ENTRANCE/EXIT RAMPS OR INTERSECTIONS, WORK WILL BE PERFORMED IN SUCH A MANNER TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE AS POSSIBLE. ADDITIONAL CHANNELIZATION AND SIGNING SHALL BE INSTALLED, AS REQUIRED, TO ALLOW TRAFFIC TO REMAIN AS OPERATIONAL AS POSSIBLE. WHEN ENTRANCE RAMPS/INTERSECTIONS ARE INOPERABLE, FLAGGERS WILL BE UTILIZED TO CONTROL AND PROHIBIT MOVEMENT INTO THE PROJECT AT THAT POINT UNTIL CONSTRUCTION HAS CLEARED THE RESTRICTION SUFFICIENT TO RETURN TO OPERATIONAL STATUS.
5. FOR NIGHT TIME OPERATIONS, DRUMS SHALL HAVE, FOR THE LENGTH OF THE TAPER ONLY, A SIX (6") INCH ORANGE REFLECTIZED TOP STRIPE ON EACH DRUM IN THE TAPER AS REQUIRED IN SECTION 150. SPACING OF DEVICES SHALL BE AS SHOWN. DURING DAYLIGHT HOURS, CONES (28" MIN.) MAY BE USED IN ADVANCE OF AND THROUGHOUT WORK AREA.
6. SIGN LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS BUT MUST BE WITHIN THE LIMITATIONS SET FORTH IN THE MUTCD.
7. A PORTABLE SELF-SUSTAINED SEQUENTIAL OR FLASHING ARROW SIGN SHALL BE USED AT THE BEGINNING OF EACH LANE CLOSURE ON MULTI-LANE HIGHWAYS. ARROW PANELS SHALL NOT BE USED ON TWO-LANE TWO-WAY HIGHWAYS EXCEPT IN CAUTION MODE.
8. WHEN NOT IN USE. PORTABLE SIGNS SHALL BE REMOVED FROM THE TRAVELWAY SO THAT THE MESSAGE IS NOT VISIBLE TO THE MOTORIST. INTERIM SIGNS THAT ARE PERMANENTLY MOUNTED SHALL BE COVERED WHEN NOT APPLICABLE. SEE SECTION 150.
9. PROJECT SIGNS W20-1, G20-1 & G20-2 FOR THIS PROJECT SHALL BE COORDINATED WITH ADJACENT CONSTRUCTION PROJECTS. ONLY ONE SET OF SIGNS IS REQUIRED IN EACH DIRECTION FOR THE TOTAL LENGTH OF ALL PROJECTS- AT THE BEGINNING OF THE FIRST PROJECT AND AT THE ENDING OF THE LAST PROJECT. ADVANCE CONSTRUCTION SIGNS ARE NOT REQUIRED ON INTERMEDIATE PROJECTS, UNLESS CONSTRUCTION ON THE ADJACENT PROJECTS IS COMPLETED BEFOREHAND. THEN PROJECT CONSTRUCTION SIGNS WILL BE ADDED AS NECESSARY.
10. ALL THE COST OF THE MATERIALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL SECTION 150, LUMP SUM, WHEN SHOWN AS A PAYMENT ITEM IN THE PROPOSAL. OTHERWISE, ALL THE COST WILL BE INCLUDED IN THE OVER-ALL BID SUBMITTED. EXCEPT ON CERTAIN PROJECTS SOME ITEMS MAY BE PAID FOR SEPARATELY BY THE UNIT WHEN SPECIFIED ON THE PLANS AND IN THE PROPOSAL.
11. FOR FREEWAY CONSTRUCTION THE CONTRACTOR SHALL ARRANGE HIS WORK SO THAT THERE IS AN EXIT GORE SIGN AND AN EXIT DIRECTION SIGN IN PLACE FOR ALL EXIT RAMPS AT ALL TIMES.
12. ALL CROSSROADS, SIDEROADS, RAMPS OR OTHER ENTRANCES TO MAINLINE CONSTRUCTION SHALL REQUIRE W20-1 SIGNS LOCATED AS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
13. MARKINGS AND/OR SIGNS IN CONFLICT WITH INTERIM TRAFFIC CONTROL SHALL BE REMOVED, RELOCATED OR COVERED; APPLICABLE EXISTING AND INTERIM MARKINGS AND/OR SIGNING SHALL BE MAINTAINED PER SECTION 150.
14. ANY CHANNELIZING DEVICES (DRUMS OR BARRICADES) IN CONFLICT WITH CONCRETE BARRIERS SHALL BE OMITTED.
15. CONTRACTOR SHALL PROVIDE THE NECESSARY TRAFFIC CONTROL DURING THE TIE-IN OPERATION.
16. THE TRAFFIC CONTROL DEVICES SHOWN FOR ANY STAGE CONSTRUCTION SHALL REMAIN IN PLACE AND BE UTILIZED SO LONG AS NECESSARY FOR THE FOLLOWING STAGES AND SHALL BE REMOVED IMMEDIATELY WHEN NO LONGER REQUIRED. THE DEVICES MAY OR MAY NOT BE SHOWN ON THE PLANS FOR THESE FOLLOWING STAGES. REFER TO THE PLAN SHEET FOR THE INITIAL STAGE FOR THESE TRAFFIC CONTROLS.
17. EXISTING GUIDE SIGNS SHALL REMAIN IN PLACE SO LONG AS THEY DO NOT CONFLICT WITH THE CONSTRUCTION OF THIS PROJECT. WHEN IN CONFLICT, THEY SHALL BE RELOCATED ON TEMPORARY POSTS AT THE LOCATION AS DIRECTED BY THE ENGINEER. ANY DISTANCE SHOWN ON THE SIGN SHALL BE ADJUSTED ACCORDINGLY. IF THE SIGNS CANNOT BE RELOCATED, THEN THE SIGN SHALL BE REMOVED AND STORED AT A PLACE DESIGNATED BY THE ENGINEER. IF NEITHER OF THE ABOVE CAN BE DONE, THEN THE CONTRACTOR SHALL PROVIDE INTERIM GUIDE SIGNS AS COVERED IN SECTION 150.
18. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS "LOW/SOFT SHOULDER" WARNING SIGNS AT THE PROJECT TERMINII, AT INTERVALS NOT TO EXCEED 1 MILE AND IMMEDIATELY PAST EACH CROSSROAD.

    (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION, THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK UP, TRANSPORT, AND ERECT. THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T
RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

REVISIONS AND RECORD OF USE

DATE	REVISIONS
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
TRAFIC CONTROL - 01

DESIGNED: HB
DETAILED: HB
CHECKED: AR
APPROVED: GA
DATE: OCT-2024

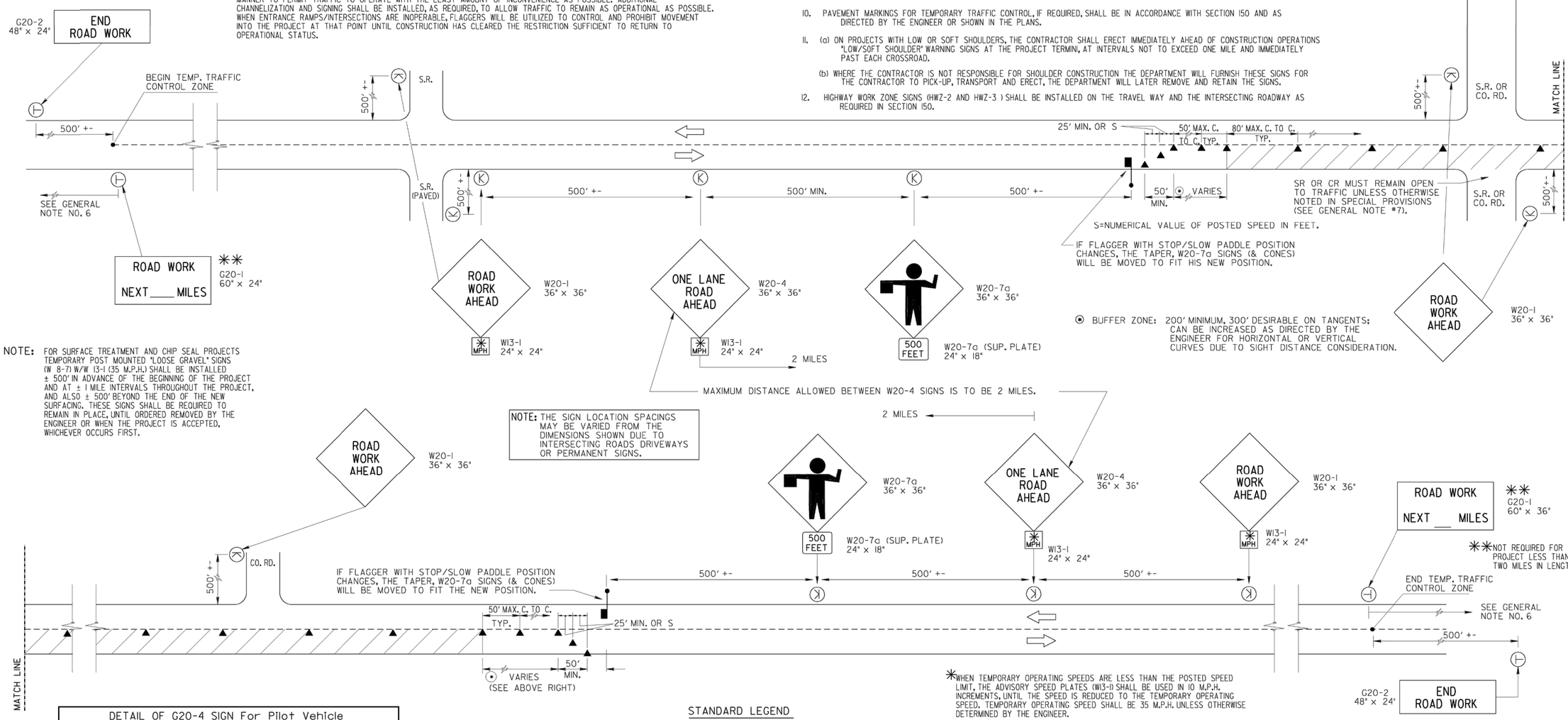
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

TC-01
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GENERAL NOTES:

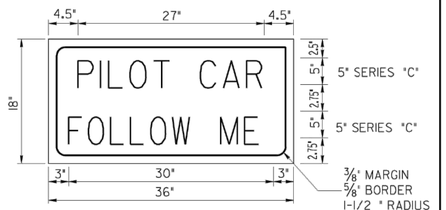
1. ALL TRAFFIC CONTROL DEVICES SHALL BE MADE AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS; THE MUTCD; THE GEORGIA STANDARD SPECIFICATIONS, AND/OR SPECIAL PROVISIONS. (SEE SECTION 150)
2. ALL TRAFFIC CONTROL DEVICES SHALL BE AS SHOWN, OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DEVICES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF 1FOOT ABOVE THE LEVEL OF PAVEMENT EDGE FOR DIRECTIONAL TRAFFIC OF TWO (2) LANES OR LESS AND A MINIMUM OF 7 FEET FOR DIRECTIONAL OF THREE (3) OR MORE LANES. ALL PORTABLE SIGNS AND SIGN MOUNTING DEVICES UTILIZED IN THE WORK SHALL BE NCHRP 350 COMPLIANT. PORTABLE SIGNS MAY BE USED WHEN THE DURATION OF THE WORK IS LESS THAN 3 DAYS.
4. WHEN THE CONSTRUCTION AREA HAS ENTRANCE/EXIT RAMPS OR INTERSECTIONS, WORK WILL BE PERFORMED IN SUCH A MANNER TO PERMIT TRAFFIC TO OPERATE WITH THE LEAST AMOUNT OF INCONVENIENCE AS POSSIBLE. ADDITIONAL CHANNELIZATION AND SIGNING SHALL BE INSTALLED, AS REQUIRED, TO ALLOW TRAFFIC TO REMAIN AS OPERATIONAL AS POSSIBLE. WHEN ENTRANCE RAMPS/INTERSECTIONS ARE INOPERABLE, FLAGGERS WILL BE UTILIZED TO CONTROL AND PROHIBIT MOVEMENT INTO THE PROJECT AT THAT POINT UNTIL CONSTRUCTION HAS CLEARED THE RESTRICTION SUFFICIENT TO RETURN TO OPERATIONAL STATUS.
5. FOR NIGHT TIME OPERATIONS, DRUMS SHALL HAVE, FOR THE LENGTH OF THE TAPER ONLY, A SIX (6") INCH ORANGE REFLECTIZED TOP STRIPE ON EACH DRUM IN THE TAPER AS REQUIRED IN SECTION 150. SPACING OF DEVICES SHALL BE AS SHOWN. DURING DAYLIGHT HOURS, CONES (28" MIN.) MAY BE USED IN ADVANCE OF AND THROUGHOUT WORK AREA.
6. SIGNS SHOWN HERE ARE IN ADDITION TO ALL ADVANCE WARNING SIGNS REQUIRED IN SECTION 150.
7. FLAGGERS SHALL BE PROVIDED AS NECESSARY TO PROHIBIT WRONG DIRECTION OF TRAFFIC THRU WORK AREAS.
8. WHEN NOT IN USE, PORTABLE SIGNS SHALL BE REMOVED FROM THE TRAVELWAY SO THAT THE MESSAGE IS NOT VISIBLE TO THE MOTORIST. INTERIM SIGNS THAT ARE PERMANENT MOUNTED SHALL BE COVERED WHEN NOT APPLICABLE. SEE SECTION 150.
9. PAYMENT FOR TRAFFIC CONTROL SHALL BE PER SECTION 150.
10. PAVEMENT MARKINGS FOR TEMPORARY TRAFFIC CONTROL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH SECTION 150 AND AS DIRECTED BY THE ENGINEER OR SHOWN IN THE PLANS.
11. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS "LOW/SOFT SHOULDER" WARNING SIGNS AT THE PROJECT TERMINI, AT INTERVALS NOT TO EXCEED ONE MILE AND IMMEDIATELY PAST EACH CROSSROAD.
    (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK-UP, TRANSPORT AND ERECT, THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.
12. HIGHWAY WORK ZONE SIGNS (HWZ-2 AND HWZ-3) SHALL BE INSTALLED ON THE TRAVEL WAY AND THE INTERSECTING ROADWAY AS REQUIRED IN SECTION 150.



NOTE: FOR SURFACE TREATMENT AND CHIP SEAL PROJECTS TEMPORARY POST MOUNTED "LOOSE GRAVEL" SIGNS (W 8-7) W/W 13-1 (35 M.P.H.) SHALL BE INSTALLED ± 500' IN ADVANCE OF THE BEGINNING OF THE PROJECT AND AT ± 1 MILE INTERVALS THROUGHOUT THE PROJECT, AND ALSO ± 500' BEYOND THE END OF THE NEW SURFACING. THESE SIGNS SHALL BE REQUIRED TO REMAIN IN PLACE, UNTIL ORDERED REMOVED BY THE ENGINEER OR WHEN THE PROJECT IS ACCEPTED, WHICHEVER OCCURS FIRST.

NOTE: THE SIGN LOCATION SPACINGS MAY BE VARIED FROM THE DIMENSIONS SHOWN DUE TO INTERSECTING ROADS DRIVEWAYS OR PERMANENT SIGNS.

DETAIL OF G20-4 SIGN For Pilot Vehicle
IF REQUIRED OR USED ON PROJECT



STANDARD LEGEND

- STRIPED DRUM
- PERMANENT TYPE POST MOUNTED SIGN (7' MOUNT HEIGHT)
- TEMPORARY POST MOUNTED SIGN - (7' MOUNT HEIGHT)
- PORTABLE MOUNTED SIGN - MINIMUM HEIGHT OF 1FT. ABOVE THE EDGE OF PAVEMENT; INSTALLED AS PER NCHRP 350 TESTING REQUIREMENTS.
- WORK AREA
- TRAFFIC CONE - 28" MIN. - DAYTIME USE ONLY
- FLAGGER WITH STOP-SLOW PADDLE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	LAS	AR	GA
0	HB	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CIVIL
TRAFIC CONTROL - 02

DESIGNED: HB
DETAILED: HB
CHECKED: AR
APPROVED: GA
DATE: OCT-2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

TC-02
SHEET
23 OF 75

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Notes for Figure 6H-6—Typical Application 6
Shoulder Work with Minor Encroachment

Guidance:

1. *All lanes should be a minimum of 10 feet in width as measured to the near face of the channelizing devices.*
2. *The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used.*

Option:

3. For short-term use on low-volume, low-speed roadways with vehicular traffic that does not include longer and wider heavy commercial vehicles, a minimum lane width of 9 feet may be used.
4. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely-spaced channelizing devices, provided that the minimum lane width of 10 feet is maintained.
5. Additional advance warning may be appropriate, such as a ROAD NARROWS sign.
6. Temporary traffic barriers may be used along the work space.
7. The shadow vehicle may be omitted if a taper and channelizing devices are used.
8. A truck-mounted attenuator may be used on the shadow vehicle.
9. For short-duration work, the taper and channelizing devices may be omitted if a shadow vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
10. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

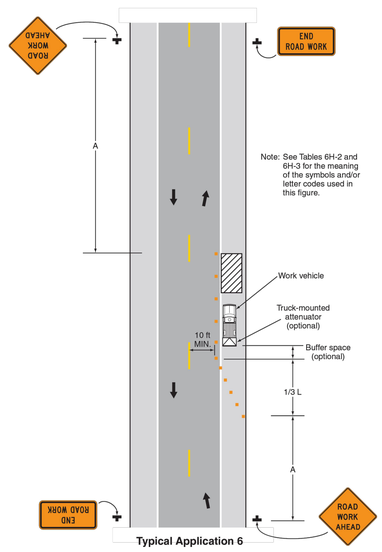
Standard:

11. Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.

12. Shadow and work vehicles shall display high-intensity rotating, flashing, oscillating, or strobe lights.

13. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)



Typical Application 6

Notes for Figure 6H-10—Typical Application 10
Lane Closure on a Two-Lane Road Using Flaggers

Option:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

4. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*

Standard:

5. At night, flagger stations shall be illuminated, except in emergencies.

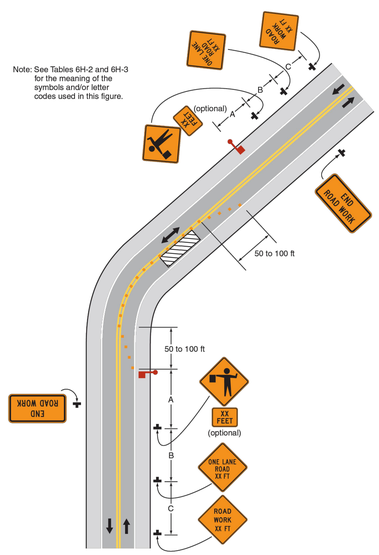
Guidance:

6. *When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.*
7. *When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.*
8. *When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.*
9. *When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.*
10. *Early coordination with the railroad company or light rail transit agency should occur before work starts.*

Option:

11. A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)



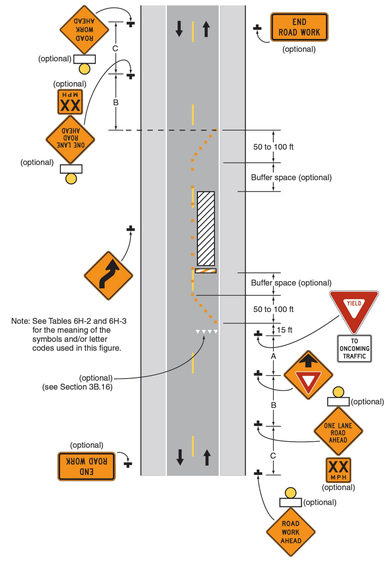
Typical Application 10

Notes for Figure 6H-11—Typical Application 11
Lane Closure on a Two-Lane Road with Low Traffic Volumes

Option:

1. This TTC zone application may be used as an alternate to the TTC application shown in Figure 6H-10 (using flaggers) when the following conditions exist:
   a. Vehicular traffic volume is such that sufficient gaps exist for vehicular traffic that must yield.
   b. Road users from both directions are able to see approaching vehicular traffic through and beyond the worksite and have sufficient visibility of approaching vehicles.
2. The Type B flashing warning lights may be placed on the ROAD WORK AHEAD and the ONE LANE ROAD AHEAD signs whenever a night lane closure is necessary.

Figure 6H-11. Lane Closure on a Two-Lane Road with Low Traffic Volumes (TA-11)



Typical Application 11

GENERAL TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. WORK INVOLVING LANE CLOSURES MAY BE CONDUCTED AS FOLLOWS:
   A. LANE CLOSURES SHALL ONLY BE CONDUCTED BETWEEN THE HOURS OF 9 AM AND 4 PM, MONDAY THROUGH FRIDAY.
   B. NO LANE CLOSURES SHALL BE ALLOWED ON HOLIDAYS.
   C. ADDITIONAL RESTRICTIONS MAY BE IMPOSED BY GA DOT BASED ON TRAFFIC CONDITIONS DURING CONSTRUCTION.
3. TRAFFIC CONTROL PLANS:
   A. TRAFFIC CONTROL PLANS ARE INCLUDED IN THE CONSTRUCTION PLANS FOR THIS PROJECT. HOWEVER, FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE TRAFFIC CONTROL MEASURES SHOWN.
   B. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY GA DOT A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO COMMENCING WORK AND THE CONTRACTOR SHALL NOT DISRUPT TRAFFIC PATTERNS UNTIL THE OWNER HAS APPROVED THE CONTRACTOR'S TRAFFIC CONTROL PLAN SUBMITTAL.
   C. THE CONTRACTOR'S REVISED TRAFFIC CONTROL PLANS SHALL INCLUDE SITE SPECIFIC TRAFFIC CONTROL DETAILS AND SHALL IDENTIFY THE SEQUENCE OF CONSTRUCTION.
   D. THE OWNER AND ENGINEER RESERVE THE RIGHT TO MODIFY THE TRAFFIC CONTROL PLANS AS NECESSARY IN THE INTEREST OF PUBLIC SAFETY OR TRAFFIC EFFICIENCY.
   E. PRIOR TO BEGINNING WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES AND MEASURES COMPLY WITH THE APPROVED TRAFFIC CONTROL PLANS.
4. THE CONTRACTOR SHALL CHECK ALL TRAFFIC CONTROL DEVICES AND WORK ZONES BEFORE, DURING, AND AFTER EACH WORK DAY TO ENSURE PROPER OPERATION. ON WEEKENDS, HOLIDAYS, OR ANY NON-WORKING DAYS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE TRAFFIC MAINTENANCE AND CONTROL DEVICES DAILY FOR PROPER OPERATION.
5. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY HENRY COUNTY DOT. RESIDENT, MAIL AND PARCEL DELIVERY SERVICE, TRASH PICKUP, AND EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES REGARDLESS OF THE LANE AND/OR STREET CLOSURES IN EFFECT.
6. ALL LANE CLOSURES SHALL BE REOPENED TO TRAFFIC AT THE CONCLUSION OF CONSTRUCTION ACTIVITIES EACH DAY, UNLESS 24-HOUR CLOSURES HAVE BEEN OTHERWISE APPROVED BY HENRY COUNTY DOT.
7. DURING NON-WORKING HOURS OR DAYS, ALL EXCAVATED AREAS ARE TO BE BACKFILLED OR SECURED AND PROTECTED USING APPROVED SAFETY DEVICES AND MATERIALS.
8. WHEN THE USE OF TYPE III BARRICADES IS REQUIRED (DAY OR NIGHT), ALL BARRICADES SHALL BE EQUIPPED WITH TYPE B HIGH INTENSITY FLASHING WARNING LIGHTS.
9. ALL CONTRACTOR EMPLOYEES EXPOSED TO VEHICULAR TRAFFIC SHALL BE PROVIDED WITH AND REQUIRED TO WEAR WARNING VESTS MARKED WITH OR MADE OF REFLECTORIZED OR HIGH VISIBILITY MATERIALS.
10. FOR CONSTRUCTION OPERATIONS LASTING LONGER THAN 14 CALENDAR DAYS, THE CONTRACTOR SHALL INSTALL "ROAD WORK AHEAD" SIGNS (W21-4, 48" X 48") AND "END ROAD WORK" (G20-2A, 48" X 24") WARNING SIGNS ON 6"x6" WOODEN GROUND MOUNTED POSTS. THESE SIGNS MUST BE INSTALLED PRIOR TO BEGINNING WORK AND SHALL BE REMOVED AFTER COMPLETION OF ALL CONSTRUCTION AND RESTORATION ACTIVITIES.
11. FOR ALL APPROVED CONSTRUCTION/TRUCK ENTRANCES, THE CONTRACTOR SHALL INSTALL "TRUCKS ENTERING HIGHWAY" (48" X 48" ORANGE AND BLACK) WARNING SIGNS ON 6"x6" WOODEN GROUND MOUNTED POSTS. THESE SIGNS SHALL BE INSTALLED ± 500 FEET IN ADVANCE OF ALL APPROVED CONSTRUCTION ACCESS/ENTRANCE POINTS.
12. ANY TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO PAVEMENT MARKINGS, SIGNS, AND TRAFFIC CONTROL SIGNAL EQUIPMENT AND LOOPS THAT IS DAMAGED OR DESTROYED BY THE CONTRACTOR MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE UNLESS THEIR REMOVAL OR DESTRUCTION IS CALLED FOR BY THE CONTRACT DOCUMENTS.
13. DISTURBED STRIPING SHALL BE REPLACED IN LIKE & KIND WITH NEW MATERIALS CONFORMING TO GEORGIA DOT STANDARDS.
14. WHERE EXISTING PAVEMENT MARKINGS AND LINES ARE IN CONFLICT WITH THE TRAFFIC PATTERN BEING USED ON CONSTRUCTION, THE CONTRACTOR SHALL REMOVE OR OVERLAY LINES TO THE SATISFACTION OF THE ENGINEER SUCH THAT THE LINES DO NOT CONFUSE THE TRAVELING PUBLIC. ALL REMAINING LINES OR MARKINGS SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", OR AS DIRECTED BY THE ENGINEER. TRAFFIC SHALL NOT BE ALLOWED ON ANY PAVEMENT NOT PROPERLY STRIPED. ALL TEMPORARY SIGNING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", CURRENT EDITION AND/OR AS DIRECTED BY THE ENGINEER. ADDITIONAL DETOUR SIGNAGE MAY BE REQUIRED IN ORDER TO CONFORM TO THE MUTCD.
15. PEDESTRIAN AND LOCAL VEHICULAR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. SAFETY DEVICES AND FLAG-MEN SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE. WRITTEN PERMISSION TO CLOSE THE CONSTRUCTION AREA TO TRAFFIC MUST BE OBTAINED FROM HENRY COUNTY DOT PRIOR TO THE CLOSING. ALL LOCAL EMERGENCY SERVICES SHALL BE NOTIFIED IN WRITING A MINIMUM OF 72 HOURS PRIOR TO ROAD CLOSINGS.
16. DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY TRAFFIC CONTROL MEASURES TO ENSURE SAFETY AT ALL TIMES FOR EMPLOYEES, RESIDENTS, AND MOTORISTS, IN ACCORDANCE WITH THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES', ANSI D6.1, LATEST REVISION.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL HENRY COUNTY DEPARTMENT OF TRANSPORTATION REQUIREMENTS.
18. FOR ANY FURTHER INFORMATION REGARDING TRAFFIC MAINTENANCE AND CONTROL REQUIREMENTS, CONTACT HENRY COUNTY DEPARTMENT OF TRANSPORTATION AT 770-288-7623.

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
2	HB	JH	AR
1	HB	JH	GA
0	HB	JH	AR

REVISIONS	DATE
100% SUBMITTAL	7/29/2024
90% SUBMITTAL REVIEW	04/22/2025
30% SUBMITTAL	3/26/2024

HENRY COUNTY WATER AUTHORITY
HENRY COUNTY, GEORGIA
CAMP CREEK SANITARY SEWER PHASE 2

CIVIL
TRAFFIC MAINTENANCE PLAN
CAMP CREEK GRAVITY SEWER

DESIGNED: HB
DETAILED: HB
CHECKED: AR
APPROVED: GA
DATE: JULY-2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

TC-03
SHEET
24 OF 38

PRELIMINARY - NOT FOR CONSTRUCTION

FD10000
PLOTTED: 4/4/2025 8:48 AM FILE: P:\01 Active Projects\g107 - Lakeshore Engineering\g1070001 - Pdb Services For 2024 Sewer Implementation\31_authoringcad\CIVIL\C-TRAFFIC MAINTENANCE.dwg

SPALDING COUNTY WATER AUTHORITY

PROGRESSIVE DESIGN BUILD

SEWER IMPLEMENTATION

EROSION AND SEDIMENT CONTROL PLAN

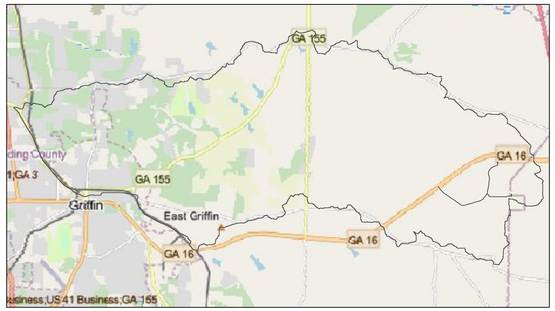


PROJECT LOCATION

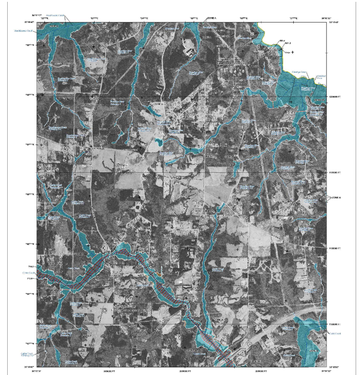
VICINITY MAP

(43) ***BASIN MAP***

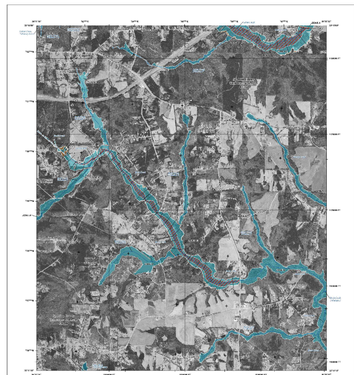
DRAINAGE AREA :26.5SQ MILES



F.E.M.A MAPS



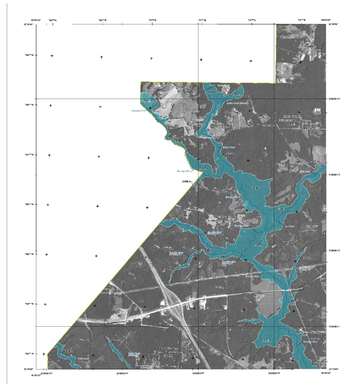
FIRM PANEL 13255C0095E, DATED JUNE 7, 2017



FIRM PANEL 13255C0210E, JUNE 7, 2017



FIRM PANEL 13255C0125E, DATED JUNE 7, 2017



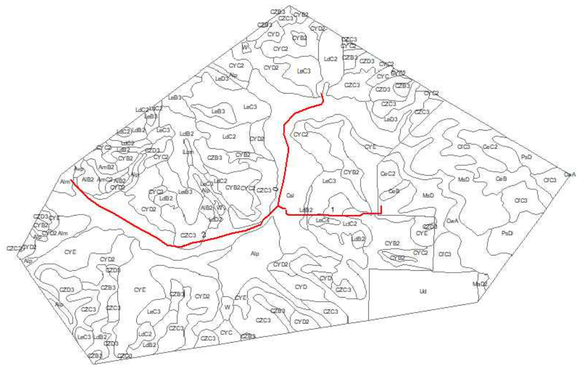
FIRM PANEL 13035C0065D, DATED JUNE 7, 2017

OWNER

SPALDING COUNTY WATER AUTHORITY
119 EAST SOLOMON STREET
GRIFFIN, GA 30223
PHONE: (770) 467-4777
CONTACT: JOSEPH JOHNSON, PE

24 HOUR EMERGENCY
CONTACT:
TBD
(###) ###-####

SOIL MAPS



(47)

SOIL MAP	
SOIL SYMBOL	SOIL NAME
CeB	Cecil sandy loam
CeC2	Cecil sandy loam
CfC3	Cecil sandy clay loam
CwA	Chewacla loam
MsD	Madison-Bethlehem complex
AlB2	Altavista sandy loam
Alm	Toccoa and Chewacla soils
Alp	Chewacla, Cartecay
AmB2	Appling sandy loam
AmC2	Appling sandy loam
Avp	Alluvial land, wet
Csl	Chewacla silt loam
CYB2	Cecil sandy loam
CYC2	Cecil sandy loam
CYD	Cecil sandy loam
CYD2	Cecil sandy loam
CYE	Cecil sandy loam
CZB3	Cecil sandy clay loam
CZC3	Cecil sandy clay loam
CZD3	Cecil sandy clay loam
Lcm	Local alluvial land
LdB2	Lloyd sandy loam
LdC2	Lloyd sandy loam
LdD2	Lloyd sandy loam
LeB3	Lloyd clay loam
LeC3	Lloyd clay loam
LeC4	Lloyd-Gullied land complex
LeD3	Lloyd clay loam
W	Water

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED: 07/09/2023 EXPIRES: 07/09/2026

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE
1	JAS	AR	GA	04/21/25

80% PERMIT REVIEW SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL
COVER

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-01
SHEET
72 OF 126

ES&PC PLAN GENERAL NOTES

19 **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.**

20 **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.**

MAINTENANCE OF ALL SOIL, EROSION AN SEDIMENT CONTROL MEASURES AND PRACTICES WETHER TEMPORARY OR PERMANENT SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.

ALL FILL SLOPES SHALL HAVE SILT FENCE AT THE TOE OF THE SLOPE.

CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF 10 FEET OR MORE SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKET

ALL ONSITE PROJECT WETLANDS ARE DELINEATED. WETLANDS WILL BE DISTURBED AS PART OF THIS PROJECT.

SEDIMENT STORAGE INDICATORS AND MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING 1/3 FULL VOLUME.

15 **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.**

MOVEMENT OF HEAVY EQUIPMENT AND VEHICLES WILL BE LIMITED DURING RAIN EVENTS AND PERIODS OF SOIL SATURATION TO MINIMIZE TRENCHING AND RUTTING OF THE GROUND.

CONSTRUCTION ACTIVITIES OCCURRING WITHIN WETLAND AREAS AND FLOODPLAINS WILL EMPLOY SPECIALIZED BMPS TO MINIMIZE DISTURBANCE TO THESE AREAS. HEAVY EQUIPMENT USE IN WETLANDS MUST BE AVOIDED IF AT ALL POSSIBLE. HEAVY

EQUIPENT OPERATED IN WETLAND AREAS MUST BE PLACED ON MATS OR OTHER MEASURES EMPLOYED TO MINIMIZE SOIL AND PLANT DISTURBANCE.

THE STREAMBED SHALL BE RESTORED TO THE ORIGINAL GRADIENT FOLLOWING PROJECT COMPLETION, UNLESS SPECIFICALLY MODIFIED BY THE PROJECT.

PLAN ALTERATIONS

THIS ES&PC IS PROVIDED BY THE ENGINEER. IT ADDRESSES THE STAGED CONSTRUCTION OF THE PROJECT ON THE BASIS OF COMMON CONSTRUCTION METHODS AND TECHNIQUES. IF THE CONTRACTOR ELECTS TO ALTER THE STAGED CONSTRUCTION FROM THAT SHOWN ON THE PLANS OR UTILIZE CONSTRUCTION TECHNIQUES THAT RENDER HIS PLAN INEFFECTIVE, AND THE ENGINEER APPROVES THE REQUEST, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVISION OF THE ES&PC PLAN TO REFLECT THE REVISED CONSTRUCTION. THIS WILL INCLUDE ANY REVISIONS TO THE EROSION AND SEDIMENT CONTROL ITEM QUANTITIES.

THE CONTRACTOR AND THE CERTIFIED DESIGN PROFESSIONAL SHALL CAREFULLY EVALUATE THIS PLAN PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES.

AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

17 **A REVISION TO THE EROSION CONTROL PLAN IS REQUIRED WHEREVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT WILL HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING POLLUTANT DISCHARGE.**

TEMPORARY STABILIZATION

EXCEPT AS PROVIDED IN EPD GENERAL PERMIT GAR 100002, STABILIZATION MEASURES WILL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING. HOWEVER, IN SPECIAL CASES THE PROJECT ENGINEER MAY REQUIRE THE CONTRACTOR TO PERFORM STABILIZATION MORE OFTEN THAN 14 DAYS.

VEGETATION AND PLANTING SCHEDULE

ALL TEMPORARY AND PERMANENT VEGETATIVE PRACTICES INCLUDING PLANT SPECIES, PLANTING DATES, SEEDING, FERTILIZING, LIMING AND MULCHING FOR THIS PROJECT CAN BE FOUND IN THE ES&PC PLAN.

SEQUENCE OF MAJOR ACTIVITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF THE CONSTRUCTION SEQUENCING AND PHASING. THE PERIMETER BMPs AND INLET PROTECTION DEVICES MUST BE IN PLACE AS SHOWN ON THE PLANS PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. ADDITIONAL BMPs SHALL BE INSTALLED AND MAINTAINED DURING CONSTRUCTION ACTIVITIES AS SHOWN OR OTHERWISE REQUIRED. PERMANENT BMPs AND FINAL STABILIZATION SHALL BE COMPLETED AS SHOWN ON THE PLAN OR OTHERWISE REQUIRED.

PETROLEUM STORAGE, SPILLS AND LEAKS

25 THESE PLANS EXPRESSLY DELEGATE THE RESPONSIBILITY OF PROPER ONSITE HAZARDOUS MATERIAL MANAGEMENT TO THE CONTRACTOR. THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE AN ACTION PLAN AND KEEP THE NECESSARY MATERIALS ON SITE FOR THE CAPTURE, CLEAN UP, AND DISPOSAL OF ANY PETROLEUM PRODUCT OR OTHER HAZARDOUS MATERIAL, LEAKS OR SPILLS ASSOCIATED WITH THE SERVICING, REFUELING OR OPERATION OF ANY EQUIPMENT UTILIZED AT THE SITE. A COPY OF THE ACTION PLAN SHALL BE KEPT ONSITE. ALL PERSONNEL OPERATING OR SERVICING THE EQUIPMENT SHALL BE FAMILIAR WITH THE ACTION PLAN. THE CONTRACTOR SHALL NOT PARK, REFUEL OR MAINTAIN EQUIPMENT WITHIN DESIGNATED WATERWAYS.

SPILL CLEAN-UP AND CONTROL PRACTICES

- LOCAL, STATE, AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDE, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
- SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
- 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.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 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 COUNTER MEASURERS PLAN PREPARED BY A LICENSED PROFESSIONAL

IF THE CONTRACTOR ELECTS TO STORE PETROLEUM PRODUCTS ONSITE THE CONTRACTOR SHALL PREPARE AN ES&PC PLAN ADDENDUM THAT ADDRESSES THE ADDITIONAL BMPs NEEDED FOR ONSITE STORAGE AND SPILL PREVENTION FOR PETROLEUM PRODUCTS. THIS PLAN SHALL BE PREPARED BY A CERTIFIED DESIGN PROFESSIONAL AS REQUIRED BY GAR 100002 FOR INCLUSION WITH THESE PLANS.

SOIL SERIES INFORMATION

A PROJECT SPECIFIC SOIL SURVEY WAS NOT PERFORMED AS PART OF THIS PROJECT. SOIL SERIES INFORMATION OBTAINED FROM THE NRCS IS SHOWN ON THE PLAN SHEETS AND SUMMARIZED IN THE TABLE ON SHEET CE-00-03. THE NRCS SOIL SURVEY AND SOIL SERIES MAPS FOR THE PROJECT AREA ARE AVAILABLE ONLINE AT: HTTP:\\WEBSOILSURVEY.NRCS.USDA.GOV\

POST CONSTRUCTION BMPs FOR STORMWATER MANAGEMENT

ALL PERMANENT POST CONSTRUCTION BMPs ARE SHOWN IN THE ES&PC PLANS. THE POST CONSTRUCTION BMPs CONSIST OF PERMANENT VEGETATION TO PROVIDE PERMANENT STABILIZATION OF THE SITE AND PREVENT ABNORMAL TRANSPORTATION OF SEDIMENT AND POLLUTANTS INTO RECEIVING WATERS.

26 SILT FENCE INSTALLATION WITH SPURS

SILT FENCE SHALL NOT BE RUN CONTINUOUSLY. SILT FENCE SHALL EITHER TURN BACK INTO THE FILL OR SLOPE TO CREATE SMALL POCKETS THAT TRAP SILT AND FORCE STORMWATER TO FLOW THROUGH THE SILT FENCE, KNOWN AS USING SPURS. THE SPURS SHALL BE UTILIZED ON ALL SILT FENCES LOCATED AROUND THE PERIMETER OF THE PROJECT SITE AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE SPURS ARE TO BE SPACED IN ACCORDANCE WITH THE TYPICAL LOCATION DETAILS FOR SILT FENCE / HAY BALES. MAXIMUM SPUR SPACING REACHED WHEN THE SPUR IS AT THE SAME ELEVATION AS THE BOTTOM OF THE IMMEDIATELY UP GRADIENT SPUR.

PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS: ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE DAILY PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY PETROLEUM TO BE STORED IN TANKS WILL BE SURROUNDED BY AN EARTHEN BERM AS A SECONDARY PROTECTIVE MEASURE. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM. EXCESS PRODUCT, PRODUCT CONTAINERS, AND MATERIALS USED WITH THESE PRODUCTS WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND STATE AND LOCAL REGULATIONS.

FERTILIZERS: FERTILIZER USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

WASTE DISPOSAL: KEEP PORTA-JOHNS AWAY FROM STORM DRAIN INLETS AND RECEIVING BODIES OF WATER. RUNOFF FROM PORTA-JOHNS INTO WATER SYSTEMS IS A VIOLATION OF FEDERAL, STATE, AND LOCAL ORDINANCES.

MULCH: MULCH STORAGE MUST COMPLY WITH THE FOLLOWING SECTION OF THE STANDARD FIRE PREVENTION CODE. SECTION 502.31 - NO PERSON SHALL STORE IN ANY BUILDING OR UPON ANY PREMISES IN EXCESS OF 2,500 CU.FT. GROSS VOLUME OF COMBUSTIBLE EMPTY PACKING CASES, BOXES, BARRELS OR SIMILAR CONTAINERS, OR RUBBER TIRES, OR RUBBER OR OTHER SIMILARLY COMBUSTIBLE MATERIALS WITHOUT A PERMIT.

DEWATERING AND PUMPING ACTIVIES

ANY PUMPED DISCHARGE FROM AN EXCAVATION OR DISTURBED AREA SHALL BE ROUTED THROUGH AN APPROPRIATELY SIZED SEDIMENT BASIN, SILT FILTER BAG OR SHALL BE TREATED WITH SUITABLE BMPs

MISCELLANEOUS CONTROLS

THE CONTRACTOR SHALL FOLLOW THIS ES&PC PLAN, ENSURE AND DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE STATE AND/OR LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER/SEPTIC SYSTEMS AND PETROLEUM STORAGE.

THE CONTRACTOR SHALL CONTROL DUST FROM THE SITE TO THE MAXIMUM EXTENT PRACTICAL.

NON-STORMWATER DISCHARGE

NON-STORM WATER DISCHARGE DEFINED IN PART IV.D.7 OF THE NPDES PERMIT MAY BE DISCHARGED, INCLUDING: WATER LINE FLUSHING, IRRIGATION DRAINAGE, UN-CONTAMINATED GROUNDWATER, ADDITIONAL NON-STORM WATER DISCHARGES MAY BE IDENTIFIED AFTER CONSTRUCTION COMMENCEMENT. THESE DISCHARGES SHALL BE SUBJECT TO THE SAME REQUIREMENTS AS STORMWATER DISCHARGES AS REQUIRED BY THE GEORGIA EROSION AND SEDIMENTATION CONTROL ACT, THE NPDES PERMIT, THE CLEAN WATER ACT, THE MANUAL FOR SOIL EROSION AND SEDIMENT CONTROL IN GEORGIA, DEPARTMENT STANDARDS AND OTHER CONTRACT DOCUMENTS. THE NPDES DOES NOT AUTHORIZE THE DISCHARGE OF SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING OR THE DISCHARGE OF WASTE WATER CONTAINING STUCCO, PAINTS, OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.

STORMWATER DISCHARGES

POTENTIAL SOURCES OF STORMWATER POLLUTION EXPECTED TO BE PRESENT ON THE SITE INCLUDE: SEDIMENT, OIL, LUBRICANTS, PAINTS, SOLVENTS, CONCRETE, FERTILIZER AND HERBICIDES. POLLUTANTS SHALL BE MINIMIZED IN THE STORMWATER DISCHARGES BY MAINTAINING GOOD HOUSE KEEPING AND UTILIZING PROPER CARE, HANDLING OF, AND/OR DISPOSAL OF CONSTRUCTION MATERIALS, SOLVENTS, 28 PETROLEUM PRODUCTS AND CONSTRUCTION WASTE. STRUCTURAL AND VEGETATION BMPs SHAL BE UTILIZED AS DEPICTED IN THE ES&PC PLAN.

SEDIMENT STORAGE

THE SITE HAS A TOTAL DISTURBED AREA OF 6.72 ACRES REQUIRING 450.24 CUBIC YARDS OF SEDIMENT STORAGE PER THE REQUIRED 67 CU YD/AC. UTILITY MAIN CONSTRUCTION DOES NOT ALLOW FOR CENTRAL SEDIMENT STORAGE BMPs. THE PRIMARY METHOD OF SEDIMENT STORAGE WILL BE IN SILT FENCE AND CHECK DAMS INSTALLED ADJACENT TO THE UTILITY MAIN.

36 **WASTE MATERIALS**

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY AND TRASH WILL BE HAULED AS REQUIRED BY LOCAL REGULATIONS. NO CONSTRUCTION WASTE WILL BE BURIED ON-SITE.

WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

ALL PERSONNEL WILL BE INSTRUCTED ON PROPER PROCEDURES FOR WASTE DISPOSAL. A NOTICE STATING THESE PRACTICES WILL BE POSTED AT THE JOBSITE AND THE CONTRACTOR WILL BE RESPONSIBLE FOR 18 SEEING THAT THESE PROCEDURES ARE FOLLOWED.

FOR BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE, PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMWATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. MINIMIZATION OF EXPOSURE 27 IS NOT REQUIRED IN CASES WHERE EXPOSURE TO PRECIPITATION AND TO STORMWATER WILL NOT RESULT IN A DISCHARGE OF POLLUTANTS, OR WHERE EXPOSURE OF A SPECIFIC MATERIAL OR PRODUCT POSES LITTLE RISK TO STORMWATER CONTAMINATION (SUCH AS FINAL PRODUCTS AND MATERIALS INTENDED FOR OUTDOOR USE).

BMP MAINTENANCE NOTE

ALL SEDIMENT CONTROL DEVICES OTHER THAN SEDIMENT BASINS SHALL BE CLEANED OF SEDIMENT WHEN ONE HALF OF THE CAPACITY, BY HEIGHT, DEPTH OR VOLUME HAS BEEN REACHED. SEDIMENT BASINS SHALL BE CLEANED OF SEDIMENT WHEN ONE-THIRD OF THE CAPACITY BY VOLUME HAS BEEN REACHED. REFER TO BMP DETAILS INCLUDED WITH THESE PLANS FOR ADDITIONAL MAINTENANCE INFORMATION.

STREAM ENCROACHMENTS

STREAMS AS DEFINED BY O.C.G.A. 12-7-1, ARE IMPACTED BY THIS PROJECT.

NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

READY MIX CHUTE WASH-DOWN

THE WASHING OF READY MIX CONCRETE DRUMS AND DUMP TRUCK BODIES USED IN THE DELIVERY OF 24 PORTLAND CEMENT CONCRETE IS PROHIBITED ON THIS SITE. ONLY THE DISCHARGE CHUTE UTILIZED IN PORTLAND CEMENT CONCRETE DELIVERY MAY BE RINSED OF FREE OF FRESH CONCRETE REMAINS. NEVER DISPOSE OF WASH-DOWN WATER DOWN A STORM DRAIN.

THE PROJECT SITE DOES NOT PROVIDE ACCESS TO A LOCATION WHICH ALLOWS FOR A WASH-DOWN PIT. THE CONTRACTOR SHALL WASH-DOWN INTO A WHEELBARROW, STEEL DRUM, OR OTHER CONTAINER FOR TRANSPORT TO A ROPER DISPOSAL SITE. FOR ADDITIONAL INFORMATION, REFER TO THE GEORGIA SMALL BUSINESS ENVIRONMENTAL ASSISTANCE PROGRAM'S "A GUIDE FOR READY MIX CHUTE/HOPPER WASH-DOWN".

BMPS FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF THE VEHICLES. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

30 INSPECTION

1. EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B)ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
2. MEASURE AND RECORD RAINFALL WITHIN DISTURBED AREAS OF THE SITE THAT HAVE NOT MET FINAL STABILIZATION ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY. THE DATA COLLECTED FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
3. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D.4.A.(4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED. **THIS IS THE MINIMUM PER G.A.R. 100002 AND IS SUPERSEDED BY APPENDIX 1 (q). SEE SHEET CE-00-03.**
4. CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION IS SUBMITTED TO EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
5. BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.
6. A REPORT OF EACH INSPECTION THAT INCLUDES THE NAME(S) OF CERTIFIED PERSONNEL MAKING EACH INSPECTION, THE DATE(S) OF EACH INSPECTION, CONSTRUCTION PHASE (I.E., INITIAL, INTERMEDIATE OR FINAL), MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PART IV.D.4.A.(5). OF THE PERMIT SHALL BE MADE AND RETAINED AT THE SITE OR BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION UNTIL THE ENTIRE SITE OR THAT PORTION OF A CONSTRUCTION SITE THAT HAS BEEN PHASED HAS UNDERGONE FINAL STABILIZATION AND A NOTICE OF TERMINATION IS SUBMITTED TO EPD. SUCH REPORTS SHALL BE READILY AVAILABLE BY END OF THE SECOND BUSINESS DAY AND/OR WORKING DAY AND SHALL IDENTIFY ALL INCIDENTS OF BEST MANAGEMENT PRACTICES THAT HAVE NOT BEEN PROPERLY INSTALLED AND/OR MAINTAINED AS DESCRIBED IN THE PLAN. WHERE THE REPORT DOES NOT IDENTIFY ANY INCIDENTS, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

SAMPLING REQUIREMENTS

THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS SECTION IS APPLICABLE TO PRIMARY PERMITTEES WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN FIVE (5) ACRES. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

STORM WATER SAMPLING

STORM WATER SAMPLES ARE TO BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001".

STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT THE OUTFALL LOCATION. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING THE APPLICABLE VALUE SELECTED FROM APPENDIX B IN PERMIT NO. GAR100002.

THE NTU LIMIT IS BASED UPON THE DISTURBED ACREAGE OF THE PROJECT SITE AND THE SURFACE WATER DRAINAGE AREA DRAINING TO THE RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

SAMPLE TYPE

ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

1) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
2) SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
3) LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
4) MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
5) SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV. E.\

SAMPLE POINTS

FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES, OR ALL OUTFALLS INTO SUCH STREAMS AND OTHER WATER BODIES, OR A COMBINATION THEREOF. HOWEVER, PROVIDED FOR IN AND IN ACCORDANCE WITH PART IV.D.6.C.(2). OF THIS PERMIT, PRIMARY PERMITTEE'S ON AN INFRASTRUCTURE CONSTRUCTION PROJECT MAY SAMPLE THE REPRESENTATIVE PERENNIAL AND INTERMITTENT STREAMS, OTHER WATER BODIES OR OUTFALLS, OR A COMBINATION THEREOF. SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES:

A) THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF TH

SAMPLING FREQUENCY (31)

1) THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

2) HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.

3) SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:

A) FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT. AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION;

B) IN ADDITION TO (A) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE REPRESENTATIVE SAMPLING LOCATION, WHICHEVER COMES FIRST; **THIS IS THE MINIMUM PER G.A.R. 100002 AND IS SUPERSEDED BY APPENDIX 1 (f). SEE SHEET CE-00-03.**

C) AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (A) AND (B) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS* UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;

D) WHERE SAMPLING PURSUANT TO (A), (B) OR (C) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (A), (B) OR (C) ABOVE; AND

E) EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (A) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (B). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (B) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (C) ABOVE.

*NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (A) AND (B) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

(32) **RETENTION OF RECORDS**

1. THE PRIMARY PERMITTEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
   a) A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
   b) A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
   c) THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
   d) A COPY OF ALL SAMPLING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
   e) A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
   f) A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND
   g) DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2).OF THIS PERMIT.
2. COPIES OF ALL NOTICES OF INTENT, NOTICES OF TERMINATION, INSPECTION REPORTS, SAMPLING REPORTS (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION), OR OTHER REPORTS REQUESTED BY THE EPD, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

(11)(12)(13) CERTIFICATION STATEMENTS

I CERTIFY THAT UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT AT THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER DIRECT SUPERVISION

GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100002."

GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

"I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL, INTERMITTENT STREAMS AND OTHER WATER BODIES, OR B) WHERE ANY SUCH IDENTIFIED PERENNIAL AND INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGEMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR 1000002, THAT THE INCREASE IN TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER ."

GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

(31) REPORTING

1. THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

2. ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
   (a) THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
   (b) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
   (c) THE DATE(S) ANALYSES WERE PERFORMED;
   (d) THE TIME(S) ANALYSES WERE INITIATED;
   (e) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
   (f) REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
   (g) THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
   (h) RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
   (i) CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

3. ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI.

SPALDING COUNTY ES&PC NOTES

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.

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.

ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTOR.

(21) **ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.**

EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES TO BE INSPECTED DAILY.

CUT AND FILL SLOPES SHALL NOT EXCEED 3H:1V ON RESIDENTIAL PROJECTS AND SHALL NOT EXCEED 2H:1V ON ALL OTHER PROJECTS.

WEEKLY EROSION AND CONTROL REPORTS SHALL BE SUBMITTED TO THE DEVELOPMENT DEPARTMENT STARTING WITH THE ISSUANCE OF THE DEVELOPMENT PERMIT AND ENDING WHEN THE PROJECT IS RELEASED BY THE INSPECTOR.

INSPECTIONS BY QUALIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE AND THE ASSOCIATED RECORDS SHALL BE KEPT ON SITE IN COMPLIANCE WITH GAR100002.

ANY IMPERVIOUS WATER RUNOFF FROM LOTS BY-PASSING WATER QUALITY POND MUST BE TREATED ON A LOT BY LOT BASIS.

INSTALLATION OF WATER QUALITY DEVICES SHALL BE CONCURRENT WITH FINAL STABILIZATION AND/OR PRIOR TO MAINTENANCE/PERFORMANCE BOND EXPIRATION.

FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO HENRY COUNTY STANDARDS.

(14) THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPS, AND SEDIMENT BASINS WITHIN 7 DAYS AFTER INSTALLATION IN ACCORDANCE WITH PART IV.A.5 PAGE 26 OF THE PERMIT.

DESIGN PROFESSIONAL 7-DAY VISIT CERTIFICATION

DATE OF INSPECTION _____

I certify the site was in compliance with the ES&PC Plan on the date of inspection.

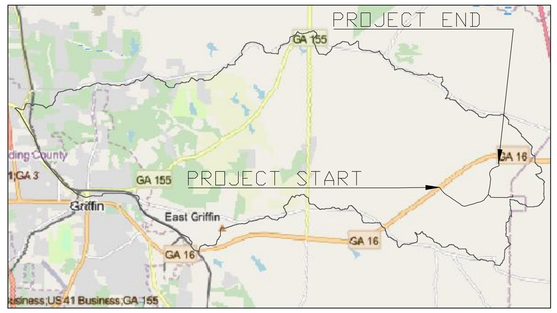
GSWCC LEVEL II DESIGN PROFESSIONAL CERTIFICATION #

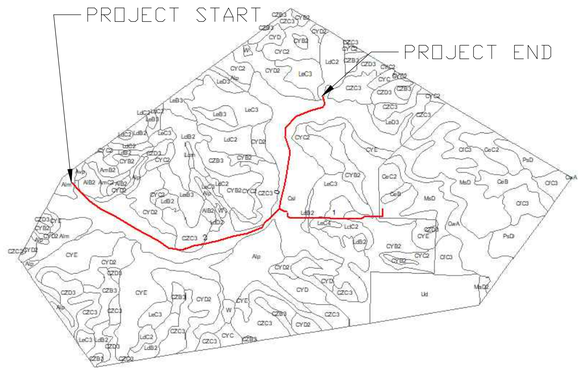
Inspection included the following discrepancies from the ES&PC Plan

These deficiencies must be addressed immediately and a re-inspection scheduled. Work shall not proceed on the site until design Professional Certification is obtained.

(43) BASIN MAP

DRAINAGE AREA :26.5SQ MILES





(47)

SOIL MAP	
SOIL SYMBOL	SOIL NAME
CeB	Cecil sandy loam
CeC2	Cecil sandy loam
CfC3	Cecil sandy clay loam
CwA	Chewacla loam
MsD	Madison-Bethlehem complex
AlB2	Altavista sandy loam
Alm	Toccoa and Chewacla soils
Alp	Chewacla, Cartecay
AmB2	Appling sandy loam
AmC2	Appling sandy loam
Avp	Alluvial land, wet
CsI	Chewacla silt loam
CYB2	Cecil sandy loam
CYC2	Cecil sandy loam
CYD	Cecil sandy loam
CYD2	Cecil sandy loam
CYE	Cecil sandy loam
CZB3	Cecil sandy clay loam
CZC3	Cecil sandy clay loam
CZD3	Cecil sandy clay loam
Lcm	Local alluvial land
LdB2	Lloyd sandy loam
LdC2	Lloyd sandy loam
LdD2	Lloyd sandy loam
LeB3	Lloyd clay loam
LeC3	Lloyd clay loam
LeC4	Lloyd-Gullied land complex
LeD3	Lloyd clay loam
W	Water

(2)

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

Level II Certified Design Professional

CERTIFICATION NUMBER 0000090514

ISSUED: 07/09/2023 EXPIRES: 07/09/2026

PROJECT NARRATIVE (5)

DISTRICT: 05
LAND LOTS: 215, 216, 217, & 218
SPALDING COUNTY, GEORGIA

(6) START LAT: 33.26 LONG: 84.12
END LAT: 33.25 LONG: 84.14

TOTAL AREA: 09 ± ACRES
DISTURBED AREA: 09 ± ACRES
ON-SITE WETLANDS: 0.42 ACRES
WETLAND DISTURBANCE: 0.00± ACRES
DRAINAGE AREA: 26.53 SQ MILES

(8) PROPOSED SITE CONDITIONS:
THE PROJECT INCLUDES THE INSTALLATION OF A 100,000 GPD WASTEWATER TREATMENT PLANT (WWTP), SANITARY SEWER LIFT STATION INCLUDING WET WELL, VALVE VAULT, BACKUP GENERATOR. ADDITIONALLY 2,840 LINEAR FEET OF 8" PVC FORCE MAIN, 10,070 LINEAR FEET OF 15" PVC GRAVITY SEWER AND 34 MANHOLES. POST-CONSTRUCTION CONDITION WILL MATCH EXISTING SURFACE CONDITIONS.

(16) THE PROPOSED PROJECT WILL RESULT IN 465 LINEAR FEET TOTAL (6639 SQUARE FEET TOTAL) OF BUFFER DISTURBANCE ALONG PERENNIAL STREAM CBIN CREEK IN THE UPPER OCMULGEE WATERSHED IN UNINCORPORATED SPALDING COUNTY.

(10) CABIN CREEK IS THE RECEIVING WATER'S FOR THIS PROJECT.

THIS IS A LINEAR PROJECT, THE TOTAL DISTURBANCE AND SUBSEQUENT BMP PRACTICES ARE TO BE DONE IN SECTIONS. FINAL GRADE STABILIZATION IS TO OCCUR AS EACH SECTION OF PIPE IS INSTALLED AND INSPECTED. THEREFORE THE EROSION CONTROL PLANS PRESENTED FOR ALL PIPELINE AND CONVEYANCE WORK ARE SHOWN IN SINGLE PHASE.

BEFORE EACH NEW SECTION OF PIPE IS INSTALLED, SILT FENCE AND CONSTRUCTION ACCESS IS TO BE ESTABLISHED, SILT FENCE IS NOT TO BE REMOVED FROM THE CONSTRUCTION SITE UNTIL THE EXPIRATION DATE OF THE NOTICE OF INTENT FILED FOR THIS PROJECT.

THERE ARE STATE WATERS WITHIN 200 FEET OF THE PROJECT AREA. CONSTRUCTION INCLUDES PLACING GRAVITY SEWER WITHIN STATE STREAM BUFFERS FOR WHICH A PERMIT IS REQUIRED.

FLOODPLAIN SHOWN ARE FROM FIRM PANEL 13255C0095E, DATED JUNE 7, 2017;13255C0210E, JUNE 7, 2017 ;13035C0065D, DATED JUNE 7, 2017;13255C0125E, DATED JUNE 7, 2017.
ALL WETLANDS TO BE DISTURBED ARE DELINEATED ON THIS SITE.

(45) PEAK DISCHARGE RATE WAS CALCULATED USING THE RATIONAL METHOD. THE PRE-DEVELOPMENT PEAK DISCHARGE RATE FOR THE 24-HOUR 25-YEAR STORM IS 13696 cfs . THIS PROJECT DOES NOT PROPOSED GRADING OR LAND USE CHANGES, SO POST-DEVELOPMENT CONDITIONS WILL HAVE THE SAME PEAK DISCHARGE RATE AS PRE-DEVELOPMENT CONDITIONS.

(49)

Sediment Storage Volume					
Sheet No.		Disturbed Drainage Area (acres)	Required Sediment Storage Volume (CY)	SILT FENCE Length (LF)	Total Storage Volume Provided (CY)
ES-01-01	1	2.5	168	3213	285
	2	1.2	80	2482	220
ES-01-02	1	1.1	74	2477	220
	2	1.1	74	887	79
ES-01-03	1	1.1	74	2471	219
	2	0.4	27	2472	219
ES-02-01	1	3.6	241	4714	418
	2	1.2	80	2517	223
ES-02-02	1	1.1	74	2464	219
	2	0.4	27	910	81
ES-03-01	1	2.6	174	3721	330
	2	0.74	50	2056	182
ES-03-02	1	0.06	4	223	20
ES-14	1	5.30	355	3368	533
ES-17	1	2.6	174	2824	251
	2	0.74	50	3608	320
TOTAL		21	1403	32234	3094

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318 LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338 WWW.R2TINC.COM

STAMP:

NO.	BY	CHK'APP	DATE
1	JAS	AR	GA

REVISIONS AND RECORD OF USE

04/21/25 80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL NOTE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-03
SHEET 74 OF 126

(36) LAND DISTURBANCE CONSTRUCTION ACTIVITY SEQUENCE

THE FOLLOWING SEQUENCES ARE TO BE IMPLEMENTED IN THE ORDER SHOWN, UNLESS INCLEMENT WEATHER, SITE CONDITIONS, REVISIONS, PRE-CONSTRUCTION CONFERENCE, ETC., DICTATES A DEVIATION FROM THIS SCHEDULE. IF A DEVIATION IS UNDERTAKEN OR ANTICIPATED, THE ENGINEER SHALL BE NOTIFIED AND THE CHANGE OF SEQUENCE SHALL BE RECORDED IN THE DAILY LOG.

INITIAL PHASE

1. OBTAIN AND POST COPY OF LAND DISTURBANCE PERMIT ON SITE.

2. PRIOR TO LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING AT THE SITE. THE CONTRACTOR, OWNER'S REPRESENTATIVE, PROJECT DESIGN TEAM, AND COUNTY/CITY INSPECTOR SHALL REVIEW THE EROSION CONTROL REQUIREMENTS AND SITE WORK CONSTRUCTION DOCUMENTS.

3. SET UP A DAILY INSPECTION LOG FOR THE BMP INSPECTIONS TO BE KEPT IN THE CONSTRUCTION TRAILER OR AT A NEARBY ACCESSIBLE LOCATION (SALES OFFICE, ETC.).

4. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED, AS SHOWN ON THE APPROVED PLANS, WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.

5. PRIOR TO ANY OTHER CONSTRUCTION, CONFIRM LOCATIONS OF AND CONSTRUCT/INSTALL PHASE 1 EROSION AND SEDIMENT CONTROL BMPS. PHASE 1 INITIAL EROSION AND SEDIMENT CONTROL BMPS SHALL INCLUDE THE FOLLOWING:

   5.1. INTALL STABILIZED CONSTRUCTION ENTRANCES (Co) AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN, PHASE 1.

   5.2. CONSTRUCT/INSTALL PERIMETER SILT FENCING (Sd1) AT DOWN GRADIENT LOCATIONS.

   5.3. CONSTRUCT/INSTALL TREE PROTECTION FENCING (Tr).

   5.4. CONSTRUCT/INSTALL INLET SEDIMENT PROTECTION (Sd2-F and Sd2-P) AT EXISTING STORM WATER INLET STRUCTURES, TEMPORARY SEDIMENT BASIN(S) (Sd3), CHECK DAMS (Cd), AND OUTLET PROTECTION (St).

6. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL PERIMETER CONTROL BMPS, AND SEDIMENT BASINS WITHIN 7 DAYS AFTER INSTALLATION. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE DESIGN PROFESSIONAL APPROVES THE INSTALLATIONS.

7. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN SEVEN (7) DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCH MORE THAN THIRTY (30) DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.

INTERMEDIATE PHASE

1. AFTER APPROVAL OF PHASE 1 INITIAL EROSION CONTROL INSTALLATION, CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES WITHIN THE LIMITS OF DISTURBANCE. ALL CLEARED MATERIAL TO BE HAULED OFF SITE OR STOCKPILED FOR CHIPPING OR TUB GRINDING, IF PERMITTED.

2. LIMIT THE AMOUNT OF DISTURBED AREA AT ANY ONE TIME TO NO GREATER THAN 25 ACRES OR 50% OF THE TOTAL PLANNED SITE, WHICHEVER IS LESS. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULE AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES, AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.

4. THE CONSTRUCTION EXIT, SILT FENCE, INLET PROTECTION, OUTLET PROTECTION, MULCHING, TEMPORARY GRASSING, AND PERMANENT GRASSING SHALL ALL BE MAINTAINED AND REPAIRED DURING PHASE 2 OF CONSTRUCTION.

5. CONFIRM LOCATIONS OF AND CONSTRUCT/INSTALL PHASE 2 EROSION AND SEDIMENT CONTROL

6. USE FLOCCULANTS OR COAGULANTS AND/OR MULCH TO STABILIZE AREAS LEFT DISTURBED FOR MORE THAN SEVEN (7) CALENDAR DAYS IN ACCORDANCE WITH THE NPDES PERMIT.

7. STABILIZE ALL NON IMPERVIOUS OR GRAVEL AREAS USING TEMPORARY VEGETATION (Ds1, Ds2). DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY VEGETATION AND MULCH. STREAMBANK STABILIZATION SHALL BE INSTALLED PRIOR TO DISTURBANCE ON ANY STREAM BANK DURING CONSTRUCTION.

8. STOCK PILES OF SOIL AND OTHER ERODIBLE MATERIALS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION FOR STOCKPILES ON SITE AS WELL AS FOR MATERIALS TRANSPORTED FROM THE PROJECT SITE.

EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. AMENDMENTS/REVISIONS TO THE EROSION CONTROL PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT MUST BE APPROVED BY THE DESIGN PROFESSIONAL.
9.

10. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN (30) THIRTY DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED.

11. ALL CUT AND FILL SLOPES MUST BE SURFACE ROUGHED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.

12. ALL GRADED SLOPES 3H:1V OR GREATER MUST BE HYDRO SEEDED AND COVERED WITH GDOT APPROVED SLOPE STABILIZATION. ALL SLOPES MUST BE PROPERLY PROTECTED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED

13. CONSTRUCT TEMPORARY AND PERMANENT DRAINAGE STRUCTURES AS NECESSARY FOR PROPER SITE DRAINAGE AND CONVEYANCE TO THE PROPER BEST MANAGEMENT PRACTICES SHOWN ON THE SITE PLAN.

14. STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED.

15. THE CONTRACTOR SHALL MAINTAIN ANY SEDIMENT PONDS UNTIL PERMANENT GROUNDCOVER IS ESTABLISHED.

16. SMOOTH GRADES AND PERMANENTLY VEGETATE DISTURBED AREAS AT COMPLETION OF CONSTRUCTION.

17. INSTALLATION OF WATER QUALITY DEVICES SHALL BE CONCURRENT WITH FINAL STABILIZATION AND/OR PRIOR TO MAINTENANCE/PERFORMANCE BOND EXPIRATION.

FINAL PHASE

1. ONCE FINAL GRADES ARE ESTABLISHED, APPLY PERMANENT SOIL STABILIZATION (Ds3) IN ACCORDANCE WITH CONTRACT SPECIFICATIONS. ANY DISTURBED AREAS REMAINING IDLE FOR 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.

2. AFTER FINAL STABILIZATION, AND AT THE DIRECTION OF THE OWNER, REMOVE ALL TEMPORARY MEASURES INCLUDING SILT FENCES, TEMPORARY SEDIMENT BASINS, INLET PROTECTION, AND DIVERSIONS.

3. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES INCLUDING CONSTRUCTION FENCING, TREE PROTECTION FENCING, AND CONSTRUCTION ENTRANCES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION AND AT THE DIRECTION OF THE OWNER.

(29) ANTICIPATED BEGINNING OF CONSTRUCTION:
ANTICIPATED END OF INITIAL CONSTRUCTION:

SCHEDULE OF MAJOR ACTIVITIES

DESCRIPTION	MO. 1		MO. 2		MO. 3		MO. 4		MO. 5		MO. 6	
	(WEEKS AFTER BEGINNING CONSTRUCTION)											
	2	4	6	8	10	12	14	16	18	20	22	24
INSTALLATION & MAINTENANCE OF TREE PROTECTION AND PERIMETER EROSION CONTROLS												
ENGINEER'S INSPECTION												
PHASE I - CLEARING AND GRUBBING												
PHASE II - TEMPORARY VEGETATION												
UTILITY INSTALLATION												
PHASE III - PERMANENT VEGETATION												
MAINTENANCE OF EROSION CONTROLS DEVICES												
FINAL LANDSCAPING												
REMOVE SEDIMENT CONTROL STRUCTURES												

*SEDIMENT AND EROSION CONTROL MEASURES TO BE INSPECTED DAILY. MAINTAIN BMP'S THROUGHOUT LAND DISTURBING ACTIVITIES.

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
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
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.
Cr	CONSTRUCTION ROAD STABILIZATION			A traveleway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
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.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the emplacement of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wt	WATER-TABLE STRUCTURE OR STORMWATER CONVEYANCE			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION WITH VEGETATION		Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (TEMPORARY SEEDING 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 (TEMPORARY SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (PERMANENT SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS		Fl-Co	Substance formulated to assist in the settling/flocculation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (TEMPORARY VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended - 2013)

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE
1	JAS	AR	GA	04/21/25

REVISIONS AND RECORD OF USE
80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION
EROSION AND SEDIMENTATION CONTROL NOTE

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION
Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED 07/09/2023 EXPIRES: 07/09/2026

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-04
SHEET
75 OF 126

(22) IMPAIRED STREAM SEGMENT PROJECT NOTES:

(23)

1. CABIN CREEK (HEADWATERS, GRIFFIN TO TOWALIGA River) HAVE BEEN IDENTIFIED AS IMPAIRED STREAM. HOWEVER, THE PROPOSED PROJECT WILL HAVE NO ADVERSE IMPACTS RELATIVE TO THE POLLUTANTS OF CONCERN (I.E., FECAL COLIFORM AND SEDIMENTS (BIOTA IMPACTED)).
2. TMDL IMPLEMENTATION PLANS FOR FECAL COLIFORM AND SEDIMENT (BIOTA IMPACTED) WERE FINALIZED FOR CABIN CREEK IN 2007. COMPLIANCE WITH THE GEORGIA EROSION AND SEDIMENTATION ACT AND THE CONSENT DECREE WILL ENSURE THAT POLLUTANTS LOADINGS FROM THE CONSTRUCTION SITE WILL BE AT OR BELOW APPLICABLE TMDL TARGETS FOR THE POLLUTANTS OF CONCERN. THERE ARE NO SITE-SPECIFIC CONDITIONS OR REQUIREMENTS INCLUDED IN THE TMDL IMPLEMENTATION PLAN.

(1)

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS GAR100002

SWCD: REGION 2

Project Name: PDB SEWER IMPLEMENTATION **Address:** SPALDING COUNTY

Local Issuing Authority: _____ **Date on Plans:** _____

Name & Email of person filling out checklist: SEBLE.AREGA@R2TINC.COM

TO BE SHOWN ON ES&PC PLAN

Plan Page #	Included Y/N		
ES-05	Y	1	The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed. **Permit IV.D.1. pg 28**
PLANS	Y	2	Level II certification number issued by the Commission, signature and seal of the certified design professional. Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed. The Level II certification must be issued to the Design Professional, after completion of a GSWCC approved course, and whose signature and seal are on the Plan.
COVER	Y	3	The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
COVER	Y	4	Provide the name, address, email address, and phone number of Primary Permittee.
ES-03	Y	5	Note total and disturbed acreages of the project or phase under construction.
ES- 03	Y	6	Provide the GPS locations of the beginning and end of the infrastructure project. Give the Latitudes and Longitudes in decimal degrees.
ALL	Y	7	Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
ES-03	Y	8	Descriptions of the nature of construction activity and existing site conditions.
COVER	Y	9	Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
ES-03	Y	10	Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
ES-03	Y	11	Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 21** of the permit.
ES-03	Y	12	Design professional's certification statement and signature that the Permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 21** of the permit. *
ES- 03	Y	13	Design professional certification statement and signature that the Permittee's ES&PC Plan provides for representative sampling as stated on **Part IV.D.6.c.(3). page 37** of the permit as applicable. *
ES-03	Y	14	Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect and certify the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." *
ES-02	Y	15	Clearly note the statement that "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."
ES-03	Y	16	Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
ES-02	Y	17	Clearly note the statement that "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." *
ES-02	Y	18	Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
ES-02	Y	19	Clearly note statement that "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."
ES-02	Y	20	Clearly note statement that "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."
ES-02	Y	21	Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
ES-05	Y	22	Any construction activity which discharges storm water into a Biota Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as any portion of a Biota Impaired Stream Segment, must comply with **Part III.C.** of the permit. Include the completed Appendix 1 of this checklist with at least 4 of the chosen BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
ES-04	Y	23	If a TMDL Implementation Plan for sediment has been finalized for the Biota Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
ES-02	Y	24	BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Include statement that washout of the drum at the construction site is prohibited. *
ES-02	Y	25	Provide BMPs for the remediation of all petroleum spills and leaks.
ES-02	Y	26	Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
ES-02	Y	27	Description of practices to provide cover for building materials and building products on site. *
ES-02	Y	28	Description of the practices that will be used to reduce the pollutants in storm water discharges. *
ES-04	Y	29	Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, grading, infrastructure, temporary and final stabilization).
ES-02	Y	30	Provide complete requirements of Inspections and record keeping by the Primary Permittee. *
ES-03	Y	31	Provide complete requirements of Sampling Frequency and Reporting of sampling results. *
ES-03	Y	32	Provide complete details for Retention of Records as per **Part IV.F.** of the permit. *
ES-01	Y	33	Description of analytical methods to be used to collect and analyze the samples from each location. *
N/A		34	Appendix B rationale for NTU values at all outfall sampling points where applicable. *
PLANS	Y	35	Delineate all sampling locations , and perennial and intermittent streams and other water bodies into which storm water is discharged. *
PLANS	Y	36	A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial sediment storage requirements and initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all BMPs into a single phase plan. *
PLANS	Y	37	Graphic scale and North arrow.
PLANS	Y	38	Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Existing Contours	USGS 1": 2000' Topographical Sheets
Proposed Contours	1" : 400' Centerline Profile

N/A		39	Use of Alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by GAEPD or the Georgia Soil and Water Conservation Commission). Refer to the Alternative BMP Guidance Document found at www.gaswcc.georgia.gov.
N/A	N/A	40	Use of Alternative BMP for application to the Equivalent BMP List. Refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
PLANS	Y	41	Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State Waters and any additional buffers as required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
PLANS	Y	42	Delineation of all State Waters and wetlands located on or within 200 feet of the project site.
ES-03	Y	43	Delineation and acreage of contributing drainage basins on the project site.
N/A		44	Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.
ES-03	Y	45	Estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
N/A		46	Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate at all storm water discharge points.
ES-03	Y	47	Soil series for the project site and their delineation.
PLANS	Y	48	The limits of disturbance for each phase of construction.
ES-03	Y	49	Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, Permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
PLANS	Y	50	Location of Best Management Practices that are consistent with, and no less stringent than, the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual Chapter 6, with legend.
DETAILS	Y	51	Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
ES-22	Y	52	Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

*** If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the * checklist items would be N/A.**

Effective January 1, 2025

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED 07/09/2023 EXPIRES 07/09/2026

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

REVISIONS AND RECORD OF USE

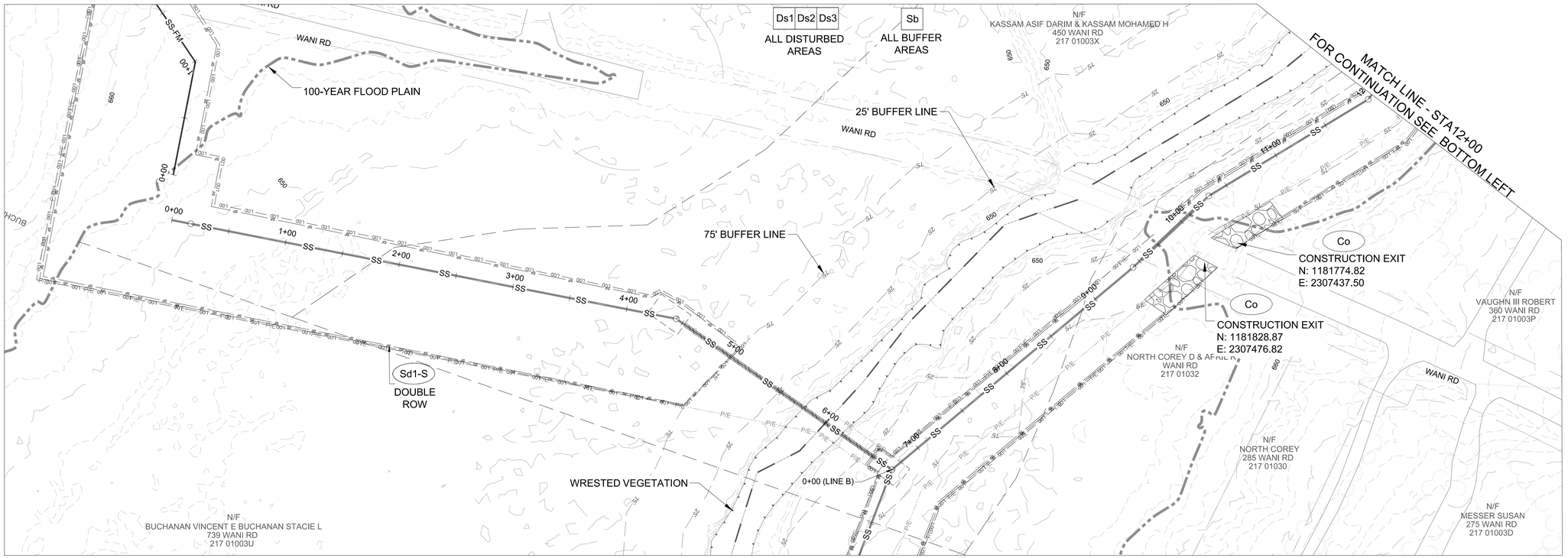
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04/21/25	80% PERMIT REVIEW SUBMITTAL

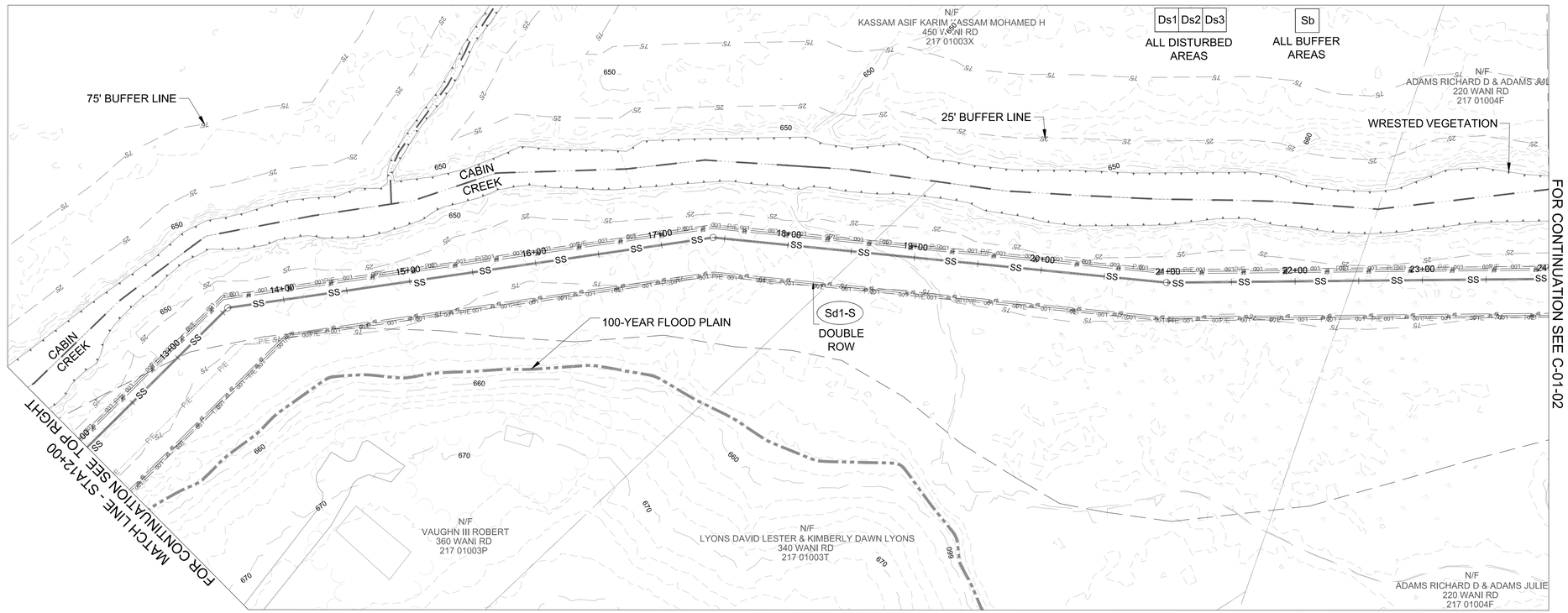
SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION
EROSION AND SEDIMENTATION CONTROL NOTE

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-05
SHEET 76 OF 126





IMPACT TABULATION STA 0+00 - STA 12+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 2.5 ACRES

IMPACT TABULATION STA 12+00 - STA 24+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.42 ACRES

LIMITS OF DISTURBANCE:
LOD 1.2 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

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CERTIFICATION NUMBER 0000090514

ISSUED: 07/09/2023 EXPIRES: 07/09/2026

50' 25' 0 50' 100'

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
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0	HB	AR	GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL PLAN
STA 0+00 TO 24+00

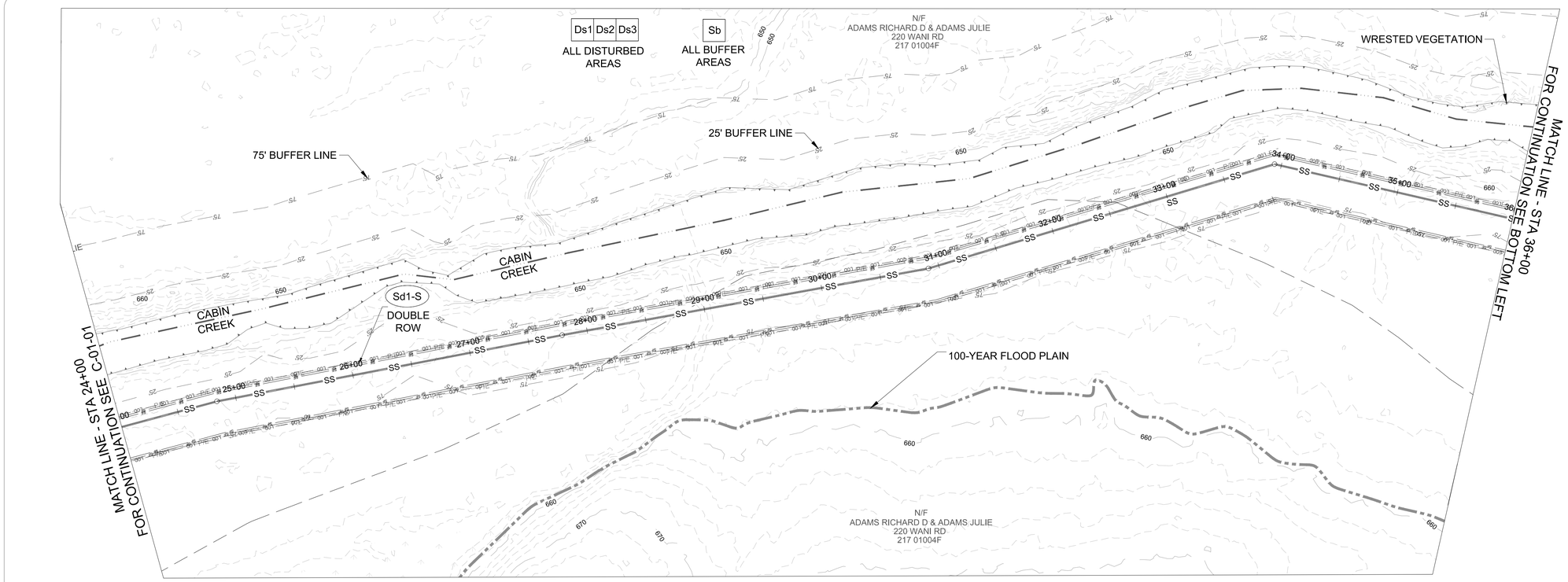
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-06
SHEET 77 OF 126

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IMPACT TABULATION STA 24+00 - STA 36+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 1.1 ACRES

IMPACT TABULATION STA 36+00 - STA 48+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 1.1 ACRES

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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ATLANTA, GA 30316
LAKESHOREGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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1	LAS	AR GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL PLAN
STA 24+00 TO 48+00

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

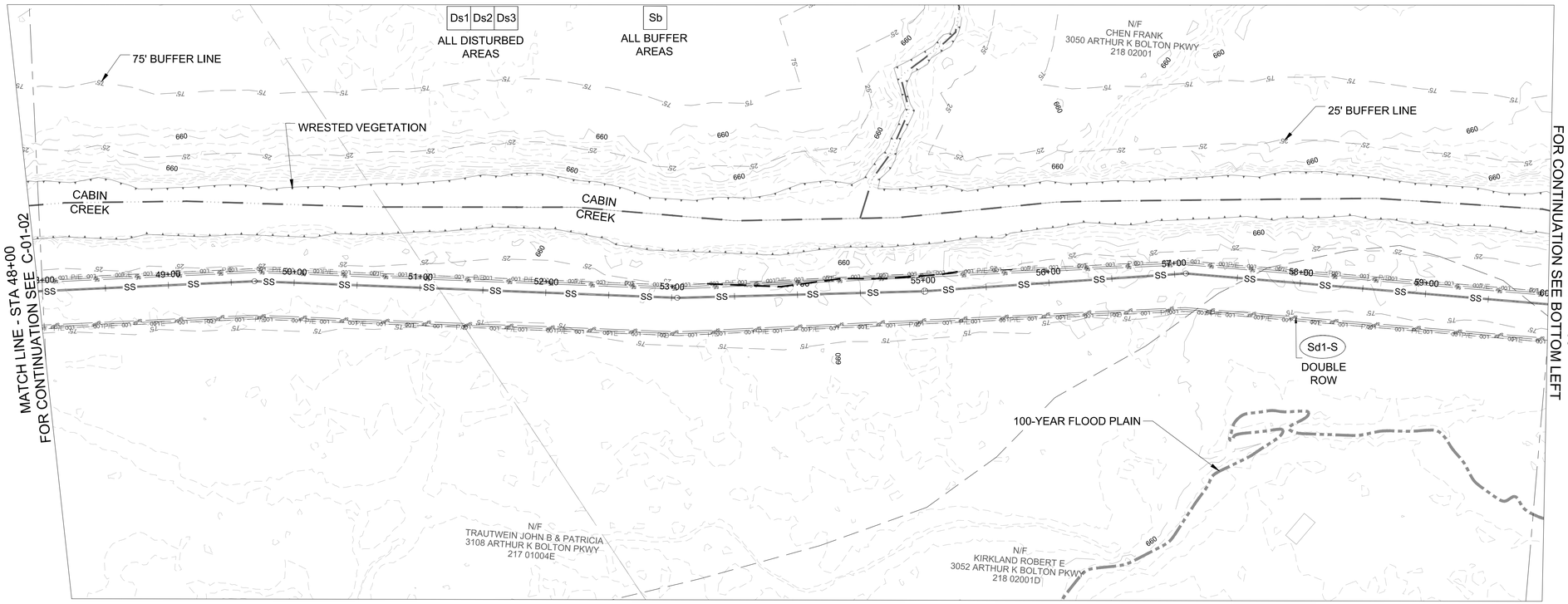
Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED: 07/09/2023 EXPIRES: 07/09/2026

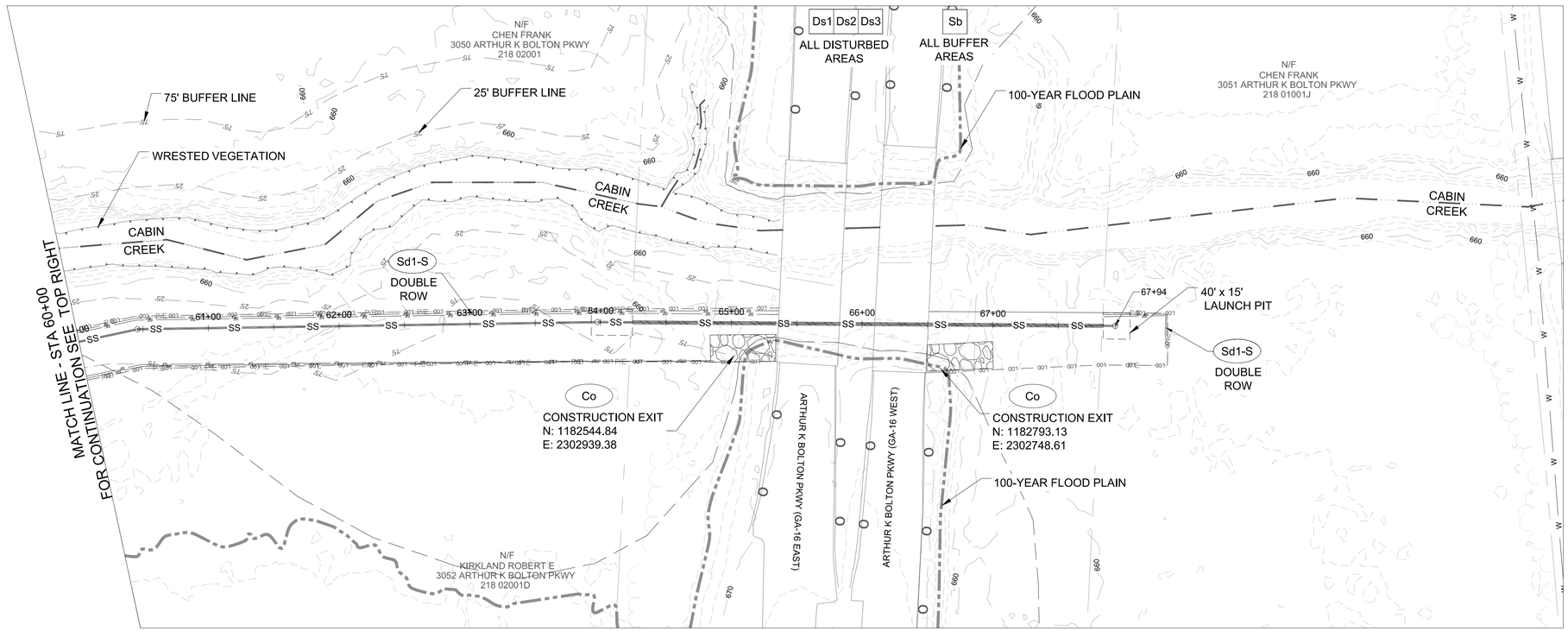
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R2T TASK ORDER NO. G1070001

ES-07
SHEET 78 OF 126

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IMPACT TABULATION STA 48+00 - STA 60+00

BUFFER IMPACTS:
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200 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 1.10 ACRES

IMPACT TABULATION STA 60+00 - STA 67+94

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 0.4 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

Level II Certified Design Professional

CERTIFICATION NUMBER 0000090514

ISSUED: 07/09/2023 EXPIRES: 07/09/2026

50' 25' 0 50' 100'

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
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1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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1	LAS	AR	GA
0	HB	AR	GA

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

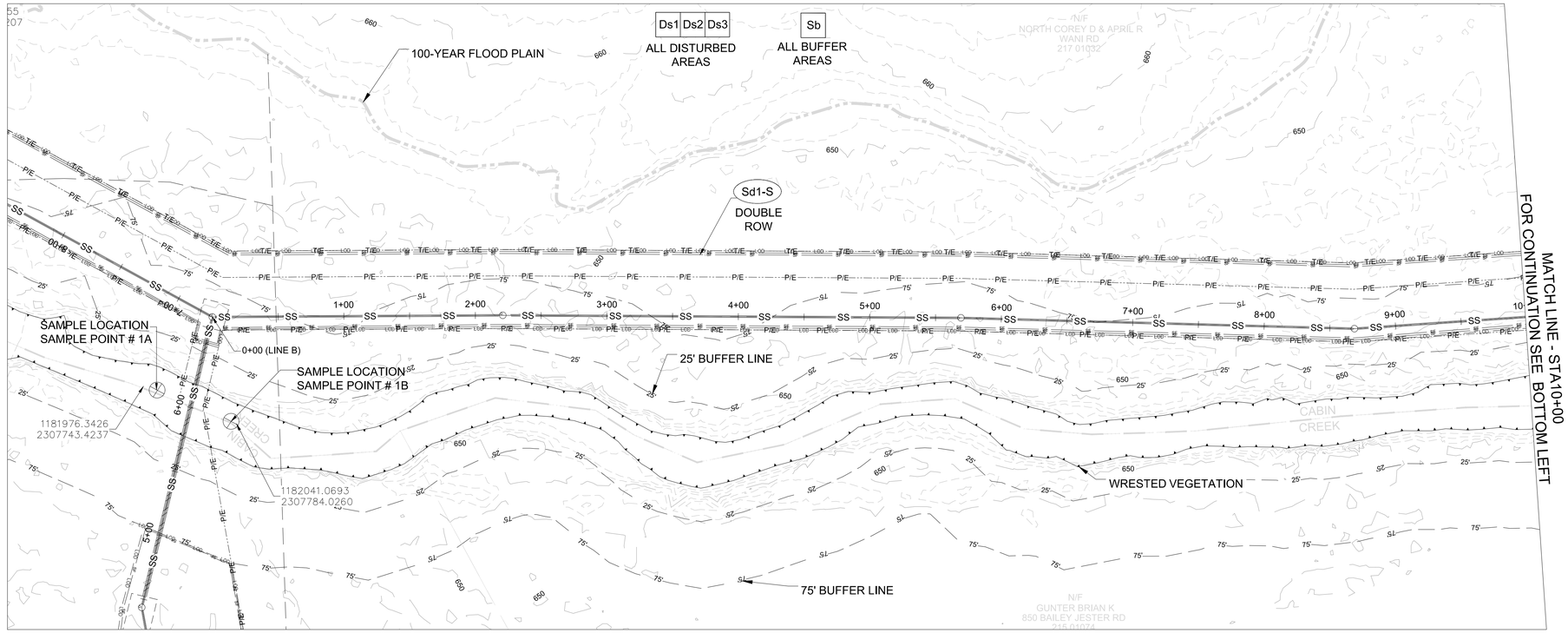
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STA 48+00 TO 67+94

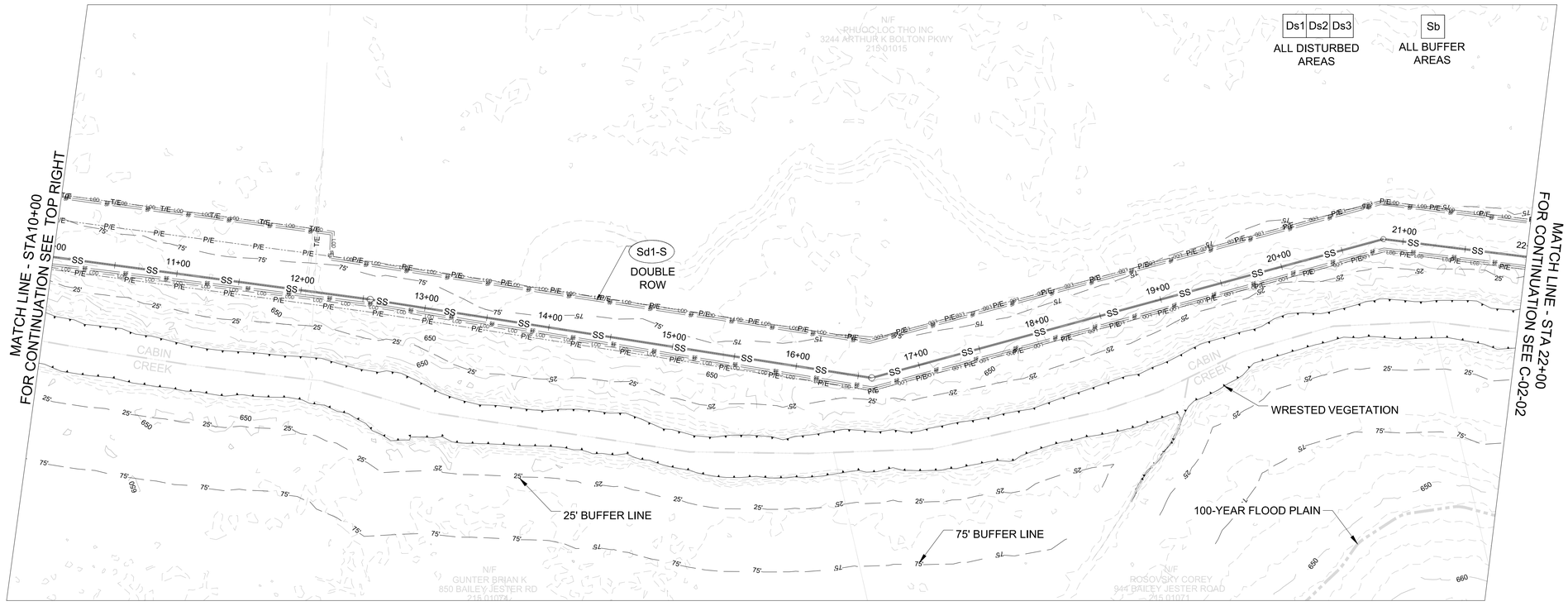
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-08
SHEET 79 OF 126

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IMPACT TABULATION
STA 0+00 - STA 10+00

BUFFER IMPACTS:
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WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 3.6 ACRES

IMPACT TABULATION
STA 10+00 - STA 22+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 1.2 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

Level II Certified Design Professional

CERTIFICATION NUMBER 0000090514

ISSUED 07/09/2023 EXPIRES 07/09/2026

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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ATLANTA, GA 30316
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1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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0	HB	AR	GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

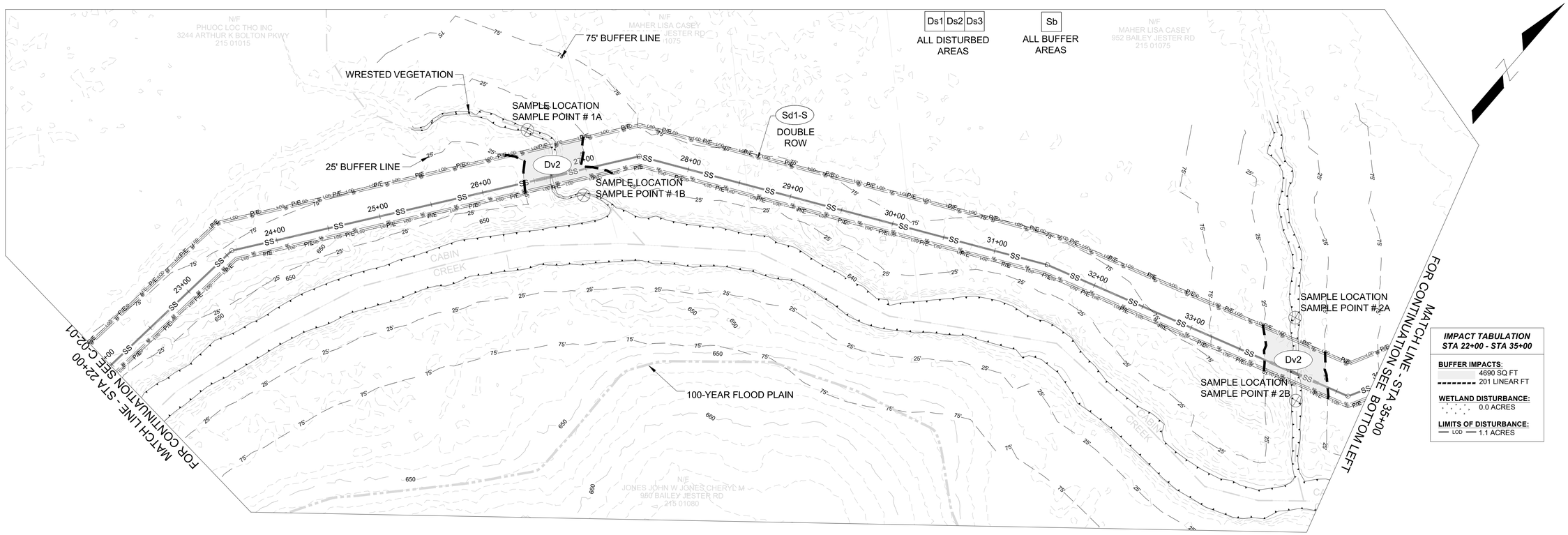
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STA 0+00 TO 22+00

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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-09
SHEET
80 OF 126

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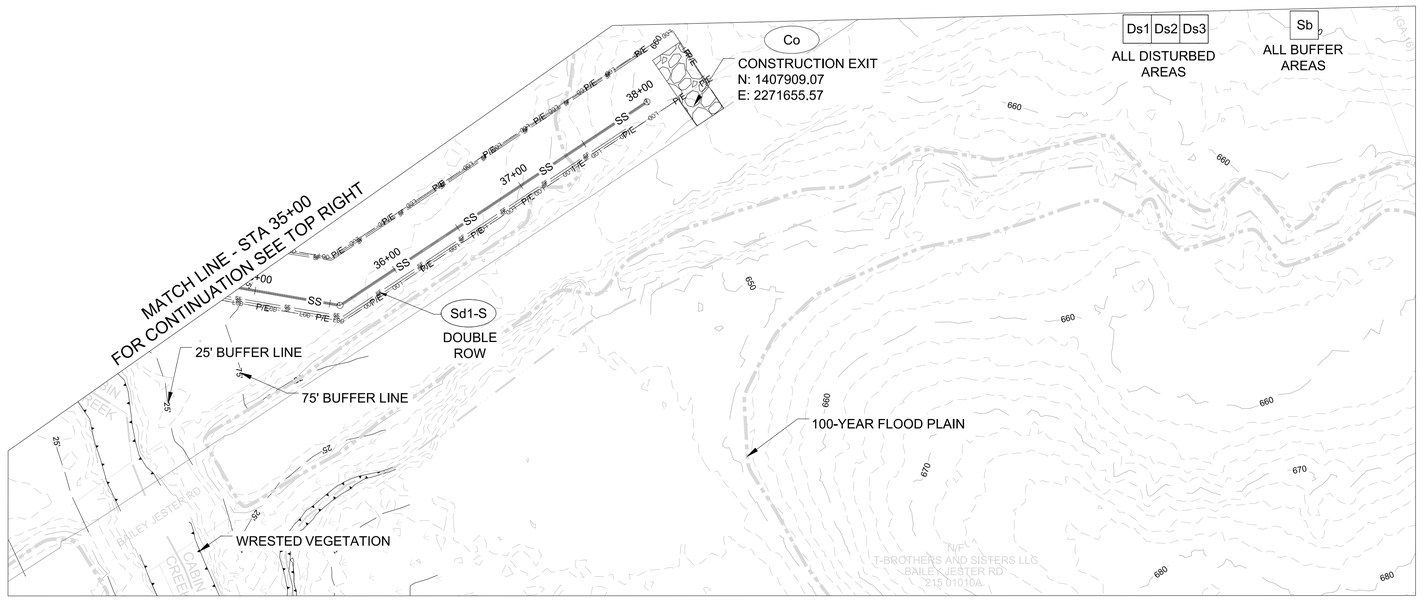


IMPACT TABULATION
STA 22+00 - STA 35+00

BUFFER IMPACTS:
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201 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 1.1 ACRES



IMPACT TABULATION
STA 35+00 - STA 38+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 0.4 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

Level II Certified Design Professional

CERTIFICATION NUMBER 0000090514

ISSUED 07/09/2023 EXPIRES 07/09/2026

50' 25' 0 50' 100'

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1258 ELLSWORTH DRIVE
ATLANTA, GA 30318
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UNIT C
ATLANTA, GA 30338
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1	JAS	AR	GA
0	HB	AR	GA

DATE	
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REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL PLAN
STA 0+00 TO 38+00

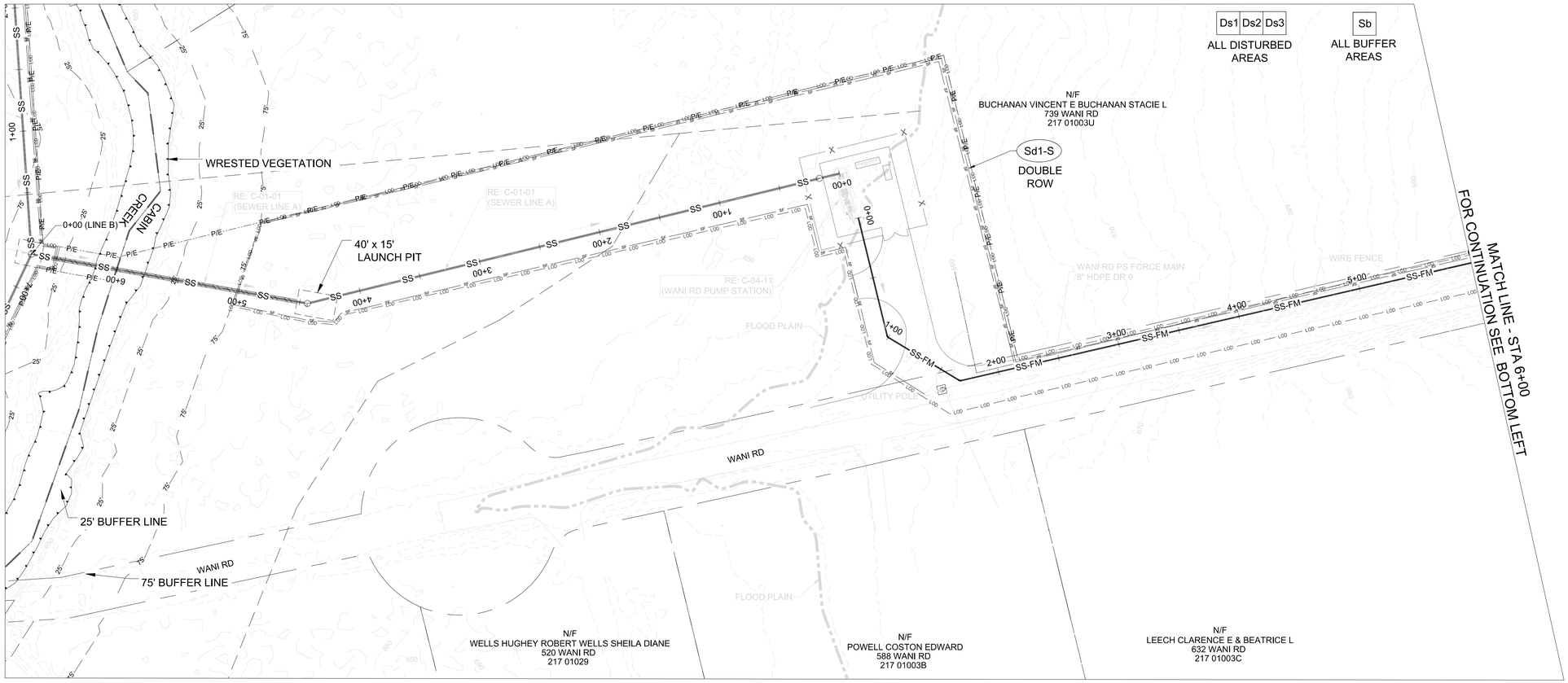
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DETAILED:
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-10
SHEET
81 OF 126

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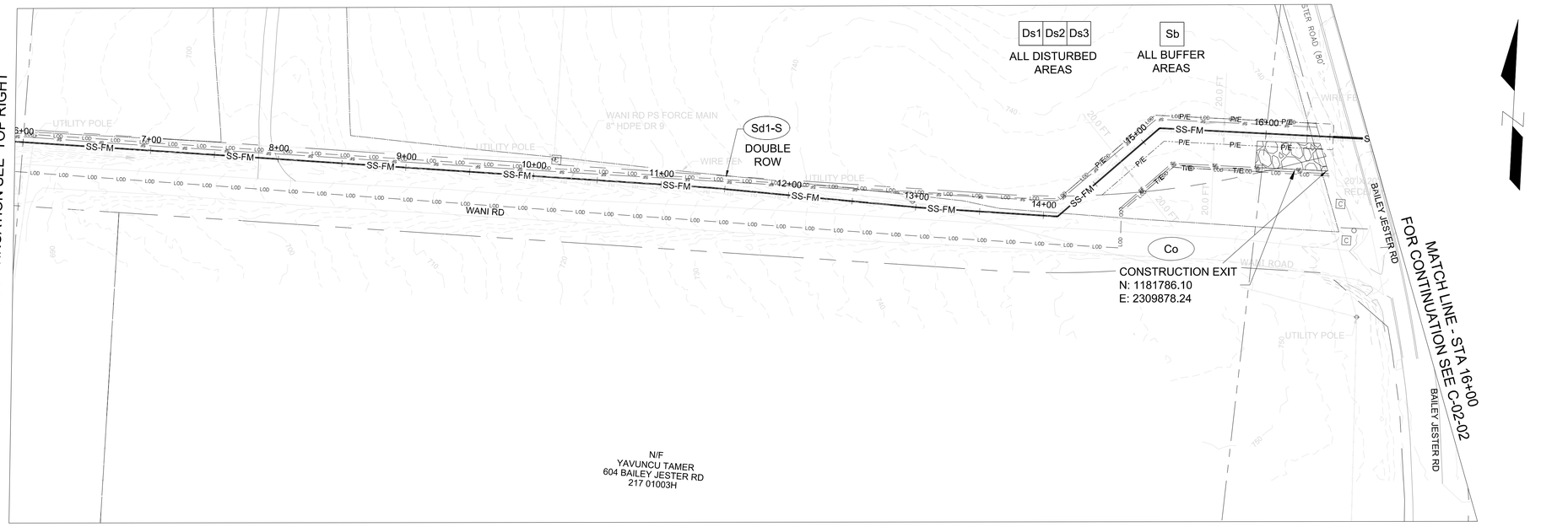


IMPACT TABULATION STA 0+00 - STA 6+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 2.6 ACRES



IMPACT TABULATION STA 6+00 - STA 16+00

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 0.74 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

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ISSUED 07/09/2023 EXPIRES 07/09/2026

50' 25' 0 50' 100'

HORIZONTAL SCALE 1"=50'

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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WWW.R2TINC.COM

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1	JAS	AR	GA

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REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

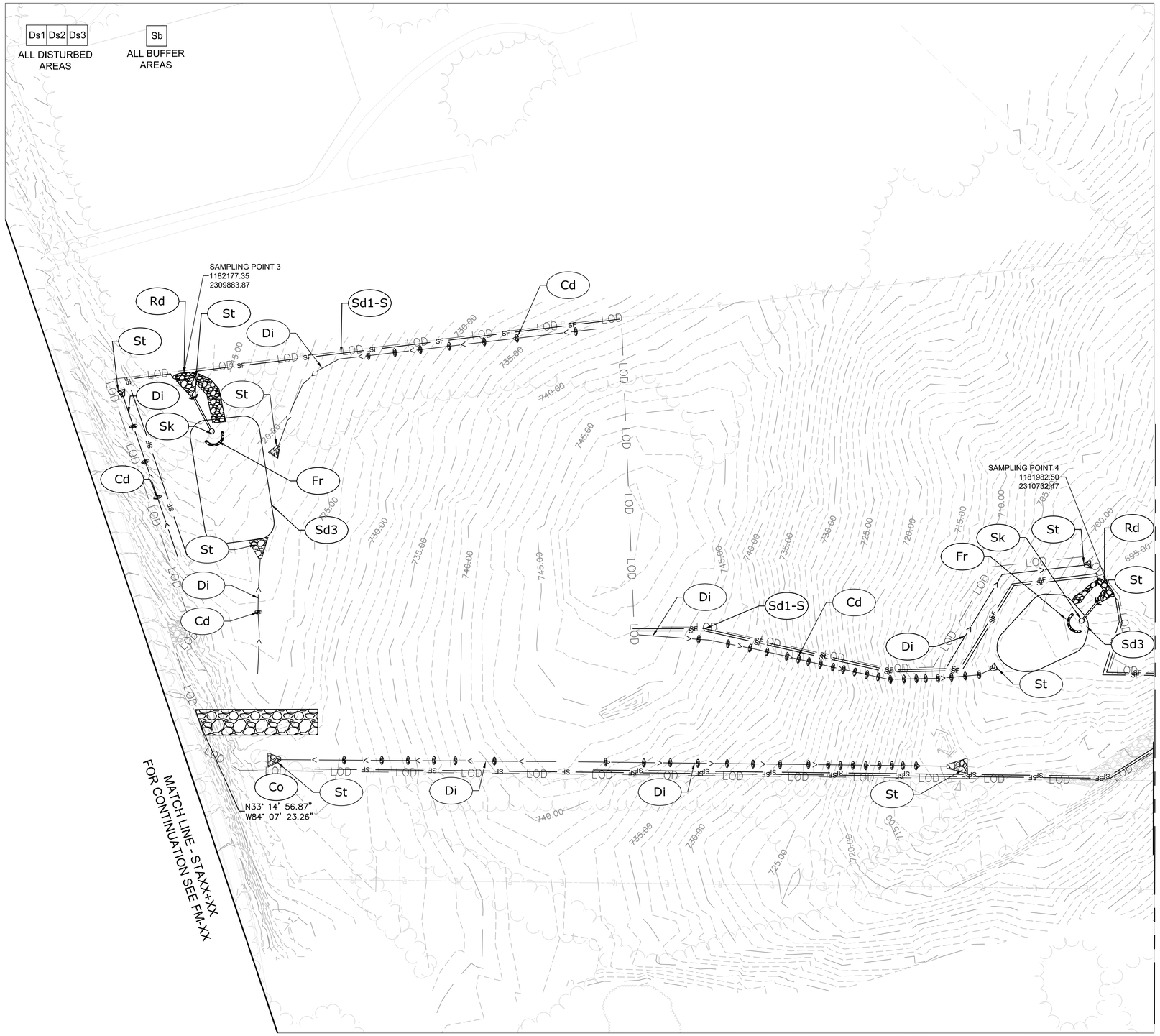
EROSION AND SEDIMENTATION CONTROL PLAN
STA 0+00 TO 16+00

DESIGNED:
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-11
SHEET
82 OF 126

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IMPACT TABULATION WRF

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 5.3 ACRES

GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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0	AR	GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

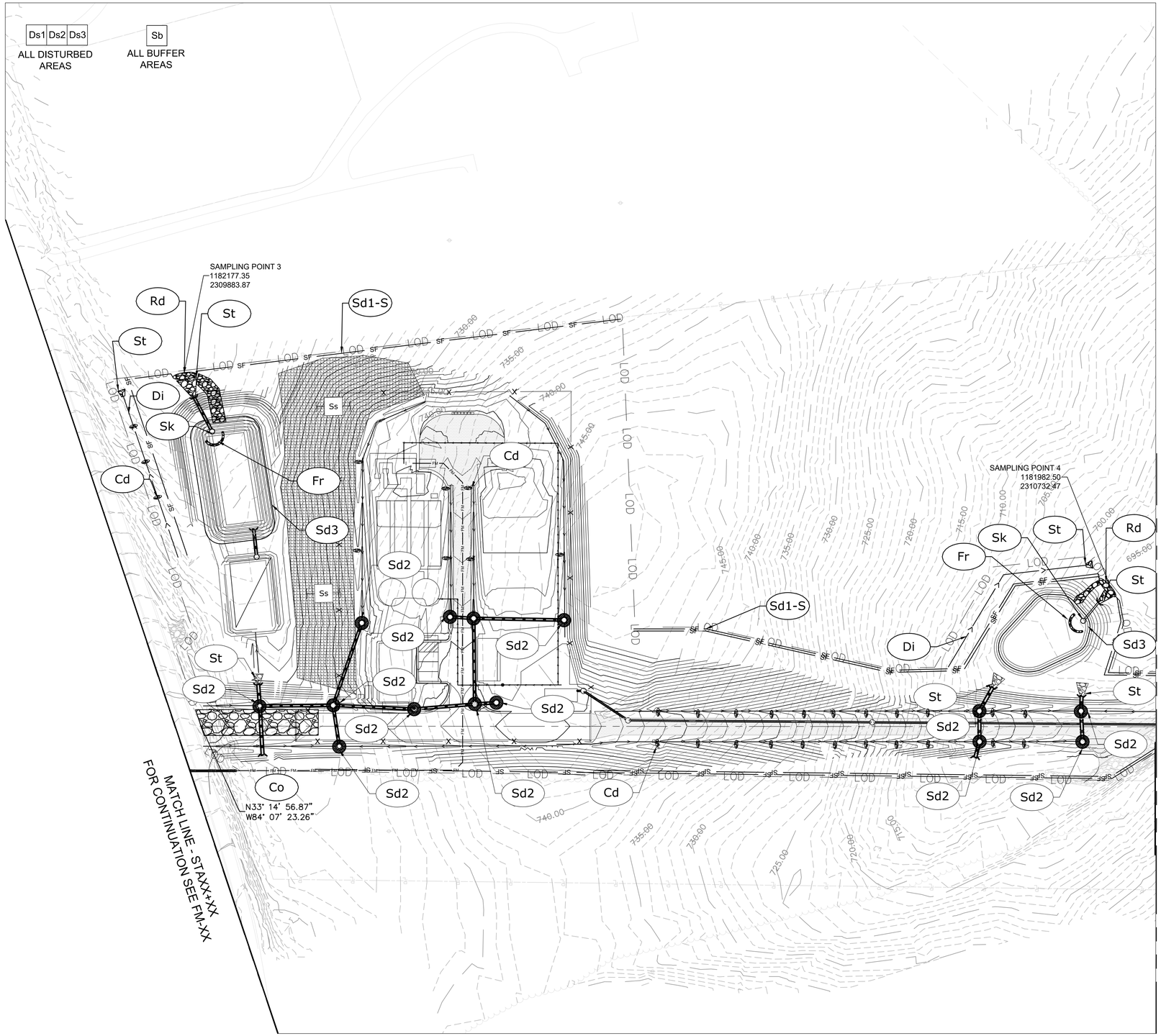
EROSION AND SEDIMENTATION CONTROL PLAN
WATER RECLAMATION FACILITY
INITIAL BMPS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-15
SHEET
83 OF 126

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IMPACT TABULATION WRF

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 5.3 ACRES

GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE.

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO	BY	CHK	APP
1	JAS	AR	GA
0	HB	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL
10/7/2024	GMP SUBMITTAL

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes

Level II Certified Design Professional

CERTIFICATION NUMBER 0000090514

ISSUED: 07/09/2023 EXPIRES: 07/09/2026

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

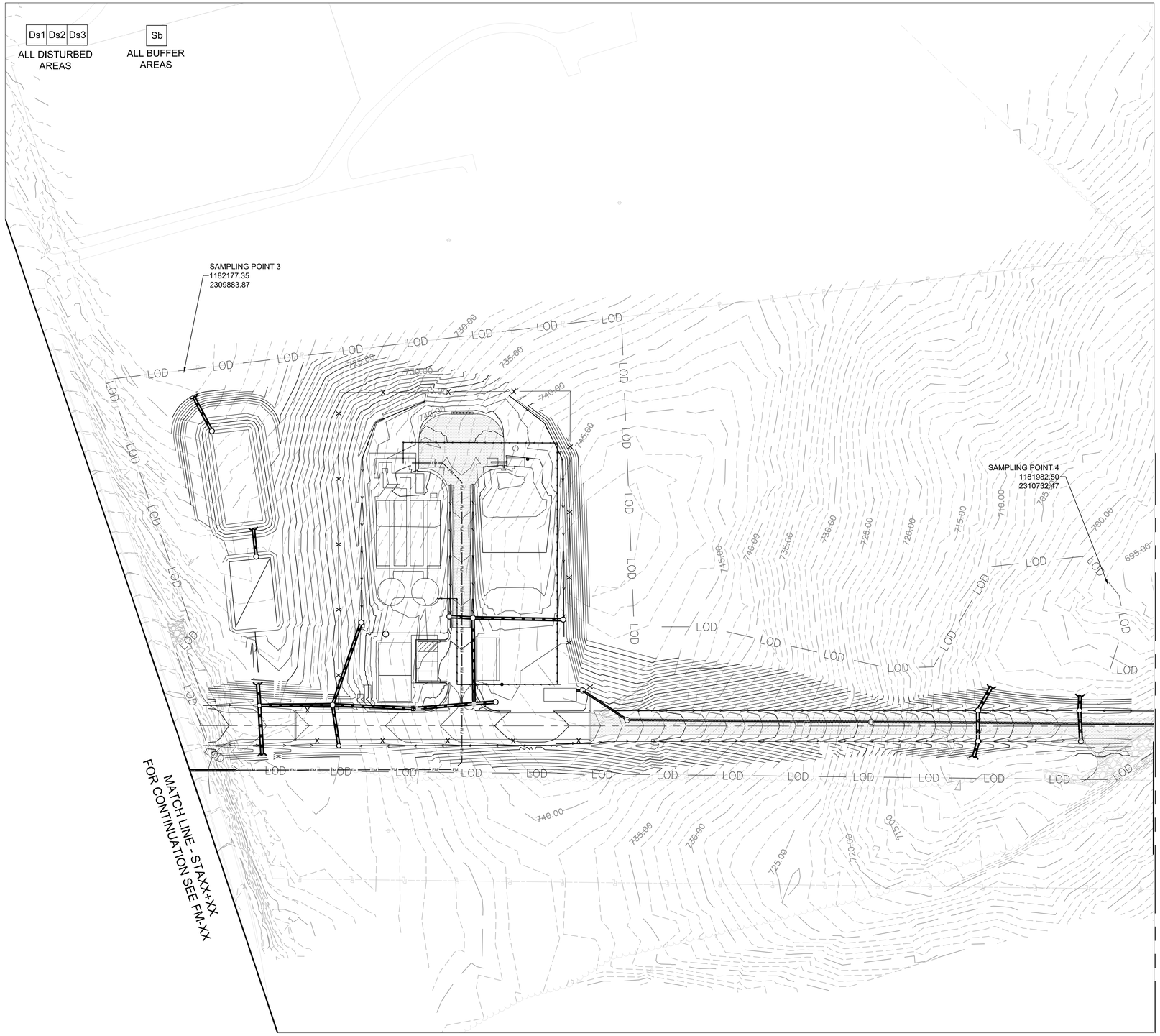
EROSION AND SEDIMENTATION CONTROL PLAN
WATER RECLAMATION FACILITY
INTERMEDIATE BMPS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

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SHEET
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IMPACT TABULATION WRF

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 5.3 ACRES

0 1/2 1
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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL PLAN
WATER RECLAMATION FACILITY
FINAL BMPS

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

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ISSUED 07/09/2023 EXPIRES 07/09/2026

GRAPHIC SCALE
50 0 50 100
(IN FEET)
1 inch = 50 ft.

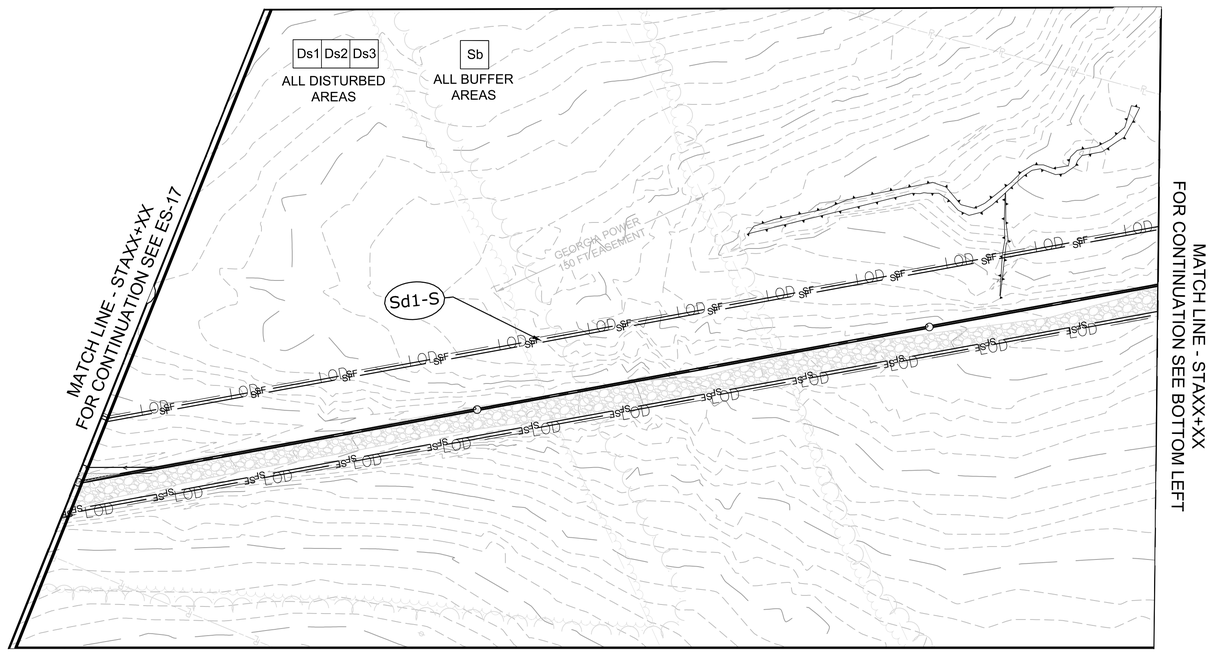
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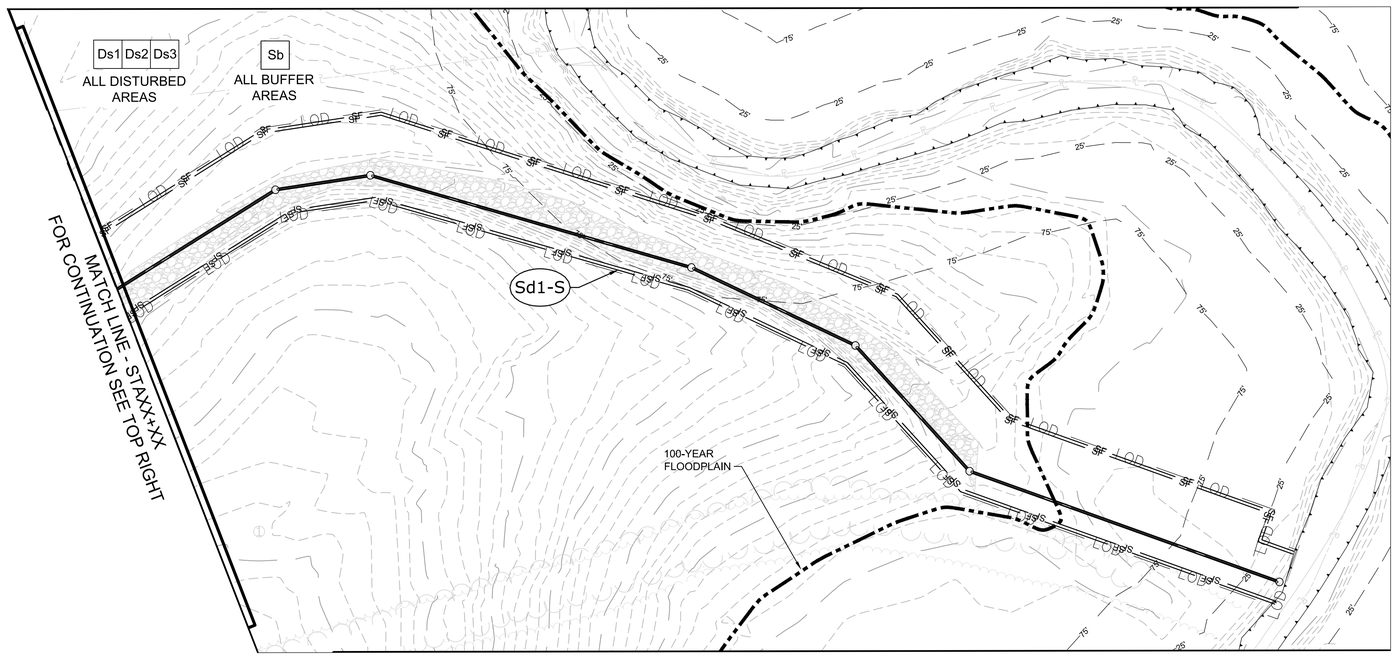
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

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SHEET
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PRELIMINARY - NOT FOR CONSTRUCTION

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IMPACT TABULATION
STA 12+94 - STA 25+15

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 2.6 ACRES

IMPACT TABULATION
STA 25+15 - STA 36+52

BUFFER IMPACTS:
0.0 SQ FT
0.0 LINEAR FT

WETLAND DISTURBANCE:
0.0 ACRES

LIMITS OF DISTURBANCE:
LOD 0.74 ACRES

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED 07/09/2023 EXPIRES 07/09/2026

GRAPHIC SCALE
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0 1/2 1
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL PLAN
WRF OUTFALL STA XX+XX - XX+XX

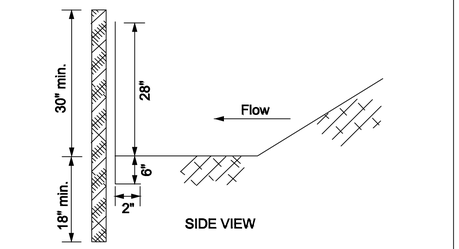
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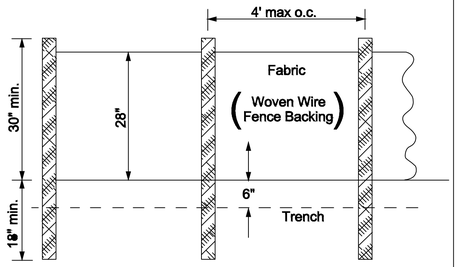
ES-18
SHEET
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SILT FENCE - TYPE SENSITIVE (Sd1-S)



SIDE VIEW



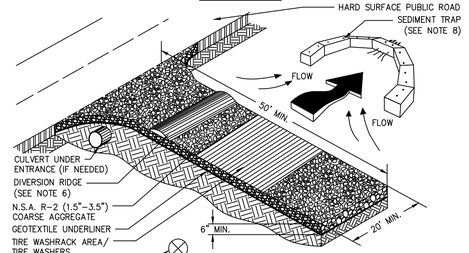
FRONT VIEW

NOTE:
Use 36" D.O.T. approved fabric.
Use steel posts.- only

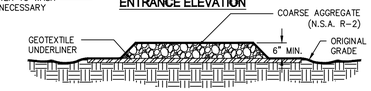
3 - SEDIMENT BARRIER (SILT FENCE) — Sd1-S

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM



ENTRANCE ELEVATION

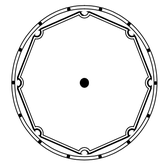


NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD 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.

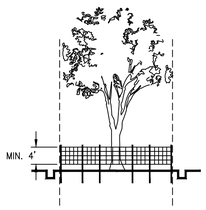
6 - CONSTRUCTION EXIT — Co

TREE PROTECTION

PLAN

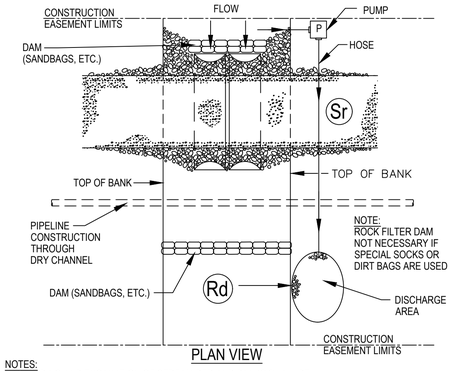


CROSS-SECTION



NOTES:
1. USE TRENCHER (I.E. DITCH WHICH) TO CUT A 4"-5" W X 18" D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.
2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER-REBAR IS NOT TO BE USED FOR STAKES).
3. MAINTAIN FENCE BY REPAIRING AND/OR REPLACING DAMAGED FENCE. DO NOT REMOVE FENCING PRIOR TO LANDSCAPING OPERATIONS.
4. DO NOT STORE OR STACK MATERIALS, EQUIPMENT, OR VEHICLES WITHIN FENCED AREA.
5. FENCE SHALL BE ORANGE VINYL "SNOW FENCE" 4' HIGH MINIMUM.

8 - TREE PROTECTION — Tr



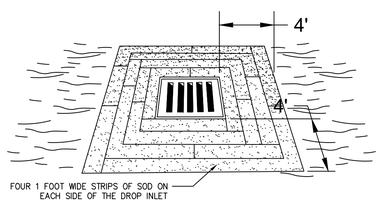
PLAN VIEW

NOTES:
1. CLEARING AND EXCAVATION OF STREAM BED AND BANKS SHALL BE KEPT TO A MINIMUM.
2. REMOVE STRUCTURE AS SOON AS IT IS NO LONGER NEEDED FOR CONSTRUCTION OF PIPE AND ENCASEMENT
3. RESHAPE STREAM TO ORIGINAL CROSS SECTION AND STABILIZE AS SHOWN ON CHANNEL STABILIZATION DETAIL.

4 - STREAM DIVERSION (PUMPED) — Dv2

INLET SEDIMENT TRAP

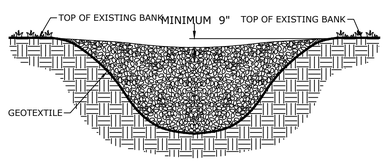
SOD STRIPS PROTECT INLET AREA FROM EROSION
(SOURCE: VA SWCC)



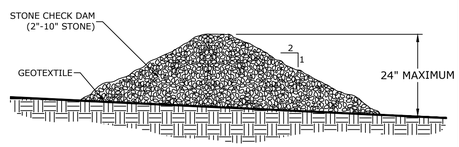
7 - INLET SEDIMENT TRAP — Sd2-S

STONE CHECK DAM

CROSS SECTION — Cd



PROFILE VIEW



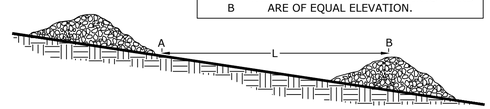
NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

STONE CHECK DAM

Cd

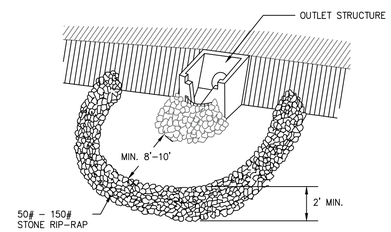
SPACING BETWEEN CHECK DAMS

A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

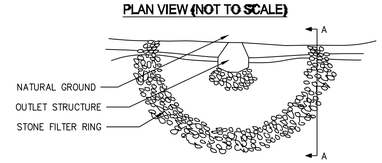


STONE FILTER RING

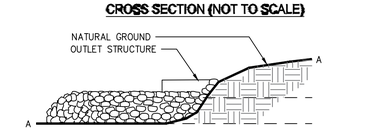
PERSPECTIVE VIEW



PLAN VIEW (NOT TO SCALE)



CROSS SECTION (NOT TO SCALE)



Fr - STONE FILTER RING — N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL DETAILS

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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-19
SHEET
87 OF 126

DEFINITION

Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

CONDITIONS

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored, and have a continuous 90% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed.

SPECIFICATIONS

MULCHING WITHOUT SEEDING

This standard applies to grades or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials

Select one of the following materials and apply at the depth indicated:

1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Cutback asphalt (slow curing) shall be applied at 1200 gallons per acre (or 1/4 gallon per sq.yd.).
4. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanicalequipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of "tracking in" or damage to shoes, clothing, etc.
4. Apply polyethylene film on exposed areas.

Anchoring Mulch

1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately
after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use
100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb -Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips.
3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization..

CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

SPECIFICATIONS

Grading and Shaping

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

oncentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preparation will be done as follows:

Broadcast plantings

1. Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.
2. Tillage may be done with any suitable equipment.
3. Tillage should be done on the contour where feasible.
4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

Individual Plants

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Planting

Hydraulic Seeding

Mix the seed (innoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots. Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% soil cover. Select the mulching material from the following and apply as indicated:

1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Drystraw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
3. One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
4. Sericea lespedeza hay containing mature seed shall be applied at a rate of three tons per acre.
5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
6. When using temporary erosion control blankets or block sod, mulch is not required.
7. Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:
1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment.

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of mulch.
Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration.
2. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk"' or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
3. Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to Tb - Tackifiers and Binders.
4. Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one half bushel per acre.
5. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Irrigation

Irrigation shall be applied at a rate that will not cause runoff.

SEEDING RATES FOR PERMANENT SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31
BERMUDA	0.2 POUND	10 LBS.	2/15-7/1
CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1
LESPEDEZA	1.7 POUNDS	75 LBS.	1/1-12/31
WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15
SWITCH GRASS	0.9 POUND	40 LBS.	3/15-6/1

* Unusual site conditions may require heavier seeding rates
** Seeding dates may need to be altered to fit temperature variations and conditions.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

CONDITIONS

Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established.
eeded.

SEEDING RATES FOR TEMPORARY SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
Rye	3.9 pounds	3 bu.	9/1-3/1
Ryegrass	0.9 pound	40 lbs.	8/15-4/1
Annual Lespedeza	0.9 pound	40 lbs.	1/15-3/15
Weeping Lovegrass	0.1 pound	4 lbs.	2/15-6/15
Sudangrass	1.4 pounds	60 lbs.	3/1-8/1
Browntop Millet	0.9 pound	40 lbs.	4/1-7/15
Wheat	4.1 pounds	3 bu.	9/15-2/1

* Unusual site conditions may require heavier seeding rates
** Seeding dates may need to be altered to fit temperture variations and conditions.

SPECIFICATIONS

Grading and Shaping

Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as closed drains, ditches, dikes, diversions, sediment barriers and others.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation

When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or handseeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be pitted, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate of one ton per acre. Graded areas require lime application. Soils can be tested to determine if fertilizer is needed. On reasonably fertile soils or soil material, fertilizer is not required. For soils with very low fertility, 500 to 700 pounds of 10-10-10 fertilizer or the equivalent per acre (12-16 lbs./1,000 sq. ft.) shall be applied. Fertilizer should be applied before land preparation and incorporated with a disk, ripper or chisel.

Seeding

Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand.

Mulching

Temporary vegetation can, in most cases, be established without the use of mulch. Mulch without seeding should be considered for short term protection. Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

Irrigation

During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

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

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

GSWCC GEORGIA SOIL AND WATER CONSERVATION COMMISSION

Hadyn Barnes
Level II Certified Design Professional
CERTIFICATION NUMBER 0000090514
ISSUED: 07/09/2023 EXPIRES: 07/09/2026

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
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UNIT C
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STAMP:

NO.	BY	CHK'APP
1	JAS	AR GA

REVISIONS AND RECORD OF USE

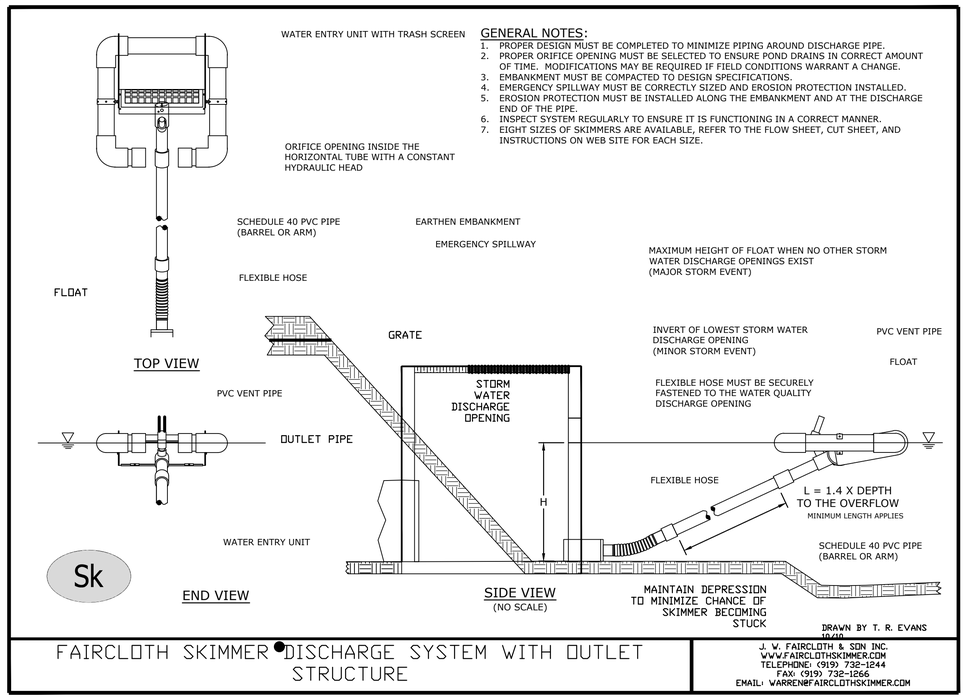
DATE
04/21/25 80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION
EROSION AND SEDIMENTATION CONTROL DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

ES-20
SHEET
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GENERAL NOTES:

1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

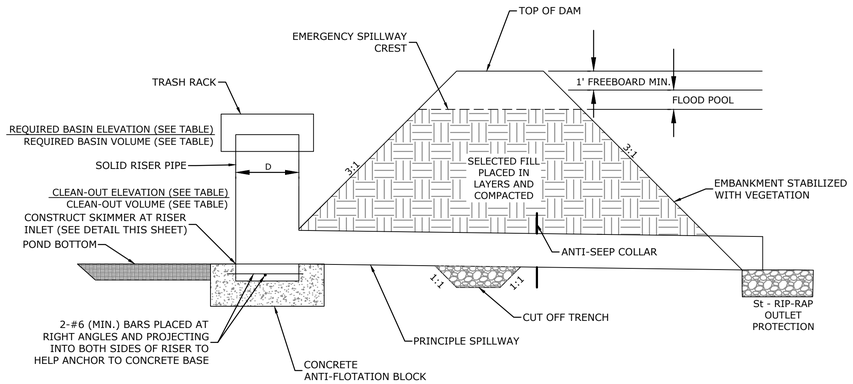
FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH OUTLET STRUCTURE

J. W. FAIRCLOTH & SON INC.
WWW.FAIRCLOTHSKIMMER.COM
TELEPHONE: (919) 732-1244
FAX: (919) 732-1266
EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

Skimmer Sizing						
Phase 1				Phase 2		
Phase 1 Pond Name	Skimmer Size	Skimmer Flow Rate	Orifice Diameter	Phase 2 Pond Name	Skimmer Flow Rate	Orifice Diameter
	[in]	*[cfs]*	*[in]*		*[cfs]*	*[in]*
EAST	2	0.0268	1.6	**EAST**	0.0268	1.6
WEST	2	0.0288	1.7	**WEST**	0.0288	1.7

**Skimmers used in Phase 1 can be repurposed for use in Phase 2.*

TEMPORARY SEDIMENT BASIN



MAINTENANCE REQUIREMENTS:

REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE SPECIFIED DISTANCE BELOW THE TOP OF THE RISER. SEDIMENT SHALL NOT ENTER ADJACENT STREAMS OR DRAINAGEWAYS DURING SEDIMENT REMOVAL OR DISPOSAL. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO STREAM A OR FLOOD PLAIN.

Sd3 TEMPORARY SEDIMENT BASIN

Temporary Sediment Basin Design Worksheet (Phase 1)			
	Units	East Pond	West Pond
Require Storage Volume (Vs)	*[CY]*	257.28	286.10
Volume at clean-out (Vc)	*[CY]*	84	93.94
Crest Elevation of VS	*[ft]*	718.93	700.36
Crest Elevation of Vc	*[ft]*	719	699.42
Riser Length	*[ft]*	1.93	2.36
Peak Discharge for 2-Year Storm (Q2)	*[cfs]*	10.65	10.24
Peak Discharge for 25-Year Storm (Q25	*[cfs]*	22.67	21.70
Minimum Basin Surface Area (SAmin)	*[sf]*	4639	4461
Surface Area/Configuration Design			
Surface Area at Riser Crest	*[sf]*	4388	4162
Available Area > SAmin?	*[Y/N]*	N	N
L:W Ratio		2	2.2:1
Baffle Required?	*[Y/N]*	N	n
Maximum principal spillway capacity	*[cfs]*	10.65	10.24
Principal Spillway Design			
Principal Spillway Length	*[ft]*	35	20
Spillway Pipe Diameter	*[in]*	18	18
Riser Diameter	*[in]*	30	30
Trash Rack Diameter	*[in]*	42	42
Concrete Riser Base Design			
Riser base total volume of concrete	*[cf]*	3	4
Base thickness	*[ft]*	1.5	2.5
Riser base length and width	*[ft]*	1.41	1.21
Anti-Seep Collar Design			
Anti-Seep Collar Required?	*[Y/N]*	Y	Y
Anti-Seep Collar Projection	*[in]*	18	19
Emergency Spillway Design			
Emergency Spillway Minimum Capacity	*[cfs]*	12	11
Emergency Spillway Crest Elevation	*[ft]*	720	700
Emergency Spillway Bottom Width	*[ft]*	8	8
Top of Dam Elevation	*[ft]*	722	702

Permanent Pond Sediment Storage Worksheet (Phase 2 & 3)			
	Units	East Pond	West Pond
Storage Provided (Vs)	*[CY]*	257.1	276.2
Volume at clean-out (Vc)	*[CY]*	300.8	128.9
Crest Elevation of OCS	*[ft]*	718.0	698.0
Cleanout Elevation	*[ft]*	719.2	699.4

The East Pond is a permanent structure that will be installed in according to stormwater plan. During active construction, the pond must be cleaned out when sediment reaches the Cleanout Elevation.

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
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STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

DATE	REVISIONS AND RECORD OF USE
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
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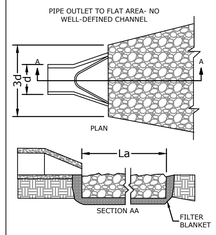
EROSION AND SEDIMENTATION CONTROL DETAILS

DESIGNED:
DETAILED:
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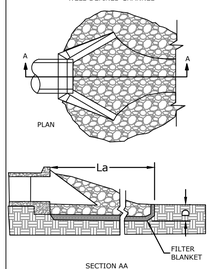
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

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SHEET
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PIPE OUTLET TO FLAT AREA- NO WELL-DEFINED CHANNEL



PIPE OUTLET TO WELL-DEFINED CHANNEL



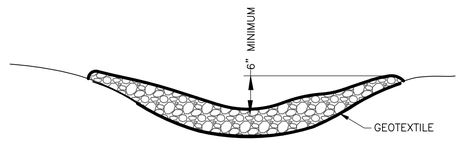
CONSTRUCTION NOTES:

1. La = THE LENGTH OF APRON.
2. d= DIAMETER OR OUTLET PIPE
3. D = 1.5 TIMES STONE DIAMETER,6" MIN.
4. IN A WELL-DEFINCED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
5. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
6. ENSURE THAT THE SUBGRADE FOR THE FILTER AND THE RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY STATED IN THE SPECIFICATIONS.
7. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
8. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MIN. OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
9. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
10. FILTER: INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER AND A SYNTHETIC FILTER CLOTH.
11. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

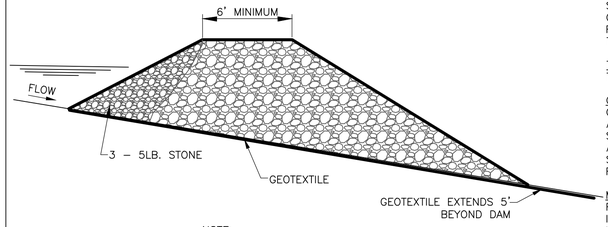
RIPRAP APRON SUMMARY CHART

HEADWALL ID*	PIPE DIAMETER / WEIR WIDTH (Do) [in]	25-YR FLOW (During Construction) (cfs) [cfs]	25-YR VELOCITY (During Construction) (fps) [fps]	RIPRAP SIZE (CALCULATED) (d50) [ft]	RIPRAP SIZE USED (d50) [ft]	STONE DEPTH (D) [ft]	APRON LENGTH (La) [ft]	WIDTH OF APRON (W1) [ft]	WIDTH OF APRON (W2) [ft]	Tailwater Depth [ft]	Tailwater Condition	Conduit Type	To Well-Defined Channel	Rip Rap Volume [cf]
M-0	24	10.4	5.89	0.3	GDOT Type 3	0.7	10	6	12.0	1.05	Maximum	Pipe	No	60.75
M-2	24	8.58	2.73	0.3	GDOT Type 3	0.7	10	6	12.0	3.73	Maximum	Pipe	No	60.75
Di-1	12	2.815	3.80	0.2	GDOT Type 3	0.5	6	3	7.0	0	Minimum	Diversion	No	13.5
Di-2	12	0.4	0.53	0.2	GDOT Type 3	0.5	6	3	7.0	0	Minimum	Diversion	No	13.5
M-4	24	2.72	1.03	0.2	GDOT Type 3	0.5	14	6	16.0	0	Minimum	Pipe	No	69.3
N-6	24	17.64	5.61	0.3	GDOT Type 3	0.7	10	6	12.0	3.25	Maximum	Pipe	No	60.75
P-9	18	10.96	6.51	0.3	GDOT Type 3	0.7	7	*	*	1.04	Maximum	Pipe	Yes	40
Berne St. Bridge Weep Hole (appx. 12", half-buried)	12	3.16	8.07	0.2	GDOT Type 3	0.5	14	3	15.0	0	Minimum	Pipe	No	56.7
Pond Q Ditch Inlet	24	9.29	2.48	0.2	GDOT Type 3	0.5	14	6	16.0	0	Minimum	Ditch	No	69.3
Pond Q French Drains (2) [not modeled]	8	-	-	0.2	GDOT Type 3	0.5	6	2	7.0	-	Minimum	Pipe	No	12.15
Pong N SED outfall	24	9.681	6.16	0.4	GDOT Type 3	0.9	12	6	14.0	0	Minimum	Pipe	No	108

St STORM DRAIN OUTLET PROTECTION N.T.S.



NOTE: SEDIMENT TRAP IS TO BE CLEANED OUT WHEN VOLUME BECOMES HALF FULL.



NOTE:
ROCK SIZE DETERMINED ACCORDING TO SPECIFICATIONS SET FORTH IN APPENDIX C OF THE GREEN BOOK.

Rd ROCK FILTER DAM

ROCK FILTER DAM

DESIGN STANDARDS:

DRAINAGE AREA
THE DRAINAGE AREA TO THE DAM SHALL NOT EXCEED 50 ACRES.

HEIGHT
THE DAM SHOULD NOT BE HIGHER THAN THE CHANNEL BANKS OR EXCEED THE ELEVATION OF THE UPSTREAM PROPERTY LINE. THE CENTER OF THE ROCK DAM SHOULD BE AT LEAST SIX INCHES LOWER THAN THE OUTER EDGES OF THE DAM AT THE CHANNEL BANKS.

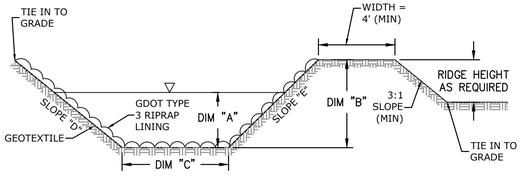
SIDE SLOPES
THE SIDE SLOPES SHALL BE 2:1 OR FLATTER.

LOCATION
THE DAM SHALL BE LOCATED AS CLOSE TO THE SOURCE OF SEDIMENT AS POSSIBLE AND SO THAT IT WILL NOT CAUSE WATER TO BACK UP ON UPSTREAM ADJACENT PROPERTY.
STONE SIZE: THE STONE SIZE SHALL BE DETERMINED BY THE RIPRAP SIZING CRITERIA IN APPENDIX C OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. THE ROCK DAM CAN BE FACED WITH SMALLER STONE ON THE UPSTREAM SIDE FOR ADDITIONAL FILTERING EFFECT. HOWEVER, THIS MAY MAKE THE DAM MORE PRONE TO CLOGGING.

TOP WIDTH
THE WIDTH ACROSS THE TOP OF THE DAM SHOULD BE NO LESS THAN 6 FEET.

GEOTEXTILE
GEOTEXTILES SHOULD BE USED AS A SEPARATOR BETWEEN THE GRADED STONE, THE SOIL BASE, AND THE ABUTMENTS. THE GEOTEXTILE WILL PREVENT THE MIGRATION OF SOIL PARTICLES FROM THE SUBGRADE INTO THE GRADED STONE. THE GEOTEXTILE SHALL BE SPECIFIED IN ACCORDANCE WITH AASHTO M288–96 SECTION 7.5, PERMANENT EROSION CONTROL RECOMMENDATIONS. THE GEOTEXTILE SHOULD BE PLACED IMMEDIATELY ADJACENT TO THE SUBGRADE WITHOUT ANY VOIDS AND EXTEND FIVE FEET BEYOND THE DOWNSTREAM TOE OF THE DAM TO PREVENT SCOUR.

MAINTENANCE
ROCK DAMS SHOULD BE REMOVED ONCE DISTURBED AREAS HAVE BEEN STABILIZED. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE–HALF OF THE ORIGINAL HEIGHT OF THE DAM.



NOTES:

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIVERSION.
2. THE DIVERSION SHALL BE FREE OF IRREGULARITIES THAT WOULD IMPEDE NORMAL FLOW. GRADE EXISTING GROUND AS REQUIRED TO ACHIEVE DITCH DIMENSIONS, SLOPE, AND ALIGNMENT AS SHOWN ON DETAIL AND PLANS.
3. ENSURE THAT THE TOP OF THE RIDGE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
4. PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.
6. ALL FILLS SHALL BE MACHINE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED DIVERSION.
7. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIVERSION.
8. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE AS NEEDED.
9. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.
10. COMPOST SOCK CHECK DAMS (Cd-CS) SHALL BE USED ALONG TEMPORARY DIVERSIONS AND CONSTRUCTED PER DETAILS PROVIDED IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

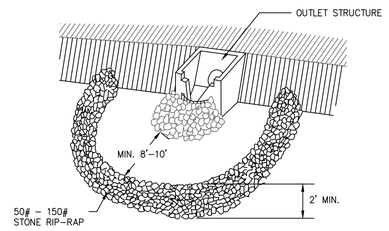
Diversion Dimensions

Diversion	A [ft]	B [ft]	C [ft]	D	E	Lining
Di-1	0.5	1.3	1.0	2:1	2:1	GDOT Type 3 Rip Rap
Di-2	0.5	1.3	1.0	2:1	2:1	GDOT Type 3 Rip Rap
Di-3	1.0	2.0	1.0	2:1	2:1	GDOT Type 3 Rip Rap

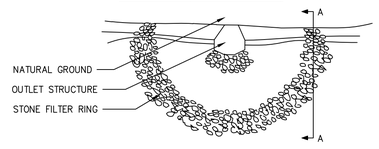
Di DIVERSION N.T.S.

STONE FILTER RING

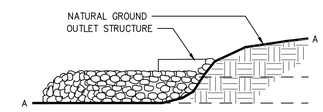
PERSPECTIVE VIEW



PLAN VIEW (NOT TO SCALE)



CROSS SECTION (NOT TO SCALE)



Fr STONE FILTER RING N.T.S.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
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R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	REVISIONS AND RECORD OF USE	DATE
1	JAS	AR	GA	80% PERMIT REVIEW SUBMITTAL	04/21/25

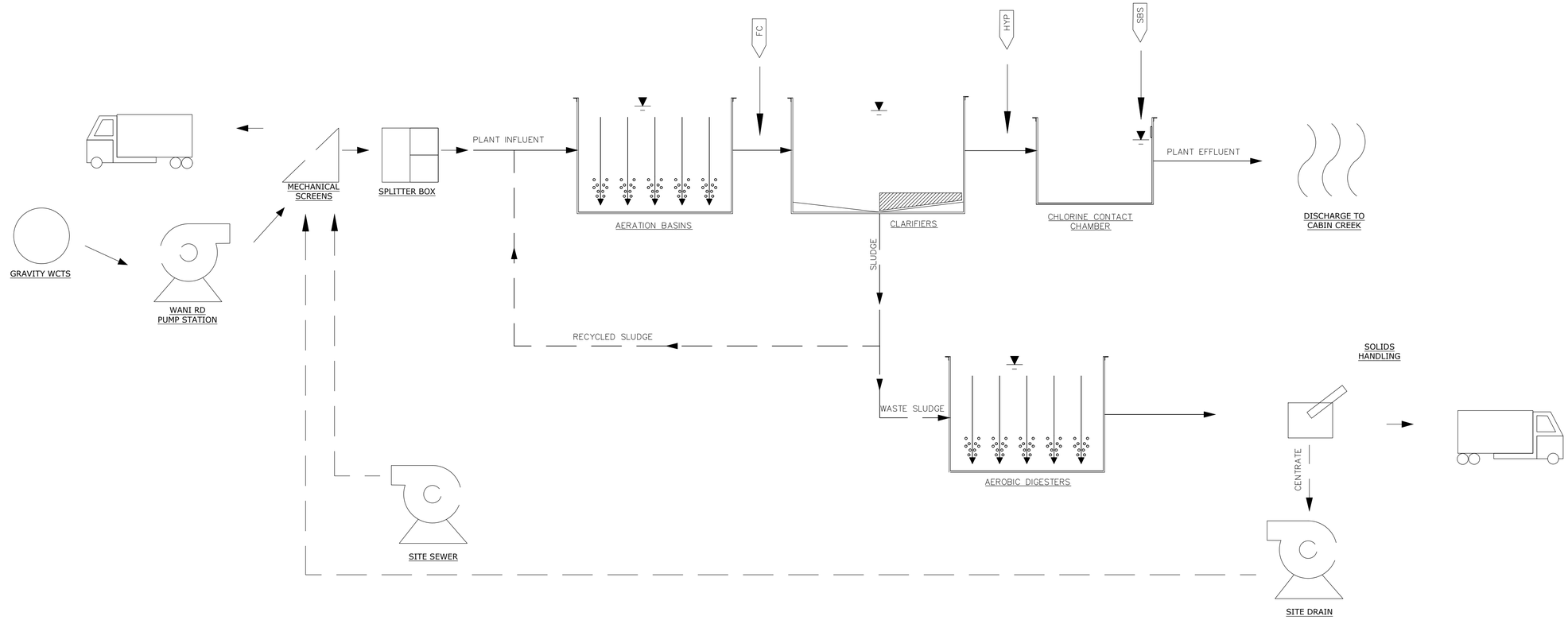
SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

EROSION AND SEDIMENTATION CONTROL DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ES-22
SHEET 90 OF 126



PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

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0	HB	AR GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

PROCESS MECHANICAL
FLOW DIAGRAM

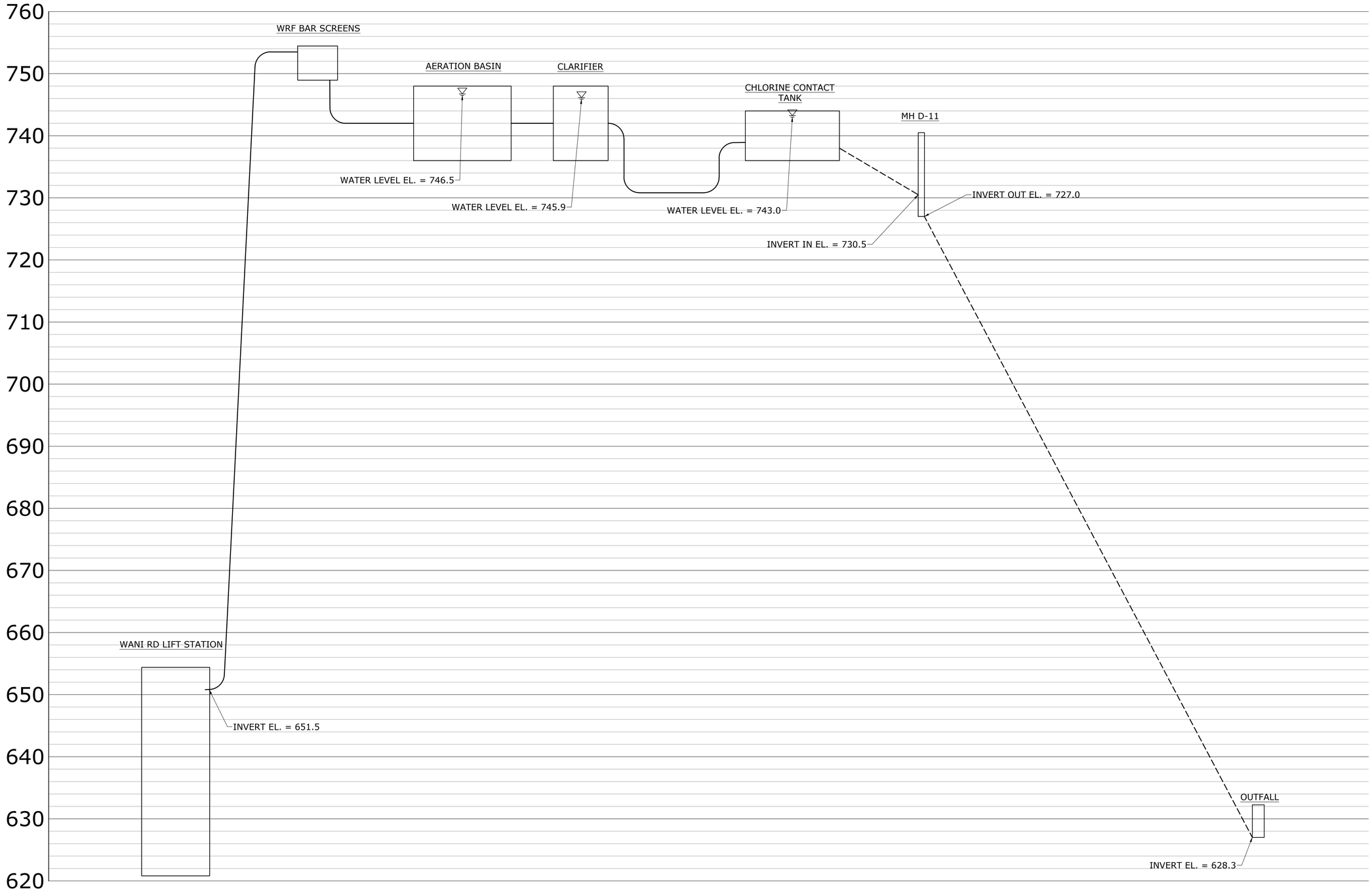
DESIGNED:
DETAILED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

P-01
SHEET
21 OF 75

FD10000

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PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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0	HB	AR GA

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

PROCESS MECHANICAL
HYDRAULIC PROFILE

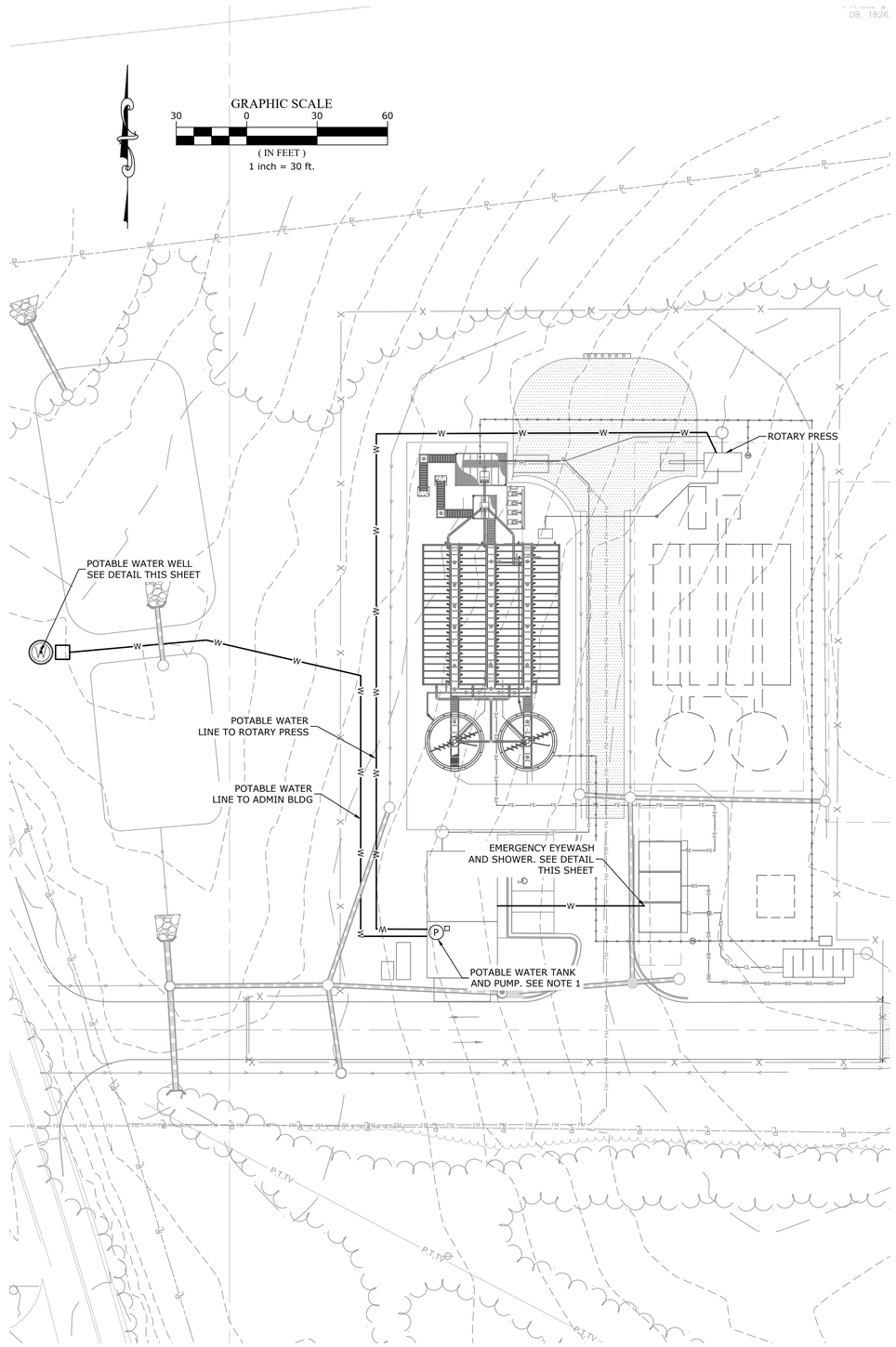
DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

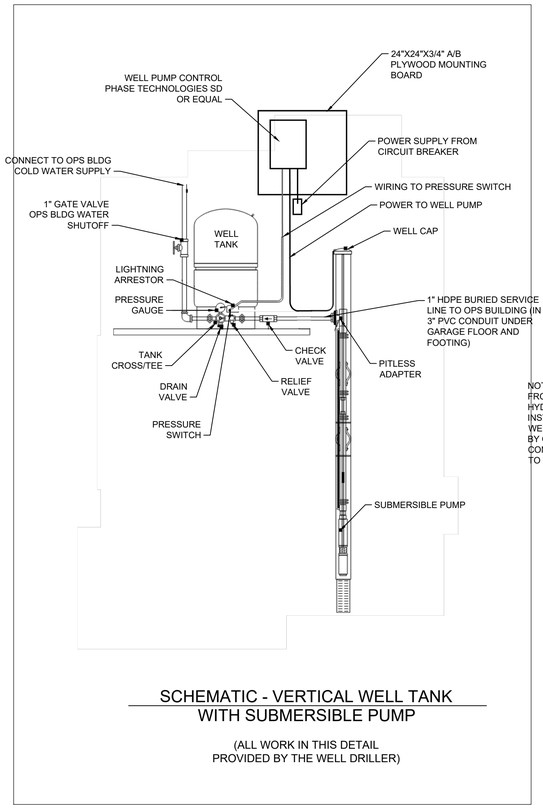
P-02
SHEET
21 OF 75

FD10000

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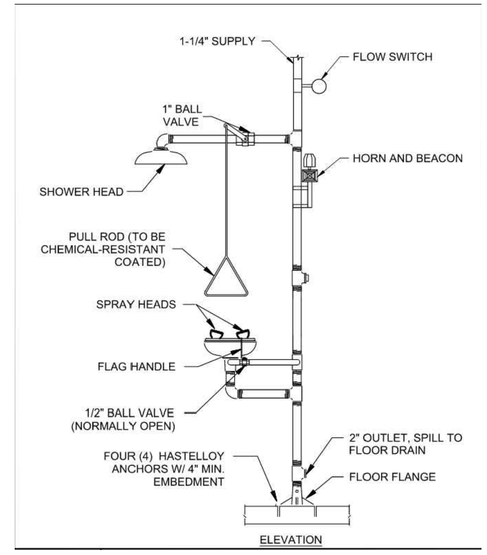
POTABLE WATER SYSTEM LAYOUT
PLAN



NOTE: OUTDOOR FROST-PROOF YARD HYDRANTS TO BE INSTALLED BETWEEN WELL AND WELL TANK BY OTHERS (NOT WELL CONTRACTOR). REFER TO SITE PLAN.

SCHEMATIC - VERTICAL WELL TANK
WITH SUBMERSIBLE PUMP

(ALL WORK IN THIS DETAIL
PROVIDED BY THE WELL DRILLER)



SCHEMATIC - EMERGENCY EYE
WASH STATION

POTABLE WATER SYSTEM DEMANDS SCHEDULE

Potable Water System					
Demand	Frequency	Peak (gpm)	Avg (gpm)	Pressure (psi)	Reference Stds/Regs
Operations Building					
Domestic use	daily	10	5	60	
Chemical Area					
Emergency Eye Wash & Shower (15 min per OSHA)	emergency/infrequent	20	0	30	ANSI Z358.1
		20	5		
Solids Handling System (SHS) Ground Tank					
Rotary Press Washwater	3 days/ month	20	20	40	
Polymer Makeup	3 days/ month	2	2	30	
Supply					
Well #1		10	5	60	
SHS Ground Tank Booster Pumps	3 days/ month	20			
		30			

NOTES:

1. 550 GAL POLY WATER TANK BY NATIONAL POLY TANKS OR APPROVED EQUAL. FLOAT SWITCH TO COMMUNICATE WITH WELL PUMP TO BE DWYER FLOTECT TYPE OR APPROVED EQUAL. PUMP TO BE GRUNDFOS LC END SUCTION CENTRIFUGAL PUMP OR APPROVED EQUAL. PRELIMINARY SIZING IS FOR 60 GMP, 135 FT, 7.5 HP. MODEL 10707 LC.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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UNIT C
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1	JAS	AR	GA
0	HB	AR	GA

DATE	
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10/1/2024	GMP SUBMITTAL

REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

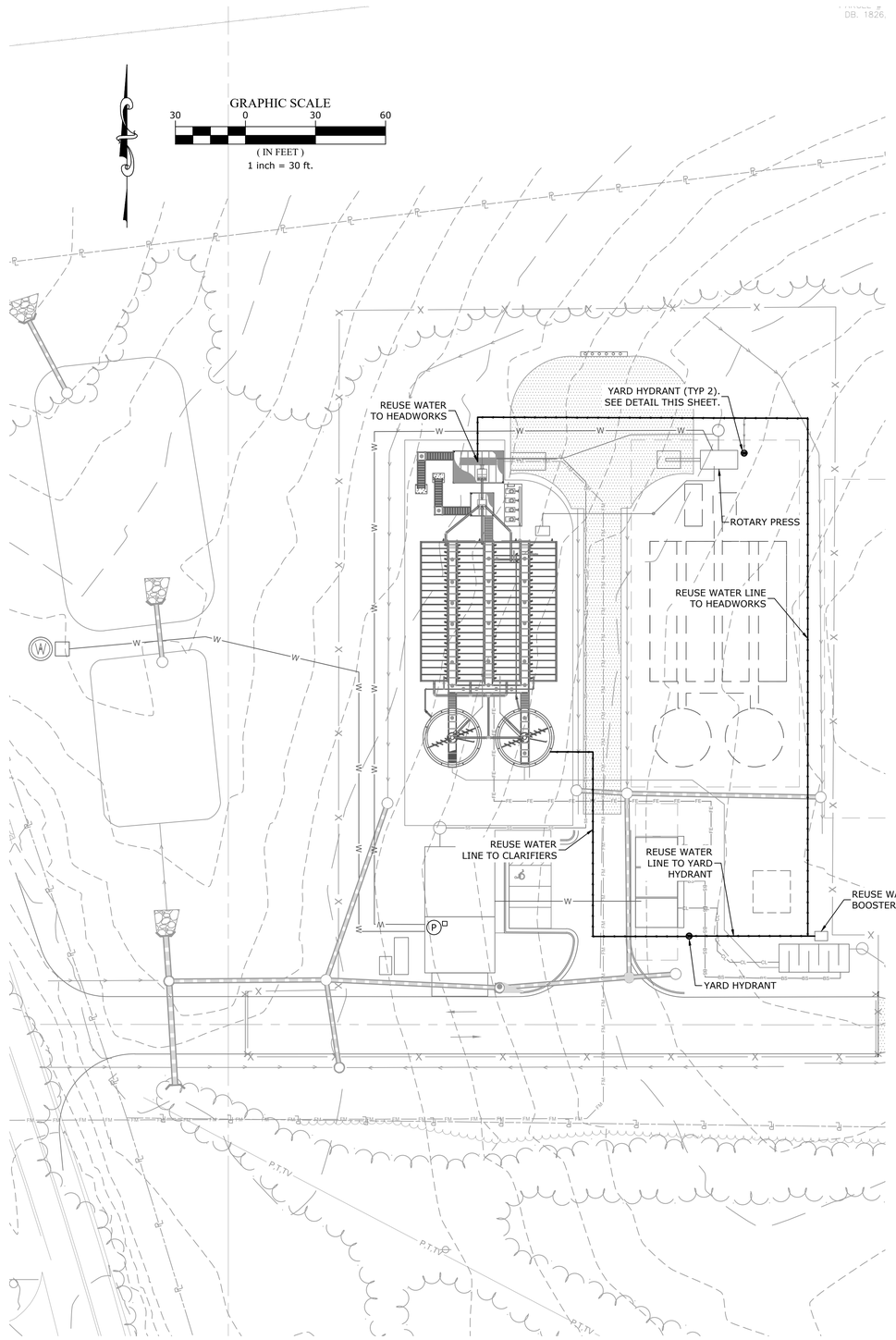
PROCESS MECHANICAL
POTABLE WATER SYSTEM

DESIGNED:
DETAILED:
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APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

P-03
SHEET
21 OF 75

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FD10000

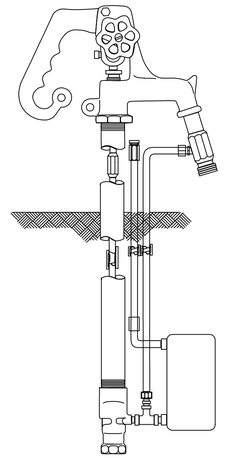


NONPOTABLE WATER SYSTEM LAYOUT PLAN



1. GRUNDFOS LC END SUCTION CENTRIFUGAL PUMP, OR APPROVED EQUAL.
2. PRELIMINARY SIZING IS FOR 60 GPM, 135 FT, 7.5 HP. MODEL 10707 LC.

NONPOTABLE WATER DUPLEX BOOSTER PUMP SKID
SCALE: NONE



FROST FREE YARD HYDRANT
SCALE: NONE

NONPOTABLE WATER SYSTEM DEMANDS SCHEDULE

Nonpotable Water / Plant Water System					
Demand		Peak	Avg	Pressure (psi)	
Mechanical Screen Washwater	continuous	40		40	
Yard Hydrants/ Wash Down	weekly	10	0		
Clarifier Centerwell Spray	continuous	5	5		
		55	5		
Supply					
CCT Booster Pumps		65	45	60	

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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0	HB	AR	GA

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10/1/2024	GMP SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

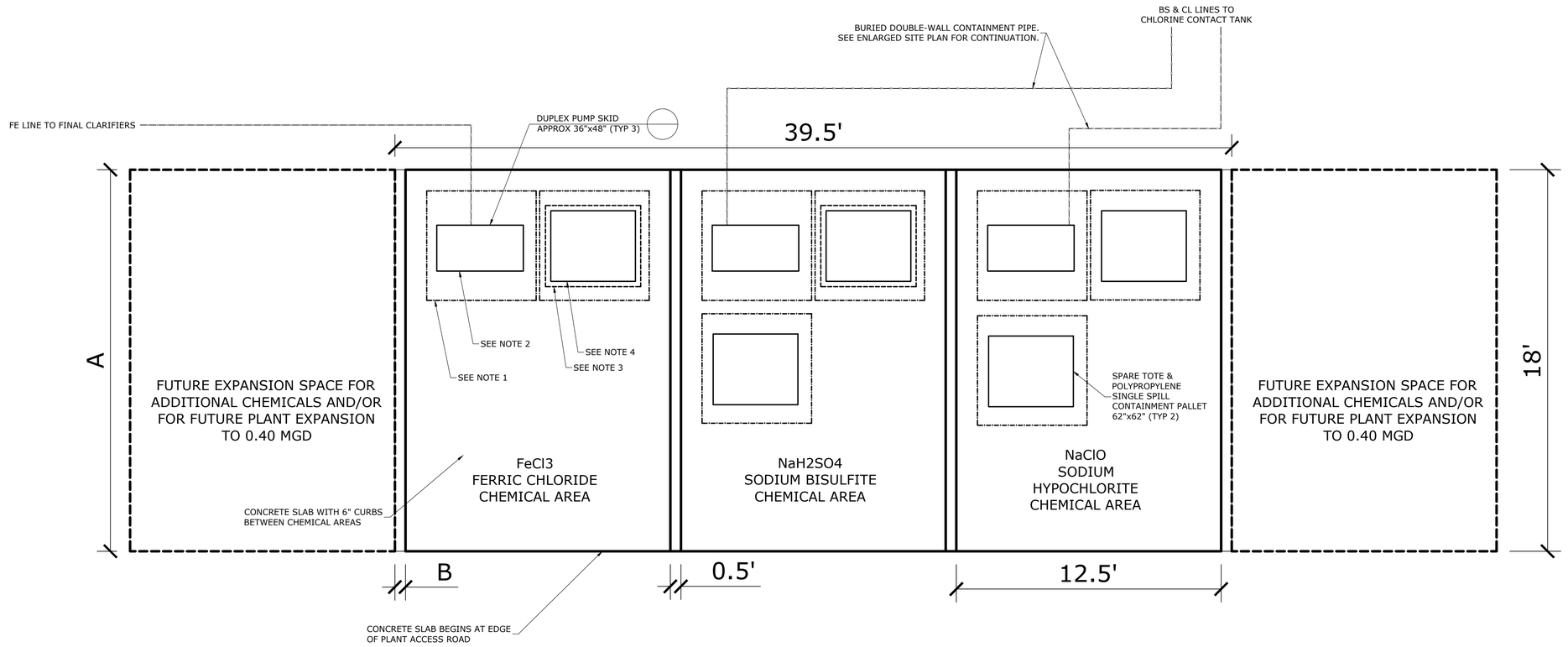
PROCESS MECHANICAL
NONPOTABLE WATER SYSTEM

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

P-04
SHEET 21 OF 75

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FD10000

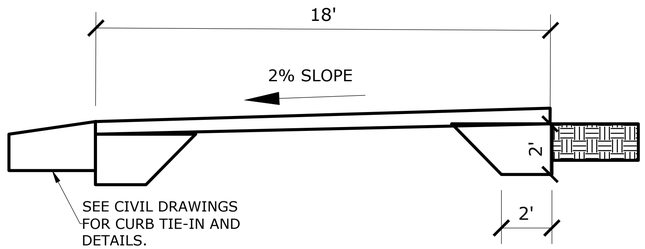


CHEMICAL AREA PLAN
SCALE: 1/3" = 1'

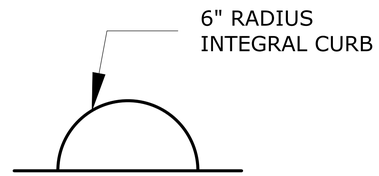
NORTH

NOTES:

1. CONTAINMENT PALLET, TYP 4. SEE DETAIL SHEET P-08.
2. DUPLEX CHEMICAL METERING PUMP, TYP 3, WITH HEATED ENCLOSURES. SEE DETAIL SHEET P-08.
3. TANK HEATER BLANKET, TYP 2. SEE SPECIFICATION XX3.
4. CHEMICAL IBC.



A - CHEMICAL AREA SECTION
SCALE: 1/3" = 1'



B - CHEMICAL AREA SECTION
SCALE: NONE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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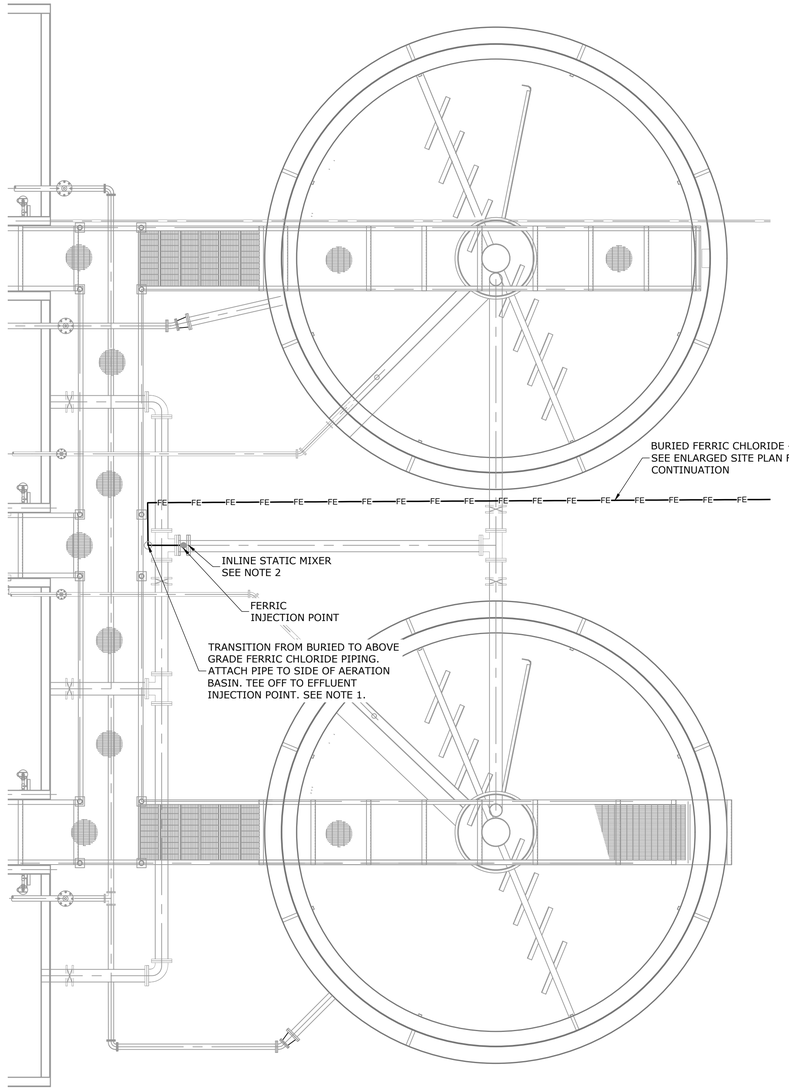
PROCESS MECHANICAL
CHEMICAL AREA PLAN

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

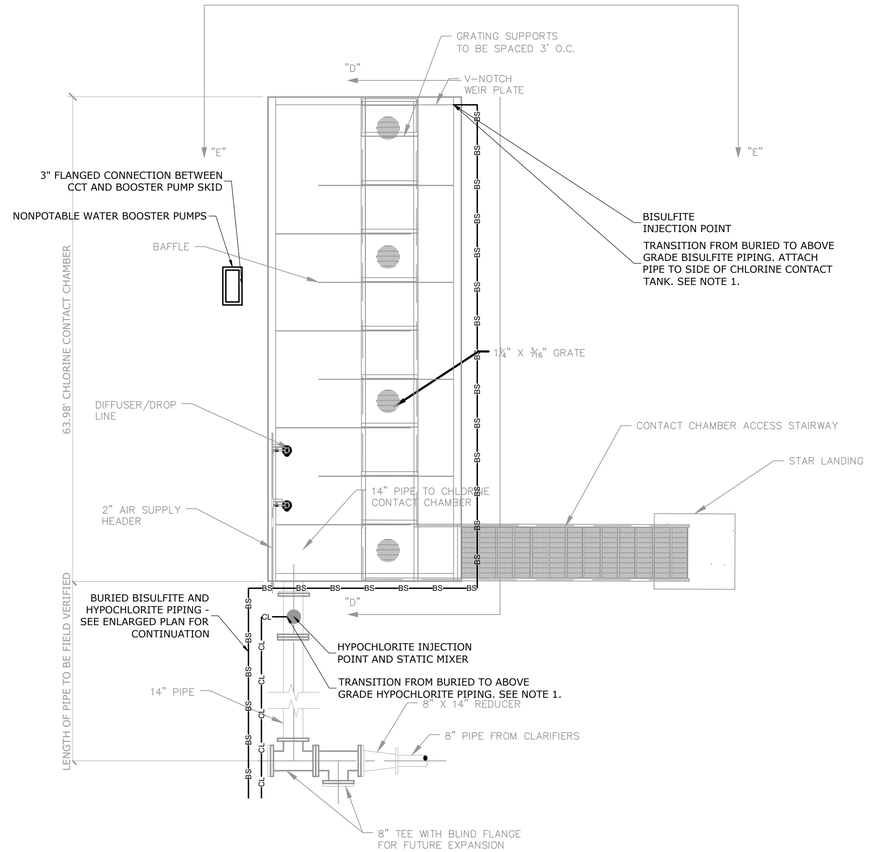
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

P-05
SHEET 19 OF 75

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FD10000



WRF PLAN
CHEMICAL FEED PIPING



CHLORINE CONTACT CHAMBER LAYOUT
NOT TO SCALE

CHLORINE CONTACT TANK
CHEMICAL FEED PIPING

NOTES:

1. ALL CHEMICAL PIPING TO BE ¾" PVC SCH 80 DOUBLE-WALLED CONTAINMENT PIPE. CONTRACTOR TO INSULATE AND HEAT TRACE ALL SHALLOW AND EXPOSED CHEMICAL LINES.
2. INLINE STATIC MIXERS SHALL BE KENICS KMS FIXED ELEMENT STATIC MIXER OR EQUAL. INSERTS SHALL BE FLANGED, INCLUDE A CHEMICAL INJECTION PORT, AND MATERIAL SHALL MATCH THE PROCESS PIPING.
3. REFER TO WRF PROCESS MECHANICAL DRAWINGS FOR PLATFORMS, WALKWAYS, UNIT PROCESS, AND PROCESS PIPING INSTALLATION.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
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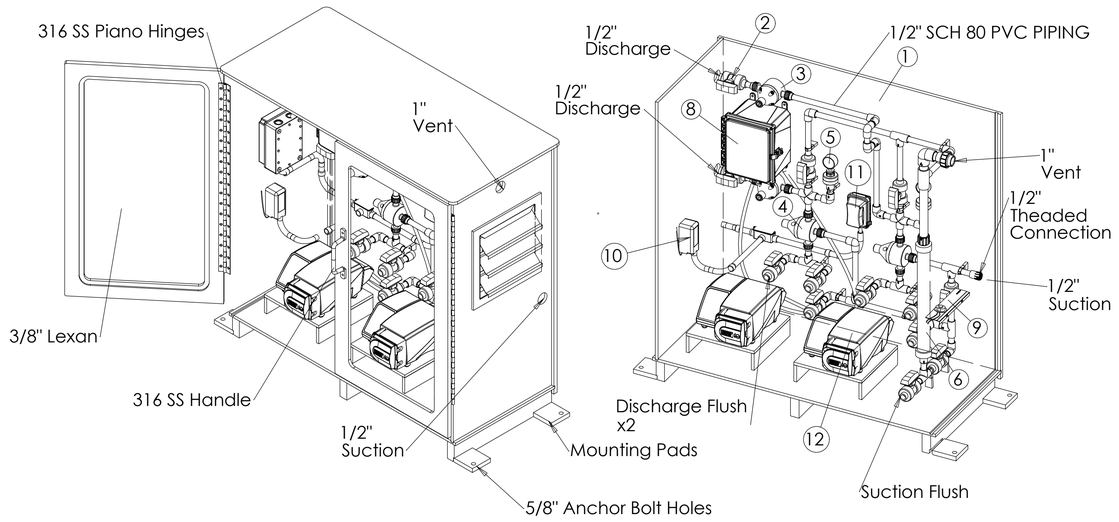
PROCESS MECHANICAL
CHEMICAL SYSTEM DETAILS

DESIGNED:
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DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

P-06
SHEET
19 OF 75

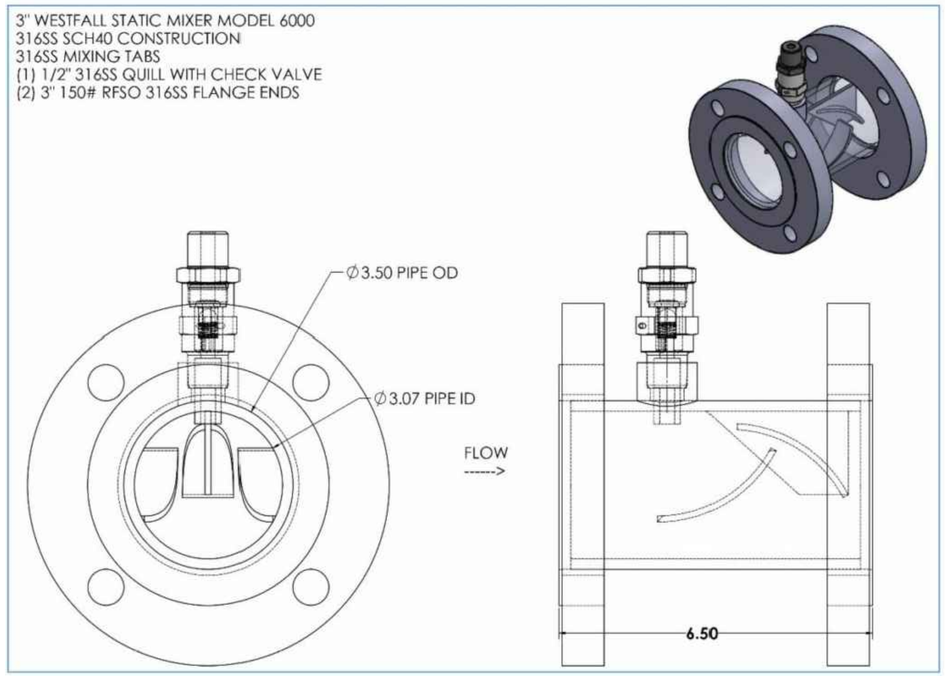
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TECH EQUIPMENT INTEGRAL CHEMICAL SKID & ENCLOSURE

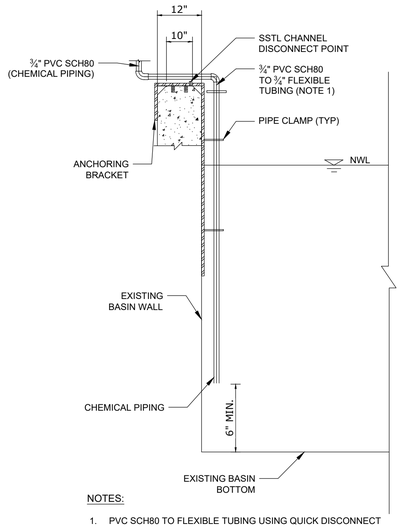
DUPLEX CHEMICAL PUMP SKID

SCALE: NONE



STATIC MIXER

SCALE: NONE



CHEMICAL INJECTOR PIPE & ANCHORS

SCALE: NONE



SPILL CONTAINMENT PALLETS FOR TOTES. SINGLE OR DOUBLE AS INDICATED ON PLAN. MIN 385 GAL SUMP CAPACITY (EA) WITH MIN LOAD CAPACITY 8,000 LBS. IBC TANKS OR EQUAL.

SPILL CONTAINMENT PALLETS FOR TOTES

SCALE: NONE

PRELIMINARY - NOT FOR CONSTRUCTION

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SPALDING COUNTY, GEORGIA
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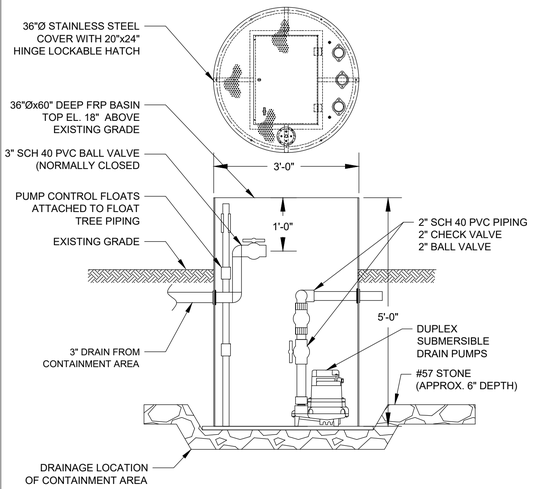
PROCESS MECHANICAL
CHEMICAL SYSTEM DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

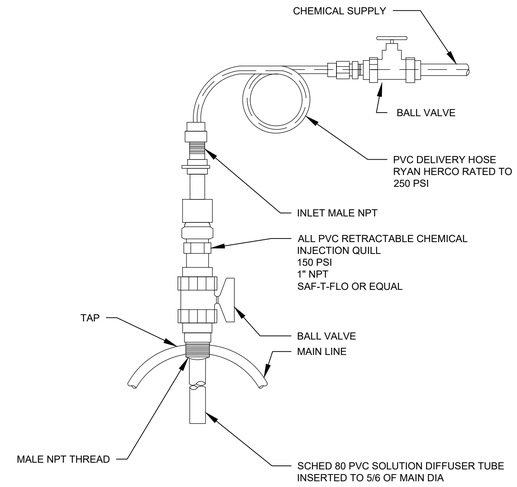
SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

P-08
SHEET
19 OF 75

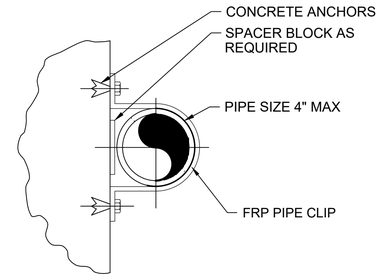
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FD10000



DRAIN AND SEWER PUMP STATION
SCALE: NONE



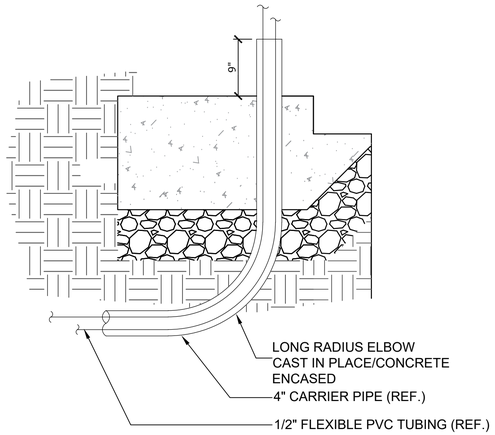
CHEMICAL INJECTION PORT
SCALE: NONE



NOTES:

1. FOR VERTICAL AND HORIZONTAL PIPES LESS THAN 4" IN DIAMETER.
2. PROVIDE PIPE PROTECTION BARRIER AS SPECIFIED. FABRICATE OVERSIZE STRAP WHERE REQUIRED.

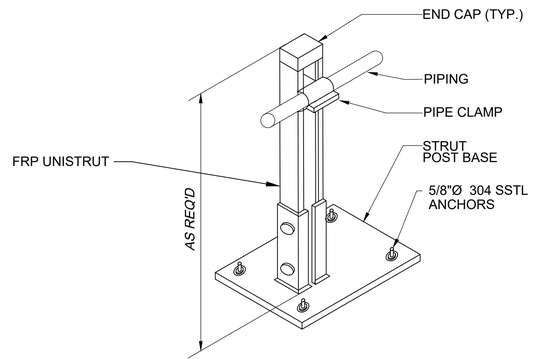
PIPE SUPPORT - WALL MOUNT
SCALE: NONE



NOTES

1. PIPE SIZE, CONCRETE THICKNESS, AND RELATIVE DIMENSIONS VARY PER APPLICATIONS.
2. SEE STRUCTURAL DRAWINGS FOR SPECIFIC CONCRETE THICKNESS, REINFORCEMENT, REQUIRED DEPTHS BELOW STRUCTURES, AND ADDITIONAL ENCASEMENT REQUIREMENTS.

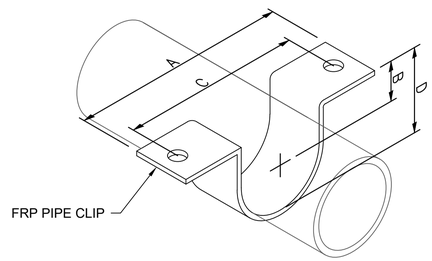
CONCRETE ENCASED CARRIER PIPE
SCALE: NONE



FLOOR SUPPORT

NOTE: ALL PIPE SUPPORTS AND UNISTRUT TO BE FRP

STRUT PIPE SUPPORT
SCALE: NONE



PIPE SIZE	A	B	C	D	HOLE SIZE
1/2"	4 1/8"	5/16"	2 7/8"	3/4"	7/16"
3/4"	4 5/16"	7/16"	3"	15/16"	7/16"
1"	4 9/16"	9/16"	3 3/8"	1 1/8"	7/16"
1 1/4"	4 15/16"	11/16"	3 3/4"	1 1/2"	7/16"
1 1/2"	5 3/16"	13/16"	4 1/4"	1 5/8"	7/16"
2"	5 3/4"	1 1/16"	4 3/4"	2 1/4"	7/16"
2 1/2"	6 1/4"	1 9/16"	5 1/4"	2 3/4"	7/16"
3"	6 7/8"	1 5/8"	5 7/8"	3 3/8"	7/16"
3 1/2"	7 3/8"	1 7/8"	6 3/8"	3 7/8"	7/16"
4"	8 3/8"	2 1/8"	7"	4 3/8"	9/16"

PIPE CLAMP
SCALE: NONE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

REVISIONS AND RECORD OF USE

DATE	
04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

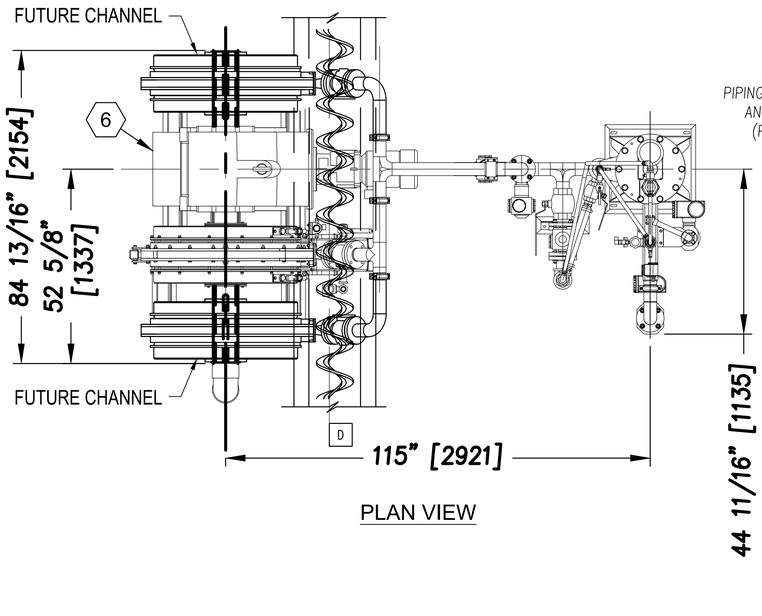
PROCESS MECHANICAL DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

P-09
SHEET
19 OF 75

FD10000
PLOTTED: 4/3/2025 2:35 PM FILE: P:\01 Active Projects\G107 - Lakeshore Engineering\G1070001 - PDB Services For 2024 Sewer Implementation\31_Authoring\CAD\PROCESS\G1070001 PROCESS MECHANICAL DETAILS.dwg



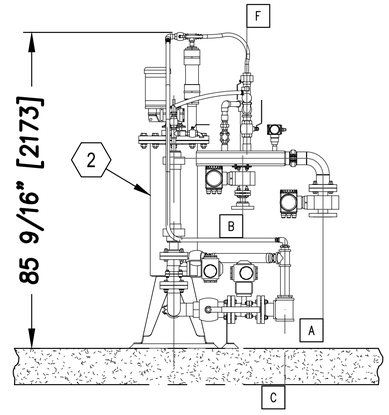
PLAN VIEW

A	SLUDGE INLET ø3" (FLANGE)
B	POLYMER INLET ø2" (FLANGE)
C	SLUDGE RECIRCULATION OUTLET ø3"–NPT
D	WASH WATER INLET ø1"–NPT (1 PLACE) (ROTARY PRESS)
E	FILTRATE OUTLET ø6" PIPE
F	WASH WATER INLET ø1 1/2"–NPT (FLOCCULATOR)

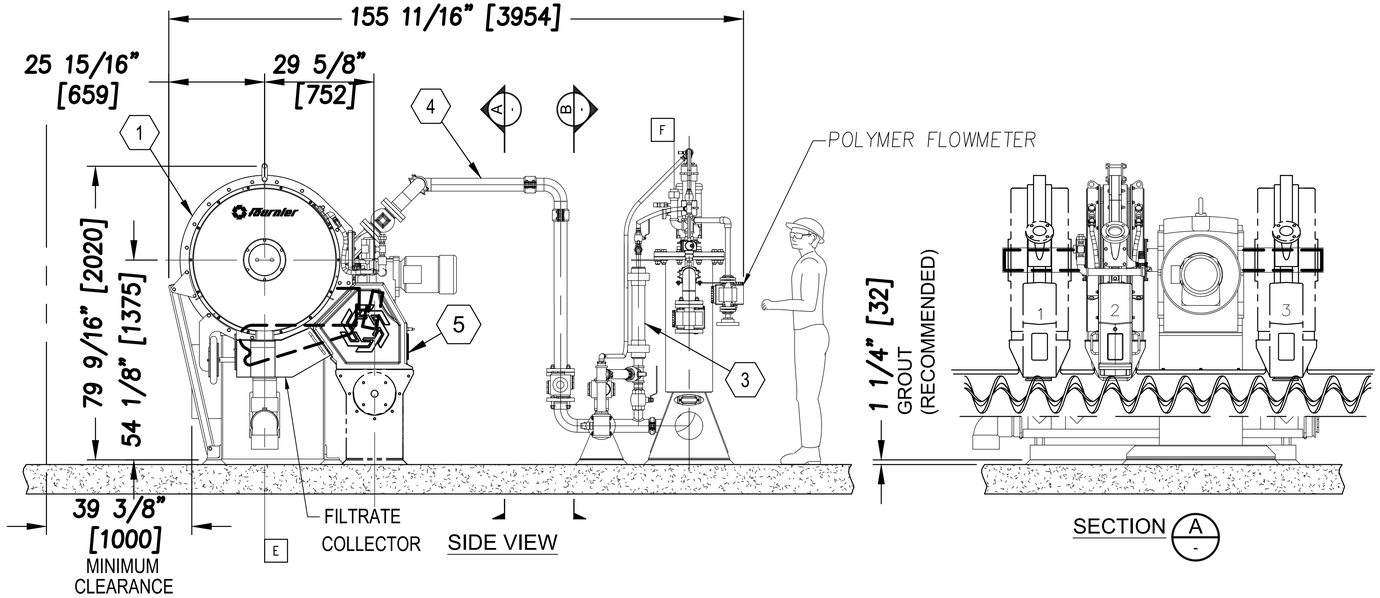
INTERFACE BETWEEN PIPING OF ROTARY PRESS AND CUSTOMER PIPING (PER ROTARY PRESS)

ITEM	REF.	QTY.	DESIGNATION	MAT.	DIM.	NOTES
1		1	ROTARY PRESS MODEL 1(3)–900/3000CV			ESTIMATED WEIGHT: 3855 Kg/8481 LBS (3 CHANNELS INCLUDED)
2		1	FLOCCULATOR			ESTIMATED WEIGHT: 377 Kg/830 LBS
3		1	FLOCCULATED SLUDGE SAMPLER			
4		1	MANIFOLD			ESTIMATED WEIGHT: 120 Kg/265 LBS
5		1	CAKE CHUTE			ESTIMATED WEIGHT: 5 Kg/Un. / 10 LBS/Un.
6		1	JONCTION BOX			

V:\HPMCAD_DATA\00001\000I3\00166\1(3)-900-3000CV-EN(C-39163-REV01).jpg



SECTION B



SECTION A

THOSE DIMENSIONS ARE GIVEN FOR INFORMATION ONLY. FINAL DIMENSIONS AND LAYOUT TO BE CONFIRMED BY CERTIFIED DRAWINGS.

ESTIMATED TOTAL WEIGHT (EQUIPMENT): 4361 Kg/9596 LBS
ESTIMATED SLUDGE WEIGHT: 170 Kg/374 LBS

fournier

DEWATERING SYSTEM
ROTARY PRESS 1(3)–900/3000CV
GENERAL ARRANGEMENT

Echelle/Scale 1:35	Des./By: E.GAMACHE	Dossier/File	Pièce no/Part no.	REV.
Date 14/10/2015	Ver.:		B-C-39163	01
	App.:			

Les Industries Fournier Inc./Fournier Industries Inc. 3787 boul. Frontenac Ouest Thetford Mines Québec Canada G6H 2B5 tel.:418 423-4241 fax.418 423-7366

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP
1	JAS	AR	GA

DATE	REVISIONS AND RECORD OF USE
04/21/25	80% PERMIT REVIEW SUBMITTAL

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

PROCESS MECHANICAL DETAILS

DESIGNED:
DETAILED:
CHECKED:
APPROVED:
DATE:

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

P-10
SHEET 19 OF 75

FD10000
PLOTTED: 4/3/2025 2:35 PM FILE: P:\01 Active Projects\G107 - Lakeshore Engineering\G1070001 - PDB Services For 2024 Sewer Implementation\31_Authoring\CAD\PROCESS\G1070001 PROCESS MECHANICAL DETAILS.dwg

SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

NEIL C. TURNER
ARCHITECT
368 CRANFILL RD SE
MARIETTA, GEORGIA 30060
NTURNERARCH@GMAIL.COM
770.298.5508

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

1841 PEELER RD.
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ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	BY	CHK/APP

NO.	DATE	REVISIONS AND RECORD OF USE
1	04.04.25	ISSUED FOR REVIEW

PROJECT INFORMATION

BUILDING INFORMATION			
PROJECT DESCRIPTION:	NEW BUSINESS OCCUPANCY		
OCCUPANCY CLASSIFICATION:	BUISNESS B	NUMBER OF STORIES:	1
CONSTRUCTION TYPE:	TYPE VB	SPRINKLERED:	NONE
ALLOWABLE AREA:	9,000	FIRE ALARM	NOT REQUIRED
		MEZZANINE:	NONE
IECC CLIMATE ZONE:	3		
ENERGY METHOD:	IECC 2018		
TOTAL BUILDING AREA:	**1,620 SF**		

OCCUPANT LOAD CALCULATION (LSC)

	AREA	LOAD	OCCUPANTS	**EGRESS WIDTH CALCULATIONS**		
BUISNESS AREA - OFFICE	415	150	3	OCCUPANTS	REQ'D WIDTH	EXIT CAPACITY
ELECTRICAL & MECHANICAL	342	300	2	10	0.2	2"
BUISNESS AREA - MAINTENANCE BAY	657	150	5	EXIT WIDTH PROVIDED:		34"
				TOTAL REQUIRED EXITS:		1
				TOTAL EXITS PROVIDED:		4
TOTAL OCCUPIED AREA:	**1,414**		**10**			

APPLICABLE CODES

CODE	EDITION	AMENDMENTS
INTERNATIONAL BUILDING CODE (ICC)	2018	GEORGIA AMENDMENTS (2020, 2022, 2024, 2025)
NATIONAL ELECTRICAL CODE (NEC)	2023	
INTERNATIONAL MECHANICAL CODE (ICC)	2018	GEORGIA AMENDMENTS (2020, 2024)
INTERNATIONAL PLUMBING CODE (ICC)	2018	GEORGIA AMENDMENTS (2020, 2022, 2024, 2025)
INTERNATIONAL ENERGY CONSERVATION CODE (IECC)	2015	GEORGIA AMENDMENTS (2020, 2022, 2023)
INTERNATIONAL FIRE CODE (IFC)	2018	GEORGIA STATE FIRE MARSHAL MODIFICATIONS
INTERNATIONAL FUEL GAS CODE (IFGC)	2018	GEORGIA AMENDMENTS (2020, 2022)
NFPA 101 LIFE SAFETY CODE	2018	GEORGIA AMENDMENTS (120-3-3)
2010 ADA STANDARDS, WITH 120-3-20 GA LAW		
NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS	2018	GEORGIA STATE FIRE MARSHAL MODIFICATIONS

GENERAL NOTES

1. CONTRACTOR SHALL MEET ALL LOCAL CODE REQUIREMENTS.

PROJECT SCOPE NOTES

THIS PROJECT IS A NEW BUSINESS OCCUPANCY OPERATIONS BUILDING FOR A NEW MUNICIPAL WATER TREATMENT FACILITY.

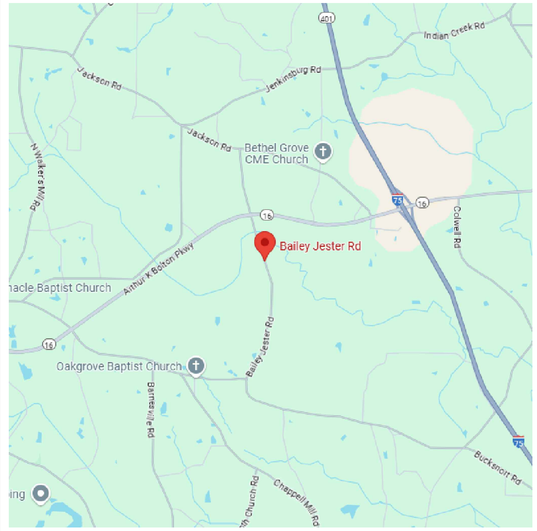
DRAWING INDEX

OPERATIONS BUILDING INDEX ONLY		ISSUED 04.04.25				
ARCHITECTURAL GENERAL						
SHEET #	SHEET TITLE					
AG0.1	ARCHITECTURAL COVER SHEET	X				
AG0.2	PROJECT SPECIFICATIONS	X				
AG0.3	LIFE SAFETY PLAN	X				
AG0.4	GENERAL ACCESSIBILITY GUIDELINES	X				
STRUCTURAL						
S-01	STRUCTURAL ABBREVIATIONS & GENERAL NOTES					
S-02	STRUCTURAL GENERAL NOTES					
S-03	STRUCTURAL GENERAL NOTES					
S-04	STRUCTURAL GENERAL NOTES					
S-05	STATEMENT OF SPECIAL INSPECTIONS 1 OF 2					
S-06	STATEMENT OF SPECIAL INSPECTIONS 2 OF 2					
S-16	OPERATIONS FOUNDATION, SLAB & SECTIONS 1					
S-17	OPERATIONS FOUNDATION, SLAB & SECTIONS 2					
S-18	STANDARD STRUCTURAL DETAILS					
S-19	STANDARD STRUCTURAL DETAILS					
S-20	STANDARD STRUCTURAL DETAILS					
ARCHITECTURAL						
A1.0	FLOOR PLAN	X				
A1.3	ROOF PLAN	X				
A2.0	REFLECTED CEILING PLAN	X				
A3.0	EXTERIOR ELEVATONS	X				
A4.0	BUILDING SECTION	X				
MECHANICAL						
M-01	HVAC LEGENDS, ABBREVIATIONS AND NOTES					
M-02	HVAC AND PLUMBING FIXTURE/EQUIPMENT SCHEDULES					
M-03	OPERATIONS BUILDING HVAC PLAN					
M-04	OPERATIONS BUILDING HVAC SECTION					
M-05	OPERATIONS BUILDING PLUMBING PLAN AND SECTION 1					
M-06	OPERATIONS BUILDING PLUMBING PLAN AND SECTION 2					
M-07	OPERATIONS BUILDING PLUMBING PLAN AND SECTION 3					
M-08	BUILDING MECHANICAL DETAILS 1					
M-09	BUILDING MECHANICAL DETAILS 2					
M-10	BUILDING MECHANICAL DETAILS 3					
ELECTRICAL						
E-001	ELECTRICAL LEGEND & NOTES					
E-002	ELECTRICAL MATERIALS SCHDULE					
E-003	LIGHTING FIXTURES SCHEDULE					
E-150	PANELBOARD SCHEDULES					
E-212	OPERATIONS BUILDING - POWER PLAN					
E-412	OPERATIONS BUILDING LIGHTING PLAN					
E-902	ELECTRICAL INSTALLATION DETAILS					

PROJECT NOTES

1. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF DISCREPANCIES FOUND ON THE DRAWINGS, OR ANY EXISTING CONDITIONS FOUND ON SITE, WHICH CONFLICT WITH IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO CLARIFY ANY SUCH DISCREPANCIES WITH THE OWNER PRIOR TO COMMENCING WORK.
2. DRAWINGS ARE NOT TO BE SCALED. DIMENSIONS INDICATED ON DRAWINGS TAKE PRECEDENCE. LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
3. GENERAL CONTRACTOR, SUB CONTRACTORS, AND VENDORS SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TO BE COMPLIANT WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND ORDINANCES. ALL CONTRACTORS AND VENDORS MUST COMPLY WITH CONTRACTOR REGISTRATION REQUIREMENTS OF ALL GOVERNING AUTHORITIES.
4. APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF PLANS ON THE PREMISES IN GOOD CONDITION AT ALL TIMES. THIS SHALL INCLUDE ALL ADDENDA.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO STARTING ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS AND OWNER.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK AFTER SO LOCATED.
7. CONTRACTOR TO REFER TO THESE DOCUMENTS AS WELL AS SPECIFICATIONS FOR IDENTIFICATION OF ALL OWNER SUPPLIED ITEMS. ALL ITEMS NOT MARKED AS 'OWNER SUPPLIED' ARE TO BE SUPPLIED BY THE GENERAL CONTRACTOR. UNLESS NOTED OTHERWISE, ALL ITEMS ARE TO BE INSTALLED BY THE GENERAL CONTRACTOR.
8. FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
9. PROVIDE SOLID WOOD BLOCKING IN STUD WALLS AS REQUIRED TO SUPPORT WALL MOUNTED FIXTURES, FURNISHINGS & EQUIPMENT. IN A TYPE II CONSTRUCTED BUILDING MUST BE NON-COMBUSTIBLE OR FIRE-RETARDANT WOOD.
10. ALL CONCEALED INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 450 OR LESS IN ACCORDANCE WITH ASTM E84.
11. DOORS INDICATED ON THE PLAN SHALL BE LOCATED A MINIMUM OF 4" FROM ADJACENT WALLS UNLESS NOTED OR DIMENSIONED OTHERWISE, OR AS REQUIRED FOR HARDWARE INSTALLATION.
12. EXIT HARDWARE SHALL ALLOW FOR EGRESS AT ALL TIMES WITHOUT THE USE OF SPECIAL KNOWLEDGE OR EFFORT.
13. THE CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED DURING CONSTRUCTION TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE.
14. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
15. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
16. EXTERIOR PLAN DIMENSIONS ARE TO FACE OF FOUNDATION WALLS. INTERIOR DIMENSIONS ARE TO THE FACE OF STUD FRAMING.
17. FIRESTOPPING SHALL BE PROVIDED TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN ALL CONCEALED DRAFT OPENINGS, BOTH VERTICAL AND HORIZONTAL.
18. LUMBER EXPOSED TO THE EXTERIOR OR IN CONTACT WITH THE CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
19. ALL WORK SHALL COMPLY WITH FEDERAL ADAAG REQUIREMENTS.

PROJECT LOCATION



PROJECT CONTACTS

ARCHITECT
NEIL C TURNER | ARCHITECT
368 CRANFILL RD SE
MARIETTA, GA 30060
770.298.5508
nturnerarch@gmail.com

ENGINEERING
ANDY RANKIN
RIVER 2 TAP, INC
1841 PEELER RD, SUITE D
770569.7038

CONTRACTOR
GARLAND LONG
LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
404.355.3976

OWNER
JOSEPH JOHNSON
SPALDING COUNTY WATER AUTHORITY
119 EAST SOLOMON STREET
GRIFFIN, GA 30223
770.467.4777

SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

ARCHITECTURAL COVER SHEET

AG0.1

SHEET
OF

100 GENERAL REQUIREMENTS

100-01. STANDARD GENERAL CONDITIONS
A. EXCEPT AS MODIFIED BELOW, "THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA STANDARD FORM A201, 2018 EDITION, ARTICLES 1-14, IS HEREBY MADE A PART OF THESE SPECIFICATIONS TO THE SAME EXTENT AS IF HEREIN WRITTEN OUT IN FULL.

100-03. CONTRACTOR
A. WHEREVER THE TERM "CONTRACTOR" OCCURS IN THE DOCUMENTS, IT SHALL REFER TO THE THE CONSTRUCTION WORK DESCRIBED IN THESE DRAWINGS AND SPECIFICATIONS.
B. THE CONTRACTOR SHALL COORDINATE HIS WORK AND SHALL COOPERATE WITH ANY OTHER SEPARATE CONTRACTOR(S) EMPLOYED BY THE OWNER, SO AS TO AVOID DELAYS.

100-04. DEFINITIONS
A. "FURNISHED" AND "SUPPLIED" ARE USED INTERCHANGEABLY AND HAVE THE SAME MEANING.
B. "INSTALL" MEANS RECEIVE AND ACKNOWLEDGE DELIVERY, UNLOAD, SAFELY STORE, PROTECT, ASSEMBLE, SET IN PLACE, SECURE, AND CONNECT AS REQUIRED TO COMPLETE WORK.
C. "PROVIDE" MEANS FURNISH AND INSTALL.

100-05. APPROVALS OF WORK TO BE PERFORMED
A. PRIOR TO BEGINNING WORK, CONTRACTOR SHALL OBTAIN IN WRITING, OR VERIFY THAT APPROVAL HAS BEEN GRANTED BY THE FOLLOWING PARTIES:
1. THE LANDLORD, LANDLORD'S ARCHITECTS AND ENGINEERS
2. THE LOCAL BUILDING INSPECTOR AND LOCAL FIRE MARSHALL
3. STATE AUTHORITIES AS REQUIRED

100-06. CORRELATION AND INTENT OF CONTRACT DOCUMENTS
A. PRIOR TO THE BID SUBMISSION, THE CONTRACTOR SHALL EXAMINE THE PREMISES, AND VERIFY EXISTING CONDITIONS, DIMENSIONS AND LANDLORD REQUIREMENTS AFFECTING THE WORK UNDER THIS CONTRACT. MINOR CHANGES OF DIMENSIONS OR CONDITIONS NECESSARY TO FIT NEW WORK TO THE EXISTING IN ACCORD WITH THE INTENT OF THE CONTRACT DOCUMENTS, MAY BE MADE ON THE JOB. IF MAJOR DISCREPANCIES ARE DISCOVERED BETWEEN DIMENSIONS OR CONDITIONS SHOWN IN DRAWINGS AND THOSE ACTUALLY EXISTING, THE CONTRACTOR SHALL REPORT TO THE OWNER, AND SHALL NOT PROCEED WITH THE WORK UNTIL THE CONTRACT DOCUMENTS HAVE BEEN ADJUSTED.

100-07. BIDS & FORM OF AGREEMENT
A. STANDARD FORMS OF COST BREAKDOWN WILL BE PROVIDED BY THE TENANT.
B. AT THE DISCRETION OF THE TENANT, THE FORM OF THE AGREEMENT SHALL BE PREPARED BY THE CONTRACTOR AND REVIEWED/AMENDED BY TENANT.

100-08. COMPLIANCE WITH CODES, PERMITS AND LANDLORD REQUIREMENTS
A. ALL WORK OF THE CONTRACTOR AND SUBCONTRACTORS SHALL CONFORM TO THE PROVISIONS OF ALL STATE, CITY AND COUNTY BUILDING LAWS, ORDINANCES AND REGULATIONS, AND TO LANDLORD REQUIREMENTS. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
B. G.C. TO VERIFY AND COORDINATE ALL WORK TO MEET LANDLORD DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL GIVE THE OWNER WRITTEN NOTICE SPECIFYING THE PROPOSED DEVIATION, THE COSTS INVOLVED, AND THE REASON THEREFOR. A CHANGE ORDER SHALL BE ISSUED AS SPECIFIED IN "CHANGES IN THE WORK'.
C. UNLESS THE LAW SPECIFICALLY REQUIRES THE OWNER TO DO SO, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND LICENSES, GIVE ALL NECESSARY NOTICES, AND PAY COSTS OF ALL INCIDENTAL FEES.
D. G.C. TO PROVIDE LANDLORD WITH A COMPLETE SET OF 'AS-BUILTS', TYPE AS REQUIRED BY LANDLORD.

100-11. BARRICADES & SERVICE INTERRUPTIONS
A. CONTRACTOR SHALL, AT HIS COST, INSTALL AND REMOVE BARRICADES REQUIRED BY LANDLORD.
B. CONTRACTOR SHALL PERFORM DEMOLITION REQUIRED BY THE WORK, AND SHALL REMOVE FROM THE PREMISES RESULTING DEBRIS. DURING CONSTRUCTION, ALL DEBRIS SHALL BE CONTAINED WITHIN THE TENANT SPACE.
C. UNLESS OTHERWISE SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS, ALL EXISTING MATERIALS TO BE REMOVED AND NOT REQUIRED TO BE REUSED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
D. SERVICES TO OCCUPIED AREAS OF THE LANDLORD, INCLUDING BUT NOT LIMITED TO ELECTRICITY, WATER, AIR CONDITIONING, PLUMBING, SPRINKLER, AND TELEPHONE, MUST BE MAINTAINED AT ALL TIMES. WHEN SERVICE INTERRUPTIONS ARE UNAVOIDABLE THEY MUST BE ARRANGED IN ADVANCE WITH THE LANDLORD.

100-12. TEMPORARY UTILITIES
A. CONTRACTOR SHALL COORDINATE WITH LANDLORD ALL TEMPORARY UTILITY CONNECTIONS REQUIRED TO PERFORM THE WORK, AND SHALL PAY ALL CHARGES FOR UTILITIES DURING CONSTRUCTION.

100-13. STORAGE
A. THE CONTRACTOR SHALL COORDINATE WITH THE LANDLORD THE STORAGE OF ALL BUILDING MATERIALS, TOOLS, AND EQUIPMENT.
B. THE CONTRACTOR SHALL COORDINATE WITH THE LANDLORD THE DELIVERY AND TRANSPORTATION OF ALL STORAGE TO COMPLY WITH LANDLORD REQUIREMENTS.

100-14. SHOP DRAWINGS
A. PRIOR TO ORDERING EQUIPMENT OR FABRICATING FIXTURES, CONTRACTOR SHALL SUBMIT TO THE TENANT PDF SHOP DRAWINGS, PRODUCT DATA OR SAMPLES, IF REQUIRED, WHICH REFLECT DIMENSIONS, UTILITY REQUIREMENTS AND INSTALLATION REQUIREMENTS CONSISTENT WITH THE DRAWINGS.

100-15. SUBSTITUTIONS
A. REQUEST FOR SUBSTITUTION MUST BE IN WRITING. CONDITIONS FOR SUBSTITUTION INCLUDE:
1. AN 'OR EQUAL' PHRASE IN THE SPECIFICATIONS.
2. SPECIFIED MATERIAL CANNOT BE COORDINATED WITH OTHER WORK.
3. SPECIFIED MATERIAL IS NOT ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
4. SUBSTANTIAL ADVANTAGE IS OFFERED TO THE OWNER IN TERMS OF COST, TIME, OR OTHER VALUABLE CONSIDERATION.
B. SUBSTITUTIONS SHALL BE SUBMITTED PRIOR TO AWARD OF CONTRACT, UNLESS OTHERWISE ACCEPTABLE. APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, OR SAMPLES CONTAINING SUBSTITUTIONS IS NOT AN APPROVAL OF A SUBSTITUTION UNLESS AN ITEM IS CLEARLY PRESENTED AS A SUBSTITUTION AT THE TIME OF SUBMITTAL.

100-10. HOLD HARMLESS AGREEMENT
A. THE CONTRACTOR AGREES TO INDEMNIFY AND SAVE HARMLESS THE LANDLORD, THE TENANT/OWNER, AND THE ARCHITECT, THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ANY AND ALL LIABILITY AND DAMAGE ARISING FROM INJURIES TO PERSONS OR DAMAGE TO PROPERTY OCCASIONED BY INCLUDING ANY AND ALL EXPENSES, LEGAL AND OTHERWISE, WHICH MAY BE INCURRED IN THE DEFENSE OF ANY CLAIM, SETTLEMENT OR SUIT.

100-9. INSURANCE AND IDENTIFICATION
A. THE CONTRACTOR SHALL PROVIDE INSURANCE AS REQUIRED BY TENANT AND LANDLORD.
B. ALL DOORS SHALL BE MADE SECURE AT THE COMPLETION OF EACH WORK DAY.

100-17. JOB SAFETY
A. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF EMPLOYEES, AND COMPLY WITH APPLICABLE PROVISIONS OF FEDERAL, STATE AND MUNICIPAL SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES.
B. MACHINERY, EQUIPMENT, AND ALL HAZARDS SHALL BE GUARDED OR ELIMINATED IN ACCORDANCE WITH THE SAFETY PROVISIONS OF THE "AGC MANUAL OF ACCIDENT PROVISION IN CONSTRUCTION" TO THE EXTENT THAT SUCH PROVISIONS ARE NOT CONTRARY TO APPLICABLE LAW.

100-16. TAXES
A. CONTRACTOR SHALL ASSUME LIABILITY FOR (1) SALES TAXES, (2) FEDERAL AND STATE.
B. UNEMPLOYMENT COMPENSATION AND SOCIAL SECURITY PAYMENTS, AND (3) ALL OTHER FEDERAL AND STATE REQUIRED PAYMENTS & REQUIREMENTS OF OSHA.

100-18. OWNER'S RIGHT TO TERMINATE THE CONTRACT
A. A. SHOULD THE CONTRACTOR NEGLECT TO PROSECUTE THE WORK PROPERLY, OR FAIL TO PERFORM ANY PROVISIONS OF THE CONTRACT, THE OWNER, AFTER THREE (3) DAYS WRITTEN NOTICE TO THE CONTRACTOR, WITHOUT PREJUDICE TO ANY OTHER REMEDY IT MAY HAVE, SHALL MAKE GOOD THE DEFICIENCIES AND MAY DEDUCT THE COST THEREOF FROM THE PAYMENT THEN OR THEREAFTER DUE THE CONTRACTOR, OR, AT ITS OPTION, MAY TERMINATE THE CONTRACT AND TAKE POSSESSION OF ALL MATERIALS, TOOLS AND APPLIANCES AND FINISH THE WORK BY SUCH MEANS AS IT SEES FIT, AND IF THE UNPAID BALANCE OF THE CONTRACT PRICE EXCEEDS THE EXPENSE OF FINISHING THE WORK, SUCH EXCESS SHALL BE PAID TO THE CONTRACTOR, BUT IF SUCH EXPENSE EXCEED SUCH UNPAID BALANCE, THE CONTRACTOR SHALL PAY THE DIFFERENCE TO THE OWNER, INCLUDING ADMINISTRATION COSTS ASSOCIATED WITH EXPEDITION OF.

100-19. GUARANTEES
A. UNLESS SPECIFICALLY STATED OTHERWISE, ALL MATERIALS AND EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW AND FREE FROM DEFECTS.
B. THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
C. CONTRACTOR SHALL PROMPTLY CORRECT ALL DEFICIENCIES WHICH MAY APPEAR IN THE WORK WITHIN ONE YEAR OF ITS COMPLETION ARISING FROM DEFECTIVE OR IMPROPER MATERIAL OR WORKMANSHIP, INCLUDING ALL COSTS IN CONNECTION WITH REMOVAL OR REPLACEMENT OF THE WORK.
D. A MANUFACTURER'S WARRANTY ON ANY ITEM SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUBCONTRACTOR FROM FULL RESPONSIBILITY UNDER ALL GUARANTEES CALLED FOR IN THE SPECIFICATIONS.
E. ALL WARRANTIES OR GUARANTEES SHALL BE WRITTEN TO THE BENEFIT OF BOTH LANDLORD AND TENANT/OWNER AS THEIR RESPECTIVE INTERESTS APPEAR, AND SHALL PERMIT ENFORCEMENT BY EITHER PARTY.
F. ORIGINAL COPIES OF ALL WARRANTIES SHALL BE FURNISHED TO THE TENANT/OWNER/FRANCHISEE AT THE COMPLETION OF THE JOB.
G. LAMPS SHALL BE GUARANTEED FOR A PERIOD OF ONE MONTH FROM ACCEPTANCE BY THE TENANT/OWNER/FRANCHISEE.
H. PREMISES MUST ALWAYS BE KEPT FREE FROM WASTE MATERIALS.
I. CONTRACTOR SHALL ASSEMBLE AND TRANSMIT TO THE TENANT/OWNER/FRANCHISEE, MAINTENANCE AND OPERATION MANUALS, WARRANTIES AND KEYS, AND SHALL DEMONSTRATE TO THE TENANT/OWNER, THE USAGE OF EQUIPMENT.

100-20. CLEANING UP
A. AT COMPLETION OF THE WORK, MILLWORK, FLOORS, ETC SHALL BE CLEANED. THE CONTRACTOR SHALL REMOVE HIS TOOLS, SCAFFOLDING AND DEBRIS, AND SHALL LEAVE THE PREMISES BROOM CLEAN.

100-21. OWNER - CONTRACTOR AGREEMENT
A. ALL ITEMS CONTAINED IN THE PLANS AND SPECIFICATIONS AND THE TERMS AND CONDITIONS OF THE OWNER - CONTRACTOR AGREEMENT SHALL GOVERN.

100-22 MISCELLANEOUS CONSTRUCTION PROCEDURES
A. THE CONTRACTOR SHALL NOT ATTACH OR CAUSE TO BE ATTACHED TO ANY WALL OR STRUCTURAL MEMBER ANY EQUIPMENT THAT MAY, BY VIRTUE OF ITS SIZE AND WEIGHT, CAUSE STRUCTURAL DAMAGE. THE CONTRACTOR SHALL NOT DO ANYTHING THAT MIGHT IN ANY WAY AFFECT THE STRUCTURAL INTEGRITY OF THE BUILDING.
B. PROTECT EXISTING BUILDING FROM DAMAGE THROUGHOUT THE CONSTRUCTION PERIOD. REPAIR ANY SUCH DAMAGE TO MATCH EXISTING CONSTRUCTION.

300 CONCRETE

A. SEE STRUCTURAL FOR PRIMARY CONCRETE SPECIFICATIONS.
B. ALL CONCRETE WORK TO BE IN ACCORDANCE WITH INDUSTRIES STANDARDS.

600 CARPENTRY

600-01. GENERAL
A. ALL WALL FRAMING AND FURRING SHALL BE METAL STUDS AND CHANNELS.
B. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL CASEWORK TO OWNER FOR APPROVAL PRIOR TO FABRICATION.

6A-03. INSTALLATION
A. ROUGH HARDWARE SHALL MEET THE STANDARDS OF THE TRADE AND THE NEEDS OF THE WORK. POWDER ACTIVATED FASTENERS SHALL BE OF THE TYPE AND SIZE SUITABLE FOR THE INTENDED USE.
B. ROUGH HARDWARE SHALL MEET THE STANDARDS OF THE TRADE AND THE NEEDS OF THE WORK. POWDER ACTIVATED FASTENERS SHALL BE OF THE TYPE AND SIZE SUITABLE FOR THE INTENDED USE.

600-02. MATERIALS
A. A. BLOCKING SHALL BE SOUTHERN YELLOW PINE, NO. 2, S4S OR CUT TO SHAPE AS REQUIRED, KILN DRIED TO 19% MAXIMUM MOISTURE, TREATED WITH CELCURE, AND BE FIRE-RETARDANT PRESSURE TREATED.

600-3 INSTALLATION
A. CARPENTRY WORK SHALL CONFORM TO THE BEST STANDARDS OF THE PRACTICE.
B. DOORS AND HARDWARE SHALL BE INSTALLED SO THAT DOORS WILL SWING EASILY, QUIETLY AND FREELY, AND CLOSE ACCURATELY AGAINST STOPS WITHOUT BINDING. LATCH BOLTS MUST ENGAGE POSITIVELY WITH STRIKES WHEN DOORS ARE CLOSED.
C. PROVIDE ALL NECESSARY BRACING TO STRUCTURE FOR PARTITIONS, CEILINGS, PLATFORMS, ETC.,WHETHER OR NOT CALLED FOR ON DRAWINGS.
D. PROVIDE ALL NECESSARY IN-WALL FRAMING AND BLOCKING REQUIRED TO CARRY SHELVING, STANDARDS, VALANCES, ETC., WHETHER OR NOT CALLED FOR ON DRAWINGS.
E. ALL CASEWORK FASTENERS TO BE CONCEALED. ALL CASEWORK WIRING TO BE CONCEALED.
F. ALL EXPOSED PLYWOOD SURFACES, BOTH FACES OF DOORS AND DRAWERS, AND ALL EDGES SHALL BE FINISHED IN PLASTIC LAMINATE, UNO.
G. INSTALL ALL WORK PLUMB, LEVEL, TRUE, ALIGNED, AND STRAIGHT WITH TIGHT JOINTS AND NO DISTORTIONS. SHIM AS REQUIRED USING CONCEALED SHIMS. INSTALL TO A TOLERANCE OF 1/8" IN EIGHT FEET, 1/32" MAX. OFFSET IN FLUSH ADJOINING SURFACES.
H. SCRIBE AND CUT WORK TO FIT ADJOINING WORK, AND REFINISH CUT SURFACES.
I. INSTALL ALL EXPOSED FINISH MATERIAL WITH MINIMUM NUMBER OF JOINTS POSSIBLE, USING FULL LENGTH PIECES TO THE GREATEST POSSIBLE EXTENT.

800 - DOORS & HARDWARE

800-01. GENERAL
A. DOORS AND HARDWARE SHALL BE OF SIZE, MATERIAL, AND FINISH AS SHOWN ON DRAWINGS. ALL HARDWARE TO BE ADA COMPLIANT.

800-02. MATERIALS
A. REFER TO DRAWINGS FOR DOOR MATERIALS AND HARDWARE SPECIFICATIONS.

800-03. INSTALLATION
A. ALL HARDWARE SHALL BE TIGHT, LEVEL, AND SHALL OPERATE SMOOTHLY AND EASILY. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND ADJUSTMENT.
B. PROVIDE "BEST" CYLINDERS WITH REMOVABLE 7-PIN CORES TO MATCH THE LANDLORD'S KEYING

810-GLAZING

810-01. GENERAL
A. PROVIDE GLASS IN SIZES AND THICKNESS SHOWN ON DRAWINGS. IF THICKNESS IS NOT SHOWN, PROVIDE THE MINIMUM THICKNESS REQUIRED FOR SHEET SIZE AND APPLICATION.

810-02. MATERIALS
A. GLASS: CLEAR, TEMPERED GLASS (GLAZING QUALITY).
B. MIRRORS: 1/4" THICK, MIRROR GLAZING QUALITY TEMPERED PLATE OR FLOAT GLASS WITH SILVER COATING AND ELECTROCHEMICALLY COPPER PLATED BACK. PROVIDE INDUSTRY-STANDARD ADHESIVE.
C. ALL GLASS AND MIRROR TO HAVE POLISHED EDGES.

810-03. INSTALLATION
A. PROVIDE ALL SHIMS, BLOCKS, GLAZING COMPOUNDS, AND OTHER APPURTENANCES REQUIRED FOR A FIRST-CLASS INSTALLATION IN ACCORDANCE WITH STANDARD TRADE PRACTICE.

900 FINISHES

900-01. GENERAL
A. ANY COMBUSTIBLE INTERIOR FINISH MATERIAL, SURFACE OR PRODUCT SHALL BE PROVIDED PER THE REQUIREMENTS OF THE RESPECTIVE OCCUPANCY CHAPTER OF THE NFPA 101 LIFE SAFETY CODE CURRENT EDITION, THAT THIS PROJECT IS BEING PERMITTED UNDER. PROVIDE VERIFICATION AT THE TIME OF FINAL INSPECTION THAT THE PRODUCTS COMPLY WITH THE REQUIREMENTS.
B. PROVIDE FINISHES PER THE FINISH SCHEDULE ON THESE DRAWINGS.

910-01. GENERAL
A. ALL FINISH MATERIALS AND SURFACES SHALL BE CLASS 'C' WITH A FLAME SPREAD RATING NOT TO EXCEED 25.
B. ALL WALL FRAMING AND FURRING SHALL BE METAL STUDS AND CHANNELS TO CEILING @ 24" O.C. WITH BRACING TO STRUCTURE @ 48" O.C. (MAX.)
C. IN-WALL BLOCKING SHALL BE PROVIDED AT ALL WALL-HUNG ITEMS.

910-02. MATERIALS
A. GYPSUM WALLBOARD SHALL BE ASTM C36 "SHEETROCK" AS MANUFACTURED BY THE U.S. GYPSUM CO., OR EQUAL. THICKNESS AND TYPE AS NOTED, WITH TAPERED EDGES. USE TYPE X GYP. BOARD WHERE FIRE RATING IS REQUIRED.
B. JOINT REINFORCING TAPE, ADHESIVE AND METAL CORNER REINFORCEMENT TO BE STANDARD PRODUCTS RECOMMENDED BY THE WALLBOARD MANUFACTURER.
C. FASTENERS SHALL BE SELF-DRILLING, SELF-TAPPING, COUNTERSUNK, BUGLE-HEAD DRYWALL SCREWS FOR ATTACHMENT OF WALLBOARD TO METAL STUDS.
D. STRUCTURAL STUDS SHALL BE PUNCHED OR UNPUNCHED, 16 GAUGE STEEL HAVING A MINIMUM YIELD POINT OF 33,000 PSI, SIZES AS INDICATED. ELECTRO-GALVANIZED STEEL, SIZES AS INDICATED. (UNLESS OTHERWISE SHOWN)
E. FURRING CHANNELS SHALL BE ROLL-FORMED, 25 GAUGE MINIMUM, ELECTRO-GALVANIZED STEEL HAT SECTION WITH WING FLANGES, SIZES AS INDICATED.

910-03. INSTALLATION
A. INSTALLATION OF "SHEETROCK FIRECODE" SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR FIRE-RATED PARTITIONS.
B. GYPSUM WALLBOARD SHALL BE ATTACHED TO METAL STUDS WITH STEEL SCREWS. ALL JOINTS SHALL BE TAPED AND FINISHED SMOOTH WITH SPACKLING COMPOUND. PROVIDE A LEVEL 4 WALL FINISH AT ALL PAINTED WALLS.
C. GYPSUM WALLBOARD SHALL BE ATTACHED TO MASONRY WITH METAL FURRING CHANNELS AND SCREWS WITH ALL JOINTS TAPED AND FINISHED SMOOTH.

920- TILE
920-01. GENERAL
A. COMPLY WITH MINIMUM TEMPERATURE RECOMMENDATIONS OF MANUFACTURERS FOR FACTORY MIXED SETTING AND GROUTING MATERIALS.

920-02. MATERIALS
A. SEE FINISH SCHEDULE FOR SIZE AND MANUFACTURER / DISTRIBUTOR OF TILE.
B. SETTING MATERIALS: USE MORTAR FORMULA FOR THIN-SET CEMENT OF THE TILE COUNCIL OF AMERICA.
C. SEE FINISH SCHEDULE FOR GROUT SPECIFICATION AND MANUFACTURER.
D. PROVIDE EDGE STRIPS AT ALL EXPOSED EDGES WETHER SHOWN ON THE DRAWINGS OR NOT.

920-03. INSTALLATION
A. APPLY OVER CONCRETE, WATERPROOF GYPSUM WALLBOARD, SEALED PLYWOOD, OR OTHER MATERIALS AS INDICATED ON DRAWINGS, USING APPROVED THIN-SET CEMENT FORMULA.
B. CLEAN AND LEVEL ALL SURFACES AS NECESSARY TO PROVIDE EVEN SURFACES, LEVEL, TRUE AND PLUMB.
C. IN THE EVENT SURFACES TO RECEIVE TILE ARE NOT ACCEPTABLE, NOTIFY THE APPROPRIATE PARTY PRIOR TO TILE INSTALLATION.
D. CENTER TILE WITHIN TILED AREA AS SHOWN ON DRAWINGS.
E. TERMINATE WORK NEATLY AT OBSTRUCTIONS, EDGES, AND CORNERS WITHOUT DISRUPTING PATTERN OR JOINT ALIGNMENTS.
F. JOINTING PATTERN: UNLESS OTHERWISE SHOWN, LAY TILE IN GRID PATTERN. PROVIDE UNIFORM JOINT WIDTHS.
G. CLEAN TILE AS WORK PROGRESSES, PREVENTING ACCUMULATION OF SETTING AND GROUTING MATERIALS OR DEBRIS ON TILE FACES.

930-PAINTING AND FINISHING
930-01. MATERIALS
A. PAINT SHALL BE BROUGHT TO THE JOBSITE IN UNOPENED CONTAINERS. SEE FINISH SCHEDULE FOR TYPE, COLORS AND MANUFACTURER.
B. MIX PAINT ONLY IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. TURPENTINE SHALL BE DISTILLED, AND OIL SHALL BE BOILED AND FILTERED LINSEED OIL.
C. OIL-BASED PAINTS AND ENAMELS SHALL BE FACTORY PREPARED AND PACKAGED MATERIALS BY APPROVED MANUFACTURERS.

930-02. WORKMANSHIP
A. INSPECT ALL SURFACES TO BE PAINTED AND REPORT DEFICIENCIES PRIOR TO BEGINNING PAINTING.
B. POINT UP HOLES AND CRACKS, REMOVE ALL GREASE, STAINS AND EXCESS MORTAR BY WIRE BRUSHING BEFORE PAINTING.
C. ALL SURFACES SHALL BE DRY AND SANDED PROPERLY. FILL SMALL NAIL HOLES WITH PUTTY, AND LARGER VOIDS WITH PLASTIC WOOD AND SAND SMOOTH. ALL MILLWORK NOT PRIMED BEFORE DELIVERY SHALL BE PRIMED OR SEALED IMMEDIATELY UPON ARRIVAL AT THE JOB SITE.
D. ALLOW AMPLE DRYING TIME BETWEEN COATS, AND SAND PROPERLY TO GIVE A SMOOTH FINISH. CAREFULLY COVER BACK EDGES OF TRIM, EDGES OF DOORS, AND TOUCH UP ANY PLACES MARRED BY INSTALLATION OF HARDWARE OR WORK OF OTHER TRADES.
E. SEAL DOOR EDGES IMMEDIATELY AFTER FITTING.
F. CAREFULLY PROTECT OTHER WORK AND LEAVE THE JOB CLEAN.

930-03. CLEANING
A. ON COMPLETION REMOVE ALL SURPLUS MATERIALS AND SCAFFOLDS FROM THE PREMISES AND LEAVE THE PREMISES CLEAN.
B. REMOVE ALL PAINT FROM FLOOR, HARDWARE, GLASS AND OTHER SURFACES NOT PAINTED.
C. TOUCH-UP AS NECESSARY AFTER PATCHING AND REPAIR OF OTHER TRADES.

940-ACOUSTICAL WORK
940-01. MATERIALS
A. ACOUSTICAL CEILING TILE SHALL BE AS SHOWN ON FINISH SCHEDULE. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
B. CEILING SUSPENSION SYSTEM SHALL INCLUDE ALL MAIN TEES, CROSS TEES, WALL MOLDINGS, AND ALL OTHER ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. MAXIMUM DIMENSION BETWEEN SUPPORTS SHALL BE 48 INCHES.
C. ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM SHALL CONFORM TO ALL APPLICABLE CODES AND STANDARDS.

940-03. INSTALLATION
A. INSTALLATION OF THE CEILING SHALL BE THE PATTERN INDICATED ON THE REFLECTED CEILING PLAN, AND SHALL COORDINATE WITH MECHANICAL, ELECTRICAL AND SPRINKLER SYSTEM REQUIREMENTS.
B. ALL ITEMS TO BE SUPPORTED SHALL BE HUNG WITH WIRES OF THE SIZE AND SPACING TO SUPPORT THE CEILING SYSTEM AND ALL OTHER WORK SUPPORTED THEREFROM. MAXIMUM SPACING OF WIRES SHALL BE 48 INCHES O.C. HANGERS SHALL BE NOT LESS THAN 12-GAUGE GALVANIZED STEEL WIRE. CEILING SUSPENSION SYSTEM TO BE CONNECTED TO STRUCTURAL MEMBERS AT JOIST TOP CHORD OR ADDITIONAL SUPPORTS ABOVE.
C. SYSTEM SHALL BE SQUARE AND LEVEL WITH DEFLECTION NOT TO EXCEED 1/8 INCH IN 10 FEET.

940-04. CLEANING
A. GRID AND ALL TILES SHALL BE THOROUGHLY CLEAN AND FREE FROM MARRS, CUTS, INDENTATIONS, SPOTS, FOREIGN PAINT AND OTHER BLEMISHES AND IMPERFECTIONS, OR SHALL BE REPLACED.

940-05. REPLACEMENT MATERIALS
A. CONTRACTOR SHALL PROVIDE FIVE (5) FULL TILES OF REPLACEMENT MATERIAL AT THE COMPLETION OF THE PROJECT. G.C. TO MARK OUTSIDE OF BOX "EXTRA CEILING TILES".

940-06. WARRANTY
A. PROVIDE CEILING SYSTEM GUARANTEE IN WRITING AGAINST DEFECTS IN LABOR, MATERIALS, AND MAXIMUM DEFLECTION OF 1/180TH OF THE SPAN FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER ACCEPTANCE.

NEIL C. TURNER ARCHITECT
368 CRANFILL RD SE
MARIETTA, GEORGIA 30060
NTURNERARCH@GMAIL.COM
770.298.5508

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

PRELIMINARY NOT FOR CONSTRUCTION

NO.	BY	CHK/APP
ISSUED FOR REVIEW		
REVISIONS AND RECORD OF USE		
04.04.25		
DATE		

SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

PROJECT SPECIFICATIONS

AG0.2

SHEET
OF

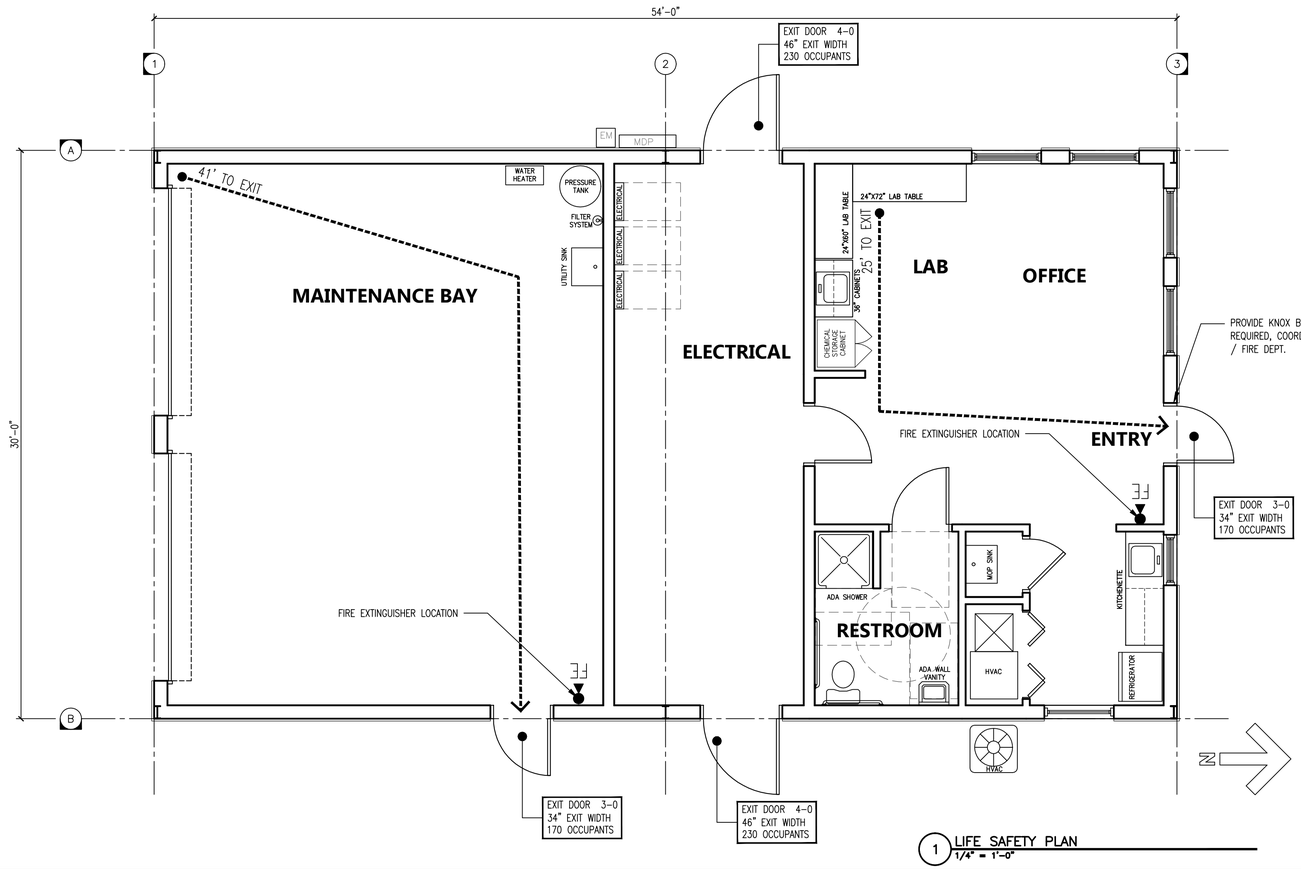
NEIL C. TURNER
ARCHITECT
368 CRANFILL RD SE
MARIETTA, GEORGIA 30060
NTURNERARCH@GMAIL.COM
770.298.5508

GENERAL NOTES

1. PROVIDE MINIMUM (1) ONE FOOT CANDLE ILLUMINATION IN ALL EGRESS PATHS.

2. SEE COVER SHEET FOR EGRESS CALCULATIONS AND OCCUPANCY LOADS.

3. FIRE EXTINGUISHERS ARE PROVIDED AND INSTALLED BY THE G.C. G.C. TO CONFIRM LOCATIONS WITH THE AHJ.



1 LIFE SAFETY PLAN
1/4" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

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SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

LIFE SAFETY PLAN

AG0.3

SHEET
OF

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770.298.5508

STANDARD ACCESSIBILITY DETAILS

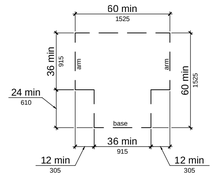


FIGURE 304.3.2
T-SHAPED TURNING SPACE

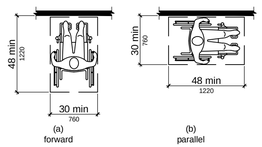


FIGURE 305.5
POSITION OF CLEAR FLOOR OR GROUND SPACE

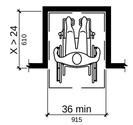


FIGURE 305.7.1
MANEUVERING CLEARANCE IN A ALCOVE, FORWARD APPROACH

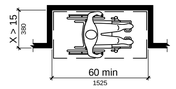


FIGURE 305.7.2
MANEUVERING CLEARANCE IN A ALCOVE, PARALLEL APPROACH

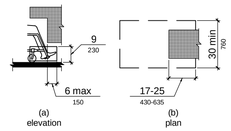


FIGURE 306.2
TOE CLEARANCE

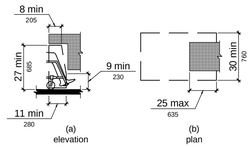


FIGURE 306.3
KNEE CLEARANCE

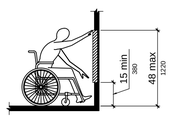


FIGURE 308.2.1
UNOBSTRUCTED FORWARD REACH

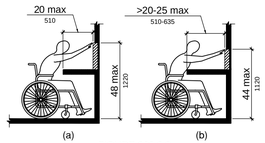


FIGURE 308.2.2
OBSTRUCTED HIGH FORWARD REACH

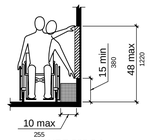


FIGURE 308.3.1
UNOBSTRUCTED SIDE REACH

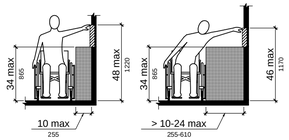


FIGURE 308.3.2
OBSTRUCTED SIDE REACH

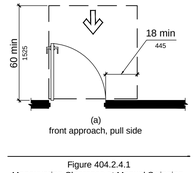
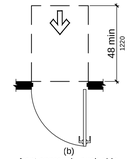


Figure 404.2.4.1
Maneuvering Clearance at Manual Swinging Doors
and Gates



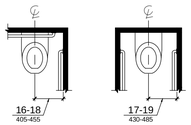
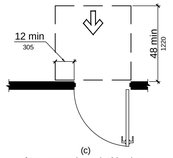
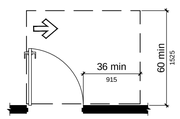
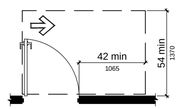
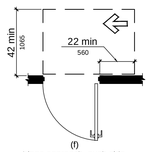


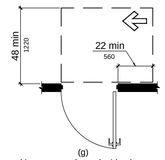
Figure 604.2
Water Closet
Location

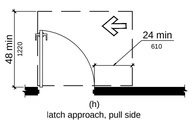












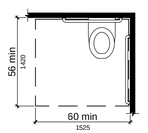
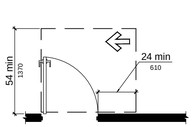
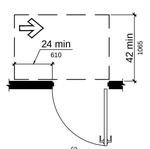
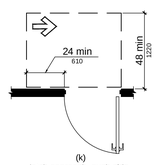


Figure 604.3.1
Size of Clearance at Water Closets







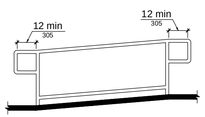


Figure 505.10.1
Top and Bottom
Handrail Extension at Ramps

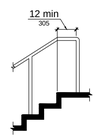
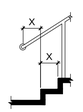


Figure 505.10.2
Top Handrail Extension
at Stairs



Note: X = tread depth

Figure 505.10.3
Bottom Handrail Extension
at Stairs

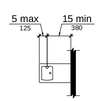
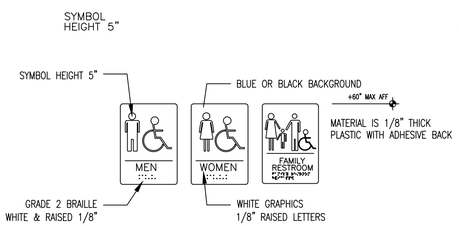
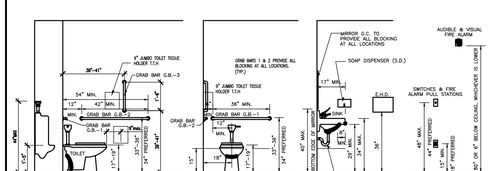


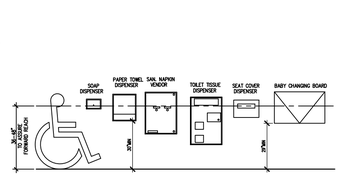
Figure 602.5
Drinking Fountain
Spout Location

RESTROOM ACCESSIBLE SIGNAGE



RESTROOM ACCESSORIES MOUNTING HEIGHTS





0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

GENERAL
ACCESSIBILITY
GUIDLINES
AG0.4

SHEET
OF

INTERIOR FINISH NOTES

FLOORING:
OFFICE, LAB, KITCHEN, CLOSETS & RESTROOM – EPOXY RESIN FLOORING STONECLAD BY STONEHARD OR EQUAL. OWNER TO CHOOSE COLOR.
ELECTRICAL & MAINTENANCE BAY – SEALED CONCRETE CLEAR SEALER

BASE:
OFFICE, LAB, KITCHEN, CLOSETS & RESTROOM – 6" RUBBER BASE DARK GREY
ELECTRICAL & MAINTENANCE BAY – PER OWNER

WALLS:
OFFICE, LAB, CLOSETS & RESTROOM – PRIMED AND PAINTED, OPTION FOR FRP ON LAB WALL.
RESTROOM – FRP TO 48" AFF WITH EDGE STRIPS PRIMED AND PAINTED GWB ABOVE.
SHOWERS TO BE PRE-FAB INSERT OR FULLY FRP TO CEILING.
ELECTRICAL & MAINTENANCE BAY – COORDINATE WITH OWNER REQUIREMENTS. COORD WITH MEP FOR PLYWOOD BACKUP FOR EQUIPMENT.

CEILINGS: SEE RCP.

1. CONFIRM ALL FINISHES WITH OWNER.

2. ALL FINISHES TO MEET TYPE A, B OR C FLAME SPREAD AND SMOKE DEVELOPMENT PER IBC.

ENVELOPE STANDARDS

PER THE 2015 IECC CHAPTER 4
PROVIDE CODE COMPLIENT AIR & WEATHER BARRIER.

ROOF ASSEMBLY:
METAL BUILDING
R19 + R11 LS OR U=.035
3-YEAR-AGED SOLAR REFLECTANCE >=0.55 AND
THERMAL EMITTANCE >=0.75

EXTERIOR WALLS:
METAL BUILDING
R13 + R6.5 CI OR U=.079

WINDOWS & GLAZING:
U=.6 SHGC= .33 N .25 SEW

ROLL UP DOORS
R4.75

EXTERIOR SWING DOORS
U=.61

DOOR SCHEDULE

LOCATION	DOOR #	DOOR SIZE W	DOOR SIZE H	DOOR SIZE T	DOOR MAT'L	DOOR TYPE	DOOR FINISH	FRAME MAT'L	FRAME TYPE	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	HARDWARE SET	NOTES
FIRST FLOOR																
OFFICE ENTRANCE	A	3-0	7-0	STD	HM	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	A	INSULATED EXTERIOR DOOR W/ 24"X24" TEMPERED VISION PANEL
ELECTRICAL ROOM	B	4-0	8-0	STD	HM	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	B	INSULATED EXTERIOR DOOR, PROVIDE PANIC EXIT HARDWARE
MAINTENANCE BAY	C	3-0	7-0	STD	HM	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	A	INSULATED EXTERIOR DOOR
ROLL UP DOOR	D	12-0	10-0	STD	STD	STD	PER OWNER	STD	STD	PER OWNER	STD	STD	STD	-	C	INSULATED DOOR
ELECTRICAL ROOM INTERIOR	E	3-0	7-0	STD	WD	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	D	
RESTROOM	F	3-0	7-0	STD	WD	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	D	
CLOSET	G	2-8	7-0	STD	WD	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	E	
HVAC	H	PR 2-3	7-0	STD	WD	STD	PAINTED	HM	STD	PAINTED	STD	STD	STD	-	F	PAIR BI-FOLD LOUVERED DOORS

ABBREVIATIONS

WD - WOOD (SOLID CORE BIRCH)
AL - ALUMINUM
SF - STOREFRONT
MD - MANUFACTURE'S DETAILS
EX - EXISTING
HM - HOLLOW METAL
OWN - CONFIRM WITH OWNER
STD - STANDARD
VIF - VERIFY IN FIELD
MAW - MATCH ADJACENT WALL COLOR
ABS - ABS IMPACT TRAFFIC DOOR
INS - INSULATED PANELS

GENERAL NOTES

1. ALL HARDWARE IS FURNISHED AND INSTALLED BY THE GC, UNO. STOREFRONT HARDWARE TO BE FURNISHED BY THE STOREFRONT MANUFACTURERS STANDARD HARDWARE.
2. ALL DOORS TO BE KEYED ALIKE, ALL LOCKS TO BE 6-PIN INTERCHANGEABLE CORE SUPPLIED AND INSTALLED BY THE G.C. ALL EXTERIOR LOCKS TO BE PROVIDED WITH CONSTRUCTION CORES. PERMANENT CORES TO BE KEYED ALIKE AND SHIPPED TO THE OWNER.
3. ALL DOORS TO HAVE ADA APPROVED HARDWARE.
4. PAINTED DOORS AND FRAMES TO RECEIVE (2) COATS OF ACRYLIC ENAMEL.
5. PROVIDE AND INSTALL ADA & CODE COMPLIANT SIGNS AT EXIT DOORS AND RESTROOMS.

DOOR, FRAME & HARDWARE NOTES

1. ALL DOORS TO BE PROVIDED WITH ADA COMPLIANT HARDWARE.
2. ALL EXTERIOR DOORS TO BE INSULATED AND FULLY WEATHER SEALED.
3. ALL EXTERIOR DOORS TO BE FULLY FLASHED PER MANUF. STANDARDS.

HARDWARE NOTES:
COORDINATE ALL HARDWARE WITH OWNER.

HARDWARE SET A: MAIN ENTRY DOOR - MAINTENANCE BAY DOOR
PROVIDE STANDARD HINGES, PUSH / PULL DOOR HARDWARE, DEADBOLT AND AUTOMATIC CLOSER. PROVIDE ALL WEATHER SEALS AND THRESHOLDS. FINISH TBD BY OWNER

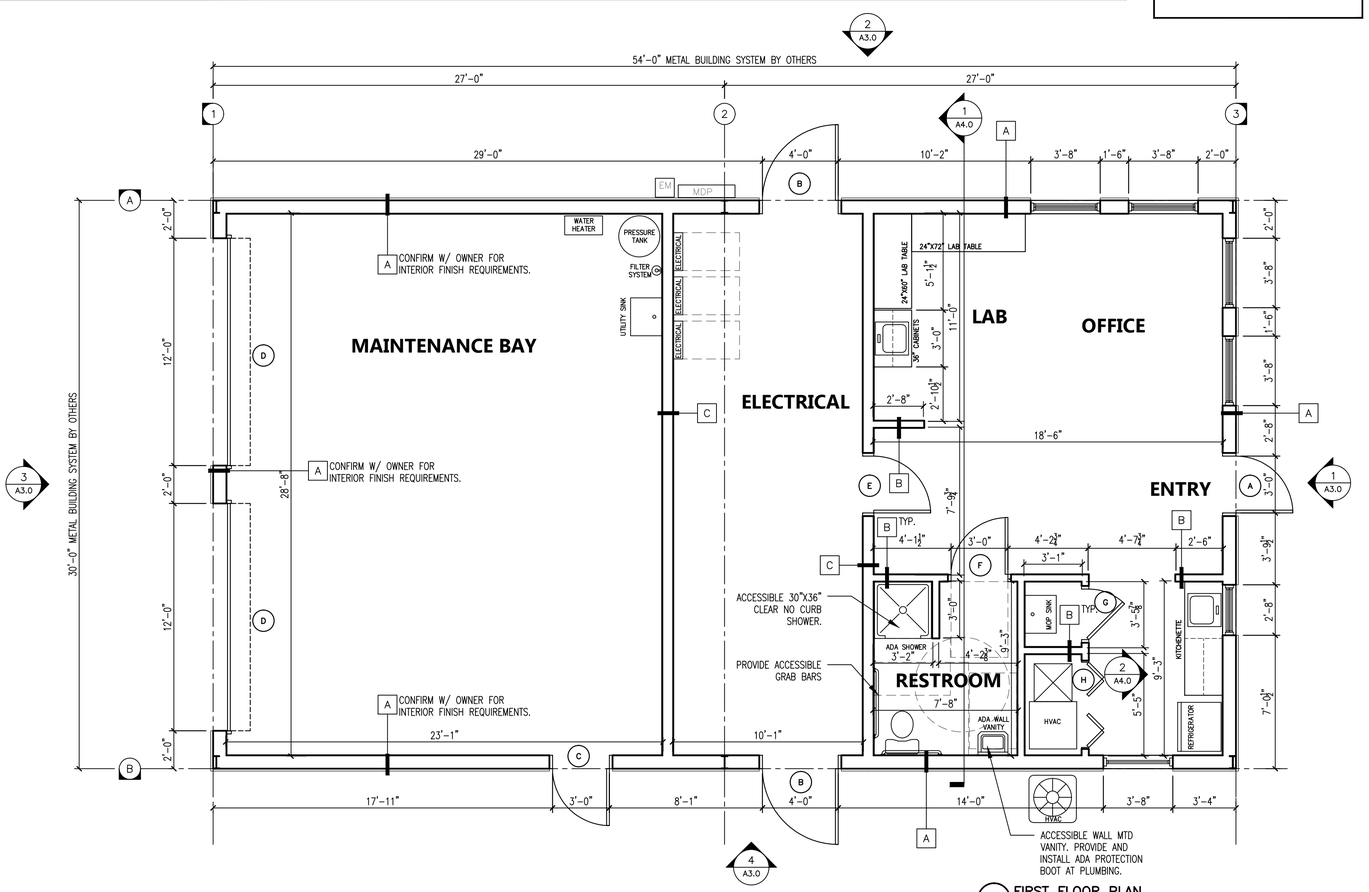
HARDWARE SET B: ELECTRICAL ROOM
PROVIDE STANDARD HINGES, PUSH / PULL DOOR HARDWARE, DEADBOLT AND PANIC PUSH BAR. PROVIDE ALL WEATHER SEALS AND THRESHOLDS. FINISH TBD BY OWNER

HARDWARE SET C: ROLL UP DOOR
PROVIDE STANDARD DOOR HARDWARE PER MANUF. PROVIDE ALL WEATHER SEALS AND THRESHOLDS. FINISH TBD BY OWNER

HARDWARE SET D: ELECTRICAL ROOM INTERIOR & RESTROOM
PROVIDE STANDARD HINGES, ADA APPROVED LATCH & LOCK. FINISH TBD BY OWNER

HARDWARE SET E: CLOSET
PROVIDE STANDARD HINGES, ADA APPROVED LATCH. FINISH TBD BY OWNER

HARDWARE SET F: HVAC
PROVIDE STANDARD SLIDES & TRACKS. FINISH TBD BY OWNER



1 FIRST FLOOR PLAN
1/4" = 1'-0"

DOOR NOTES

1. ALL HARDWARE SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE. G.C. SHALL PROVIDE PRODUCT DATA/SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ORDERING AND INSTALLING HARDWARE.
2. ALL DOORS TO KEYED PER OWNERS DIRECTION.
3. ALL EXIT HARDWARE SHALL COMPLY WITH ALL APPLICABLE CODES.
4. THE MAXIMUM DIMENSION FROM THE TOP OF THE THRESHOLD TO THE EXTERIOR LANDING @ DOORS SHALL NOT EXCEED ½" V.I.F.
5. PAINT FRAMES AND DOORS WHERE SCHEDULED W/ 2 FINISH COATS OF HIGH-GLOSS ACRYLIC ENAMEL. SEE ELEVATIONS AND FINISH SCHEDULES.
6. ADJUST DOOR OPERATING PRESSURE PER ADA. MAXIMUM DOOR OPERATING PRESSURE: 5LBS INTERIOR; 8.5 LBS EXTERIOR MEASURED AT 90 DEGREES TO THE DOOR AT STRIKE SIDE EDGE. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
7. ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

GENERAL NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR FRAMING, MEMBER SIZE AND SPACING REQUIREMENTS. INFORMATION INDICATED ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENT OVER THE ARCHITECTURAL DRAWINGS.
2. REFER TO WALL SECTIONS FOR ADDITIONAL CONSTRUCTION DETAILS.
3. G.C. TO COORDINATE AND VERIFY ALL BLOCKING & WALL BRACING LOCATIONS WITH EQUIPMENT & RESTROOM ACCESSORIES. G.C. TO PROVIDE ALL IN WALL BLOCKING FOR ALL WALL MOUNTED EQUIPMENT, COORDINATE WITH OWNER.
4. REFER TO EXTERIOR ELEVATIONS FOR REQUIRED EXTERIOR FINISHES.
5. DIMENSIONS INDICATED ON THE FLOOR PLAN ARE FROM FACE OF STUD TO FACE OF STUD OR STRUCTURE, UNLESS SPECIFICALLY NOTED OTHERWISE.

WALL TYPES

WALL TYPE TAG [X]

[A] EXTERIOR INFILL WALL
3-5/8" MTL STUD INFILL FRAMING @ 24" O.C. MAX AROUND METAL BUILDING SYSTEM MEMBERS. W/ ½" SHEATHING ON INTERIOR FACE.

[B] INTERIOR 3-5/8" WALL
3-5/8" MTL STUD FRAMING @ 24" O.C. TO 6" ABOVE CEILING GRID. ½" SHEATHING BOTH SIDES. BRACE WALL TO STRUCTURE ABOVE @ 48" MAX. INSTALL SOUND ATTENUATION BLANKET IN WALL SURROUNDING RESTROOM.

[C] INTERIOR 6" WALL
6" MTL STUD FRAMING @ 24" O.C. MAX TO UNDERSIDE OF STRUCTURE ABOVE. ½" SHEATHING BOTH SIDES. PROVIDE R-13MIN INSULATION IN CAVITY.

SHEATHING SCHEDULE:
½" GWB – PAINTED WALLS

½" TILE BACKER BOARD – TILE WALLS

½" M.R. GWB – RESTROOMS

1. CONTRACTOR TO USE APPROPRIATE SUBSTRATE FOR FINISH MATERIALS SHOWN. SEE INTERIOR ELEVATIONS AND SHEATHING SCHEDULE.
2. ALL GWB TO HAVE A MIN LEVEL 4 FINISH.
3. ALL MTL STUD FRAMING TO BE DESIGNED BY MTL STUD CONTRACTOR TO MEET ALL CODE DEFLECTION REQUIREMENTS.

CONTRACTOR OPTION TO USE 2X WOOD FRAMING IN LIEU OF METAL STUDS. PLEASE NOTE DIMENSIONS ARE BASED ON 3-5/8" & 6" METAL STUDS. USE P.T. WOOD IN CONTACT WITH CONCRETE.

GENERAL NOTES RESTROOMS

1. COORDINATE WITH OWNER FOR ALL REQUIRED RESTROOM ACCESSORIES, INCLUDING BUT NOT LIMITED TO TOILET PAPER DISPENSERS, PAPER TOWEL DISPENSERS, SANITARY NAPKIN DISPENSERS AND DISPOSAL, BABY CHANGING STATIONS, MIRRORS AND COAT HOOKS.
2. PROVIDE IN WALL BLOCKING FOR ALL WALL MOUNTED ACCESSORIES.

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NTURNERARCH@GMAIL.COM
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0 1/2 1
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SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

FLOOR PLAN

A1.0

SHEET
OF

NEIL C. TURNER ARCHITECT
368 CRANFILL RD SE
MARIETTA, GEORGIA 30060
NTURNERARCH@GMAIL.COM
770.298.5508

GENERAL NOTES

1. SLOPES OF ROOFS ARE FROM SLOPE IN THE STRUCTURE UNLESS NOTED OTHERWISE.
2. COORDINATE WITH MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ALL ROOF PENETRATIONS. PROVIDE PRE MANUFACTURED ROOF CURBS & FLASHING BOOTS FOR ALL ROOF TOP PENETRATIONS.

1 ROOF PLAN
1/4" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

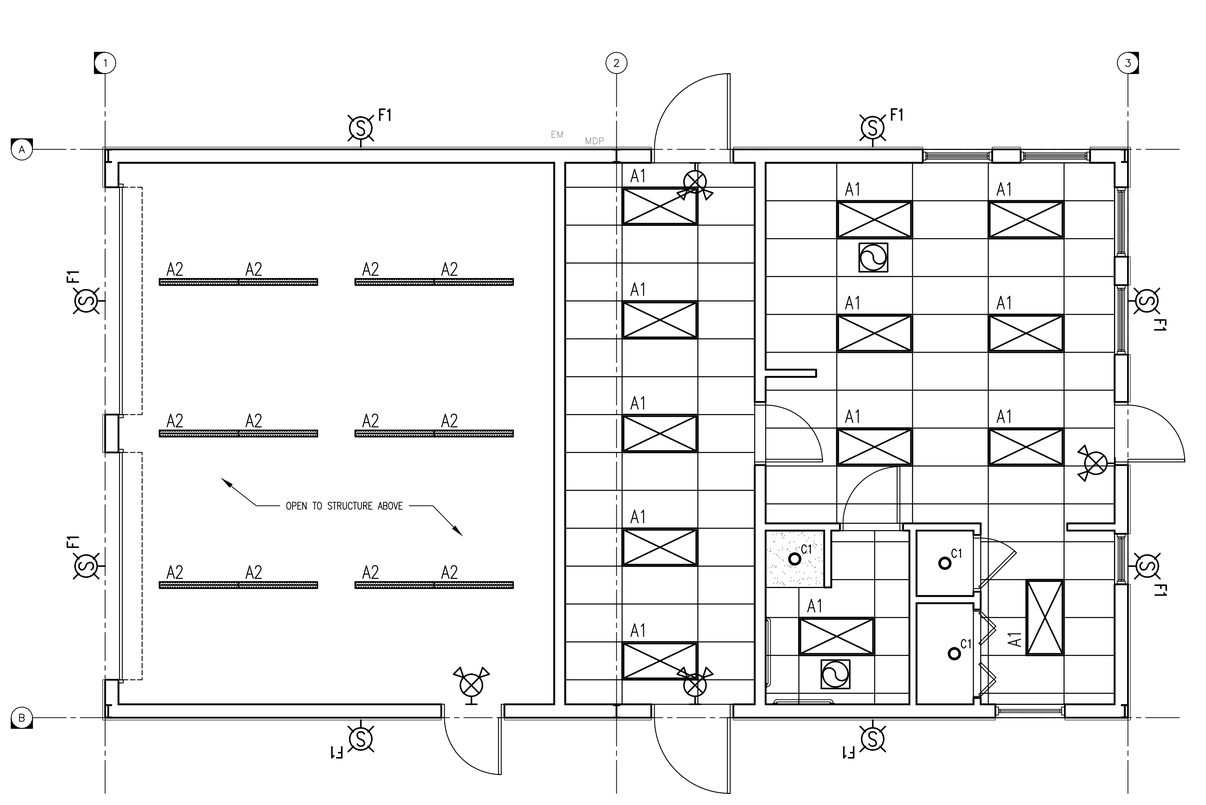
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ROOF PLAN

A1.1

SHEET
OF

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ARCHITECT
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1 REFLECTED CEILING PLAN
1/4" = 1'-0"

RCP LEGEND

A1	2 x 4 LAY-IN LED
A2	LINEAR LED
C1	6" LED RECESSED LIGHT
	LED EXIT SIGNAGE W/ EMERGENCY LIGHTS
F1	LED WALL PACK SECURITY LIGHT
	CEILING EXHAUST FAN
	CEILING GRID 2 X 4 SQUARE EDGE WHITE ACT & GRID. @ 9'-0" AFF.
	M.R. GWB CEILING @ 9'-0" AFF - PAINTED

NOTES:
1. ALL LIGHTING TO BE LED U.N.O.
2. SEE ELECTRICAL DRAWINGS FOR FIXTURE SPECIFICS AND LEGENDS.
3. ALL LIGHTING TO BE EQUALLY SPACED IN AREAS SHOWN AND/OR ALIGNED WITH FIXTURES BELOW.
4. SEE ELECTRICAL PLANS FOR ALL EXIT SIGNS AND EMERGENCY LIGHTING, THIS SHEET FOR REFERENCE ONLY.
5. SEE EXTERIOR ELEVATIONS FOR EXTERIOR FIXTURE MOUNTING HEIGHTS

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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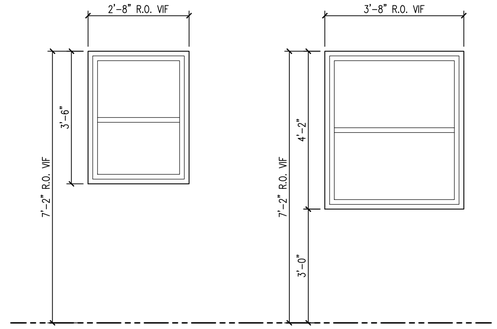
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G1070001

REFLECTED
CEILING PLAN

A2.0

SHEET
OF

WINDOWS



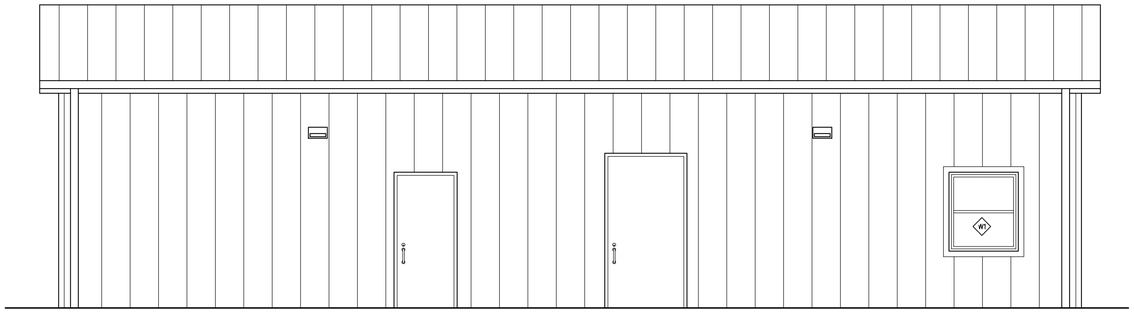
W2 VINYL WINDOW – JELD-WEN BUILDERS VINYL (V-2500) WINDOW: DOUBLE-HUNG OR EQUAL. GLAZING TO MEET IECC PER A1.0

W1 VINYL WINDOW – JELD-WEN BUILDERS VINYL (V-2500) WINDOW: DOUBLE-HUNG OR EQUAL. GLAZING TO MEET IECC PER A1.0

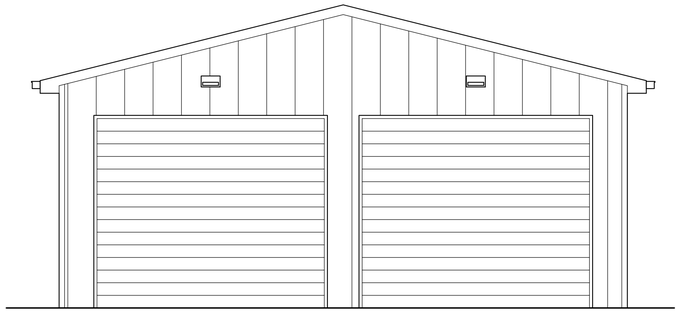
NOTE: CONFIRM ALL SIZES WITH WINDOW MANUFACTURER, CONFIRM ALL COLORS WITH OWNER.

GENERAL NOTES

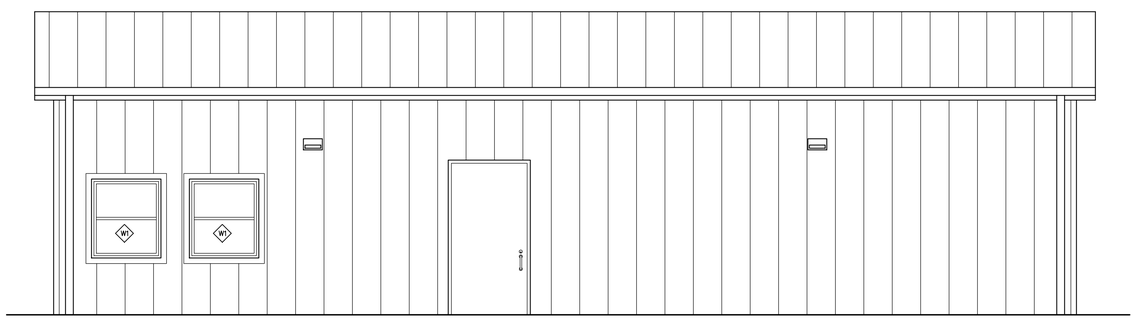
1. REFER TO PRE ENGINEERED METAL BUILDING FOR SHELL DRAWINGS.
2. METAL BUILDING COLORS TO BE CHOSEN BY THE OWNER FROM THE STANDARD COLORS AVAILABLE.



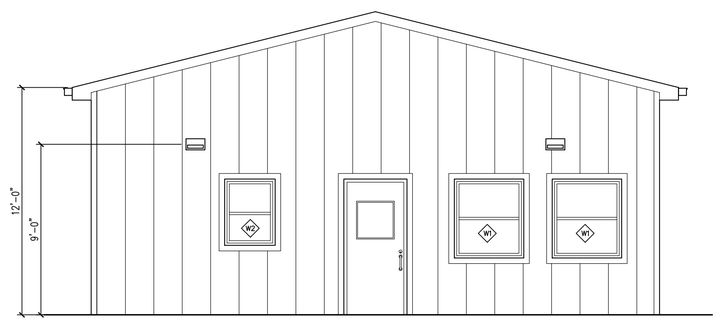
4 ELELVATION @ EAST WALL
1/4" = 1'-0"



3 ELEVATION @ SOUTH WALL
1/4" = 1'-0"



2 ELEVATION @ WEST WALL
1/4" = 1'-0"



1 ELEVATION @ NORTH WALL
1/4" = 1'-0"

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EXTERIOR ELEVATIONS

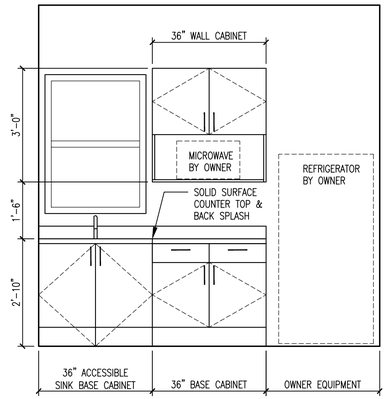
A3.0

SHEET
OF

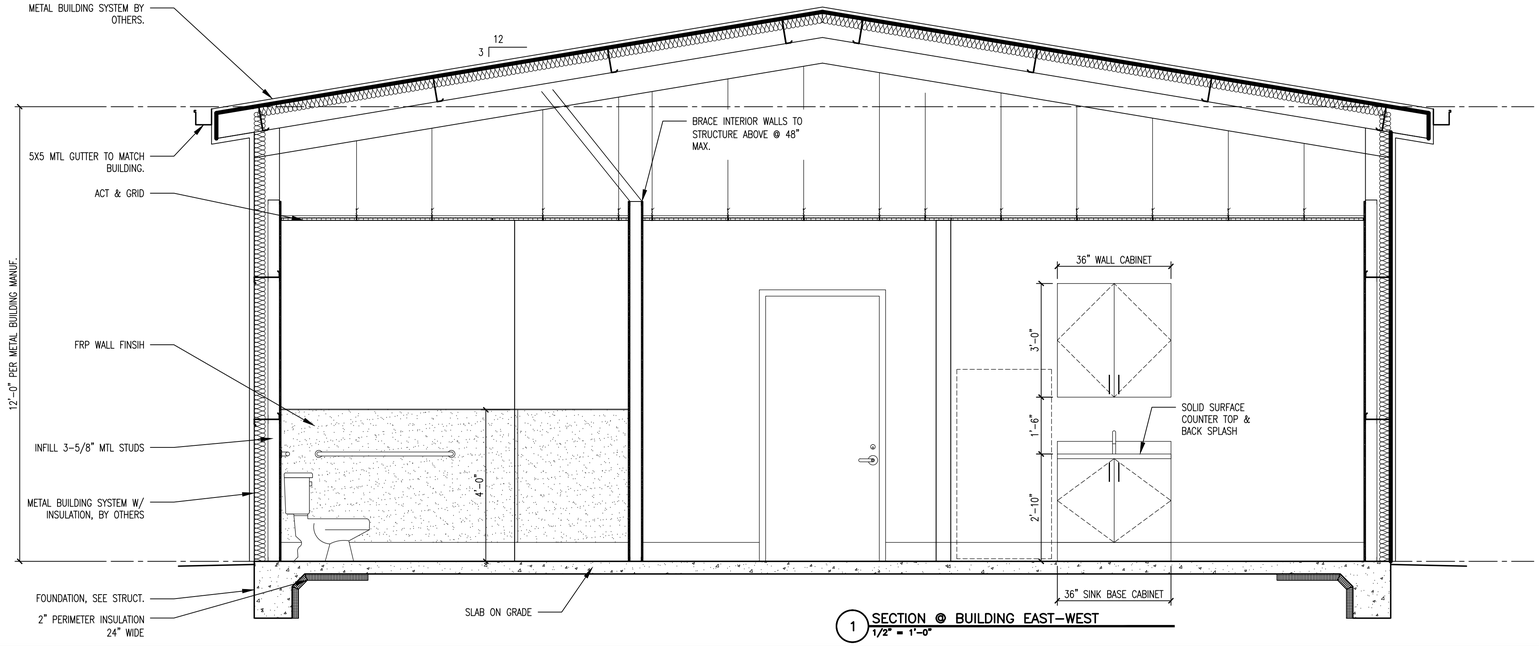
NEIL C. TURNER
ARCHITECT
368 CRANFILL RD SE
MARIETTA, GEORGIA 30060
NTURNERARCH@GMAIL.COM
770.298.5508

GENERAL NOTES

1. G.C. TO VERIFY ALL MILLWORK DIMENSIONS IN FIELD.
2. ALL CABINETS TO BE CONSTRUCTED OF PLYWOOD WITH MELAMINE COATED WHITE INTERIORS. ALL EXPOSED EXTERIORS TO BE HIGH PERFORMANCE PLASTIC LAMINATE CHOSEN BY OWNER.
3. ALL CABINETS TO BE PROVIDED WITH ADJUSTABLE SHELVING.
4. ALL HARDWARE TO BE HEAVY DUTY BLUM SOFT CLOSE HINGES AND DRAWER SLIDES, OR EQUAL.
5. ALL DOOR & DRAWER PULLS TO BE STANDARD 6" WIRE TYPE IN BRUSHED NICKEL.
6. COORDINATE ALL MILLWORK WITH OWNER AND OWNER EQUIPMENT AS WELL AS ENGINEERING DRAWINGS AND PROVIDE ALL REQUIRED UTILITIES.
7. MILLWORK SHOP DRAWINGS TO BE SUBMITTED TO THE OWNER AND ARCHITECT FOR APPROVAL.



2 ELEVATION @ KITCHEN
1/2" = 1'-0"



1 SECTION @ BUILDING EAST-WEST
1/2" = 1'-0"

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	BY	CHK/APP

DATE	REVISIONS AND RECORD OF USE
04.04.25	ISSUED FOR REVIEW

SCWA OPERATIONS BUILDING

SPAULDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

SECTIONS & DETAILS

A4.0

SHEET
OF

SCHEMATIC DIAGRAM SYMBOLS:

CONDUCTORS CONNECTED

CONDUCTORS NOT CONNECTED

CONNECTION POINT

XX — TERMINAL POINT FOR OUTGOING CONDUCTORS, WITH IDENTIFICATION. "XX" DENOTES CONTRACTOR ASSIGNED.

MCPXXX–XX / XXA — MAGNETIC–ONLY CIRCUIT BREAKER (MCP), WITH CURRENT RATING

CBXXX–XX / XXA — CIRCUIT BREAKER, THERMAL–MAGNETIC UNLESS OTHERWISE NOTED, WITH FRAME SIZE AND TRIP RATING

FUXXX–XX [XXA] — FUSE WITH SIZE AND OPTIONAL IDENTIFICATION.

DSXXX–XX / XXXA — DISCONNECT SWITCH. RATING OPTIONAL. 30 AMP, 600V RATED MINIMUM UNLESS OTHERWISE NOTED.

FUXXX–XX [XXA] — FUSE DISCONNECT SWITCH. RATING OPTIONAL. 30 AMP, 600V MINIMUM UNLESS OTHERWISE NOTED.

M–XXX (XX) — MOTOR (HP AS SHOWN, PHASES AS REQUIRED)

MSR–XXX (XX, XX) — MOTOR STARTER COIL

OL–XXX — THERMAL MOTOR OVERLOAD

M–XXX — MOTOR CONTACT

LSXXX–XX / LSXXX–XX — LIMIT SWITCH NORMALLY CLOSED AND NORMALLY OPEN

PSXXX–XX / PSXXX–XX — PRESSURE SWITCH NORMALLY CLOSED AND NORMALLY OPEN

TSXXX–XX / TSXXX–XX — TEMPERATURE SWITCH NORMALLY CLOSED AND NORMALLY OPEN

FSXXX–XX / FSXXX–XX — FLOW SWITCH NORMALLY CLOSED AND NORMALLY OPEN

FLTXXX–XX / FLTXXX–XX — LEVEL SWITCH NORMALLY CLOSED AND NORMALLY OPEN

PRSXXX–XX / PRSXXX–XX — PROXIMITY SWITCH NORMALLY CLOSED AND NORMALLY OPEN

PCSXXX–XX / PCSXXX–XX — PULLCORD SWITCH NORMALLY CLOSED AND NORMALLY OPEN

SVXXX–XX — SOLENOID VALVE

PBXXX–XX / PBXXX–XX — MOMENTARY PUSHBUTTON NORMALLY CLOSED AND NORMALLY OPEN

SSXXX–XX / OX — SELECTOR SWITCH NORMALLY CLOSED AND NORMALLY OPEN

TRXXX–XX / 0–30 SEC — TIME DELAY SWITCH NORMALLY CLOSED AND NORMALLY OPEN

LTXXX–XX (X) — PILOT LIGHT X = LENS COLOR
- A = AMBER
- B = BLUE
- G = GREEN
- R = RED
- W = WHITE

CRXXX–XX — CONTROL RELAY

CRXXX–XX — CONTROL RELAY CONTACT NORMALLY CLOSED AND NORMALLY OPEN

ALXXX–XX — ALARM LIGHT

AHXXX–XX — ALARM HORN

H1, H2, TFR–XXX, X1, X2 — CONTROL POWER TRANSFORMER, PRIMARY AND SECONDARY VOLTAGE SHOWN. SIZE AS SHOWN OR SPECIFIED.

C.T. CTXXX–XX — CURRENT TRANSFORMER. PRIMARY/SECONDARY TURNS RATIO AS SHOWN.

XZXXX–XX — MOTOR SPACE HEATER

ONE LINE DIAGRAM SYMBOLS:

CB–xxx / xxA–T / xxA–F — LOW VOLTAGE POWER CIRCUIT BREAKER, DRAW–OUT TYPE, FRAME AND TRIP ID SHOWN

CB–xxx / xxA–T / xxA–F — MOLDED CASE CIRCUIT BREAKER, FRAME AND TRIP ID SHOWN

LIGHTNING ARRESTOR AND GROUND

DS–XXX — DISCONNECT OR ISOLATING SWITCH: CONTINUOUS RATING SHOWN

MCP–XXX — MAGNETIC–ONLY CIRCUIT BREAKER (MCP), DRAWOUT TYPE, WITH CURRENT RATING

FS–XXX — FUSED SWITCH: FUSE AND SWITCH CONTINUOUS RATINGS SHOWN

TFR–XXX — POWER TRANSFORMER: PRIMARY & SECONDARY VOLTAGES, %Z, SIZE SHOWN

XS — CURRENT TRANSFORMER: RATIO SHOWN (3 INDICATES NO. OF CT'S)
METER SWITCH, xS:
AS – AMMETER SWITCH
VS – VOLTMETER SWITCH
FS – FREQUENCY SWITCH

PT — POTENTIAL TRANSFORMER PRIMARY & SECONDARY VOLTAGES & WINDINGS SHOWN. (x) UNITS

METER — METER:
A – AMMETER
W – WATTMETER
KWH – WATT–HOUR METER
F – FREQUENCY METER
VAR – VAR METER
V – VOLTMETER

FVNR SIZE 1 — FULL VOLTAGE, NON–REVERSING MAGNETIC MOTOR STARTER. NEMA SIZE INDICATED

FVR SIZE X — FULL VOLTAGE, REVERSING MAGNETIC MOTOR STARTER. NEMA SIZE INDICATED

VFD–xxx / xxHP — VARIABLE FREQUENCY DRIVE, NEMA SIZE INDICATED

RVSS–xxx / xxHP — REDUCED VOLTAGE SOLID STATE DRIVE (SOFT START), NEMA SIZE INDICATED

xx HP / M–xxx — MOTOR (HP AS SHOWN, PHASES AS REQUIRED)

GENERATOR RECEPTACLE

N, E, MTS–XXX — MANUAL TRANSFER SWITCH

xx / P–XXX–X / x/c #xx 1/c #xx GND IN x" C. — CABLE TAG:
P – POWER CABLE
C – CONTROL CABLE
S – SHIELDED SIGNAL CABLE

CIRCUIT AND RACEWAY SYMBOLS:

RACEWAY OR WIRING SYSTEM ABOVE FLOOR LEVEL BELOW CEILING, EXPOSED. (UNLESS OTHERWISE NOTED)

RACEWAY OR WIRING SYSTEM BELOW FLOOR LEVEL, ABOVE CEILING, HIDDEN, OR EXISTING CABLE/CONDUIT. (UNLESS OTHERWISE NOTED)

SCHEMATIC DIAGRAM FIELD WIRING. (UNLESS OTHERWISE NOTED)

ONE LINE DIAGRAM EQUIPMENT ENCLOSURE. (UNLESS OTHERWISE NOTED)

G — GROUNDING CONDUCTOR (CONCEALED), #4/0 AWG BARE COPPER (UNLESS OTHERWISE NOTED)

GG — GG — GROUNDING CONDUCTOR (EXPOSED), #4/0 AWG INSULATED COPPER (UNLESS OTHERWISE NOTED)

PBD A–1,3,5 — HOME RUN – SEE PANELBOARD SCHEDULE FOR CIRCUIT INFORMATION

EXAMPLE: HOME TO PANELBOARD PBD A, CIRCUITS 1, 3, AND 5

GENERAL ABBREVIATIONS:

AR	ALARM RELAY
AS	AMMETER SELECTOR SWITCH
A, AMP	AMP(S), AMPERE(S)
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AHAP	AS HIGH AS POSSIBLE
AIC	AMPS INTERRUPTING CAPACITY, SYMM.
AL	ALUMINUM
AT	AMPERE TRIP
AF	AMPERE FRAME
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER CONDUCTOR
BKR	BREAKER
C	CONDUCTOR/CONTACTOR
CB	CIRCUIT BREAKER
CJB	CIRCUIT JUNCTION BOX
CKT	CIRCUIT
CLG	CEILING
CR	CONTROL RELAY
CND	CONDUIT
CONC	CONCRETE
CS	CONTROL SWITCH
CONT	CONTROL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
D	DIAMETER
DB	DUCT BANK
DC	DIRECT CURRENT
DET	DETAIL
DIAG	DIAGRAM
DPSH	DIFFERENTIAL PRESSURE SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ENCL	ENCLOSURE/ENCLOSED
EP	EXPLOSION PROOF EQUIP.
EX, E	EXISTING
FCP	FURNISHED WITH EQUIPMENT PANEL
FDR	FEEDER
FLA	FULL LOAD AMPS
FPP	FIBER OPTIC DISTRIBUTION PANEL
FS	FLOW SWITCH
FU	FUSE
FUT	FUTURE
FVNR	FULL VOLTAGE NON–REVERSING
FVR	FULL VOLTAGE REVERSING
GALV	GALVANIZED
GEN	GENERATOR
GFR	GROUND FAULT RELAY
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
H	HIGH
HGT	HEIGHT
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HS	HAND STATION (SWITCH)
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HZ	HERTZ (CYCLES PER SECOND)
HOA	HAND/OFF/AUTO
HOR	HAND/OFF/REVERSE
HMH	HIGH VOLTAGE MANHOLE
ID	INSIDE DIAMETER
IMC	INDIVIDUAL MOTOR CONTROLLER
INTLK	INTERLOCK
INST	INSTANTANEOUS
INSTR	INSTRUMENT
I/O	INPUT–OUTPUT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT–AMPERE
KVAR	KILOVOLT–AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT–HOUR
KAIC	KILO AMPERE INTERRUPTING CURRENT
L–O–R	LOCAL–OFF–REMOTE
L	LONG
LC	LIGHTING CONTACTOR
LCP	LOCAL CONTROL PANEL
LP	LIGHTING PANEL
LOS	LOCK–OUT STOP
LSIG	LONG, SHORT, INSTANTANEOUS TRIP SETTING AND GROUND FAULT PROTECTION
LSL	LEVEL SWITCH LOW
LSO	LIMIT SWITCH OPEN
LSC	LIMIT SWITCH CLOSED
LTG	LIGHTING
LV	LOW VOLTAGE
LSH	LEVEL SWITCH HIGH
M	MOTOR CONTACTOR
mA	MILLIAMPERE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PANEL/MOTOR CIRCUIT PROTECTOR
MECH	MECHANICAL
MFR	MANUFACTURE(R)
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
mM	MILLIMETER
mV	MILLIVOLT
MCM	MILLI CIRCULAR MILLS
MOP	MOTOR OPERATOR PANEL
MPR	MOTOR PROTECTION RELAY
MCB	MAIN CIRCUIT BREAKER
MTR	MOTOR
MVS	MEDIUM VOLTAGE STARTER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEUT,N	NEUTRAL
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NP	NAMEPLATE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL's	OVERLOADS
OT	OIL TIGHT
P	POLE
PA	PUBLIC ADDRESS
PB	PUSHBUTTON, PULLBOX
PE	PHOTO ELECTRIC CELL
PF	POWER FACTOR
PH	PHASE
PJB	POWER JUNCTION BOX
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PP	POWER PANEL
PR	PAIR
PRI	PRIMARY
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
QSH	SHEAR PIN LIMIT SWITCH
RCPT	RECEPTACLE
RCT	REACTOR
REF	REFERENCE REQ'D REQUIRED
RMS	ROOT MEAN SQUARE
RTD	RESISTANCE TEMPERATURE DETECTOR
SCH	SCHEDULE
SE	SPEED SENSOR
SEC	SECONDARY
SEL	SELECTOR
SER	SERVICE ENTRANCE RATED
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPHTR	MOTOR SPACE HEATER
SPKR	SPEAKER
S.S.	STAINLESS STEEL
SSL	SPEED SWITCH
STP	SHIELDED TWISTED PAIR
SUB	SUBSTATION
SW	SWITCH
SYMM	SYMMETRICAL
SYS	SYSTEM
SV	SOLENOID OPERATED VALVE
SPB	SIGNAL PULL BOX
SPD	SURGE PROTECTION DEVICE
TB	TERMINAL BOX
TEL	TELEPHONE
TEMP	TEMPERATURE
TFR	TRANSFORMER
TH	THERMOSTAT
TJB	TERMINAL JUNCTION BOX
TSH	TEMPERATURE SWITCH HIGH
TV	TELEVISION
TYP	TYPICAL
TR	TIMING RELAY
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VSH	VIBRATION SWITCH
W	WATT, WIRE, WIDE
W/	WITH
W/O	WITHOUT
WE	WEIGHT LOAD CELL
WIT	WEIGHT INDICATING TRANSMITTER
WP	WEATHERPROOF
XL	WARNING HORN/LIGHT
XT	ANEMOMETER
ZS	POSITION (LIMIT) SWITCH
ZSO	POSITION (LIMIT) SWITCH OPEN
ZSC	POSITION (LIMIT) SWITCH CLOSED
ZT	POSITION TRANSMITTER

GENERAL NOTES:

1. SCOPE:
   - A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
   - B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
   - C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER AND SAFE OPERATION OR OTHERWISE REQUIRED BY CODE, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
   - D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, ANY OTHER LOCALLY ADOPTED CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASING.
3. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATED THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
4. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND DISTANCES IN THE FIELD. IN CASE OF DISCREPANCY, CONTRACTOR SHALL INCLUDE A MORE EXPENSIVE OPTION.
5. ALL MATERIALS SELECTION SHALL BE AS PER THE SCHEDULE SHOWN ON DWG. E–002, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
6. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED PULL BOXES AND/OR CONDULETS TO MEET NEC ARTICLE 314 FOR CABLE PULLS.
7. ELECTRICAL EQUIPMENT INSIDE THE ELECTRICAL ROOM SHALL BE SIZED TO FIT THE AVAILABLE SPACE AND TO PROVIDE NEC REQUIRED WORKING CLEARANCES.
8. ADJUST CIRCUIT BREAKER SIZES, CABLES AND CONDUITS FOR ELECTRICAL EQUIPMENT ON THE ACTUAL ACCEPTED SHOP DRAWINGS.
9. ALL ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEM COMPONENTS LOCATIONS SHALL BE ADJUSTED TO PROVIDE NEC REQUIRED WORKING CLEARANCES.

PLAN DRAWING SYMBOLS:

(M) — MOTOR CONNECTION

MOTOR STARTER, INDIVIDUAL –– NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

COMBINATION MOTOR STARTER/DISCONNECT INDIVIDUAL –– NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY

DISCONNECT SWITCH. DISCONNECT SWITCHES ARE HEAVY DUTY, SINGLE THROW, WITH NEMA 4X ENCLOSURE UNLESS OTHERWISE NOTED. MOUNT AT 4'–8" TO CENTER OF DISCONNECT.

FUSED DISCONNECT, NON–FUSED. PROVISION FOR CLASS R FUSES.

FIELD INSTRUMENT CONNECTION

START/STOP HAND STATION MOUNTED TO HANDRAIL (NEMA 4X UNLESS OTHERWISE NOTED)

$_X — 120V, 20A, 1P TOGGLE SWITCH
- [BLANK] = 1P TOGGLE SWITCH
- 2 = 2P TOGGLE SWITCH
- 3 = 3P TOGGLE SWITCH
- D = SLIDE DIMMER
- M = MOTOR RATED
- S = TOGGLE WITH OCCUPANCY SENSOR

DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.

GFCI DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.

QUADRAPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.

TELEPHONE BOX. MOUNT 18" A.F.F., INSTALL A 1/2" CONDUIT FROM BOX TO 6" ABOVE CEILING. PROVIDE PULL CORD FOR FUTURE CONNECTIONS AS REQUIRED.

JB — JUNCTION BOX

60A, 480V, 3PH RECEPTACLE WITH INTERLOCKED 60A (NEMA 4X FUSED DISCONNECT SWITCH UNLESS OTHERWISE NOTED)

GROUNDING SYMBOLS:

GROUND ROD, 3/4" x 10'–0", COPPERCLAD (UNLESS OTHERWISE NOTED)

GROUND ROD AND WELL

COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT

EXOTHERMIC TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30319 LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338 WWW.R2TINC.COM

STAMP:

NO.	BY	CHK'APP	DV	DATE
A	DV			
				10/01/2024

GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

ELECTRICAL LEGEND & NOTES

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-001
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

FD10000
PLOTTED: 3/22/2025 4:42 FILE: E:\Synology\DriveActive Projects\2024 Projects\24081-RT Spalding WWTP DB1.0 Drawings\1.1 Electrical\E-001.dwg

ELECTRICAL EQUIPMENT MATERIALS RATING									
NO.	EQUIPMENT	INSTALLATION AREA AND DESIGN CRITERIA							
		INDOOR NON-PROCESS; EXPOSED INSTALLATION (ELECTRICAL & CONTROL ROOMS, OFFICES, LAB, UNDER RAISED FLOORS, ETC.) ENVIRONMENT: NON-CORROSIVE; DRY	INDOOR NON-PROCESS, CONCEALED INSTALLATION (AREAS WITH RECESSED CEILING AND STUD WALLS) ENVIRONMENT: NON-CORROSIVE; DRY	OUTDOOR CHEMICALS STORAGE AREA ENVIRONMENT: CORROSIVE; WET	OUTDOOR GENERAL AREAS ENVIRONMENT: CORROSIVE; WET	BELOW GRADE VAULTS (METERING VAULT, VALVE VAULT, ETC.) ENVIRONMENT: CORROSIVE; WET	CLASS 1, DIVISION 1, GROUP D HAZARDOUS AREA ENVIRONMENT: CORROSIVE; WET	CLASS 1, DIVISION 2, GROUP D HAZARDOUS AREA ENVIRONMENT: CORROSIVE; WET	UNDERGROUND AND DIRECT BURIED ENVIRONMENT: CORROSIVE; WET
1	RIGID CONDUITS	RMC – ALUMINUM	NO CONDUIT REQUIRED, USE METAL CLAD CABLE (MC)	PVC COATED ALUMINUM	RMC – ALUMINUM	RMC – ALUMINUM	RMC – ALUMINUM	RMC – ALUMINUM	DIRECT BURIED – PVC 40; CONCRETE ENCASED – PVC 40.
2	FLEXIBLE CONDUITS	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	NO CONDUIT REQUIRED, USE METAL CLAD CABLE (MC)	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	EXPLOSIONPROOF FLEXIBLE COUPLING	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC), RATED FOR CLASSIFIED AREA	N/A
3	CABLE TRAYS	LADDER TYPE – ALUMINUM	N/A	FIBERGLASS REINFORCED PLASTIC	LADDER TYPE – ALUMINUM	LADDER TYPE – ALUMINUM	LADDER TYPE – ALUMINUM – ONLY WHEN USED WITH CABLE TYPES PERMITTED PER NEC ARTICLE 500	LADDER TYPE – ALUMINUM – ONLY WHEN USED WITH CABLE TYPES PERMITTED PER NEC ARTICLE 500	N/A
4	JUNCTION BOXES	STEEL – NEMA 1	STEEL – NEMA 1	NEMA 4X, TYPE 316 SS	NEMA 4X, FRP	NEMA 4X, FRP	NEMA 7	NEMA 4X, TYPE 304 SS (WHEN NO SWITCHING CONTACTS OR ARCING DEVICES ARE IN THE JUNCTION BOX), OTHERWISE, USE NEMA 7	POLYMER CONCRETE
5	PULL BOXES	STEEL – NEMA 1	STEEL – NEMA 1	NEMA 4X, TYPE 316 SS	NEMA 4X, FRP	NEMA 4X, FRP	NEMA 7	NEMA 4X, TYPE 304 SS (WHEN NO SWITCHING CONTACTS OR ARCING DEVICES ARE IN THE JUNCTION BOX), OTHERWISE, USE NEMA 7	POLYMER CONCRETE
6	EQUIPMENT RACKS/SUPPORTS/HARDWARE	ALUMINUM	ALUMINUM	STAINLESS STEEL 316	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	STAINLESS STEEL 304
7	FASTENERS	ALUMINUM	ALUMINUM	STAINLESS STEEL 316	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	STAINLESS STEEL 304
8	SWITCHGEAR	NEMA 1	N/A	N/A	NEMA 3R	N/A	N/A	N/A	N/A
9	SWITCHBOARD	NEMA 1	N/A	N/A	NEMA 3R	N/A	N/A	N/A	N/A
10	MOTOR CONTROL CENTER	NEMA 1	N/A	N/A	NEMA 3R	N/A	N/A	N/A	N/A
11	PANELBOARDS	NEMA 1	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	N/A	N/A	N/A	N/A
12	DRY TYPE TRANSFORMERS	NEMA 2	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	N/A	N/A	N/A	N/A
13	DISCONNECT SWITCHES	NEMA 1	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	NEMA 4X, TYPE 304 SS	NEMA 7	NEMA 7	N/A
14	MOTOR STARTERS	NEMA 1	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	NEMA 4X, TYPE 304 SS	NEMA 7	NEMA 7	N/A
15	CONTACTORS	NEMA 1	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	NEMA 4X, TYPE 304 SS	NEMA 7	NEMA 7	N/A
16	CONTROL PANELS	NEMA 1	N/A	NEMA 4X, TYPE 316 SS	NEMA 4X, TYPE 304 SS	N/A	NEMA 7	NEMA 7	N/A
17	MOTOR HOUSING MINIMUM PROTECTION RATING	ODP	ODP	TEFC	TEFC	TEFC	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	TEFC, RATED FOR CLASSIFIED AREA	N/A
18	INSTRUMENTATION MINIMUM PROTECTION RATING	NEMA 1	NEMA 1	NEMA 4X	NEMA 4X	NEMA 4X	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA OR USED WITH INTRINSICALLY SAFE BARRIERS	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA OR USED WITH INTRINSICALLY SAFE BARRIERS	NEMA 6P
19	VALVE ACTUATORS	N/A	N/A	NEMA 4	NEMA 4	NEMA 6P	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	N/A
20	WIRING DEVICE BOXES	DIE-CAST ALUMINUM; WEATHERPROOF	DIE-CAST ALUMINUM; WEATHERPROOF	ALUMINUM, PVC COATED; WEATHERPROOF	DIE-CAST ALUMINUM; WEATHERPROOF	DIE-CAST ALUMINUM; WEATHERPROOF	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	N/A
21	DEVICES COVER PLATES	STAINLESS STEEL; NON-WEATHERPROOF (WITH GASKET)	STAINLESS STEEL; NON-WEATHERPROOF (WITH GASKET)	ALUMINUM, PVC COATED; WEATHERPROOF (WITH GASKET)	DIE-CAST ALUMINUM; WEATHERPROOF (WITH GASKET)	DIE-CAST ALUMINUM; WEATHERPROOF (WITH GASKET)	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	N/A
22	OUTLET BOX HOODS	N/A	N/A	PLASTIC; WEATHERPROOF (WHILE-IN-USE COVER) (WITH GASKET)	ALUMINUM; WEATHERPROOF (WHILE-IN-USE COVER) (WITH GASKET)	ALUMINUM; WEATHERPROOF (WHILE-IN-USE COVER) (WITH GASKET)	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	EXPLOSION PROOF, RATED FOR CLASSIFIED AREA	N/A

CABLE TYPES REQUIREMENTS						
	MATERIAL	SERVICE ENTRANCE	VFD MOTOR FEEDERS	POWER	CONTROL	SIGNAL
CABLE TYPES	COPPER, UNLESS NOTED OTHERWISE	XHHW, 600V	SHIELDED VFD CABLES, 1000V	THWN-2, 600V	THWN-2, 600V	SHIELDED TWISTED TYPE, 600V

NOTES:

1. POWER CABLES REQUIREMENTS:
   - 1.1. MINIMUM ALLOWED WIRE GAUGE: #12 AWG.
   - 1.2. MAXIMUM ALLOWED WIRE GAUGE: 600KCMIL.
   - 1.3. MAXIMUM MULTICONDUCTOR CABLES SIZE: #1 AWG.
   - 1.4. MAXIMUM SOLID CORE CABLES SIZE: #10 AWG.
2. CONTROL CABLES REQUIREMENTS:
   - 2.1. CABLES CONSTRUCTION TYPE: SINGLE CONDUCTOR.
   - 2.2. MINIMUM ALLOWED WIRE GAUGE: #14 AWG.
3. SIGNAL CABLES REQUIREMENTS:
   - 3.1. CABLES CONSTRUCTION TYPE: MULTICONDUCTOR CONDUCTOR WITH OVERALL SHIELD AND DRAIN WIRE.
   - 3.2. MINIMUM ALLOWED WIRE GAUGE: #16 AWG.
   - 3.3. MAXIMUM NUMBER OF PAIRS/TRIADS IN MULTI-PAIR/TRID CABLE: 2.

INSTALLATION REQUIREMENTS:

GENERAL:

1. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE UL LISTED.
2. ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED OUTDOORS SHALL BE UV RESISTANT.
3. ALL ELECTRICAL EQUIPMENT AND MATERIALS OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND MODEL LINE.
4. ALL FREESTANDING EQUIPMENT SHALL BE INSTALLED ON 4" HOUSEKEEPING PAD, ELEVATED ABOVE THE SURROUNDING SURFACE.
5. ALL ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEM COMPONENTS LOCATIONS SHALL BE ADJUSTED TO PROVIDE NEC REQUIRED WORKING CLEARANCES.
6. ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOORS SHALL HAVE CONCRETE PADS EXTENDING 4 FT IN FRONT OF THE EQUIPMENT.
7. CONTRACTOR SHALL ADJUST CIRCUIT BREAKER SIZES, CABLES AND CONDUITS FOR ELECTRICAL EQUIPMENT AT NO ADDITIONAL COST BASED ON THE ACTUAL ACCEPTED SHOP DRAWINGS.
8. CONTRACTOR SHALL CONFIRM ELECTRICAL EQUIPMENT DIMENSIONS PRIOR TO RELEASING FOR FABRICATION LOCATED IN THE AREAS WITH LIMITED AVAILABLE SPACE TO ENSURE PROPER EQUIPMENT INSTALLATION PROVIDING NEC REQUIRED WORKING CLEARANCES.
9. FOR NEW CONSTRUCTION, INSTALLATION AND/OR DEMOLITION THAT INTERRUPTS ANY POWER, CONTROL OR SIGNAL WIRING TO EXISTING EQUIPMENT OR DEVICES THAT SHALL REMAIN IN OPERATION. CONTRACTOR SHALL INCLUDE ALL REQUIRED BREAKERS, CABLES/CONDUITS AND/OR ANY OTHER EQUIPMENT AS REQUIRED TO KEEP THE EXISTING SYSTEM FUNCTIONAL.
10. ALL MOTORS USED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED TYPE.
11. ALL OUTDOOR ENCLOSURES CABLES ENTRY POINTS SHALL BE IN THE BOTTOM OF THE ENCLOSURE. IN CASE OF INABILITY TO MAKE BOTTOM PENETRATION, SIDE CONNECTION WOULD BE ACCEPTABLE. ENCLOSURES TOP ENTRY ARE NOT ALLOWED.

POWER DISTRIBUTION AND CONDUITS INSTALLATION REQUIREMENTS:

1. ALL POWER DISTRIBUTION EQUIPMENT SHALL BE BY THE FOLLOWING MANUFACTURES: EATON, SCHNEIDER ELECTRIC, ABB, ALLEN-BRADLEY, SIEMENS OR APPROVED EQUAL.
2. ALL MOTOR STARTERS, VFD'S, RVSS'S SHALL BE BY THE FOLLOWING MANUFACTURES: EATON, SCHNEIDER ELECTRIC, ABB, ALLEN-BRADLEY, SIEMENS OR APPROVED EQUAL.
3. ALL CONDUITS ENDS SHALL BE FREE OF METAL SHAVINGS AND BE PROVIDED WITH FITTINGS WITH INSULATED BUSHING.
4. ALL EXPOSED CONDUITS SHALL BE MINIMUM OF 3/4". ALL BURIED CONDUIT SHALL BE MINIMUM OF 1".
5. ALL UNDERGROUND CONDUITS SHALL HAVE RIGID STEEL ELBOWS.
6. ALL METAL CONDUITS SHALL BE PROTECTED WITH A BITUMINOUS COATING WHEN INSTALLED UNDERGROUND OR WHEN IN CONTACT WITH CONCRETE.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CABLES AND EQUIPMENT LUG SIZES. IN CASE THE CABLE IS OF A LARGER SIZE THAN THE EQUIPMENT LUG, CONTRACTOR SHALL PROVIDE THE REQUIRED CONNECTOR AT NO ADDITIONAL CHARGE TO OWNER.
8. CONTRACTOR SHALL PROVIDE PULL STRING AND PERMANENTLY ATTACHED IDENTIFICATION LABELS AT EACH CONDUIT END FOR ALL SPARE CONDUITS. EACH TAG SHALL INCLUDE CONDUIT NUMBER, SIZE AND DESTINATION POINT.
9. CONTRACTOR SHALL PROVIDE ALL REQUIRED PULL BOXES AND/OR CONDULETS TO MEET NEC ARTICLE 314 FOR CABLE PULLS.
10. ALL CABLES INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
11. CONDUIT FITTING CONNECTION TYPES SHALL BE AS FOLLOWS:
    - 11.1. FOR RMC AND IMC CONDUITS – THREADED TYPE;
    - 11.2. FOR EMT CONDUITS – COMPRESSION TYPE.
12. RIGID CONDUIT CONNECTIONS TO ENCLOSURES SHALL BE MADE WITH MYERS HUBS.
13. ALL OPEN CONDUIT ENDS SHALL BE PROTECTED FROM ELEMENTS PENETRATION TO THE INSIDE THE CONDUIT WITH DUCT SEAL.
14. EQUIPMENT ENCLOSURES THAT ARE NOT SUITABLE FOR RIGID OR FLEXIBLE CONDUIT CONNECTION, THE CONTRACTOR SHALL PROVIDE A CORD GRIP AT THE CONDUIT END TO PROTECT FROM ELEMENTS PENETRATION TO THE INSIDE THE CONDUIT.
15. THE CONTRACTOR SHALL INSTALL EXPANSION COUPLINGS AS REQUIRED TO PREVENT CONDUIT DAMAGE DUE TO LONGITUDAL MOVEMENT AND/OR THERMAL EXPANSION.
16. THE CONTRACTOR SHALL INSTALL DEFLECTION COUPLINGS FOR CONDUITS RUNS THAT ARE SUBJECT TO ANGULAR AND PARALLEL MISALIGNMENT.
17. THE CONTRACTOR SHALL INSTALL DRAIN FITTING IN VERTICAL CONDUIT RUNS AT LOW POINTS IN CONDUIT SYSTEM TO PREVENT ACCUMULATION OF CONDENSATE ABOVE SEAL-OFF FITTINGS.
18. THE CONTRACTOR SHALL INSTALL DRAIN FITTINGS AT LOW POINTS OF CONDUIT RUN TO DRAIN ACCUMULATED CONDENSATE AND TO PROVIDE VENTILATION TO MINIMIZE CONDENSATION.
19. FOR OVERHEAD SERVICES THE CONTRACTOR SHALL INSTALL WEATHERED FITTINGS AS REQUIRED, FOR SERVICE CABLE INSTALLATION THROUGH THE ROOF, USE SERVICE ENTRANCE MAST KITS.
20. THE CONTRACTOR SHALL INSTALL GROUNDING BUSHING AS REQUIRED BY NEC, AS WELL AS FOR THE FOLLOWING CONDITIONS:
    - 20.1. FOR METALLIC RACEWAYS CONTAINING SERVICE CONDUCTORS
    - 20.2. FOR METALLIC RACEWAYS TERMINATED AT NON-METALLIC ENCLOSURES
    - 20.3. FOR METALLIC RACEWAYS TERMINATED ON RING KNOKOUTS REMAINING AND THE CIRCUIT EXCEEDING 250V TO GROUND NOMINAL
    - 20.4. FOR METALLIC RACEWAYS NOT TERMINATED AT ENCLOSURE

INSTRUMENTATION AND CONTROLS:

1. ALL FIELD MOUNTED INDICATING TRANSMITTERS SHALL BE PROVIDED WITH SUN/RAIN HOOD.
2. ALL CONTROL CABINETS INSTALLED OUTDOORS SHALL BE PROVIDED WITH SUN PROTECTING COVER OVER DISPLAYS TO AVOID DETERIORATION FROM UV EXPOSURE.

GROUNDING:

1. MAXIMUM DISTANCE BETWEEN DRIVEN GROUND RODS IS NOT TO EXCEED 50' UNLESS OTHERWISE NOTED.
2. ALL GROUNDING CONDUCTORS TO BE BARE, STRANDED, SOFT DRAWN, COPPER, SIZED AS INDICATED ON THE DESIGN DRAWINGS.
3. MAIN RING GROUND WIRE TO BE MAXIMUM 3' OUTSIDE FOUNDATIONS AND 2'-6" BELOW FINISH GRADE.
4. CONTRACTOR TO DETERMINE ACTUAL LOCATION OF ANY EQUIPMENT UTILIZING BONDS TO GROUNDING TAILS. CONTRACTOR TO LOCATE 1" PVC GROUNDING STUB-UPS IN ACCORDANCE WITH EQUIPMENT VENDOR INFORMATION OR DRAWING REQUIREMENTS.
5. FOR COMPRESSION APPLICATIONS, APPLY A COAT OF "NO-OXIDE" COMPOUND ONTO COPPER CABLE AND COMPRESSION CONNECTORS PRIOR TO CRIMPING CONNECTION OR USE PRE-FILLED CONNECTORS.
6. ALL GROUND CABLES STUBBING UP THROUGH CONCRETE SHALL STUB UP THRU PVC CONDUIT, SIZED PER PLAN DRAWINGS. PVC CONDUIT SHALL EXTEND A MINIMUM OF 6" ABOVE AND 6" BELOW THE CONCRETE.
7. PIGTAILS SHOULD BE INSTALLED THRU 1" PVC CONDUIT, 10' LONG U.N.O.
8. EXOTHERMIC WELDS SHALL BE UTILIZED IN UNDERGROUND INSTALLATIONS ONLY. ALL SUCH WELDS SHALL BE INSPECTED BY THE SITE ENGINEER REPRESENTATIVE PRIOR TO COVER.
9. ALL ABOVE GROUND GROUNDING CONNECTIONS SHALL EMPLOY PROPERLY RATED COMPRESSION CONNECTORS.
10. THE MAIN GROUNDING RING CONDUCTOR SHALL BE RUN AS MECHANICALLY CONTINUOUS AS POSSIBLE WITH A MINIMUM OF CUTS AND SPLICES.

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EDEC, INC.
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LAKESHORE ENGINEERING
1258 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP	DATE	REVISIONS AND RECORD OF USE
A	DV	DV	10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

ELECTRICAL MATERIALS SCHEDULE

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-002

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LIGHTING/POLE SCHEDULE

SYMBOL/TYPE	DESCRIPTION	INSTALLATION ENVIRONMENT	HAZARDOUS AREA	LAMP/VOLTAGE	MOUNTING
B1	EMERGENCY LIGHT/EXIT COMBO FIXTURE COLOR: WHITE ACCESSORIES: INTERNAL BATTERY BASIS OR DESIGN: BRAND: LITHONIA MODEL #: LHQM-LED-R-R0	INDOOR & OUTDOOR; CORROSIVE & NON-CORROSIVE; DRY AND DAMP	N/A	LED 120-277V, 1PH 6WATTS	CEILING/ WALL/ SURFACE
D1	INDUSTRIAL STRIP LIGHT, 4FT ENCLOSURE COLOR: WHITE COLOR TEMPERATURE: 4000K ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #: ZL1N-L48-SMR-5000LM-FST-MVOLT-40K-80CRI-WH	INDOOR; NON-CORROSIVE; DRY	N/A	LED 120-277V, 1PH 34WATTS	CEILING/ SURFACE
D2	INDUSTRIAL STRIP LIGHT, 4FT ENCLOSURE COLOR: WHITE COLOR TEMPERATURE: 4000K ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #: FEM-L48-4000LM-IMACD-WD-MVOLT-40K-80CRI-WLFEND2	INDOOR; CORROSIVE & NON-CORROSIVE; DRY, DAMP AND WET	N/A	LED 120-277V, 1PH 34WATTS	CEILING/ SURFACE
E1	RECESSED CEILING 2' X 4' INDOOR LIGHT FIXTURE COLOR TEMPERATURE: 4000K ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #: 2TL4-46L-RW-A19-D50-LP840-N100	INDOOR; NON-CORROSIVE; DRY	N/A	LED 120-277V, 1PH 50WATTS	CEILING/ RECESSED
E2	RECESSED CEILING 2' X 2' INDOOR LIGHT FIXTURE COLOR TEMPERATURE: 4000K ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #: 2TL2-33L-RW-A19-D38-LP840-N100	INDOOR; NON-CORROSIVE; DRY	N/A	LED 120-277V, 1PH 38WATTS	CEILING/ RECESSED
F1	INDUSTRIAL WALLPACK FIXTURE (ADJUSTABLE LIGHT OUTPUT) ENCLOSURE COLOR: DARK BRONZE COLOR TEMPERATURE: 4000K ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #: #TWPLED-ALO-40K-T3M-MVOLT-DDBXD	INDOOR AND OUTDOOR; CORROSIVE & NON-CORROSIVE; DRY, DAMP AND WET	N/A	LED 120-277V, 1PH 11-48WATTS	WALL/ SURFACE
H2	20FT, 4" DIA. SQUARE STRAIGHT ALUMINUM POLE WITH A SINGLE AREA LIGHT FIXTURE POLE COLOR: DARK BRONZE FIXTURE COLOR: DARK BRONZE COLOR TEMPERATURE: 4000K FIXTURE ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA FIXTURE MODEL #: DSX1LED-P4-40K-70CRI-T2M-MVOLT-SPA5-DDBXD POLE MODEL #: SSA-20-5G-DM19AS-DDBXD	OUTDOOR; CORROSIVE & NON-CORROSIVE; WET	N/A	LED 120-277V, 1PH 125WATTS	POLE
H21	20FT, 4" DIA. SQUARE STRAIGHT ALUMINUM POLE WITH A TWO (@180 DEG.) AREA LIGHT FIXTURES POLE COLOR: DARK BRONZE FIXTURE COLOR: DARK BRONZE COLOR TEMPERATURE: 4000K FIXTURE ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA FIXTURE MODEL #: DSX1LED-P4-40K-70CRI-T2M-MVOLT-SPA5-DDBXD POLE MODEL #: SSA-20-5G-DM28AS-DDBXD	OUTDOOR; CORROSIVE & NON-CORROSIVE; WET	N/A	LED 120-277V, 1PH 125WATTS (EACH)	POLE
I1	STANCHION MOUNTED (25 DEG. ANGLED) LIGHT FIXTURE FIXTURE COLOR: GRAY COLOR TEMPERATURE: 4000K FIXTURE ACCESSORIES: NONE BASIS OR DESIGN: BRAND: CROUSE-HINDS FIXTURE MODEL #: PVML 5 N J R3 UNV1 STANCHION MODEL #: JM5	INDOOR AND OUTDOOR; CORROSIVE & NON-CORROSIVE; DRY, DAMP AND WET	N/A	LED 120-277V, 1PH 67WATTS	STANCHION
IH1	STANCHION MOUNTED (25 DEG. ANGLED) LIGHT FIXTURE FIXTURE COLOR: GRAY COLOR TEMPERATURE: 4000K FIXTURE ACCESSORIES: NONE BASIS OR DESIGN: BRAND: CROUSE-HINDS FIXTURE MODEL #: VMVL 5 N J R3 UNV1 STANCHION MODEL #: JM5	INDOOR AND OUTDOOR; CORROSIVE & NON-CORROSIVE; DRY, DAMP AND WET	CL.1, DIV.2, GR. D CL.2, DIV.2, GR. F, G	LED 120-277V, 1PH 67WATTS	STANCHION
K1	COMMERCIAL DOWNLIGHT FIXTURE COLOR: WHITE COLOR TEMPERATURE: 4000K FIXTURE ACCESSORIES: NONE BASIS OR DESIGN: BRAND: LITHONIA MODEL #:FMML	INDOOR; NON-CORROSIVE; DRY, DAMP AND WET	N/A	LED 120V, 1PH 9.4WATTS	CEILING/ SURFACE

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EDEC, INC.
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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP
A	DV	DV

GMP DEVELOPMENT — 10/01/2024

REVISIONS AND RECORD OF USE — DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

LIGHTING FIXTURES SCHEDULE

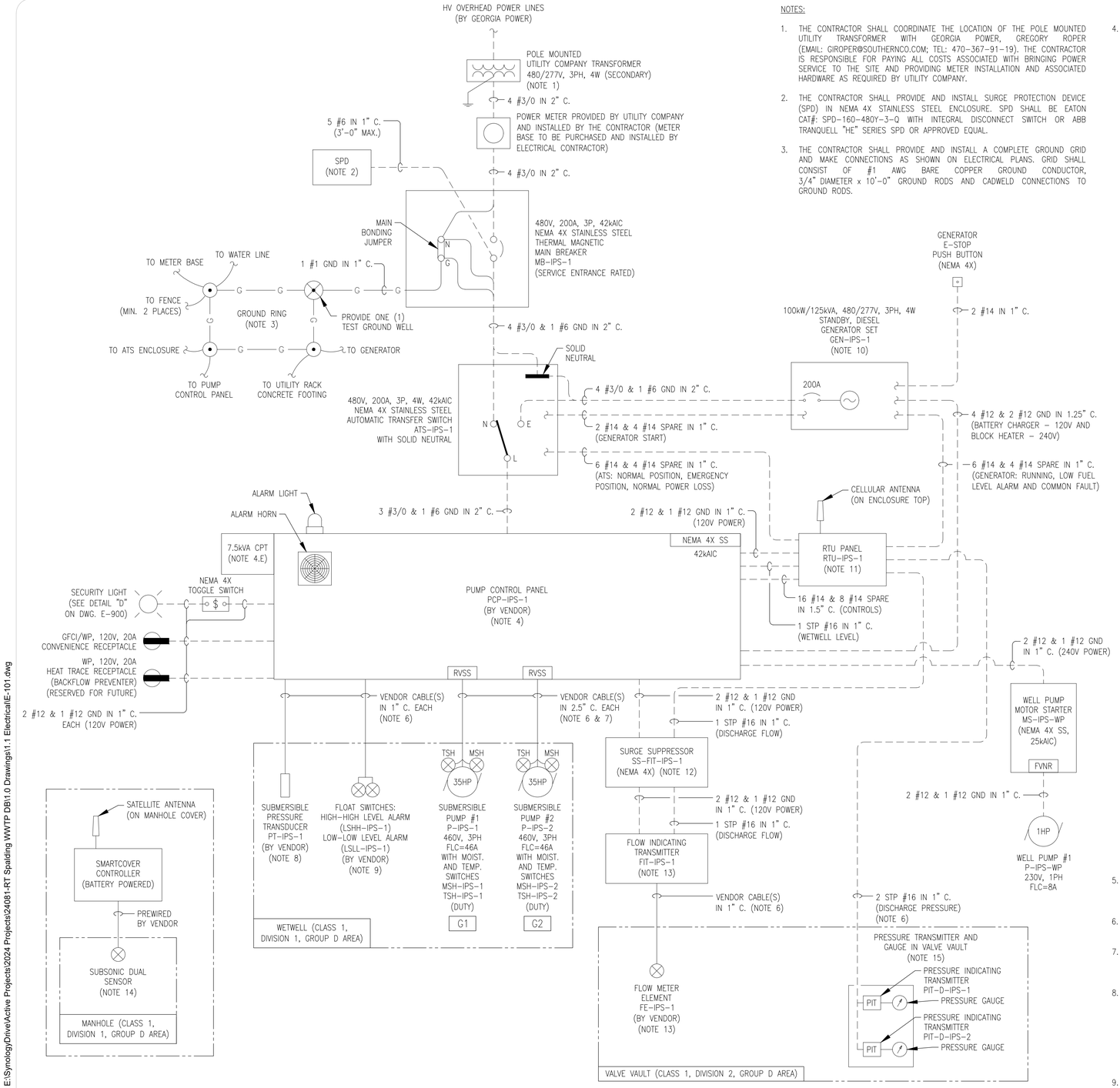
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APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

E-003

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1 IPS - ONE LINE DIAGRAM

LEGEND:

G X - DENOTES EQUIPMENT TO BE BACKED UP BY GENERATOR

GENERATOR STEP NUMBER

GENERATOR LOAD

NOTES:

1. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE POLE MOUNTED UTILITY TRANSFORMER WITH GEORGIA POWER, GREGORY ROPER (EMAIL: GIROPER@SOUTHERNCO.COM; TEL: 470-367-91-19). THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL COSTS ASSOCIATED WITH BRINGING POWER SERVICE TO THE SITE AND PROVIDING METER INSTALLATION AND ASSOCIATED HARDWARE AS REQUIRED BY UTILITY COMPANY.

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTION DEVICE (SPD) IN NEMA 4X STAINLESS STEEL ENCLOSURE. SPD SHALL BE EATON CAT#: SPD-160-480Y-3-Q WITH INTEGRAL DISCONNECT SWITCH OR ABB TRANQUELL "HE" SERIES SPD OR APPROVED EQUAL.

3. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE GROUND GRID AND MAKE CONNECTIONS AS SHOWN ON ELECTRICAL PLANS. GRID SHALL CONSIST OF #1 AWG BARE COPPER GROUND CONDUCTOR, 3/4" DIAMETER x 10'-0" GROUND RODS AND CADWELD CONNECTIONS TO GROUND RODS.

4. THE PUMP VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL THE PUMP STATION CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CONTROL PANEL SCCR SHALL BE 42kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING FREESTANDING NEMA 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, INNER DOORS, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE - THERMAL MAGNETIC CIRCUIT BREAKER 200A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. TWO (2) REDUCED VOLTAGE SOFT STARTERS (RVSS), 480V, 3PH, RATED FOR 35HP MOTORS WITH MOTOR CIRCUIT PROTECTORS.
   - E. 7.5kVA, 480-240/120V CONTROL POWER TRANSFORMER (THE CONTROL PANEL VENDOR SHALL ADJUST THE SIZE TO ACCOMMODATE ALL ASSOCIATED 240/120V LOADS) WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - F. SURGE PROTECTION DEVICE.
   - G. LIGHTNING ARRESTOR.
   - H. PHASE MONITOR TO SENSE LOW VOLTAGE AND LOSS OF PHASE AND POWER.
   - I. ONE (1) INTERNAL GFCI 120V, 20A DUPLEX RECEPTACLE.
   - J. TEN (10) 120V, 20A, 1P CIRCUIT BREAKERS: SECURITY LIGHT, SCADA RTU PANEL, INTERNAL DUPLEX RECEPTACLE, CONVENIENCE RECEPTACLE, GENERATOR BATTERY CHARGER, HEAT TRACE RECEPTACLE FOR BACKFLOW PREVENTER (30mA, EGFP CB), FLOW METER AND THREE (3) SPARE BREAKERS.
   - K. TWO (2) 240V, 20A, 2P CIRCUIT BREAKER FOR GENERATOR BLOCK HEATER & WELL PUMP.
   - L. STRIP HEATER, FAN & THERMOSTAT.
   - M. CONTROLLER - MULTISMART DUPLEX PUMP CONTROLLER BY XYLEM.
   - N. CONTROLLER OIT - MULTISMART OIT.
   - O. PRIMARY LEVEL DEVICE - SUBMERSIBLE PRESSURE TRANSDUCER.
   - P. BACKUP LEVEL DEVICE - TWO (2) FLOAT SWITCHES.
   - Q. SELECTOR SWITCHES:
     - Q.1. H-O-A SWITCH (FOR EACH PUMP).
   - R. PUSH BUTTONS:
     - R.1. PUMP START (FOR EACH PUMP);
     - R.2. PUMP STOP (FOR EACH PUMP);
     - R.3. ALARM SILENCE;
     - R.4. ALARM RESET.
   - S. ANALOG INDICATORS:
     - S.1. WETWELL LEVEL.
   - T. INDICATING LIGHTS:
     - T.1. CONTROL POWER ON (WHITE);
     - T.2. PUMP RUNNING (RED) (FOR EACH PUMP);
     - T.3. PUMP STOPPED (GREEN) (FOR EACH PUMP);
     - T.4. PUMP TEMPERATURE ALARM (AMBER) (FOR EACH PUMP);
     - T.5. PUMP MOISTURE ALARM (AMBER) (FOR EACH PUMP);
     - T.6. RVSS FAULT (AMBER) (FOR EACH PUMP);
     - T.7. WETWELL HIGH-HIGH LEVEL ALARM (AMBER);
     - T.8. WETWELL LOW-LOW LEVEL ALARM (AMBER).
   - U. SIX (6) DIGITS ELAPSED TIME METER (FOR EACH PUMP).
   - V. MOISTURE/TEMPERATURE PROTECTION RELAY (FOR EACH PUMP).
   - W. PHASE CURRENT MONITORING WITH CT's, CONNECTED TO THE CONTROLLER (FOR EACH PUMP).
   - X. 120V, 5A RATED DRY CONTACTS AND SIGNALS PREWIRED TO FIELD TERMINALS:
     - X.1. PHASE LOSS ALARM;
     - X.2. CONTROL POWER ON;
     - X.3. WETWELL HIGH-HIGH LEVEL ALARM;
     - X.4. WETWELL LOW-LOW LEVEL ALARM;
     - X.5. WETWELL LEVEL 4-20mA;
     - X.6. PUMP #1 RUNNING;
     - X.7. PUMP #2 RUNNING;
     - X.8. PUMP #1 COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT);
     - X.9. PUMP #2 COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT),
   - Y. PUMP ALTERNATOR.
   - Z. ALARM LIGHT AND HORN.
   - AA. TIMER RELAY TO PREVENT SIMULTANEOUS PUMPS STARTING, IN "AUTO" MODE.
   - AB. INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WETWELL.
   - AC. PUMPS HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
     - AC.1. PHASE LOSS ALARM;
     - AC.2. LOW-LOW LEVEL CUTOFF;
     - AC.3. COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT).
   - AD. PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

   ALL OPERATOR INTERFACE DEVICES SHALL BE MOUNTED ON THE INNER SWING DOOR. CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

5. THE CONTRACTOR SHALL INSTALL KELLUM GRIPS INSIDE THE WETWELL FOR ALL CABLE/CONDUITS EXITING WETWELL. SEE INSTALLATION DETAIL "B" ON DWG. E-901.

6. SEE DETAIL "A" ON DWG. E-901 FOR INSTALLATION OF CONDUITS COMING FROM CLASSIFIED AREA TO ELECTRICAL EQUIPMENT.

7. THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE 1" CONDUIT FOR MOISTURE/TEMPERATURE SIGNAL CABLES IF IT IS SEPARATE FROM THE POWER CABLE.

8. SUBMERSIBLE PRESSURE TRANSDUCER (FLYGT LTU-801 OR APPROVED EQUAL) SHALL BE PROVIDED BY PUMP VENDOR AND SHALL PROVIDE 4-20mA OUTPUT TO THE PUMP CONTROL PANEL. THE TRANSDUCER SHALL BE RATED FOR CLASS 1, DIVISION 1, GROUP D AREA AND SHALL BE INSTALLED PER DETAIL "D" ON DWG. E-901. THE CABLES PROVIDED WITH THE SUBMERSIBLE PRESSURE TRANSDUCER SHALL BE LONG ENOUGH TO REACH THE PUMP CONTROL PANEL WITHOUT SPLICING. THE CONTRACTOR SHALL PROVIDE SPARE SUBMERSIBLE PRESSURE SENSOR AND TRANSDUCER FOR STORAGE.

9. TWO (2) LEVEL FLOAT SWITCHES (LSHH-IPS-1 AND LSLL-IPS-1) SHALL BE PROVIDED BY PUMP VENDOR AND WIRED TO THE PUMP CONTROL PANEL. THE CONTRACTOR SHALL WIRE HIGH-HIGH LEVEL FLOAT SWITCH (LSHH-IPS-1) TO ACTIVATE ALARM HORN AND STROBE. THE CABLES PROVIDED WITH THE FLOATS SHALL BE LONG ENOUGH TO REACH THE PUMP CONTROL PANEL WITHOUT SPLICING. FLOAT SWITCHES SHALL BE CLASS 1, DIVISION 1, GROUP D AREA RATED AND SHALL BE MERCURY FREE.

10. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE 100kW/125kVA, 480/277V, 3PH STANDBY DIESEL GENERATOR SET. THE GENERATOR SET SHALL INCLUDE: GENERATOR; GENERATOR CONTROL PANEL; MAIN CIRCUIT BREAKER; GENERATOR PAD; 24HR RATED FUEL TANK AND AUTOMATIC TRANSFER SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE. THE CONTRACTOR SHALL INCLUDE A SET OF ALUMINUM STEPS FOR ACCESS IN CASE OF CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE GENERATOR MAIN CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS MORE THAN 6'-7".
    THE GENERATOR HOUSING SHALL BE WEATHERPROOF (73 DBA AT 23'-0"). SEE GENERATOR SPEC 16231 FOR ADDITIONAL INFORMATION. VOLTAGE DIP AND FREQUENCY DIP SHOULD NOT EXCEED 25% AND 10% ACCORDINGLY. THE GENERATOR SUPPLIER SHALL CONFIRM THE GENERATOR CALCULATIONS PRIOR TO BID, BASED ON SPECIFIED LOADS. IF A LARGER GENERATOR IS REQUIRED TO RUN THE LOADS, THEN CONTRACTOR SHALL INCLUDE A LARGER GENERATOR AND UPSIZE CABLES/CONDUITS AS REQUIRED. A LETTER OF GUARANTEE SHALL BE PROVIDED INCLUDING LOAD CALCULATIONS TO VERIFY THE GENERATOR SELECTION. THE CONTRACTOR SHALL VERIFY GENERATOR BREAKER SIZE AND ADJUST CABLE SIZE PER NEC 310.16 AS REQUIRED.
    THE GENERATOR SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
    - GENERATOR RUNNING;
    - GENERATOR LOW FUEL LEVEL ALARM;
    - GENERATOR COMMON FAULT.

    AUTOMATIC TRANSFER SWITCH SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
    - ATS IN NORMAL POSITION;
    - ATS IN EMERGENCY POSITION;
    - ATS NORMAL POWER LOSS.

    GENERATOR STEPS:
    STEP 1:
    - 7.5kVA MISCELLANEOUS LOADS;
    - ONE (1) 35HP PUMP #1 (RVSS).

    STEP 2:
    - ONE (1) 35HP PUMP #2 (RVSS).

    THE CONTRACTOR SHALL COORDINATE THE EQUIPMENT STARTING SEQUENCE AND DELAYS WITH THE SYSTEM INTEGRATOR AND EQUIPMENT SUPPLIERS (SUPPLYING PLC CONTROL PANELS) TO ENSURE PROPER LOAD STAGGERING DURING POWER OUTAGE AND GENERATOR OPERATION.

11. THE CONTRACTOR SHALL PROVIDE AND INSTALL PACKAGED REMOTE TELEMETRY UNIT AS SHOWN ON THE DESIGN DRAWINGS FOR I/O's MONITORING AND CONTROLS AS DESCRIBED BELOW:
    - A. BRAND: MISSION COMMUNICATIONS.
    - B. MODEL: MYDRO 850.
    - C. MEANS OF COMMUNICATION: WIRELESS, CELLULAR (IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TYPES OF CELLULAR TRANSCEIVER WHICH WILL PROVIDE THE MOST RELIABLE CONNECTION).
    - D. ENCLOSURE: NEMA 4X STAINLESS STEEL.
    - E. INCLUDE ALL THE REQUIRED ACCESSORIES, SUCH AS GSM ANTENNA, ANTENNA CABLES, TERMINALS, ETC. AS NEEDED FOR COMPLETE AND OPERATIONAL SYSTEM.

    INCLUDE I/O's EXPANSION MODULES AS NEEDED TO ACCOMMODATE I/O's AS LISTED BELOW:
    - A. DIGITAL INPUTS:
      - A.1. PHASE LOSS ALARM - FROM PCP-IPS-1;
      - A.2. CONTROL POWER ON - FROM PCP-IPS-1;
      - A.3. WETWELL HIGH-HIGH LEVEL ALARM - FROM PCP-IPS-1;
      - A.4. WETWELL LOW-LOW LEVEL ALARM - FROM PCP-IPS-1;
      - A.5. PUMP #1 RUNNING - FROM PCP-IPS-1;
      - A.6. PUMP #2 RUNNING - FROM PCP-IPS-1;
      - A.7. PUMP #1 COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT) - FROM PCP-IPS-1;
      - A.8. PUMP #2 COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT) - FROM PCP-IPS-1;
      - A.9. ATS IN NORMAL POSITION - FROM ATS-IPS-1;
      - A.10. ATS IN EMERGENCY POSITION - FROM ATS-IPS-1;
      - A.11. ATS IN NORMAL POWER LOSS - FROM ATS-IPS-1;
      - A.12. GENERATOR RUNNING - FROM GEN-IPS-1;
      - A.13. GENERATOR LOW FUEL LEVEL ALARM - FROM GEN-IPS-1;
      - A.14. GENERATOR COMMON FAULT - FROM GEN-IPS-1.
    - B. ANALOG INPUTS:
      - B.1. WETWELL LEVEL 4-20mA - FROM PCP-IPS-1;
      - B.2. DISCHARGE FLOW 4-20mA - FROM FIT-IPS-1;
      - B.3. PUMP #1 DISCHARGE PRESSURE - FROM PIT-D-IPS-1;
      - B.4. PUMP #2 DISCHARGE PRESSURE - FROM PIT-D-IPS-2.

    THE CONTRACTOR SHALL CONTACT JASON BOTT WITH KAZMIER & ASSOCIATES (EMAIL: JASON@KAZMIERINC.COM; TEL.: 770-475-2242 EXT. 112) TO DETERMINE THE SPECIFIC REQUIREMENTS TO BE USED FOR THIS PROJECT. INCLUDE ALL ASSOCIATED PROGRAMMING, FACTORY TESTING AND OPERATORS TRAINING AND START-UP ASSISTANCE AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM INCLUDING MODIFICATIONS AS NEEDED AT THE COUNTY'S MASTER SCADA AT WWTP.

12. THE CONTRACTOR SHALL PROVIDE AND INSTALL POWER AND SIGNAL COMBINATION SURGE SUPPRESSOR (120V & 4-20mA) IN NEMA 4X ENCLOSURE. THE SURGE SUPPRESSOR SHALL BE BY PHOENIX CONTACT OR APPROVED EQUAL.

13. THE CONTRACTOR SHALL PROVIDE AND INSTALL MAGNETIC TYPE FLOW INDICATING TRANSMITTER AND SENSOR SYSTEM. THE SENSOR SHALL HAVE NEMA 6P ENCLOSURE AND FLOW INDICATING TRANSMITTER SHALL HAVE NEMA 4X ENCLOSURE. FLOW METER SYSTEMS SHALL BE CLASS 1, DIVISION 2, GROUP D AREA RATED AND SHALL BE BY EDRESS-HAUSER OR APPROVED EQUAL. SEE DETAIL "C" ON DWG. E-901 FOR ADDITIONAL INFORMATION.

14. THE CONTRACTOR SHALL PROVIDE AND INSTALL ONE (1) SUBSONIC DUAL SENSOR WITH CONTROLLER BY SMARTCOVER, EACH EQUIPPED WITH A SATELLITE ANTENNA AND INTERNAL BATTERY. THE SENSORS SHALL INTERFACE WITH THE WWTP SCADA SYSTEM. SYSTEM INTEGRATOR SHALL INCLUDE ALL THE REQUIRED PROGRAMMING AND HMI SCREENS GRAPHICS TO DEPICT THE ASSOCIATED I/O's.

15. THE CONTRACTOR SHALL PROVIDE AND INSTALL A PRESSURE INDICATING TRANSMITTER AND PRESSURE GAUGE FOR EACH PUMP IN NEMA 6P ENCLOSURE MEASURING PUMPS DISCHARGE PRESSURE IN VALVE VAULT. PRESSURE TRANSMITTER SHALL BE BY ROSEMOUNT OR APPROVED EQUAL. SEE DETAIL "F" ON DWG. E-900 FOR ADDITIONAL INFORMATION.

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

0 1/2 1

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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	DV	CHK/APP
A	DV		

GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

DATE
10/01/2024

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

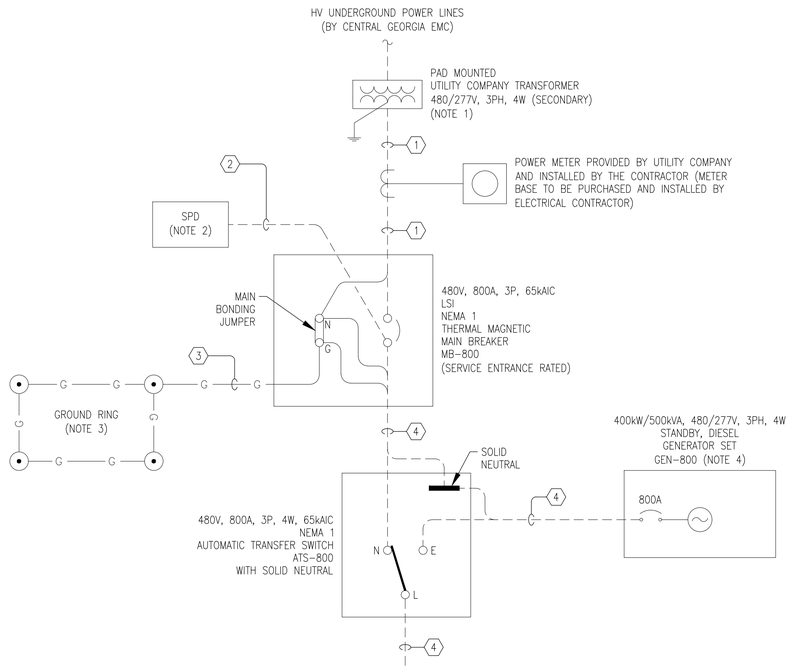
IPS - ONE LINE DIAGRAM

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

E-101
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OF

FD10000
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CONDUCTOR/CONDUIT SCHEDULE
1 2 RUNS OF 4 600KCMIL IN 4" C. EACH
2 5 #6 IN 1" C. (3'-0" MAX.)
3 1 #3/0 GND IN 1" C.
4 2 RUNS OF 4 600KCMIL & 1 #1/0 GND IN 4" C. EACH
5 3 #6 & 1 #10 GND IN 1" C.
6 3 #12 & 1 #12 GND IN 1" C.
7 3 #6 & 1 #10 GND IN 0.75" C.
8 3 #6 & 1 #10 GND IN 1.5" C. (VFD SHIELDED)
9 VENDOR CABLE(S) IN 1.5" C.
10 1 #6 GND IN 1" C.
11 4 #1 & 1 #8 GND IN 1.5" C.
12 1 #2 GND IN 1" C.
13 4 250KCMIL & 1 #4 IN 2.5" C.
14 PREWIRED BY VENDOR
15 3 #10 & 1 #10 GND IN 1" C.
16 3 #6 & 1 #10 GND IN 1" C.
17 3 #1/0 & 1 #6 GND IN 1.5" C.

NOTES:

1. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE PAD MOUNTED UTILITY TRANSFORMER WITH CENTRAL GEORGIA EMC, BRANDON STOOKSBURY (EMAIL: BSTOOKSBURY@CGEMC.COM; TEL: 770-504-78-88). THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL COSTS ASSOCIATED WITH BRINGING POWER SERVICE TO THE SITE AND PROVIDING METER INSTALLATION AND ASSOCIATED HARDWARE AS REQUIRED BY UTILITY COMPANY.

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL SURGE PROTECTION DEVICE (SPD) IN NEMA 1 STAINLESS STEEL ENCLOSURE. SPD SHALL BE EATON CAT#: SPD-160-480Y-3-M WITH INTEGRAL DISCONNECT SWITCH OR ABB TRANQUELL HE SERIES SPD OR APPROVED EQUAL.

3. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE GROUND GRID AND MAKE CONNECTIONS AS SHOWN ON ELECTRICAL PLANS. GRID SHALL CONSIST OF #3/0 AWG BARE COPPER GROUND CONDUCTOR, 3/4" DIAMETER x 10'-0" GROUND RODS AND CADWELD CONNECTIONS TO GROUND RODS.

4. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE 400kW/500kVA, 480/277V, 3PH STANDBY DIESEL GENERATOR SET. THE GENERATOR SET SHALL INCLUDE: GENERATOR; GENERATOR CONTROL PANEL; MAIN CIRCUIT BREAKER; GENERATOR PAD; 24HR RATED FUEL TANK AND AUTOMATIC TRANSFER SWITCH IN NEMA 1 ENCLOSURE. THE CONTRACTOR SHALL INCLUDE A SET OF ALUMINUM STEPS FOR ACCESS IN CASE OF CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE GENERATOR MAIN CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS MORE THAN 6'-7".
THE GENERATOR HOUSING SHALL BE WEATHERPROOF (73 DBA AT 23'-0"). SEE GENERATOR SPEC 16231 FOR ADDITIONAL INFORMATION. VOLTAGE DIP AND FREQUENCY DIP SHOULD NOT EXCEED 25% AND 10% ACCORDINGLY. THE GENERATOR SUPPLIER SHALL CONFIRM THE GENERATOR CALCULATIONS PRIOR TO BID, BASED ON SPECIFIED LOADS. IF A LARGER GENERATOR IS REQUIRED TO RUN THE LOADS, THEN CONTRACTOR SHALL INCLUDE A LARGER GENERATOR AND UPSIZE CABLES/CONDUITS AS REQUIRED. A LETTER OF GUARANTEE SHALL BE PROVIDED INCLUDING LOAD CALCULATIONS TO VERIFY THE GENERATOR SELECTION. THE CONTRACTOR SHALL VERIFY GENERATOR BREAKER SIZE AND ADJUST CABLE SIZE PER NEC 310.16 AS REQUIRED.
THE GENERATOR SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
- GENERATOR RUNNING;
- GENERATOR LOW FUEL LEVEL ALARM;
- GENERATOR COMMON FAULT.

AUTOMATIC TRANSFER SWITCH SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
- ATS IN NORMAL POSITION;
- ATS IN EMERGENCY POSITION;
- ATS NORMAL POWER LOSS.

GENERATOR STEPS:
STEP 1:
- 75kVA 480-208/120V, 3PH, 4W DRY-TYPE TRANSFORMER;
- 30kVA 480-208/120V, 3PH, 4W DRY-TYPE TRANSFORMER;
- ONE (1) 15kW INSTANTANEOUS WATER HEATER;
- 36A MISCELLANEOUS LOADS.

STEP 2:
- ONE (1) 25HP AERATION BLOWER (VFD).

STEP 3:
- ONE (1) 25HP AERATION BLOWER (VFD).

STEP 4:
- ONE (1) 25HP AERATION BLOWER (VFD).

STEP 5:
- ONE (1) 2HP AUGER MOTOR (FVR);
- ONE (1) 5HP SLUDGE FEED PUMP;
- ONE (1) 3HP ROTARY PRESS DRIVE;
- ONE (1) 1HP FLOCCULATOR DRIVE.

STEP 6:
- ONE (1) 5HP AIR COMPRESSOR MOTOR (FVNR).

STEP 7:
- ONE (1) 5HP WELL PUMP (FVNR).

STEP 8:
- ONE (1) 25HP AERATION BLOWER (VFD) - FUTURE.

STEP 9:
- ONE (1) 25HP AERATION BLOWER (VFD) - FUTURE.

STEP 10:
- ONE (1) 25HP AERATION BLOWER (VFD) - FUTURE.

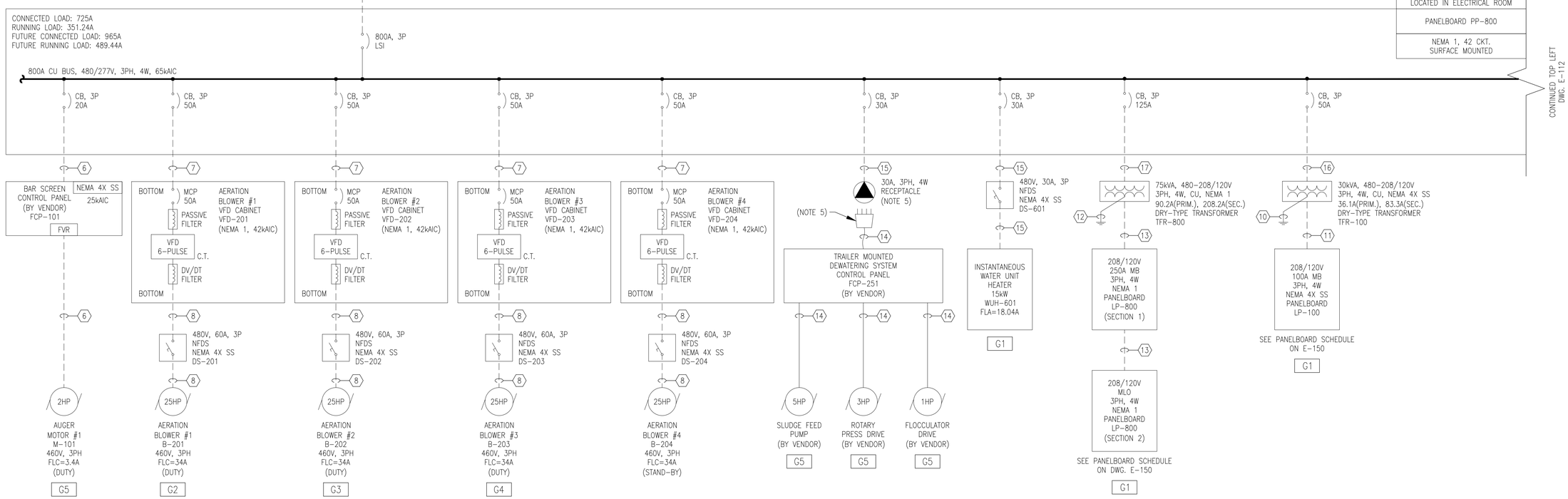
STEP 11:
- TWO (2) 0.5HP CLARIFIER MOTORS (FVNR);
- TWO (2) 0.5HP CLARIFIER MOTORS (FVNR)- FUTURE;
- TWO (2) 2HP PLANT DRAIN SUBMERSIBLE PUMPS (FVNR);
- TWO (2) 2HP PLANT SEWER SUBMERSIBLE PUMPS (FVNR).

STEP 12:
- ONE (1) 7.5HP REUSE WATER BOOSTER PUMP.

THE CONTRACTOR SHALL COORDINATE THE EQUIPMENT STARTING SEQUENCE AND DELAYS WITH THE SYSTEM INTEGRATOR AND EQUIPMENT SUPPLIERS (SUPPLYING PLC CONTROL PANELS) TO ENSURE PROPER LOAD STAGGERING DURING POWER OUTAGE AND GENERATOR OPERATION.

5. THE CONTRACTOR SHALL PROVIDE AND INSTALL INDUSTRIAL TYPE RECEPTACLE FOR CONNECTION OF TRAILER MOUNTED DEWATERING EQUIPMENT TO 480V, 3PH, POWER SOURCE. THE CONTRACTOR SHALL COORDINATE THE ACTUAL RECEPTACLE TYPE AND MODEL WITH THE DEWATERING EQUIPMENT MANUFACTURER..

6. THE VFD MANUFACTURER SHALL PERFORM A HARMONICS ANALYSIS BASED ON THE PROPOSED VARIABLE FREQUENCY DRIVE FOR THE APPLICATION AND PROVIDE THE REQUIRED HARMONICS MITIGATION MEANS TO MEET IEEE519 REQUIREMENTS. THE ACTIVE HARMONICS FILTER SHALL BE SIZED TO ACCOUNT FOR FUTURE BLOWER VFD'S TO BE ADDED WITH THE PLANT EXPANSION.



1 WWTP - ONE LINE DIAGRAM

LEGEND:
C.T. - VFD - CONSTANT TORQUE VFD
V.T. - VFD - VARIABLE TORQUE VFD
G X - DENOTES EQUIPMENT TO BE BACKED UP BY GENERATOR
GENERATOR STEP NUMBER
GENERATOR LOAD

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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A	DV	DV	10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

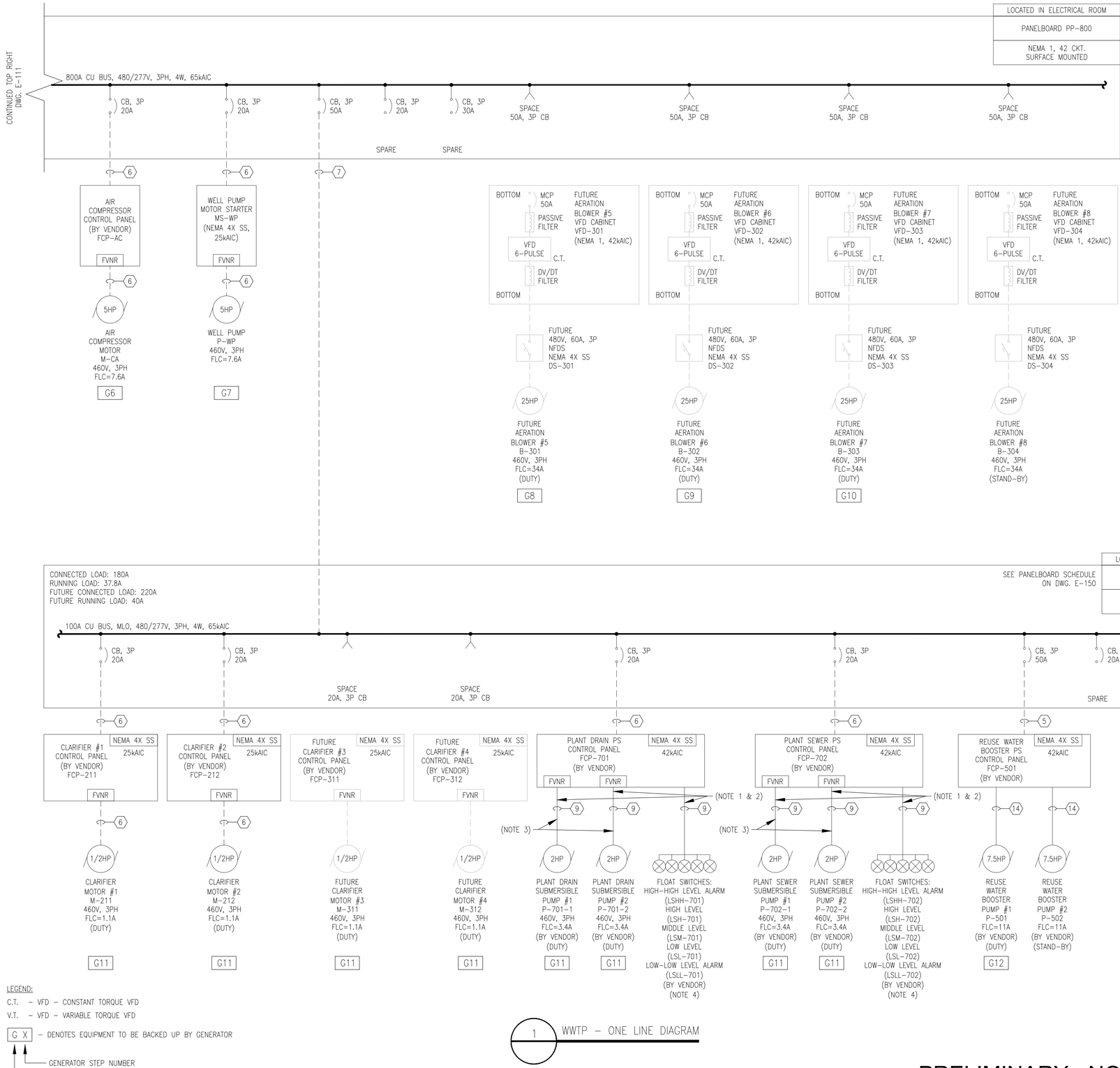
WWTP - ONE LINE DIAGRAM

DESIGNED: DV
DETAILED: DV
CHECKED: DV
APPROVED: DV
DATE: AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

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1 WWTP – ONE LINE DIAGRAM

NOTES:

1. THE CONTRACTOR SHALL INSTALL KELLUM GRIPS INSIDE THE WETWELL FOR ALL CABLE/CONDUITS EXITING WETWELL. SEE INSTALLATION DETAIL "B" ON DWG. E-901.
2. SEE DETAIL "A" ON DWG. E-901 FOR INSTALLATION OF CONDUITS COMING FROM THE WETWELL TO THE PUMP CONTROL PANEL.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL A SEPARATE 1" CONDUIT FOR MOISTURE/TEMPERATURE SIGNAL CABLES IF IT IS SEPARATE FROM THE POWER CABLE.
4. FIVE (5) LEVEL FLOAT SWITCHES SHALL BE PROVIDED BY PUMP VENDOR AND WIRED TO THE PUMP CONTROL PANEL. THE CONTRACTOR SHALL WIRE HIGH-HIGH LEVEL FLOAT SWITCH TO ACTIVATE ALARM HORN AND STROBE. THE CABLES PROVIDED WITH THE FLOATS SHALL BE LONG ENOUGH TO REACH THE PUMP CONTROL PANEL WITHOUT SPLICING. FLOAT SWITCHES SHALL BE CLASS 1, DIVISION 1, GROUP D AREA RATED AND SHALL BE MERCURY FREE.

CONDUCTOR/CONDUIT SCHEDULE	
1	2 RUNS OF 4 600KCMIL IN 4" C. EACH
2	5 #6 IN 1" C. (3'-0" MAX.)
3	1 #3/0 GND IN 1" C.
4	2 RUNS OF 4 600KCMIL & 1 #1/0 GND IN 4" C. EACH
5	3 #6 & 1 #10 GND IN 1" C.
6	3 #12 & 1 #12 GND IN 1" C.
7	3 #6 & 1 #10 GND IN 0.75" C.
8	3 #6 & 1 #10 GND IN 1.5" C. (VFD SHIELDED)
9	VENDOR CABLE(S) IN 1.5" C.
10	1 #6 GND IN 1" C.
11	4 #1 & 1 #8 GND IN 1.5" C.
12	1 #2 GND IN 1" C.
13	4 250KCMIL & 1 #4 IN 2.5" C.
14	PREWIRED BY VENDOR
15	3 #10 & 1 #10 GND IN 1" C.
16	3 #6 & 1 #10 GND IN 1" C.
17	3 #1/0 & 1 #6 GND IN 1.5" C.

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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE ATLANTA, GA 30319 LAKESHOREENGINEERING.COM
RIVER TO TAP
1841 PEELER RD. UNIT C ATLANTA, GA 30338 WWW.R2TINC.COM

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A	DV		10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

WWTP - ONE LINE DIAGRAM

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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PANELBOARD LP-800 (SECTION 1) (LOCATED IN ELECTRICAL ROOM)

VOLTAGE (L-N):	120V	ENCLOSURE TYPE:	NEMA 1
VOLTAGE (L-L):	208V	MOUNTING:	SURFACE
PHASE, WIRES:	3 ϕ, 4 W	AIC RATING (A):	10,000 AIC
MINIMUM BUS CAPACITY (A):	250A	NOTES:	
MAIN O.C. DEVICE (A):	250A, 3P MAIN BREAKER		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		B		C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	SCADA CONTROL PANEL (LCP-M)	20	1	4.3	1.5					1	20	WELL PUMP RECEPTACLE	2
3	LIGHTING CONTACTOR (LC-801)	20	1			1.0	10.0			2	20	GENERATOR BLOCK HEATER	4
5	GENERATOR BATTERY CHARGER	20	1					5.0	10.0	↓	↓	↓	6
7	ELECTRICAL ROOM AC #1 (OHP-801)	30	2	20.0	20.0					2	30	ELECTRICAL ROOM AC #1 (OHP-802)	8
9	↓	↓	↓			20.0	20.0			↓	↓	↓	10
11	LOCKER ROOM AC	20	2					15.0	20.0	2	30	LABORATORY ROOM AC	12
13	↓	↓	↓	15.0	20.0					↓	↓	↓	14
15	LOCKER ROOM FAN	20	1			1.5	7.2			2	20	RESTROOM HEATER	16
17	RESTROOM FAN	20	1					1.5	7.2	↓	↓	↓	18
19	SPARE	20	2	0.0	0.0							SPACE	20
21	↓	↓	↓			0.0	10.0			1	20	CHEMICAL PUMP SKID #3 CP (FCP-603)	22
23	CHEMICAL ROOM #1 LIGHT	20	1					2.0	10.0	1	20	CHEMICAL PUMP SKID #1 CP (FCP-601)	24
25	CHEMICAL ROOM #1 RECEPTACLE	20	1	4.5	2.0					1	20	CHEMICAL ROOM #2 LIGHT	26
27	ELECTRICAL ROOM LIGHT	20	1			2.0	4.5			1	20	CHEMICAL ROOM #2 RECEPTACLE	28
29	ELECTRICAL ROOM RECEPTACLE	20	1					6.0	10.0	1	20	CHEMICAL PUMP SKID #2 CP (FCP-602)	30
31	RESTROOM LIGHT	20	1	4.0	6.0					1	20	LOCKER ROOM RECEPTACLE	32
33	RESTROOM RECEPTACLE	20	1			1.5	3.0			1	20	EQUIPMENT ROOM LIGHT	34
35	OPERATIONS BUILDING EXTERIOR LIGHT	20	1					2.0	3.0	1	20	EQUIPMENT ROOM RECEPTACLE	36
37	EQUIPMENT ROOM RECEPTACLE COUNTER	20	1	3.0	2.0					1	20	ENTRANCE GATE CONTROLS	38
39	EQUIPMENT ROOM COMPUTER RECEPTACLE	20	1			3.0	2.0			1	20	LOCKER ROOM LIGHT	40
41	SPACE							0.0	0.0			SPACE	42
	CONNECTED LOAD PHASE TOTALS (AMP)			102.3		85.7		91.7					
	TOTAL (SEC. 1 & 2) (AMP)			104.3		85.7		93.7					

USE THE FOLLOWING CONDUCTORS FOR PANELBOARD CIRCUITS:
20A – #12AWG; 30A – #10AWG; 40A – #8AWG; 50A – #6AWG; 60A – #4AWG

1 LP-800 (SECTION 1) – PANELBOARD SCHEDULE

PANELBOARD LP-800 (SECTION 2) (LOCATED IN ELECTRICAL ROOM)

VOLTAGE (L-N):	120V	ENCLOSURE TYPE:	NEMA 1
VOLTAGE (L-L):	208V	MOUNTING:	SURFACE
PHASE, WIRES:	3 ϕ, 4 W	AIC RATING (A):	10,000 AIC
MINIMUM BUS CAPACITY (A):	250A	NOTES:	
MAIN O.C. DEVICE (A):	MAIN LUGS ONLY		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		B		C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
43	EMER. SHOWER ALARM PANEL (FCP-602)	20	1	0.0	0.0					1	20	NETWORK CABINET (RACK)	44
45	SPARE	20	1			0.0	0.0			1	20	NETWORK CABINET (RACK)	46
47	EFFLUENT SAMPLER (S-401)	20	1					2.0	0.0	1	20	SPARE	48
49	LIGHTING POLES	20	1	2.0	0.0					1	20	SPARE	50
51	SPARE	20	1			0.0	0.0			1	20	SPARE	52
53	SPARE	20	1					0.0	0.0			SPACE	54
55	SPACE			0.0	0.0							SPACE	56
57	SPACE					0.0	0.0					SPACE	58
59	SPACE							0.0	0.0			SPACE	60
61	SPACE			0.0	0.0							SPACE	62
63	SPACE					0.0	0.0					SPACE	64
65	SPACE							0.0	0.0			SPACE	66
67	SPACE			0.0	0.0							SPACE	68
69	SPACE					0.0	0.0					SPACE	70
71	SPACE							0.0	0.0			SPACE	72
73	SPACE			0.0	0.0							SPACE	74
75	SPACE					0.0	0.0					SPACE	76
77	SPACE							0.0	0.0			SPACE	78
79	SPACE			0.0	0.0							SPACE	80
81	SPACE					0.0	0.0					SPACE	82
83	SPACE							0.0	0.0			SPACE	84
	CONNECTED LOAD PHASE TOTALS (AMP)			2.0		0.0		2.0					

USE THE FOLLOWING CONDUCTORS FOR PANELBOARD CIRCUITS:
20A – #12AWG; 30A – #10AWG; 40A – #8AWG; 50A – #6AWG; 60A – #4AWG

2 LP-800 (SECTION 2) – PANELBOARD SCHEDULE

PANELBOARD PP-810 (LOCATED IN ELECTRICAL ROOM)

VOLTAGE (L-N):	277V	ENCLOSURE TYPE:	NEMA 1
VOLTAGE (L-L):	480V	MOUNTING:	SURFACE
PHASE, WIRES:	3 ϕ, 4 W	AIC RATING (A):	65,000 AIC
MINIMUM BUS CAPACITY (A):	100A	NOTES:	
MAIN O.C. DEVICE (A):	MAIN LUGS ONLY		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		B		C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	SPARE	20	3	0.0	0.0					3	20	SPARE	2
3	↓	↓	↓			0.0	0.0			↓	↓	↓	4
5	↓	↓	↓					0.0	0.0	↓	↓	↓	6
7	CLARIFIER #1 CP (FCP-211)	20	3	1.1	1.1					3	20	CLARIFIER #2 CP (FCP-212)	8
9	↓	↓	↓			1.1	1.1			↓	↓	↓	10
11	↓	↓	↓					1.1	1.1	↓	↓	↓	12
13	FUTURE CLARIFIER #3 CP (FCP-311)	20	3	1.1	1.1					3	20	FUTURE CLARIFIER #4 CP (FCP-312)	14
15	↓	↓	↓			1.1	1.1			↓	↓	↓	16
17	↓	↓	↓					1.1	1.1	↓	↓	↓	18
19	SPARE	20	3	0.0	0.0					3	20	SPARE	20
21	↓	↓	↓			0.0	0.0			↓	↓	↓	22
23	↓	↓	↓					0.0	0.0	↓	↓	↓	24
25	PLANT DRAIN PS CP (FCP-701)	20	3	7.8	23.0					3	50	REUSE WATER BOOSTER PS CP (FCP-501)	26
27	↓	↓	↓			7.8	23.0			↓	↓	↓	28
29	↓	↓	↓					7.8	23.0	↓	↓	↓	30
31	AIR COMPRESSOR CONTROL PANEL (FCP-AC)	20	3	7.6	0.0					3	20	SPARE	32
33	↓	↓	↓			7.6	0.0			↓	↓	↓	34
35	↓	↓	↓					7.6	0.0	↓	↓	↓	36
37	PLANT SEWER PS CP (FCP-702)	20	3	7.8	1.8					1	20	LIGHTING POLES	38
39	↓	↓	↓			7.8	0.0					SPACE	40
41	↓	↓	↓					7.8	0.0			SPACE	42
	CONNECTED LOAD PHASE TOTALS (AMP)			52.4		50.6		50.6					

USE THE FOLLOWING CONDUCTORS FOR PANELBOARD CIRCUITS:
20A – #12AWG; 30A – #10AWG; 40A – #8AWG; 50A – #6AWG; 60A – #4AWG

3 PP-810 – PANELBOARD SCHEDULE

PANELBOARD LP-100 (LOCATED IN HEADWORKS AREA)

VOLTAGE (L-N):	120V	ENCLOSURE TYPE:	NEMA 4X SS
VOLTAGE (L-L):	208V	MOUNTING:	SURFACE
PHASE, WIRES:	3 ϕ, 4 W	AIC RATING (A):	25,000 AIC
MINIMUM BUS CAPACITY (A):	100A	NOTES:	
MAIN O.C. DEVICE (A):	100A, 3P MAIN BREAKER		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		B		C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	SPARE	20	1	0.0	2.0					1	20	STANCHION LIGHT	2
3	RECEPTACLES	20	1			4.5	4.5			1	20	RECEPTACLES	4
5	INFLUENT FLOW METER (FIT-101)	20	1					1.5	1.5	1	20	REMOTE I/O CABINET (RIO-101)	6
7	INFLUENT CHANNEL pH PROBE (AIT-101)	20	1	1.5	0.0					1	20 (*)	HEADWORKS HEAT TRACING	8
9	INFLUENT SAMPLER (S-101)	20	1			2.0	0.0					SPACE	10
11	AERATION BASIN #1 SENSORS	20	1					2.0	2.0	1	20	DIGESTER BASIN #1 SENSORS	12
13	AERATION BASIN #2 SENSORS	20	1	2.0	2.0					1	20	DIGESTER BASIN #2 SENSORS	14
15	AERATION BASIN #3 SENSORS	20	1			2.0	1.5			1	20	WAS FLOW METER	16
17	RAS FLOW METER	20	1					1.5	1.5	1	20	ORP PROBE TRANSMITTER (AIT-402)	18
19	CHLORINE ANALYZER #1 (AIT-401)	20	1	2.0	2.0					1	20	CHLORINE ANALYZER #2 (AIT-403)	20
21	BLOWERS COMMON HEADER PRESSURE TRANSMITTER (PIT-201)	20	1			1.0	0.0			1	20	EFFLUENT FLOW METER (FIT-401)	22
23	RESIDUAL CHLORINE INDICATING TRANSMITTER (AIT-403)	20	1					1.0	1.0	1	20	ORP INDICATING TRANSMITTER (AIT-402)	24
25	CHLORINE ANALYZER INDICATING TRANSMITTER (AIT-401)	20	1	1.0	1.0					1	20	PLANT EFFLUENT FLOW INDICATING TRANSMITTER (FIT-401)	26
27	SPACE					0.0	0.0			1	20	SPARE	28
29	SPACE							0.0	0.0			SPACE	30
31	SPACE			0.0	0.0							SPACE	32
33	SPACE					0.0	0.0					SPACE	34
35	SPACE							0.0	0.0			SPACE	36
37	SPACE			0.0	0.0							SPACE	38
39	SPACE					0.0	0.0					SPACE	40
41	SPACE							0.0	0.0			SPACE	42
	CONNECTED LOAD PHASE TOTALS (AMP)			13.5		15.5		12.0					

USE THE FOLLOWING CONDUCTORS FOR PANELBOARD CIRCUITS:
20A – #12AWG; 30A – #10AWG; 40A – #8AWG; 50A – #6AWG; 60A – #4AWG

(*) – 30mA, EGFP CIRCUIT BREAKER

4 LP-100 – PANELBOARD SCHEDULE

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK	APP	DATE	REVISIONS AND RECORD OF USE
A	DV			10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

PANELBOARD SCHEDULES

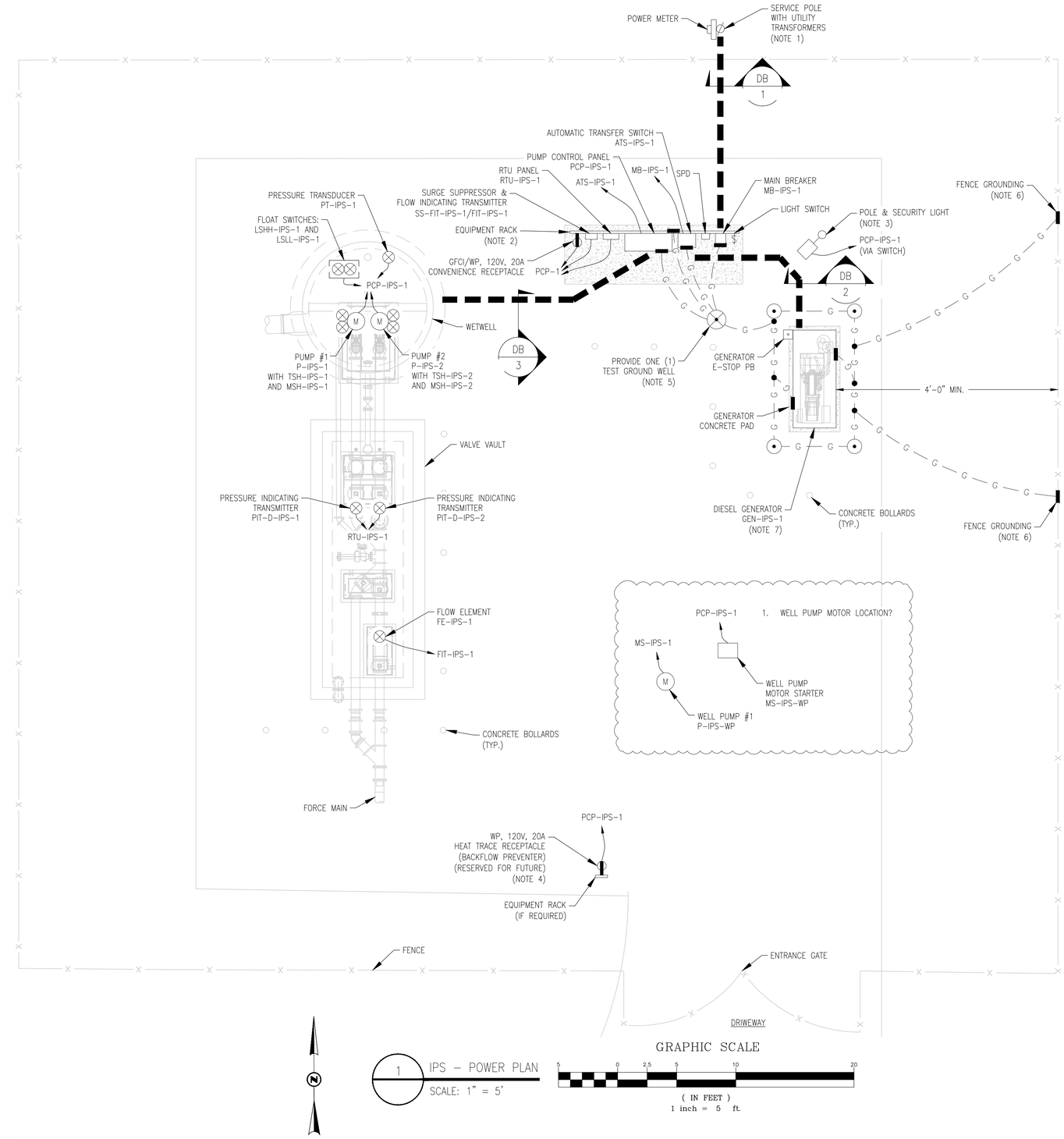
DESIGNED: DV
DETAILED: DV
CHECKED: DV
APPROVED: DV
DATE: AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

E-150
SHEET
OF

FD10000
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1 IPS – POWER PLAN

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)

1 inch = 5 ft.

LEGEND:

– DIRECT BURIED UNDERGROUND DUCTBANK

C – CONCRETE ENCASED UNDERGROUND DUCTBANK

RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

NOTES:

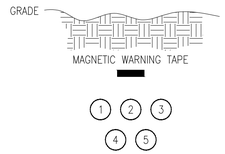
1. THE CONTRACTOR SHALL COORDINATE ACTUAL UTILITY TRANSFORMER LOCATION IN THE FIELD AND ADJUST SECONDARY CABLES/CONDUITS ROUTING ACCORDINGLY. UTILITY COMPANY SHALL PROVIDE AND INSTALL HIGH VOLTAGE PRIMARIES FROM POINT OF SERVICE TO NEW TRANSFORMER.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS. 8" CONCRETE PAD SHALL BE UNDER ELECTRICAL EQUIPMENT AND SHALL EXTEND 3'-0" IN FRONT OF THE EQUIPMENT.
3. THE CONTRACTOR SHALL PROVIDE AND INSTALL SITE LIGHTING POLE AND LIGHT FIXTURE. SEE DETAILS "D" AND "E" ON DWG. E-900 FOR INSTALLATION DETAILS.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL 120V, 20A RECEPTACLE IN A WEATHER PROOF ENCLOSURE. ADJUST RECEPTACLE LOCATION AS REQUIRED IN THE FIELD BASED ON THE ACTUAL LOCATION OF THE ASSOCIATED EQUIPMENT.
5. THE CONTRACTOR SHALL PROVIDE A GROUND GRID CONSISTING OF 3/4" DIAMETER x 10'-0" LONG COPPER CLAD GROUND RODS. THE RODS SHALL BE DRIVEN IN GROUND CONNECTED TOGETHER WITH #1 AWG BARE STRANDED COPPER CONDUCTORS. PROVIDE A GROUND WELL FOR ONE ROD. SEE DETAIL "E" AND "F" ON DWG. E-901 FOR GROUND WELL INSTALLATION DETAILS.
6. THE CONTRACTOR SHALL GROUND FENCE AT TWO (2) PLACES AS REQUIRED BY NEC ARTICLE 250.194.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL STAND-BY GENERATOR IN LOCATION AS SHOWN AND WITH THE REQUIRED WORKING CLEARANCES. REFER TO ONE LINE DIAGRAM ON DWG. E-101 FOR FURTHER REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE GENERATOR PAD AS PER DETAIL "G" ON DWG. E-901.
8. ONLY MAJOR UNDERGROUND CONDUITS ARE SHOWN FOR CLARITY. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES. SEE DETAILS "B" AND "C" ON DWG. E-900.

UNDERGROUND DUCTBANKS:



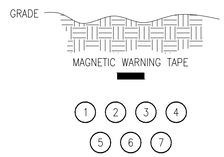
DB-1

1) 2" C. (480/277V POWER FROM UTILITY TRANSFORMER)



DB-2

1) 2" C. (480/277V POWER FROM GENERATOR)
2) 1.25" C. (120V AND 240V POWER TO GENERATOR)
3) 1" C. (CONTROLS TO GENERATOR)
4) 1" C. (CONTROLS TO SCADA)
5) 1" C. (SPARE)



DB-3

1) 2.5" C. (480V POWER TO PUMP #1)
2) 2.5" C. (480V POWER TO PUMP #2)
3) 1" C. GRC (SIGNAL)
4) 1" C. (CONTROLS)
5) 1" C. GRC (SIGNAL)
6) 1" C. GRC (SIGNALS)
7) 1" C. (SPARE)

PRELIMINARY - NOT FOR CONSTRUCTION

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP	DV
A	DV		

GMP DEVELOPMENT — 10/01/2024

REVISIONS AND RECORD OF USE — DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

IPS - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-201

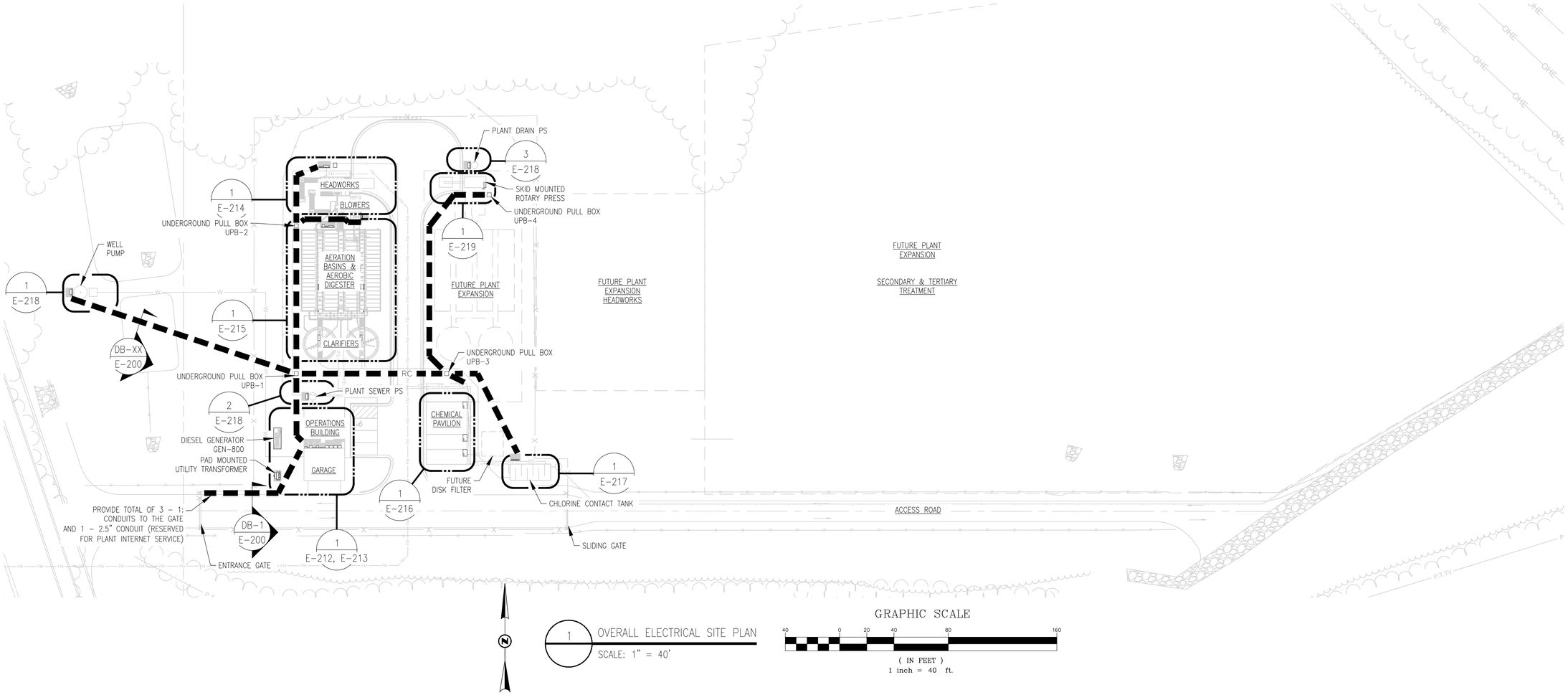
SHEET OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1 OVERALL ELECTRICAL SITE PLAN
SCALE: 1" = 40'

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

NOTES:

1. THE CONTRACTOR SHALL ADJUST ROUTING AND STUB-UP LOCATIONS OF THE UNDERGROUND DUCTBANK CONDUITS BASED ON THE ACTUAL EQUIPMENT LOCATION.

2. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER DISCIPLINES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, PIPING, ETC. AND COORDINATE INSTALLATION ACCORDINGLY, THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.

3. ONLY MAJOR UNDERGROUND CONDUITS ARE SHOWN FOR CLARITY. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES. DUCTBANKS UNDER THE ROAD SHALL BE CONCRETE ENCASED. SEE DETAIL "B" AND "C" ON DWG. E-900.

4. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE HARDWIRED SECURITY SYSTEM, WHICH SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING COMPONENTS:

   A. MAIN CONTROLLER PANEL FOR SYSTEM MANAGEMENT AND INTEGRATION.
   B. INTRUSION SWITCHES AT EACH ENTRANCE DOOR FOR UNAUTHORIZED ACCESS DETECTION.
   C. MOTION SENSORS IN EACH ROOM OF THE MAIN OPERATIONS BUILDING.
   D. KEYPAD.
   E. THE SECURITY SYSTEM SHALL UTILIZE CELLULAR CONNECTIVITY FOR ALARM REPORTING.
   F. THE SECURITY SYSTEM SHALL BE BY ADT OR EQUAL.

   THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WIRING, CONDUITS, JUNCTION BOXES, POWER SUPPLIES, MOUNTING HARDWARE, AND ANY OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL SECURITY SYSTEM INSTALLATION.

5. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE SURVEILLANCE SECURITY SYSTEM FOR SITE MONITORING, WHICH SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING COMPONENTS:

   A. NETWORK VIDEO RECORDER (NVR) WITH SUFFICIENT STORAGE CAPACITY FOR VIDEO RETENTION FOR 30 DAYS.
   B. ONE (1) DOME-TYPE CAMERA POSITIONED AT THE PLANT ENTRANCE.
   C. THREE (3) BULLET-TYPE SURVEILLANCE CAMERAS INSTALLED ON THE EXTERIOR OF THE OPERATIONS BUILDING FOR PERIMETER MONITORING.
   D. ALL CAMERAS SHALL BE POWER OVER ETHERNET (POE) TYPE.

   THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY WIRING, CONDUITS, JUNCTION BOXES, POWER SUPPLIES, MOUNTING HARDWARE, AND ANY OTHER ACCESSORIES REQUIRED TO ENSURE A COMPLETE AND FULLY OPERATIONAL SURVEILLANCE SYSTEM.

6. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE INTERNAL NETWORK INFRASTRUCTURE AT THE PLANT, WHICH SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING COMPONENTS:

   A. STARLINK SYSTEM FOR INTERNET ACCESS. HARDWIRED INTERNET SERVICE TO THE PLANT MAIN OPERATIONS BUILDING.
   B. RACK-MOUNTED FIREWALL SWITCH.
   C. RACK-MOUNTED LAN SWITCHES FOR INTERNAL NETWORK CONNECTIVITY.
   D. RACK-MOUNTED UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR BACKUP POWER.
   E. ETHERNET OUTLETS AND ASSOCIATED CABLING AS REQUIRED THROUGHOUT THE OPERATIONS BUILDING.
   F. WIRELESS ACCESS POINT IN THE OPERATIONS BUILDING FOR WIRELESS CONNECTIVITY.
   G. VOIP TELEPHONE SYSTEM FOR INTERNAL AND EXTERNAL COMMUNICATION.

   THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY WIRING, CONDUITS, JUNCTION BOXES, POWER SUPPLIES, MOUNTING HARDWARE, AND ANY OTHER ACCESSORIES REQUIRED TO ENSURE A COMPLETE AND FULLY OPERATIONAL NETWORK INFRASTRUCTURE.

7. THE CONTRACTOR SHALL PROVIDE AND INSTALL LIGHTNING PROTECTION FOR ENTIRE FACILITY INCLUDING, BUT NOT LIMITED TO THE FOLLOWING AREAS: THE OPERATIONS BUILDING, GENERATOR, TREATMENT BASIN, CHEMICAL PAVILION, CHLORINE CONTACT TANK AND LIGHTING POLES. THE LIGHTNING PROTECTION SYSTEM SHALL INCLUDE AS A MINIMUM THE FOLLOWING COMPONENTS: AIR TERMINALS, BONDING HARDWARE (AS REQUIRED), "SMOOTH WEAVE" BARE COPPER GROUNDING CONDUCTOR FOR THE SYSTEM COMPONENTS BONDING, DEDICATED 3/4" X 10' COPPER GROUND RODS (NOT SHOWN FOR CLARITY). PROVIDE AND INSTALL 1" PVC SCHEDULE 80 CONDUIT FOR ROUTING LIGHTNING PROTECTION CABLE FROM TOP OF THE STRUCTURE. THE CONTRACTOR SHALL USE BARE COPPER GROUNDING CONDUCTOR TO CONNECT LIGHTNING PROTECTION SYSTEM TO THE GROUNDING SYSTEM. LIGHTNING PROTECTION DETAILS ARE SHOWN FOR REFERENCE ONLY. REFER TO SPECIFICATION XX XX XX FOR ADDITIONAL INFORMATION.

LEGEND:

- DIRECT BURIED UNDERGROUND DUCTBANK
- RC REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
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ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP	DV
A	DV		

GMP DEVELOPMENT
REVISIONS AND RECORD OF USE
10/01/2024 DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

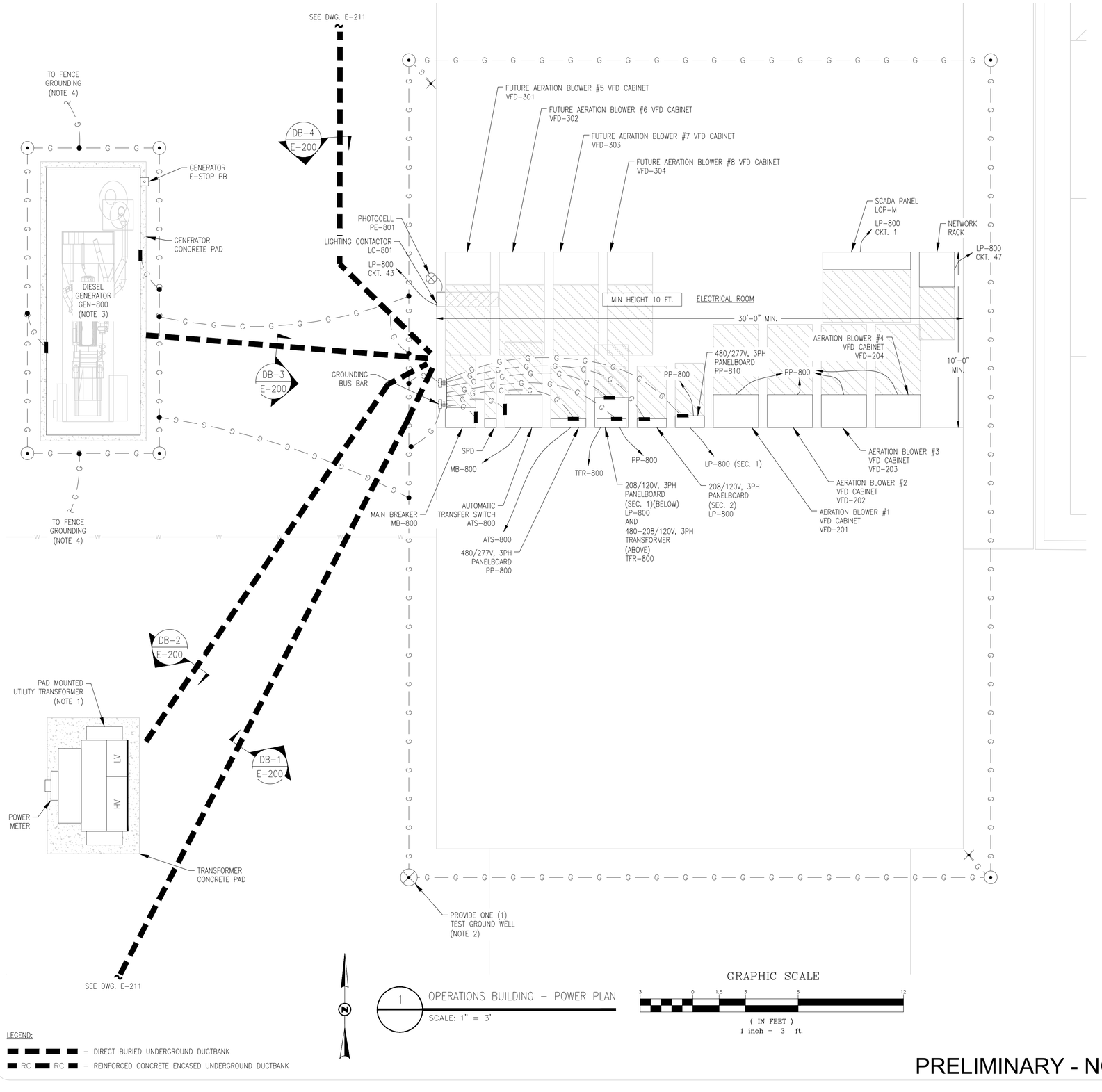
WWTP - OVERALL SITE PLAN

DESIGNED: DV
DETAILED: DV
CHECKED: DV
APPROVED: DV
DATE: AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-211
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OF

FD10000
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LEGEND:

– DIRECT BURIED UNDERGROUND DUCTBANK

RC RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

1 OPERATIONS BUILDING – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)

1 inch = 3 ft.

NOTES:

1. THE CONTRACTOR SHALL COORDINATE ACTUAL UTILITY TRANSFORMER LOCATION IN THE FIELD AND ADJUST SECONDARY CABLES/CONDUITS ROUTING ACCORDINGLY. UTILITY COMPANY SHALL PROVIDE AND INSTALL HIGH VOLTAGE PRIMARIES FROM POINT OF SERVICE TO NEW TRANSFORMER.
2. THE CONTRACTOR SHALL PROVIDE A GROUND GRID CONSISTING OF 3/4" DIAMETER x 10'-0" LONG COPPER CLAD GROUND RODS. THE RODS SHALL BE DRIVEN IN GROUND CONNECTED TOGETHER WITH #2/0 AWG BARE STRANDED COPPER CONDUCTORS. PROVIDE A GROUND WELL FOR ONE ROD. SEE DETAIL "E" AND "F" ON DWG. E-901 FOR GROUND WELL INSTALLATION DETAILS.
3. THE CONTRACTOR SHALL PROVIDE AND INSTALL STAND-BY GENERATOR IN LOCATION AS SHOWN AND WITH THE REQUIRED WORKING CLEARANCES. REFER TO ONE LINE DIAGRAM ON DWG. E-111 FOR FURTHER REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE GENERATOR PAD AS PER DETAIL "G" ON DWG. E-901.
4. THE CONTRACTOR SHALL GROUND FENCE AT TWO (2) PLACES AS REQUIRED BY NEC ARTICLE 250.194.
5. COORDINATE THE EXACT ELECTRICAL EQUIPMENT LOCATION IN THE FIELD TO PROVIDE NEC REQUIRED WORKING CLEARANCES.
6. ONLY MAJOR UNDERGROUND CONDUITS ARE SHOWN FOR CLARITY. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES. DUCTBANKS UNDER THE ROADS SHALL BE CONCRETE ENCASED. SEE DETAIL "B", "C" ON DRAWING E-900.
7. ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT IN ELECTRICAL ROOM SHALL BE PROVIDED WITH 4" HOUSE KEEPING PADS.

PRELIMINARY - NOT FOR CONSTRUCTION

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
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WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP	DV
A	DV		
GMP DEVELOPMENT			10/01/2024
REVISIONS AND RECORD OF USE			DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

OPERATIONS BUILDING - POWER PLAN

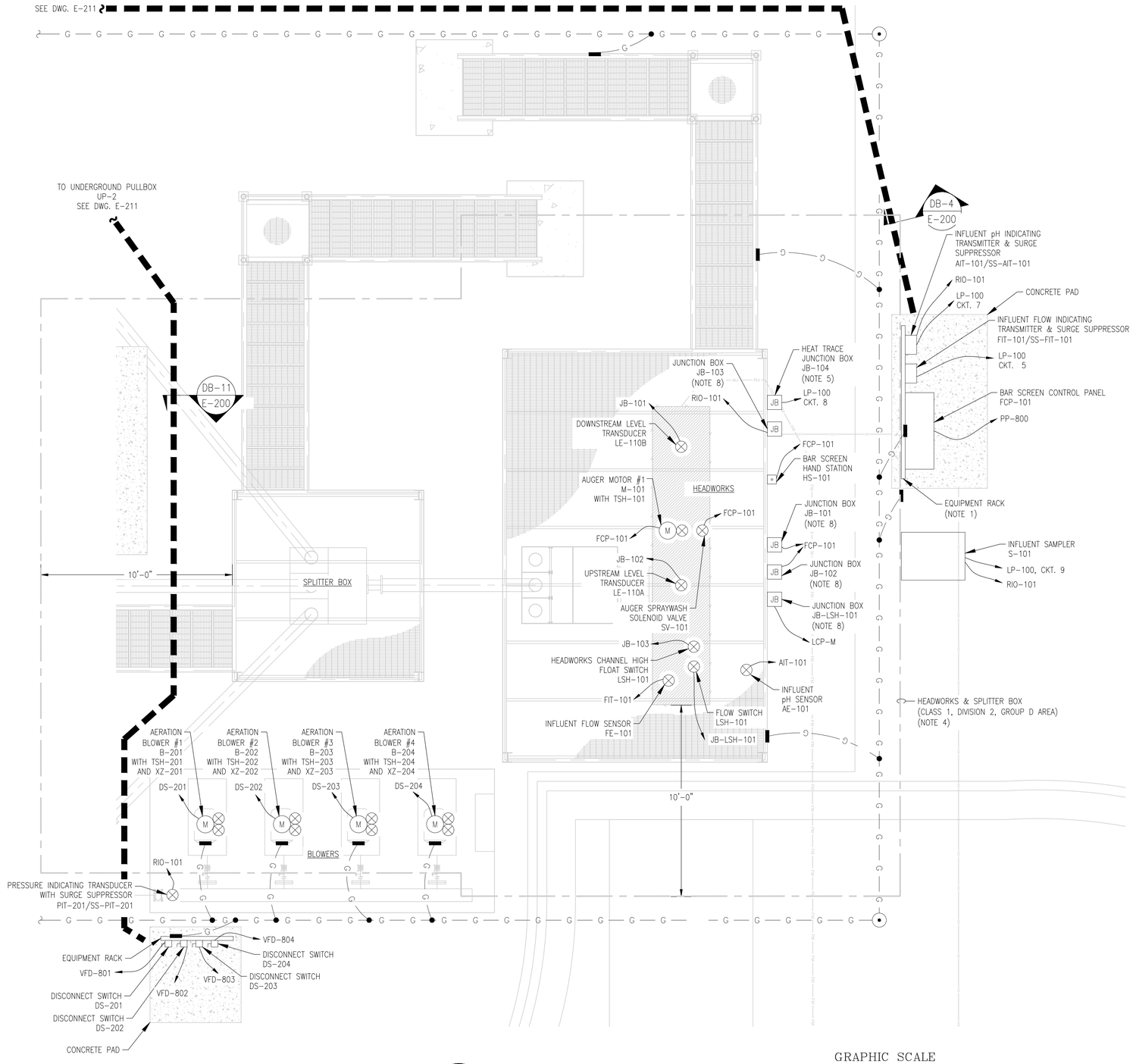
DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-212
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

FD10000
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1 HEADWORKS & BLOWERS – POWER PLAN
SCALE: 1" = 3'

GRAPHIC SCALE
3 0 1.5 3 6 12
(IN FEET)
1 inch = 3 ft.

LEGEND:
– DIRECT BURIED UNDERGROUND DUCTBANK
C C – CONCRETE ENCASED UNDERGROUND DUCTBANK
RC RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS. 8" CONCRETE PAD SHALL BE UNDER ELECTRICAL EQUIPMENT AND SHALL EXTEND 3'-0" IN FRONT OF THE EQUIPMENT.
2. THE CONTRACTOR SHALL GROUND ALL METAL STRUCTURES/SURFACES TO THE GROUNDING SYSTEM.
3. THE EXACT DEVICE LOCATIONS SHALL BE CONFIRMED WITH APPROVED VENDOR DRAWINGS.
4. ALL EQUIPMENT AND INSTALLATION LOCATED WITHIN CLASSIFIED AREA SHALL CONFORM WITH "ENCLOSURE TYPE AND INSTALLATION METHODS" REQUIREMENTS SET IN NEC ARTICLE 500. ACCORDING TO NFPA 820, TABLE 5.2.2 ROW 2C:

   CLASS 1, DIVISION 2, GROUP D AREA:
   CLASSIFIED AREA EXTENDS WITHIN 10'-0" ENVELOPE AROUND EQUIPMENT AND OPEN CHANNEL.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL A LOCAL NEMA 4X STAINLESS STEEL JUNCTION BOX FOR TERMINATION OF 120V HEAT TRACING POWER WIRING. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE HEAT TRACING SYSTEM FOR EXPOSED WASH WATER PIPING, INCLUDING ASSOCIATED CABLES/CONDUITS, THERMOSTATS, SELF REGULATING HEATING CABLE (5W/FT U.O.N.), PIPING INSULATION, ON/OFF INDICATING LIGHTS, ETC. ALL COMPONENTS SHALL BE CORROSION RESISTANT – NEMA 4X, RATED FOR OUTDOOR INSTALLATION AND RATED FOR HAZARDOUS AREA WHERE APPLICABLE.
6. THE CONTRACTOR SHALL PROVIDE AND INSTALL RAIN/SUN HOOD OVER THE CONTROL PANELS TO AVOID DIRECT SUN EXPOSURE.
7. THE CONTRACTOR SHALL USE BARE COPPER CONDUCTOR #1/0 AWG TO MAKE CONNECTIONS TO THE PLANT GROUNDING SYSTEM.
8. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEMA 4X STAINLESS STEEL JUNCTION BOXES ADEQUATELY SIZED FOR ASSOCIATED CABLES AND CONDUITS.

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

STAMP:

NO.	BY	CHK/APP	DATE
A	DV	DV	10/01/2024
			GMP DEVELOPMENT
			REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

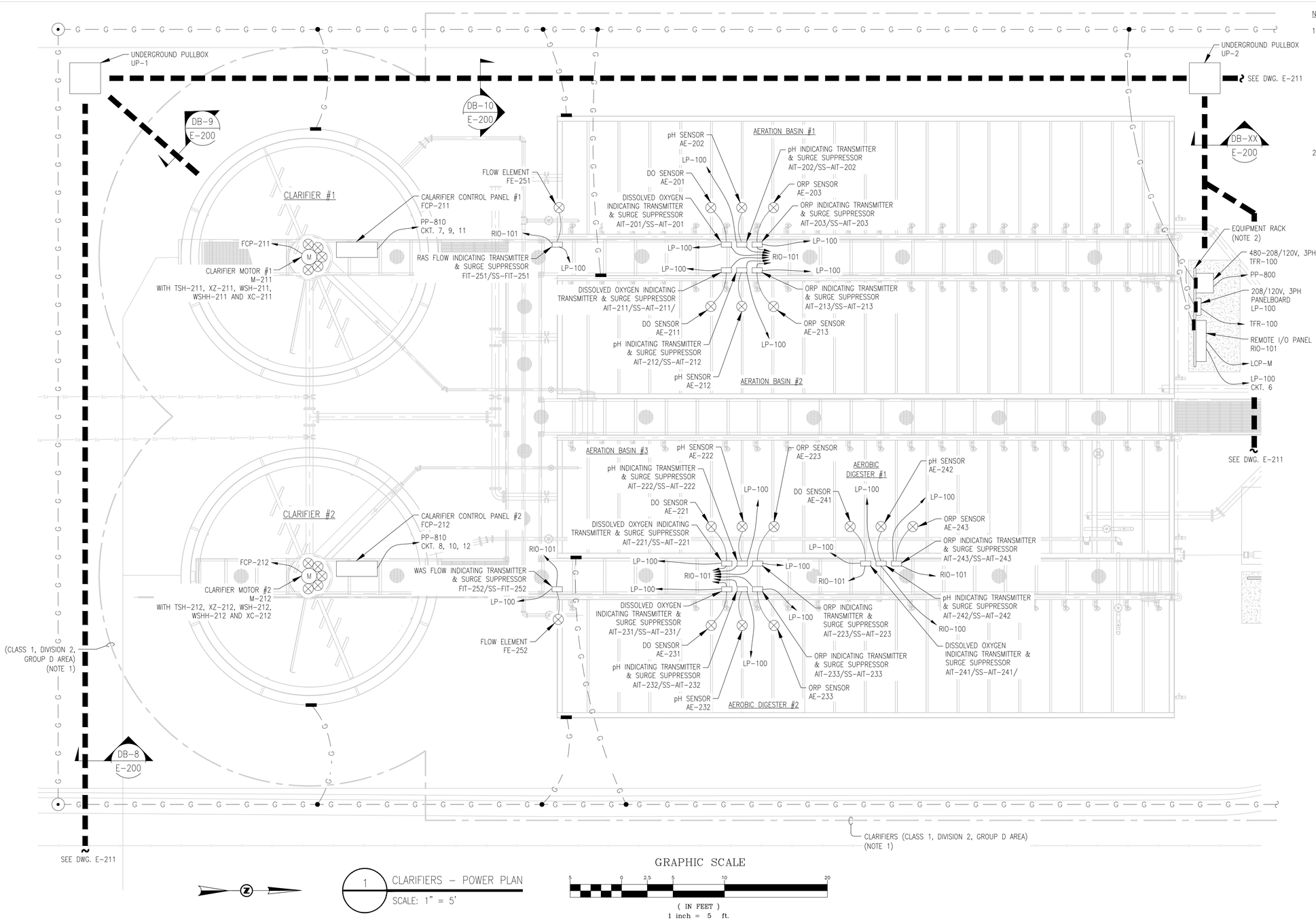
HEADWORKS AREA - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-214
SHEET OF

FD10000
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1 CLARIFIERS – POWER PLAN
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

NOTES:

1. ALL EQUIPMENT AND INSTALLATION LOCATED WITHIN CLASSIFIED AREA SHALL CONFORM WITH "ENCLOSURE TYPE AND INSTALLATION METHODS" REQUIREMENTS SET IN NEC ARTICLE 500.

   CLASS 1, DIVISION 2, GROUP D AREA:
   CLASSIFIED AREA EXTENDS WITHIN INTERIOR OF THE TANK FROM THE MINIMUM OPERATING WATER SURFACE TO THE OF THE TANK WALL, ENVELOPE 18 IN. ABOVE THE TOP OF THE TANK AND EXTENDING 18 IN. BEYOND THE EXTERIOR WALL; ENVELOPE 18 IN. ABOVE GRADE EXTENDING 10'-0" HORIZONTALLY FROM THE EXTERIOR TANK WALLS.

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS. 8" CONCRETE PAD SHALL BE UNDER ELECTRICAL EQUIPMENT AND SHALL EXTEND 3'-0" IN FRONT OF THE EQUIPMENT.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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CLARIFIERS - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

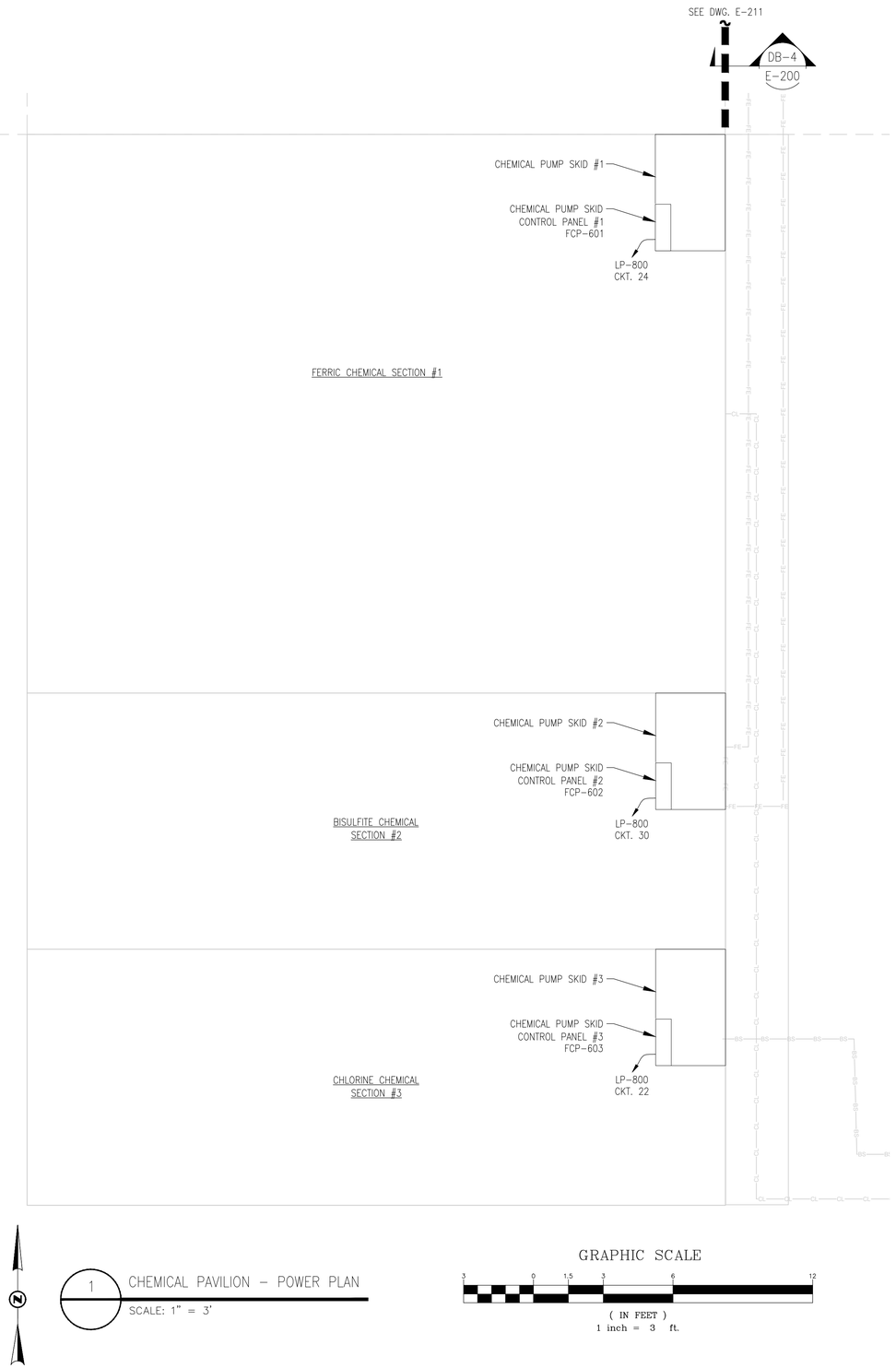
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-215
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1 CHEMICAL PAVILION – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "XXX" AND "XXX" ON DWG. E-XXX FOR INSTALLATION DETAILS.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEMA 4X STAINLESS STEEL JUNCTION BOXES ADEQUATELY SIZED FOR ASSOCIATED CABLES AND CONDUITS.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CHEMICAL PAVILION - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

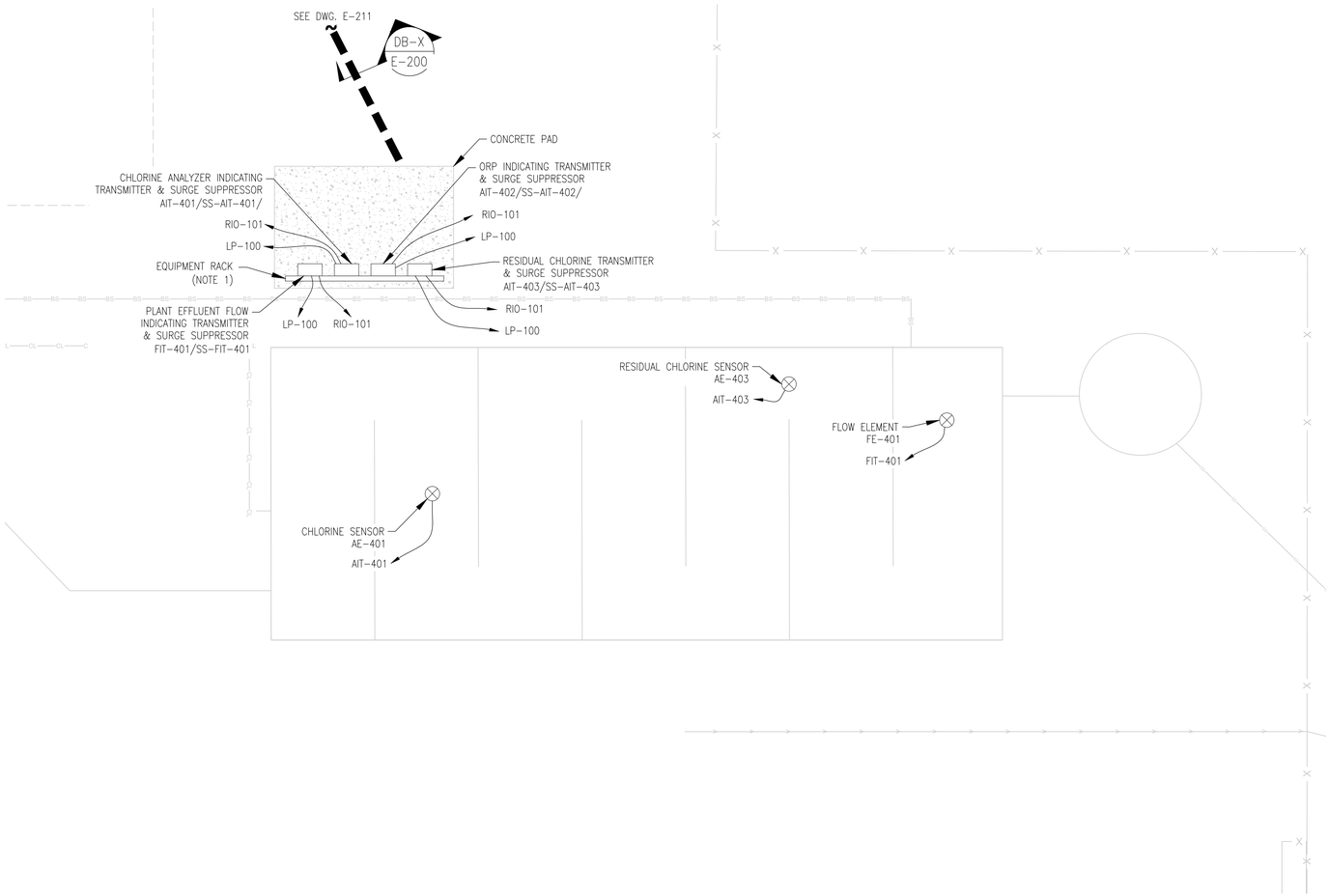
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-216

SHEET OF

EDEC
EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
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1 CHLORINE CONTACT TANK – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

-3 0 1.5 3 6 12

(IN FEET)

1 inch = 3 ft.

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS.

LEGEND:

– DIRECT BURIED UNDERGROUND DUCTBANK

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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A	DV		

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CHLORINE TANK - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-217

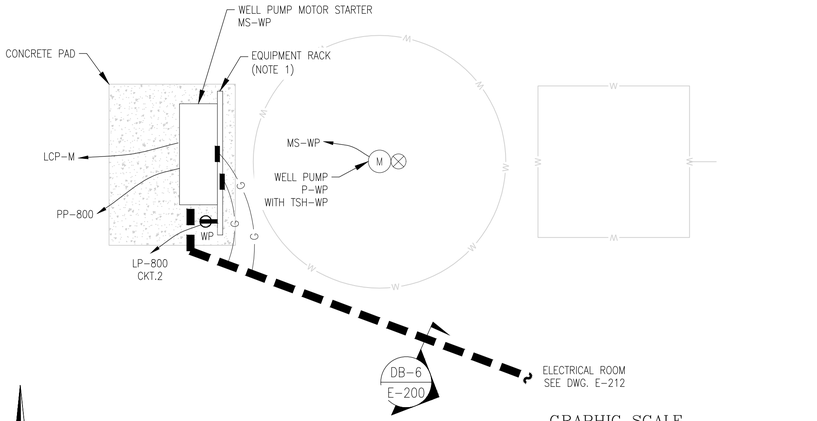
SHEET OF

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SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS.



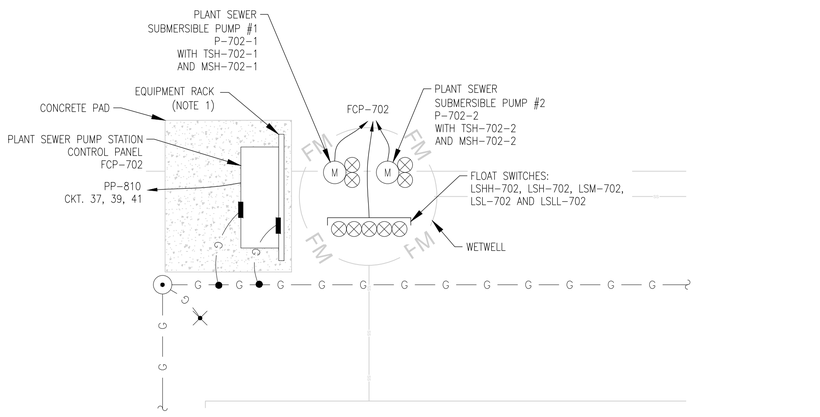
1 WELL PUMP AREA – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.



2 PLANT SEWER PS – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.

3 PLANT DRAIN PS – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)
1 inch = 3 ft.

LEGEND:

– DIRECT BURIED UNDERGROUND DUCTBANK

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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	REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

WELL PUMP AREA - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

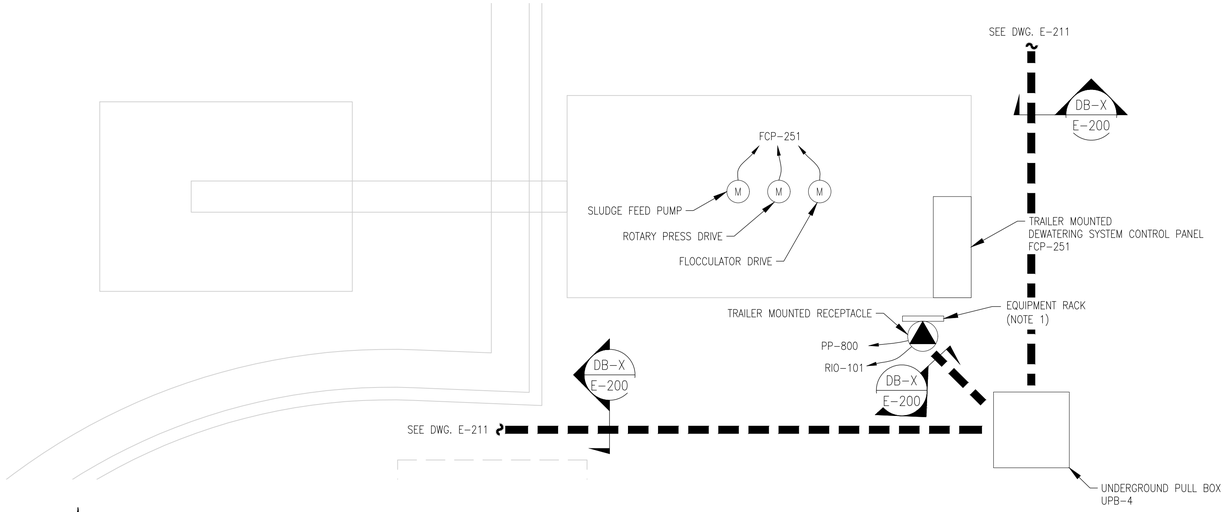
SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

E-218

SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1 TRAILER MOUNTED DEWATERING SYSTEM – POWER PLAN

SCALE: 1" = 3'

GRAPHIC SCALE

3 0 1.5 3 6 12

(IN FEET)

1 inch = 3 ft.

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT RACK SUPPORT AS SHOWN. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF EQUIPMENT RACK TO PROVIDE ADEQUATE CLEARANCES FOR ALL EQUIPMENT. SEE DETAIL "A" ON DWG. E-900 FOR INSTALLATION DETAILS.

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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GMP DEVELOPMENT			
REVISIONS AND RECORD OF USE			
10/01/2024			
DATE			

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

DEWATERING SYS. - POWER PLAN

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

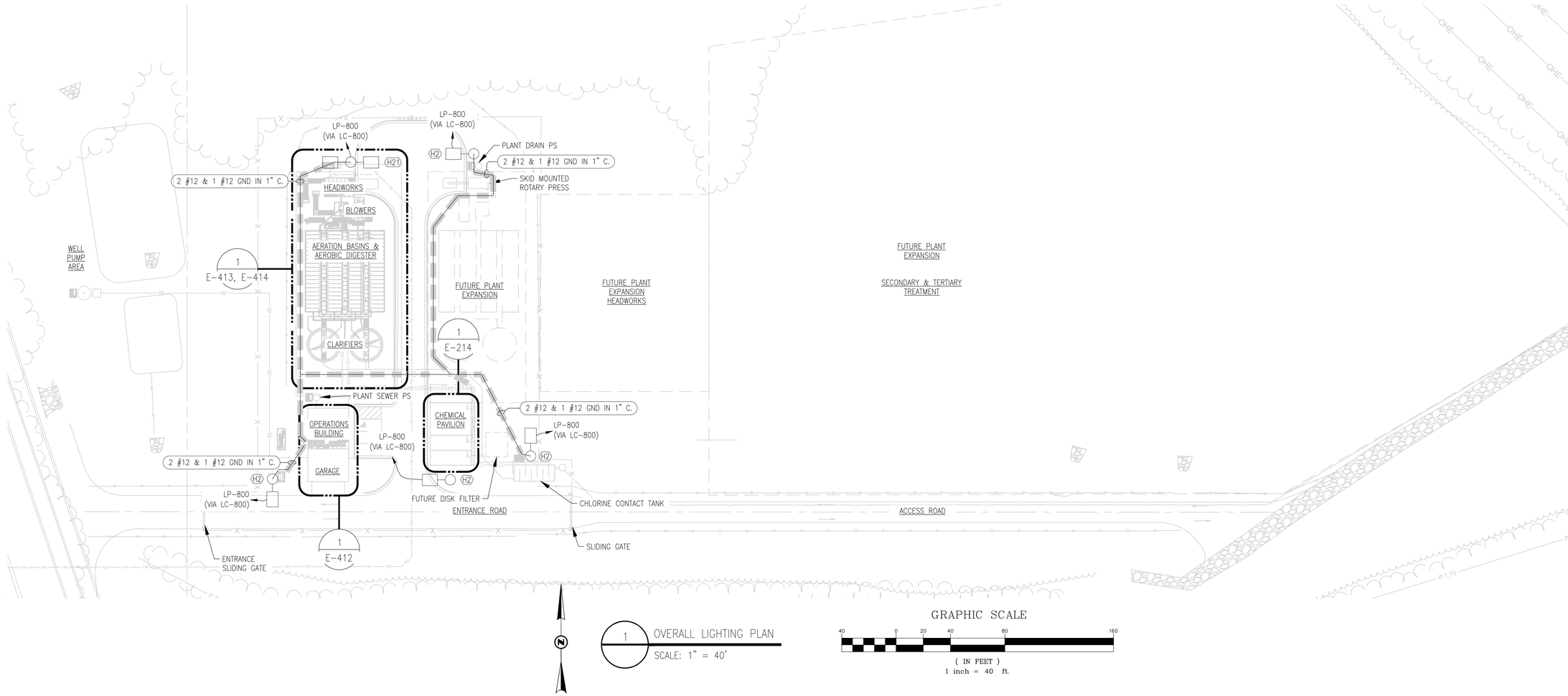
E-219

SHEET
OF

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
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1 OVERALL LIGHTING PLAN

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

10/01/2024 DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

WWTP - OVERALL LIGHTING PLAN

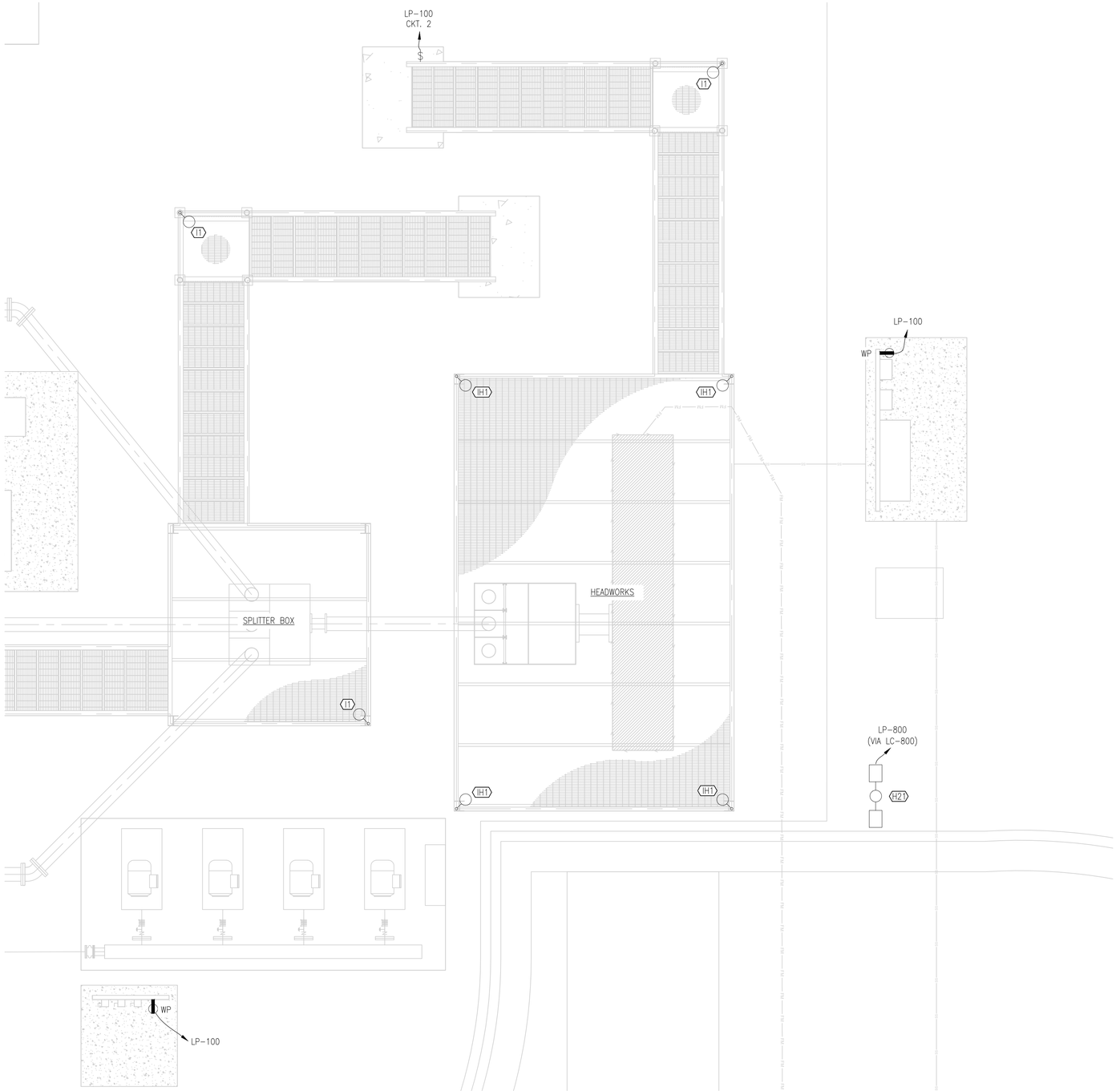
DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

E-411
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
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1 HEADWORKS & BLOWERS – LIGHTING & RECEPTACLE PLAN
SCALE: 1" = 3'

GRAPHIC SCALE
3 0 1.5 3 6 12
(IN FEET)
1 inch = 3 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

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1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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GMP DEVELOPMENT
REVISIONS AND RECORD OF USE
DATE 10/01/2024

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

HEADWORKS - LIGHTING & RECEPTACLE PLAN

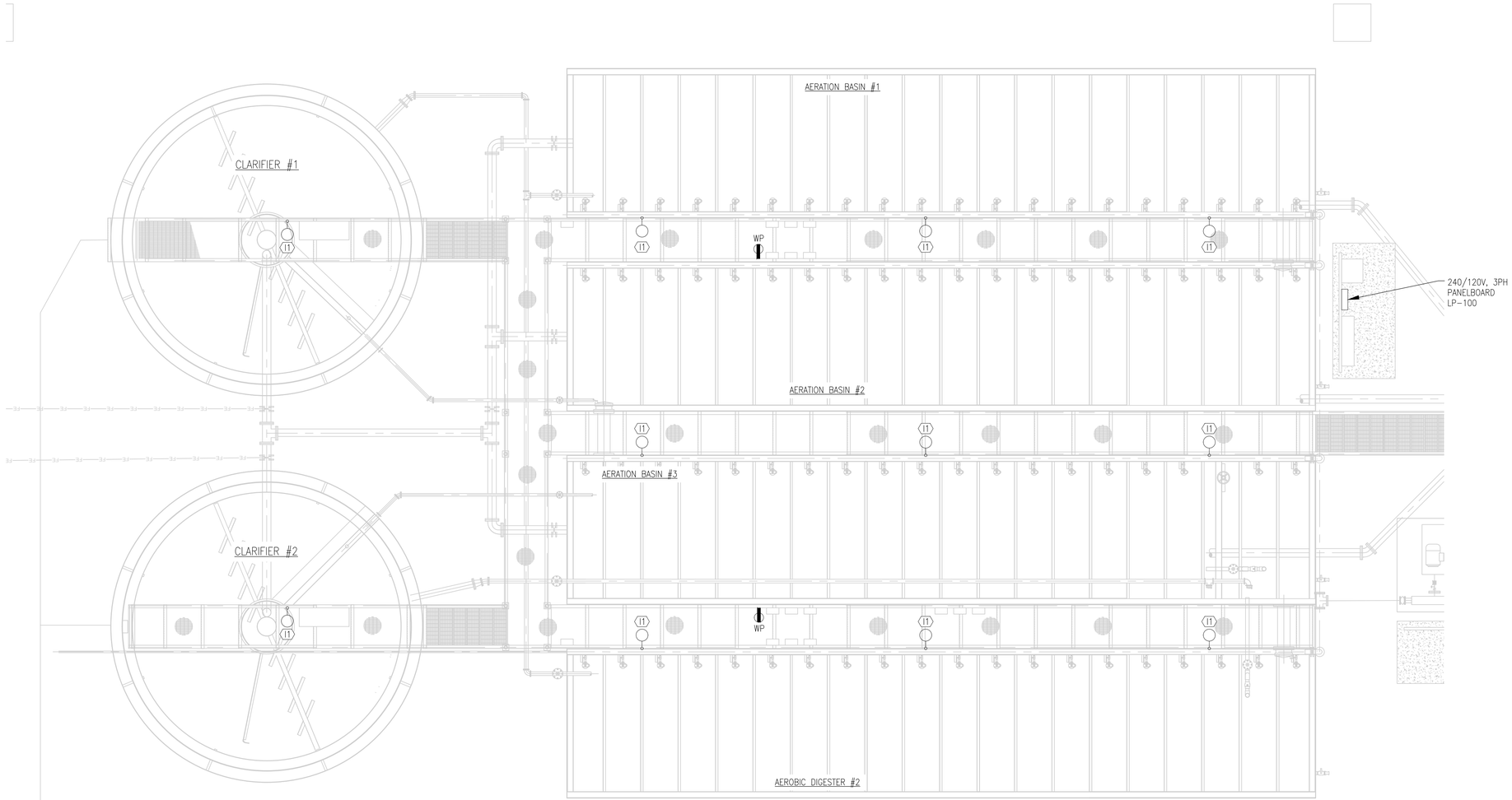
DESIGNED: DV
DETAILED: DV
CHECKED: DV
APPROVED: DV
DATE: AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-413
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
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1 CLARIFIERS – LIGHTING & RECEPTACLE PLAN
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

STAMP:

NO.	BY	CHK/APP
A	DV	DV

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10/01/2024
DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

CLARIFIERS - LIGHTING & RECEPT. PLAN

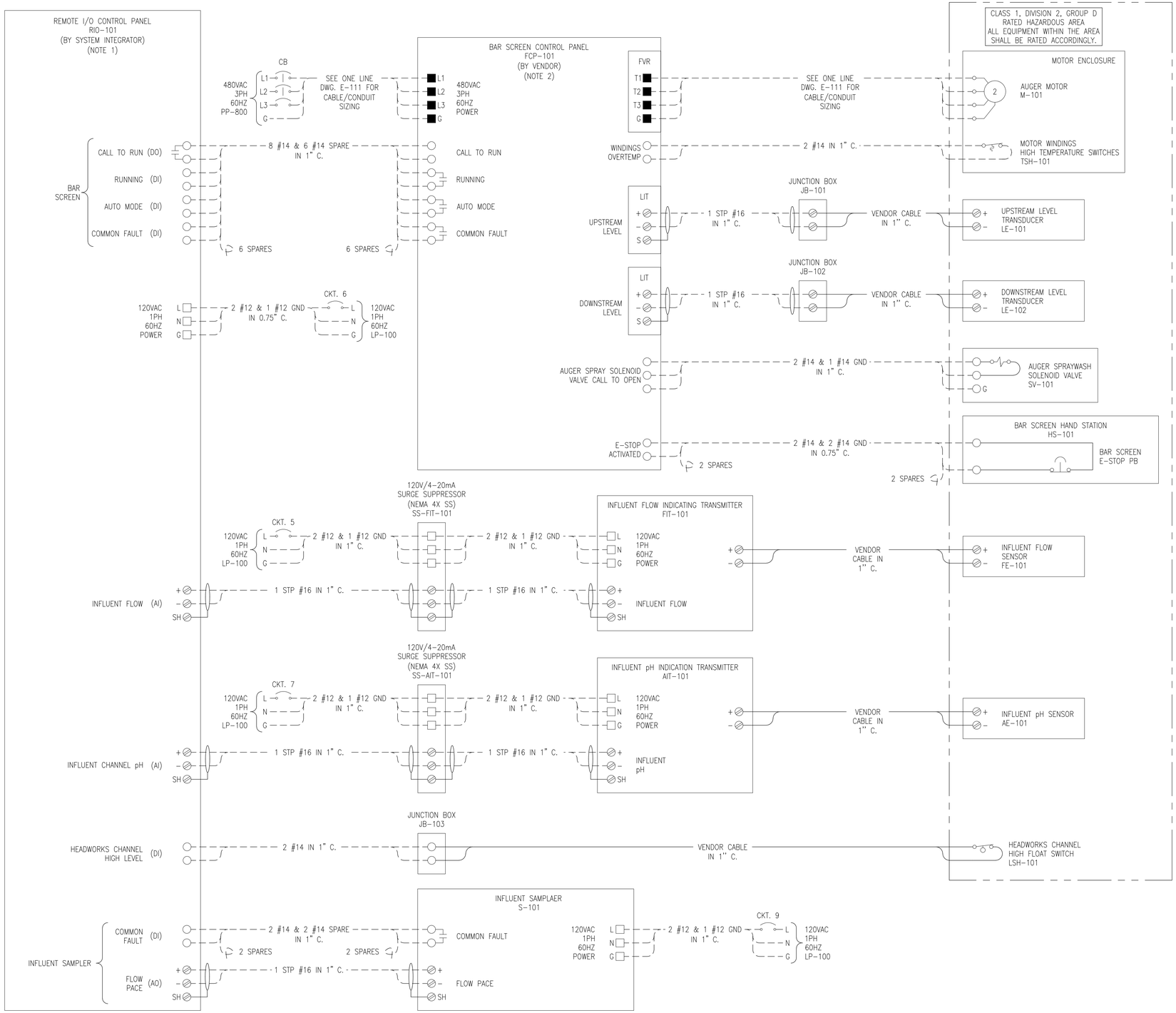
DESIGNED:	DV
DETAILED:	DV
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO.
G1070001

E-414
SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
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1 SCHEMATIC WIRING DIAGRAM

NOTES:

1. THE SYSTEM INTEGRATOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL A CONTROL PANEL, THE PANEL SHALL INCLUDE AS A MINIMUM THE FOLLOWING COMPONENTS:
   - A. CONTROL PANEL SCCR SHALL BE 10kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING FREESTANDING 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE – THERMAL MAGNETIC CIRCUIT BREAKER 20A, 120, 1P.
   - D. 120V, 1PH SURGE PROTECTION DEVICE.
   - E. ONE (1) GFCI 120V, 20A DUPLEX RECEPTACLE.
   - F. DUAL 24VDC POWER SUPPLY UNIT WITH REDUNDANCY MODULE.
   - G. UPS UNIT SIZED FOR 6 HOURS OF UNINTERRUPTIBLE POWER SUPPLY.
   - H. REMOTE I/O – FLEX 5000 REMOTE I/O WITH I/O MODULES AS REQUIRED.
   - I. OIT – NONE.
   - J. COMMUNICATION LINK: FIBER OPTIC.
   - K. DISCRETE INPUTS TYPE: WIRED THROUGH INTERPOSING RELAYS.
   - L. DISCRETE OUTPUTS TYPE: WIRED THROUGH INTERPOSING RELAYS.
   - M. ANALOG INPUTS TYPE: WIRED THROUGH INTERNAL SURGE SUPPRESSORS.
   - N. INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE CLASSIFIED AREA.
   - O. INCLUDE AT LEAST 20% OF SPARE I/O's OF EACH TYPE.
   - P. RELAYS, FUSES, TERMINALS AND ALL OTHER COMPONENTS AS REQUIRED FOR PROPER PANEL OPERATION.

   THE SCHEMATIC WIRING DIAGRAM IS CONCEPTUAL IN NATURE. SYSTEM INTEGRATOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION. INCLUDE ALL ASSOCIATED PROGRAMMING, FACTORY TESTING AND START-UP ASSISTANCE AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. THE PANEL SHALL BE PROVIDED BY MR SYSTEMS, CONTACT SOTHORN KHEL (OFFICE: 678-325-2824; CELL: 770-519-0597; EMAIL: SOTHORN.KHEL@INFRAMARK.COM).

2. THE EQUIPMENT VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL THE BAR SCREEN CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CONTROL PANEL SCCR SHALL BE 25kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING FREESTANDING NEMA 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, INNER DOORS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE – THERMAL MAGNETIC CIRCUIT BREAKER 20A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. ONE (1) FULL VOLTAGE REVERSING (FVR), 480V, 3PH STARTER, RATED FOR 2HP MOTOR WITH MOTOR CIRCUIT PROTECTORS.
   - F. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER (THE CONTROL PANEL VENDOR SHALL ADJUST THE SIZE TO ACCOMMODATE ALL ASSOCIATED 240/120V LOADS) WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - G. LIGHTNING ARRESTOR.
   - H. PHASE MONITOR TO SENSE LOW VOLTAGE AND LOSS OF PHASE AND POWER.
   - I. ONE (1) INTERNAL GFCI 120V, 20A DUPLEX RECEPTACLE.
   - J. THREE (3) 120V, 20A, 1P CIRCUIT BREAKERS: INTERNAL DUPLEX RECEPTACLE, AND TWO (2) SPARE BREAKERS.
   - K. STRIP HEATER, FAN & THERMOSTAT.
   - L. SELECTOR SWITCHES:
     - L.1. H-O-A SWITCH.
   - M. PUSH BUTTONS:
     - M.1. PUMP START;
     - M.2. PUMP STOP;
     - M.3. ALARM SILENCE;
     - M.4. ALARM RESET.
   - N. INDICATING LIGHTS FOR:
     - N.1. CONTROL POWER ON (WHITE);
     - N.2. PUMP RUNNING (RED);
     - N.3. PUMP STOPPED (GREEN);
     - N.4. PUMP OVERTEMP (AMBER);
   - O. SIX (6) DIGITS ELAPSED TIME METER.
   - P. TEMPERATURE PROTECTION RELAY.
   - Q. 120V, 5A RATED DRY CONTACTS AND SIGNAL WIRING PREWIRED TO FIELD TERMINALS:
     - Q.1. PUMP RUNNING;
     - Q.2. PUMP OVERTEMP;
   - R. PUMP HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
     - R.1. PHASE LOSS ALARM;
     - R.2. COMMON FAULT (TEMPERATURE/OVERLOAD ALARM).
   - S. PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

ALL OPERATOR INTERFACE DEVICES SHALL BE MOUNTED ON THE INNER SWING DOOR. CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

LEGEND:

- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ▨ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD. UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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DATE			
10/01/2024			

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

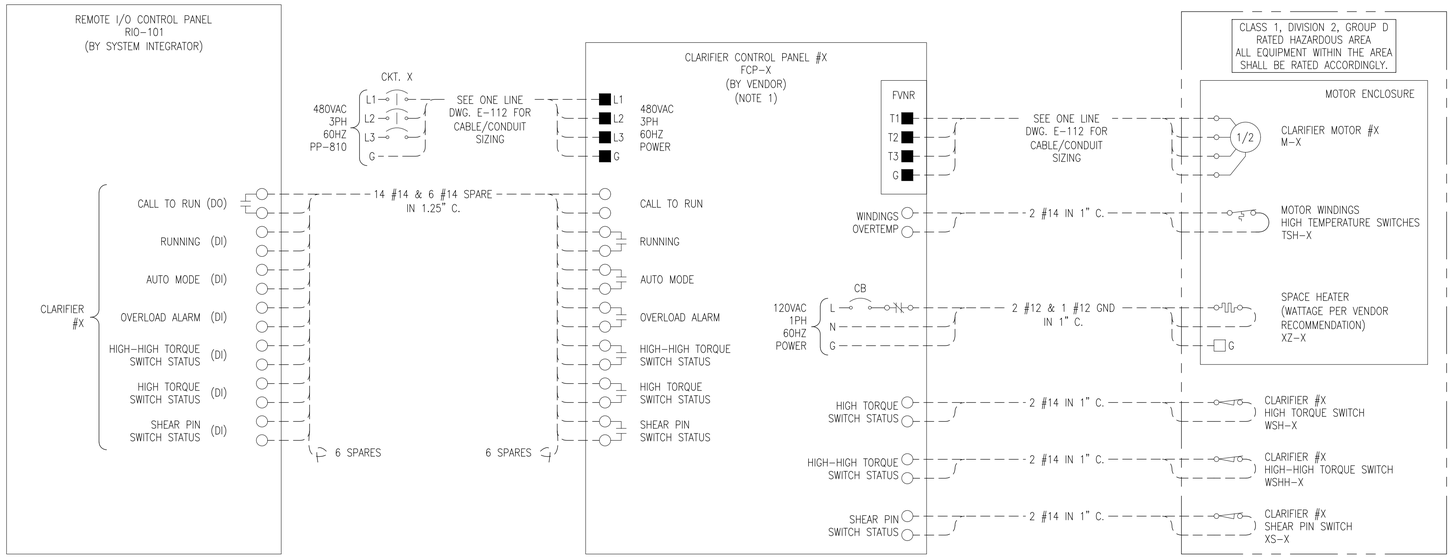
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DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-601
SHEET
OF

EDEC
EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

FD10000
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#X	DESCRIPTION	CKT. X	FCP-X	M-X	TSH-X	XZ-X	WSH-X	WSHH-X	XS-X
1	CLARIFIER MOTOR #1	CKT. 7, 9, 11	FCP-211	M-211	TSH-211	XZ-211	WSH-211	WSHH-211	XS-211
2	CLARIFIER MOTOR #2	CKT. 8, 10, 12	FCP-212	M-212	TSH-212	XZ-212	WSH-212	WSHH-212	XS-212
3	FUTURE CLARIFIER MOTOR #3	CKT. 13, 15, 17	FCP-311	M-311	TSH-311	XZ-311	WSH-311	WSHH-311	XS-311
4	FUTURE CLARIFIER MOTOR #4	CKT. 14, 16, 18	FCP-312	M-312	TSH-312	XZ-312	WSH-312	WSHH-312	XS-312

1 SCHEMATIC WIRING DIAGRAM

NOTES:

1. THE EQUIPMENT VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL CLARIFIER CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CABINET SCCR SHALL BE 42kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING WALL MOUNTED NEMA 4X, TYPE 304 STAINLESS STEEL WITH INNER DOORS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE: THERMAL MAGNETIC CIRCUIT BREAKER 20A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. FULL VOLTAGE NON-REVERSING (FVNR) NEMA TYPE COMBINATION MOTOR STARTER WITH MOTOR CIRCUIT PROTECTORS, RATED FOR 0.5HP MOTOR.
   - E. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - F. STRIP HEATER, FAN & THERMOSTAT.
   - G. SELECTOR SWITCHES:
     - G.1. H-O-A SWITCH.
   - H. PUSH BUTTONS:
     - H.1. START;
     - H.2. STOP.
   - I. INDICATING LIGHTS FOR:
     - I.1. CONTROL POWER ON (WHITE);
     - I.2. PUMP RUNNING (RED);
     - I.3. PUMP STOPPED (GREED);
     - I.4. COMMON FAULT (AMBER).
   - J. MEANS OF I/O's COMMUNICATION:
     - J.1. 120V, 5A RATED DRY CONTACTS, PREWIRED TO FIELD TERMINALS:
       - J.1.1. RUNNING;
       - J.1.2. AUTO MODE;
       - J.1.3. COMMON FAULT;
       - J.1.4. OVERLOAD ALARM;
       - J.1.5. HIGH-HIGH TORQUE SWITCH STATUS;
       - J.1.6. HIGH TORQUE SWITCH STATUS;
       - J.1.7. SHEAR PIN SWITCH STATUS.
   - K. HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE:
     - K.1. OVERLOAD FAULT;
       - K.1.1. OVERLOAD ALARM;
       - K.1.2. HIGH-HIGH TORQUE SWITCH STATUS;
       - K.1.3. HIGH TORQUE SWITCH STATUS;
       - K.1.4. SHEAR PIN SWITCH STATUS.
   - L. THE CABINET SHALL INCLUDE ALL NECESSARY COMPONENTS FOR EQUIPMENT SAFE AND RELIABLE OPERATION.

THE CABINET SHALL BE MANUFACTURED BY EATON, SCHNEIDER ELECTRIC, ALLEN-BRADLEY, ABB, SIEMENS OR APPROVED EQUAL MANUFACTURER, THE CABINET SHALL BE UL LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

LEGEND:
- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ▨ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

0 1/2 1
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LAKESHORE ENGINEERING
1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
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R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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A	DV			10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

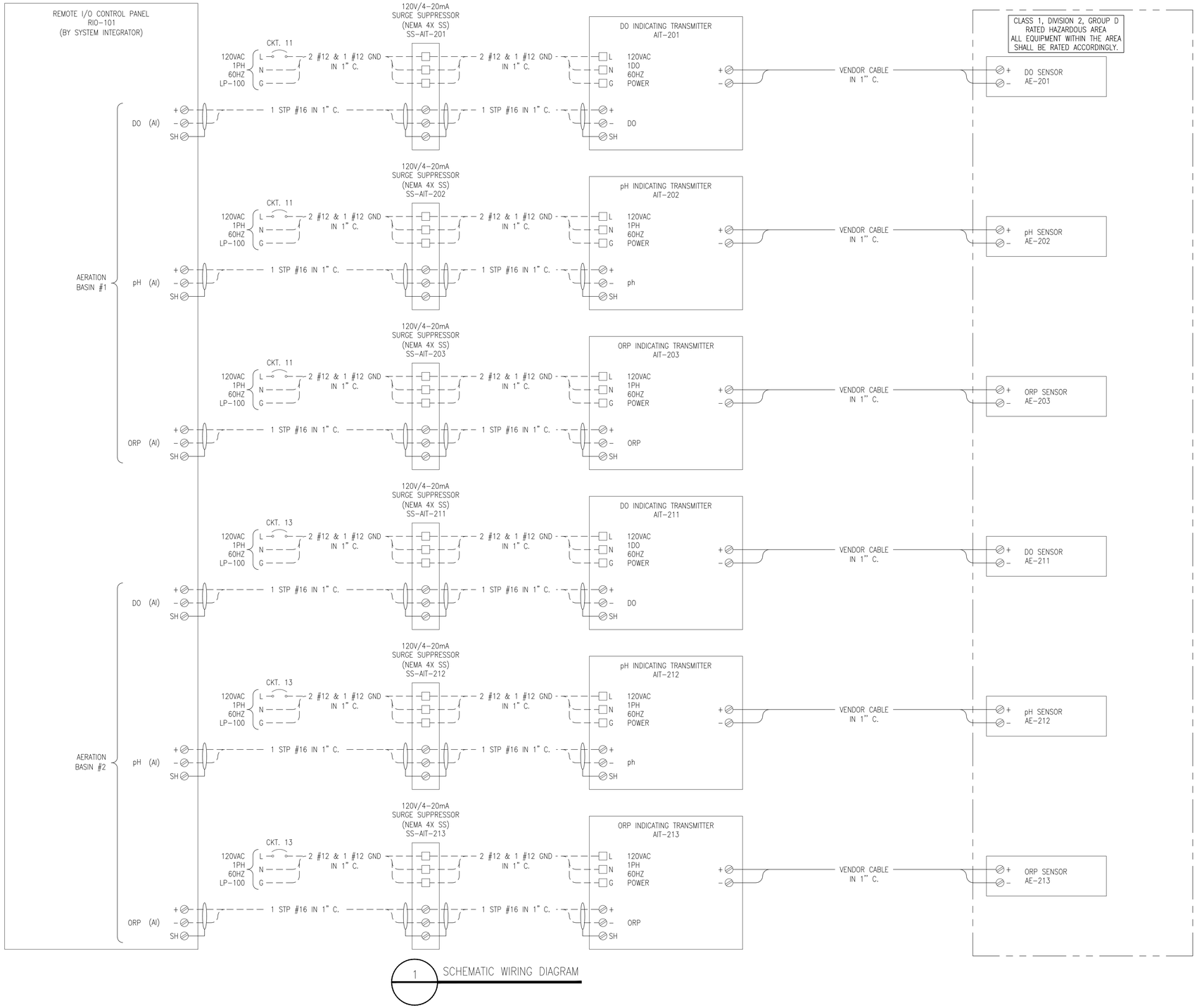
SCHEMATIC WIRING DIAGRAM

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-602
SHEET
OF

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1 SCHEMATIC WIRING DIAGRAM

LEGEND:

- 120V POWER TERMINAL
- 480V POWER TERMINAL
- MV POWER TERMINAL
- CONTROL TERMINAL
- SIGNAL TERMINAL
- ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
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UNIT C
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

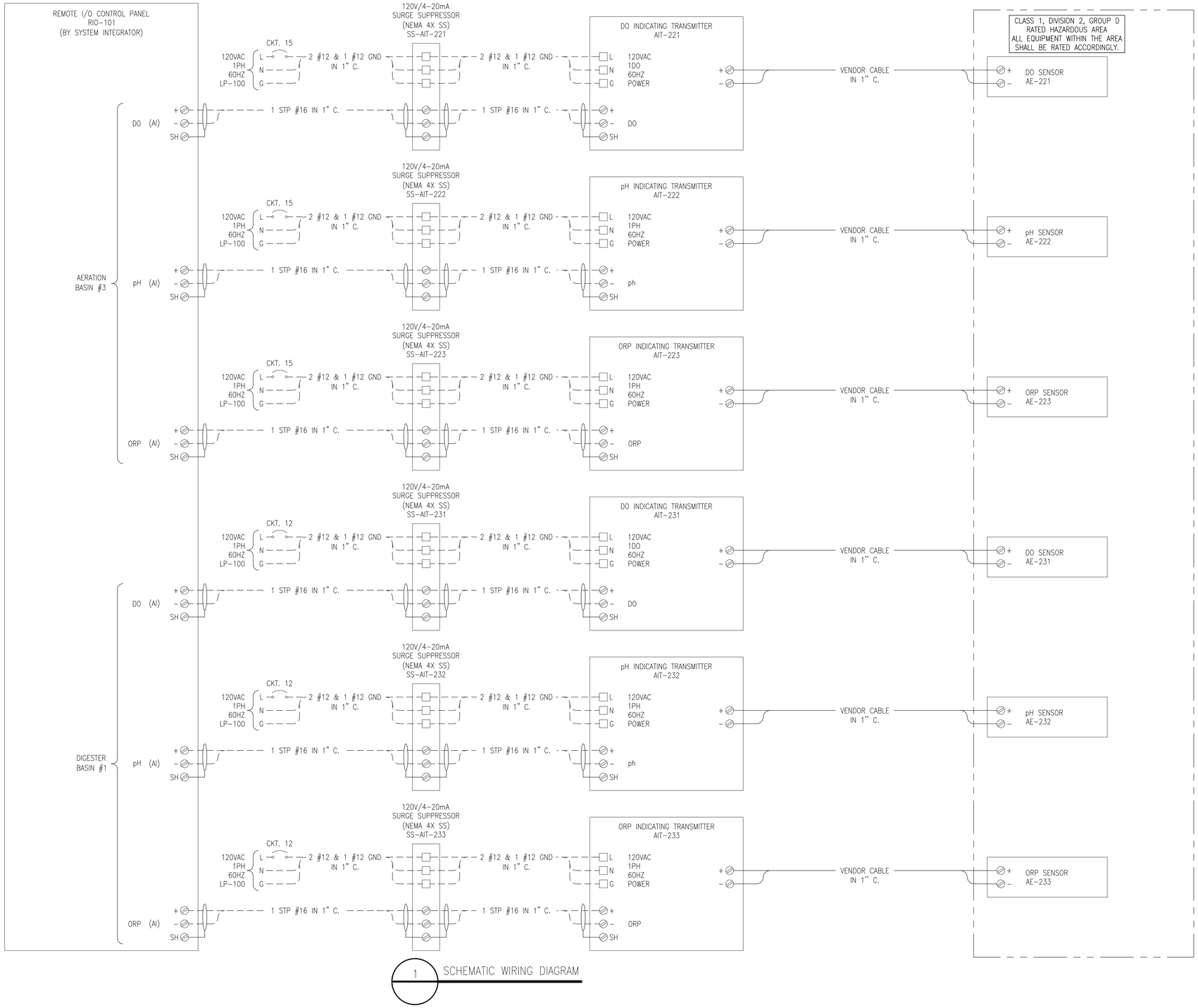
E-603

SHEET OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1 SCHEMATIC WIRING DIAGRAM

LEGEND:

- 120V POWER TERMINAL
- 480V POWER TERMINAL
- MV POWER TERMINAL
- CONTROL TERMINAL
- SIGNAL TERMINAL
- ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

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1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

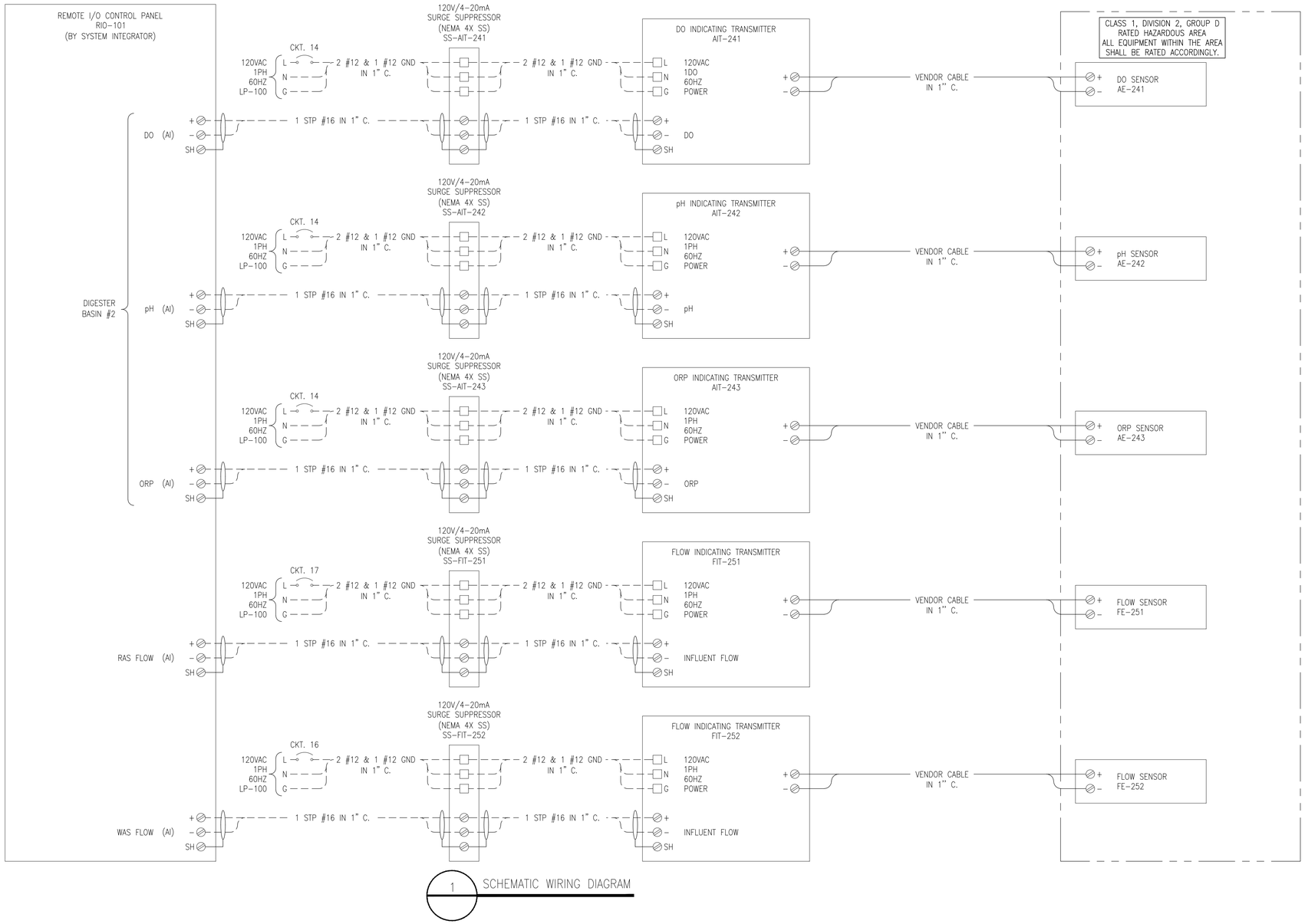
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-604

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1 SCHEMATIC WIRING DIAGRAM

LEGEND:

- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
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0 1/2 1

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

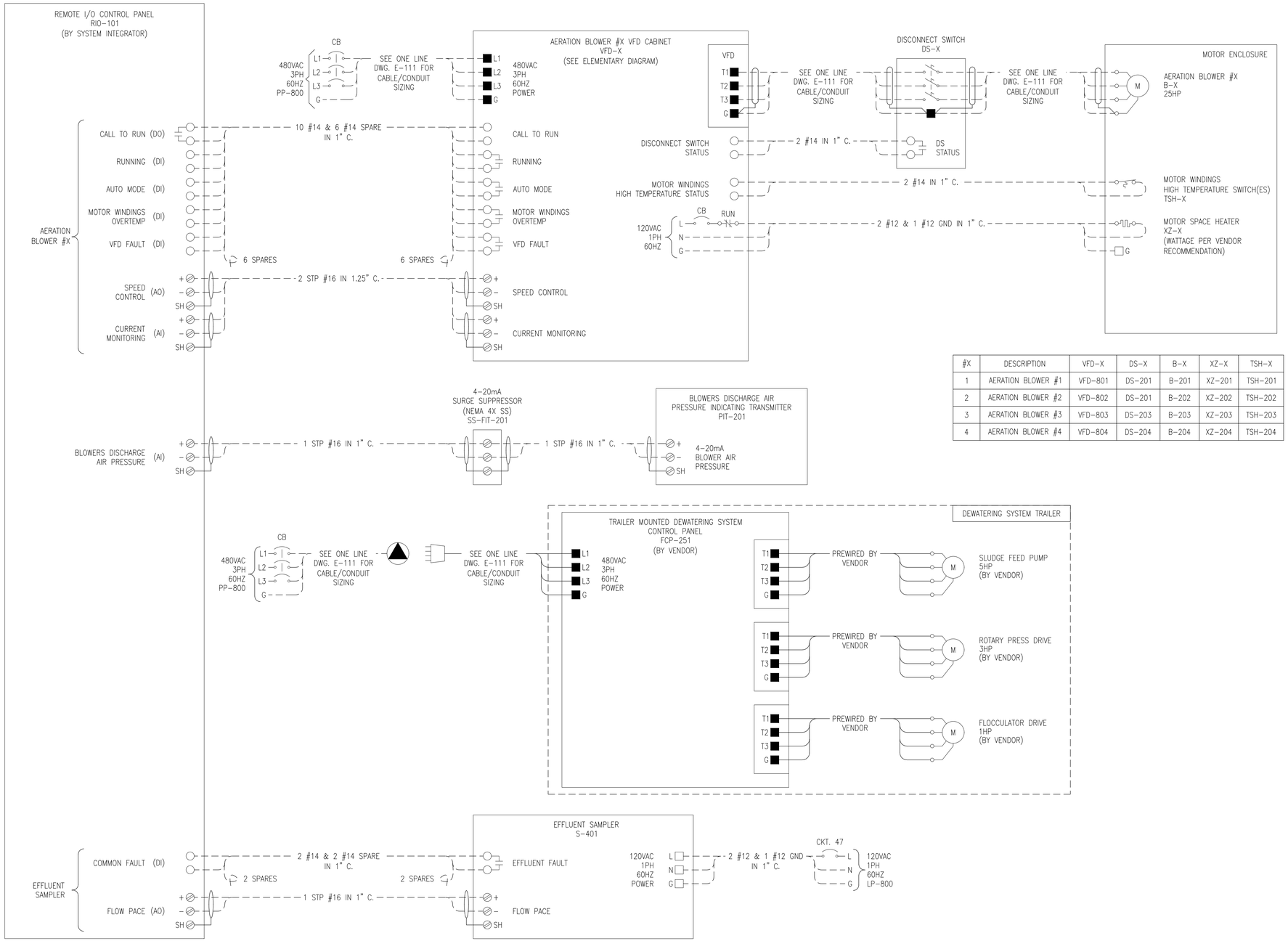
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-605

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OF

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#X	DESCRIPTION	VFD-X	DS-X	B-X	XZ-X	TSH-X
1	AERATION BLOWER #1	VFD-801	DS-201	B-201	XZ-201	TSH-201
2	AERATION BLOWER #2	VFD-802	DS-201	B-202	XZ-202	TSH-202
3	AERATION BLOWER #3	VFD-803	DS-203	B-203	XZ-203	TSH-203
4	AERATION BLOWER #4	VFD-804	DS-204	B-204	XZ-204	TSH-204

1 SCHEMATIC WIRING DIAGRAM

LEGEND:
- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
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- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
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UNIT C
ATLANTA, GA 30338
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GMP DEVELOPMENT
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SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

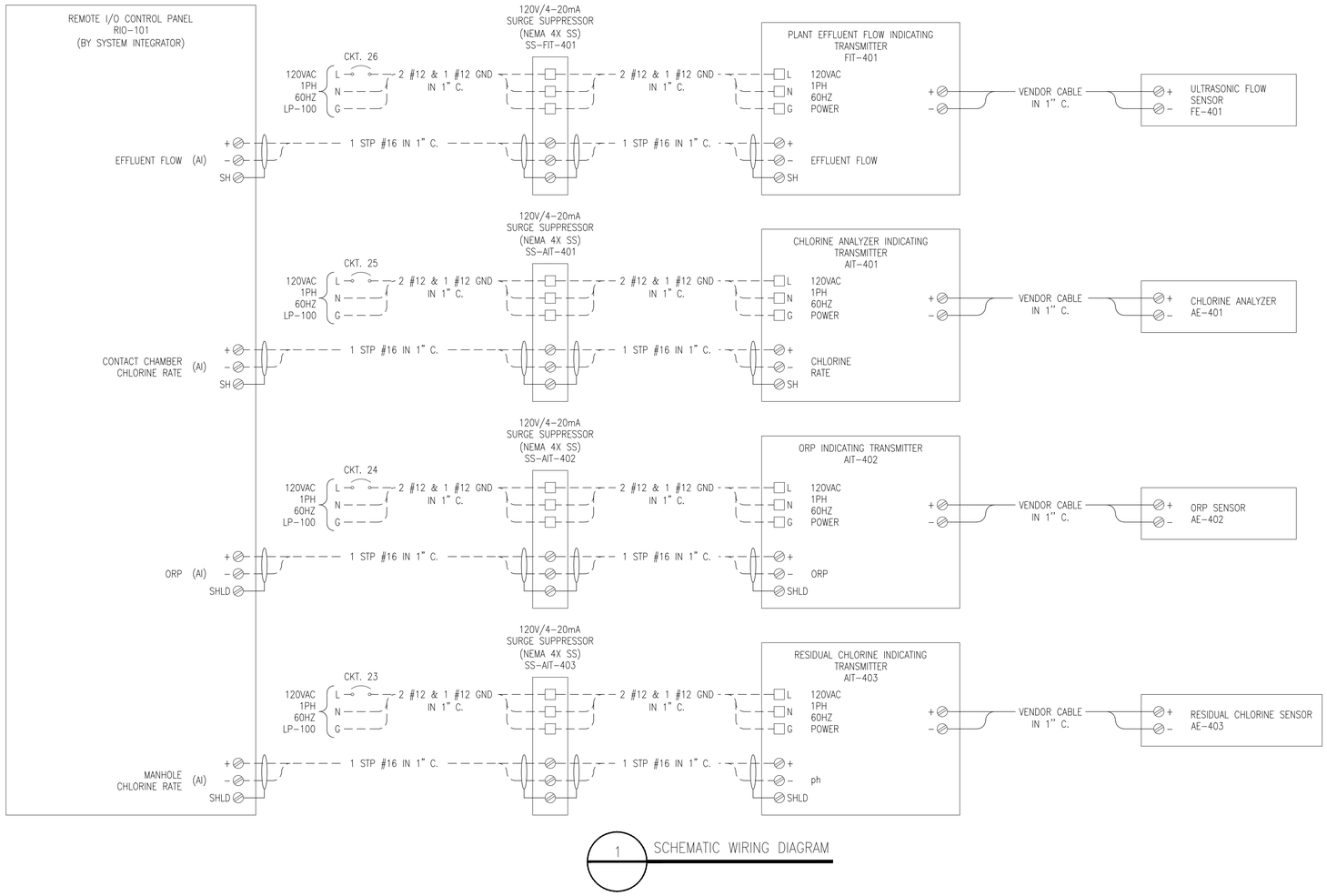
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-606
SHEET
OF

EDEC
EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1 SCHEMATIC WIRING DIAGRAM

LEGEND:

- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

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4120 CHATTAHOOCHEE TRACE
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SPALDING COUNTY, GEORGIA
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SCHEMATIC WIRING DIAGRAM

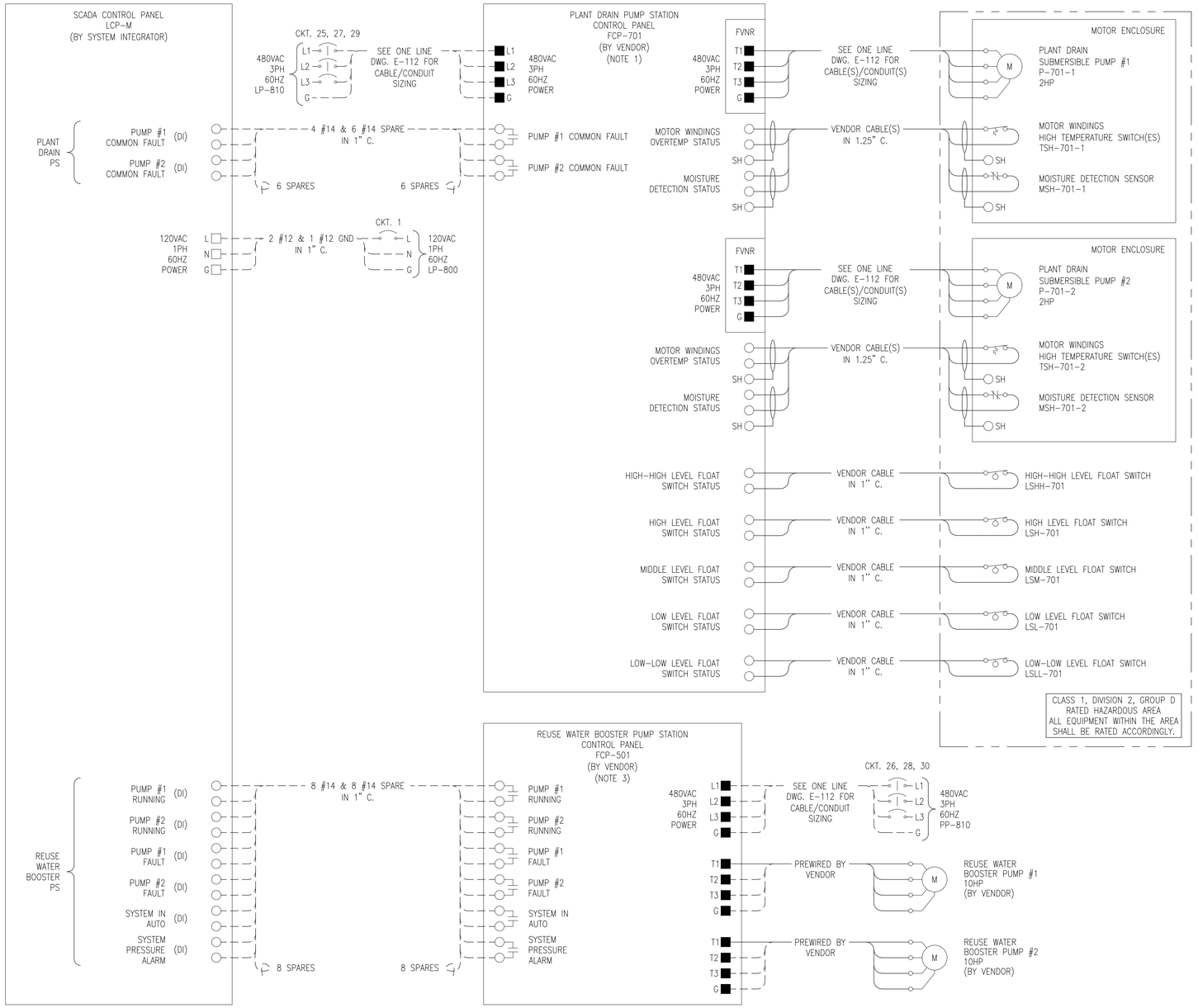
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-607

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OF

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1 SCHEMATIC WIRING DIAGRAM

NOTES:

1. THE PUMP VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL THE PLANT DRAIN PUMP STATION CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CONTROL PANEL SCCR SHALL BE 42kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING FREESTANDING NEMA 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, INNER DOORS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE – THERMAL MAGNETIC CIRCUIT BREAKER 20A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. TWO (2) FULL VOLTAGE NON-REVERSING (FVNR), 480V, 3PH STARTERS WITH MOTOR CIRCUIT PROTECTORS, RATED FOR 2HP MOTORS.
   - F. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER (THE CONTROL PANEL VENDOR SHALL ADJUST THE SIZE TO ACCOMMODATE ALL ASSOCIATED 240/120V LOADS) WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - G. LIGHTNING ARRESTOR.
   - H. ONE (1) INTERNAL GFCI 120V, 20A DUPLEX RECEPTACLE.
   - I. THREE (3) 120V, 20A, 1P CIRCUIT BREAKERS: INTERNAL DUPLEX RECEPTACLE, AND TWO (2) SPARE BREAKERS.
   - J. STRIP HEATER, FAN & THERMOSTAT.
   - K. CONTROLLER – [MULTISMART DUPLEX PUMP CONTROLLER BY XYLEM] OR [NONE (RELAY LOGIC)] OR [ALLEN-BRADLEY MICROLOGIX 1400 PLC].
   - L. CONTROLLER OIT – [MULTISMART OIT] OR [BUILT-IN WITH THE CONTROLLER] OR [12" HMI TOUCH SCREEN BY ALLEN-BRADLEY PANELVIEW SERIES], [INSTALLED ON THE INNER DOOR] OR [MOUNTED ON THE EXTERIOR DOOR, WITH SUN PROTECTOR (SHADE AIDE OR EQUAL)] OR [NONE].
   - M. PRIMARY LEVEL DEVICE – FIVE (5) FLOAT SWITCHES.
   - N. BACKUP LEVEL DEVICE – NONE.
   - O. SELECTOR SWITCHES:
     - O.1. H-O-A SWITCH (FOR EACH PUMP).
   - P. PUSH BUTTONS:
     - P.1. PUMP START (FOR EACH PUMP);
     - P.2. PUMP STOP (FOR EACH PUMP);
     - P.3. ALARM SILENCE;
     - P.4. ALARM RESET.
   - Q. ANALOG INDICATORS:
     - Q.1. WETWELL LEVEL.
   - R. INDICATING LIGHTS FOR:
     - R.1. CONTROL POWER ON (WHITE);
     - R.2. PUMP RUNNING (RED) (FOR EACH PUMP);
     - R.3. PUMP STOPPED (GREEN) (FOR EACH PUMP);
     - R.4. PUMP OVERTEMP (AMBER) (FOR EACH PUMP);
     - R.5. PUMP SEAL FAILURE (AMBER) (FOR EACH PUMP);
     - R.6. WETWELL HIGH-HIGH LEVEL ALARM (AMBER);
     - R.7. WETWELL LOW-LOW LEVEL ALARM (AMBER).
   - S. SIX (6) DIGITS ELAPSED TIME METER (FOR EACH PUMP).
   - T. 120V, 5A RATED DRY CONTACTS, AND SIGNAL WIRING PREWIRED TO FIELD TERMINALS:
     - T.1. WETWELL HIGH-HIGH LEVEL ALARM;
     - T.2. WETWELL LOW-LOW LEVEL ALARM;
     - T.3. PUMP 1 RUNNING;
     - T.4. PUMP 2 RUNNING;
     - T.5. PUMP 1 COMMON FAULT (MOISTURE/TEMPERATURE/OVERLOAD ALARM);
     - T.5. PUMP 2 COMMON FAULT (MOISTURE/TEMPERATURE/OVERLOAD ALARM).
   - U. PUMP ALTERNATOR.
   - V. ALARM LIGHT AND HORN,
   - W. TIMER RELAY TO PREVENT SIMULTANEOUS PUMPS STARTING, IN "AUTO" MODE.
   - X. INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WETWELL.
   - Y. PUMPS HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
     - Y.1. PHASE LOSS ALARM;
     - Y.2. LOW-LOW LEVEL CUTOFF;
     - Y.3. COMMON FAULT (MOISTURE/TEMPERATURE ALARM).
   - Z. PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

ALL OPERATOR INTERFACE DEVICES SHALL BE MOUNTED ON THE INNER SWING DOOR. CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

LEGEND:

- – 120V POWER TERMINAL
- – 480V POWER TERMINAL
- – MV POWER TERMINAL
- – CONTROL TERMINAL
- – SIGNAL TERMINAL
- – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LAKESHORE ENGINEERING
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A	DV	DV	10/01/2024

GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

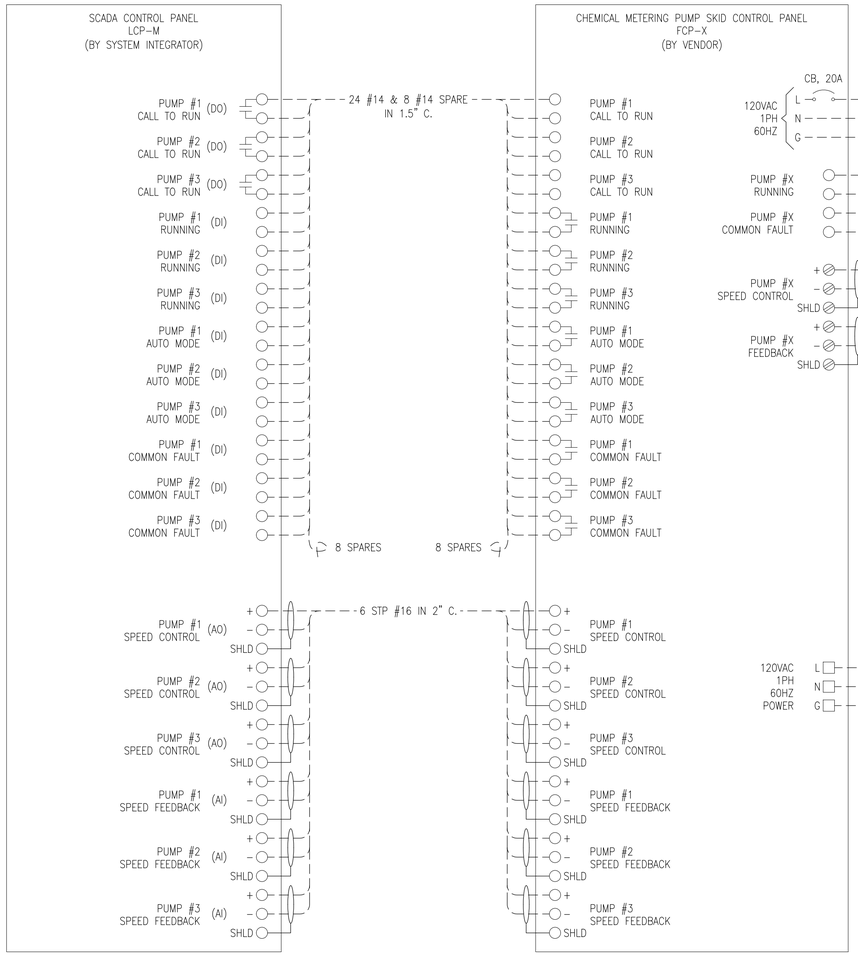
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

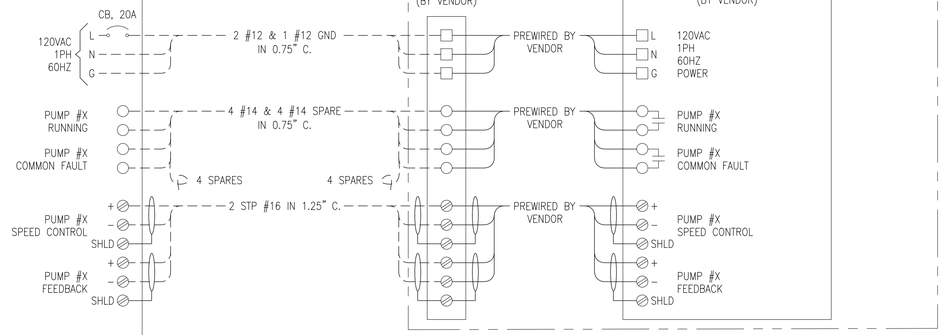
E-608
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EDEC
EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

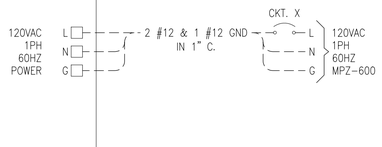
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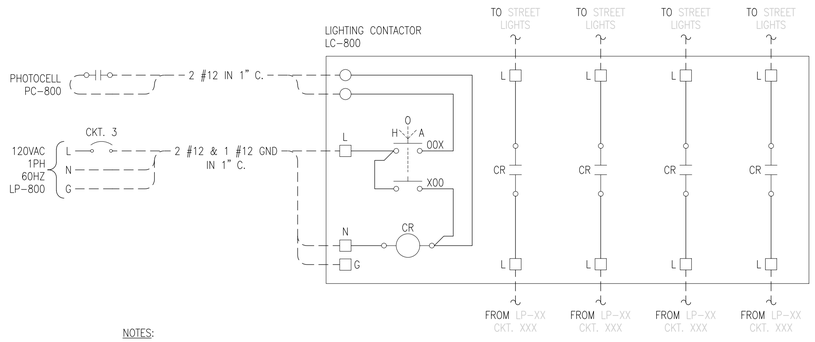


1 SCHEMATIC WIRING DIAGRAM



#X	PUMP SKID #X	P-X	JB-X	FCP-X
1	PUMP SKID #1	P-601	JB-601	FCP-601
2		P-602		
3		P-603		
4	PUMP SKID #2	P-604	JB-602	FCP-602
5		P-605		
6		P-606		





NOTES:

1. "PC" – PHOTOCELL, 120V. LOCATE ON TOP OF ELECTRICAL ROOM. PHOTOCELL SHALL INCLUDE 120V RATED CONTACT FOR CONNECTION TO LIGHTING CONTACTOR. PROVIDE PHOTOCELL COVER TO PREVENT NUISANCE ACTIVATION FROM SITE LIGHTING.
2. MECHANICALLY HELD HEAVY-DUTY 4 POLES, 20A RATED LIGHTING CONTACTOR WITH 120V COIL VOLTAGE (EATON CLASS ECCO3 OR ACCEPTED EQUAL). TAG THE CONDUCTORS ON THE LINE SIDE OF THE LIGHTING CONTACTOR WITH THEIR RESPECTIVE CIRCUIT NUMBER.
3. THE CONTRACTOR SHALL INSTALL LIGHTING CONTACTOR IN NEMA 1 CABINET.
4. THE CONTRACTOR SHALL USE #12 AWG POWER CONDUCTORS FOR LIGHTING POWER WIRING UNLESS OTHERWISE SPECIFIED ON THE LIGHTING PLANS, WHERE UPSIZED CONDUCTORS ARE REQUIRED TO MITIGATE VOLTAGE DROP.

2 LIGHTING CONTACTOR LC-800 – SCHEMATIC WIRING DIAGRAM

LEGEND:

- – 120V POWER TERMINAL
- – 480V POWER TERMINAL
- – MV POWER TERMINAL
- – CONTROL TERMINAL
- – SIGNAL TERMINAL
- – ANTENNA TERMINAL
- RJ-45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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GMP DEVELOPMENT — 10/01/2024

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SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

SCHEMATIC WIRING DIAGRAM

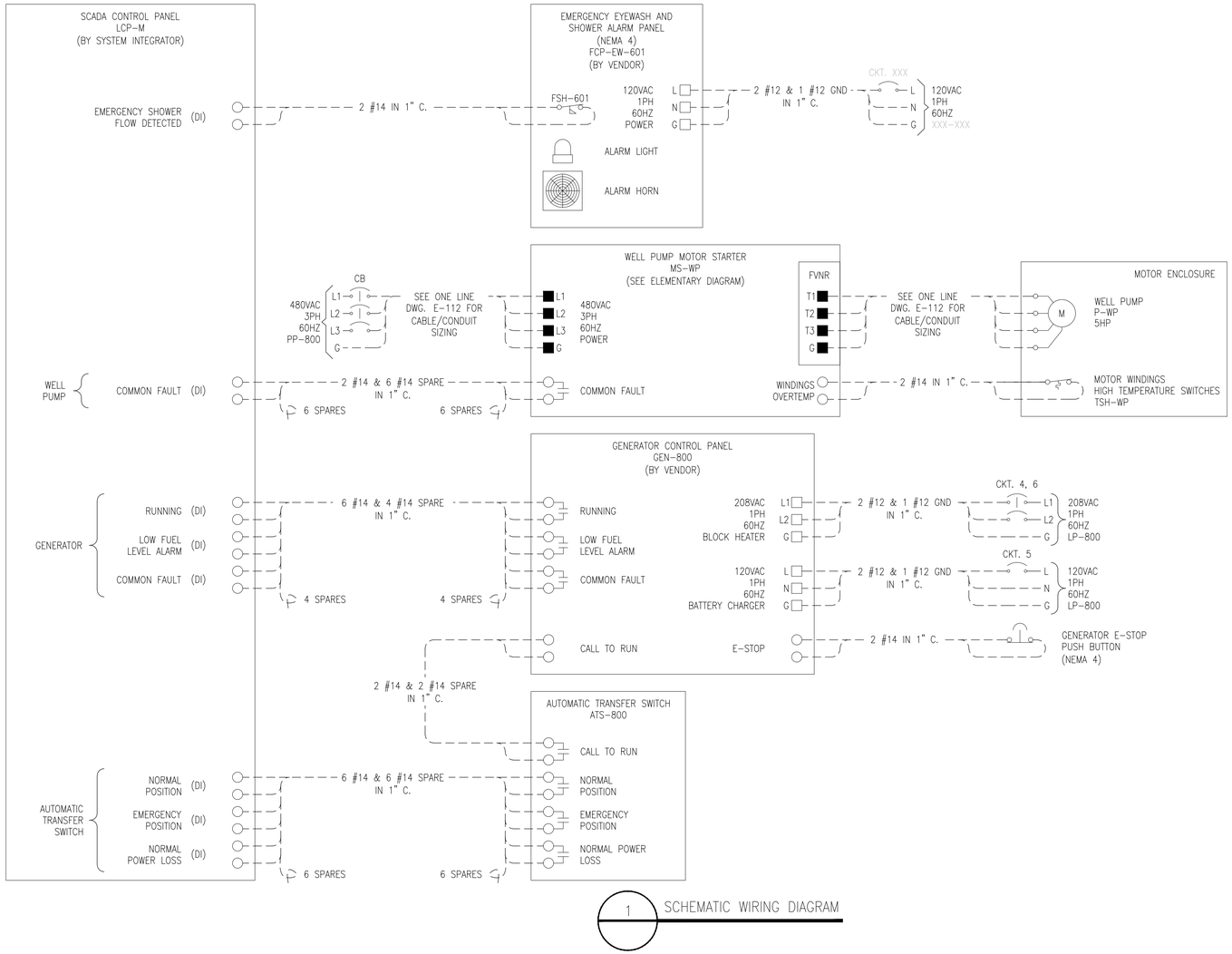
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DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-609

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1 SCHEMATIC WIRING DIAGRAM

LEGEND:

- ☐ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

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0 1/2 1

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREGINEERING.COM

R2T RIVER TO TAP
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UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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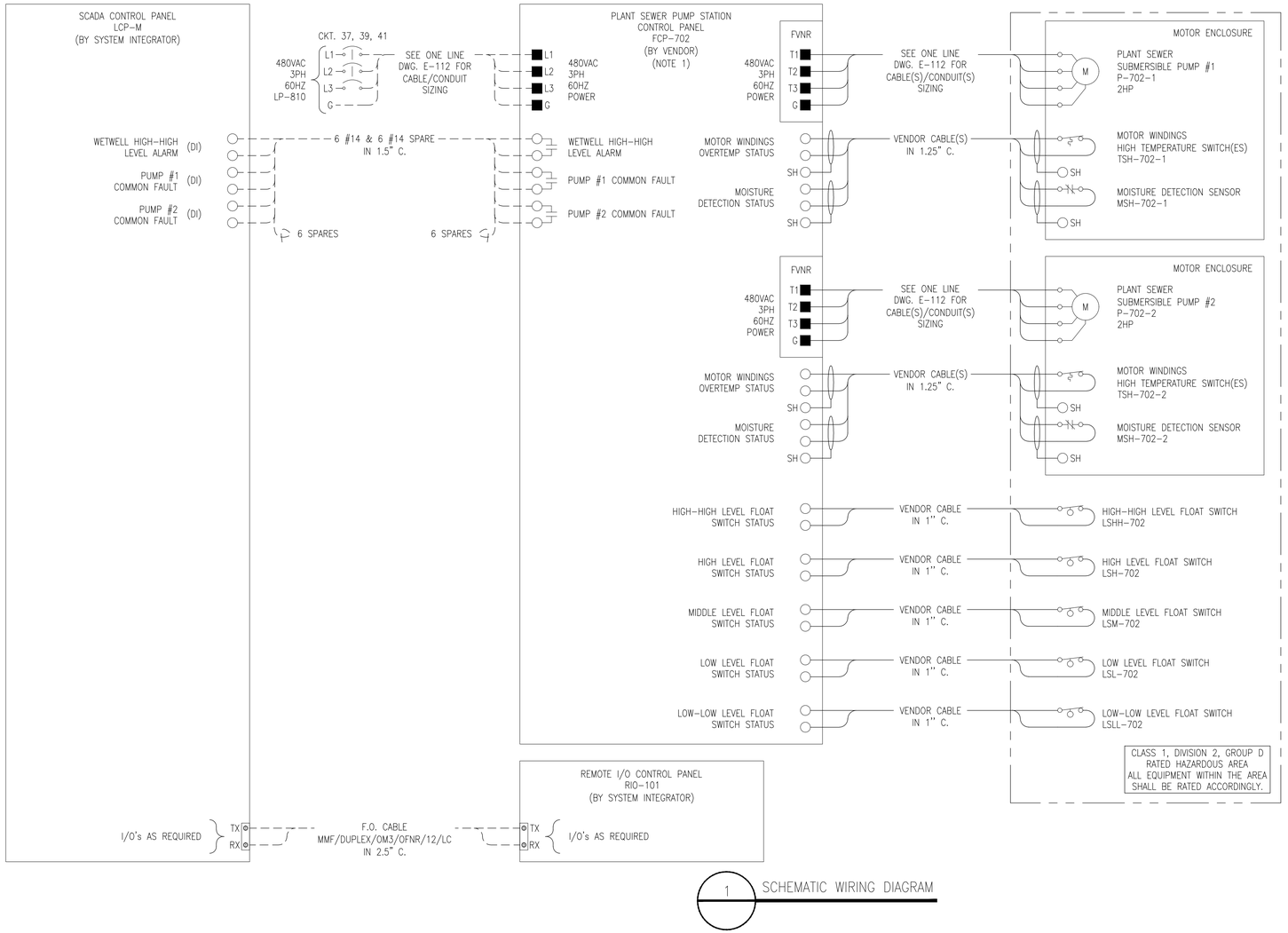
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E-610
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EDEC, INC.
4120 CHATTAHOOCHEE TRACE
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DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1 SCHEMATIC WIRING DIAGRAM

NOTES:

1. THE PUMP VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL THE PLANT SEWER PUMP STATION CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CONTROL PANEL SCCR SHALL BE 42kAIC MINIMUM.
   - B. ENCLOSURE: 3-POINT LATCHING FREESTANDING NEMA 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, INNER DOORS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE – THERMAL MAGNETIC CIRCUIT BREAKER 20A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. TWO (2) FULL VOLTAGE NON-REVERSING (FVNR), 480V, 3PH STARTERS WITH MOTOR CIRCUIT PROTECTORS, RATED FOR 2HP MOTORS.
   - F. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER (THE CONTROL PANEL VENDOR SHALL ADJUST THE SIZE TO ACCOMMODATE ALL ASSOCIATED 240/120V LOADS) WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - G. LIGHTNING ARRESTOR.
   - H. ONE (1) INTERNAL GFCI 120V, 20A DUPLEX RECEPTACLE.
   - I. THREE (3) 120V, 20A, 1P CIRCUIT BREAKERS: INTERNAL DUPLEX RECEPTACLE, AND TWO (2) SPARE BREAKERS.
   - J. STRIP HEATER, FAN & THERMOSTAT.
   - K. CONTROLLER – [MULTISMART DUPLEX PUMP CONTROLLER BY XYLEM] OR [NONE (RELAY LOGIC)] OR [ALLEN-BRADLEY MICROLOGIX 1400 PLC].
   - L. CONTROLLER OIT – [MULTISMART OIT] OR [BUILT-IN WITH THE CONTROLLER] OR [12" HMI TOUCH SCREEN BY ALLEN-BRADLEY PANELVIEW SERIES], [INSTALLED ON THE INNER DOOR] OR [MOUNTED ON THE EXTERIOR DOOR, WITH SUN PROTECTOR (SHADE AIDE OR EQUAL)] OR [NONE].
   - M. PRIMARY LEVEL DEVICE – FIVE (5) FLOAT SWITCHES.
   - N. BACKUP LEVEL DEVICE – NONE.
   - O. SELECTOR SWITCHES:
     - O.1. H-O-A SWITCH (FOR EACH PUMP).
   - P. PUSH BUTTONS:
     - P.1. PUMP START (FOR EACH PUMP);
     - P.2. PUMP STOP (FOR EACH PUMP);
     - P.3. ALARM SILENCE;
     - P.4. ALARM RESET.
   - Q. ANALOG INDICATORS:
     - Q.1. WETWELL LEVEL.
   - R. INDICATING LIGHTS FOR:
     - R.1. CONTROL POWER ON (WHITE);
     - R.2. PUMP RUNNING (RED) (FOR EACH PUMP);
     - R.3. PUMP STOPPED (GREEN) (FOR EACH PUMP);
     - R.4. PUMP OVERTEMP (AMBER) (FOR EACH PUMP);
     - R.5. PUMP SEAL FAILURE (AMBER) (FOR EACH PUMP);
     - R.6. WETWELL HIGH-HIGH LEVEL ALARM (AMBER);
     - R.7. WETWELL LOW-LOW LEVEL ALARM (AMBER).
   - S. SIX (6) DIGITS ELAPSED TIME METER (FOR EACH PUMP).
   - T. 120V, 5A RATED DRY CONTACTS, AND SIGNAL WIRING PREWIRED TO FIELD TERMINALS:
     - T.1. WETWELL HIGH-HIGH LEVEL ALARM;
     - T.2. WETWELL LOW-LOW LEVEL ALARM;
     - T.3. PUMP 1 RUNNING;
     - T.4. PUMP 2 RUNNING;
     - T.5. PUMP 1 COMMON FAULT (MOISTURE/TEMPERATURE/OVERLOAD ALARM);
     - T.5. PUMP 2 COMMON FAULT (MOISTURE/TEMPERATURE/OVERLOAD ALARM).
   - U. PUMP ALTERNATOR.
   - V. ALARM LIGHT AND HORN,
   - W. TIMER RELAY TO PREVENT SIMULTANEOUS PUMPS STARTING, IN "AUTO" MODE.
   - X. INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WETWELL.
   - Y. PUMPS HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
     - Y.1. PHASE LOSS ALARM;
     - Y.2. LOW-LOW LEVEL CUTOFF;
     - Y.3. COMMON FAULT (MOISTURE/TEMPERATURE ALARM).
   - Z. PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

ALL OPERATOR INTERFACE DEVICES SHALL BE MOUNTED ON THE INNER SWING DOOR. CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

F.O. CABLE LEGEND:

MMF/DUPLEX/OM4/OFNR/12/LC
- CORE TYPE
- TRANSMISSION TYPE
- FIBER TYPE
- CABLE TYPE
- STRANDS COUNT
- CONNECTOR TYPE

LEGEND:
- ☐ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

0 1/2 1
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LAKESHORE ENGINEERING
1258 ELLSWORTH DRIVE
ATLANTA, GA 30316
LAKESHOREENGINEERING.COM

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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SPALDING COUNTY, GEORGIA
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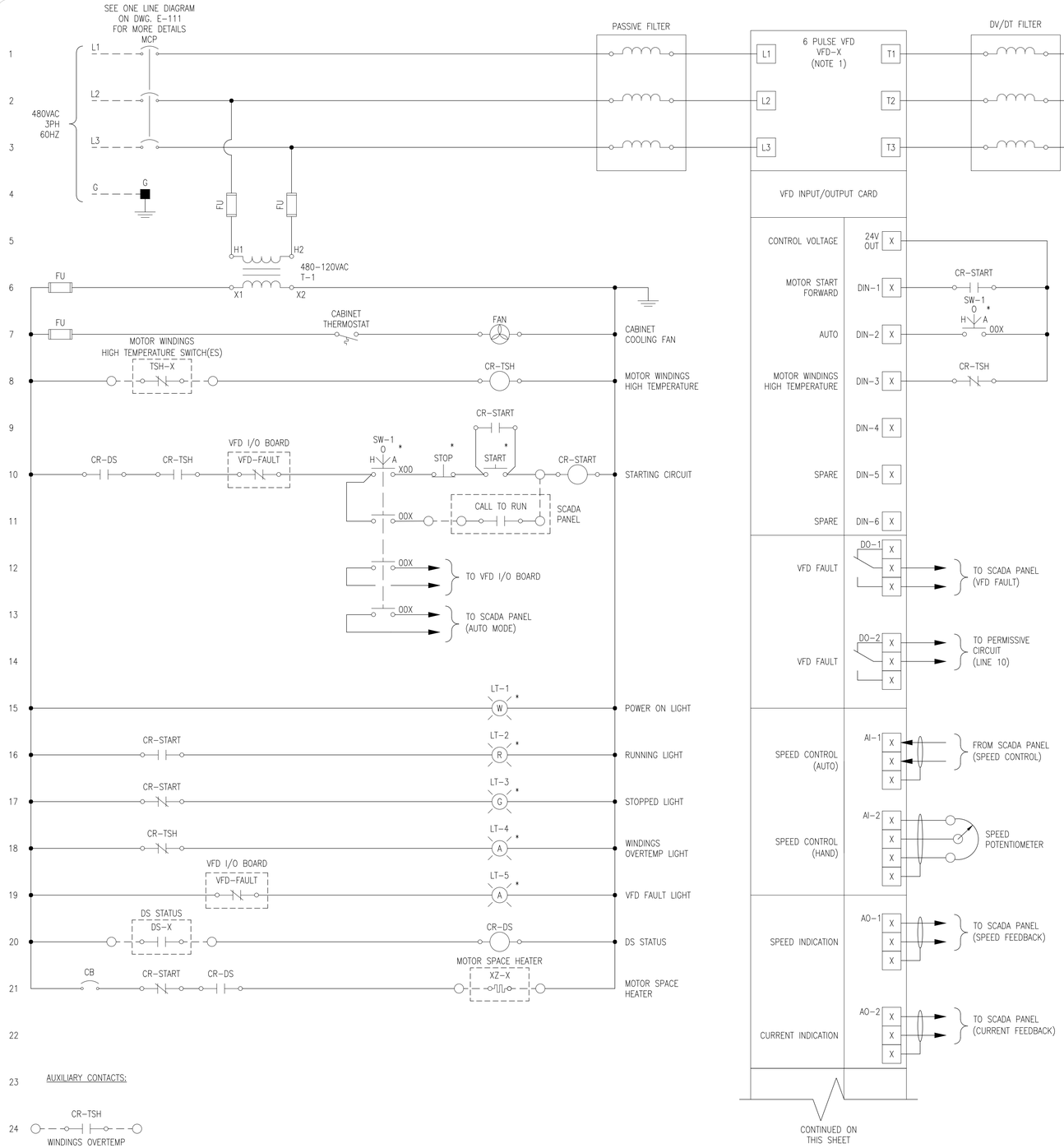
SCHEMATIC WIRING DIAGRAM

DESIGNED:	DV
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APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-611
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OF

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1 AERATION BLOWER VFD – ELEMENTARY DIAGRAM

NOTES:

1. THE EQUIPMENT VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL AERATION BLOWER VFD CABINET WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CABINET SCCR SHALL BE 42kAIC MINIMUM.
   - B. ENCLOSURE: WALL MOUNTED, NEMA 1.
   - C. MAIN DEVICE: THERMAL MAGNETIC CIRCUIT BREAKER 50A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   - D. VARIABLE FREQUENCY DRIVE (VFD):
     - D.1. CONSTANT TORQUE DRIVE.
     - D.2. 6 PULSE DRIVE WITH MOTOR CIRCUIT PROTECTORS, RATED FOR 25HP MOTOR.
     - D.3. INCLUDE PASSIVE FILTER, DV/DT FILTER, THE CABINET MANUFACTURER SHALL PERFORM A HARMONIC ANALYSIS BASED ON THE SELECTED VFD MODEL TO ENSURE THAT THE HARMONIC DISTORTIONS ARE WITHIN IEEE519 LIMITS AND PROVIDE REPORT FOR ENGINEERS REVIEW.
   - E. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - F. FAN & THERMOSTAT.
   - G. VFD KEY PAD MOUNTED ON THE FRONT DOOR;
   - H. SPEED POTENTIOMETER (FOR HAND MODE).
   - I. SELECTOR SWITCHES:
     - I.1. H-O-A SWITCH.
   - J. PUSH BUTTONS:
     - J.1. START;
     - J.2. STOP.
   - K. ANALOG INDICATORS:
     - K.1. SPEED;
     - K.2. CURRENT.
   - L. INDICATING LIGHTS FOR:
     - L.1. CONTROL POWER ON (WHITE);
     - L.2. PUMP RUNNING (RED);
     - L.3. PUMP STOPPED (GREEN);
     - L.4. WINDINGS OVERTEMP (AMBER);
     - L.5. VFD FAULT (AMBER).
   - M. MEANS OF I/O's COMMUNICATION:
     - M.1. 120V, 5A RATED DRY CONTACTS, PREWIRED TO FIELD TERMINALS:
       - M.1.1. RUNNING;
       - M.1.2. AUTO MODE;
       - M.1.3. WINDINGS OVERTEMP;
       - M.1.4. VFD FAULT.
     - M.2. HARDWIRED SIGNALS PREWIRED TO FIELD TERMINALS:
       - M.2.1. SPEED CONTROL INPUT (4-20mA);
       - M.2.2. CURRENT FEEDBACK OUTPUT (4-20mA).
   - N. HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE:
     - N.1. DISCONNECT SWITCH STATUS;
     - N.2. WINDINGS OVERTEMP;
     - N.3. VFD FAULT.
   - O. THE CABINET SHALL INCLUDE ALL NECESSARY COMPONENTS FOR EQUIPMENT SAFE AND RELIABLE OPERATION.

THE CABINET SHALL BE MANUFACTURED BY EATON, SCHNEIDER ELECTRIC, ALLEN-BRADLEY, ABB, SIEMENS OR APPROVED EQUAL MANUFACTURER, THE CABINET SHALL BE UL LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

#X	DESCRIPTION	VFD-X	DS-X	B-X	XZ-X	TSH-X
1	AERATION BLOWER #1	VFD-801	DS-201	B-201	XZ-201	TSH-201
2	AERATION BLOWER #2	VFD-802	DS-201	B-202	XZ-202	TSH-202
3	AERATION BLOWER #3	VFD-803	DS-203	B-203	XZ-203	TSH-203
4	AERATION BLOWER #4	VFD-804	DS-204	B-204	XZ-204	TSH-204

LEGEND:
- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ▨ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT
- * – DOOR MOUNTED

PRELIMINARY - NOT FOR CONSTRUCTION

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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GMP DEVELOPMENT
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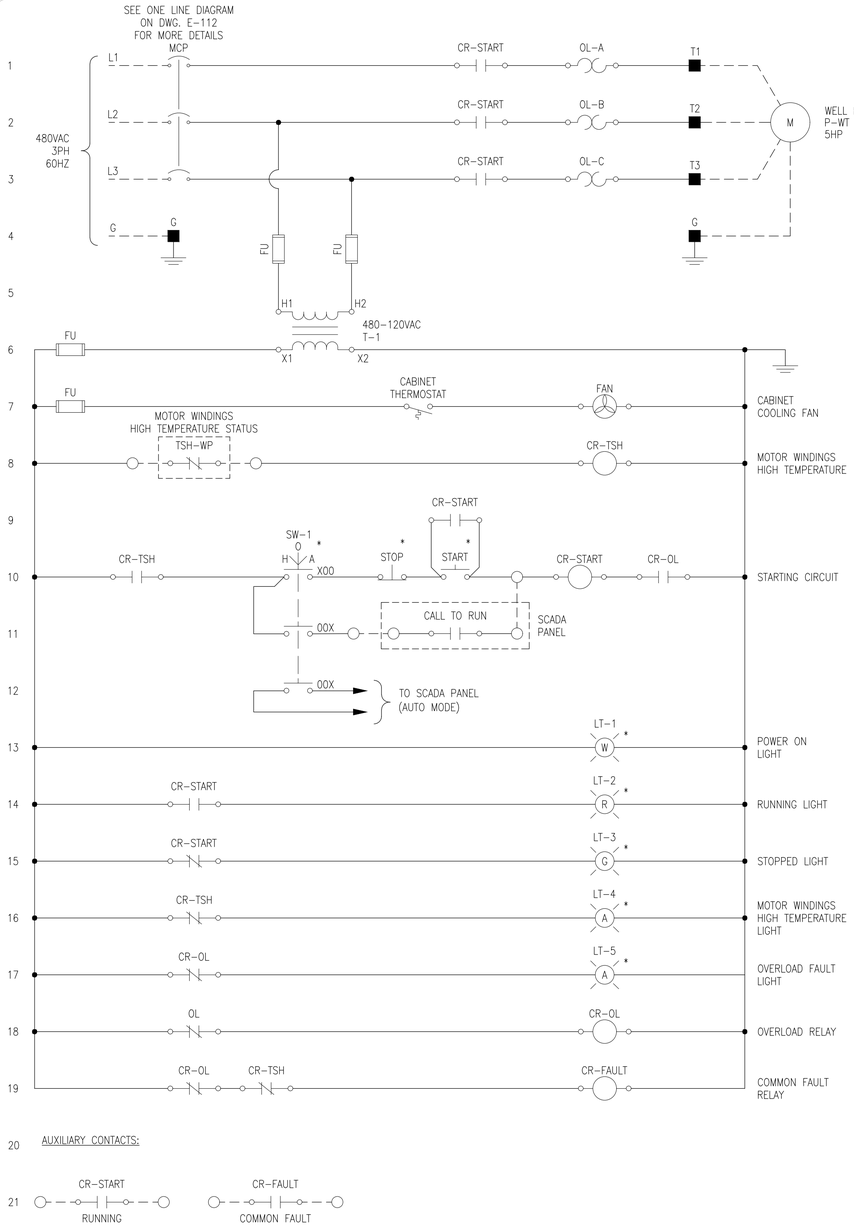
VFD - ELEMENTARY DIAGRAM

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-621
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1 WELL PUMP MOTOR STARTER – ELEMENTARY DIAGRAM

NOTES:

1. THE EQUIPMENT VENDOR SHALL PROVIDE AND CONTRACTOR SHALL INSTALL WELL PUMP ENCLOSED MOTOR STARTER WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. CABINET SCCR SHALL BE 25kAIC MINIMUM.
   - B. ENCLOSURE: FREESTANDING NEMA 4X, TYPE 304 STAINLESS STEEL WITH 12" FLOOR STANDS, INNER DOORS, FOLDING SHELF, INTERIOR LIGHT FIXTURE WITH DOOR SWITCH.
   - C. MAIN DEVICE: THERMAL MAGNETIC CIRCUIT BREAKER 20A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE
   - D. FULL VOLTAGE NON-REVERSING (FVNR) NEMA TYPE COMBINATION MOTOR STARTER WITH MOTOR CIRCUIT PROTECTORS (WITH EXTERNAL OPERATOR), RATED FOR 5HP MOTOR.
   - E. 0.3kVA, 480-240/120V CONTROL POWER TRANSFORMER WITH PRIMARY AND SECONDARY CIRCUIT BREAKERS.
   - F. SELECTOR SWITCHES:
     - F.1. H-O-A SWITCH.
   - G. PUSH BUTTONS:
     - G.1. START;
     - G.2. STOP.
   - H. INDICATING LIGHTS FOR:
     - H.1. CONTROL POWER ON (WHITE);
     - H.2. RUNNING (RED);
     - H.3. STOPPED (GREED);
     - H.4. OVERTEMP ALARM (AMBER);
     - H.5. OVERLOAD FAULT (AMBER).
   - I. MEANS OF I/O'S COMMUNICATION:
     - I.1. 120V, 5A RATED DRY CONTACTS, PREWIRED TO FIELD TERMINALS:
       - I.1.1. RUNNING;
       - I.1.2. AUTO MODE;
       - I.1.3. COMMON FAULT.
   - J. HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE:
     - J.1. OVERTEMP ALARM;
     - J.2. OVERLOAD ALARM.
   - K. CABINET SHALL INCLUDE ALL NECESSARY COMPONENTS FOR EQUIPMENT SAFE AND RELIABLE OPERATION.

THE CABINET SHALL BE MANUFACTURED BY EATON, SCHNEIDER ELECTRIC, ALLEN-BRADLEY, ABB, SIEMENS OR APPROVED EQUAL MANUFACTURER, THE CABINET SHALL BE UL LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

LEGEND:
- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ▨ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT
- * – DOOR MOUNTED

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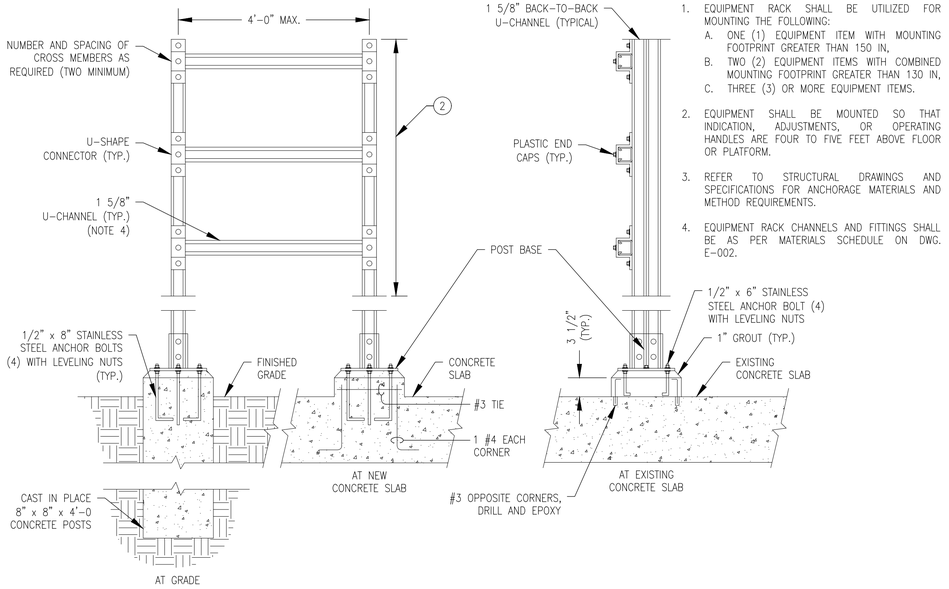
FVNR - ELEMENTARY DIAGRAM

DESIGNED:	DV
DETAILED:	DV
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-622
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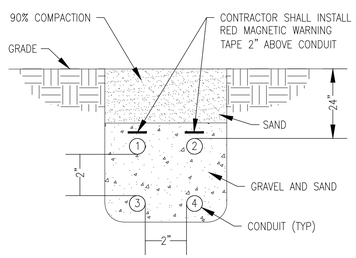
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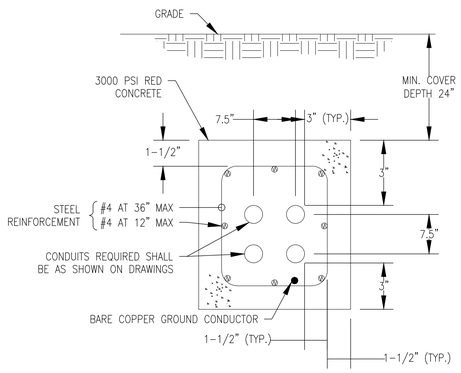
NOTES:

1. EQUIPMENT RACK SHALL BE UTILIZED FOR MOUNTING THE FOLLOWING:
   A. ONE (1) EQUIPMENT ITEM WITH MOUNTING FOOTPRINT GREATER THAN 150 IN,
   B. TWO (2) EQUIPMENT ITEMS WITH COMBINED MOUNTING FOOTPRINT GREATER THAN 130 IN,
   C. THREE (3) OR MORE EQUIPMENT ITEMS.
2. EQUIPMENT SHALL BE MOUNTED SO THAT INDICATION, ADJUSTMENTS, OR OPERATING HANDLES ARE FOUR TO FIVE FEET ABOVE FLOOR OR PLATFORM.
3. REFER TO STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANCHORAGE MATERIALS AND METHOD REQUIREMENTS.
4. EQUIPMENT RACK CHANNELS AND FITTINGS SHALL BE AS PER MATERIALS SCHEDULE ON DWG. E-002.

A EQUIPMENT RACK



B CONDUIT SECTION IN TRENCH

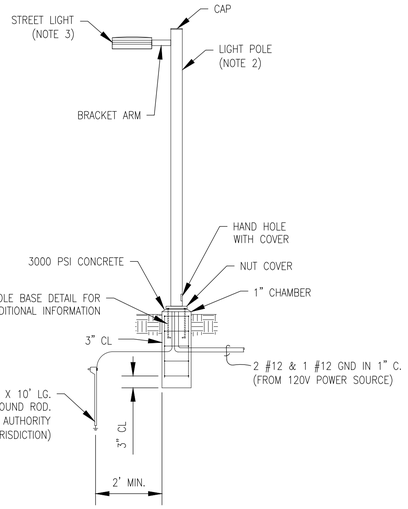


(DIMENSIONS ARE MINIMUM)

NOTES:

1. ALL DUCTBANKS CROSSING ROADS OR HEAVY TRAFFIC AREAS SHALL BE REINFORCED WITHIN FIVE (5) FEET OF TRAFFIC AREAS.
2. CONTRACTOR SHALL FIELD COORDINATE EXACT DUCTBANK ROUTING WITH EXISTING UTILITIES.

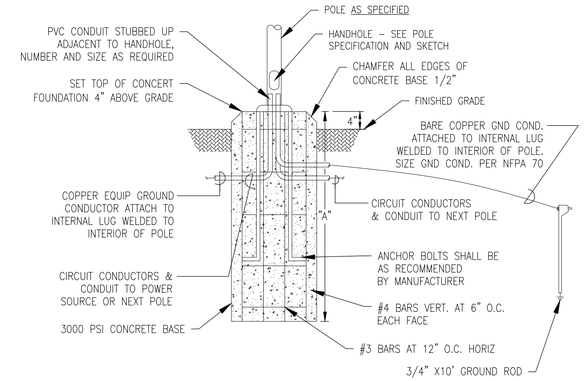
C REINFORCED DUCT BACK



NOTES:

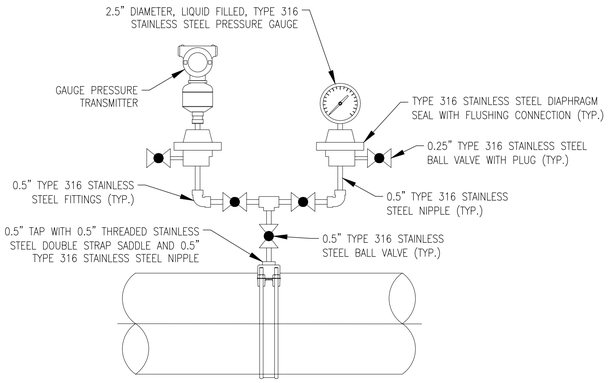
1. WIRING TO BE CONTINUOUS TO FIXTURE. NO SPLICING IN CONDUIT IS PERMITTED.
2. STREET LIGHT MUST BE MOUNTED ON A SQUARE STRAIGHT ALUMINUM POLE FEET IN HEIGHT. LIGHT POLE SHALL BE LITHONIA #SSA-"20"-DDB WITH ALL THE REQUIRED ANCHORING AND MOUNTING ACCESSORIES.
3. STREET LIGHT ATTACHED TO THE TOP OF THE POLE SHALL BE A 102W LED LIGHTING FIXTURE LITHONIA #DSX1-LED-P3-40K-T3M-MVOLT-SPUMBA-KMA-SF-DDBXD WITH "PER" PHOTOCELL OR APPROVED EQUAL OR ALTERNATE ACCEPTABLE TO THE COUNTY.

D LIGHT POLE



POLE HEIGHT	A	B
8' -12'	3'-0"	1'-0"
13' - 20'	4'-6"	1'-6"
21' - 25'	6'-0"	2'-0"

E LIGHTING POLE BASE



NOTES:

1. PRESSURE TRANSDUCER AND TRANSMITTER, PRESSURE GAUGE, AND DIAPHRAGM SEAL SHALL BE PROVIDED BY A MANUFACTURER IDENTIFIED IN THE LIST OF ACCEPTABLE MANUFACTURERS.

F PRESSURE TRANSDUCER AND GAUGE ASSEMBLY

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30318
LAKESHOREENGINEERING.COM

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1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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A	DV		

GMP DEVELOPMENT
REVISIONS AND RECORD OF USE

10/01/2024
DATE

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
PDB SEWER IMPLEMENTATION

ELECTRICAL INSTALLATION DETAILS

DESIGNED:	DV
DETAILED:	DV
CHECKED:	DV
APPROVED:	DV
DATE:	AUGUST 2024

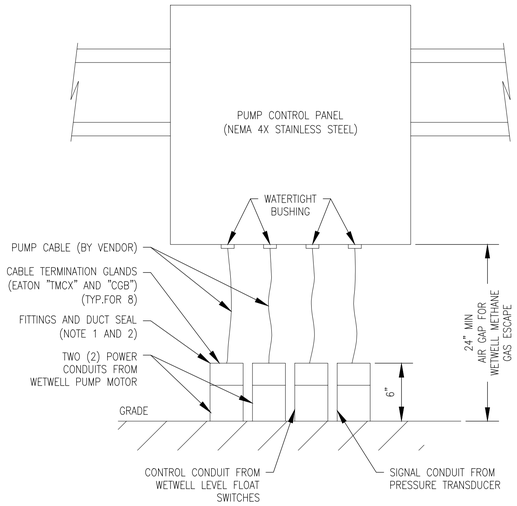
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-900

SHEET
OF

EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

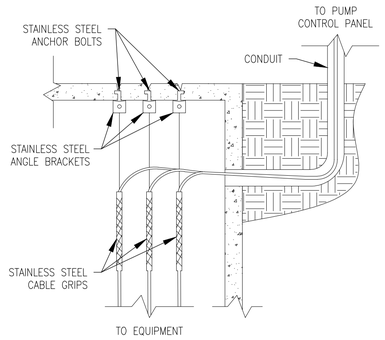
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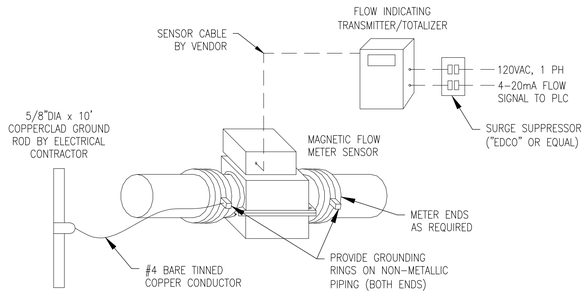
NOTES:

1. ALL FITTINGS SHALL BE CAST WITH THREADED HUBS.
2. CONTRACTOR SHALL PROVIDE PLUG DUCT SEAL COMPOUND FOR ALL CONDUITS ENTERING THE WETWELL.

A SUBMERSIBLE PUMP CONTROL PANEL



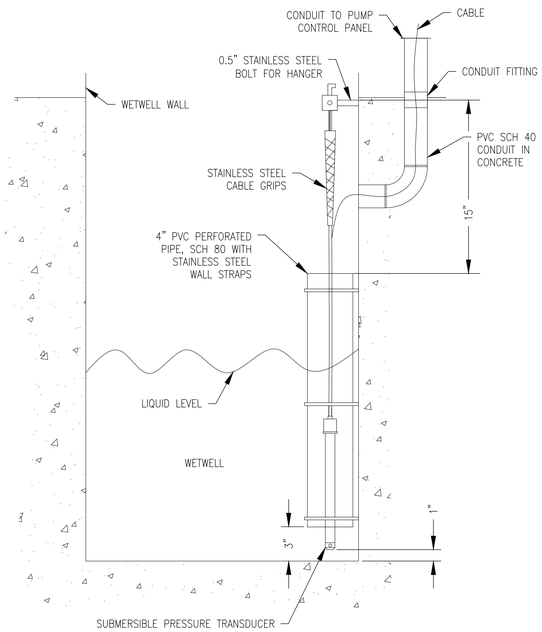
B SUBMERSIBLE CABLE ANCHORS



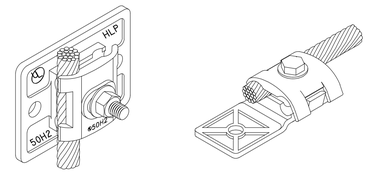
NOTES:

1. POWER SUPPLY TO MAGNETIC METER PRIMARY DEVICE & TRANSMITTER TO BE FROM SAME SOURCE WITH RESPECT TO VOLTAGE, FREQUENCY AND PHASE.

C ELECTROMAGNETIC FLOW METER

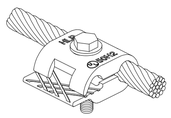


D SUBMERSIBLE PRESSURE TRANSDUCER

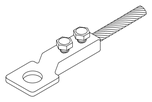


NO. 702,
STYLE BONDING PLATE

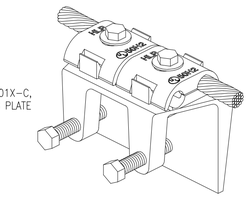
NO. 551,
CAST BRONZE BONDING LUG



NO. M2X,
SECONDARY SIZE BONDING CLAMP

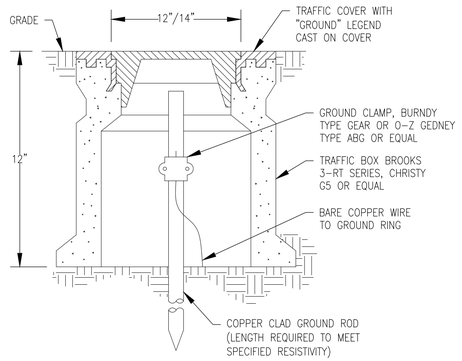


NO. 561,
CAST BRONZE BONDING LUG

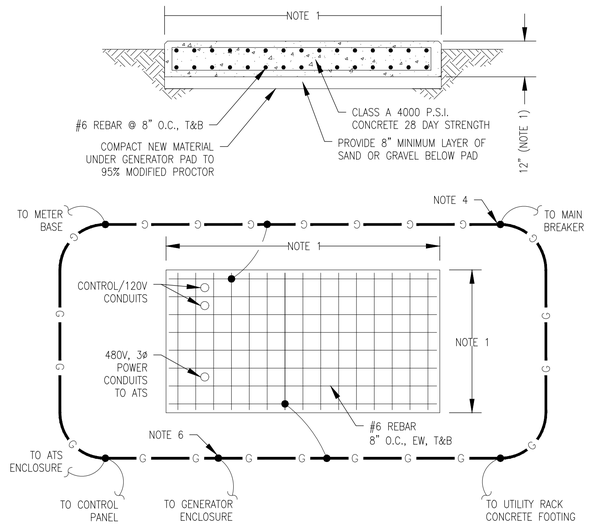


NO. A701X-C,
STYLE CLAMP BONDING PLATE

E BONDING LUGS AND PLATES



F GROUND TEST WELL



NOTES:

1. REVIEW DIMENSIONS OF GEN. SET, INCLUDING W.P. HOUSING, TO DETERMINE ACTUAL DIMENSIONS OF GEN. PAD. PAD SHALL BE INSTALLED AS RECOMMENDED BY THE GENERATOR MANUFACTURER.
2. PAD SHALL BE 12" LARGER ON ALL SIDES THAN THE GENERATOR BASE AND ENCLOSURE.
3. VERIFY CONDUIT PENETRATIONS WITH GENERATOR MANUFACTURER.
4. PROVIDE FOUR (4) 10' x 3/8" COPPER CLAD STEEL GROUND RODS AS SHOWN WITH #1/0 BARE COPPER GROUND WIRE AROUND THE GENERATOR PAD. CONNECT GROUND WIRE TO THE GENERATOR ENCLOSURE.
5. EXACT GENERATOR PAD SIZE SHALL BE DETERMINED BY THE GENERATOR MANUFACTURER'S SHOP DRAWING PRIOR TO INSTALLATION.
6. GENERATOR HOUSING SHALL BE GROUNDED, NOT THE NEUTRAL.

G GENERATOR GROUNDING

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

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1259 ELLSWORTH DRIVE
ATLANTA, GA 30319
LAKESHOREENGINEERING.COM

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
WWW.R2TINC.COM

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A	DV	DV	10/01/2024	GMP DEVELOPMENT

SPALDING COUNTY WATER AUTHORITY
SPALDING COUNTY, GEORGIA
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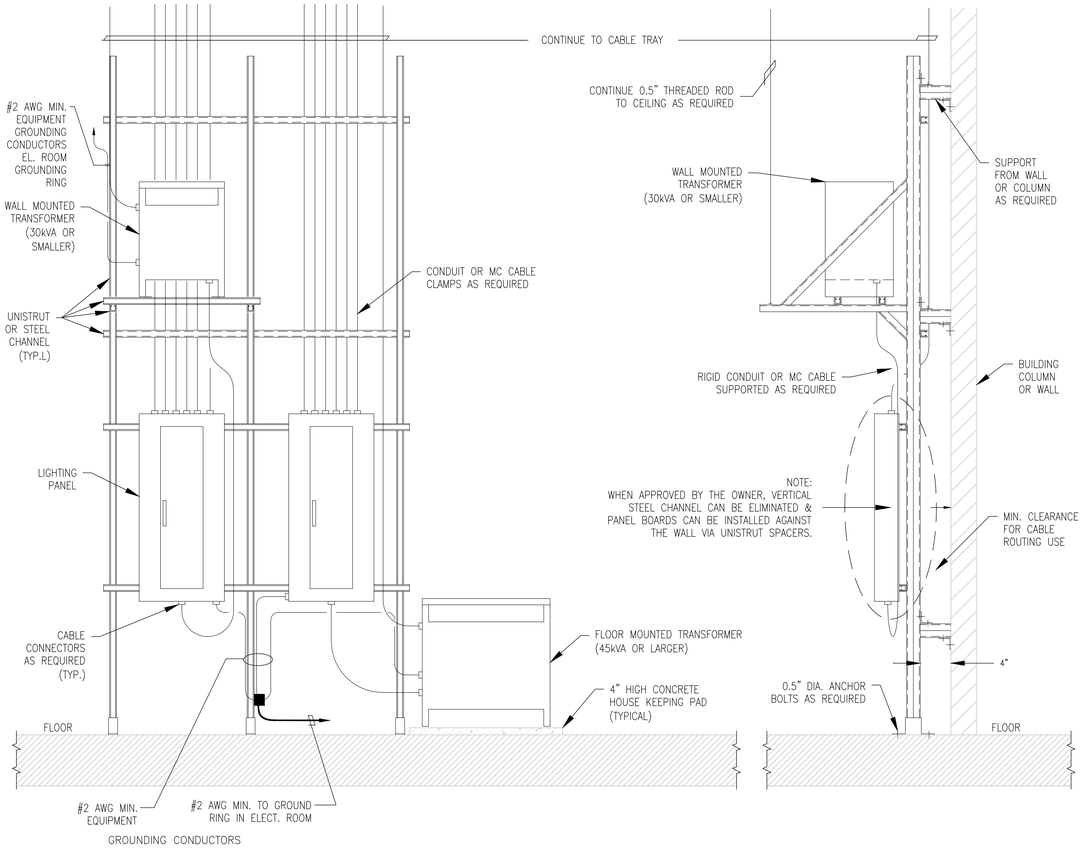
SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-901

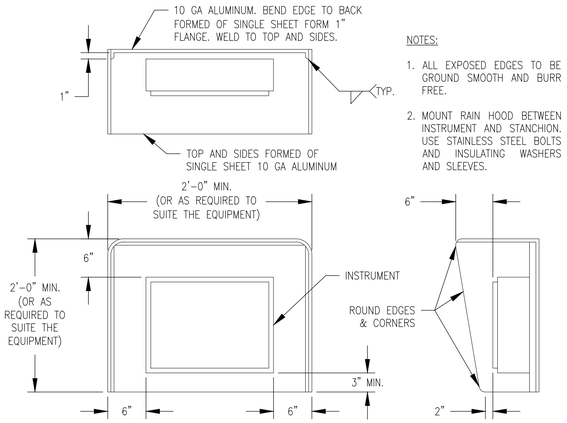
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OF

EDEC
EDEC, INC.
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL. (770) 493-8685

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A TRANSFORMER/BRANCH PANELBOARD MOUNTING



NOTES:

1. ALL EXPOSED EDGES TO BE GROUND SMOOTH AND BURR FREE.
2. MOUNT RAIN HOOD BETWEEN INSTRUMENT AND STANCHION. USE STAINLESS STEEL BOLTS AND INSULATING WASHERS AND SLEEVES.

B SUN/RAIN HOOD
FOR RTU AND PUMP CONTROL PANELS

PRELIMINARY - NOT FOR CONSTRUCTION

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0 1/2 1
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ELECTRICAL INSTALLATION DETAILS

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APPROVED:	DV
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SCWA CONTRACT #G1070001
R2T TASK ORDER NO. G1070001

E-902
SHEET
OF

FD10000
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DUCTED SPLIT SYSTEM HEAT PUMP SCHEDULE

EQUIPMENT TAG	AREA SERVED	FAN AIRFLOW (CFM)	MIN OUTDOOR AIR (CFM)	NOMINAL TONS	ESP (IN. WG)	FAN POWER (HP)	COOLING CAPACITY				HEATING CAPACITY		INDOOR UNIT - ELECTRICALS			OUTDOOR UNIT - ELECTRICALS			MAKE & MODEL			SEER/EER/HSPF	REMARKS
							EDB (DEG F)	EWB (DEG F)	TOTAL (MBH)	SENSIBLE (MBH)	HEAT PUMP (MBH)	ELECTRIC HEATING COIL (KW)	VOLT/PH/HZ	MCA (AMPS)	MOP (AMPS)	VOLT/PH/HZ	MCA (AMPS)	MOCP (AMPS)	MFR	INDOOR UNIT	OUTDOOR UNIT		
AC-1/ HP-1	OFFICE AREAS	770	70	2	0.5	1/3	76.7	64.5	22.7	17.4	23.6	3.8	208/1/60	27.3	30	208-230/1/60	13.5	20	CARRIER	FJ5ANXB24L00	27SPA624A003	15.2 / 12/ 7.5	1 THRU 3

GENERAL NOTES:

1. OR EQUAL BY TRANE
2. HEATING CAPACITY OF HEAT PUMP IS BASED ON 47F OUTDOOR AIR TEMPERATURE

REMARKS:

1. ELECTRIC HEATING COIL AND SINGLE POINT POWER CONNECTION FOR INDOOR UNIT
2. LOUVERED COIL GUARD OR DENSE WIRE COIL GUARD FOR OUTDOOR UNIT
3. BOTTOM RETURN AND TOP SUPPLY INDOOR UNIT

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

EQUIPMENT TAG	AREA SERVED	NOMINAL TONS	AIRFLOW (CFM)	COOLING CAPACITY		HEATING CAPACITY (MBH)	INDOOR UNIT MCA (AMPS)	OUTDOOR UNIT - ELECTRICALS			MAKE & MODEL			SEER/EER/HSPF	REMARKS
				TOTAL (MBH)	SENSIBLE (MBH)			VOLT/PH/HZ	MCA (AMPS)	MOCP (AMPS)	MFR	INDOOR UNIT	OUTDOOR UNIT		
AC-2/ HP-2	ELECTRIC ROOM	3	920	36	25.2	25.9	1	208-230/1/60	25	31	TRANE	TPKA0A036	TRUZA036	19.4 / 10.8 / 8.4	1, 2, 3, 4
AC-3/ HP-3	ELECTRIC ROOM	3	920	36	25.2	25.9	1	208-230/1/60	25	31	TRANE	TPKA0A036	TRUZA036	19.4 / 10.8 / 8.4	1, 2, 3, 4

GENERAL NOTES:

1. OR EQUAL BY MITSUBISHI, CARRIER
2. COOLING CAPACITY BASED ON EAT OF 80F DB AND 67F WB, AND 95F OUTDOOR AIR TEMPERATURE
3. HEATING CAPACITY IS BASED ON 17F OUTDOOR AIR TEMPERATURE

REMARKS:

1. VARIABLE SPEED INVERTER-DRIVEN COMPRESSOR
2. INDOOR UNIT POWERED BY OUTDOOR UNIT
3. CONDENSATE DRAIN PUMP
4. LOW AMBIENT TEMPERATURE CONTROLS

ELECTRIC UNIT HEATER SCHEDULE

EQUIPMENT TAG	AREA SERVED	KW	CFM	MOTOR HP	VOLT/PH/HZ	MAKE & MODEL		REMARKS
						MFR	MODEL	
EUH-1	MAINTENANCE BAY	3	405	1/15	208/1/60	CHROMALOX	HDH-A-300	1, 2, 3
EUH-2	MAINTENANCE BAY	3	405	1/15	208/1/60	CHROMALOX	HDH-A-300	1, 2, 3

REMARKS:

1. INTEGRAL THERMOSTAT AND CONTROL TRANSFORMER
2. MOUNTING BRACKETS
3. HOSE-DOWN CORROSION RESISTANT UNIT HEATER

VENTILATION FAN SCHEDULE

EQUIPMENT TAG	AREA SERVED	TYPE	AIR FLOW (CFM)	EXTERNAL STATIC PRESSURE (IN. WG)	FAN RPM	ELECTRICAL		DESIGN BASIS		REMARKS
						MOTOR HP	VOLT/PH/HZ	MFR	MODEL	
EF-1	RESTROOM EXHAUST	CEILING EXHAUST FAN	100	0.2	1,255	1/15	120/1/60	GREENHECK	SQ-70-VG	1, 2
EF-2	MAINTENANCE BAY - VENTILATION	PROPELLER WALL FAN	1,650	0.25	1,450	1/2	460/3/60	GREENHECK	AER-20-03-0315-VGD	2, 3, 4, 5
EF-3	LAB AREA EXHAUST	CEILING EXHAUST FAN	100	0.2	1,255	1/15	120/1/60	GREENHECK	SQ-70-VG	1, 2

REMARKS:

1. SPEED CONTROLLER
2. BACKDRAFT DAMPER
3. VARI-GREEN DRIVE
4. SHORT WALL HOUSING W/OSHA GUARD
5. ALUMINUM WHEEL

RECIRCULATING PUMP SCHEDULE

TAG	SERVICE	RPM	FLOW RANGE (GPM)	HEAD RANGE (FT)	SET POINT	MOTOR (HP)	ELECTRICAL VOLTS/PH/HZ	MAKE	MODEL	REMARKS
RP-1	HOT WATER CIRCULATION	3,250	0 - 10	35 -0	4 GPM @27 FT	1/8	115/1/60	TACO	009-BF5	1, 2

REMARKS:

1. BRONZE CASING
2. FLANGE CONNECTIONS

WALL LOUVER SCHEDULE

EQUIPMENT TAG	AREA SERVED	CFM	MAX PRESSURE DROP (IN. WG)	LOUVER SIZE			DAMPER	INTERLOCK DAMPER WITH	DESIGN BASIS		REMARKS
				WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)			MFR	MODEL	
WL-1	MAINTENANCE BAY	1,650	0.08	30	30	4			RUSKIN	ELF445DX	1, 2
WL-2	MAINTENANCE BAY	1,650	0.09	30	30	4	YES	EF-2	RUSKIN	ELC445D	1, 2
WL-3	OFFICE AREA - FRESH AIR INTAKE	70	0.05	16	12	4			RUSKIN	ELF445DX	1, 2
WL-4	TOILET EXHAUST	100	0.05	16	12	4			RUSKIN	ELF445DX	1, 2
WL-5	LAB EXHAUST	100	0.05	16	12	4			RUSKIN	ELF445DX	1, 2

REMARKS:

1. ALUMINUM LOUVER WITH KYNAR FINISH. COLOR SELECTED BY PROJECT ARCHITECT DURING SHOP DRAWING REVIEW
2. INSTALL LOUVER PER MANUFACTURER'S INSTRUCTIONS CORRESPONDING TO WALL CONSTRUCTION TYPE

ELECTRIC WATER HEATER SCHEDULE

TAG	SERVICE	ELECTRICAL		TANK CAPACITY (GALLONS)	RECOVERY CAPACITY		MAKE	MODEL	REMARKS
		VOLTS/PH/HZ	KW		GPH	TEMP RISE (DEG F)			
EWH-1	TEPID WATER FOR EMERGENCY FIXTURES AND DOMESTIC HOT WATER	460/3/60	12.3	119	63	80	AO SMITH	DRE-120	1, 2

REMARKS:

1. ASME 160 PSI TANK CONSTRUCTION
2. PROVIDE EXPANSION TANK