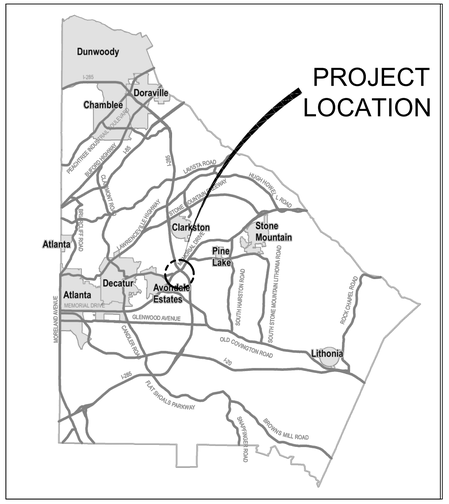
DEKALB COUNTY
DEPARTMENT OF WATERSHED MANAGEMENT
KENSINGTON ROAD PUMP STATION AND PIPELINE PROJECT
DEKALB COUNTY DEVELOPMENT FILE # 1244223



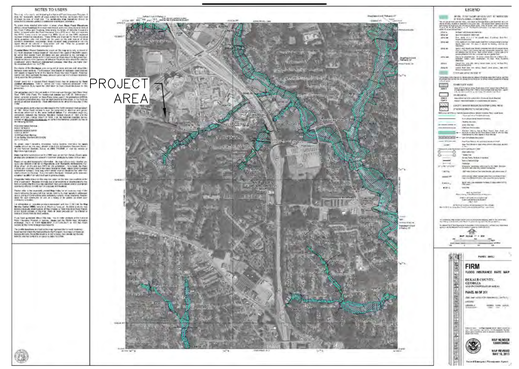
VICINITY MAP

PROJECT SUMMARY

EXISTING SITE CONDITIONS:
THE SITE LAND IS ALL OWNED BY DEKALB COUNTY WITHOUT THE COMMERCIAL OR PRIVATE PROPERTIES LOCATED WITHIN THE CONSTRUCTION CORRIDOR.
PROPOSED SITE CONDITIONS:
THE PROPOSED PROJECT INCLUDES THE INSTALLATION OF A SANITARY SEWER LIFT STATION, INCLUDING WET WELL, VALVE VAULT, BACKUP GENERATOR. ADDITIONALLY 375 LF OF 10", 805 LF OF 8", 175 LF OF 6" GRAVITY SEWER, AND 226 LF OF 6" FORCE MAIN, AND 185 LF OF 18" RCP STORM DRAIN ARE TO BE INSTALLED.

DeKalb County
GEORGIA

F.E.M.A MAP



THIS TRACT OF LAND DOES NOT LIE WITHIN THE 100 YEAR INTERMEDIATE REGIONAL FLOOD ZONE AS PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FIRM PANEL 13089C0088J, DATED MAY 16, 2013

SHEET INDEX

OWNER (PRIMARY PERMITEE)

DEKALB COUNTY
DEPARTMENT OF WATERSHED MANAGEMENT 4572
MEMORIAL DRIVE
DECATUR, GA 30032
PHONE: (770) 621-7200
CONTACT: TINA STRICKLAND, P.E.
TSTRICKLAND@DEKALBCOUNTYGA.GOV

24 HOUR EMERGENCY
CONTACT:
TINA STRICKLAND
(770) 414-2385

ENGINEER

R2T, INC
1841 PEELER ROAD, UNIT C
ATLANTA, GA 30328
PHONE: (770)752-5262
CONTACT: GEORGE AJY, P.E.
GEORGE.AJY@R2TINC.COM

DEVELOPER

DEKALB COUNTY
DEPARTMENT OF WATERSHED MANAGEMENT 4572
MEMORIAL DRIVE
DECATUR, GA 30032
PHONE: (770) 621-7200
CONTACT: TINA STRICKLAND, P.E.
TSTRICKLAND@DEKALBCOUNTYGA.GOV

FILE NOTICE OF INTENT AND NOTICE OF TERMINATION WITH GA E.P.D. AND PROVIDE A COPY OF THE FEE PAYMENT, AND DELIVERY RECEIPT TO DEKALB COUNTY, IF LAND DISTURBANCE IS ONE ACRE OR MORE OR WITHIN 200 FEET OF STATE WATERS. SUBMISSION MUST BE 14 DAYS PRIOR TO START OF LAND DISTURBANCE ACTIVITIES.

GEORGIA811 Utilities Protection Center, Inc.
Know what's below. Call before you dig.

72 HRS NOTICE IS REQUIRED TO GEORGIA 811 UTILITY PROTECTION CENTER BEFORE ANY PLANNED DIGGING
http://www.georgia811.com
1-800-282-7411

NPDES FEE TABLE

$40.00/ACRE x 1.3 ACRES DISTRIBUTED = $52.00 FEE TO PAY TO DEKALB COUNTY
$40.00/ACRE x 1.3 ACRES DISTRIBUTED = $52.00 FEE TO PAY TO GEORGIA EPD
TOTAL FEES TO PAY = $104.00

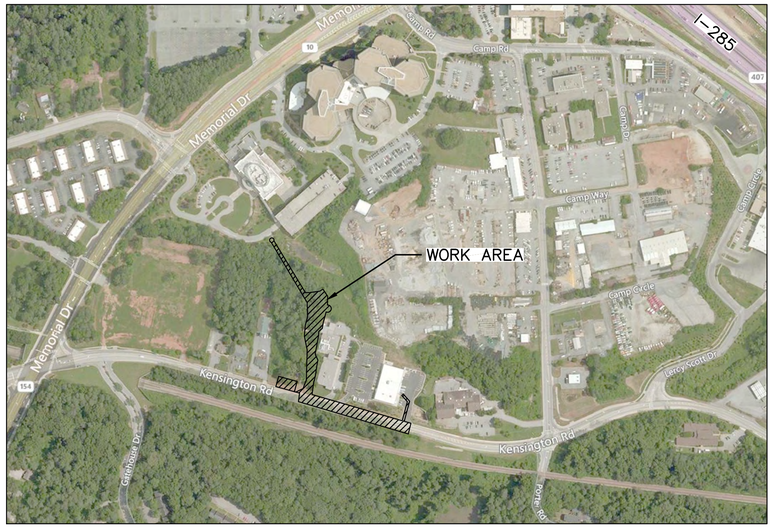
I, LUCK WATFORD (GSWCC LEVEL II CERTIFICATE NO. 0000060876), HEREBY CERTIFY THAT I HAVE VISITED THE SITE PRIOR TO CREATION OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN.

Luck Watford

07/06/2020 0000060876
GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

GSWCC Georgia Soil and Water Conservation Commission
Luck Watford
Level II Certified Design Professional
Certification Number 0000060876
Issued: 07/06/2020 Expires: 03/01/2023

DEKALB COUNTY IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS BY ENGINEERS OR OTHER DESIGN PROFESSIONALS ON DESIGN OR COUNTY CODE REQUIREMENTS FOR THIS PROJECT.



PROJECT LOCATION MAP

PROJECT INFORMATION

ADDRESS: 3550 KENSINGTON RD
DECATUR GA, 30032
PID: 15 251 05 001
ZONING: R-75
COUNTY: DEKALB
LAND LOT: 251
DISTRICT: 15

PARCEL SITE AREA: ±6.1 AC
TOTAL DISTURBED AREA: ±1.3 AC
ON-SITE DISTURBED AREA: ±0.8 AC
3550 KENSINGTON RD: 25821 SF (0.59 AC) DISTURBED
IN RIGHT-OF-WAY DISTURBED AREA: ±0.5 AC
NEW IMPERVIOUS: 4,925 SF
TOTAL IMPERVIOUS: 4,925 SF (1.85% OF PARCEL SITE AREA)
PROPOSED PERVIOUS PAVERS: 6,611 SF

BOARD OF COMMISSIONERS:	CHIEF EXECUTIVE OFFICER:
NANCY JESTER - DISTRICT 1	MICHAEL THURMOND
JEFF RADER - DISTRICT 2	CONTACT:
LARRY JOHNSON - DISTRICT 3	DEKALB COUNTY DEPT. OF WATERSHED MANAGEMENT
STEVE BRADSHAW - DISTRICT 4	4572 MEMORIAL DRIVE,
MEREDA DAVIS JOHNSON - DISTRICT 5	DECATUR, GA 30032
KATHIE GANNON - DISTRICT 6	PHONE: (770) 621-7200
LORRAINE COCHRAN-JOHNSON - DISTRICT 7	FAX: (770) 724-1407

DISTRICT	15	16	18	18 (EAST)	18 (WEST)
INSPECTOR	LONNIE KELLEY	BRUCE MAYHEW	LES MOSLEY	DANIEL TUCKER	MERCER McGUIRE
PHONE	(404) 391-4164	(678) 516-8627	(404) 538-5101	(404) 732-6411	(770) 274-9024
PHONE (M)	(404) 371-2149	(404) 371-3218	(404) 371-3231	(404) 687-4050	(404) 687-4060

DeKalb County
GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The documents and other data shall not prevent the [illegible] Plans for Mechanical, Gas, and Electrical sections [illegible] been reviewed for [illegible] codes and will be [illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. : PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA REGISTERED No. 25589 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE: COVER

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: OG

G-01

ABBREVIATIONS

C/L	CENTERLINE
DIP	DUCTILE IRON PIPE
EL	ELEVATION
E	EAST
HP	HIGH POINT
HWL	HIGH WATER LEVEL
INV	INVERT
LWL	LOW WATER LEVEL
N	NORTH
PVC	POLYVINYL CHLORIDE
RJ	RESTRAINED JOINT
SCH	SCHEDULE
SST	STAINLESS STEEL
TOC	TOP OF CONCRETE
TOS	TOP OF SLAB
TYP	TYPICAL

SYMBOLS

#	NUMBER
&	AND
∠	ANGLE
@	AT
△	DELTA
℄	CENTERLINE

YARD PIPING LEGEND

DOUBLE LINE	SINGLE LINE	
		EXISTING PIPE
		EXISTING PIPE/ITEM TO BE REMOVED
		EXISTING PIPE TO BE ABANDONED
		NEW PIPE

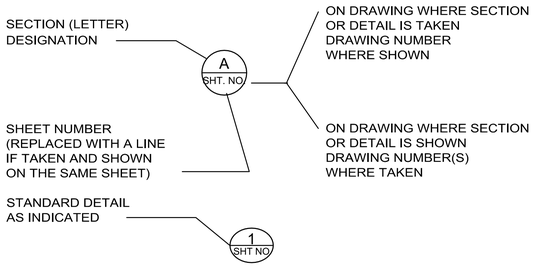
CIVIL LEGEND

G	GAS
E	ELECTRIC
W	WATER SERVICE
SF	SILT FENCE
LOD	LIMITS OF DISTURBANCE
X	FENCE (CHAINLINK)
SS	SANITARY SEWER
SFM	SANITARY FORCE MAIN
	DRAINAGE PIPE

NOTES:

1. EXISTING PIPING AND EQUIPMENT IS SHOWN LIGHT-LINED AND/OR SCREENED AND IS NOTED AS EXISTING. NEW PIPING AND EQUIPMENT IS SHOWN HEAVY-LINED.
2. THIS IS A STANDARD LEGEND SHEET, THEREFORE SOME ABBREVIATIONS MAY NOT APPEAR ON THIS SHEET AND NOT ON THE DRAWINGS.
3. CONTACT ENGINEER FOR ABBREVIATIONS NOT USED.

GENERAL LEGEND



COLOR CODES FOR UTILITY LOCATING

RED	ELECTRIC
YELLOW	GAS–OIL
ORANGE	TELEPHONE/CATV
BLUE	WATER
GREEN	SEWER

IF YOU DIG GEORGIA
CALL US FIRST !
1–800–282–7411
It's The Law !
Utilities Protection Center, Inc.
http: //www.georgia811.com

THREE WORKING DAYS BEFORE YOU DIG GEORGIA CALL

Utilities Protection Center, Inc.

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It's The Law !

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any provisions of the building codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the jurisdiction from requiring the correction of errors.

Plans for Mechanical, Gas, and Electrical sections [illegible] have been reviewed for compliance with the 2020 codes and will be [illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

NOTE:
THIS IS A STANDARD LEGEND SHEET, THEREFORE SOME LEGEND MAY APPEAR ON THIS SHEET AND NOT ON THE DRAWINGS.

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R2T, INC.
LICENSE NO. PEF004693
EXPIRATION DATE: 6/30/2022

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ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
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STAMP:
GEORGIA REGISTERED No. 26089 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE:
ABBREVIATIONS & LEGEND

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

G-02

GENERAL NOTES:

1. CONTRACTOR SHALL NOTIFY DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT INSPECTOR 48 HOURS PRIOR TO START OF CONSTRUCTION.

2 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.

3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO PERFORM THE WORK AS SHOWN AND NOTED HEREON AUTHORIZATION SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION FROM DEKALB COUNTY.

4. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE, FEDERAL, AND LOCAL ISSUING AUTHORITY RULES, REGULATIONS AND STANDARDS, INCLUDING THE DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT (DCDWM) POTABLE WATER MAIN, GRAVITY SANITARY SEWER, AND SANITARY SEWER AND FORCE MAIN DESIGN STANDARDS AND DWM STANDARD SPECIFICATIONS, LATEST EDITIONS.

5. 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. 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 AFFECT OR IMPEDE THE PROGRESSION OR COMPLETION OF THE DESIGN INTENT OF THESE CONSTRUCTION DOCUMENTS.

6. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ANY EXISTING UTILITIES WITH THE APPROPRIATE UTILITY ENTITY PRIOR TO THE START OF ANY CONSTRUCTION.

7. UTILITIES SHOWN ARE LOCATIONS OF GROUND IDENTIFIABLE ITEMS. ADDITIONAL UTILITIES MAY EXIST ABOVE OR BELOW THE GROUND. THE SURVEYOR ACCEPTS COMPLETENESS OF THIS DATA. THIS NO RESPONSIBILITY FOR THE PROPERTY IS SUBJECT TO ALL RIGHT-OF-WAYS & EASEMENTS SHOWN OR NOT SHOWN, RECORDED OR NOT RECORDED.

8. 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, AND ABANDONED 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 CONTRACTOR. PERMITS (IF ANY) SHALL BE OBTAINED BY THE CONTRACTOR.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT PRIOR TO ORDERING PROJECT MATERIALS, THAT 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.

10. ALL CONSTRUCTION MUST CONFORM TO THE LOCAL AUTHORITIES STANDARDS AND SPECIFICATIONS, WHETHER OR NOT REVIEW COMMENTS WERE MADE.

11. ALL PRIVATE AND PUBLIC PROPERTY, WHICH IS OFF-SITE OR IN EASEMENTS ON-SITE, THAT IS AFFECTED BY THIS WORK, SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN EXISTED BEFORE COMMENCING CONSTRUCTION WORK, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED.

12. NO BURIAL PITS OR BURNING WILL BE ALLOWED ON SITE WITHOUT PRIOR APPROVALS FROM THE PROPER PERMITTING AGENCIES AND DEKALB COUNTY.

13. CONTRACTOR SHALL PROVIDE THE TEMPORARY TRAFFIC CONTROL PLAN AND SUBMIT IT TO DCDWM A MINIMUM OF 2 WEEKS PRIOR TO THE START OF WORK REQUIRING THE TCP. WORK AND IMPLEMENTATION OF THE TCP MAY NOT BE INITIATED WITHOUT PRIOR APPROVAL FROM DCDWM. ALL TRAFFIC CONTROL AND WARNING DEVICES MUST BE SHOWN AND PLACED PER 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

14. CURB & GUTTER IMPROVEMENTS TO BE BUILT PER G.D.O.T. STANDARDS.

15. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE DISCOVERY OF ANY GROUNDWATER, SUBSURFACE SEEPAGE OR SPRINGS DURING THE COURSE OF CONSTRUCTION. A GEOTECHNICAL INVESTIGATION WAS UNDERTAKEN TO IDENTIFY SUBSURFACE CONDITIONS INCLUDING THE PRESENCE OF GROUNDWATER. A COPY OF THIS REPORT IS INCLUDED AS AN ATTACHMENT TO THE SPECIFICATIONS, AND IS MARKED "FOR INFORMATION ONLY." INCLUSION OF THIS "FOR INFORMATION" REPORT DOES NOT RELIEVE THE CONTRACTOR OF HIS/HER OBLIGATIONS TO COLLECT ALL INFORMATION NECESSARY TO DETERMINE THE MEANS AND METHODS OF EXECUTING THE REQUIRED WORK.

16. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL PERMITS FROM THE LOCAL ISSUING AUTHORITY. LOCAL PERMITS MAY INCLUDE, BUT NOT BE LIMITED TO A LAND DISTURBANCE PERMIT, PUBLIC UTILITY PERMIT, WATER SERVICE PERMIT, AND A TREE DISTURBANCE PERMIT.

17. CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS, GENERAL CONDITIONS, AGREEMENT, ITB, ADDENDA, TECHNICAL SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS FOR REQUIREMENTS FOR SUBMITTAL, SUBMITTAL LOGS, SUBMITTAL SCHEDULE, SCHEDULE OF VALUES, CONSTRUCTION SCHEDULE, MEETINGS, AS-BUILT MARKUPS, AND OTHER CONTRACT REQUIREMENTS.

UTILITY NOTES:

1. ACCOUNT FOR NATURAL GAS SHALL BE TRANSFERRED TO THE OWNER'S NAME TOWARDS THE END OF THE ONE (1) YEAR WARRANTY PERIOD.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND INSTALLATION OF NATURAL GAS SERVICE WITH AGL RESOURCES. ALL FEES ASSOCIATED WITH SECURING NATURAL GAS SHALL BE PAID FROM CONTRACTOR'S EXPENSE.

ELECTRIC: GA POWER
LANDON OLIVER
LOLIVER@SOUTHERNCO.COM
(706) 814-8143

WATER: DEKALB COUNTY WATERSHED MANAGEMENT
(404) 378-4475

GAS: ATLANTA GAS LIGHT
THOMAS PARKS
770-994-6105

SURVEY REFERENCE:

SURVEY DATA WAS PROVIDED BY ENTITIES IDENTIFIED BELOW. ENGINEER MAKES NO GUARANTEES OR REPRESENTATION REGARDING THE ACCURACY OR VALIDITY OF THE DATA PRESENTED BY SURVEY PROFESSIONALS.

SURVEY PREPARED BY : FS SURVEYING,
P.O. BOC 2075, AIBONITO, P.R., 00705,
TEL (787) 7465039

SURVEYORS NOTE:

1. THE HORIZONTAL CONTROL USED ON THIS PLAN ARE NAD 83 GEORGIA WEST 1002 REV.2011 EPOCH 2010:0000 AND ELEV. ARE REFERRED TO ORTHOMETRIC HEIGHT (NAVD '88 COMPUTED USING GEOID 2012B).

2. ALL HORIZONTAL MEASUREMENTS ARE IN US FEET UNLESS OTHERWISE SPECIFIED.

3. COORDINATE SYSTEM WAS ESTABLISHED BY GNSS OBSERVATIONS USING TRIMBLE DOUBLE FREQUENCY RECEIVERS AND NGS/NOAA OPUS FOR POST PROCESSING.

4. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF THE SURVEY PERFORMED ON THE DATE INDICATED.

5. THE INFORMATION PROVIDED ON THIS PLAN SHOW ALL CURRENTLY EXISTING STRUCTURES, PROPERTIES AND UTILITIES ABOVE OR BELOW THE GROUND AS REVEALED BY OBSERVABLE EVIDENCE OVER GROUND INSPECTION.

6. SOLID UTILITY LINES ARE SHOWN PER SITE PLANS AND ARE APPROXIMATE BASED ON ABOVE GROUND STRUCTURES AND INFORMATION PROVIDED TO THE SURVEYOR, NOT FIELD LOCATED.

7. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES OR STRUCTURES MAY EXIST. THE SURVEYOR MAKES NO CERTIFICATION AS TO THE ACCURACY AND COMPLETENESS OF THE LOCATIONS SHOWN HEREON.

8. CONTOUR INTERVAL IS ONE (1) FOOT.

9. PROPERTY LIMITS AS SHOWN ON THESE DRAWINGS ARE BASED ON PUBLIC GIS INFORMATION AND MAY NEED ADDITIONAL FIELD DELINEATION BY THE CONTRACTOR.

GRADING NOTES:

1. MAXIMUM CUT-FILL SLOPES SHALL BE 3H:1V EXCEPT WHERE NOTED ON THE PLANS.

2. EXCAVATION WORK SHALL BE DONE IN ACCORDANCE WITH D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

DeKalb County
GEORGIA

404.371.2155(o)
404.371.4556 (f)
DeKalbCountyGa.gov

Clark Harrison Building
330 W. Ponce de Leon Ave
Decatur, GA 30030

Chief Executive Officer
Michael Thurmond

DEPARTMENT OF PLANNING & SUSTAINABILITY

Director
Andrew A. Baker, AICP

ENGINEER'SCERTIFICATE

PROPOSED WATER QUALITY FACILITY

I, GEORGE AJY, a registered professional engineer in the State of Georgia, hereby certify with my signature and seal, that the Water Quality facility (facilities) for the project known as

KENSINGTON ROAD PUMP STATION AND PIPELINE PROJECT

Development/Building Permit No. 1244223 lying in Land Lot 251 of the District, DeKalb County, has (have) been designed to comply with the approved plans and specifications, and in accordance with DeKalb County requirements.

This, the THIRD day of NOVEMBER 20 20.

Signature George AJY

Georgia Registration No. 26889

Revised 2/1/17

DeKalb County
GEORGIA

DEVELOPMENT SERVICES

APPROVED

AP 1244223

DATE 01/11/21

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[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO : PEF004053
EXPIRATION DATE: 6/30/2022

RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
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CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

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PIPELINE PROJECT

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STAMP:

GEORGIA
REGISTERED
No. 26889
PROFESSIONAL
ENGINEER
12/04/20
GEORGE AJY

SHEET TITLE:
GENERAL NOTES

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

G-03

STRUCTURAL GENERAL NOTES

1. DESIGN CRITERIA

1.1. GOVERNING CODES:
- 1.1.1. 2018 INTERNATIONAL BUILDING CODE (IBC)
- 1.1.2. 2020 STATE OF GEORGIA AMENDMENTS TO THE IBC
- 1.1.3. ASCE/ SEI 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- 1.1.4. ALL OTHER APPLICABLE LOCAL AGENCIES

1.2. ALL LOADS SHOWN ARE UNFACTORED VALUES AS ESTABLISHED BY IBC, UNLESS OTHERWISE INDICATED. LOADS SHALL BE FACTORED IN ACCORDANCE WITH IBC USING THE STRENGTH DESIGN LOAD COMBINATIONS OR ALLOWABLE STRESS DESIGN (BASIC) LOAD COMBINATIONS. ALTERNATIVE BASIC LOAD COMBINATIONS SHALL NOT BE USED.

1.3. FOR ADDITIONAL LOADS AND CRITERIA, SEE STRUCTURE-SPECIFIC DRAWINGS (PLANS).

1.4. RISK CATEGORY ---------- III

1.5. DEAD LOADS: ---------- SELF WEIGHT

1.6. FLOOR LIVE LOADS (UNIFORM / CONCENTRATED) AND DEFLECTION CRITERIA:
- 1.6.1. TYPICAL, UON ---------- 100 PSF
- 1.6.2. FLOOR DOORS / HATCHES ---------- 300 PSF

1.7. SNOW:
- 1.7.1. GROUND SNOW LOAD, Pg ---------- 5 PSF

1.8. WIND DESIGN PARAMETERS:
- 1.8.1. ASCE 7-16
- 1.8.2. BASIC (ULTIMATE) DESIGN WIND SPEED (3-SECOND GUST), V ------ 115 MPH
- 1.8.3. ALLOWABLE STRESS DESIGN WIND SPEED (3-SECOND GUST), Vasd ---------- 89 MPH
- 1.8.4. EXPOSURE ---------- C
- 1.8.5. IMPORTANCE FACTOR, Iw ---------- NOT APPLICABLE
- 1.8.6. INTERNAL PRESSURE COEFFICIENT, GCpi ---------- 0.00, UON
- 1.8.7. FOR DESIGN WIND PRESSURES ON COMPONENTS AND CLADDING PRESSURES, SEE PLANS.

1.9. EARTHQUAKE DESIGN PARAMETERS:
- 1.9.1. MAPPED SPECTRAL RESPONSE ACCELERATIONS,
  - 1.9.1.1. SHORT PERIODS, SS ---------- 0.182 g
  - 1.9.1.2. 1-SECOND PERIOD, S1 ---------- 0.085 g
- 1.9.2. DESIGN SPECTRAL RESPONSE ACCELERATIONS
  - 1.9.2.1. SHORT PERIODS, SDS ---------- 0.194 g
  - 1.9.2.2. 1-SEC PERIOD, SD1 ---------- 0.135 g
- 1.9.3. SITE CLASS ---------- D
- 1.9.4. SEISMIC DESIGN CATEGORY ---------- C
- 1.9.5. IMPORTANCE FACTOR, Ie ---------- 1.25
- 1.9.6. COMPONENT IMPORTANCE FACTOR, Ip ---------- 1.00, UON
- 1.9.7. ANALYSIS PROCEDURE ---------- EQUIVALENT LATERAL FORCE, UON
- 1.9.8. FOR PRE-ENGINEERED CONTRACTOR-DESIGNED STRUCTURES, THE FOLLOWING SEISMIC CRITERIA SHALL BE DETERMINED BY THE MANUFACTURER, UON: FRAMING SYSTEM, SEISMIC FORCE-RESISTING SYSTEM, RESPONSE MODIFICATION FACTOR (R), RESPONSE COEFFICIENT (Cs) AND BASE SHEAR (V).

1.10. SOIL DESIGN PARAMETERS:
- 1.10.1. REQUIRED ALLOWABLE SOIL BEARING PRESSURE CAPACITY:
  - 1.10.1.1. TYPICAL, UON ---------- 2,000 PSF
  - 1.10.1.2. WET WELL ---------- 3,500 PSF
- 1.10.2. DESIGN GROUND WATER ELEVATION: ---------- 961.00 FT
- 1.10.3. DESIGN SOIL UNIT WEIGHT ---------- 125 PCF
- 1.10.4. VERTICAL SURCHARGE LIVE LOAD ON EARTH RETAINING STRUCTURES (EQUIVALENT OF 2 FT OF SOIL) ---------- 250 PCF
- 1.10.5. ANGLE OF INTERNAL FRICTION, φ ---------- 30 DEG
- 1.10.6. COEFFICIENT OF LATERAL EARTH PRESSURE (LEVEL BACKFILL):
  - 1.10.6.1. ACTIVE (UNRESTRAINED WALLS), Ka ---------- 0.50
  - 1.10.6.2. AT-REST (RESTRAINED WALLS), Ko ---------- 0.33
  - 1.10.6.3. PASSIVE (INCLUDING A 66.7% FACTOR TO ACCOUNT FOR MOVEMENT TO ENGAGE SOIL), Kp ---------- 2.00
  - 1.10.6.4. EARTH-RETAINING STRUCTURES ARE DESIGNED FOR AT-REST CONDITIONS, UON.
- 1.10.7. COEFFICIENT OF SLIDING FRICTION (INCLUDING A 66.7% FACTOR TO ACCOUNT FOR MOVEMENT TO ENGAGE FRICTION), μ ---------- 0.27
- 1.10.8. MODULUS OF SUBGRADE REACTION ---------- 120 PCI

1.11. FROST DEPTH ---------- 12 IN.

1.12. HYDRAULIC LOADS:
- 1.12.1. LIQUID DENSITIES: RAW SEWAGE ---------- 63 PCF
- 1.12.2. DESIGN WATER SURFACE ELEVATION ---------- SEE PLANS

1.13. SPECIAL LOADS: ---------- SEE PLANS

2. GENERAL

2.1. DESIGN AND STANDARD DETAILS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS OCCURRING THROUGHOUT THE PROJECT, WHETHER OR NOT THEY ARE INDIVIDUALLY CALLED OUT.

2.2. COORDINATE STRUCTURAL DRAWINGS WITH OTHER DISCIPLINE DRAWINGS AND WITH PROJECT SPECIFICATIONS. NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

2.3. VERIFY FINAL OPENING DIMENSIONS AND LOCATIONS IN WALLS, SLABS, AND DECKS WITH OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION OF THESE ELEMENTS. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE OTHER DISCIPLINE DRAWINGS.

2.4. FOR NUMBER, TYPE, SIZE, ARRANGEMENT, AND/OR LOCATION OF EQUIPMENT PADS SEE OTHER DISCIPLINE DRAWINGS. COORDINATE WITH APPROVED EQUIPMENT SUBMITTAL PRIOR TO PLACING SLABS, WALLS AND FOUNDATIONS.

2.5. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ENGINEER BEFORE CONTINUING WITH THE WORK.

2.6. DO NOT CUT OR MODIFY STRUCTURAL MEMBERS FOR PIPES, DUCTS, ETC, UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

2.7. PRIOR TO CORING, DRILLING, CUTTING, ETC. INTO EXISTING OR NEWLY PLACED CONCRETE OR MASONRY, LOCATE EMBEDDED ITEMS INCLUDING, BUT NOT LIMITED TO, REINFORCEMENT AND CONDUIT USING CONCRETE IMAGING TECHNOLOGY (SUCH AS GROUND PENETRATING RADAR) AND MAKE CUTS SO AS TO AVOID HITTING EMBEDDED ITEMS. IN CASE OF CONFLICT, NOTIFY THE STRUCTURAL ENGINEER IN WRITING FOR DIRECTION.

2.8. FOR COMPONENTS AND SYSTEMS (SUCH AS RAILINGS, STAIRS, ETC.) THAT ARE SENSITIVE TO AND AFFECTED BY NEWLY-CONSTRUCTED CONDITIONS, FIELD VERIFY DIMENSIONS, ELEVATIONS, CONDITIONS, ETC. PRIOR TO FABRICATION OF COMPONENTS AND SYSTEMS.

2.9. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES INCLUDING, BUT NOT LIMITED TO, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC.

2.10. STRUCTURES SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED FOR STABILITY UNDER FINAL CONDITIONS ONLY. DESIGN SHOWN DOES NOT INCLUDE CONSTRUCTION LOADS OR NECESSARY COMPONENTS OR EQUIPMENT FOR STABILITY OF THE STRUCTURES DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATING TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS REQUIRED TO SAFELY PERFORM THE WORK SHOWN.

2.11. REVIEW OF SUBMITTALS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SUBMITTALS BEFORE SUBMITTING TO THE ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SUBMITTALS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, LOCATIONS, ELEVATIONS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

2.12. VISITS TO THE JOB SITE BY THE ENGINEER TO OBSERVE THE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT THE ENGINEER IS GUARANTOR OF CONSTRUCTOR'S WORK, NOR RESPONSIBLE FOR THE COMPREHENSIVE OR SPECIAL INSPECTIONS, COORDINATION, SUPERVISION, OR SAFETY AT THE JOB SITE.

2.13. WHERE DRAWINGS AND SPECIFICATIONS CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

3. INSPECTIONS AND TESTING AND OBSERVATIONS

3.1. INSPECTION AND TESTING SHALL INCLUDE, BUT NOT BE LIMITED TO, INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL, SPECIAL INSPECTIONS AND TESTING, AND ADDITIONAL MATERIAL, ASSEMBLY, SYSTEM, ETC. INSPECTION AND TESTING.

3.2. INSPECTION AND TESTING SHALL BE FURNISHED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.

3.4. INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL WILL BE PROVIDED BY THE AUTHORITY HAVING JURISDICTION.

3.5. SPECIAL INSPECTIONS AND TESTING WILL BE FURNISHED BY THE OWNER THROUGH AN ALLOWANCE. OWNER OR AGENT OF THE OWNER WILL SELECT AGENCY TO PERFORM SPECIAL INSPECTIONS AND TESTING. REFER TO THE STATEMENT OF SPECIAL INSPECTION AND THE SPECIFICATIONS REGARDING SPECIAL INSPECTIONS, OBSERVATION AND TESTING.

3.6. SPECIAL INSPECTIONS DO NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTIONS BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL SCHEDULE BOTH INSPECTIONS.

3.7. SPECIFIED LABORATORY AND / OR SHOP TESTING OF MATERIALS, ASSEMBLIES, SYSTEMS, ETC. TO VERIFY QUALITY AND CONFORMANCE TO SPECIFICATIONS SHALL BE FURNISHED BY THE CONTRACTOR. TESTING RESULTS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO ACCEPTANCE FOR USE ON THE PROJECT. SPECIFIED LABORATORY AND / OR SHOP TESTING SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO:
- 3.7.1. CONCRETE MATERIALS.
- 3.7.2. MILL REPORTS OF METALS.
- 3.7.3. SOIL FILL, BACKFILL AND AGGREGATE MATERIALS.
- 3.7.4. SEISMIC QUALIFICATION OF STRUCTURAL AND NONSTRUCTURAL COMPONENTS.
- 3.7.5. EQUIPMENT TESTING.

3.8. SPECIFIED TESTING OF INSTALLED SYSTEMS TO VERIFY QUALITY AND CONFORMANCE TO SPECIFICATIONS SHALL BE FURNISHED BY THE CONTRACTOR. SPECIFIED INSTALLED SYSTEMS SHALL INCLUDE, BUT NOT BE LIMITED TO:
- 3.8.1. POST-INSTALLED ANCHORS.
- 3.8.2. VACUUM (LIQUID-TIGHTNESS) TESTING.

3.9. INSPECTION AND TESTING OF SHOP AND FIELD WELDING SHALL BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH AWS D1.1.

3.10. SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH SECTION 1704.2.4 OF THE 2018 IBC SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.

4. DEFERRED SUBMITTALS

4.1. DEFERRED DESIGN IS THAT PORTION OF THE DESIGN WHICH IS DELEGATED TO THE CONTRACTOR'S QUALIFIED PROFESSIONAL ENGINEER TO BE THE ENGINEER-OF-RECORD FOR THE SPECIFIED WORK. THE PROFESSIONAL ENGINEER SHALL MEET THE FOLLOWING QUALIFICATIONS, UNLESS OTHERWISE SPECIFIED:
- 4.1.1. CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT WILL BE CONSTRUCTED.
- 4.1.2. EXPERIENCED IN DESIGN AND DETAILING OF THE SPECIFIED WORK HAVING DESIGNED AT A MINIMUM OF 3 PROJECTS WITH SIMILAR CONDITIONS, SIZE AND SCOPE WITHIN THE PAST 3 YEARS.

4.2. DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND THAT ARE TO BE SUBMITTED TO THE PERMITTING AGENCY FOR ACCEPTANCE PRIOR TO INSTALLATION OF THAT PORTION OF THE WORK. UNLESS OTHERWISE SPECIFIED, DEFERRED SUBMITTALS SHALL INCLUDE:
- 4.2.1. FABRICATION AND ERECTION DRAWINGS, SUBMITTED FOR ENGINEER'S REVIEW AND ACCEPTANCE.
- 4.2.2. CALCULATIONS, SUBMITTED FOR INFORMATION AND REVIEWED BY THE ENGINEER FOR GENERAL CONFORMANCE TO THE PROJECT CONDITIONS, REQUIREMENTS AND DESIGN CRITERIA.
- 4.2.3. SUPPORTING ENGINEERING DATA.

4.3. DEFERRED SUBMITTALS ARE REQUIRED IN ACCORDANCE WITH CODE OF ORDINANCES OF DEKALB COUNTY, GEORGIA, CHAPTER 7, SECTION 7-31.(m).

4.4. THE CONTRACTOR'S QUALIFIED PROFESSIONAL ENGINEER SHALL DESIGN AND DETAIL THE SPECIFIED WORK; PREPARE THE DEFERRED SUBMITTALS; AND SEAL, SIGN AND DATE THE DEFERRED SUBMITTALS FOR REVIEW BY THE ENGINEER.

4.5. THE DEFERRED SUBMITTAL SHALL INCLUDE SPECIFIC LINE ITEMS TO BE ADDED TO THE APPROPRIATE TABLES IN THE PROJECT'S STATEMENT OF SPECIAL INSPECTIONS PLAN IF THEY ARE NOT ALREADY IDENTIFIED.

4.6. WORK REQUIRING DEFERRED SUBMITTALS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO:
- 4.6.1. STRUCTURAL SYSTEMS (INCLUDING ELEMENTS, COMPONENTS, ANCHORAGE OR COMBINATIONS THEREOF) NOT SPECIFICALLY DETAILED ON THE DRAWINGS OR DETAILED WITH MINIMUM REQUIREMENTS.
- 4.6.2. SAFETY RELATED SYSTEMS NOT SPECIFICALLY DETAILED ON THE DRAWINGS OR DETAILED WITH MINIMUM REQUIREMENTS.
- 4.6.3. STRUCTURAL ASPECTS OF NONSTRUCTURAL (ARCHITECTURAL, MECHANICAL AND ELECTRICAL) SYSTEMS.

4.7. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT:
- 4.7.1. DEFERRED SUBMITTALS TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.
- 4.7.2. DEFERRED SUBMITTALS AND ENGINEER'S COMMENT FORM INDICATING ACCEPTANCE TO THE PERMITTING AGENCY.

4.8. THE FOLLOWING IS A LIST OF DEFERRED SUBMITTALS:
- 4.8.1. DUCTILE IRON PIPE
- 4.8.2. MANHOLES AND UNDERGROUND UTILITY STRUCTURES
- 4.8.3. ANCHORAGE AND BRACING
- 4.8.4. PRECAST CONCRETE
- 4.8.5. METAL CANOPY AND ITS ANCHORAGE AND FOUNDATION
- 4.8.6. PIPING SUPPORT SYSTEMS
- 4.8.7. GENERATOR SETS
- 4.8.8. JIB CRANE AND ITS ANCHORAGE AND FOUNDATION
- 4.8.9. ANY EQUIPMENT OR COMPONENT IN WHICH A TECHNICAL SPECIFICATION REQUIRES SUBMITTAL OF EQUIPMENT OR ANCHORAGE SYSTEM CALCULATIONS

5. FOUNDATIONS

5.1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL EXPLORATION AND RECOMMENDATIONS DOCUMENTED IN THE FOLLOWING REPORT(S):
- 5.1.1. GEOTECHNICAL FIRM: GEO-HYDRO ENGINEERS, INC.
- 5.1.2. REPORT TITLE: REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES
- 5.1.3. REPORT DATE: JANUARY 28, 2020
- 5.1.4. REPORT PROJECT NO(S).: 191248.20

5.2. THE REPORT IS NOT PART OF THE CONTRACT DOCUMENT AND SHALL BE USED FOR REFERENCE ONLY.

5.3. EXCAVATIONS SHALL BE SHORED TO PREVENT SUBSIDENCE OR DAMAGE TO ADJACENT EXISTING STRUCTURES, STREETS, UTILITIES, ETC. ACCEPTABLE TOLERANCE FOR SETTLEMENT OF ADJACENT EXISTING STRUCTURES IS +/-0", UNLESS OTHERWISE SPECIFIED.

5.4. A GEOTECHNICAL ENGINEER, REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED, SHALL VERIFY CONDITION AND/OR ADEQUACY OF SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.

5.5. THE GEOTECHNICAL ENGINEER OR HIS QUALIFIED DESIGNEE SHALL OBSERVE FOUNDATION BEARING SURFACES PRIOR TO PLACEMENT OF STONE, MUD MAT, STEEL REINFORCEMENT OR OTHER MATERIALS TO VERIFY THAT THE ACTUAL EXPOSED SUBGRADE MATCHES THE ANTICIPATED CONDITIONS IN THE GOETECHNICAL REPORT AND MEETS THE REQUIRED SOIL BEARING PRESSURE CAPACITY NOTED ON THE DRAWINGS.

5.6. PREPARE THE FOUNDATION SUBGRADE IN ACCORDANCE WITH SPECIFICATION SECTION 02200. SUBGRADES OF DISTURBED OR UNDISTURBED RESIDUAL SOILS, FILL OR BACKFILL MATERIAL, ETC. SHALL BE COMPACTED.

5.7. FOUNDATION SLABS, MATS, BASE SLABS AND FOOTINGS SHALL BEAR ON A 12" LAYER OF #57 STONE.

5.8. MINIMUM REQUIRED ALLOWABLE SOIL BEARING PRESSURE SHALL BE AS INDICATED ON PLANS.

5.9. TAKE NECESSARY PRECAUTIONS TO ASSURE BEARING SURFACES DO NOT BECOME SATURATED OR DRIED OUT. WHEN SOIL SUBGRADE IS LEFT EXPOSED FOR MORE THAN 24 HOURS, PROVIDE A 3" THICK MUD MAT WITH LEAN CONCRETE (MINIMUM 2000 PSI). MUD MAT SHALL NOT BE CONSIDERED PART OF THE CONCRETE FOUNDATION ELEMENT.

5.10. WHEREVER FOUNDATIONS BEAR ON STRUCTURAL FILL, THE STRUCTURAL FILL SHALL EXTEND LATERALLY BEYOND THE EDGES OF THE FOUNDATION FOR A MINIMUM DISTANCE EQUAL TO THE DEPTH OF THE STRUCTURAL FILL BENEATH THE FOUNDATION.

5.11. SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS PLACED AGAINST THE EARTH REQUIRE THE FOLLOWING:
- 5.11.1. SLOPE SIDES OF EXCAVATION AS APPROVED BY GEOTECHNICAL ENGINEER
- 5.11.2. CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.
- 5.11.3. INCREASE ELEMENT SIZE TO ACCOUNT FOR ADDITIONAL CONCRETE COVER.

5.12. DO NOT USE EXPLOSIVES UNLESS APPROVED IN WRITING BY ENGINEER.

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The [illegible] documents and other data shall not prevent the [illegible] from requiring the correction of errors.

[illegible] Mechanical, Gas, and Electrical sections [illegible] been reviewed for [illegible] codes and will be [illegible]

[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004659
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:

GEORGIA PROFESSIONAL ENGINEER No. 029632 DAVID A. PREISSLER 9/25/20

SHEET TITLE: GENERAL NOTES

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: DP
DESIGNED BY: DP
DRAWN BY: JP

G-04

P:\01 Active Projects\0008 - DeKalb\0019 - Kensington PS\31 Authoring Cad Files\GENERAL\Cover_Notes_G-01 to G-05.dwg, PRINTED BY: DavidPreissler ON Thu, Sep 24, 2020 AT 12:00 PM

6. CONCRETE REINFORCEMENT

6.1. STEEL REINFORCEMENT SHALL CONFORM TO THE FOLLOWING:
6.1.1. TYPICAL, UON ---------- ASTM A615 GRADE 60
6.1.2. WELDING IS NOT PERMITTED.
6.2. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064 AND SHALL BE PROVIDED IN FLAT SHEETS. ROLLS ARE NOT ALLOWED.
6.3. 'CARRIER' (INCLUDING 'BURY') BARS ARE NOT ALLOWED.
6.4. FABRICATION AND PLACEMENT OF STEEL REINFORCEMENT SHALL BE IN ACCORDANCE WITH CRSI "MANUAL OF STANDARD PRACTICE" AND ACI 301-16 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
6.5. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315-99 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT." SUBMIT SHOP DRAWINGS FOR APPROVAL, SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING STEEL REINFORCEMENT AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED. DETAIL ALL CONCRETE WALLS AND BEAMS ON THE SHOP DRAWINGS IN ELEVATION UNLESS SPECIFICALLY APPROVED OTHERWISE.
6.6. CONCRETE COVER FOR REINFORCEMENT, UNLESS SHOWN OTHERWISE, SHALL BE:
6.6.1. WHEN PLACED ON GROUND ---------- 3"
6.6.2. ALL OTHER CONCRETE SURFACES ---------- 2"
6.7. 90 DEGREE BENDS, UNLESS OTHERWISE SHOWN, SHALL BE ACI 318 STANDARD HOOKS.
6.8. REINFORCING STEEL FOR BASE SLABS, MATS, FOOTINGS AND SLABS-ON-GRADE SHALL BE ADEQUATELY SUPPORTED ON BAR SUPPORTS WITH SPACERS TO KEEP REINFORCING ABOVE THE PREPARED GRADE. LIFTING REINFORCING OFF GRADE DURING CONCRETE PLACEMENT IS NOT PERMITTED.
6.9. DO NOT WELD OR TACK WELD STEEL REINFORCEMENT UNLESS APPROVED OR DIRECTED BY THE STRUCTURAL ENGINEER.
6.10. SHOP BEND REINFORCEMENT, UNLESS APPROVED IN WRITING BY ENGINEER. IF APPROVED, FIELD BEND REINFORCEMENT USING MACHINES AND TOOLS SPECIFICALLY DESIGNED FOR THAT PURPOSE ONLY AND APPROVED BY ENGINEER. DO NOT BEND BARS MORE THAN ONE PLACE AT A TIME. DO NOT BEND BARS MORE THAN ONE TIME AT ONE LOCATION.
6.11. DO NOT HEAT BARS FOR ANY PURPOSE.
6.12. STEEL REINFORCEMENT PLACEMENT SHALL BE REVIEWED BY A REGISTERED STRUCTURAL ENGINEER, OR BY A REPRESENTATIVE RESPONSIBLE FOR INSPECTIONS REQUIRED BY THE BUILDING OFFICIAL.
6.13. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED. STAGGER SPLICES, WHERE POSSIBLE. USE (CLASS "B") TENSION LAP SPLICE PER "REINFORCEMENT DEVELOPMENT AND LAP SPLICE LENGTHS" TABLE, UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH (CLASS "B") TENSION LAP SPLICE PER "REINFORCEMENT DEVELOPMENT AND LAP SPLICE LENGTHS" TABLE, UNLESS NOTED OTHERWISE.
6.14. LAP SPLICES SHALL BE CONTACT SPLICES IN WHICH BARS ARE DIRECTLY WIRE-TIED TOGETHER, UNLESS OTHERWISE NOTED.
6.15. REINFORCEMENT DEVELOPMENT AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE MINIMUM REQUIREMENTS DEFINED IN THE TABLE "REINFORCEMENT DEVELOPMENT AND LAP SPLICE LENGTHS."

7. CAST-IN-PLACE CONCRETE

7.1. CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO ACI 301-16 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AS MODIFIED BY THE CONTRACT DOCUMENTS.
7.1.1. DESIGN FOR BUILDINGS AND OTHER STRUCTURES IS BASED ON ACI 318-11 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
7.1.2. DESIGN FOR LIQUID-HOLDING AND BELOW-GRADE STRUCTURES IS BASED ON ACI 350-06 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES."
7.2. MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTHS:
7.2.1. CLASS 'A' (USE FOR ALL ELEMENTS, UON) ---------- 4,000 PSI
7.2.2. CLASS 'B' (USE ONLY WHERE SPECIFIED) ---------- 3,000 PSI
7.3. CONCRETE UNIT WEIGHT SHALL BE 145 PCF, UNLESS OTHERWISE NOTED.
7.4. CONSTRUCTION JOINTS SHALL BE THOROUGHLY ROUGHENED BY MECHANICAL MEANS AND CLEANED. ROUGHEN SURFACES TO MINIMUM CSP-6 (MINIMUM 1/4" AMPLITUDE).
7.5. ROUGHEN AND CLEAN CONSTRUCTION JOINTS IN WALLS AND SLABS AS SPECIFIED PRIOR TO PLACING ADJACENT CONCRETE.
7.6. THE CONTRACTOR SHALL COORDINATE PLACEMENT OF OPENINGS, CURBS, DOWELS, SLEEVES, CONDUITS, BOLTS AND INSERTS PRIOR TO PLACEMENT OF CONCRETE.
7.7. NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.
7.8. PROVIDE 3/4" CHAMFER ON CONCRETE EDGES TO BE LEFT EXPOSED (NOT BURIED OR COVERED BY OTHER MATERIALS). DO NOT CHAMFER EDGED OF WALLS OR COLUMNS ON FACES IN PLANE OF ADJACENT CMU WALLS.

8. PRECAST CONCRETE

8.1. PRECAST CONCRETE WORK SHALL CONFORM TO THE FOLLOWING, AS MODIFIED BY THE CONTRACT DOCUMENTS:
8.1.1. ACI 301-16 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
8.1.2. APPLICABLE ASTM OR AWWA STANDARD, WHERE SPECIFIED.
8.1.3. PRECAST CONCRETE DESIGN FOR ENVIRONMENTAL (INCLUDING LIQUID-HOLDING AND BELOW-GRADE) STRUCTURES SHALL CONFORM TO:
8.1.1. ACI 350-06 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES" EXCEPT WHERE ASTM OR AWWA STANDARD IS SPECIFIED.
8.1.2. PCI MNL-120 (LATEST EDITION), "DESIGN HANDBOOK FOR PRECAST AND PRESTRESSED CONCRETE."
8.2. MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTHS:
8.2.1. TYPICAL, UNO ---------- 4000 PSI
8.2.2. PRESTRESSED ELEMENTS ---------- 5000 PSI
8.3. CONCRETE UNIT WEIGHT SHALL BE 145 PCF, UNLESS OTHERWISE NOTED.
8.4. DESIGN OF PRECAST CONCRETE (INCLUDING ITS CONNECTIONS AND ANCHORAGE) IS A DEFERRED DESIGN. SUBMIT DEFERRED SUBMITTALS.
8.5. DESIGN PRECAST CONCRETE MEMBERS TO MEET "DESIGN CRITERIA", TO SUPPORT THE LOADS RESULTING FROM TRANSPORTATION AND ERECTION, AND TO THE FOLLOWING:
8.5.1. DESIGN ELEMENTS AND SYSTEM AS INDICATED ON PLANS.
8.6. THE PRECAST MANUFACTURER SHALL BE RESPONSIBLE FOR INSTALLING EMBEDDED COMPONENTS FOR CONNECTION OF THE PRECAST STRUCTURE TO THE SHEAR WALLS AS INDICATED ON THE PLANS.
8.7. VERIFY GEOMETRY OF INSERTS AND OPENINGS AS REQUIRED PER OTHER DISCIPLINE DRAWINGS.
8.8. PRECAST CONCRETE DETAILS AS SHOWN ARE FOR ILLUSTRATIVE REPRESENTATION ONLY.
8.9. PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED AND DETAILED BY THE PRECAST MANUFACTURER'S PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.
8.10. FACTOR OF SAFETY AGAINST UPLIFT DUE TO BUOYANCY PRESSURE BASED ON DESIGN GROUNDWATER ELEVATION SHALL BE 1.25 WHEN DEAD WEIGHT OF STRUCTURE AND WEIGHT OF SOIL DIRECTLY OVER HEEL ARE USED FOR RESISTANCE.
8.11. PRECAST CONCRETE ELEMENT THICKNESSES SHOWN ARE MINIMUM REQUIREMENTS. PRECAST CONCRETE MANUFACTURER SHALL DETERMINE ACTUAL THICKNESS BUT NOT LESS THAN THOSE SHOWN HERE.
8.12. FIELD VERIFY GROUNDWATER ELEVATION. DESIGN WET WELL FOR FIELD VERIFIED GROUNDWATER ELEVATION, BUT NOT LESS THAN 961.00.
8.13. REFER TO SPECIFICATION SECTION 02200, EARTHWORK FOR SUBGRADE AND SUBBASE COMPACTION AND FILL REQUIREMENTS AND BACKFILL REQUIREMENTS.

9. WELDING

9.1. WELDS SHALL CONFORM TO AMERICAN WELDING SOCIETY (AWS):
9.1.1. D1.1, STRUCTURAL WELDING CODE - STEEL
9.1.2. D1.2, STRUCTURAL WELDING CODE - ALUMINUM
9.1.3. D1.3, STRUCTURAL WELDING CODE - SHEET STEEL
9.1.4. D1.6, STRUCTURAL WELDING CODE - STAINLESS STEEL
9.2. REPAIR WELDS FOUND DEFECTIVE IN ACCORDANCE WITH AWS D1.1 SECTION 5.26.
9.3. USE INTERMITTENT WELDS AT FIELD WELDS OF EMBED PLATES AND ANGLES TO AVOID SPALLING OR CRACKING OF THE EXISTING CONCRETE.
9.4. BUTT JOINT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) UNLESS INDICATED OTHERWISE.

10. METAL FABRICATIONS

10.1. ALUMINUM SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:
10.1.1. STRUCTURAL SHAPES ---------- B308
10.1.2. PLATES ---------- B209
10.1.3. TUBES ---------- B221
10.2. STRUCTURAL STEEL, STAINLESS STEEL AND ALUMINUM SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE FOLLOWING AND CURRENT OSHA STANDARDS.
10.2.1. STRUCTURAL STEEL ---------- AISC STEEL CONSTRUCTION MANUAL
10.2.2. STAINLESS STEEL ---------- SSINA STAINLESS STEEL FABRICATION
10.2.3. ALUMINUM ---------- AA ALUMINUM DESIGN MANUAL
10.3. FASTENERS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING ASTM STANDARDS EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:
10.3.1. ANCHOR BOLTS (AB)
10.3.1.1. STAINLESS STEEL ----- F593, AISI TYPE 316, GROUP 2, CONDITION CW
10.3.2. MACHINE BOLTS (MB)
10.3.2.1. STAINLESS STEEL ----- F593, AISI TYPE 316, GROUP 2, CONDITION CW
10.3.3. ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.

REINFORCEMENT DEVELOPMENT AND LAP SPLICE LENGTHS

MINIMUM 28-DAY CONCRETE DESIGN STRENGTH = 4,000 PSI, *N1*

GRADE 60 STEEL REINFORCEMENT

CONCRETE COVER ≥ 2"

	TENSION DEVELOPMENT				TENSION LAP SPLICE			
	SPACING ≥ 3"		SPACING ≥ 6"		SPACING ≥ 3"		SPACING ≥ 6"	
BAR SIZE	TOP BAR *N3*	OTHER BAR	TOP BAR *N3*	OTHER BAR	TOP BAR *N3*	OTHER BAR	TOP BAR *N3*	OTHER BAR
#3	1'-0"	1'-0"	1'-0"	1'-0"	1'-3"	1'-0"	1'-3"	1'-0"
#4	1'-3"	1'-0"	1'-3"	1'-0"	1'-8"	1'-3"	1'-8"	1'-3"
#5	1'-8"	1'-3"	1'-7"	1'-3"	2'-2"	1'-8"	2'-0"	1'-7"
#6	2'-4"	1'-10"	1'-11"	1'-6"	3'-1"	2'-4"	2'-5"	1'-11"
#7	4'-0"	3'-1"	2'-9"	2'-1"	5'-2"	4'-0"	3'-7"	2'-9"
#8	5'-2"	4'-0"	3'-1"	2'-5"	6'-9"	5'-2"	4'-1"	3'-1"
#9	6'-7"	5'-1"	3'-10"	3'-0"	8'-6"	6'-7"	5'-0"	3'-10"
#10	8'-4"	6'-5"	4'-9"	3'-8"	10'-10"	8'-4"	6'-2"	4'-9"
#11	10'-3"	7'-11"	5'-8"	4'-5"	13'-4"	10'-3"	7'-5"	5'-8"

NOTES

N1	WHERE 3,000 PSI CONCRETE IS USED, INCREASE ABOVE LENGTHS BY 16 PERCENT.
N2	WHERE CONCRETE COVER IS LESS THAN 2", LONGER LENGTHS ARE REQUIRED.
N3	TOP BAR SHALL BE DEFINED AS ANY HORIZONTAL BAR PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.

ABBREVIATIONS

AA	ALUMINUM ASSOCIATION
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AHR	ANCHOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL (ALUM)	ALUMINUM
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	ASTM INTERNATIONAL
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BOT (BOTT)	BOTTOM
CJ	CONSTRUCTION JOINT
C/L	CENTER LINE
CLR	CLEAR
CONC	CONCRETE
CONT	CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSP	CONCRETE SURFACE PROFILE
DEG	DEGREES
DIA	DIAMETER
DWG	DRAWING
EW	EACH WAY
FT, '	FOOT OR FEET
Fy	YIELD STRENGTH
GAB	GRADED AGGREGATE BASE
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
ICRI	INTERNATIONAL CONCRETE REPAIR INSTITUTE
ID	INSIDE DIAMETER
IN., "	INCHES
JT	JOINT
K (KIP)	1000 POUNDS
KSI	KIPS PER SQUARE INCH
LB (LBS)	POUND (POUNDS)
MAX	MAXIMUM
MB	MACHINE BOLT
MDFT	MINIMUM DRY FILM THICKNESS
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
NO.	NUMBER
PCI	PRECAST CONCRETE INSTITUTE
PCF	PER CUBIC FOOT
PJF	PREMOLDED JOINT FILLER
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REINF	REINFORCED, REINFORCEMENT
SEI	STRUCTURAL ENGINEERING INSTITUTE
SEOR	STRUCTURAL ENGINEER-OF-RECORD
SPEC, SPECS	SPECIFICATION, SPECIFICATIONS
SS (SST)	STAINLESS STEEL
SSINA	SPECIALTY STEEL INDUSTRY OF NORTH AMERICA
T&B	TOP AND BOTTOM
TOC	TOP OF CONCRETE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
W/	WITH
WWR	WELDED WIRE REINFORCEMENT
WWTP	WASTEWATER TREATMENT PLANT

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the cancellation of the permit by the authorized officials.

Plans for Structural, Mechanical, Gas, and Electrical sections of this project have been reviewed for compliance with 2018 IBC codes and will be inspected for compliance with the 2018 IBC codes.

Approved plans must be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004453
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA
No. 029632
PROFESSIONAL ENGINEER
DAVID A PREISSER
9/25/20

SHEET TITLE: GENERAL NOTES

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: DP
DESIGNED BY: DP
DRAWN BY: JP

G-05

N/F ARGO ASSOCIATES
4380 MEMORIAL DRIVE
DECATUR, GA 30032
15 251 01 021
C-1

MEMORIAL DRIVE

N/F DEKALB COUNTY
4379 MEMORIAL DRIVE
DECATUR, GA 30032
15 251 05 016
OI

N/F DEKALB COUNTY
4415 MEMORIAL DRIVE
DECATUR, GA 30032
15 251 05 008
R-75

N/F DEKALB COUNTY
BUILDING AUTHORITY
4347 MEMORIAL DRIVE
DECATUR, GA 30032
15 251 05 011
OI

N/F DEKALB COUNTY
4425 MEMORIAL DRIVE
DECATUR, GA 30032
15 252 02 002
R-75

N/F DEKALB COUNTY
BUILDING AUTHORITY
4309 MEMORIAL DRIVE
DECATUR, GA 30032
15 251 05 012
OI

N/F DEKALB COUNTY
3550 KENSINGTON RD
DECATUR, GA 30032
15 251 05 001
R-75

N/F RUSSELL GARI
3500 KENSINGTON RD
DECATUR, GA 30032
15 251 05 006
OI

N/F AVONDALE
HEALTH SERVICES INC
3508 KENSINGTON RD
DECATUR, GA 30032
15 251 05 018
OI

N/F DEKALB COUNTY
3430 KENSINGTON RD
DECATUR, GA 30032
15 251 05 015
OI

N/F COOPER 3 LLC
3514 KENSINGTON RD
DECATUR, GA 30032
15 251 05 017
OI

N/F DEKALB COUNTY
3530 KENSINGTON RD
DECATUR, GA 30032
15 251 05 002
R-75

LOD

KENSINGTON RD

N/F MARTA
3481 KENSINGTON RD
DECATUR, GA 30032
15 230 01 036
OI

N/F MARTA
3503 KENSINGTON RD
DECATUR, GA 30032
15 230 01 027
R-75

N/F MARTA
3495 KENSINGTON RD
DECATUR, GA 30032
15 230 01 026
R-75

N/F MARTA
3573 KENSINGTON RD
DECATUR, GA 30032
15 230 01 022
R-75

N/F MARTA
3589 KENSINGTON RD
DECATUR, GA 30032
15 229 04 021
R-75

N/F P KENSINGTON
VILLAGE LLC
3429 MEMORIAL DRIVE
DECATUR, GA 30032
15 230 01 037
OI

N/F MARTA
3487 KENSINGTON RD
DECATUR, GA 30032
15 230 01 003
R-75

MEMORIAL DRIVE

N/F DEKALB COUNTY
3631 CAMP CIRCLE
DECATUR, GA 30032
15 252 09 001
R-75

N/F DEKALB COUNTY
3643 CAMP CIRCLE
DECATUR, GA 30032
15 252 12 001
R-75

N/F DEKALB COUNTY
3621 CAMP WAY
DECATUR, GA 30032
15 252 11 001
R-75

CAMP RD

N/F DEKALB COUNTY
800 CAMP RD
DECATUR, GA 30032
15 252 08 002
R-75

KENSINGTON RD

N/F DEKALB COUNTY
3675 KENSINGTON RD
DECATUR, GA 30032
15 252 03 001
R-75

N/F MARTA
819 PORTER RD
DECATUR, GA 30032
15 229 04 034
R-75

N/F MARTA
818 PORTER ROAD
DECATUR, GA 30032
15 229 01 048
R-75

N/F GWRD
PROPERTIES LLC
879 PORTER ROAD RD
DECATUR, GA 30032
15 229 04 022
RSM

100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

DeKalb County
GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on plans, specifications and other data shall not prevent the jurisdiction from requiring the correction of errors.

Plans for Structural, Mechanical, Gas, and Electrical sections of this project have been reviewed for compliance with 2018 IBC codes and will be inspected for compliance.

Any deviations made during construction shall be noted on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004655
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA
REGISTERED
NO. 29269
PROFESSIONAL
ENGINEER
12/04/20
GEORGE AJY

SHEET TITLE:
PROPERTY
BOUNDARIES

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

C-00

P:\01 Active Projects\0908 - DeKalb\0219 - Kensington PS\31 Authoring Cad Files\CIVIL\Civil Sheet.dwg, PRINTED BY: luck.watford ON: Fri, Dec 04 2020 AT 3:10 PM

SURVEY REFERENCE:

SURVEY DATA WAS PROVIDED BY ENTITIES IDENTIFIED BELOW. ENGINEER MAKES NO GUARANTEES OR REPRESENTATION REGARDING THE ACCURACY OR VALIDITY OF THE DATA PRESENTED BY SURVEY PROFESSIONALS.

SURVEY PREPARED BY : FS SURVEYING,
P.O. BOC 2075, AIBONITO, P.R., 00705,
TEL (787) 7465039

(IN FEET)
1 inch = 40 ft.

RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA REGISTERED No. 26039 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE:
EXISTING CONDITIONS PLAN

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

C-01

DeKalb County
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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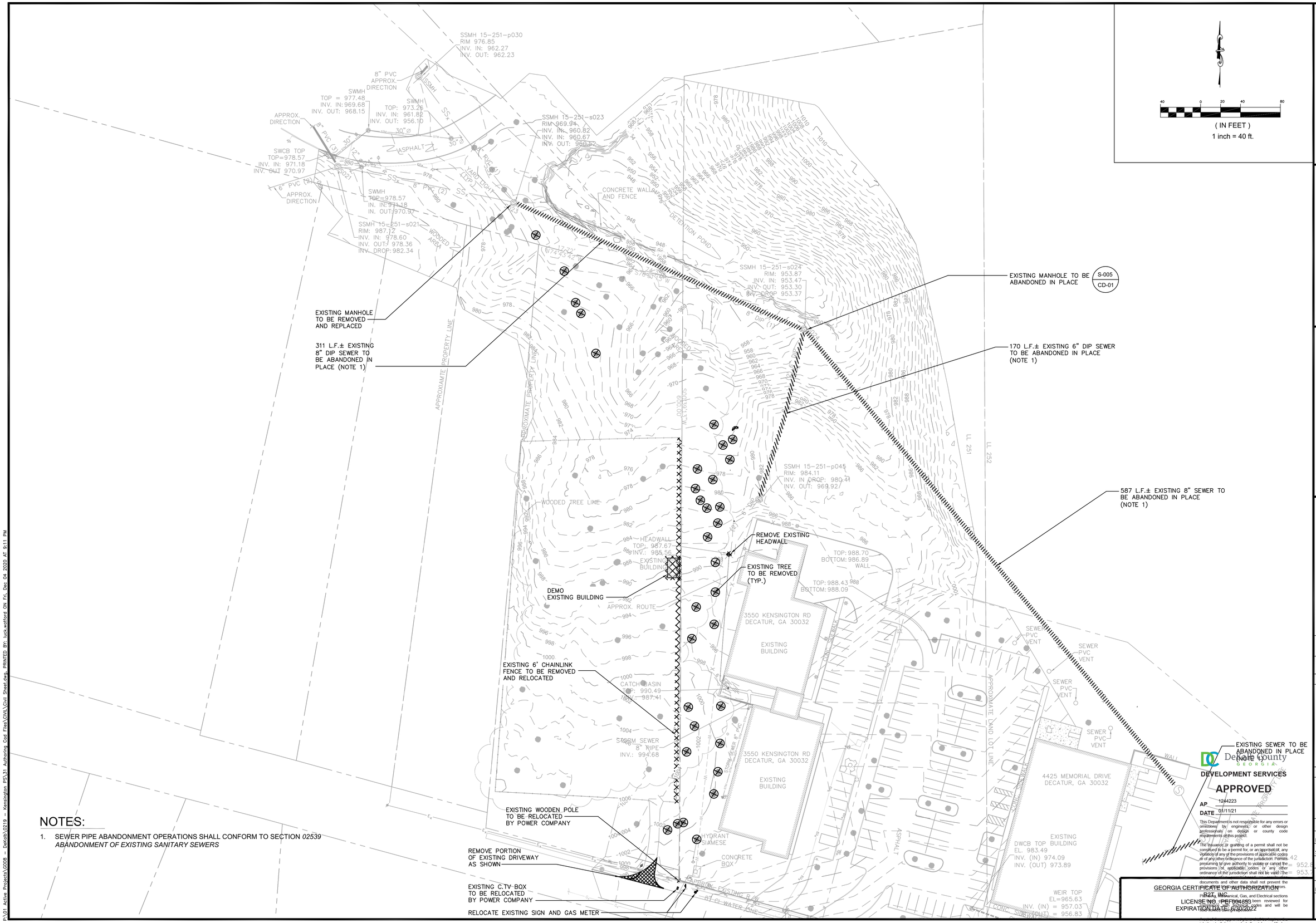
The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The approved documents and other data shall not prevent the [illegible] Plumbing, Mechanical, Gas, and Electrical sections [illegible] 2018 codes and will be [illegible]

[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

P:\01 Active Projects\0008 - DeKalb\0219 - Kensington PS\31 Authoring Cad Files\CIVIL\Civil Sheet.dwg, PRINTED BY: luck.watford ON: Fri, Dec 04, 2020, AT 9:10 PM



NOTES:

1. SEWER PIPE ABANDONMENT OPERATIONS SHALL CONFORM TO SECTION *02539 ABANDONMENT OF EXISTING SANITARY SEWERS*

Dekalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21
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Plumbing, Mechanical, Gas, and Electrical sections have been reviewed for compliance with applicable codes and will be possible at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

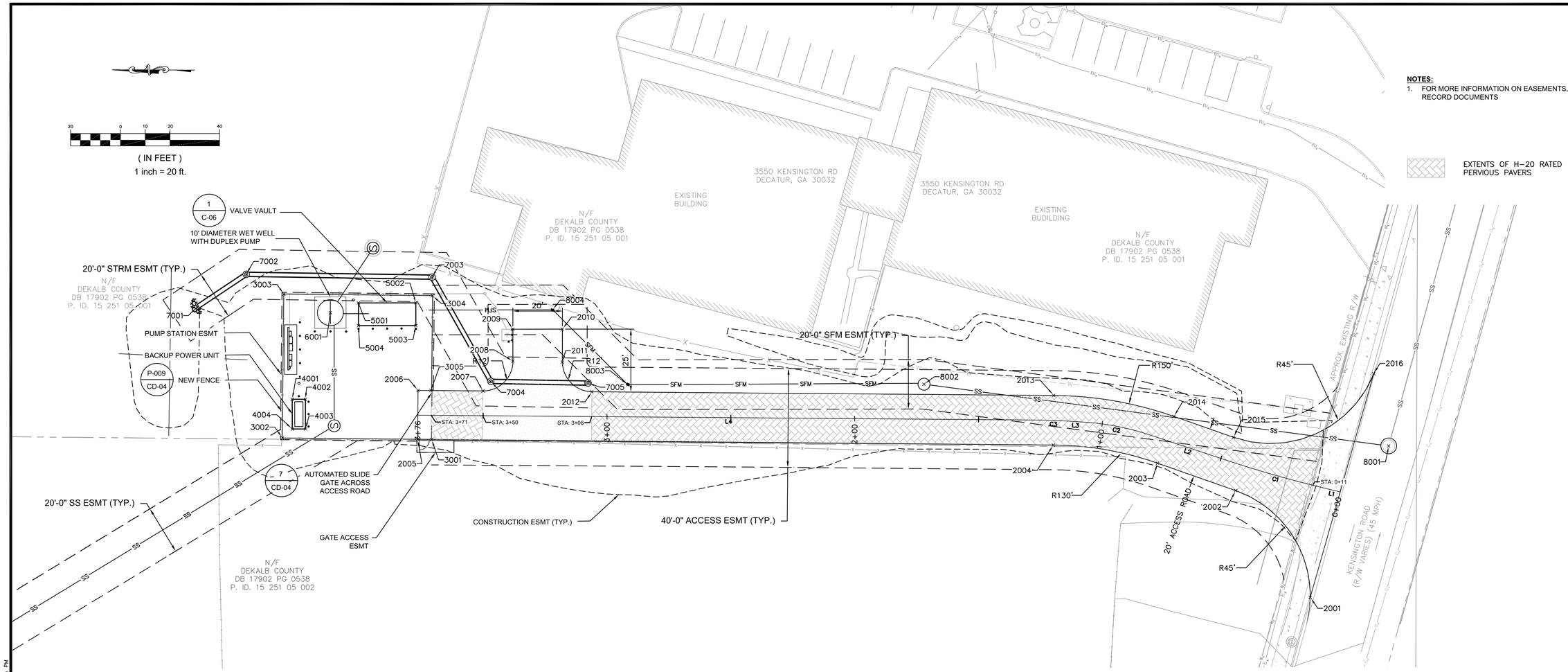
STAMP:

GEORGIA REGISTERED No. 26889 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE:
DEMOLITION PLAN

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

C-02



NOTES:

1. FOR MORE INFORMATION ON EASEMENTS, SEE RECORD DOCUMENTS

EXTENTS OF H-20 RATED PERVIOUS PAVERS

Point Table				
Point #	Elevation	Northing	Easting	Description
2001	996.07	1372003.46	2272671.66	PS ACCESS RD
2002	998.28	1372033.50	2272714.76	PS ACCESS RD
2003	1001.84	1372065.06	2272725.87	PS ACCESS RD
2004	1002.93	1372107.10	2272733.25	PS ACCESS RD
2005	982.46	1372363.75	2272735.82	PS ACCESS RD
2006	982.47	1372363.57	2272755.56	PS ACCESS RD
2007	982.95	1372337.36	2272755.32	PS ACCESS RD
2008	983.46	1372325.25	2272767.32	PS ACCESS RD
2009	983.64	1372325.25	2272780.21	PS ACCESS RD
2010	984.32	1372305.25	2272780.21	PS ACCESS RD
2011	984.02	1372305.25	2272766.93	PS ACCESS RD
2012	984.42	1372293.36	2272754.93	PS ACCESS RD
2013	1002.54	1372106.89	2272753.25	PS ACCESS RD

Point Table				
Point #	Elevation	Northing	Easting	Description
2014	1001.41	1372058.42	2272744.74	PS ACCESS RD
2015	998.80	1372034.38	2272736.27	PS ACCESS RD
2016	989.99	1371977.71	2272761.85	PS ACCESS RD
3001	982.51	1372358.11	2272735.76	PS SITE
3002	982.00	1372418.35	2272736.45	PS SITE
3003	982.01	1372417.69	2272794.44	PS SITE
3004	982.53	1372357.70	2272793.76	PS SITE
3005	982.51	1372358.32	2272755.51	PS SITE
4001	982.50	1372414.35	2272752.02	BU PWR UNT
4002	982.50	1372409.01	2272752.02	BU PWR UNT
4003	982.50	1372409.01	2272740.02	BU PWR UNT
4004	982.50	1372414.35	2272740.02	BU PWR UNT
5001	983.33	1372387.58	2272790.86	VALVE VAULT

Point Table				
Point #	Elevation	Northing	Easting	Description
5002	983.33	1372364.41	2272790.86	VALVE VAULT
5003	983.33	1372364.41	2272781.70	VALVE VAULT
5004	983.33	1372387.58	2272781.70	VALVE VAULT
6001	982.75	1372398.91	2272786.96	WET WELL CNTR
7001	974.04	1372452.60	2272789.37	STORM
7002	978.93	1372432.92	2272802.47	STORM
7003	985.65	1372357.85	2272801.25	STORM
7004	983.09	1372334.18	2272759.17	STORM
7005	984.06	1372294.94	2272758.43	STORM
8001	991.63	1371971.71	2272732.72	SS MH
8002	1002.23	1372159.31	2272757.83	SS MH
8003	985.07	1372278.87	2272757.76	SFM
8004	987.88	1372309.17	2272788.01	SFM

ACCESS ROAD CENTERLINE DATA				
LINE #	LENGTH (FT)	DIRECTION	START POINT	END POINT
L1	6.52'	N13° 25' 32"E	(2272714.21,1371991.31)	(2272715.72,1371997.65)
L2	33.66'	N18° 20' 57"E	(2272726.73,1372036.35)	(2272737.33,1372068.30)
L3	6.87'	N03° 41' 01"E	(2272742.45,1372094.61)	(2272742.89,1372101.46)
L4	251.15'	N00° 30' 47"E	(2272743.30,1372112.52)	(2272745.55,1372363.66)

ACCESS ROAD CURVE DATA					
CURVE #	RADIUS (FT)	LENGTH (FT)	CHORD DIRECTION	START POINT	END POINT
C1	468.43	40.25	N15° 53' 14.33"E	(1371997.65,1371997.65)	(2272726.73,1372036.35)
C2	104.99	26.87	N11° 00' 58.64"E	(1372068.30,1372068.30)	(2272742.45,1372094.61)
C3	200.00	11.07	N2° 05' 53.88"E	(1372101.46,1372101.46)	(2272743.30,1372112.52)

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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Plumbing, Mechanical, Gas, and Electrical sections have been reviewed for compliance with 2020 codes and will be reviewed in the field.

Approved plans must be on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA REGISTERED No. 26659 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

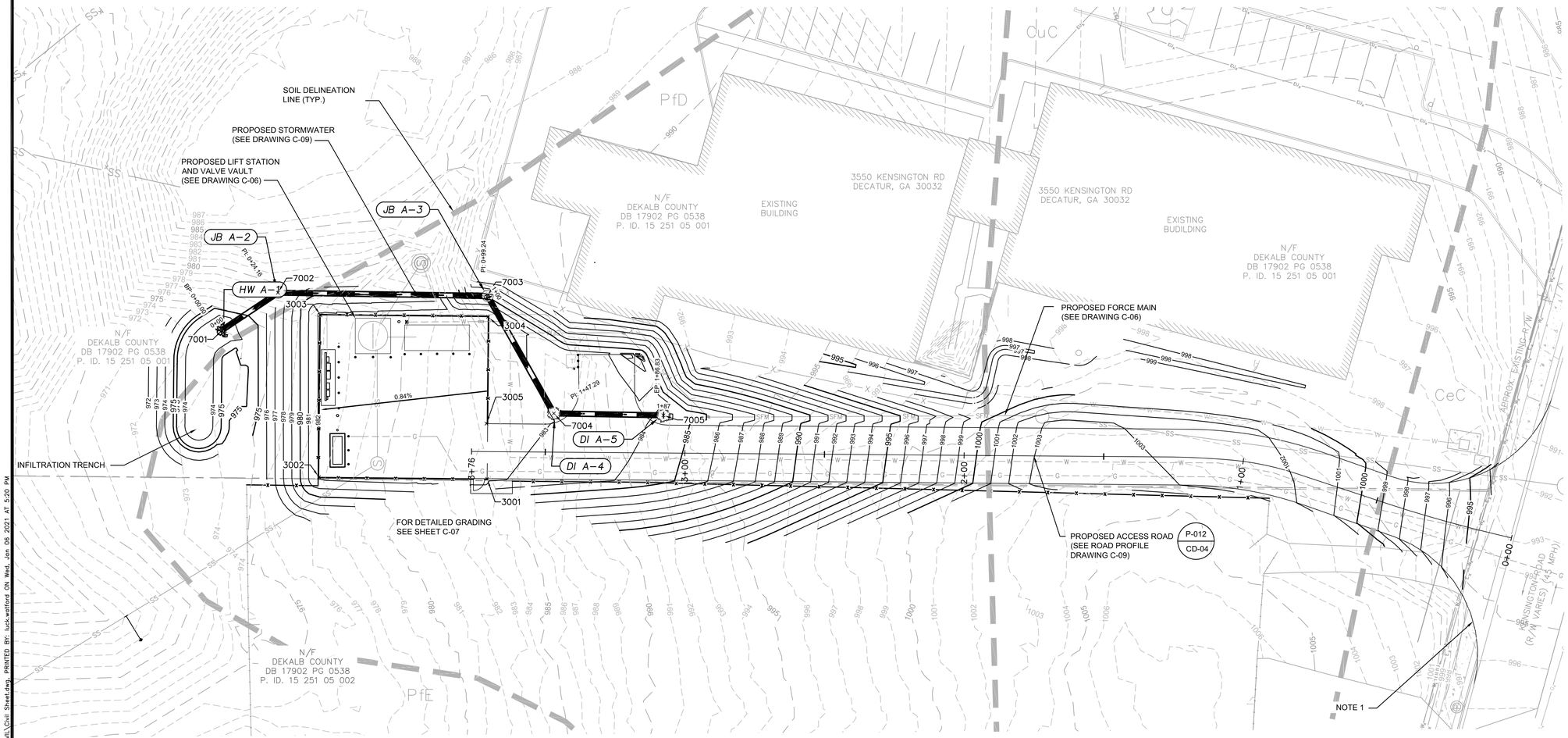
SHEET TITLE:
HORIZONTAL CONTROL PLAN

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

C-03

NOTES:

1. WHERE NECESSARY TO CUT SIDEWALK, ENTIRE SECTIONS SHALL BE REMOVED AND REPLACED TO THE SAME DIMENSIONS AND MATERIALS AS ADJOINING SECTIONS. RE: SECTION 02521 CONCRETE CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS. STRIPING REPLACEMENT COLOR AND LOCATION SHALL MATCH EXISTING AND CONFORM TO GDOT SECTION 652 - PAINTING TRAFFIC STRIPE.



Point Table				
Point #	Elevation	Northing	Easting	Description
3001	982.51	1372358.11	2272735.76	PS SITE
3002	982.00	1372418.35	2272736.45	PS SITE
3003	982.01	1372417.69	2272794.44	PS SITE
3004	982.53	1372357.70	2272793.76	PS SITE
3005	982.51	1372358.32	2272755.51	PS SITE

Point Table					
Point #	Elevation	Northing	Easting	Description	Structure
7001	974.04	1372452.60	2272789.37	STORM	HW A-1: GDOT 1125
7002	978.93	1372432.92	2272802.47	STORM	JB A-2: 48" GDOT 1011AP
7003	985.65	1372357.85	2272801.25	STORM	JB A-3: 48" GDOT 1011AP
7004	983.09	1372334.18	2272759.17	STORM	DI A-4: 48" GDOT 1019AP
7005	984.06	1372294.94	2272758.43	STORM	DI A-5: 48" GDOT 1019AP

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:

DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT

DEKALB COUNTY, GEORGIA

PROJECT:

KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA REGISTERED No. 26889 PROFESSIONAL ENGINEER GEORGE AJY 01/07/2021

DeKalb County GEORGIA

DEVELOPMENT SERVICES

APPROVED

AP 1244223

DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The

documents and other data shall not prevent the

professionals.

Plumbing, Mechanical, Gas, and Electrical sections

of this permit have been reviewed for

compliance with the 2018 codes and will be

inspected during construction.

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION

R2T, INC.

LICENSE NO.: PEF004650

EXPIRATION DATE: 6/30/2022

SHEET TITLE:

GRADING AND DRAINAGE PLAN

ISSUED: NOVEMBER 03, 2020

PROJECT NO. 14-902883

SCALE: AS NOTED

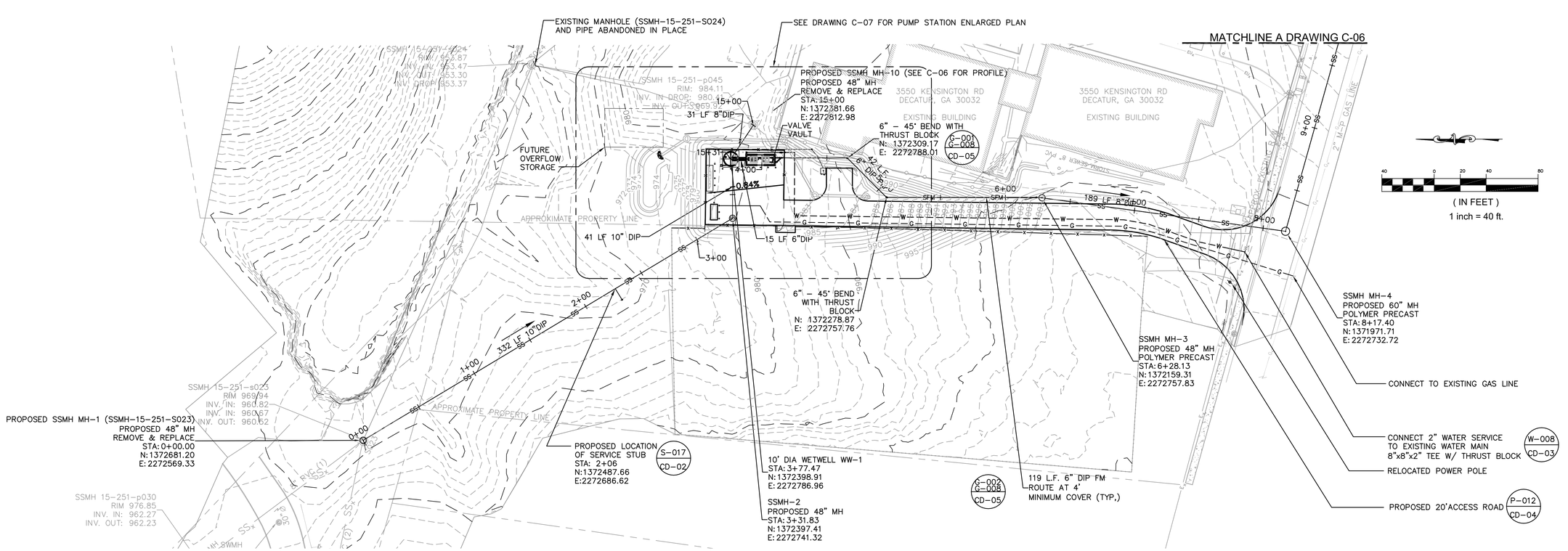
CHKD BY: AR

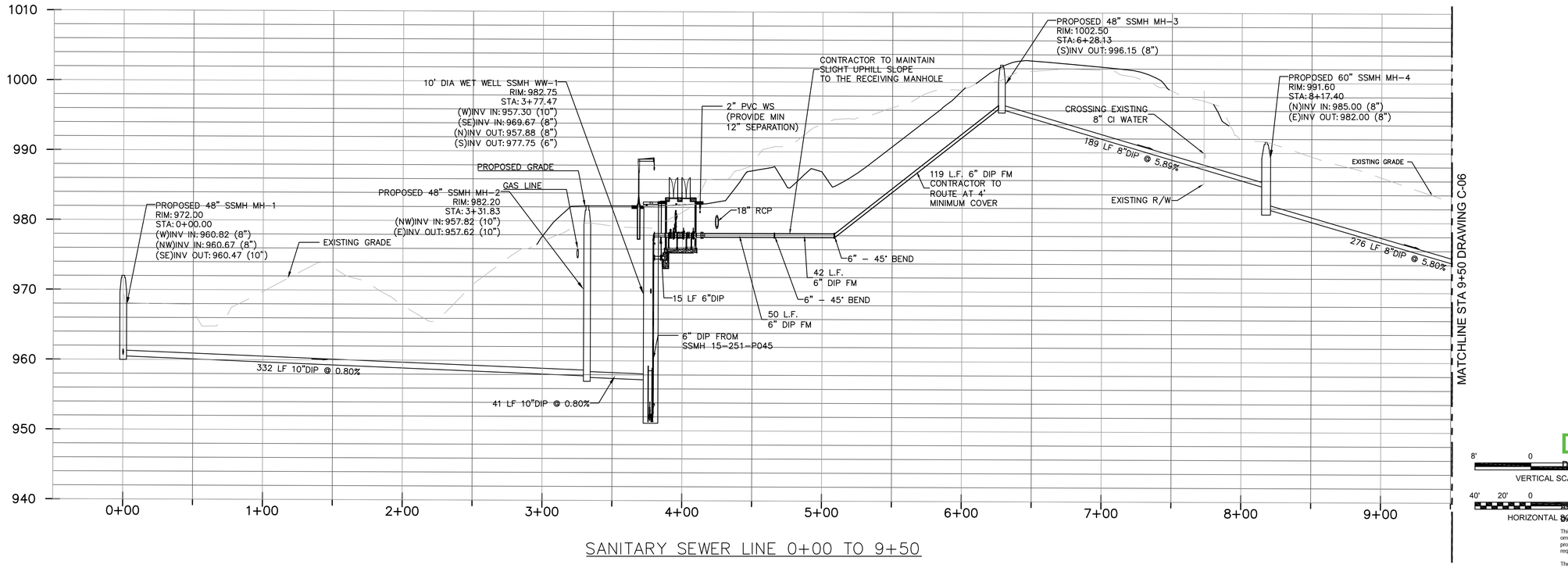
DESIGNED BY: GR

DRAWN BY: YZ

C-04

P:\01 Active Projects\0008 - DeKalb\0219 - Kensington PS\31 Authoring Cad Files\Civil\Civil Sheet.dwg, PRINTED BY: lackwelford ON Wed, Jan 06, 2021 AT 5:20 PM





SANITARY SEWER LINE 0+00 TO 9+50

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
DATE: 12/4/20
8' 0 8' 16'
VERTICAL SCALE 1"=8'
40' 20' 0 40' 80'
HORIZONTAL SCALE 1"=40'

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[illegible] Mechanical, Gas, and Electrical sections [illegible] been reviewed for [illegible] codes and will be [illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004652
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

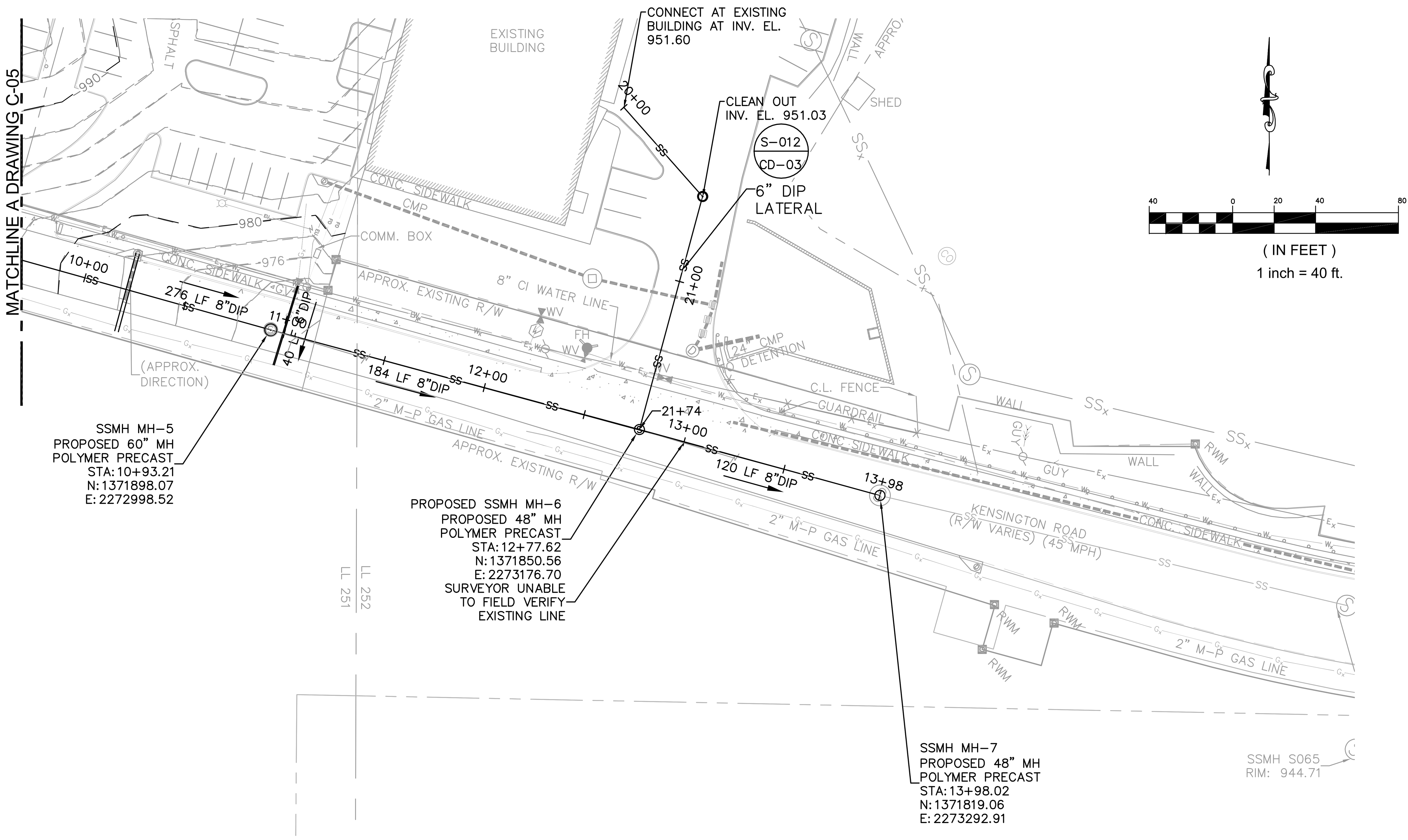
STAMP:

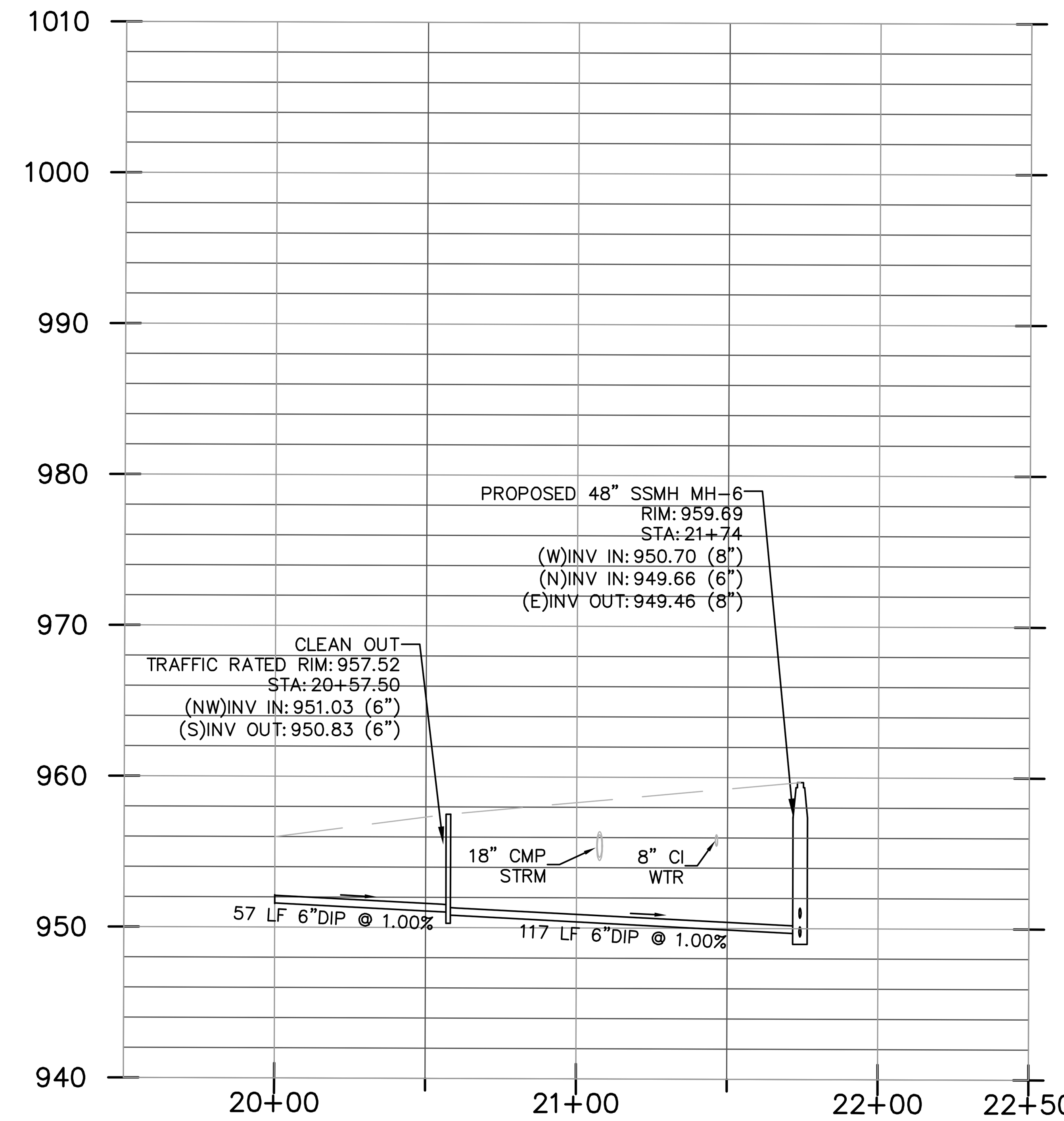
GEORGIA REGISTERED No. 26889 PROFESSIONAL 12/04/20 ENGINEER GEORGE A/Y

SHEET TITLE:
SEWER PLAN & PROFILE

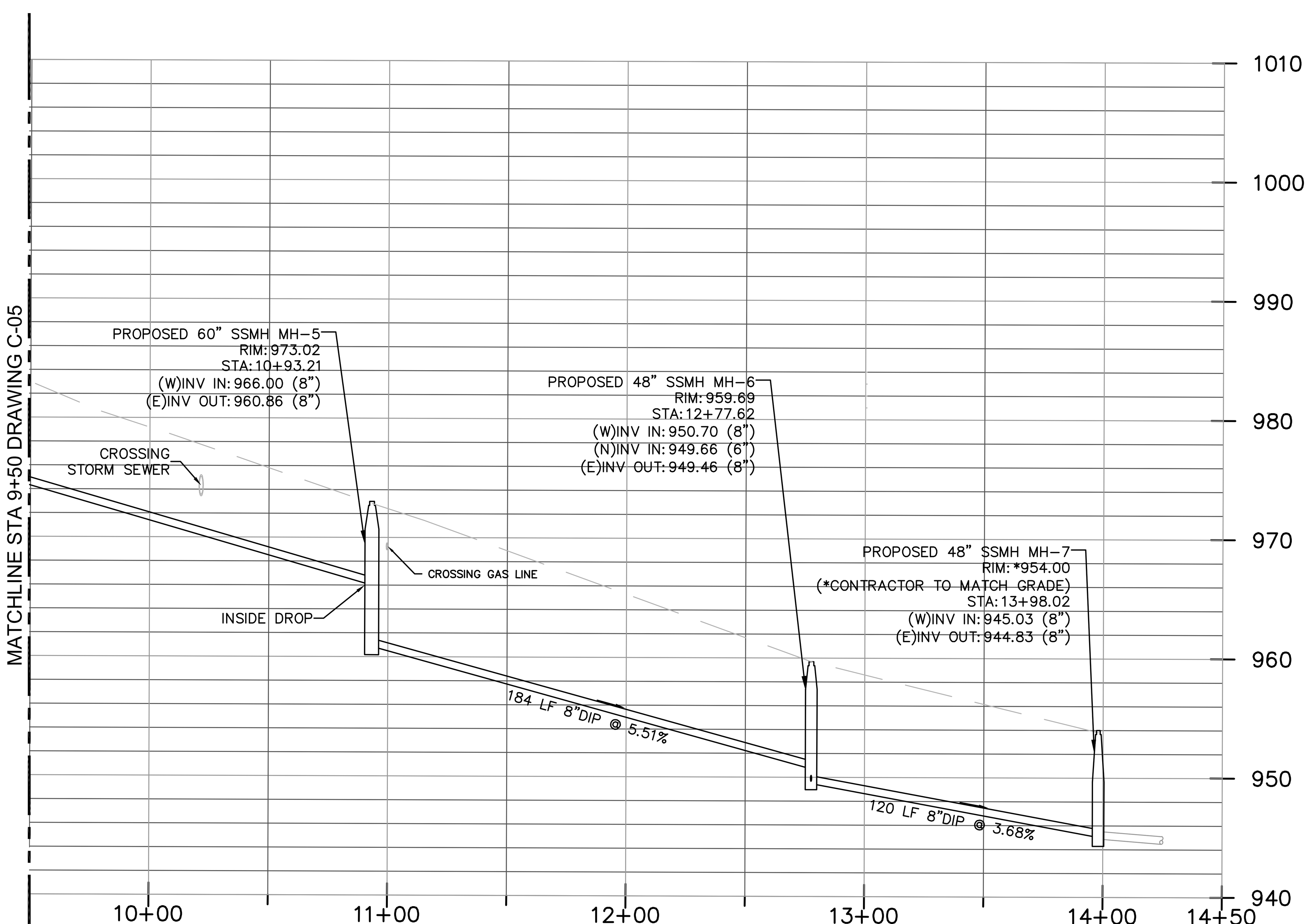
ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: 1" = 40' (H)
1" = 5' (V)
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: OG

C-05

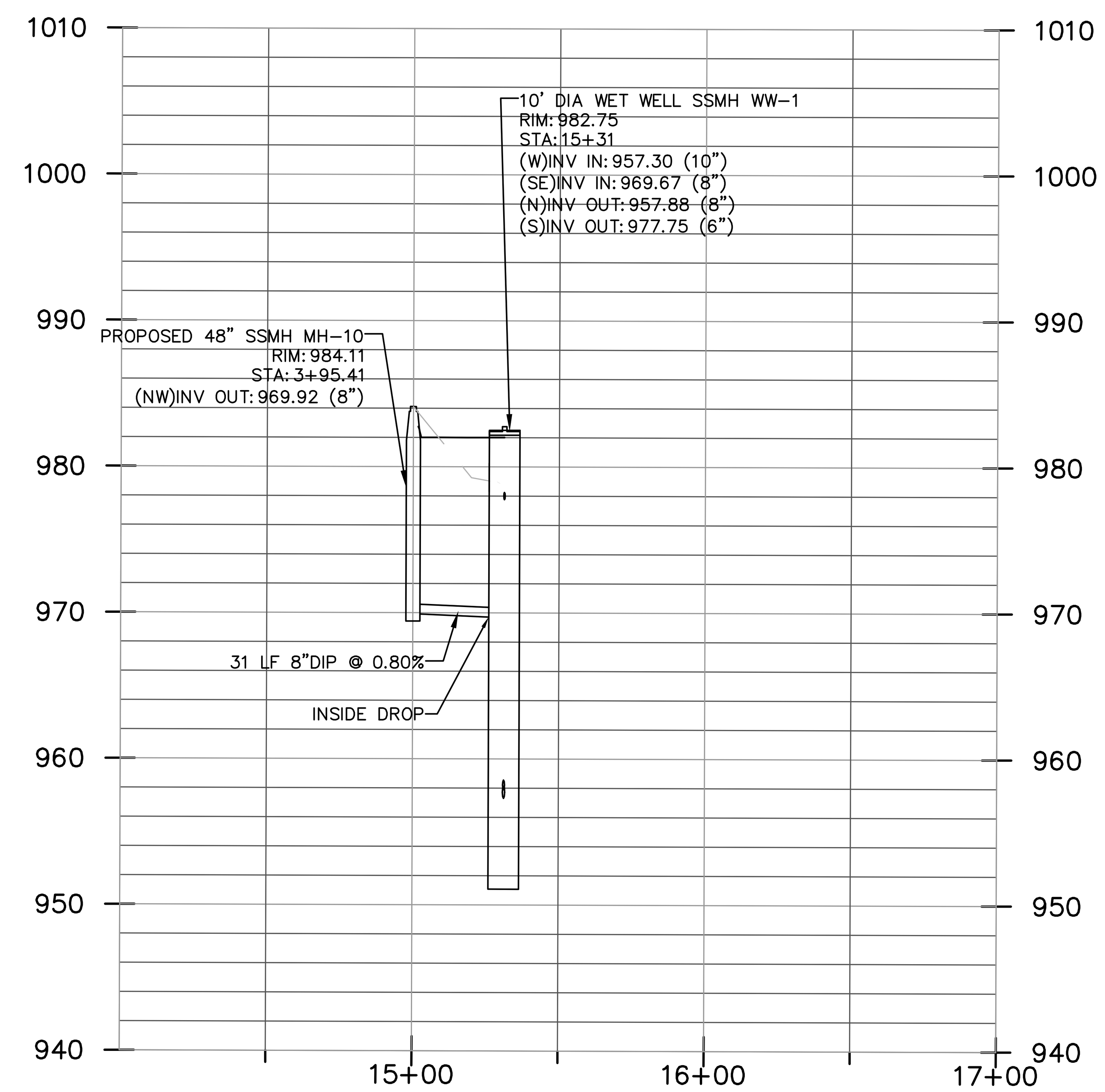




6" DIP LATERAL LINE 20+00 TO 22+50



SANITARY SEWER LINE 9+50 TO 14+50



SANITARY SEWER LINE 15+00 TO 15+31

VERTICAL SCALE 1"=8'

HORIZONTAL SCALE 1"=40'

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 244223
DATE 01/11/21

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Plumbing, Mechanical, Gas, and Electrical sections of these plans have not been reviewed for compliance with technical codes and will be field verified during inspection.

A set of these approved plans shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP: GEORGIA REGISTERED No. 26889 PROFESSIONAL ENGINEER GEORGE AJY 12/04/20

SHEET TITLE:

SEWER PLAN & PROFILE

ISSUED: NOVEMBER 03, 2020

PROJECT NO. 14-902883

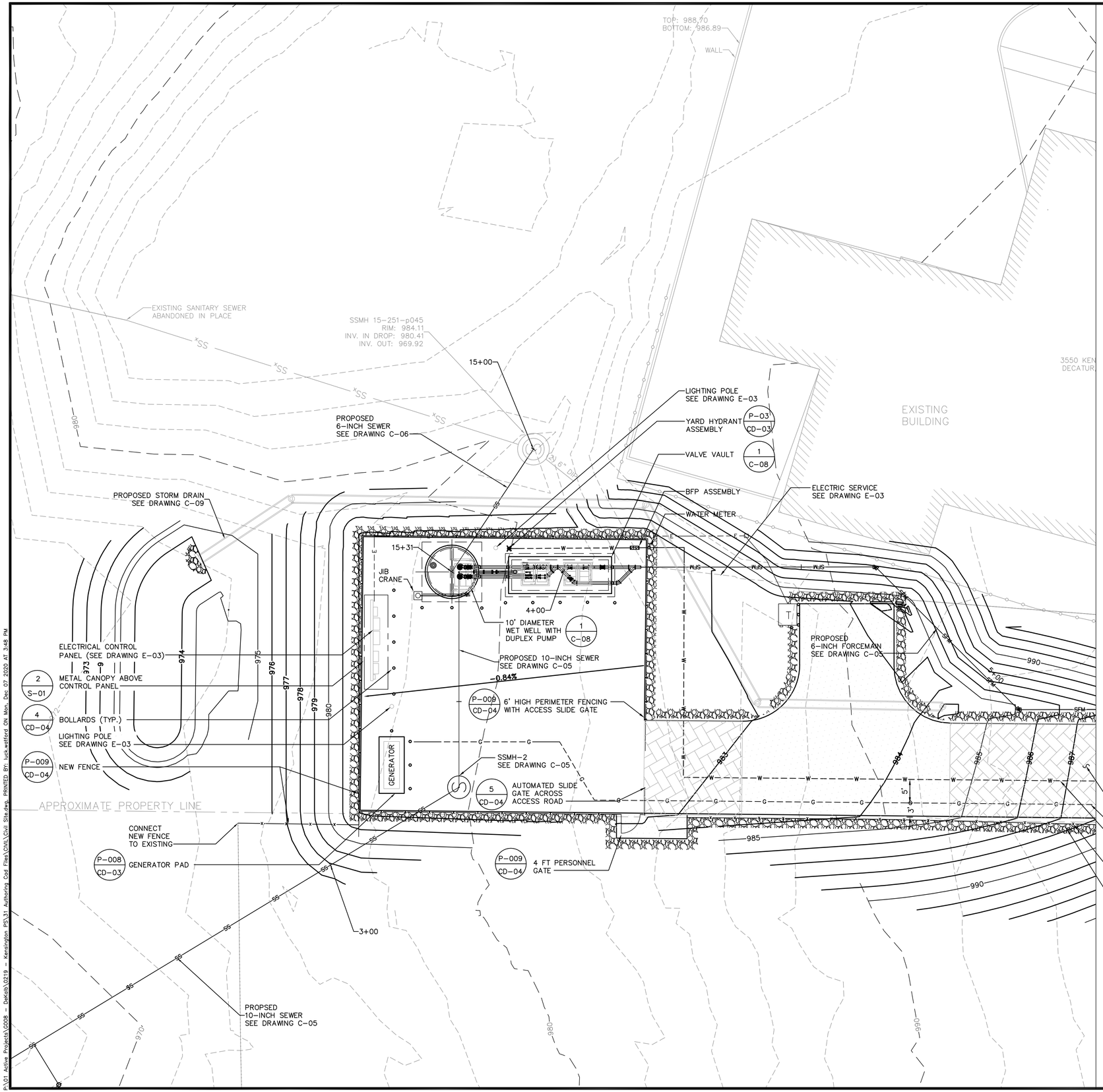
SCALE: 1" = 40' (H) 1" = 5' (V)

CHKD BY: AR

DESIGNED BY: GR

DRAWN BY: OG

C-06



P:\01 Active Projects\0008 - DeKalb\0219 - Kensington PS\31 Authoring Cad Files\Civil\Civil Site.dwg, PRINTED BY: luck.watford ON Mon, Dec 07 2020 AT 3:48 PM

RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA
REGISTERED
No. 26089
PROFESSIONAL
12/04/20
ENGINEER
GEORGE AVY

SHEET TITLE:
PUMP STATION
ENLARGED PLAN

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: OG

C-07

DeKalb County
GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223
DATE 01/11/21

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documents and other data shall not prevent the

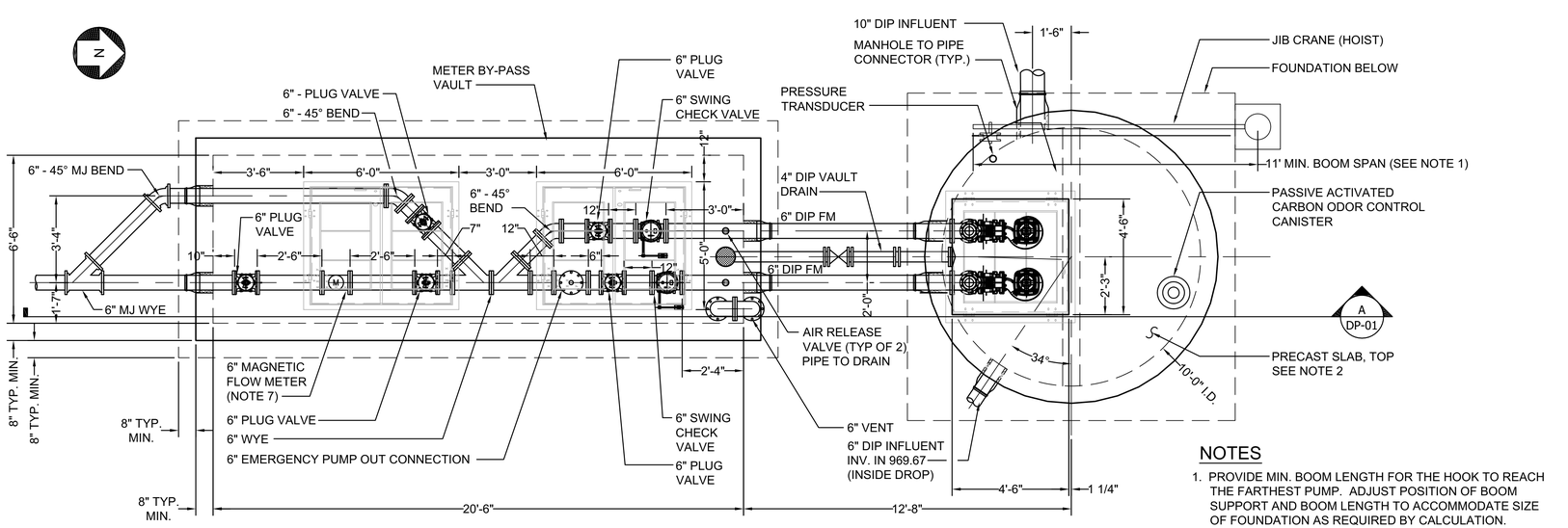
Mechanical, Gas, and Electrical sections

been reviewed for

codes and will be

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

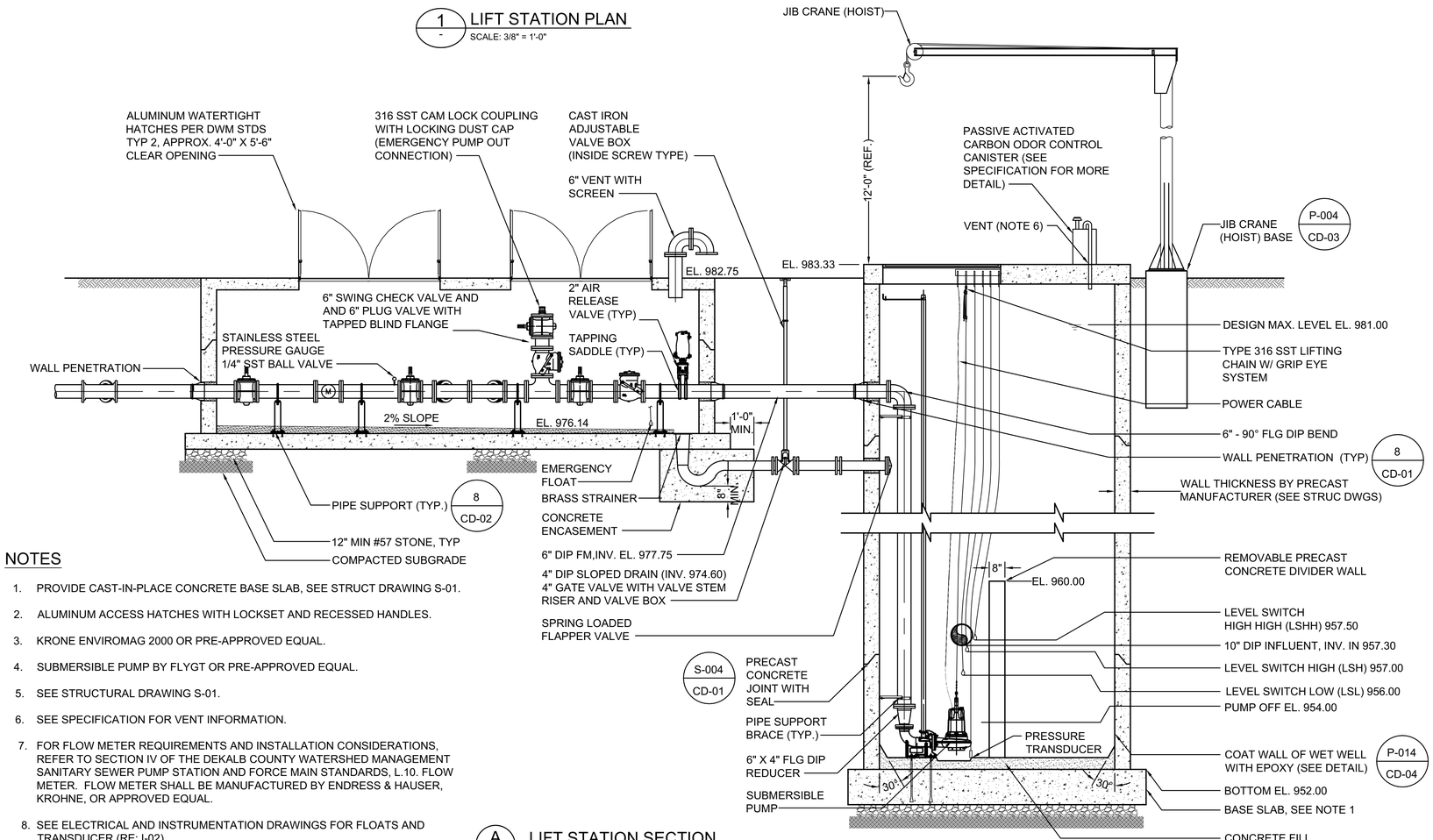
GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004659
EXPIRATION DATE: 6/30/2022



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.

1 — LIFT STATION PLAN
SCALE: 3/8" = 1'-0"



NOTES

1. PROVIDE CAST-IN-PLACE CONCRETE BASE SLAB, SEE STRUCT DRAWING S-01.
2. ALUMINUM ACCESS HATCHES WITH LOCKSET AND RECESSED HANDLES.
3. KRONE ENVIROMAG 2000 OR PRE-APPROVED EQUAL.
4. SUBMERSIBLE PUMP BY FLYGT OR PRE-APPROVED EQUAL.
5. SEE STRUCTURAL DRAWING S-01.
6. SEE SPECIFICATION FOR VENT INFORMATION.
7. FOR FLOW METER REQUIREMENTS AND INSTALLATION CONSIDERATIONS, REFER TO SECTION IV OF THE DEKALB COUNTY WATERSHED MANAGEMENT SANITARY SEWER PUMP STATION AND FORCE MAIN STANDARDS, L.10. FLOW METER. FLOW METER SHALL BE MANUFACTURED BY ENDRESS & HAUSER, KROHNE, OR APPROVED EQUAL.
8. SEE ELECTRICAL AND INSTRUMENTATION DRAWINGS FOR FLOATS AND TRANSDUCER (RE: I-02)
9. SEE SPECIFICATION FOR ACTUATOR INFORMATION (RE: I-02)

A / DP-01 — LIFT STATION SECTION
SCALE: 3/8" = 1'-0"

Pump Station Design Criteria

	Basis	Startup Conditions 2020	Design/Future Conditions 2045
Average Daily Flow	GPD	8582	149,423
Peak Hourly Flow	GPD	42,910	747,117
Peak Factor (PHF:ADF)		5	5
Force Main Diameter	in	6	6
Pump Rated Flow	GPM	200	600
Force Main Velocity @ Rated Flow	fps	5.1	6.8
Total Head @ Rated Flow	ft	70	70
No. of Pumps		2	2
Wetwell Diameter	ft	5	10
Volume per Vertical Foot	gallons	147	587
Active Storage Volume	gallons	282	2631
Emergency Volume (3 hrs @Peak Hourly Flow)	gallons	5364	93420
	Req'd VF	37	159
PS Top of Slab Elevation	ft	982	982
Emergency Volume Max Water Elevation	ft	981	981
High Level Alarm	ft	957.5	957.5
Lag Pump On	ft	957	957
Lead Pump On	ft	956	956
Cycle Time	min	11.5	16.8
Cycles per Hour	#	5.2	3.6
Pumps Off	ft	954	954
PS Floor Elevation (top of grout)	ft	952	952

DeKalb County GEORGIA
DEVELOPMENT SERVICES
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AP 1244223
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Plans for Structural, Mechanical, Gas, and Electrical sections have been reviewed for compliance with 2018 codes and will be inspected for compliance with 2018 codes.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. : PEF004653
EXPIRATION DATE: 6/30/2022

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WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

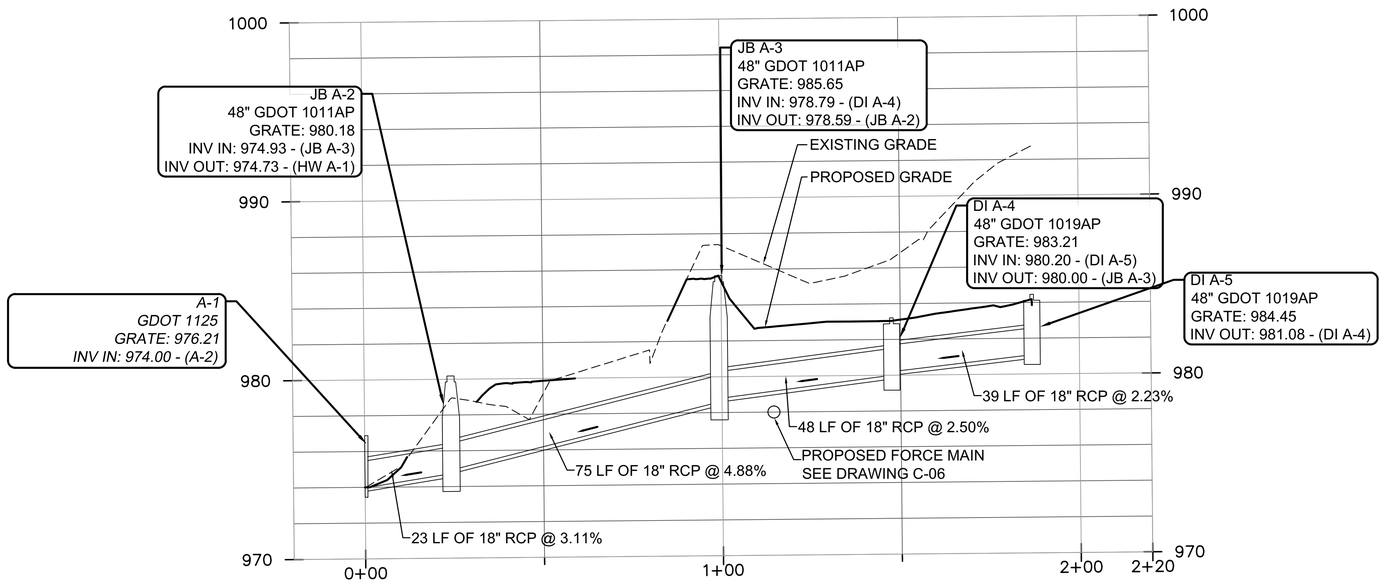
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA REGISTERED NO. 28689 PROFESSIONAL ENGINEER 09/24/20 GEORGE AJY

SHEET TITLE:
PUMP STATION PLAN, SECTION & DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

C-08



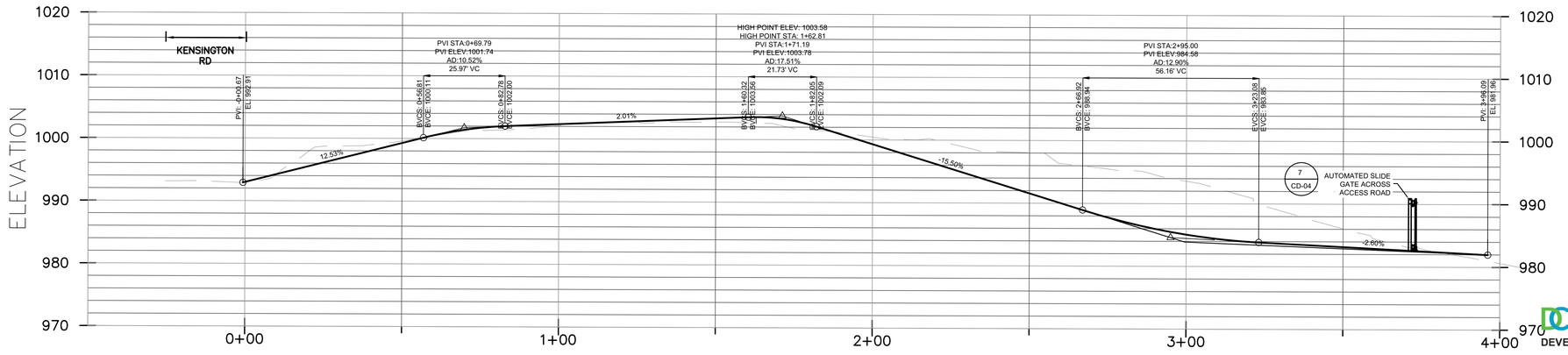
STORMWATER PROFILE A-1 TO A-5

20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

4' 0 4' 8'
VERTICAL SCALE 1"=4'

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

PS ACCESS ROAD PROFILE



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

20' 10' 0 20' 40'
HORIZONTAL SCALE 1"=20'

ACCESS ROAD PROFILE 0+00 TO 3+96

DeKalb County GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223
DATE 01/11/21

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Plans for the Structural, Gas, and Electrical sections of this project have been reviewed for compliance with the 2020 codes and will be

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

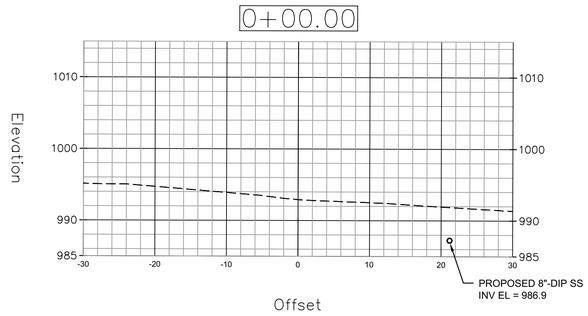
STAMP:

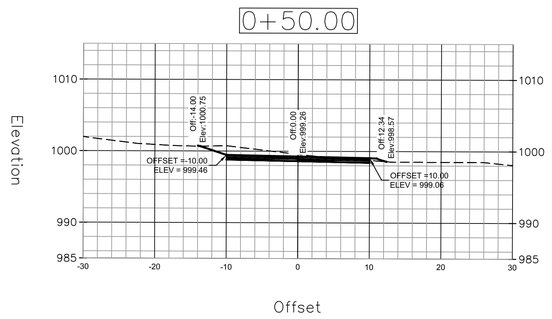
GEORGIA REGISTERED NO. 28089 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

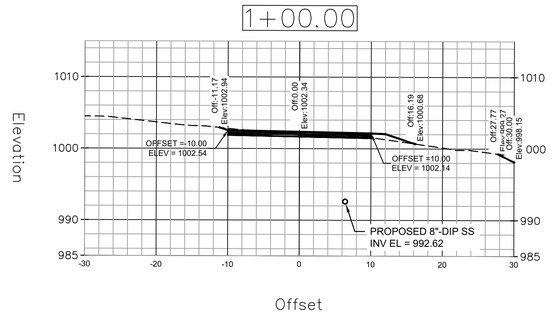
SHEET TITLE:
STORMWATER & ACCESS ROAD PROFILE

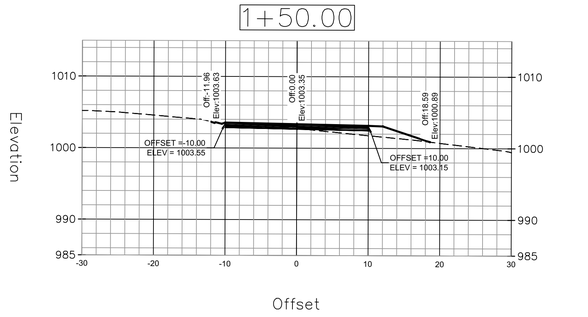
ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: 1" = 20' (H)
1" = 4' (V)
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

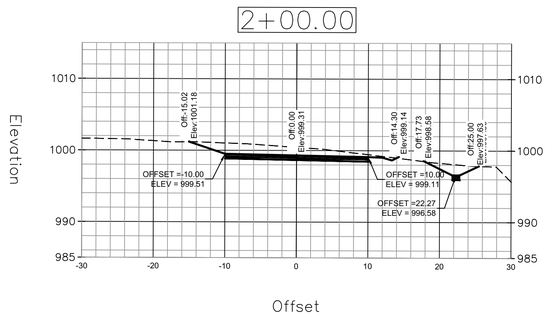
C-09

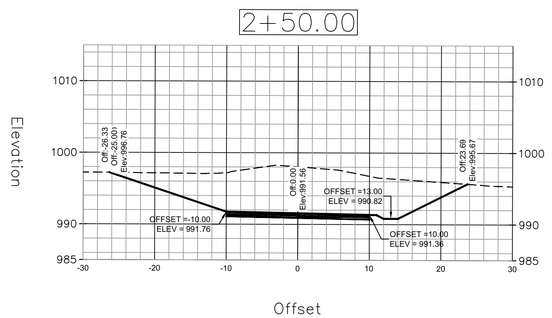


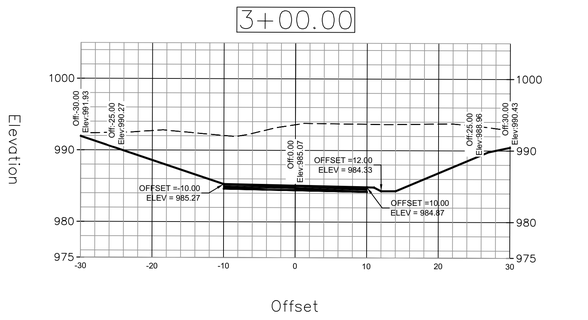


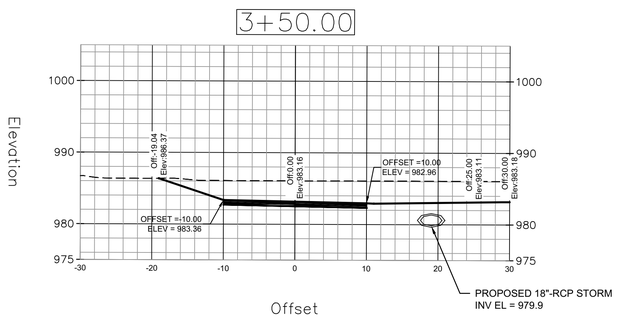












10' 0 10' 20'
VERTICAL SCALE 1"=10'

10' 5' 0 10' 20'
HORIZONTAL SCALE 1"=10'

NOTES:
1. SEE SHEET C-04 FOR PLAN VIEW
2. SEE DETAIL P-012, SHEET CD-04 FOR PUMP STATION TYPICAL DRIVE CROSS SECTION

ACCESS ROAD CROSS SECTIONS

DeKalb County
GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223

DATE 01/11/21

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documents and other data shall not prevent the

Plumbing, Mechanical, Gas, and Electrical sections

codes and will be

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004650
EXPIRATION DATE: 6/30/2022

R2T
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UNIT C
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CLIENT:
DEKALB COUNTY
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DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
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REV	DATE	DESCRIPTION
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1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA
REGISTERED
No. 26389
PROFESSIONAL
12/04/20
ENGINEER
GEORGE AJY

SHEET TITLE:
ACCESS ROAD SECTIONS

ISSUED: NOVEMBER 03, 2020

PROJECT NO. 14-902883

SCALE: 1" = 10' (H)
1" = 10' (V)

CHKD BY: AR

DESIGNED BY: GR

DRAWN BY: YZ

C-10

ES&PC PLAN GENERAL 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.

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.

THE DESIGN PROFESSIONAL OR AN AUTHORIZED AGENT WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPs AND AND SEDIMENT BASINS IN ACCORDANCE WITH PART IV.A.5. WITHIN (7) SEVEN DAYS AFTER INSTILLATION.

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 JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

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 TE 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.

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

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 1-800-426-2675.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.
- 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-1. 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.

SILT FENCE INSTALLATION WITH J HOOKS AND 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 J-HOOKS OR SPURS. THE J-HOOKS SHALL BE UTILIZED ON ALL SILT FENCES LOCATED AROUND THE PERIMETER OF THE PROJECT SITE AND ALONG THE TOE OF EMBANKMENTS OR SLOPES. THE J HOOKS ARE TO BE SPACED IN ACCORDANCE WITH THE TYPICAL LOCATION DETAILS FOR SILT FENCE / HAY BALES. MAXIMUM J-HOOK SPACING REACHED WHEN THE J-HOOK IS AT THE SAME ELEVATION AS THE BOTTOM OF THE IMMEDIATELY UP GRADIENT J-HOOK.

(27) **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 HAVE 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 ND 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 O 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

(26) (28) 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, PETROLEUM PRODUCTS AND CONSTRUCTION WASTE. STRUCTURAL AND VEGETATION BMPs SHAL BE UTILIZED AS DEPICTED IN THE ES&PC PLAN.

SEDIMENT STORAGE

THIS SITE HAS A TOTAL DISTURBED AREA OF 1.30 ACRE REQUIRING 87 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.

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.

(18) **NO WASTE MATERIALS SHALL 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 SEEING THAT THESE PROCEDURES ARE FOLLOWED.

BMP MAINTENANCE NOTE

ALL SEDIMENT CONTROL DEVICES OTHER THAN SEDIMENT BASINS SHALL BE CLEANED OF SEDIMENT WHEN ONE HALF OF TH 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 NOT IMPACTED BY THIS PROJECT

(15) 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.

(24) READY MIX CHUTE WASH-DOWN

THE WASHING OF READY MIX CONCRETE DRUMS AND DUMP TRUCK BODIES USED IN THE DELIVERY OF PORTLAND CEMENT CONCRETE IS TYPICALLY PROHIBITED ON THIS SITE, HOWEVER A CONTROLLED WASHOUT AREA MAY BE USED PROVIDING ALL HARDENED REMAINS ARE REMOVED FROM SITE AT THE END OF EACH WORK DAY. NEVER DISPOSE OF WASH-DOWN WATER DOWN A STORM DRAIN.

IF 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".

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 RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. 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 NONWORKING 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.

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 PROJECT 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 833-8-92-001".

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 THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.

B) THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.

C) IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).

D) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.

E) THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.

F) THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.

G) PERMITTEE'S DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN THE MANUAL (EXCLUDING A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION). FOR INFRASTRUCTURE CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL OR SILVICULTURAL PURPOSES, FINAL STABILIZATION MAY BE ACCOMPLISHED BY STABILIZING THE DISTURBED LAND FOR ITS AGRICULTURAL OR SILVICULTURAL USE.

H) ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS 111.0 .3. OR 111.0.4., WHICHEVER IS APPLICABLE.

I) 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 DISCHARGE RESULTS IN THE TURBIDITY OF RECEIVING WATER(S) BEING INCREASED BY MORE THAN TEN (10) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS CLASSIFIED AS TROUT STREAMS OR MORE THAN TWENTY-FIVE (25) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS SUPPORTING WARM WATER FISHERIES, REGARDLESS OF A PERMITTEE'S CERTIFICATION UNDER PART 11.8.1.I.

J) WHEN THE PERMITTEE HAS ELECTED TO SAMPLE OUTFALL(S), THE 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 VALUE SELECTED FROM APPENDIX 8 APPLICABLE TO THE CONSTRUCTION SITE. AS SET FORTH THEREIN, THE NEPHELOMETRIC TURBIDITY UNIT (NTU) VALUE SHALL BE SELECTED FROM APPENDIX B BASED UPON THE SIZE OF THE CONSTRUCTION SITE, THE SURFACE WATER DRAINAGE AREA AND WHETHER THE RECEIVING WATER(S) SUPPORTS WARM WATER FISHERIES OR IS A TROUT STREAM AS INDICATED IN THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6 AT WWW.GAEPD.ORG.

(2)

GSWCC Georgia Soil and Water Conservation Commission

Luck Watford
Level II Certified Design Professional
Certification Number 0000060876
Issued: 03/01/2020 Expires: 03/01/2023

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This department is not responsible for any errors or omissions by engineers or other design professionals in the design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the code official from requiring the correction of errors.

Plumbing, Mechanical, Gas, and Electrical sections of these plans have not been reviewed for compliance with technical codes and will be field verified during inspection.

A set of these approved plans shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:
GEORGIA REGISTERED No. 26889 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE:
EROSION CONTROL NOTES

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-01

P:\01 Active Projects\G008 – DeKalb\0219 – Kensington PS\31 Authoring Cad Files\CIVIL\Civil Site.dwg, PRINTED BY: luck.watford ON Fri, Dec 04 2020 AT 8:56 PM

SAMPLING FREQUENCY (31) (33)

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;

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.

(30) (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.S. 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.

CERTIFICATION STATEMENTS

(11) 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

Luck Watford 08/31/2020 0000060876
GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

(12) "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."

Luck Watford 08/31/2020 0000060876
GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

(13) "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 ."

Luck Watford 08/31/2020 0000060876
GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

(14) "I CERTIFY THAT I AM THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN AND HAVE INSPECTED THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPS, AND SEDIMENT BASINS WITHIN 7 DAYS AFTER INSTALLATION."

GASWCC LEVEL II DESIGN PROFESSIONAL DATE CERTIFICATION #

(19) **DEKALB 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. (20)

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

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

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 DEKALB COUNTY STANDARDS.

PROJECT NARRATIVE

DISTRICT: 15
LAND LOTS: 251 & 252
DEKALB COUNTY, GEORGIA

PARCEL SITE AREA: 6.11± ACRES
DISTURBED AREA: 1.30± ACRES
ON-SITE WETLANDS: 0.00± ACRES
WETLAND DISTURBANCE: 0.00± ACRES
(THERE ARE NO WETLAND ON SITE)

(8) THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW SANITARY SEWER LIFT STATION. THE PROJECT INCLUDES THE INSTALLATION OF A SANITARY SEWER LIFT STATION, INCLUDING WET WELL, VALVE VAULT, BACKUP GENERATOR. ADDITIONALLY 375 LF OF 10", 805 LF OF 8", 175 LF OF 6" GRAVITY SEWER, AND 226 LF OF 6" FORCE MAIN, AND 185 LF OF 18" RCP STORM DRAIN ARE TO BE INSTALLED. THE PROJECT WILL DISTURB A TOTAL AREA OF APPROXIMATELY 1.30 ACRES. THE PROJECT AREA IS CURRENTLY FOR COUNTY COMMERCIAL USE. THE PRE AND POST CONSTRUCTION RUN-OFF CURVE NUMBER IS APPROXIMATELY CN = 65.

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. THEREFOR THE EROSION CONTROL PLANS PRESENTED HERE 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 NOTICE OF TERMINATION IS FILED FOR THIS PROJECT.

(10) AN UNNAMED TRIBUTARY OF INDIAN CREEK CREEK IS THE RECEIVING WATER FOR THIS PROJECT. THERE ARE NO POTENTIAL CRITICAL AREAS IDENTIFIED FOR THIS PROJECT AREA.

THERE ARE NO STATE WATERS WITHIN 200 FEET OF THE PROJECT AREA.

(29)

SCHEDULE OF MAJOR ACTIVITIES

DESCRIPTION	MO. 1-2	MO. 3-4	MO. 5-6	MO. 7-8	MO. 9-10	MO. 11-12
	(WEEKS AFTER BEGINNING CONSTRUCTION)					
	4	8	12	16	20	24	28	32	36	40	44	48
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.

(47) SOILS SERIES INFORMATION

CeC	CECIL SANDY LOAM, 6 TO 10 PERCENT SLOPES
CUC	CECIL URBAN LAND, 2 TO 10 PERCENT SLOPES
PfD	PACOLET SANDY LOAM, 10 TO 15 PERCENT SLOPES
PfE	PACOLET SANDY LOAM, 15 TO 30 PERCENT SLOPES
Ud	URBAN LAND

(34) NEPHELOMETRIC TURBIDITY UNIT (NTU) TABLE

WARM WATER (SUPPORTING WARM WATER FISHERIES)
SURFACE WATER DRAINAGE AREA, SQUARE MILES

SITE SIZE, ACRES	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

(1) **EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST**
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD:_____

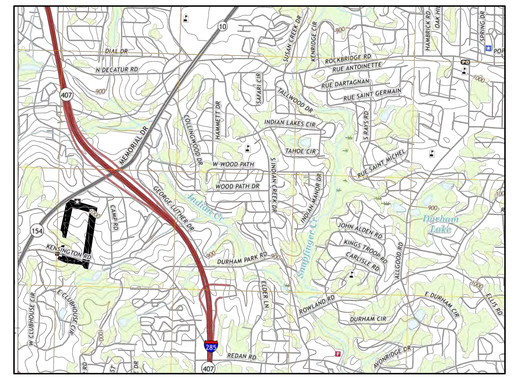
Project Name:_____Kensington Lift Station **Address:**_ 3550 Kensington Road
City/County:____ Dekalb County **Date on Plans:**_____ 6/2/2020
Name & email of person filling out checklist:_____

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
CE-02	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)
ALL CE	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)
CE-02	Y	3 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
CE-02	Y	4 Provide the name, address, **email address**, and phone number of primary permittee.
CE-03, CE-04	Y	5 Note total and disturbed acreage of the project or phase under construction.
CE-03, CE-04	Y	6 Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude 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.
CE-02	Y	8 Description of the nature of construction activity.
COVER	Y	9 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
CE-02	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.
CE-02	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.
CE-02	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 20** of the permit. *
CE-02	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. *
CE-02	Y	14 Clearly note the statement that "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. *
CE-01	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."
	N/A	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
CE-01	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." *
CE-01	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." *
CE-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."
CE-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."
CE-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."
	N/A	22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
	N/A	23 If a TMDL Implementation Plan for sediment has been finalized for the 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. *
CE-01	Y	24 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. *
CE-01	Y	25 Provide BMPs for the remediation of all petroleum spills and leaks.
CE-01	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. *
CE-01	Y	27 Description of practices to provide cover for building materials and building products on site. *
CE-01	Y	28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
CE-02	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, temporary and final stabilization).
CE-02	Y	30 Provide complete requirements of inspections and record keeping by the primary permittee. *
CE-02	Y	31 Provide complete requirements of sampling frequency and reporting of sampling results. *
CE-02	Y	32 Provide complete details for retention of records as per Part IV.F. of the permit. *
CE-02	Y	33 Description of analytical methods to be used to collect and analyze the samples from each location. *
CE-02	Y	34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *
	Y	35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable. *
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 perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *
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 EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
	N/A	40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
N/A		41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
N/A		42 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
		43 Delineation and acreage of contributing drainage basins on the project site.
		44 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets.
		45 An 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 all storm water discharge points.
Y		47 Soil series for the project site and their delineation.
Y		48 The limits of disturbance for each phase of construction.
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.
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.
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.
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, 2020

(44) (45)



SCALE: 1:2400

(3) 24 HOUR CONTACT
TINA STRICKLAND
404-218-5765

(4) PRIMARY PERMITTEE
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
TINA STRICKLAND
404-218-5765
TSTRICKLAND@DEKALBCOUNTYGA.GOV

DeKalb County GEORGIA
DEVELOPMENT SERVICES

(2) GSWCC Georgia Soil and Water Conservation Commission

APPROVED
AP 1244223
DATE 01/11/21

Luck Watford
Level II Certified Design Professional

CERTIFICATION NUMBER 0000060876
ISSUED: 03/01/2020 EXPIRES: 03/01/2023

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004653
EXPIRATION DATE: 6/30/2022

The Development Services Department is not responsible for any errors or omissions by engineers or other design professionals in meeting state or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes and regulations of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The approval of construction documents and other data shall not prevent the issuance of a stop work order for violations.

Plans for the Mechanical, Gas, and Electrical sections have been reviewed for compliance with 2018 codes and will be reviewed at the jobsite.

All plans shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

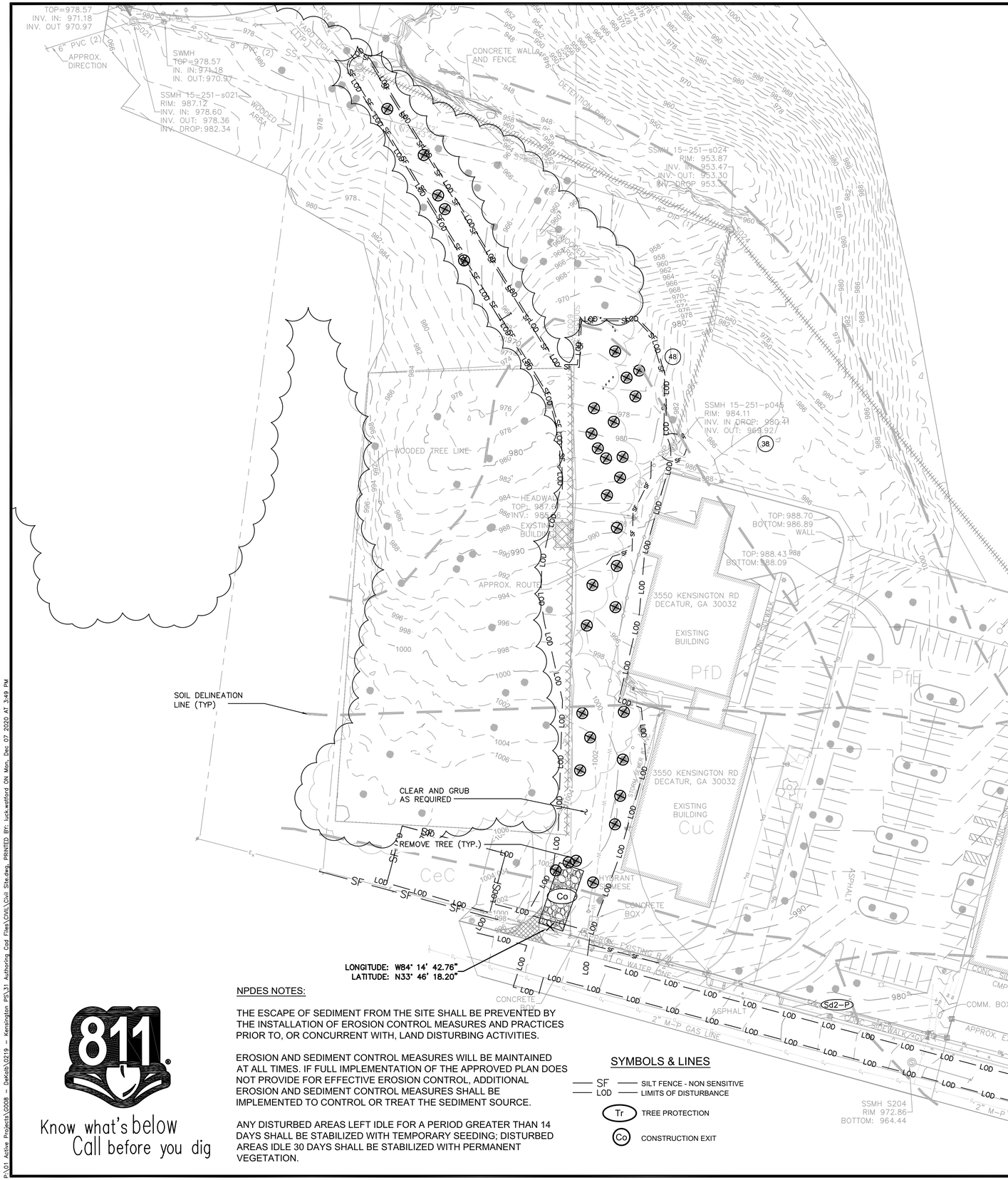
STAMP:

GEORGIA REGISTERED No. 26089 PROFESSIONAL 12/04/20 ENGINEER GEORGE AIY

SHEET TITLE: EROSION CONTROL NOTES

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-02



NOTE:
PARCEL SITE AREA: ±6.1 AC
TOTAL DISTURBED AREA: ±1.3 AC
ON-SITE DISTURBED AREA: ±0.8 AC
3550 KENSINGTON RD: 25821 SF (0.59 AC) DISTURBED
IN RIGHT-OF-WAY DISTURBED AREA: ±0.5 AC
NEW IMPERVIOUS: 4,925 SF
TOTAL IMPERVIOUS: 4,925 SF (1.85% OF PARCEL SITE AREA)
PROPOSED PERVIOUS PAVERS: 6,611 SF

NPDES NOTES:

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.

EROSION AND SEDIMENT 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.

ANY DISTURBED AREAS LEFT IDLE FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING; DISTURBED AREAS IDLE 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.

811
Know what's below
Call before you dig

SYMBOLS & LINES

— SF —	SILT FENCE - NON SENSITIVE
— LOD —	LIMITS OF DISTURBANCE
Tr	TREE PROTECTION
Co	CONSTRUCTION EXIT

DeKalb County
GEORGIA
DEVELOPMENT SERVICES

APPROVED
AP 1244223
DATE 01/11/21

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Plumbing, Mechanical, Gas, and Electrical sections of these plans have not been reviewed for compliance with technical codes and will be field-verified during inspection.

A set of these approved plans shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

②
GSWCC
Georgia Soil and Water Conservation Commission
Luck Watford
Level II Certified Design Professional
Certification Number 0000060876
Issued: 03/01/2020 Expires: 03/01/2023

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

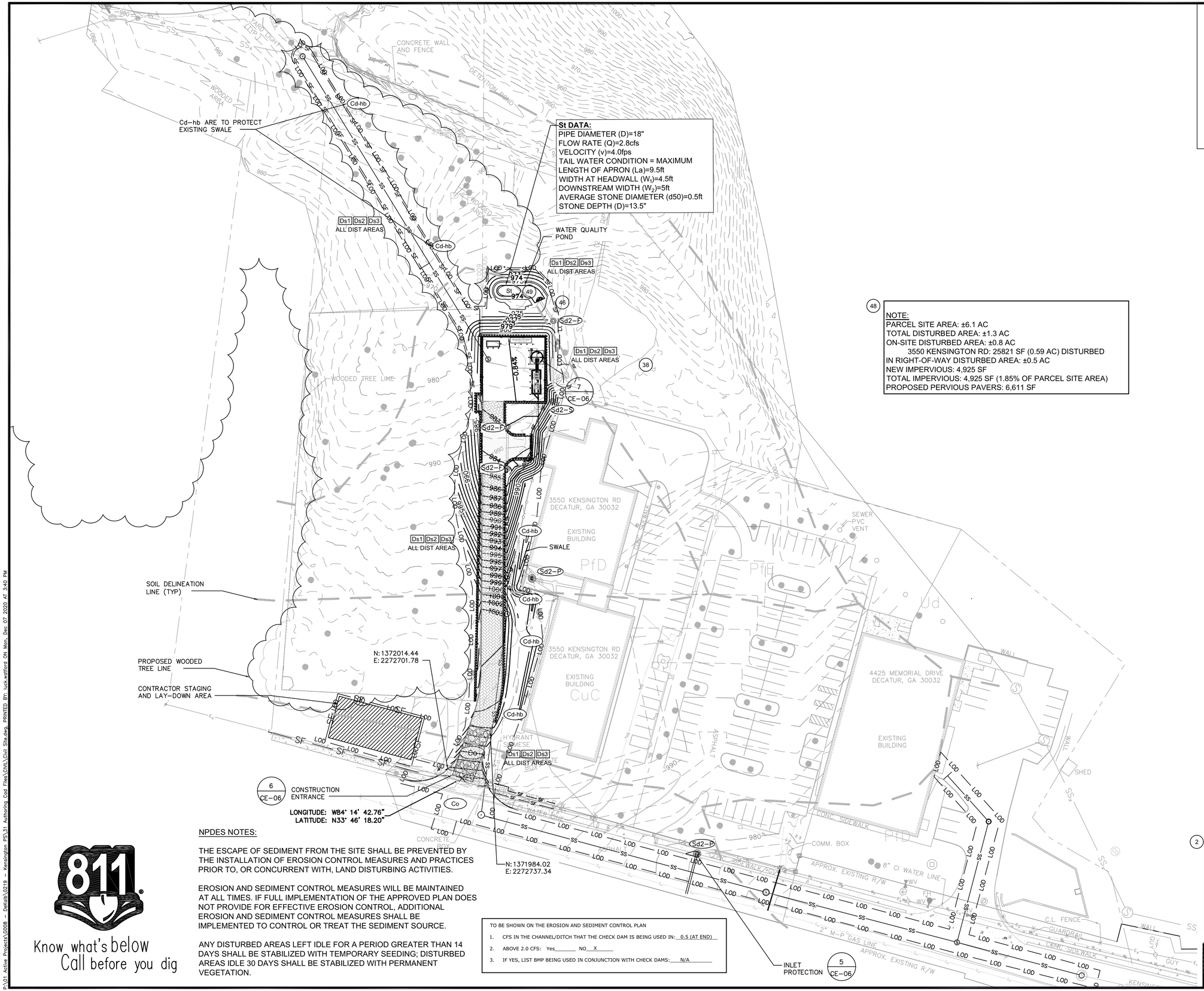
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:
GEORGIA REGISTERED No. 26889 PROFESSIONAL ENGINEER
12/04/20
GEORGE AJY

SHEET TITLE:
EROSION
CONTROL PLAN
PHASE I

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-03



48

NOTE:
PARCEL SITE AREA: ±6.1 AC
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NEW IMPERVIOUS: 4,925 SF
TOTAL IMPERVIOUS: 4,925 SF (1.85% OF PARCEL SITE AREA)
PROPOSED PERVIOUS PAVERS: 6,611 SF

SYMBOLS & LINES

- SF — SILT FENCE TYPE S (DENOTES LOCATION OF LIMITS OF DISTURBANCE)
- Cd-hb — STRAW BALE CHECK DAM
- Sd2-F — FILTER FABRIC WITH SUPPORTING FRAME INLET PROTECTION
- Sd2-S — SOD INLET PROTECTION
- Sd2-P — CURB INLET PROTECTION
- St — CHECK DAM
- Co — CONSTRUCTION EXIT
- EXTENTS OF H-20 RATED PERVIOUS PAVERS

811 Know what's below Call before you dig

NPDES NOTES:

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EROSION AND SEDIMENT 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.

ANY DISTURBED AREAS LEFT IDLE FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING; DISTURBED AREAS IDLE 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.

TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

1. CFS IN THE CHANNEL/DITCH THAT THE CHECK DAM IS BEING USED IN: 0.5 (AT END)
2. ABOVE 2.0 CFS: Yes_____ NO__X_____
3. IF YES, LIST BMP BEING USED IN CONJUNCTION WITH CHECK DAMS: N/A

DeKalb County GEORGIA
DEVELOPMENT SERVICES

2 GSWCC Georgia Soil and Water Conservation Commission
APPROVED
AP 1244223
DATE 01/11/21
Luck Watford
Level II Certified Design Professional
CERTIFICATION NUMBER ISSUED: 03/01/2020
0000050875
EXPIRES: 03/01/2023

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documents and other data shall not prevent the

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R2T, INC.
LICENSE NO. PEF004693
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DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

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STAMP:

GEORGIA REGISTERED No. 26089 PROFESSIONAL ENGINEER 12/04/20 GEORGE A/Y

SHEET TITLE:
EROSION CONTROL PLAN PHASE II

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-04

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		Co (LINE)	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		Cr (LINE)	A travelway 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		Dn1 (LINE)	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		Dn2 (LINE)	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		Gr (LINE)	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		Re (LINE)	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		Rt (LINE)	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		(SILT FENCE TYPE)	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		Sd3 (LINE)	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		Sk (LINE)	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		Spb (LINE)	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 employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING		Sr (LINE)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION		St	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		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN		Tc	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		Tp	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		Tr	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		Bf (LINE)	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 (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
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-Cq	FLOCCULANTS AND COAGULANTS		Fl-Cq	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, o 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)

2

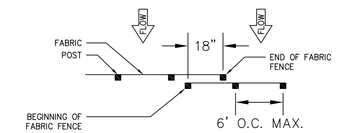
GSWCC — Georgia Soil and Water Conservation Commission

Luck Watford
Level II Certified Design Professional

Certification Number 0000060876
Issued: 03/01/2020 Expires: 03/01/2023

FASTENERS FOR SILT FENCES

OVERLAP AT FABRIC ENDS



TOP VEIW – NOT TO SCALE

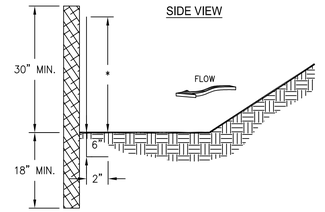
FRONT VIEWS – NOT TO SCALE

NOTES:
1. THE FABRIC AND WIRE SHOULD BE SECURELY FASTENED TO POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

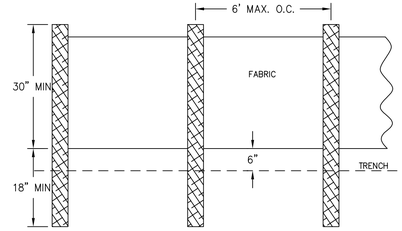
1 – FASTENERS FOR SILT FENCE

SILT FENCE - TYPE NON-SENSITIVE (Sd1-B)

SIDE VIEW



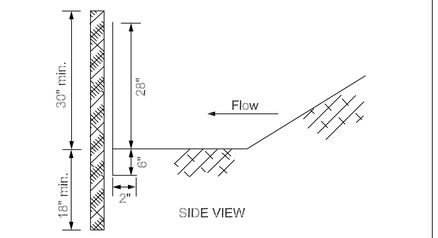
FRONT VIEW

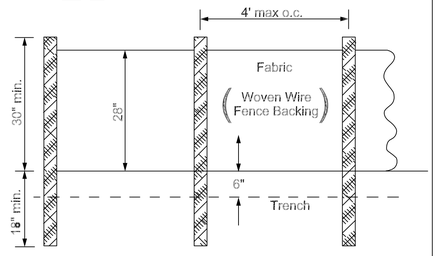


NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

2 – SEDIMENT BARRIER (SILT FENCE) — Sd1-NS

SILT FENCE - TYPE SENSITIVE (Sd1-C)



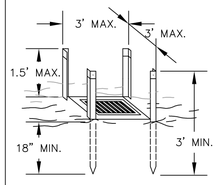


NOTES:
1. USE 36" D.O.T. APPROVED FABRIC
2. USE STEEL POSTS – ONLY

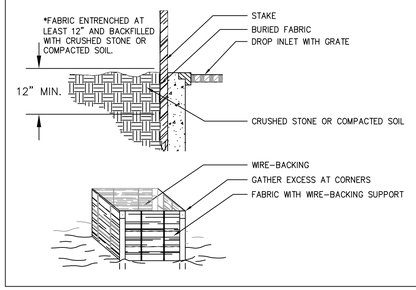
3 – SEDIMENT BARRIER (SILT FENCE) — Sd1-S

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

STEEL FRAME AND SILT FENCE INSTALLATION



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



4 – INLET SEDIMENT TRAP — Sd2-F

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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documents and other data shall not prevent the

Plumbing, Mechanical, Gas, and Electrical sections

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

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DEKALB COUNTY
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DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

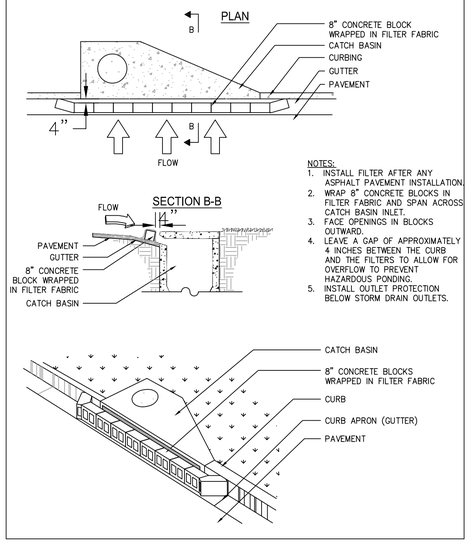
GEORGIA REGISTERED No. 26869 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE:
EROSION CONTROL DETAILS

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14–902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-05

CURB INLET FILTER "PIGS IN BLANKET" (Sd2-P)

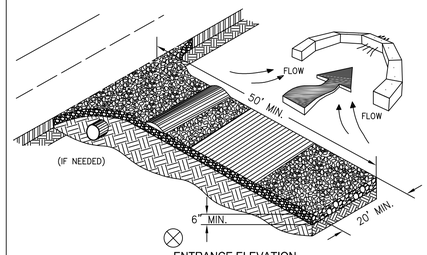


NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.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

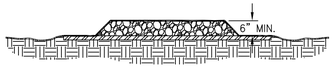
5 — CURB INLET FILTER TRAP CATCH BASIN - IN LINE — Sd2-P

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM

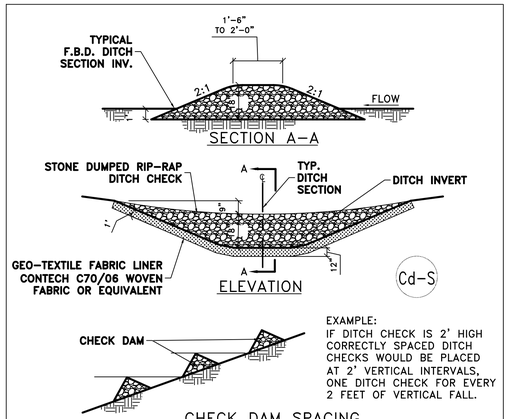


ENTRANCE ELEVATION



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



EXAMPLE:
IF DITCH CHECK IS 2' HIGH CORRECTLY SPACED DITCH CHECKS WOULD BE PLACED AT 2' VERTICAL INTERVALS, ONE DITCH CHECK FOR EVERY 2 FEET OF VERTICAL FALL.

CHECK DAM SPACING

STONE CHECK DAM

SCALE:NTS E14

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS/AC 1000 LBS/AC 400 LBS/AC	50-100 LBS/AC 1/2/ – 30
2. COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LSB/AC 1000 LBS/AC 400 LBS/AC	0-50 LBS/AC 1/ – –
3. GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300 LBS/AC 3/ 1300 LBS/AC 3/ 1100 LBS/AC	– – –
4. SHRUBS LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700 LBS/AC 700 LBS/AC 4/	– –
5. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10-10-10	500 LBS/AC	30 LBS/AC 5/
6. WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS/AC 800 LBS/AC 400 LBS/AC	50-100 LBS/AC 2/6/ 50-100 LBS/AC 2/ 30 LBS/AC
7. WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS/AC 1000 LBS/AC 400 LBS/AC	50 LBS/AC 6/

MULCHING RATES:
1. DRY STRAW: 2 TONS PER ACRE.
2. DRY HAY: 2-1/2 TONS PER ACRE.
3. FOR HYDRAULIC SEEDING USE WOOD DELLULOSE MULCH OR WOOD PULP FIBER AT THE RATE OF 500 POUNDS PER ACRE.

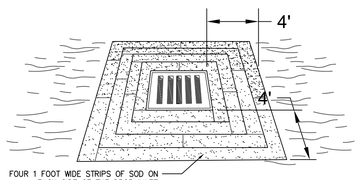
1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

FERTILIZER AND MULCHING REQUIREMENTS

SCALE:NTS E41 — Ds1

INLET SEDIMENT TRAP

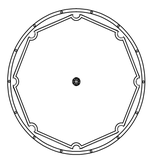
SOD STRIPS PROTECT INLET AREA FROM EROSION
(SOURCE: VA SWCC)



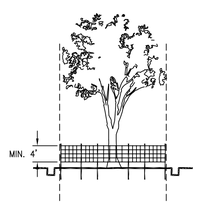
7 — INLET SEDIMENT TRAP — Sd2-S

TREE PROTECTION

PLAN

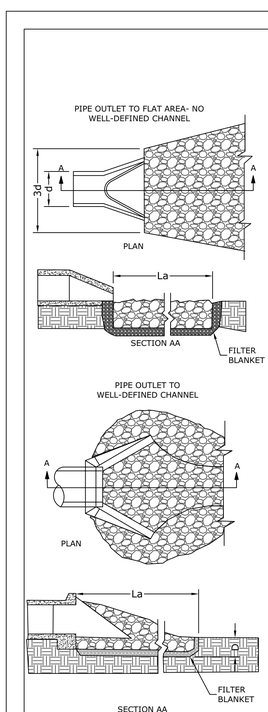


CROSS-SECTION



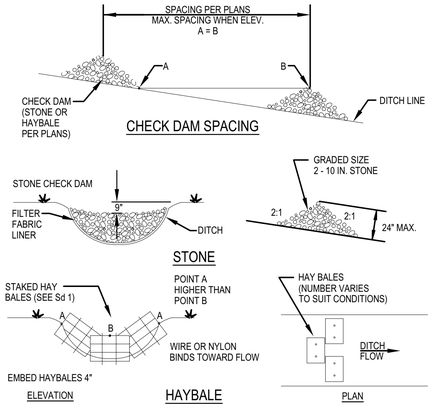
NOTES:
1. USE TRENCHER (I.E. DITCH WHICH) TO CUT A 4"-5" W X 18" D TRENCH ALONG DRIP LINE (LIMIT OF CLEARING) AND BACKFILL WITH SAND AND LIGHTLY COMPACT.
2. SPACE STAKES AT INTERVALS SUFFICIENT TO MAINTAIN ALL FENCING OUT OF DRIP LINE OR AS SHOWN BY ENGINEER (SET STAKES NO GREATER THAN 6 FEET ON CENTER-REBAR 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



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.

9 — STORM DRAIN OUTLET PROTECTION — St



10 — CHECKDAM — Cd

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
Luck Watford
Level II Certified Design Professional
CERTIFICATION NUMBER 0000060878
ISSUED: 03/01/2020
GSWCC LEVEL II CERTIFICATION NO. 1244223
DATE 01/11/21
EXPIRES: 03/01/2023

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Plumbing, mechanical, gas, and electrical sections of these plans have not been reviewed for compliance with internal codes and will be field-verified during inspection.

A set of these approved plans shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T INC.
LICENSE NO. PEF004652
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:

GEORGIA REGISTERED No. 28689 PROFESSIONAL 12/04/20 ENGINEER GEORGE AJY

SHEET TITLE: EROSION CONTROL DETAILS

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-06

SPECIES	BROADCAST PER ACRE	BROADCAST PER 1000 SF	RESOURCE AREA	PLANTING DATES J F M A M J J A S O N D	REMARKS
BARLEY			M-L P C		14,000 SEED PER POUND WINTER HARDY. USE ON PRODUCTIVE SOILS
ALONE	144 LBS	3.3 LBS			
IN MIXTURE	24 LBS	0.6 LBS			
LESPEDEZA, ANNUAL			M-L P C		200,000 SEED PER POUND MAY VOLUNTEER FOR SEVERAL YEARS USE INOCULANT EL.
ALONE	40 LBS	0.9 LBS			
IN MIXTURE	10 LBS	0.2 LBS			
LOVEGRASS, WEEPING			M-L P C		1,500,000 SEED PER POUND MAY LAST FOR SEVERAL YEARS, MIX WITH SERICEA LESPEDEZA
ALONE	4 LBS	0.1 LBS			
IN MIXTURE	2 LBS	0.05 LBS			
MILLET, BROWN TOP			M-L P C		137,000 SEED PER POUND, QUICK DENSE COVER. WILL PROVIDE TOO MUCH COMPETITION IN MIXTURES IF SEEDED AT HIGH RATES
ALONE	40 LBS	0.9 LBS			
IN MIXTURE	10 LBS	0.2 LBS			
RYE			M-L P C		18,000 SEED PER POUND. QUICK COVER. DROUGHT TOLERANT AND WINTER HARDY
ALONE	3 BU	3.9 LBS			
IN MIXTURE	1/2 BU	0.6 LBS			
RYEGRASS, ANNUAL			M-L P C		227,000 SEED PER POUND. DENSE COVER. VERY COMPETITIVE AND IS NOT TO BE USED IN MIXTURES.
ALONE	40 LBS	0.9 LBS			

M-L REPRESENTS TO MOUNTAIN; BLUE RIDGE; AND RIDGES AND VALLEYS MLRA'S

C REPRESENTS THE SOUTHERN COASTAL PLAIN; SAND HILLS; AND ATLANTIC COAST. FLATWOOS MLRA'S

DISTURBED AREA STABILIZATION (TEMP)

SCALE:NTS **E42** Ds2

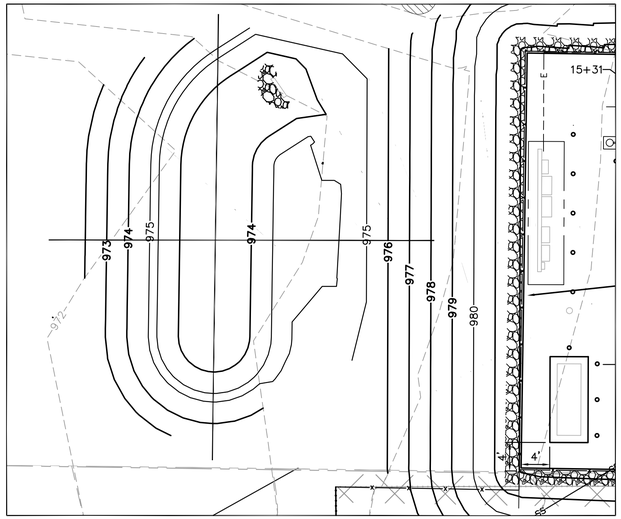
SPECIES	BROADCAST PER ACRE	BROADCAST PER 1000 SF	RESOURCE AREA	PLANTING DATES J F M A M J J A S O N D	REMARKS
BERMUDA, COMMON HULLED SEED			P C		1,787,000 SEED PER POUND. QUICK COVER. LOW GROWING AND SOD FORMING. FULL SUN. GOOD FOR ATHLETIC FIELDS
ALONE	10 LBS	0.2 LBS			
WITH OTHER PERENNIALS	6 LBS	0.1 LBS			
BERMUDA, COMMON UNHULLED SEED			P C		PLANT WITH WINTER ANNUALS PLANT WITH TALL FESCUE
W/TEMP COVER	10 LBS	0.2 LBS			
WITH OTHER PERENNIALS	6 LBS	0.1 LBS			
CENTIPEDE	BLOCK SOD ONLY		P C		DROUGHT TOLERANT. FULL SUN OR PARTIAL SHADE. EFFECTIVE ADJACENT TO CONC. AND IN CONCENTRATED FLOW AREAS. IRRIGATION IS NEEDED UNTIL FULLY ESTABLISHED. DO NOT PLANT NEAR PASTURES.
CROWNVETCH			M-L P		100,000 SEED PER POUND. DENSE GROWTH. DROUGHT TOLERANT AND FIRE RESISTANT. MIX WITH 30 LBS. OF TALL FESCUE OR 15 LBS. OF RYE. INNOCULATE SEED WITH M INOCULANT. USE FROM NORTH ATLANTA & NORTHWARD
WITH WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS	0.3 LBS			
FESCUE, TALL			M-L P		227,000 SEED PER POUND. USE ALONE ONLY ON BETTER SITES. NOT FOR DROUGHTY SOILS. MIX WITH PERENNIAL LESPEDEZAS OR CROWNVETCH. APPLY TOPDRESSING IN SPRING FOLLOWING FALL PLANTINGS NOT FOR HEAVY USE AREAS OR ATHLETIC FIELDS.
ALONE	50 LBS	1.1 LBS			
W/OTHER PERENNIALS	30 LBS	0.7 LBS			
LESPEDEZA			M-L P C		300,000 SEED PER POUND. HEIGHT OF GROWTH IS 18 TO 24 INCHES. ADVANTAGES IN URBAN AREAS. MIX W/ WEEPING LOVEGRASS, COMMON BERMUDA BAHIA, TALL FESCUE, OR WINTER ANNUALS. INOCULATE SEED W/ EL INOCULANT.
SCARIFIED	60 LBS	1.4 LBS			
UNSCARIFIED	75 LBS	1.7 LBS	M-L P C		

M-L REPRESENTS TO MOUNTAIN; BLUE RIDGE; AND RIDGES AND VALLEYS MLRA'S
P REPRESENTS THE SOUTHERN PIEDMONT MLRA
C REPRESENTS THE SOUTHERN COASTAL PLAIN; SAND HILLS; BLACK LANDS; AND ATLANTIC COAST. FLATWOOS MLRA'S

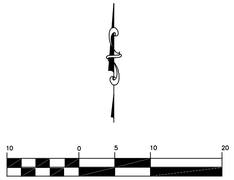
NOTE:
AGRIGULURAL LIME SHALL BE APPLIED AS INDICATED BY SOIL TEST OR AT THE RATE OF 1 TO 2 TONS PER ACRE.

DISTURBED AREA STABILIZATION (PERM)

SCALE:NTS **E43** Ds3



CROSS SECTION 1 (S-N)



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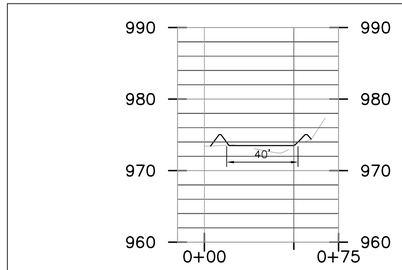
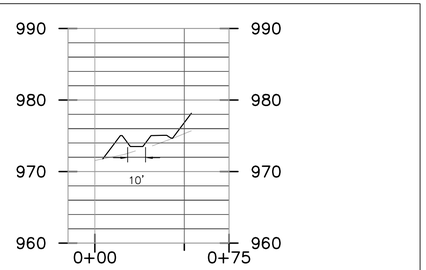
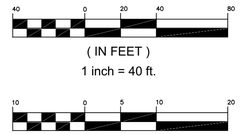
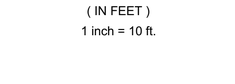
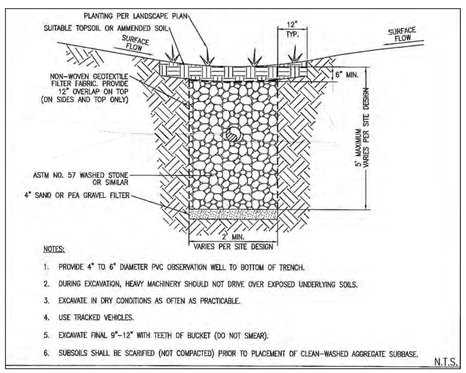










WATER QUALITY VOLUME CALCULATIONS:

NEW IMPERVIOUS AREA - 4925 SF
DRAINAGE AREA TO WQ - 23,854 SF (0.54 ACRES)
WITH THE EXCEPTION OF THE SMALL AREA FROM THE TOP OF THE HILL TO THE ENTRANCE, THE OTHER DISTURBED ACREAGE IS LAYING OF SANITARY SEWER MAINS IN PERVIOUS AREAS OR IN KENSINGTON ROAD.

WQv = (1.2) (Rv) (A)/12 Rv = 0.05 + 0.009 (I)
WQv = (1.2) (0.2358) (23,854)/12 Rv = 0.05 + 0.009 (20.65)
WQv = 563 CF Rv = 0.2358

WQv PROVIDED
WQV PROVIDED = TRENCH VOLUME OF ENGINEERED SOILS
TRENCH VOLUME = LENGTH*WIDTH*DEPTH*POROSITY
TV = (40') * (9') * (4') *(0.4)= 576 CF

DeKalb County GEORGIA
DEVELOPMENT SERVICES

2

GSWCC Georgia Soil and Water Conservation Commission

Luck Watford
Level II Certified Design Professional

CERTIFICATION NUMBER 0000050875
ISSUED: 03/01/2020 EXPIRES: 03/01/2023

APPROVED
AP 1244223
DATE 01/11/21

The department is not responsible for any errors or omissions by engineers or other design professionals in design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes and ordinances of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the cancellation of the permit for violations.

Plumbing, Mechanical, Gas, and Electrical sections have been reviewed for compliance with the 2018 codes and will be reviewed for compliance with the 2020 codes.

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

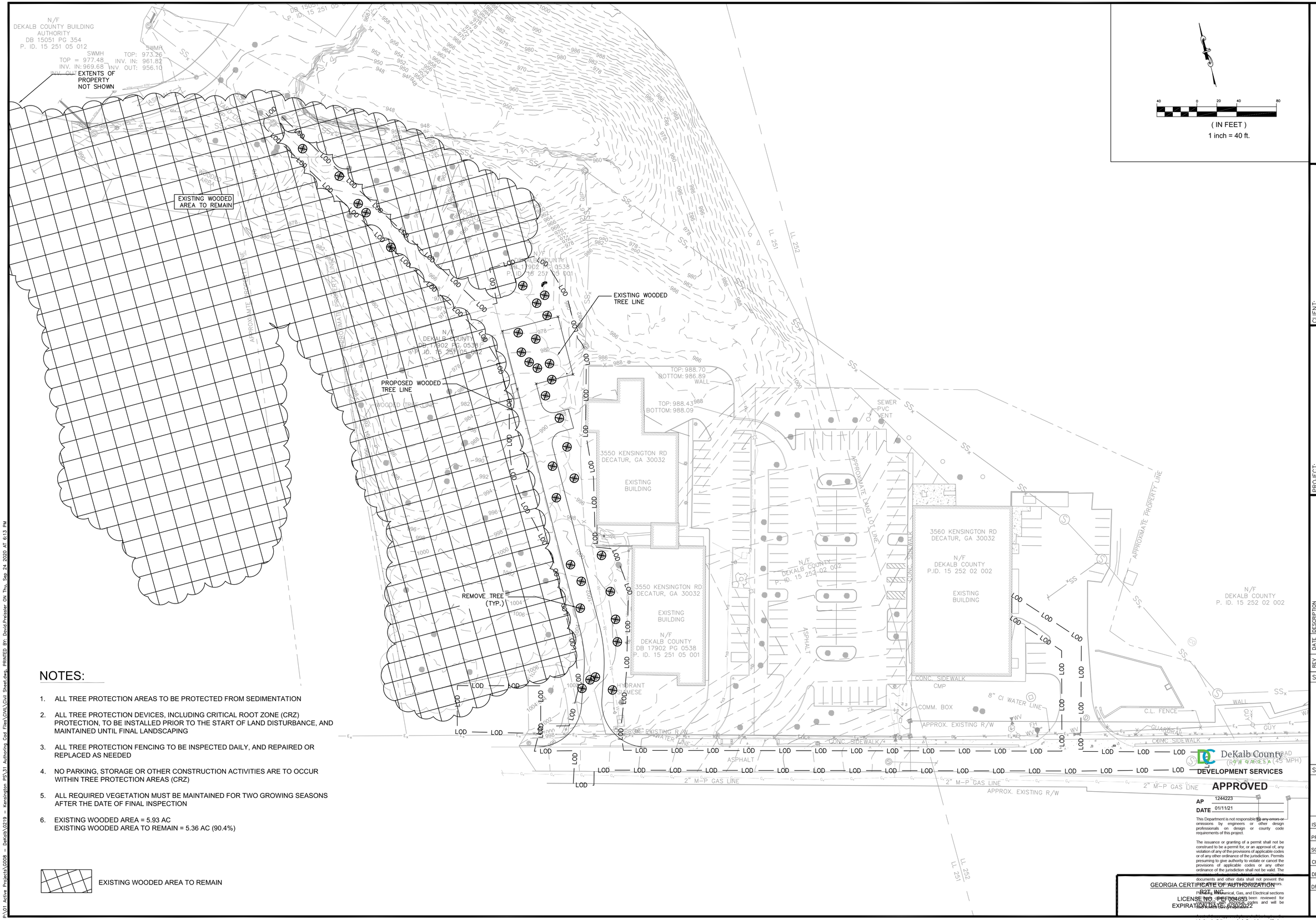
STAMP:

GEORGIA REGISTERED No. 26089 PROFESSIONAL 12/29/20 ENGINEER GEORGE AJY

SHEET TITLE:
EROSION CONTROL DETAILS

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: RC

CE-07



NOTES:

1. ALL TREE PROTECTION AREAS TO BE PROTECTED FROM SEDIMENTATION
2. ALL TREE PROTECTION DEVICES, INCLUDING CRITICAL ROOT ZONE (CRZ) PROTECTION, TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MAINTAINED UNTIL FINAL LANDSCAPING
3. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED
4. NO PARKING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS (CRZ)
5. ALL REQUIRED VEGETATION MUST BE MAINTAINED FOR TWO GROWING SEASONS AFTER THE DATE OF FINAL INSPECTION
6. EXISTING WOODED AREA = 5.93 AC
   EXISTING WOODED AREA TO REMAIN = 5.36 AC (90.4%)

EXISTING WOODED AREA TO REMAIN

(IN FEET)
1 inch = 40 ft.

DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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documents and other data shall not prevent the [illegible] provisions.

Plumbing, Mechanical, Gas, and Electrical sections [illegible] been reviewed for compliance with 2018 codes and will be [illegible]

[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

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LICENSE NO.: PEF004653
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CLIENT:
DEKALB COUNTY
DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

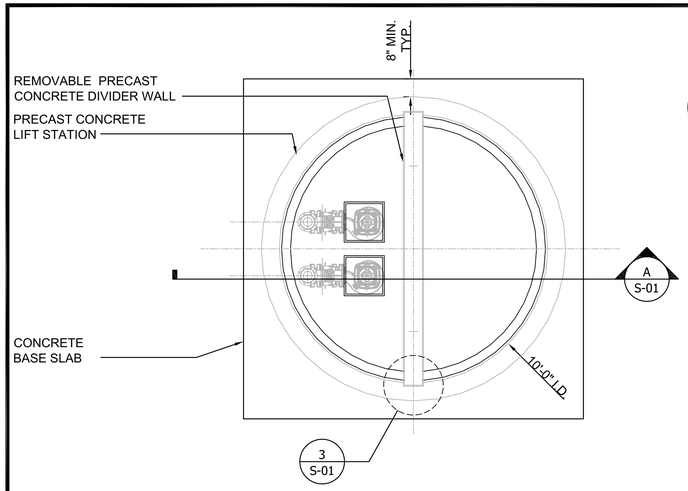
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA REGISTERED NO. 29689 PROFESSIONAL 09/24/20 ENGINEER GEORGE AJY

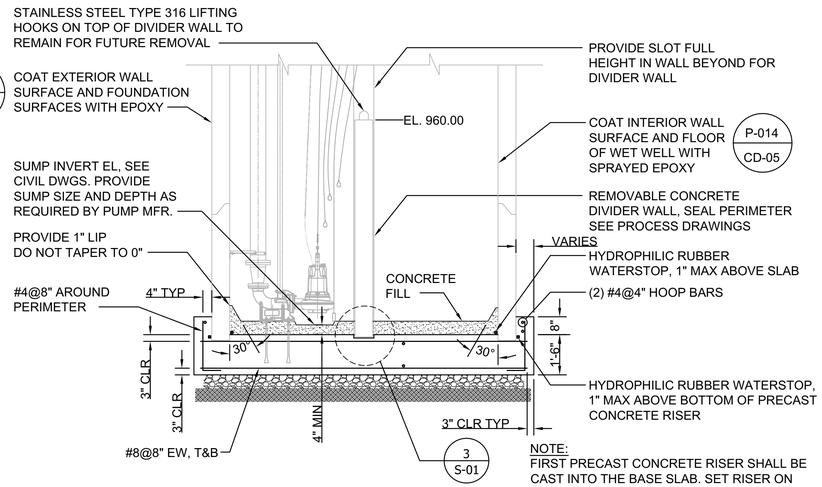
SHEET TITLE:
TREE PROTECTION PLAN

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

TP-01



1 - LIFT STATION FOUNDATION PLAN
SCALE: 3/8" = 1'-0"

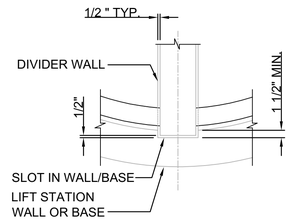


NOTE:
FIRST PRECAST CONCRETE RISER SHALL BE CAST INTO THE BASE SLAB. SET RISER ON TOP MAT OF REBAR. PROVIDE ADEQUATE SUPPORT OF REBAR AND RISER TO PREVENT SETTLEMENT AND DISPLACEMENT OF REBAR AND RISER BEFORE CONCRETE HARDENS.

A S-01 LIFT STATION SECTION
SCALE: 3/8" = 1'-0"

SHEET NOTES

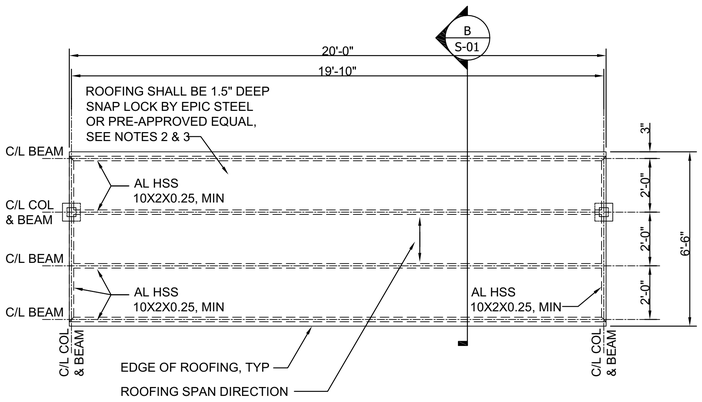
1. STRUCTURAL GENERAL NOTES ARE PROVIDED ON DRAWINGS G-04 AND G-05 AND HEREIN.
2. FOR ADDITIONAL INFORMATION ON THE LIFT STATION, SEE DRAWING C-06.
3. FOR LOCATION OF THE CANOPY, SEE DRAWING C-05.



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.

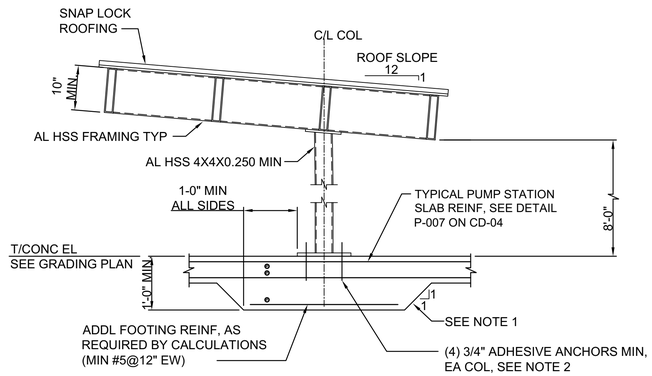
3 S-01 DIVIDER WALL SLOT DETAIL
SCALE: 3/4" = 1'-0"



NOTES

1. PROVIDE ADDITIONAL FRAMING AND CONNECTION ELEMENTS AS REQUIRED BY CALCULATION.
2. PROVIDE STEEL STRUCTURAL DECK IF REQUIRED BY CALCULATION.
3. ATTACH DECK TO SUPPORT BEAM AS REQUIRED BY MFR AND CALCULATION.
4. CENTER CANOPY OVER ELECTRICAL AND CONTROL EQUIPMENT.
5. PROVIDE COATING BETWEEN STEEL AND ALUMINUM MEMBERS.
6. ALL FIELD ASSEMBLY OF FRAMING MEMBERS SHALL BE BOLTED. FIELD WELDING IS NOT PERMITTED.

2 - CANOPY PLAN
SCALE: 3/8" = 1'-0"



NOTES

1. PROVIDE THICKENED SLAB AT EACH COLUMN. SIZE AND DEPTH AS REQUIRED BY CALCULATION FOR WIND UPLIFT AND OVERTURNING AND FOR ANCHOR EMBEDMENT.
2. DETERMINE EMBEDMENT DEPTH AS REQUIRED BY CALCULATION.

B S-01 CANOPY SECTION
SCALE: 3/4" = 1'-0"

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The documents and other data shall not prevent the Plumbing, Mechanical, Gas, and Electrical sections from requiring corrections. Plans may be reviewed by other divisions and will be subject to additional corrections.

Approved plans must be on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004653
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA No. 029632 PROFESSIONAL ENGINEER DAVID A. PREISSLER
9/25/20

SHEET TITLE: STRUCTURAL PLANS & SECTIONS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: DP
DESIGNED BY: DP
DRAWN BY: JRC

S-01

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.
- XX / M–XXX — 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 / SSXXX–XX — SELECTOR SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- TRXXX–XX / TRXXX–XX — TIME DELAY SWITCH NORMALLY CLOSED AND NORMALLY OPEN (0–30 SEC)
- LTXXX–XX / X — PILOT LIGHT X = LENS COLOR
  - A = AMBER
  - B = BLUE
  - G = GREEN
  - R = RED
  - W = WHITE
- CRXXX–XX — CONTROL RELAY
- CRXXX–XX / 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 — LOW VOLTAGE POWER CIRCUIT AND BREAKER DRAWOUT TYPE, FRAME TRIP SHOWN
- CB–XXX — 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
- XXHP / VFD–XXX — VARIABLE FREQUENCY DRIVE. NEMA SIZE INDICATED
- XXHP / RVSS–XXX — REDUCED VOLTAGE SOLID STATE DRIVE (SOFT START). NEMA SIZE INDICATED
- XX / 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)
- GROUNDING CONDUCTOR (CONCEALED), #4/0 AWG BARE COPPER
- GROUNDING CONDUCTOR (EXPOSED), #4/0 AWG INSULATED COPPER
- HOME RUN – SEE PANELBOARD SCHEDULE FOR CIRCUIT INFORMATION
  PBD A–1,3,5
  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
SS	STAINLESS STEEL
SSL	SPEED SWITCH
SUB	SUBSTATION
SW	SWITCH
SYMM	SYMMETRICAL
SYS	SYSTEM
SV	SOLENOID OPERATED VALVE
SPB	SIGNAL PULL BOX
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
TSP	TWISTED SHIELDED PAIR
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 INSTALLATION.
3. 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. ALL CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM CONDUCTOR SIZE FOR POWER AND LIGHTING WIRING. USE #14 AWG MINIMUM CONDUCTOR FOR SIGNAL WIRING. THE INSULATION FOR ALL CONDUCTORS SHALL BE THWN–2. SERVICE ENTRANCE CONDUCTORS SHALL BE XHHW. ALL CABLE INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
5. POWER WIRES SIZES #12 AWG AND #10 AWG SHALL BE SOLID TYPE. ALL OTHER SIZES SHALL BE STRANDED. CABLES BETWEEN THE VFD AND ASSOCIATED MOTOR SHALL BE SHIELDED POWER VFD RATED CABLES.
6. ALL EXPOSED CONDUITS SHALL BE PVC COATED RIGID STEEL, UNLESS NOTED OTHERWISE ON THE DRAWINGS, MINIMUM OF 3/4". ALL BURIED CONDUIT SHALL BE PVC–40, MINIMUM OF 1". ALL UNDERGROUND CONDUITS SHALL HAVE RIGID STEEL ELBOWS.
7. ALL FITTINGS SHALL BE CAST WITH THREADED HUBS. ALL CONNECTIONS SHALL BE COMPRESSION TYPE.
8. 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.
9. CONTRACTOR SHALL PROVIDE PULL STRING AND IDENTIFICATION LABELS AT EACH CONDUIT END FOR ALL SPARE CONDUITS.
10. ALL EQUIPMENT LOCATED IN THE PRIMARY SEWAGE WETWELL SHALL BE CLASS I, DIVISION 1 RATED.
11. ALL REQUIRED MATERIALS AND INSTALLATION SHALL MEET THE LATEST EDITION OF DEKALB COUNTY WATER AND WASTEWATER STANDARDS AND SPECIFICATIONS FOR LIFT STATIONS.

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 WELDING 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

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the [illegible] code or other ordinance of the jurisdiction.

The approved plans and permit shall be kept at the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

EDEC, INC
LICENSE NO.: PEPD06157
EXPIRATION DATE: 6/30/2022
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL: (770) 493-8685
EDEC

R2T — RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE DESIGN

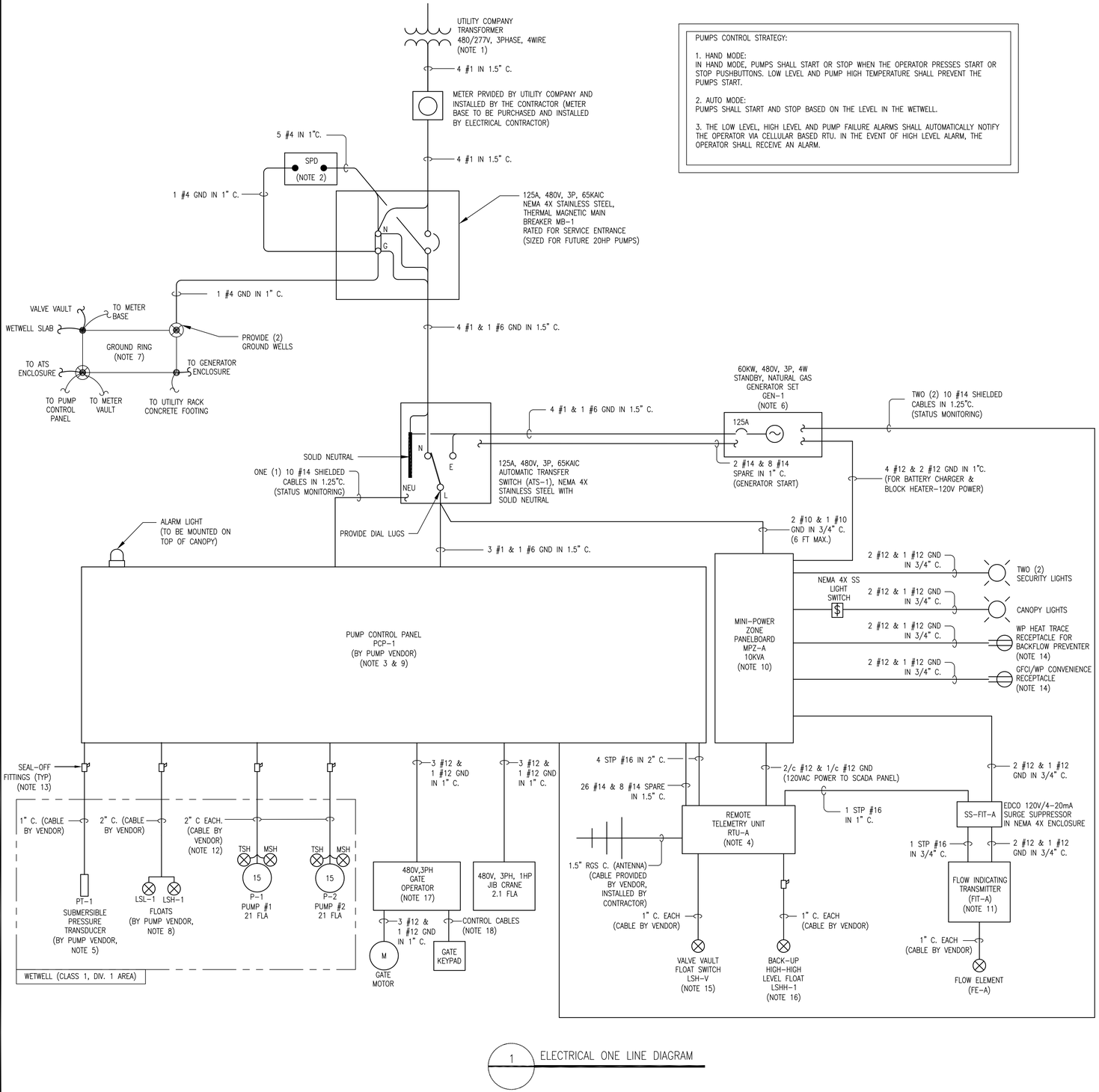
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA REGISTERED No. 29613 PROFESSIONAL ENGINEER ALEC ZAYCHIK 09/24/2020

SHEET TITLE: ELECT. LEGEND AND NOTES

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14–902883
SCALE: N.T.S.
CHKD BY: AZ
DESIGNED BY: RV
DRAWN BY: RV

E-01



1 ELECTRICAL ONE LINE DIAGRAM

PUMPS CONTROL STRATEGY:

1. HAND MODE:
IN HAND MODE, PUMPS SHALL START OR STOP WHEN THE OPERATOR PRESSES START OR STOP PUSHBUTTONS. LOW LEVEL AND PUMP HIGH TEMPERATURE SHALL PREVENT THE PUMPS START.

2. AUTO MODE:
PUMPS SHALL START AND STOP BASED ON THE LEVEL IN THE WETWELL.

3. THE LOW LEVEL, HIGH LEVEL AND PUMP FAILURE ALARMS SHALL AUTOMATICALLY NOTIFY THE OPERATOR VIA CELLULAR BASED RTU. IN THE EVENT OF HIGH LEVEL ALARM, THE OPERATOR SHALL RECEIVE AN ALARM.

ONE LINE DIAGRAM NOTES:

1. CONTRACTOR SHALL COORDINATE LOCATION OF THE 480/277V TRANSFORMERS WITH GA POWER (LANDON OLIVER: LOLIVER@SOUTHERNCO.COM, 706-814-8143). CONTRACTOR IS RESPONSIBLE FOR PAYING ALL COSTS ASSOCIATED WITH BRINGING 480/277V, 3PH, 4W SERVICE TO THE SITE.

2. CONTRACTOR SHALL PROVIDE SURGE PROTECTION DEVICE (SPD) IN NEMA 4X ENCLOSURE. SPD SHALL BE LIEBERT CAT# LM-100-480-Y-A-R-C-X WITH DISCONNECT SWITCH OR APPROVED EQUAL.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL THE PACKAGE PUMP STATION CONTROL PANEL IN NEMA 4X SS ENCLOSURE WITH INNER DOOR AND A LOCKABLE HANDLE WHICH INCLUDES MULTISMART CONTROLLER ACCEPTING 4-20mA LEVEL SIGNAL FROM SUBMERSIBLE PRESSURE TRANSDUCER WITH ALL NECESSARY CONTROLS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. HOA SWITCHES, START/STOP PUSH BUTTONS FOR "HAND" MODE.
   - B. SURGE SUPPRESSOR
   - C. ELAPSED TIME METERS
   - D. 2 kVA, 480/120V CONTROL POWER TRANSFORMER (SIZE AS NECESSARY TO ACCOMMODATE ALL 120V LOADS)
   - E. STRIP HEATER, FAN & THERMOSTAT
   - F. TWO – REDUCES VOLTAGE SOLID STATE (RVSS), 480V, 3P STARTERS RATED FOR 15HP (PANEL ENCLOSURE SHALL BE SIZED TO ACCOMMODATE FUTURE 20 HP MOTOR CIRCUIT PROTECTOR AND RVSS MOTOR STARTER FOR EACH FUTURE 20HP MOTOR)
   - G. MAIN 125A, 480V, 3P THERMAL MAGNETIC CIRCUIT BREAKER (SIZED FOR FUTURE 20HP PUMPS)
   - H. TWO (2) 20A, 480V, 3P CIRCUIT BREAKERS FOR JIB CRANE AND GATE OPERATOR
   - I. 20A, 120V, GFCI, WP DUPLEX RECEPTACLE
   - J. MOISTURE/TEMPERATURE PROTECTION RELAY FOR EACH PUMP
   - K. AUXILIARY DRY CONTACTS (120VAC, 5 AMP RATED) AND SIGNALS:
     - 3.1. WETWELL LEVEL (4-20mA)
     - 3.2. PHASE A CURRENT (4-20mA)
     - 3.3. PHASE B CURRENT (4-20mA)
     - 3.4. PHASE C CURRENT (4-20mA)
     - 3.5. 480V, 3PH POWER ON AT PCP-1
     - 3.6. WETWELL HIGH LEVEL ALARM
     - 3.7. WETWELL LOW LEVEL ALARM
     - 3.8. PUMP 1 COMMON FAULT (MOTOR OVER-TEMP, SEAL FAILURE, OVERLOAD)
     - 3.9. PUMP 1 RUNNING
     - 3.10. PUMP 2 COMMON FAULT (MOTOR OVER-TEMP, SEAL FAILURE, OVERLOAD)
     - 3.11. PUMP 2 RUNNING
     - 3.12. GENERATOR RUNNING STATUS (RETRANSMITTED FROM GEN-1)
     - 3.13. GENERATOR FAULT (RETRANSMITTED FROM GEN-1)
     - 3.14. ATS EMERGENCY POSITION (RETRANSMITTED FROM ATS-1)
     - 3.15. SITE SECURITY (PANIC PUSHBUTTON AT PCP-1)
     - 3.16. PHASE LOSS (FROM PCP-1)
     - 3.17. NORMAL POWER LOSS (RETRANSMITTED FROM ATS-1)
     - 3.18. CONTROL POWER LOSS (DI) (FROM PCP-1)
   - L. PUMP ALTERNATOR
   - M. LIGHTNING ARRESTOR
   - N. MUSHROOM-HEAD E-STOP PUSHBUTTON FOR SITE SECURITY
   - O. UPS SIZED FOR 30 MIN BACKUP TIME
   - P. INDICATING LIGHTS:
     - EACH PUMP RUNNING (RED)
     - EACH PUMP FAULT (AMBER)
     - EACH PUMP STOPPED (GREEN)
     - HIGH LEVEL (AMBER) FROM HIGH LEVEL FLOAT SWITCH
   - Q. ALARM LIGHT AND RESET PUSHBUTTONS FOR HIGH LEVEL
   - R. PHASE MONITOR
   - S. TIME DELAY BETWEEN PUMPS START IN BOTH "HAND" AND "AUTO" MODE
   - T. INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WET WELL

4. CONTRACTOR SHALL FURNISH AND INSTALL A CELLULAR BASED SCADA PANEL AND ALL THE REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TYPES OF CELLULAR SERVICE AVAILABLE IN THE AREA AND SELECT THE APPROPRIATE CELLULAR TRANSCEIVER WHICH WILL PROVIDE THE MOST RELIABLE CONNECTION. THE SCADA SYSTEM COMPONENTS SHALL BE PROVIDED BY TELOG MODEL RS-3330 AND SHALL BE CONNECTED TO THE DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT NETWORK. SEE DEKALB COUNTY STANDARDS FOR ADDITIONAL REQUIREMENTS ON A TELEMETRY UNIT. THE FOLLOWING I/OS SHALL BE PROVIDED:
   - 4.1. CHNL 01 – WETWELL LEVEL (4-20mA) (AI)
   - 4.2. CHNL 02 – PHASE A CURRENT (AI)
   - 4.3. CHNL 03 – PHASE B CURRENT (AI)
   - 4.4. CHNL 04 – PHASE C CURRENT (AI)
   - 4.5. CHNL 05 – DISCHARGE FLOW (AI)
   - 4.6. CHNL 14 – 480V, 3PH POWER ON (DI) (FROM PCP-1)
   - 4.7. CHNL 15 – GENERATOR FAULT (DI)
   - 4.8. CHNL 16 – GENERATOR RUNNING STATUS (DI)
   - 4.9. CHNL 17 – ATS EMERGENCY POSITION (DI) (FROM ATS)
   - 4.10. CHNL 18 – WETWELL HIGH LEVEL ALARM (DI)
   - 4.11. CHNL 19 – WETWELL LOW LEVEL ALARM (DI)
   - 4.12. CHNL 20 – PUMP 1 COMMON FAULT (MOTOR OVER-TEMP, SEAL FAILURE, OVERLOAD) (DI)
   - 4.13. CHNL 21 – PUMP 1 RUNNING (DI)
   - 4.14. CHNL 22 – PUMP 2 COMMON FAULT (MOTOR OVER-TEMP, SEAL FAILURE, OVERLOAD) (DI)
   - 4.15. CHNL 23 – PUMP 2 RUNNING (DI)
   - 4.16. CHNL 24 – SITE SECURITY (DI)
   - 4.17. CHNL 25 – PHASE LOSS (DI)
   - 4.18. CHNL 26 – NORMAL POWER LOSS (DI) (FROM ATS)
   - 4.19. CHNL 27 – VALVE VAULT FLOAT SWITCH ACTIVATED (DI)
   - 4.20. CHNL 28 – CONTROL POWER LOSS (DI) (FROM PCP-1)
   - 4.21. CGNL 29 – BACK-UP WETWELL HIGH-HIGH LEVEL ALARM (DI)

5. THE SUBMERSIBLE PRESSURE TRANSMITTER SHALL BE PROVIDED BY PUMP VENDOR AND SHALL PROVIDE 4-20mA OUTPUT TO PUMP CONTROL PANEL. THE TRANSDUCER SHALL BE RATED FOR CLASS I, DIVISION 1 AREA. THE CABLES PROVIDED WITH THE SUBMERSIBLE PRESSURE TRANSDUCER SHALL BE LONG ENOUGH TO REACH THE PUMP CONTROL PANEL WITHOUT SPLICING.

6. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE 60kW/75kVA 480/277V, 3 PHASE STANDBY NATURAL GAS GENERATOR SET INCLUDING GENERATOR, GENERATOR CONTROL PANEL, MAIN CIRCUIT BREAKER, GENERATOR PAD, AND A NEMA 4X STAINLESS STEEL AUTOMATIC TRANSFER SWITCH. GENERATOR IS SIZED FOR FUTURE 20HP PUMPS. THE CONTRACTOR SHALL SUPPLY A LETTER OF GUARANTEE THAT THE SUBMITTED GENERATOR IS RATED TO RUN:
   - STEP 1 ONE (1) 20HP PUMP ON RVSS STARTER AND 10 KVA OF MISCELLANEOUS LOADS
   - STEP 2 ONE (1) 20HP PUMP ON RVSS STARTER

   IF A LARGER GENERATOR IS REQUIRED TO RUN THE SPECIFIED EQUIPMENT, CONTRACTOR SHALL INCLUDE THE REQUIRED GENERATOR SIZE AND ADJUST THE ASSOCIATED CABLES/CONDUITS AS REQUIRED. CONTRACTOR SHALL VERIFY BREAKER SIZE AND ADJUST CABLE SIZE PER NEC 310.16 AS REQUIRED.
   THE GENERATOR CONTROL PANEL SHALL HAVE THE FOLLOWING 120V, 10A RATED DRY CONTACTS:
   - GENERATOR RUNNING STATUS
   - GENERATOR FAULT

   THE ATS SHALL HAVE THE FOLLOWING 120V, 10A RATED DRY CONTACTS:
   - TRANSFER SWITCH EMERGENCY POSITION
   - NORMAL POWER LOSS

7. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE GROUND GRID AROUND THE UTILITY RACK, GENERATOR AND WET WELL. CONTRACTOR SHALL MAKE CONNECTIONS TO THE MAIN BREAKER, METER BASE, PUMP CONTROL PANEL, ATS ENCLOSURE, GENERATOR ENCLOSURE, UTILITY RACK CONCRETE FOOTING, FENCE. THE GRID SHALL CONSIST OF #4 AWG BARE COPPER GROUND CONDUCTOR, 4-3/4" DIAMETER 10' GROUND RODS AND CADWELD CONNECTIONS TO GROUND RODS. THE GROUND WIRE SHALL ALSO BE POURED INTO THE TOP SLAB OF THE WET WELL AND THE VALVE AND METER VAULT AT THE FOUNDRY WITH A TWELVE (12) INCH STUB-OUT FOR FIELD CONNECTION. UNDER NO CIRCUMSTANCES SHALL WIRE BE ALLOWED TO RUN ACROSS THE OUTSIDE TOP SLABS.

8. THE LEVEL FLOAT SWITCHES (LOW AND HIGH) SHALL BE PROVIDED BY PUMP VENDOR AS A BACK-UP TO SUBMERSIBLE PRESSURE TRANSDUCER. LOW LEVEL FLOAT SHALL PROVIDE FAIL SAFE OPERATION. THE CONTRACTOR SHALL WIRE HIGH LEVEL FLOAT TO ACTIVATE ALARM HORN AND STROBE. THE CABLES PROVIDED WITH THE FLOATS SHALL BE LONG ENOUGH TO REACH THE PUMP CONTROL PANEL WITHOUT SPLICING. LEVEL FLOATS SHALL BE NON-MERCURY TYPE, CLASS 1 DIVISION 1 RATED.

9. THE CONTRACTOR SHALL INSTALL KELLUM GRIPS AT PUMP CONTROL PANEL FOR ALL CABLE/CONDUIT EXITING THE WETWELL.

10. CONTRACTOR SHALL PROVIDE AND INSTALL A COMBINATION TRANSFORMER/PANELBOARD IN A STAINLESS STEEL ENCLOSURE WITH A MINIMUM NEMA 3R RATING. TRANSFORMER SHALL BE 10 KVA, 480-240/120V, 1PH, 3W. PANELBOARD SHALL HAVE CIRCUIT BREAKERS AS SHOWN IN PANELBOARD SCHEDULE IN DETAIL 2 OF SHEET E-03.

11. CONTRACTOR SHALL FURNISH AND INSTALL A NEW MAGNETIC FLOW TRANSMITTER AND SENSOR DESIGNED AND RATED FOR CLASS I, DIVISION 2. MAGNETIC FLOW TRANSMITTER SHALL PROVIDE 4-20mA SIGNAL TO THE SCADA PANEL. TUBE AND ELECTRODE MATERIAL SHALL BE STAINLESS STEEL. FLOW SENSOR/ELEMENT ENCLOSURE SHALL BE NEMA 6P RATED. FLOW TRANSMITTER ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL. MAGMETER SENSOR/TRANSMITTER SHALL BE ENDRESS HAUSER OR ENGINEER APPROVED EQUAL.

12. CONTRACTOR SHALL FURNISH AND INSTALL A SEPARATE 2" CONDUIT FOR MOISTURE/TEMPERATURE SIGNAL CABLES IF IT IS SEPARATE FROM THE POWER CABLE.

13. USE SEAL-OFF FITTINGS FOR ALL CONDUITS LEAVING THE WETWELL TO PREVENT METHANE GAS AND MOISTURE ENTERING INTO CONTROL PANEL. USE NON-HARDENING SEAL COMPOUND (IDEAL CAT. NO 31-601 OR APPROVED EQUAL).

14. THE RECEPTACLE SHALL BE PROVIDED IN INDUSTRIAL, NEMA 4X RATED, WEATHER AND CHEMICAL-RESISTANT ENCLOSURE.

15. CONTRACTOR SHALL PROVIDE A BACK-UP HIGH LEVEL FLOAT SWITCH WITH CONTACTS RATED FOR DC. THIS FLOAT SCADA INPUT SHALL BE POWERED BY SCADA PANEL BATTERY AND SHALL BE OPERABLE DURING POWER LOSS. THE CONTRACTOR SHALL WIRE LEVEL FLOAT TO ACTIVATE ALARM IN SCADA PANEL. THE CABLE PROVIDED WITH THE FLOAT SHALL OF SUFFICIENT LENGTH TO REACH THE SCADA PANEL WITHOUT SPLICING. FLOAT SHALL BE NON-MERCURY TYPE, CLASS I, DIVISION 2 RATED.

16. CONTRACTOR SHALL PROVIDE A BACK-UP HIGH LEVEL FLOAT SWITCH WITH CONTACTS RATED FOR DC. THIS FLOAT SCADA INPUT SHALL BE POWERED BY SCADA PANEL BATTERY AND SHALL BE OPERABLE DURING POWER LOSS. THE CABLE PROVIDED WITH THE FLOAT SHALL OF SUFFICIENT LENGTH TO REACH THE SCADA PANEL WITHOUT SPLICING. FLOAT SHALL BE NON-MERCURY TYPE, CLASS I, DIVISION 1 RATED.

17. CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRIC GATE OPERATOR FOR ENTRANCE/EXIT GATE. THE ENTRANCE SHALL BE INITIATED BY A USE OF KEYPAD OR REMOTE CONTROL. TO EXIT THE PUMP STATION, THE GATE SHALL AUTOMATICALLY OPEN WHEN A VEHICLE IS WITHIN THE GATE PROXIMITY ON THE PUMP STATION SIDE. AS A MINIMUM, THE GATE OPERATOR SHALL HAVE THE FOLLOWING FEATURES:
   - SELF ADJUSTING, NO MAINTENANCE MAGNETIC LIMITS
   - ANTI-TAILGATING FEATURE
   - MOTOR SHALL BE SIZED FOR THE SELECTED GATE
   - PORTS FOR PLUG-IN LOOP DETECTORS
   - FAIL-SAFE RELEASE
   - BUILT-IN RESET SWITCH
   - BUILT-IN POWER ON/OFF SWITCH

18. CONTRACTOR SHALL INCLUDE ALL THE REQUIRED POWER AND CONTROL CABLES AND CONDUITS FOR THE SELECTED GATE SYSTEM AS REQUIRED BY VENDOR.

DeKalb County GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the jurisdiction from requiring the correction of errors in the construction documents and other data. The building official is authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinance of this jurisdiction. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

Inspection requests shall be made by the permit holder or his agent. It is the duty of the permit holder or his agent to cause the work to remain accessible and exposed for inspection purposes. Neither the jurisdiction nor any of its employees shall be liable for the cost of removing or replacing any work done contrary to the provisions of this code or any other ordinance of this jurisdiction.

Construction documents approved by the building official and the permit shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

EDEC, INC
LICENSE NO.: PEPD06157
EXPIRATION DATE: 6/30/2022
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL: (770) 493-8665
EDEC

R2T
RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE DESIGN

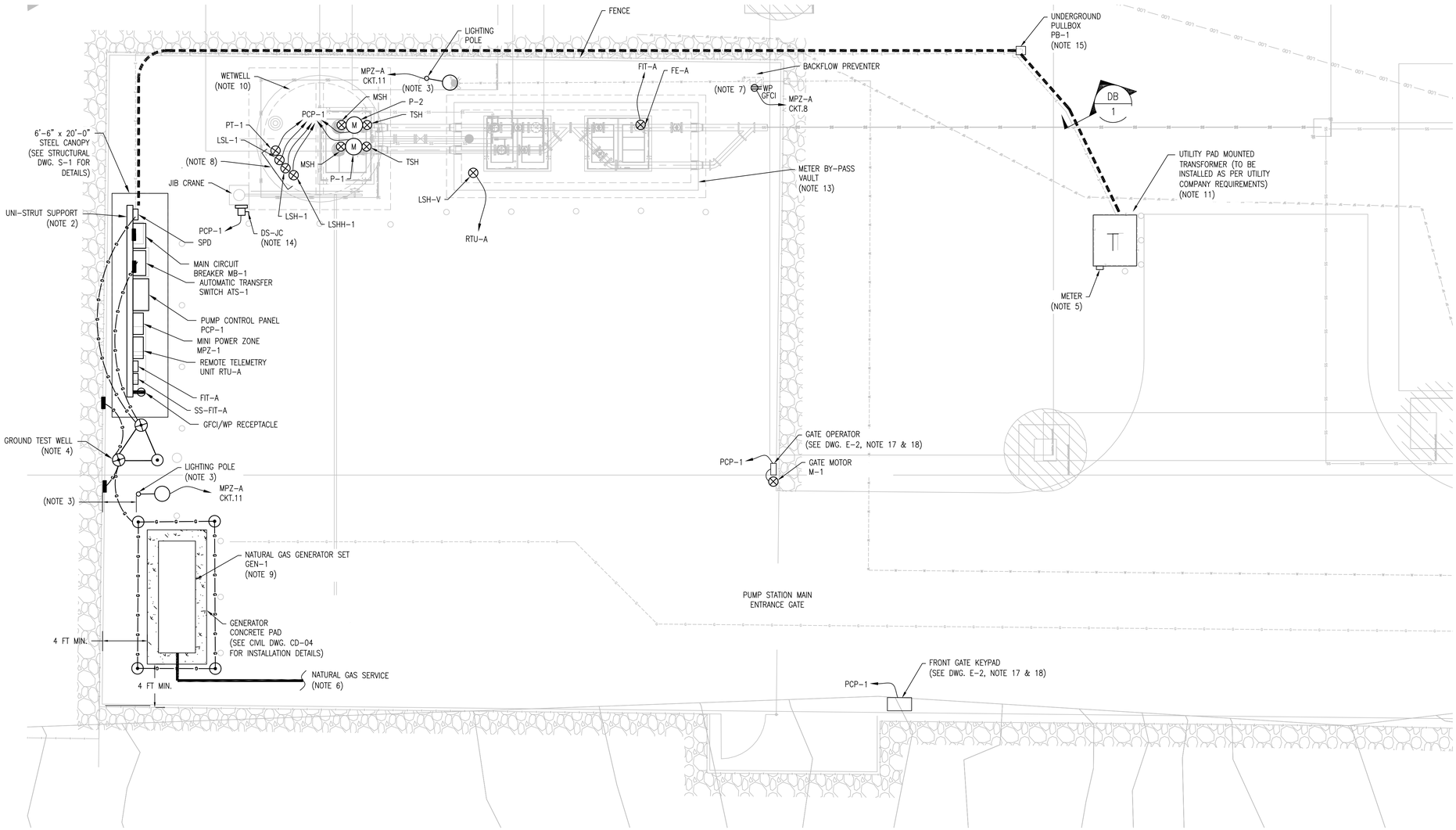
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:
GEORGIA REGISTERED PROFESSIONAL ENGINEER ALEC ZAYCHIK No. 32613 09/25/2020

SHEET TITLE: ONE LINE DIAGRAM

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: N.T.S.
CHKD BY: AZ
DESIGNED BY: RV
DRAWN BY: RV

E-02



1 ELECTRICAL SITE PLAN
SCALE: 1" = 5'

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

3 UNDERGROUND CONDUIT DETAIL

NOTES:

1. REFER TO SHEET E-02 (ONE LINE DIAGRAM) FOR EQUIPMENT DESCRIPTIONS, CABLE AND CONDUIT REQUIREMENTS. CONTRACTOR SHALL VERIFY REQUIRED LENGTHS AND SIZES OF CABLE AS REQUIRED BY NFPA 70 PRIOR TO INSTALLATION TO ENSURE SAFE AND FUNCTIONAL OPERATION.
2. CONTRACTOR SHALL PROVIDE A NEW STAINLESS STEEL UNISTRUT UTILITY RACK FOR EQUIPMENT INSTALLATION UNDER THE CANOPY. SEE DETAIL 1 ON DRAWING E-04 AND DETAIL 3 ON DRAWING E-05 FOR UNISTRUT RACK INSTALLATION AND CONSTRUCTION DETAILS. CONTRACTOR SHALL POUR CONCRETE FOOTINGS FOR THE UTILITY RACK AS REQUIRED FOR SECURE INSTALLATION AND PROVIDE AND INSTALL A 6" THICK CONCRETE PAD. EXTEND THE PAD FOR 4FT. IN FRONT OF ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) POLE-MOUNTED SECURITY LIGHTS. THE LIGHT POLES SHALL BE A HINGED, BREAK-DOWN POLE, SEE DETAIL 2 ON SHEET E-04 FOR SPECIFICATIONS. THE SECURITY LIGHTS SHALL BE INSTALLED SUCH THAT BREAKDOWN FOR SERVICE IS UNIMPEDED.
4. CONTRACTOR SHALL PROVIDE A TWO (2) GROUND TEST WELLS NEAR MB-1 FOR THE GROUNDING GRID. CONTRACTOR SHALL MAKE CONNECTIONS TO EQUIPMENT ENCLOSURES, UNISTRUT RACK, ETC. AS SHOWN ON SHEET E-02. SEE NOTE 7 ON SHEET E-02 FOR GROUNDING GRID REQUIREMENTS.
5. THE UTILITY POWER METER SHALL BE SUPPLIED BY UTILITY POWER COMPANY AND INSTALLED BY THE CONTRACTOR. CONTRACTOR SHALL PROVIDE AND INSTALL METER BASE.
6. CONTRACTOR SHALL COORDINATE AND PAY ALL ASSOCIATED FEES TO THE COUNTY'S SELECTED NATURAL GAS SERVICE PROVIDER FOR CONNECTING NATURAL GAS LINE TO THE GENERATOR. CONTRACTOR SHALL COORDINATE THE EXACT NATURAL GAS PIPE ROUTING IN THE FIELD. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL THE REQUIRED NATURAL GAS SERVICE EQUIPMENT INCLUDING BUT NOT LIMITED TO THE METER, PRESSURE REDUCING VALVE, REGULATOR, ETC.
7. CONTRACTOR SHALL INSTALL A 20A, 120V, 30mA GFCI RECEPTACLE FOR BACKFLOW PREVENTER HEAT TRACE. CONTRACTOR SHALL POST-MOUNT THE RECEPTACLE NEAR THE BACKFLOW PREVENTER IN A WEATHERPROOF ENCLOSURE.
8. SEE SHEET E-04 DETAILS 5 AND 6 FOR FLOAT SWITCH AND SUBMERSIBLE PRESSURE TRANSDUCER INSTALLATION DETAILS.
9. CONTRACTOR SHALL FURNISH AND INSTALL GENERATOR SET AS SHOWN. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXACT LOCATION OF GENERATOR TO PROVIDE ADEQUATE WORKING CLEARANCES. CONTRACTOR SHALL COORDINATE LOCATION OF CONDUIT STUB-UPS WITH GENERATOR PAD LOCATION PRIOR TO INSTALLATION. CONTRACTOR SHALL MAKE ALL CONNECTIONS PER MANUFACTURER REQUIREMENTS FOR SAFE AND FUNCTIONAL OPERATION OF THE BACK UP GENERATOR. REFER TO VENDOR DOCUMENTATION FOR ALL REQUIREMENTS. SEE DETAIL 1 ON SHEET E-05 FOR GENERATOR GROUNDING DETAIL.
10. ALL EQUIPMENT INSTALLED WITHIN THE WETWELL SHALL BE RATED FOR CLASS 1 DIVISION 1 HAZARDOUS ENVIRONMENT.
11. CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE UTILITY PAD MOUNTED TRANSFORMER WITH THE UTILITY COMPANY AND INCLUDE SERVICE ENTRANCE CABLES AND CONDUIT LENGTHS AS REQUIRED.
12. UNDERGROUND CONDUITS ARE NOT SHOWN FOR CLARITY. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES. ONLY SERVICE ENTRANCE DUCTBANKS SHALL BE CONCRETE ENCASED. SEE DETAIL 7, DWG. E-05. ALL OTHER DUCTBANKS CAN BE DIRECT BURIED. SEE DETAIL 2, DWG. E-05.
13. ALL EQUIPMENT INSTALLED WITHIN THE METER BY-PASS VAULT SHALL BE RATED FOR CLASS 1 DIVISION 2 HAZARDOUS ENVIRONMENT.
14. CONTRACTOR SHALL PROVIDE AND INSTALL 480V, 3P, 30A DISCONNECT SWITCH FOR JIB CRANE IN NEMA 4X SS ENCLOSURE MOUNTED ON THE UNISTRUT RACK. CONTRACTOR SHALL COORDINATE LOCATION OF THE UNISTRUT RACK WITH DISCONNECT IN THE FIELD TO PROVIDE ADEQUATE CLEARANCE FOR PROPER JIB CRANE OPERATION. SEE DETAIL 1 ON DRAWING E-04 FOR UNISTRUT RACK INSTALLATION DETAIL.
15. CONTRACTOR SHALL PROVIDE AND INSTALL UNDERGROUND PULL BOX SIZED IN ACCORDANCE TO NEC ARTICLE 314.28. SEE DWG. E-05 DETAIL 6 FOR UNDERGROUND PULL BOX INSTALLATION DETAILS.

MINI POWER ZONE PANELBOARD MPZ-A

VOLTAGE (L-L):		480V			ENCLOSURE TYPE:		NEMA 3R SS				
VOLTAGE (L-N):		240/120V			MOUNTING		SURFACE				
PHASES, WIRES:		1 ϕ 3 W			AIC RATING (A):		22000				
MINIMUM BUS CAPACITY (A):		60A			NOTES:						
MAIN O.C. DEVICE (A):		60A MB									
CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		PHASE LOADS (AMP) B		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	SPARE	20	2	0.0	3.0			1	20	SCADA PANEL RTU-A	2
3	↑	↑	↑			0.0	1.5	1	20	FLOW INDICATING TRANSMITTER FIT-A	4
5	GENERATOR BLOCK HEATER	20	1	10.0	1.5			1	20	CONVENIENCE RECEPTACLE	6
7	GENERATOR BATTERY CHARGER	20	1			5.0	3.0	1	20*	BACKFLOW PREVENTER HEAT TRACE	8
9	CANOPY LIGHTING	20	1	0.0	0.0			1	20	SPARE	10
11	SECURITY LIGHTS	20	1			3.0	0.0	1	20	SPARE	12
				CONNECTED LOAD PHASE TOTALS (AMP)							
				24.5		22.5					

USE 2/C #12 & 1/C #12 GND IN 3/4"C. FOR 1P, 20A CB
USE 2/C #10 & 1/C #10 GND IN 1"C. FOR 2P, 30A CB

* – GFEP, 30mA CIRCUIT BREAKER FOR HEAT TRACE.

2 PANEL MPZ-A SCHEDULE

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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EDEC, INC.
LICENSE NO.: PEF006157
EXPIRATION DATE: 6/30/2022
4120 CHATTAHOOCHEE TRACE
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PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE DESIGN

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

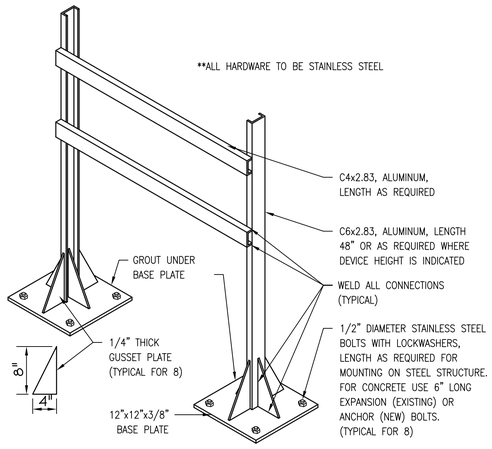
STAMP:

GEORGIA REGISTERED No. 30913 PROFESSIONAL 09/25/2020 ENGINEER ALEC ZAYCHIK

SHEET TITLE: ELECTRICAL POWER PLAN

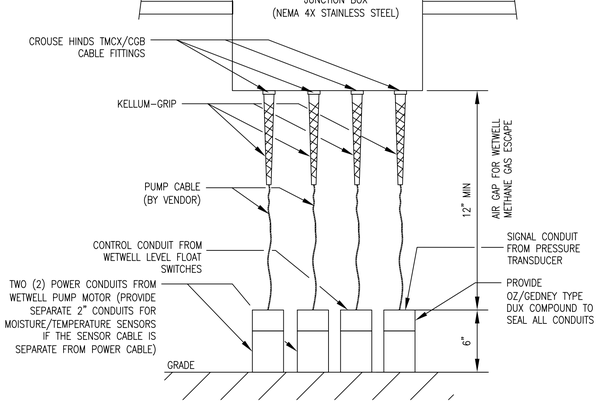
ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: AS SHOWN
CHKD BY: AZ
DESIGNED BY: RV
DRAWN BY: RV

E-03

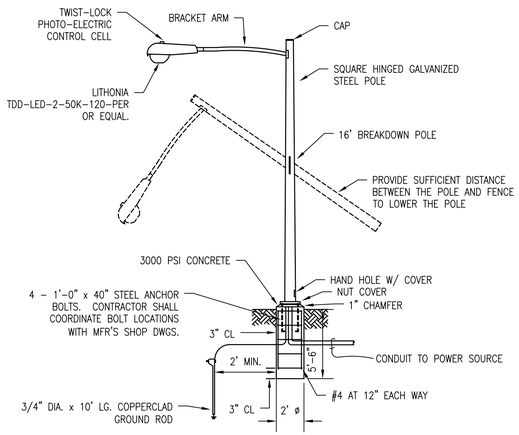


NOTE:
FOR ALUMINUM STANDS ONLY, PROVIDE BITUMINOUS PROTECTIVE COATING WHERE STAND COMES IN CONTACT WITH CONCRETE.

1 UNISTRUT RACK INSTALLATION



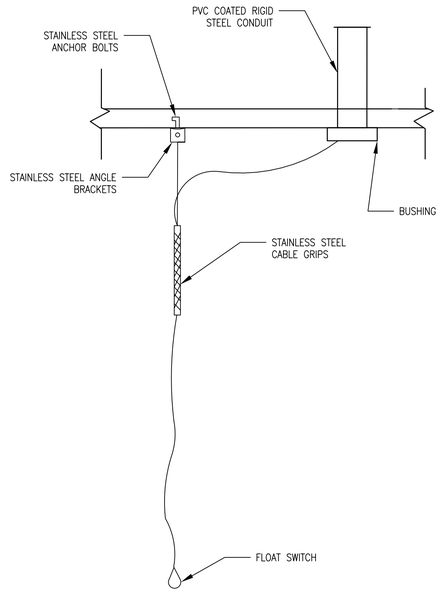
4 PUMP CONTROL PANEL DETAIL



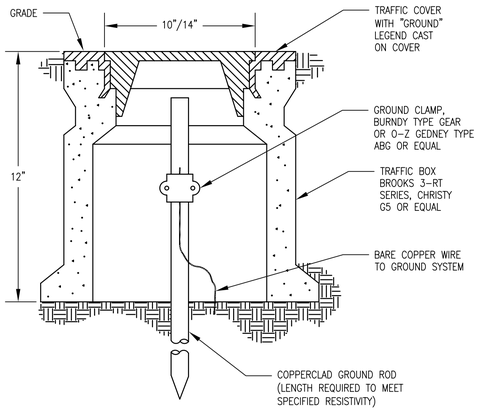
NOTES:

1. SECURITY LIGHT MUST BE MOUNTED ON A HINGED POLE WITH WINCH. STANDARD POLE SHALL BE A GALVANIZED STEEL HINGED SQUARE POLE, GENERAL ELECTRIC NO. ASHS-(XX)-2T-4.011 GV, 16 TO 20 FEET IN HEIGHT, WITH A GENERAL ELECTRIC NO. M180 WINCH/CHAIN AND A NO. RBSU2H6 GV BRACKET.

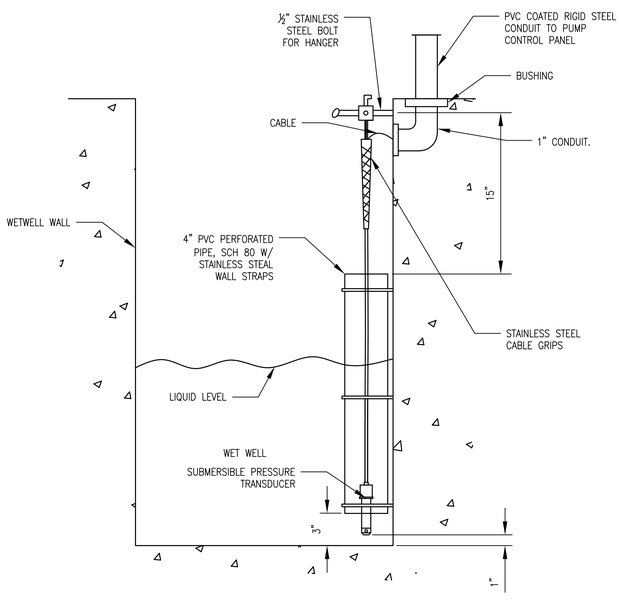
2 POLE-MOUNT LIGHTING FIXTURE ON BREAKDOWN POLE



5 FLOAT SWITCH INSTALLATION



3 GROUND WELL INSTALLATION



6 SUBMERSIBLE PRESSURE TRANSDUCER INSTALLATION

DeKalb County GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the code official from requiring the correction of errors in the construction documents and other data. The building official is authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinance of this jurisdiction.

Plumbing, mechanical, gas and electrical systems may not be covered until the work has been inspected and approved. Any work that is covered or concealed before approval shall be exposed upon the request of the code official. Work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of any work beyond the specific part inspected or approved. Any work that is covered or concealed after approval has been given shall be exposed if required by the code official. Neither the code official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

The approved permit shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

EDEC, INC
LICENSE NO.: PEF006157
EXPIRATION DATE: 6/30/2022
4120 CHATTAHOOCHEE TRACE
SUITE A
DULUTH, GEORGIA 30097
TEL: (770) 493-8685

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE DESIGN

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

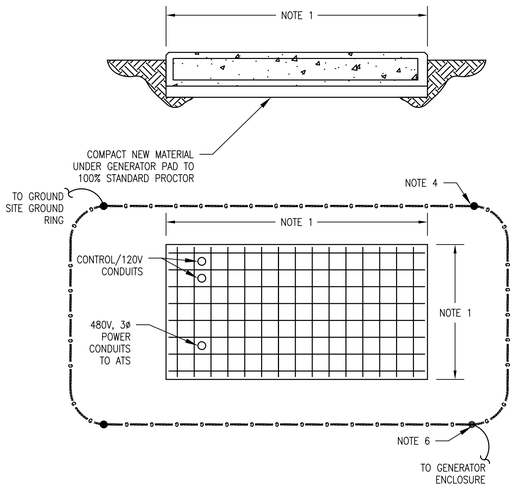
STAMP:

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 29613 09/25/2020 ALEC ZAYCHIK

SHEET TITLE: INSTALLATION DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: N.T.S.
CHKD BY: AZ
DESIGNED BY: RV
DRAWN BY: RV

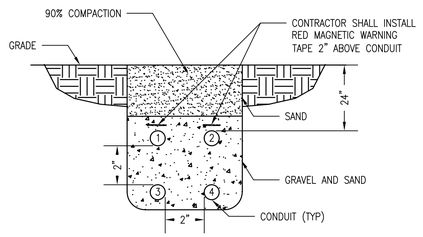
E-04



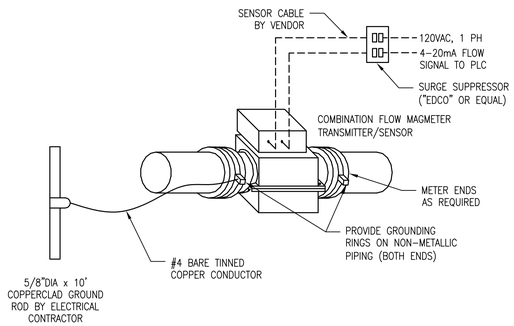
NOTES:

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. SEE DETAIL P-008 ON DRAWING C-06 FOR ADDITIONAL INFORMATION.
2. PAD SHALL BE 1'-0" LARGER ON ALL SIDES THAN THE GENERATOR BASE AND ENCLOSURE.
3. VERIFY CONDUIT PENETRATIONS WITH GENERATOR MANUFACTURER.
4. PROVIDE FOUR (4) 10'X3/8" COPPER CLAD STEEL GROUND RODS AS SHOWN WITH #4 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.

1 GENERATOR GROUNDING DETAIL



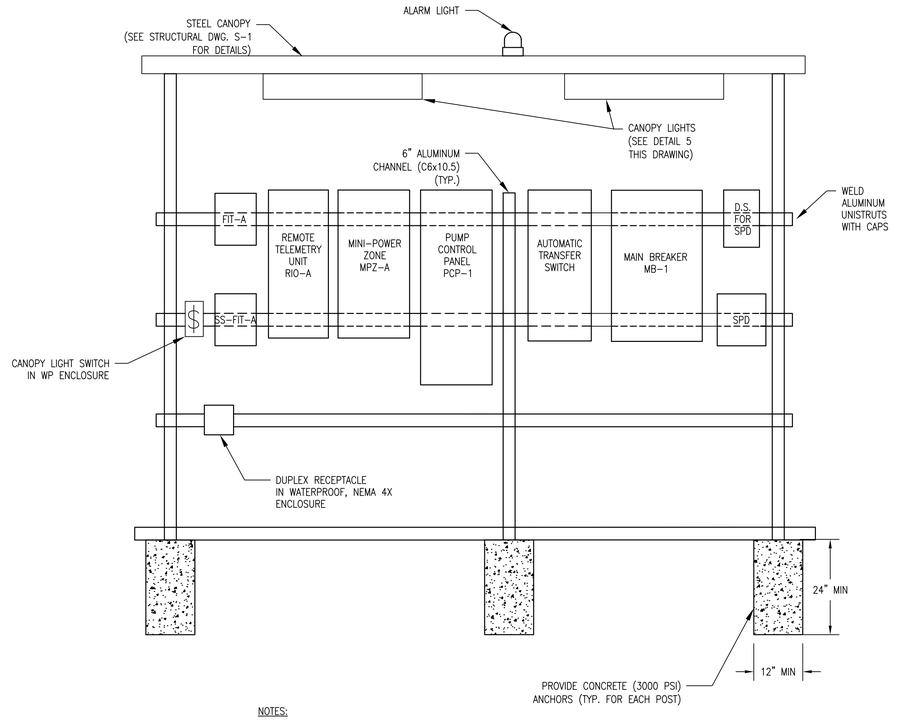
2 CONDUIT SECTION IN TRENCH



MAGNETIC FLOW SENSOR NOTES:

1. POWER SUPPLY TO MAGNETIC METER PRIMARY DEVICE & TRANSMITTER TO BE FROM SAME SOURCE WITH RESPECT TO VOLTAGE, FREQUENCY AND PHASE
2. INSTALLATION OF METERS SHALL BE AS PER MANUFACTURER RECOMMENDATIONS

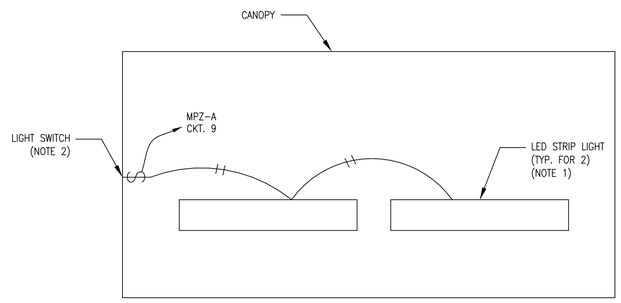
4 MAGNETIC FLOW SENSOR/TRANSMITTER INSTALLATION DETAIL



NOTES:

1. CONTRACTOR SHALL PROVIDE ANCHORS, CHANNELS AND UNI-STRUTS AS REQUIRED TO SUPPORT EQUIPMENT.
2. SEE ELECTRICAL PLAN DRAWING FOR ACTUAL EQUIPMENT LAYOUT.
3. INSTALL THE METER ON THE OTHER SIDE OF THE UNISTRUT SO THE METER READINGS CAN BE TAKEN WITHOUT ENTERING THE GATE.

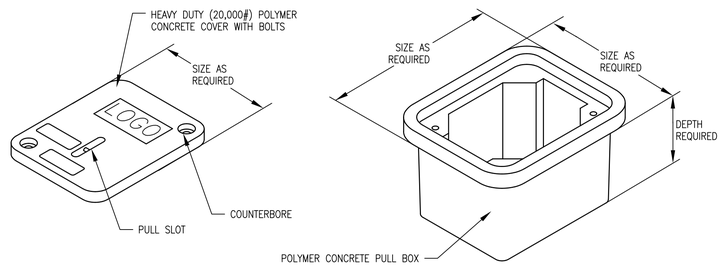
3 UNISTRUT INSTALLATION DETAL



NOTES:

1. CONTRACTOR SHALL PROVIDE TWO (2) LED STRIP LIGHTS. THE STRIP LIGHTS SHALL BE LITHONIA MODEL #FEM-L48-4000LM-IMAFL-WD-MVOLT-40K-80CRI-WLFEND2. THE CONTRACTOR SHALL MOUNT LIGHTS UNDER THE CANOPY.
2. CONTRACTOR SHALL MOUNT LIGHT SWITCH FOR THE CANOPY LIGHTS IN WEATHER PROOF ENCLOSURE ON UNISTRUT AT 4'-6" ABOVE FINISHED FLOOR.

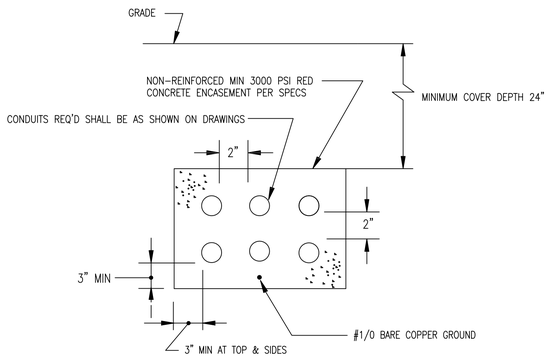
5 CANOPY LIGHTING DETAIL
SCALE: N.T.S.



NOTES:

1. PULL BOX TO BE MADE WITH PRECAST POLYMER CONCRETE FIBERGLASS REINFORCED, STACKABLE WITH SELF-ALIGNING, REPLACEABLE EZ-NUT.
2. CONTRACTOR SHALL SIZE THE PULLBOXES BASED ON THE NUMBER OF CONDUITS. USE MANHOLES WHERE PULLBOX WIDTH/HEIGHT IS NOT SUFFICIENT TO ACCEPT ALL ENTERING/EXITING CONDUITS.

6 UNDERGROUND PULL BOX DETAIL



NOTES:

1. ALL SERVICE ENTRANCE DUCT BANKS SHALL BE CONCRETE ENCASED. ALL DUCTBANKS CROSSING ROADS OR HEAVY TRAFFIC AREAS SHALL BE REINFORCED WITHIN 5 (FIVE) FEET OF TRAFFIC AREAS.
2. CONTRACTOR SHALL FIELD COORDINATE EXACT DUCTBANK ROUTING WITH PROCESS PIPING.

7 NONREINFORCED DUCTBANK DETAIL

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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All work shall be available for inspection at the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

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E-05

PROCESS LINES

- PROCESS FLOW LINE
- DRAIN/WASTE LINE
- OVERFLOW LINE
- BLOWER AIR LINE
- BACKWASH LINE
- SAMPLE LINE
- CHEMICAL INJECTION POINT

( ) AVERAGE FLOW

[ ] PEAK FLOW

ABBREVIATIONS

A TO C	–	AIR TO CLOSE
A TO O	–	AIR TO OPEN
AVG	–	AVERAGE
B/EL	–	BOTTOM ELEVATION
CL	–	CENTER LINE
CFM	–	CUBIC FEET PER MINUTE
CV	–	CONTROL VALVE
CW	–	CITY WATER (POTABLE)
DIA	–	DIAMETER
DWG	–	DRAWING
EL	–	ELEVATION
F.C.	–	FAIL CLOSED
F.O.	–	FAIL OPEN
FRL	–	FILTER\REGULATOR\LUBRICATOR
FTR	–	FAIL TO RESPOND OR FAIL TO RUN
GAL	–	GALLONS
GPD	–	GALLONS PER DAY
GPH	–	GALLONS PER HOUR
GPM	–	GALLONS PER MINUTE
HB	–	HOSE BIB
HG	–	INCHES OF MERCURY
HI	–	HIGH
HOA	–	HAND/OFF/AUTO
HP	–	HORSEPOWER
IA	–	INSTRUMENT AIR
ID	–	INSIDE DIAMETER
INV	–	INVERT
LO	–	LOW
MH	–	MANHOLE
MV	–	MODULATING VALVE
MW	–	MANWAY
N.C.	–	NORMALLY CLOSED
N.O.	–	NORMALLY OPEN
OAL	–	OVERALL LENGTH
O.D.	–	OUTSIDE DIAMETER
PA	–	PLANT AIR
PSIG	–	POUNDS PER SQUARE INCH – GAUGE
PW	–	PLANT WATER
RED	–	REDUCER
RPM	–	REVOLUTIONS PER MINUTE
SCFM	–	STANDARD CUBIC FEET PER MINUTE
SCH	–	SCHEDULE
SG	–	SPECIFIC GRAVITY
SP	–	SETPOINT
SSH	–	STRAIGHT SIDE HEIGHT
STD	–	STANDARD
SW	–	SEAL WATER
SWD	–	SIDE WATER DEPTH
TDH	–	TOTAL DYNAMIC HEAD(FT OF FLUID)
T/EL	–	TOP ELEVATION
TYP	–	TYPICAL
VAC	–	VACUUM
VSD	–	VARIABLE SPEED DRIVE
VTP	–	VERTICAL TURBINE PUMP
WC	–	WATER COLUMN
WD	–	WATER DEPTH
WL	–	WATER LEVEL
WV	–	WORKING VOLUME (DOES NOT INCLUDE FREEBOARD OR HEEL)
WSF	–	WATER STORAGE FACILITY
WTP	–	WATER TREATMENT PLANT

VALVE SYMBOLS

- ANGLE
- BALL
- BUTTERFLY
- CHECK
- DIAPHRAGM
- GATE
- GLOBE
- KNIFE
- NEEDLE
- PINCH
- PLUG
- PRESSURE REDUCING
- AIR RELIEF
- BACK PRESSURE VALVE
- SQUEEZE
- THREE WAY
- FOUR WAY
- VACUUM BREAKER
- AIR RELEASE
- HOSE BIBB
- INTEGRAL BLOCK & BLEED
- RUPTURE DISK
- MUD VALVE
- BACKFLOW PREVENTER
- SURGE ANTICIPATOR VALVE
- SLIDE GATE

INSTRUMENTATION AND RELATED ITEMS

- CAPILLARY TUBING
- ELECTRICAL
- HYDRAULIC
- PNEUMATIC
- DATA LINK
- FLUME
- MAG – MAGNETIC FLOW METER
- FI – ROTAMETER
- SONIC FLOW METER
- TURBINE FLOW METER
- DENSITY
- WEIR
- TURBIDITY
- ANNUBAR
- ORIFICE PLATE
- POSITIVE DISPLACEMENT METER
- SAMPLE POINT

PIPING AND TUBING MATERIALS

ABS	–	ACRYLONTRILE BUTADIENE STYRENE TRUSS PIPE
ALM	–	ALUMINUM PIPE OR TUBING
ARP	–	ALUMINUM REINFORCED PLASTIC PIPE
BL	–	BLACK IRON PIPE
BPT	–	BRAIDED PLASTIC TUBING–PVC
CI	–	CAST IRON PIPE
CISP	–	CAST IRON SOIL PIPE
CMCP	–	CORRUGATED METAL CULVERT PIPE
CMH	–	CHEMICAL HOSE
CMP	–	CORRUGATED METAL PIPE
COP	–	COPPER PIPE
CPVC	–	CHLORINATED POLYVINYL CHLORIDE PIPE
CS	–	CARBON STEEL PIPE
DI	–	DUCTILE CAST IRON PIPE
ERP	–	EPOXY RESIN PIPE
FRP	–	FIBERGLASS REINFORCED PLASTIC PIPE
GS	–	GALVANIZED STEEL PIPE
HOSE	–	FLEXIBLE HOSE
HSI	–	HIGH SILICON IRON PIPE
KLS	–	PVDF LINED STEEL PIPE (KYNAR LINED TYPICAL)
KYN	–	PVDF (KYNAR TYPICAL)
MI	–	CARBON STEEL PIPE W/MALLEABLE IRON FITTINGS
NEO	–	NEOPRENE HOSE
NI	–	NICKEL ALLOY PIPE
NLS	–	NEOPRENE LINED STEEL PIPE
PEP	–	POLYETHYLENE PIPE
PETB	–	POLYETHYLENE TUBING
PLS	–	POLYPROPYLENE LINED STEEL PIPE
POP	–	POLYPROPYLENE PIPE
PRP	–	PHENOLIC RESIN PIPE
PVC	–	POLYVINYL CHLORIDE PIPE
PVC HOSE	–	POLYVINYL CHLORIDE HOSE
PVDF	–	POLYVINYLIDENE FLUORIDE PIPE
PW	–	POTABLE WATER
RBR	–	RUBBER HOSE
RCCP	–	REINFORCED CONCRETE CULVERT PIPE
RCP	–	REINFORCED CONCRETE PIPE
SAR	–	SARAN TUBING
SLH	–	SLUDGE HOSE
SLS	–	SARAN LINED STEEL PIPE
SS	–	STAINLESS STEEL PIPE OR TUBING
TEF	–	TEFLON TUBING
TI	–	TITANIUM ALLOY PIPE
TLS	–	TEFLON LINED STEEL PIPE
TYB	–	TYGON TUBING–BRAIDED
TYG	–	TYGON TUBING–UNBRAIDED

ACTUATORS

- CYLINDER
- DIAPHRAGM–SPRING
- ELECTRO HYDRAULIC
- ELECTRO PNEUMATIC
- SOLENOID
- POSITIONER * – TYPE
- MOTOR
- MODULATING VALVE ACTUATOR
- OPEN/CLOSE VALVE ACTUATOR

CABLE TAGS

- CABLE SUPPLIED BY VENDOR

PIPING ACCESSORIES

- DIAPHRAGM SEAL
- EXPANSION JOINT
- FLANGED CONNECTION
- FLEXIBLE HOSE
- HOSE CONNECTION
- INSULATION
- INSULATED PIPE WITH ELECTRIC HEAT TRACE (F)
- INSULATED PIPE WITH STEAM HEAT TRACE (S)
- PIPE TO TUBING ADAPTER
- PULSATION DAMPENER
- QUICK DISCONNECT
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- RUPTURE DISK
- ORIFICE PLATE
- SIGHT FLOW INDICATOR
- STRAINER
- UNION
- AIR FILTER
- AIR LUBRICATOR
- AIR REGULATOR
- COMB. AIR FILTER/ REGULATOR W/GAUGE
- FLOW ORIFICE
- SIGHT FLOW STRAINER
- SPECTACLE BLIND (OPEN)
- SPECTACLE BLIND (CLOSE)
- PIGTAIL SIPHON
- STRAINER

PUMPS AND EQUIPMENTS

- STATIC MIXER
- MECHANICAL FLOCCULATOR
- CENTRIFUGAL PUMP
- SAMPLE PUMP
- BLOWER
- PUMP, ROTARY LOBE
- PUMP, SUBMERSIBLE TURBINE (PUMP / MOTOR)
- HOSE PUMP
- AIR COMPRESSOR
- PUMP, DIAPHRAGM
- PUMP, GEAR
- PUMP, METERING
- PUMP, PROGRESSING CAVITY
- PUMP, VERTICAL TURBINE
- PUMP, SUBMERSIBLE
- PUMP, DIESEL (DP)

LINE NUMBER IDENTIFICATION

1"– PA– CS

- MATERIAL CLASS
- FLOW STREAM INDENTIFICATION
- LINE SIZE

LINE CONTINUATIONS

- INDICATES A LINE GOING TO OR COMING FROM BATTERY LIMITS (CONTRACT LIMITS)
- PID–5 A 2 – INDICATES CONTINUATION OF LINE IS ON SHEET NUMBER 5 (SAME DRAWING NUMBER) IN ZONE A 2
- SHT 5 – INDICATES CONTINUATION OF A SIGNAL IS ON SHEET NUMBER 5

ISA INSTRUMENT IDENTIFICATION TABLE

	FIRST LETTER		SUCCEEDING LETTERS	
	PROCESS VARIABLE	MODIFIER (IF NEEDED)	READOUT OR COMPUTER FUNCTION	MODIFIER (IF NEEDED)
A	ANALYSIS		ALARM	
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE		CONTROL	
D	USER'S CHOICE	DIFFERENTIAL		
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)	
F	FLOW RATE	RATIO (FRACTION)		
G	USER'S CHOICE		GLASS, VIEWING DEVICE	
H	HAND			HIGH
I	CURRENT (ELECTRICAL)		INDICATE	
J	POWER	SCAN		
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE	CONTROL STATION	
L	LEVEL		LIGHT	LOW
M	USER'S CHOICE	MOMENTARY		MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)	
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)	
Q	QUANTITY	INTEGRATE, TOTALIZE		
R	RADIATION		RECORD	
S	SPEED, FREQUENCY	SAFETY	SWITCH	
T	TEMPERATURE		TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECH. ANALYSIS		VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL	
X	STATUS OR MODE	X–AXIS		
Y	EVENT, STATE OR PRESENCE	Y–AXIS	RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z–AXIS	DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

LEGEND BASED ON ISA STANDARD S 5.1

INSTRUMENT TAG NUMBERS

TIC 103 – INSTRUMENTATION IDENTIFICATION OR TAG NUMBER

103 – LOOP NUMBER

TIC – FUNCTIONAL IDENTIFICATION

NOTE: HYPHENS ARE OPTIONAL AS SEPARATORS

ELECTRICAL AND RELATED ITEMS

- S S – SELECTOR SWITCHES
- VFD – VARIABLE FREQUENCY DRIVE
- EM – EMERGENCY POWER
- I – INTERLOCK
- R / XX – PILOT LIGHT; R – LENS COLOR; XX – EQUIPMENT REFERENCE

I/O SIGNALS:

- E – ETHERNET (CAT6)
- DI – DISCRETE INPUT
- DO – DISCRETE OUTPUT
- AI – ANALOG INPUT
- AO – ANALOG OUTPUT

EQUIPMENT / VALVE TAG

– CONCENTRIC REDUCER

P– 6 15– 1A

- EQUIPMENT NO. NUMBER DENOTES MULTIPLE DEVICES USED IN IDENTICAL DUPLICATE SYSTEMS. LETTER DISTIGUISHES MULTIPLE SIMILAR DEVICES IN THE SAME INSTRUMENT LOOP.
- LOOP NO.
- PROCESS I.D.
- EQUIPMENT / VALVE IDENTIFICATION

EQUIPMENT FUNCTIONAL IDENTIFICATION

B	BLOWER
M	MECHANICAL EQUIPMENT
P	PUMP
PD	PULSATION DAMPENER
STR	STRAINER
TK	TANK
CC	CALIBRATION COLUMN
IQ	INJECTION QUILL ASSEMBLY
ED	EDUCTOR

* INSTRUMENT PROVIDED BY EQUIPMENT VENDOR

VENDOR SUPPLIED CONTROL PANEL

INSTRUMENTS

- LEVEL FLOAT SWITCH
- ULTRASONIC LEVEL SENSOR
- RADAR LEVEL SENSOR
- SUBMERSIBLE PRESSURE TRANSDUCER

INSTRUMENT SYMBOLS	PRIMARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR	AUXILIARY LOCATION NORMALLY INACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	*			
SHARED DISPLAY, SHARED CONTROL				
COMPUTER FUNCTION				
PROGRAMMABLE LOGIC CONTROL				

DeKalb County GEORGIA

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A copy of the approved construction documents shall be maintained in the permit holder's possession at the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

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DRAWN BY: RV

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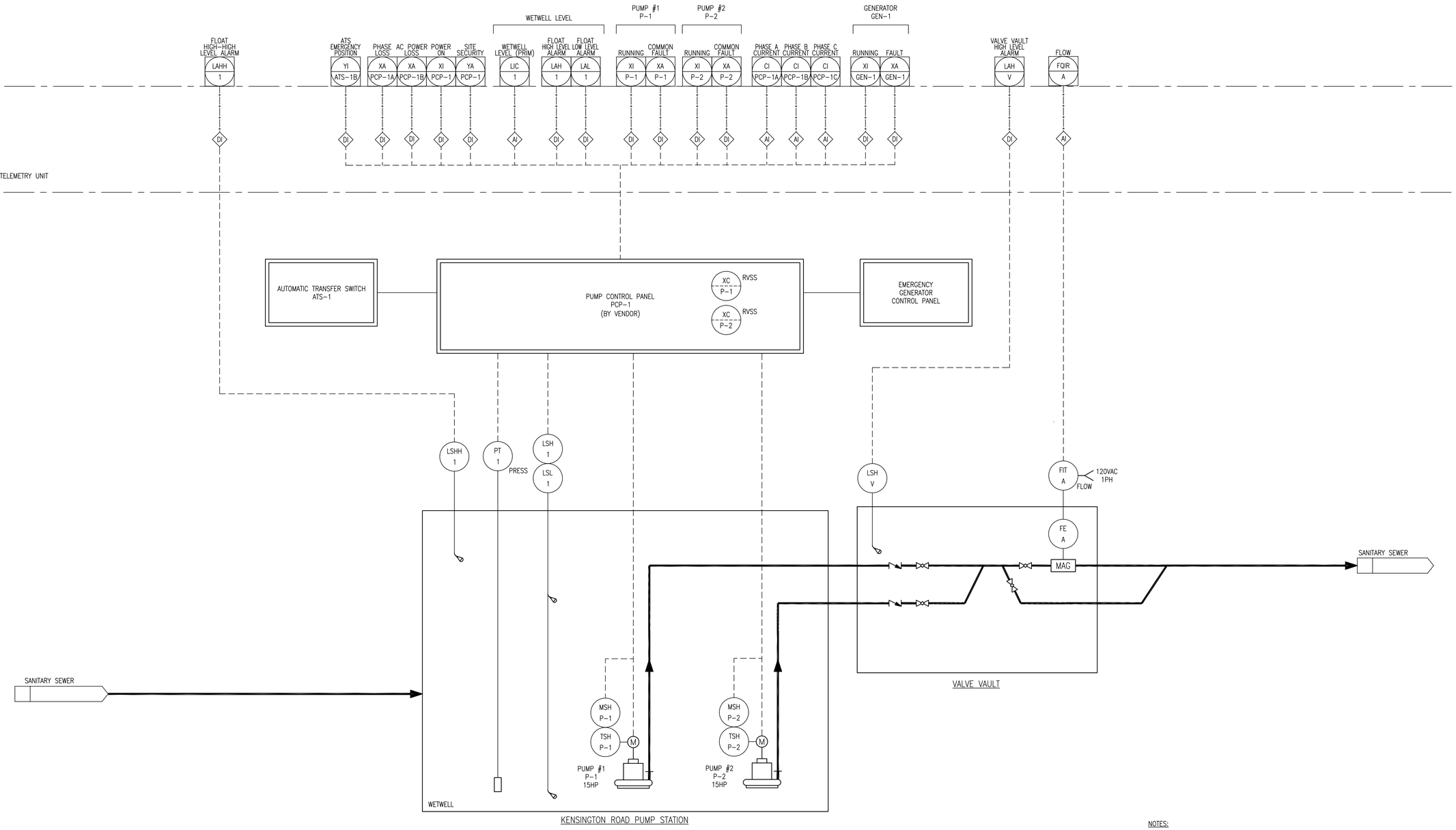

NOTES:

1. SEE DRAWING E-02 FOR PUMPS THE CONTROL STRATEGY.
2. FOR PUMP CONTROL PANEL PCP-1 DETAILS SEE DWG. E-02.
3. A SUBMERSIBLE PRESSURE TRANSMITTER PT-1 SHALL BE USED TO MEASURE THE WATER LEVEL IN THE WETWELL.

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0	9/25/20	ISSUED FOR CONSTRUCTION

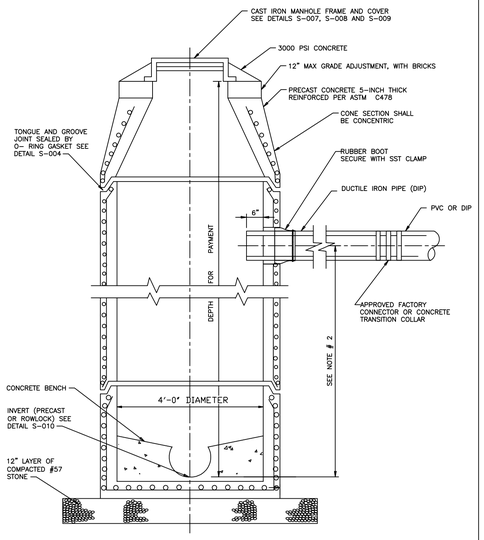
STAMP:

GEORGIA REGISTERED No. 32613 PROFESSIONAL 09/28/2020 ENGINEER ALEC ZAYCHIK

SHEET TITLE:
P&ID
PUMP STATION

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: N.T.S
CHKD BY: AZ
DESIGNED BY: RV
DRAWN BY: RV

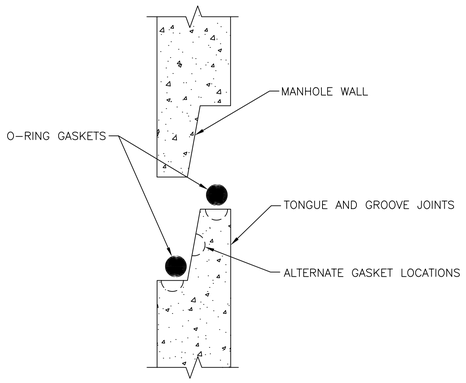
I-02



NOTES:

1. WHERE NECESSARY TO CONSTRUCT MANHOLE OVER EXISTING SEWER, 9" THICK CONCRETE POURED-IN-PLACE FOOTING/FOUNDATION MAY BE USED IN LIEU OF PRECAST BOTTOM SECTION.
2. WHERE DROP FROM INVERT OF MANHOLE TO INVERT OF INFLUENT PIPE(S) EXCEED 2'-0", AN INSIDE DROP CONNECTION SHALL BE REQUIRED EXCEPT WHEN DCDWM SPECIFICALLY APPROVES ITS ELIMINATION. SEE DETAILS S-003 OR S-027.
3. PRECAST ALL OPENINGS FOR PIPE IN BASE AND RISER UNITS.

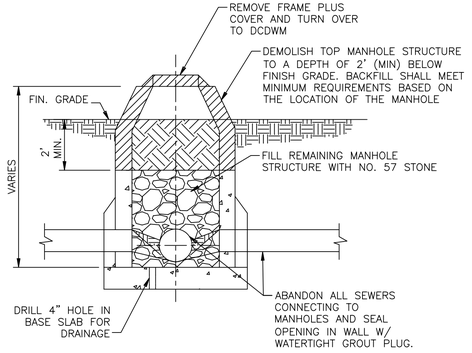
DeKalb County GEORGIA	STANDARD DETAILS	02/19
	Standard Precast Manhole	WATER Matters
	NOT TO SCALE	DETAIL NO. S-001



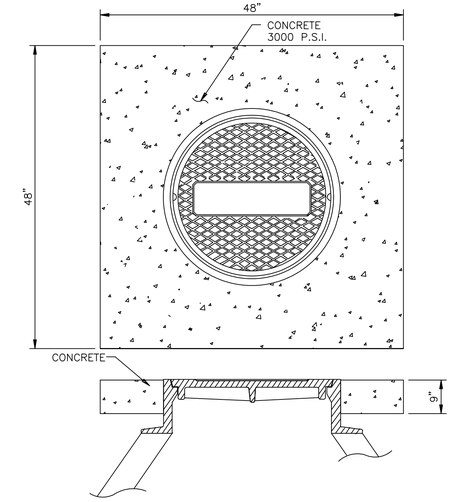
NOTE:

AFTER INSTALLATION JOINTS SHALL BE GROUTED SMOOTH WITH CEMENT GROUT ON INSIDE AND OUT. ALSO AN EXTERNAL WRAP SUCH AS INFI-SHIELD GATOR WRAP OR EQUAL SHALL SEAL EACH OUTSIDE JOINT.

DeKalb County GEORGIA	STANDARD DETAILS	09/17
	Manhole Joint Detail With Joint Wrap	WATER Matters
	NOT TO SCALE	DETAIL NO. S-004

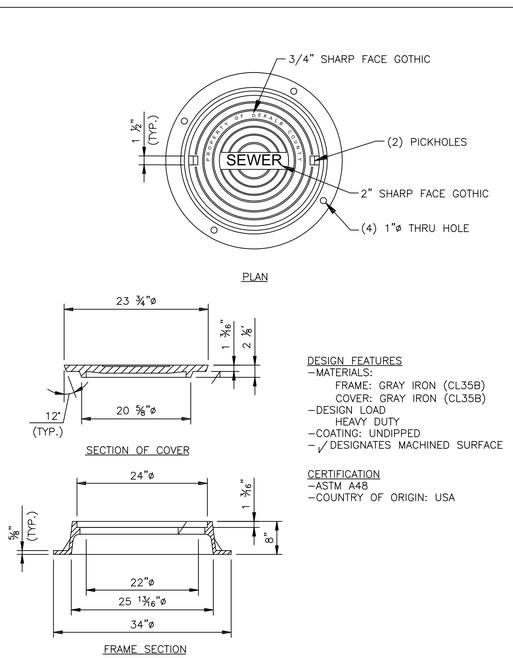


DeKalb County GEORGIA	STANDARD DETAILS	02/19
	Method of Manhole Abandonment	WATER Matters
	NOT TO SCALE	DETAIL NO. S-005



NOTE: CONCRETE COLLARS ONLY REQUIRED IN STREETS, ROADWAYS AND OTHER AREAS SUBJECT TO VEHICULAR TRAFFIC.

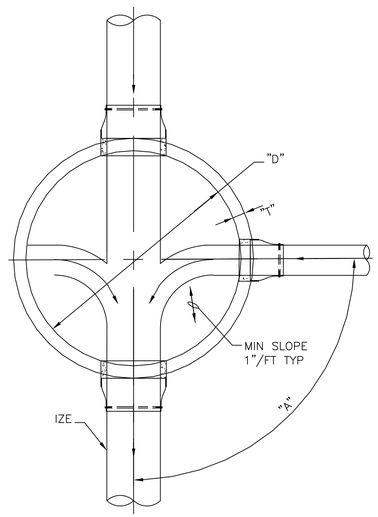
DeKalb County GEORGIA	STANDARD DETAILS	02/19
	Concrete Collar for Manhole Frame and Cover	WATER Matters
	NOT TO SCALE	DETAIL NO. S-007



DESIGN FEATURES
-MATERIALS:
FRAME: GRAY IRON (CL35B)
COVER: GRAY IRON (CL35B)
-DESIGN LOAD
HEAVY DUTY
-COATING: UNDIPPED
-√ DESIGNATES MACHINED SURFACE

CERTIFICATION
-ASTM A48
-COUNTRY OF ORIGIN: USA

DeKalb County GEORGIA	STANDARD DETAILS	02/19
	Traffic Manhole Frame and Cover	WATER Matters
	NOT TO SCALE	DETAIL NO. S-009

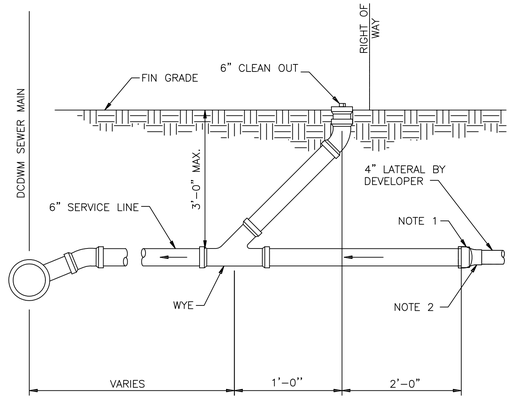


E SIZE	"A"	"D"	"T"
& 15"	0° – 90°	4'-0"	5"
18"	0° – 60°	4'-0"	5"
18"	60° – 90°	5'-0"	6"
' & 24"	0° – 60°	5'-0"	6"
' & 24"	60° – 90°	6'-0"	7"

:

NIMUM CENTERLINE RADIUS OF ANHOLE INVERT = 1.5 x PIPE DIAMETER

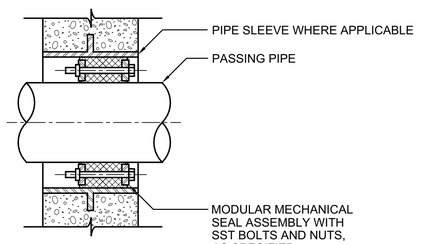
STANDARD DETAILS	09/17
Invert Plan	WATER Matters
NOT TO SCALE	DETAIL NO. S-010



NOTES:

1. PLUG 6" SERVICE LINE.
2. CONNECT DEVELOPER'S 4" LATERAL TO 6" SERVICE LINE W/ 4" X 6" FERNCO COUPLING INCLUDING SST BANDS.
3. LATERALS UNDER PAVEMENT SHALL HAVE MINIMUM DEPTH OF FOUR (4) FEET.

DeKalb County GEORGIA	STANDARD DETAILS	02/19
	Typical Service Line and Clean Out Detail	WATER Matters
	NOT TO SCALE	DETAIL NO. S-012



8 - WALL PIPE PENETRATION SEAL

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The

documents and other data shall not prevent the

Plumbing, Mechanical, Gas, and Electrical sections

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

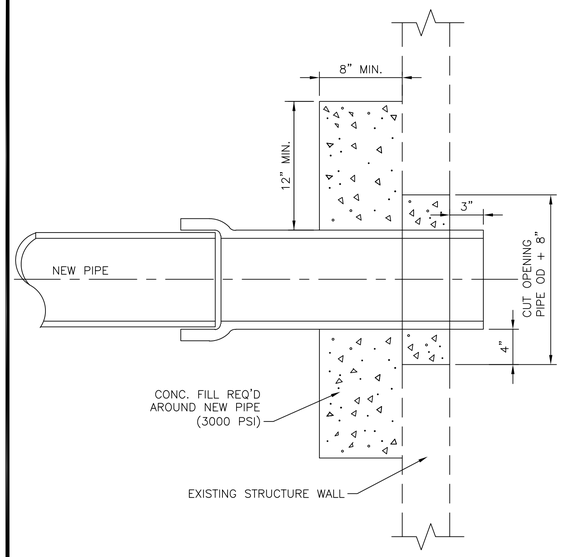
STAMP:

GEORGIA REGISTERED No. 26089 PROFESSIONAL ENGINEER GEORGE AJY 09/24/20

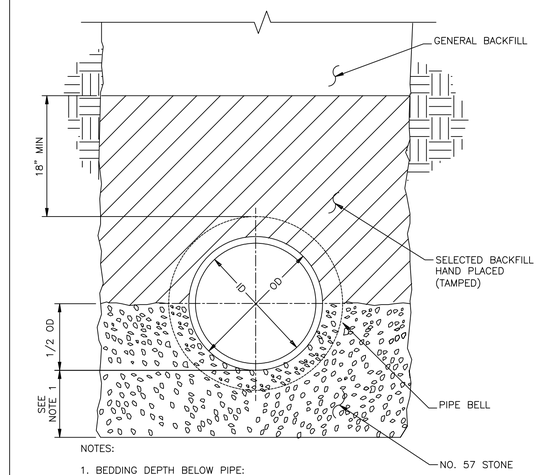
SHEET TITLE: CIVIL DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

CD-01



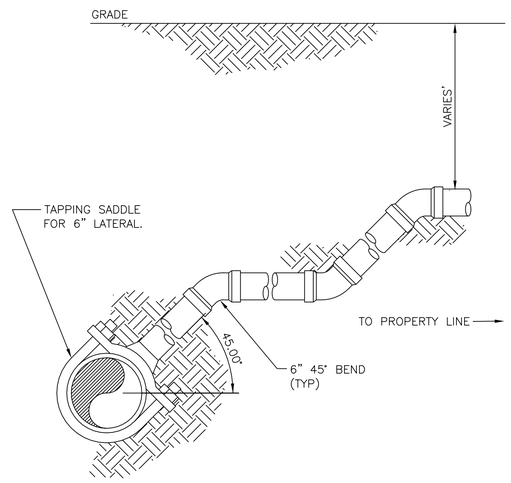
DeKalb County GEORGIA | STANDARD DETAILS | New Line Connection to an Existing Structure | NOT TO SCALE | 09/17 | WATER Matters | DETAIL NO. S-011



NOTES:

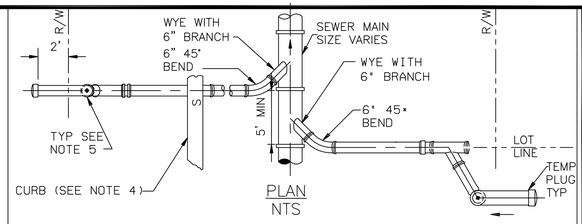
1. BEDDING DEPTH BELOW PIPE:
   - a.) PIPE DIAMETER UP TO 12":
     - i.) EQUAL TO 1/2 TIMES THE OUTSIDE DIAMETER (OD)
     - ii.) MINIMUM 6"
   - b.) PIPE DIAMETER GREATER THAN 12":
     - i.) EQUAL TO 1/4 TIMES THE OUSIDE DIAMETER (OD)
     - ii.) MINIMUM 6"
   - C.) MAXIMUM 12"

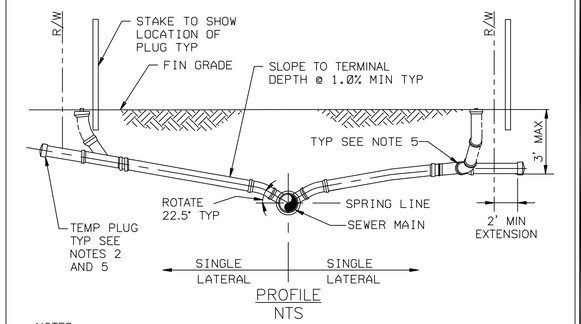
DeKalb County GEORGIA | STANDARD DETAILS | Class "B" Bedding | 02/19 | WATER Matters | DETAIL NO. S-014



NOTES:
1. DEEP HOUSE CONNECTIONS MAY BE ALLOWED WHEN SEWER INVERT IS 12 FEET OR GREATER BELOW SURFACE.
2. FROM THE TAPPING SADDLE ALL LATERALS SHALL BE DIP.

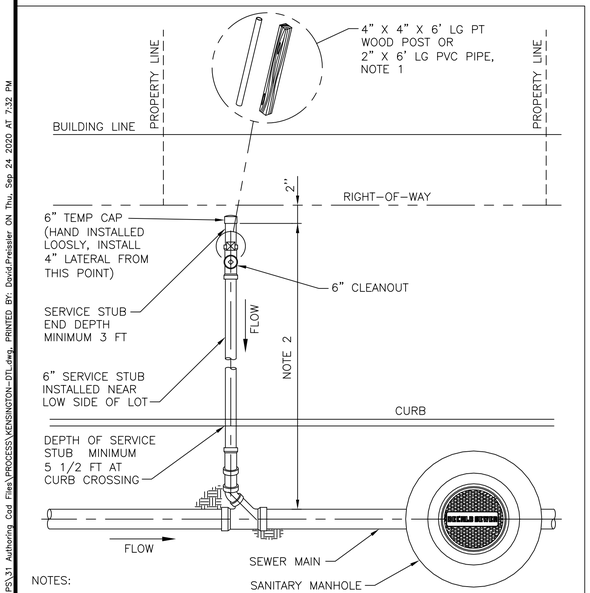
DeKalb County GEORGIA | STANDARD DETAILS | Deep Service Connection Detail | NOT TO SCALE | 09/17 | WATER Matters | DETAIL NO. S-015





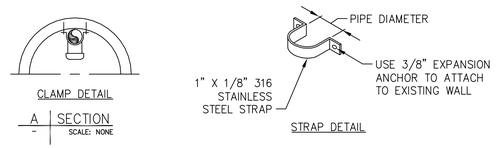
NOTES:
1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. SERVICE LATERAL SHALL BE CAPPED BY DEVELOPER'S CONTRACTOR.
3. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
4. [illegible] THE CURB DIRECTLY OVER THE LATERAL.
5. DEVELOPER'S CONTRACTOR SHALL INSTALL CLEANOUT.

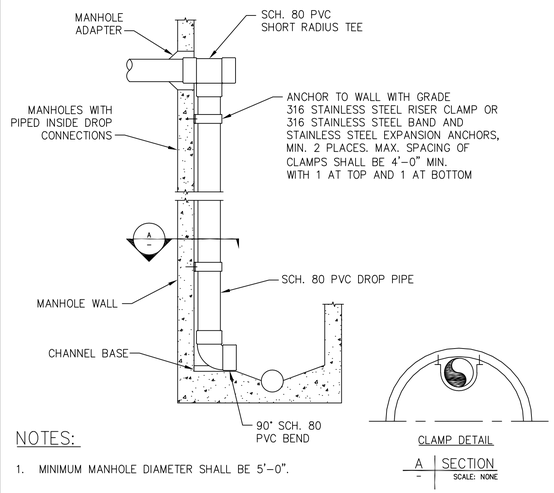
DeKalb County GEORGIA | STANDARD DETAILS | Sanitary Sewer Lateral Connection | NOT TO SCALE | 09/17 | WATER Matters | DETAIL NO. S-017



NOTES:
1. IDENTIFY AS PER OSHA SAFETY STANDARD SPECIFICATION 1910.44 UTILITY PROTECTION MARKING PAINT (GREEN)
2. MINIMUM LENGTH OF SERVICE STUB IS ONE FULL PIPE JOINT LENGTH OR TO THE RIGHT-OF-WAY. MAXIMUM LENGTH OF SERVICE STUB IS 75 FEET.
3. REFER TO S-012 FOR SERVICE AND CLEANOUT PROFILE

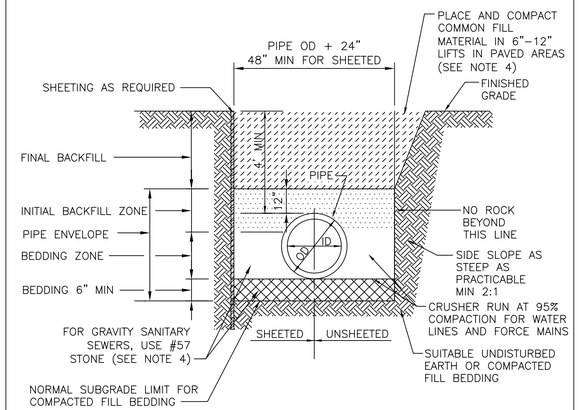
DeKalb County GEORGIA | STANDARD DETAILS | Service Stub Location Detail | NOT TO SCALE | 09/17 | WATER Matters | DETAIL NO. S-018





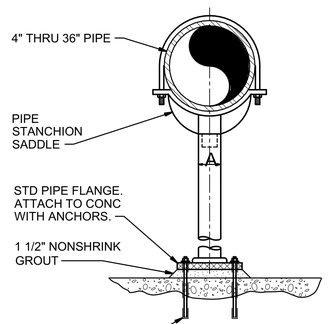
NOTES:
1. MINIMUM MANHOLE DIAMETER SHALL BE 5'-0".

DeKalb County GEORGIA | STANDARD DETAILS | PIPED INSIDE DROP CONNECTION FOR MANHOLE | Not To Scale | 09/17 | WATER Matters | DETAIL NO. S-027



NOTES:
1. SEE DESIGN STANDARDS FOR ADDITIONAL BEDDING AND TRENCH BACKFILL REQUIREMENTS.
2. DEPTH OF COVER OVER WATER MAINS, FORCE MAINS AND GRAVITY SANITARY SEWERS SHALL BE 4'-0" AS MEASURED FROM TOP OF PAVEMENT OR FINISHED GRADE TO TOP OF PIPE.
3. NO ROCK, ONLY BEDDING MATERIAL IN BACKFILL FOR FIRST 2'-0" ABOVE TOP OF PIPE.
4. BEDDING AND BACKFILL TO BE CRUSHER RUN AT 95% COMPACTION UNDER ALL PAVING FROM 12" ABOVE THE TOP OF PIPE TO THE BOTTOM OF THE CONCRETE ROAD CAP.
5. BACKFILL TO BE FREE OF ORGANICS, OBJECTIONABLE MATERIAL AND STONES LARGER THAN 3" IN ITS LONGEST DIMENSION.

DeKalb County GEORGIA | STANDARD DETAILS | Backfill and Allowable Trench Widths Detail | NOT TO SCALE | 09/17 | WATER Matters | DETAIL NO. G-004



DIMENSION TABLE	
PIPE SIZE	A
2-1/2"	2-1/2"
3"	2-1/2"
4"	3"
6"	3"
8"	3"
10"	3"
12"	3"
14"	3"
16"	3"
20"	4"
24"	4"
30"	4"
36"	4"

NOTES:

1. USE FOR PIPE SIZES 2 1/2 " THRU 36". PIPE MAY NEED LATERAL SWAY BRACE, ALSO.
2. STAINLESS STEEL SUPPORTS, ANCHORS AND HARDWARE SHALL BE REQUIRED. SPECIAL MATERIALS AND/OR DEVELOPMENT SERVICES REQUIRE FABRICATION TO CONFORM TO SPECIFICATION.
3. PIPE SUPPORT PRODUCT CONFORMS TO SPECIFIED STANDARD MSS SP-58, PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN AND MANUFACTURE.

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
BY: 244223
DATE: 01/11/21

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documents, and other data shall not prevent the [illegible] from requiring the correction of errors.

Plans for Mechanical, Gas, and Electrical sections [illegible] have been reviewed for [illegible] 2018 codes and will be [illegible]

[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

8 - TYPICAL PIPE SUPPORT

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

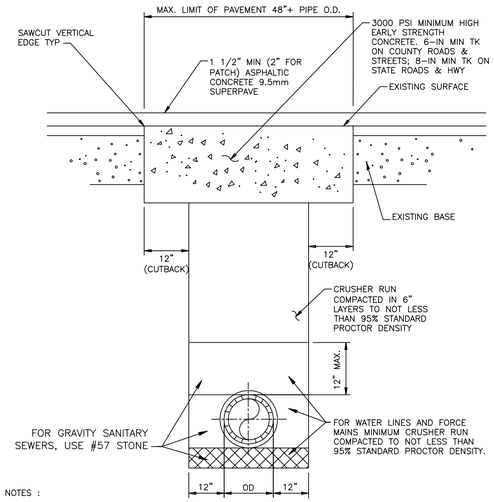
STAMP:

GEORGIA REGISTERED NO. 29869 PROFESSIONAL 09/24/20 ENGINEER GEORGE AY

SHEET TITLE: CIVIL DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

CD-02



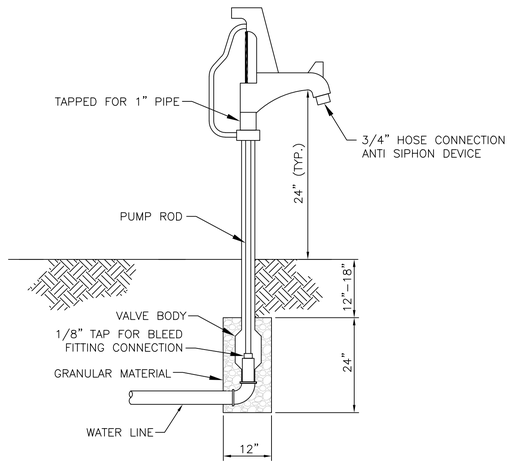
NOTES :

1. SAW CUT EXISTING PAVEMENT TO PROVIDE STRAIGHT VERT. JOINTS.
2. SURFACES TO BE CLEANED AND BITUMINOUS TACK COAT APPLIED BEFORE PLACEMENT OF ASPHALTIC TOP.
3. FOR EXIST SURFACE OF PORTLAND CEMENT CONCRETE, FURNISH NEW SURFACE OF 3000 PSI MINIMUM HIGH EARLY STRENGTH CONCRETE.
4. ON LONGITUDINAL CUTS EXCEEDING 100 FEET, THE CONC IN THE TRENCH SHALL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT AND THE ENTIRE WIDTH OF ROADWAY RESURFACED W/ 1-1/2 IN MIN THK OF ASPHALTIC CONC.

DeKalb County GEORGIA | STANDARD DETAILS | 02/19 | WATER Matters

Typical Patch and Resurfacing Detail

NOT TO SCALE | DETAIL NO. G-005



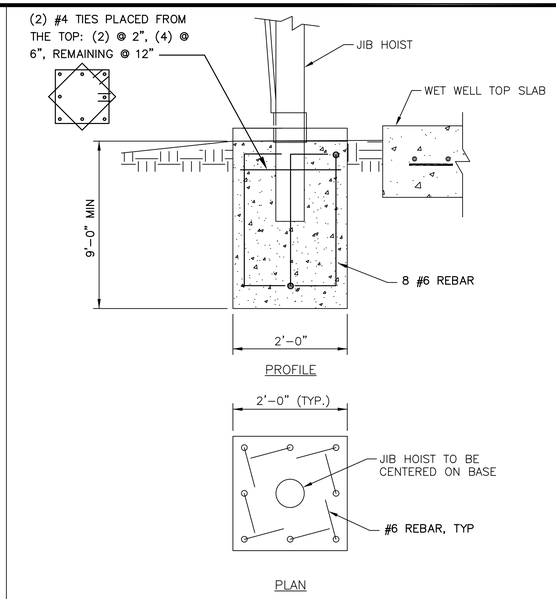
NOTES:

1. YARD HYDRANT TO BE SIMMONS 800 SERIES FREEZE PROOF OR APPROVED EQUAL.

DeKalb County GEORGIA | STANDARD DETAILS | 09/17 | WATER Matters

HOSE BIBB SERVICE CONNECTION DETAIL

NOT-TO-SCALE | DETAIL NO. P-003-



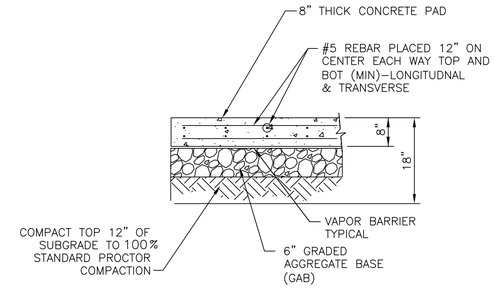
NOTE:

1. BASE OF THE JIB CRANE SHOULD BE DESIGNED ACCORDING TO THE MANUFACTURERS INSTALLATION STANDARDS AND LOAD CAPACITY OF THE CRANE. MINIMUM SIZE SHOULD BE NO LESS THAN 2'-0" x 2'-0" x 9'-0"

STANDARD DETAILS | 09/17

Jib Crane (Hoist) Base

NOT TO SCALE | DETAIL NO. P-004



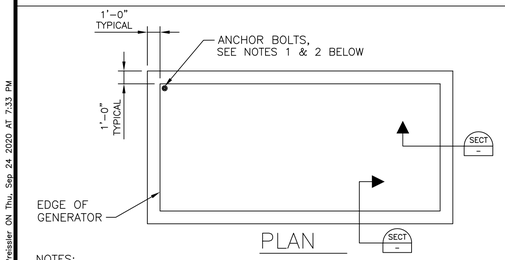
NOTES:

1. PUMP STATION CONCRETE PAD TO BE A MINIMUM OF 8" THICK ON A COMPACTED SUB-GRADE AND A MINIMUM 6" AGGREGATE BASE COURSE COMPACTED TO 100% STANDARD PROCTOR COMPACTION.
2. PUMP STATION PAD AND DRIVEWAY SHALL INCLUDE EXPANSION JOINTS AS NEEDED.
3. PUMP STATION PAD AND DRIVEWAY REINFORCEMENT SHALL BE DESIGNED TO WITHSTAND 100,000 LB LOAD
4. PAVEMENT CONCRETE STRENGTH AT 28 DAYS SHALL BE 4,500 PSI MINIMUM.

STANDARD DETAILS | 09/17

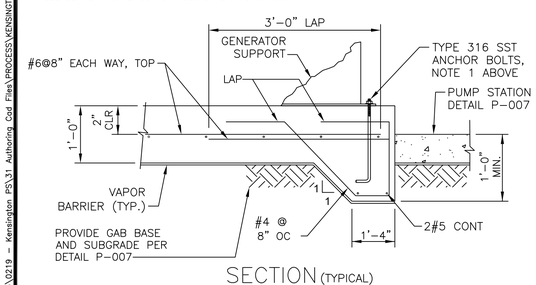
Pump Station Slab Detail

NOT TO SCALE | DETAIL NO. P-007



NOTES:

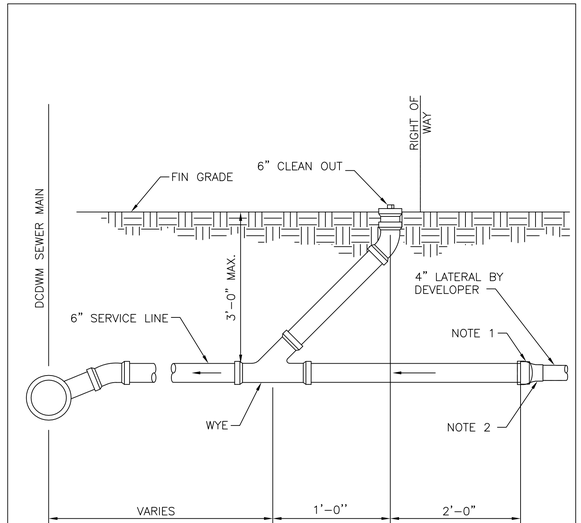
1. VERIFY QUANTITY, TYPE, DIAMETER AND LENGTH OF ANCHOR BOLTS REQUIRED BY MANUFACTURER PRIOR TO ORDERING AND.OR EMBEDDING FASTENERS IN CONCRETE SLAB.
2. CONTRACTOR'S ENGINEER SHALL DESIGN CONCRETE ANCHORS INCLUDING EMBEDMENT DEPTH IN ACCORDANT WITH CHAPTER 17 OF ACI 318-14.
3. CONCRETE SHALL BE CLASS A CONCRETE (28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI, MIN)
4. SEE DETAIL 1 ON E-05 FOR ADDITIONAL INFORMATION.



DeKalb County GEORGIA | STANDARD DETAILS | 02/19 | WATER Matters

Generator Pad Detail

NOT TO SCALE | DETAIL NO. P-008



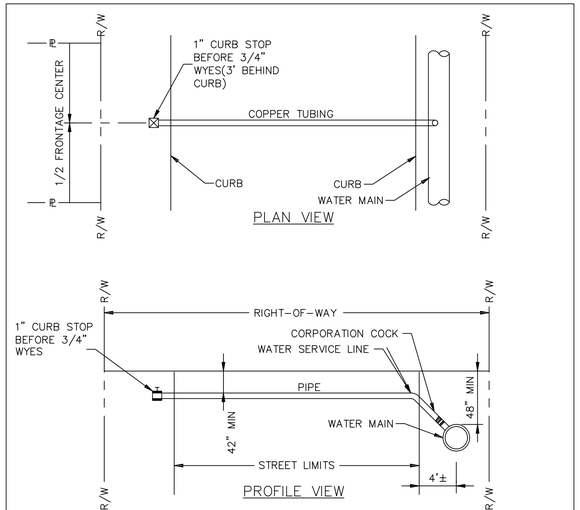
NOTES:

1. PLUG 6" SERVICE LINE.
2. CONNECT DEVELOPER'S 4" LATERAL TO 6" SERVICE LINE W/ 4" X 6" FERNCO COUPLING INCLUDING SST BANDS

DeKalb County GEORGIA | STANDARD DETAILS | 09/17 | WATER Matters

Typical Service Line and Clean Out Detail

NOT TO SCALE | DETAIL NO. S-012



NOTES:

1. SERVICE LINES 1 INCH AND SMALLER SHALL BE INSTALLED USING COPPER TUBING WITH FLARE X MIPT.
2. LARGER SERVICE LINE MATERIAL SHALL BE AS SPECIFIED ON THE DRAWING, AND REQUIRES COUNTY APPROVAL.

DeKalb County GEORGIA | STANDARD DETAILS | 09/17 | WATER Matters

Typical Service Line Installation

NOT TO SCALE | DETAIL NO. W-008

R2T
RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:

GEORGIA REGISTERED NO. 28089 PROFESSIONAL 09/24/20 ENGINEER GEORGE AY

SHEET TITLE:

CIVIL DETAILS

ISSUED: SEPTEMBER 25, 2020

PROJECT NO. 14-902883

SCALE: NONE

CHKD BY: AR

DESIGNED BY: JRC

DRAWN BY: JRC

CD-03

DeKalb County GEORGIA

DEVELOPMENT SERVICES

APPROVED

AP 1244223

DATE 01/11/21

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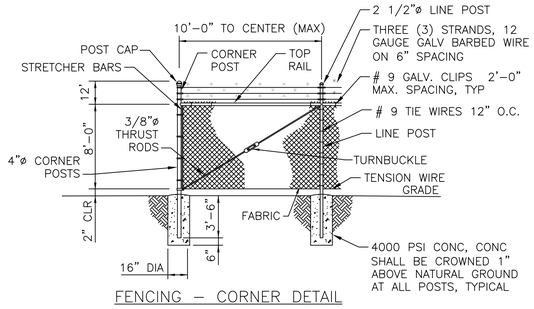
Plans for Mechanical, Gas, and Electrical sections have been reviewed for compliance with DeKalb codes and will be inspected for compliance.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

P:\01 Active Projects\0068 - DeKalb\0219 - Kensington PS\31 Authoring Cad Files\PROCESS\KENSINGTON-DTL.dwg, PRINTED BY: David.Preister ON Thu, Sep 24, 2020 AT 7:33 PM



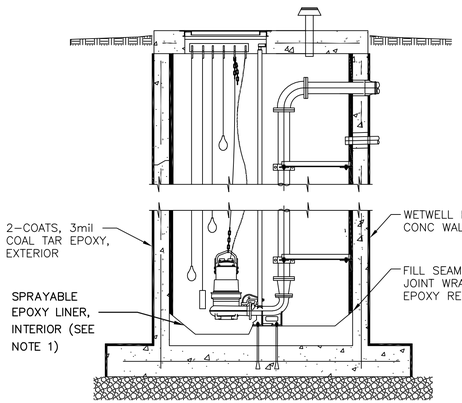
FENCING – CORNER DETAIL

NOTES:
1. THRUST RODS ARE REQUIRED FOR EACH GATE SECTION AND THE FIRST SPAN ON EACH SIDE OF A CORNER POST ONLY.
2. TOP LOCK HDPE FENCE SLATS ARE REQUIRED FOR ALL PUMP STATION FENCES.
3. NUMBER 4 CHAINLINK WIRE FABRIC W/TOP RAILS.

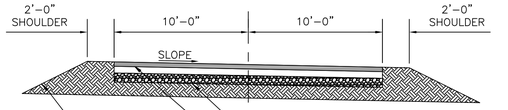
	STANDARD DETAILS	09/17
	Fence and Gate Detail	
	NOT TO SCALE	DETAIL NO. P-009

NOTE:

1. SPRAYABLE EPOXY SHALL MEET MANUFACTURER'S MINIMUM REQUIREMENTS AND THICKNESS
2. EPOXY SPRAY COATING WITH CONCRETE CHAMFER BOTTOM: THE INTERIOR OF THE CONCRETE WET WELL AND CONCRETE CHAMFERED WET WELL BOTTOM SHALL BE SPRAY COATED WITH TWO HUNDRED (200) MILS OF 301-14, MANUFACTURED BY WARREN ENVIRONMENTAL INC, OR APPROVED EQUAL, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PRIOR TO APPLYING THE SPRAY LINER, EIGHT (8) INCH JOINT WRAP SHALL BE APPLIED TO THE PRECAST SECTION JOINT SEAMS. SURFACE PREPARATION, THICKNESS, MIXING AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



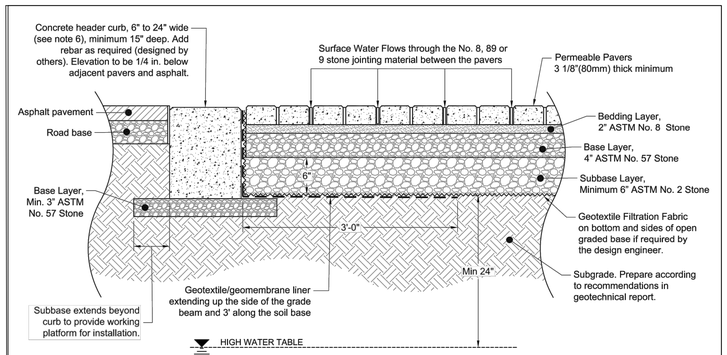
	STANDARD DETAILS	09/17
	Pump Station Coating Detail for HDPE Liner	
	NOT TO SCALE	DETAIL NO. P-014



NOTES:

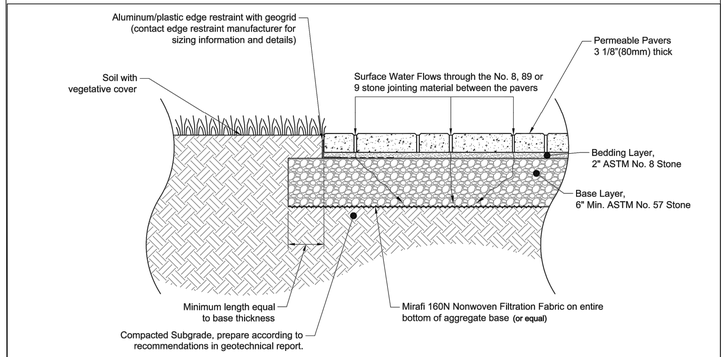
1. CONTRACTOR SHALL SUBMIT COPY OF PLAN AND PROFILES OF ACCESS ROAD FROM PUMP STATION SITE TO EXISTING ROAD OR STREET. SLOPE OF ACCESS ROAD SHALL COMPLY WITH DEKALB COUNTY REGULATIONS.
2. ACCESS DRIVEWAY SHALL INCLUDE EXPANSION JOINTS AS NEEDED.
3. ACCESS DRIVEWAY REINFORCEMENT SHALL BE DESIGNED TO WITHSTAND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

	STANDARD DETAILS	09/17
DeKalb County GEORGIA	Pump Station Typical Drive Cross Section	WATER Matters
	NOT TO SCALE	DETAIL NO. P-012



Design Notes:
1. Depth of subbase subject to site specific hydraulic and structural requirements.
2. Paver dimensions subject to aspect and plan ratio requirements based on traffic loading, including any maintenance and/or emergency vehicles.
3. Geotechnical engineer needs to balance structural stability and soil infiltration when recommending subgrade conditions.
4. Elevation of horizontal discharge pipe(s) subject to storage reservoir requirements. Ensure proper cover over the horizontal pipes.
5. Where the filtration geotextile is used, verify with the manufacturer that the material is not subject to clogging and meets requirements of AASHTO M-288.
6. When traffic flow is perpendicular to the direction of the header, the width of the header curb should be sufficient to ensure that a bouncing tire caused by differential settlement will land on the header and not skip over it.
7. Strictly pedestrian applications may substitute base/subbase layers with one 6" base layer of ASTM No. 57 stone.

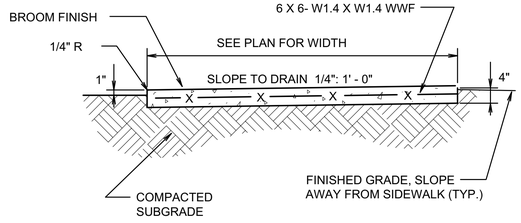
PERVIOUS PAVERS: TRANSITION TO ASPHALT



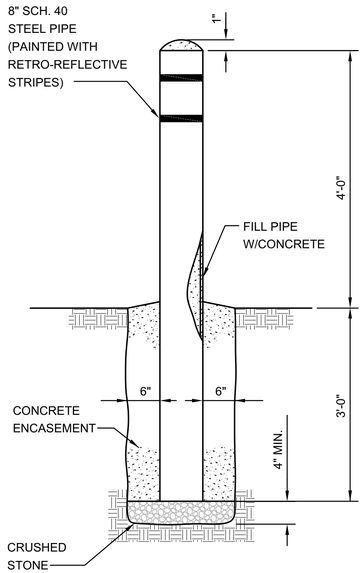
Design Notes:
1. Cross section as shown is suitable for pedestrian applications and residential driveways, patios, and sidewalks.
2. Depth of aggregate base subject to site specific conditions (soil conditions, groundwater levels, climatic conditions).
3. Drain pipes may be required within the aggregate base depending on the permeability of the subgrade soils. Verify drainage needs with the geotechnical engineer. Ensure drain pipes are able to daylight via gravity flow to surface, or connect to catch basin.

PERVIOUS PAVERS: AGGREGATE SET ON OPEN-GRADED BASE

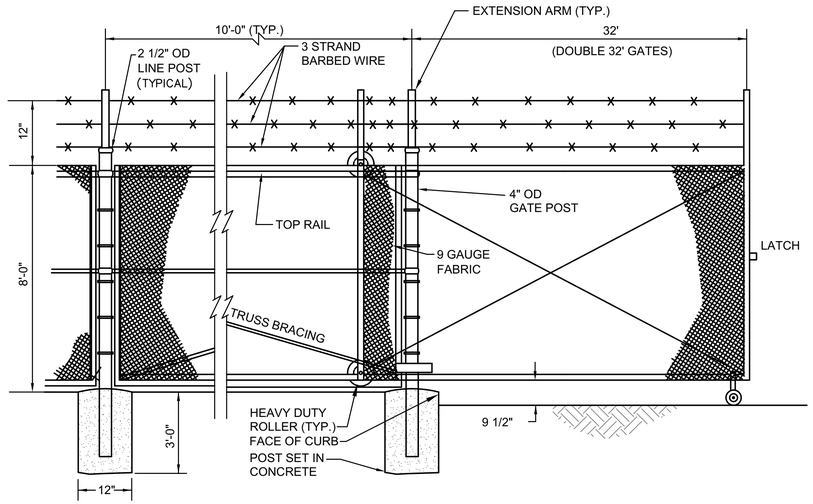
6 - PERVIOUS PAVERS

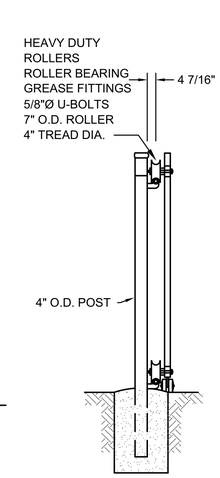


3 - CONCRETE SIDEWALK



4 - BOLLARD





SECTION THRU GATE
N.T.S.

5 - SLIDING GATE
SEE ELECTRICAL DRAWING/SPECIFICATIONS FOR ELECTRIC GATE OPERATOR

DeKalb County GEORGIA
DEVELOPMENT SERVICES

APPROVED

AP 1244223
DATE 01/11/21

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Plumbing, Mechanical, Gas, and Electrical sections [illegible] have been reviewed for compliance with 2018GA codes and will be [illegible] at time of inspection.

[illegible] shall be kept on the jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

R2T RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT: DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT: KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:

GEORGIA REGISTERED No. 20289 PROFESSIONAL 09/24/20 ENGINEER GEORGE AJY

SHEET TITLE: CIVIL DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

CD-04

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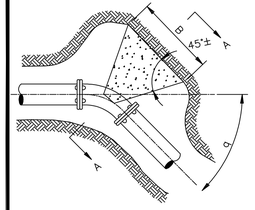
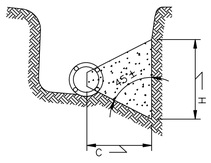


PLAN

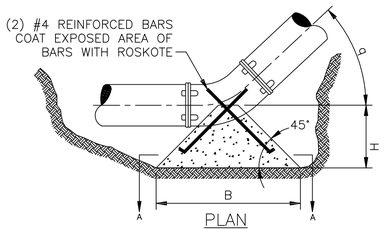


SECTION A–A

FITTING q	(IN)	B (FT)	H (FT)	C (FT)	VOL (YD^3)
11–1/4	6	0.9	0.8	0.45	0.010
	8	1.2	1.1	0.60	0.022
	10	1.5	1.3	0.75	0.041
	12	1.8	1.6	0.90	0.071
	16	2.3	2.2	1.15	0.149
22–1/2	6	1.3	1.1	0.65	0.023
	8	1.6	1.6	0.80	0.048
	10	2.1	1.9	1.05	0.097
	12	2.5	2.3	1.25	0.165
	16	3.3	3.0	1.65	0.362
45	6	1.7	1.6	0.85	0.050
	8	2.2	2.2	1.10	0.113
	10	2.8	2.7	1.40	0.222
	12	3.3	3.3	1.65	0.375
	16	4.5	4.3	2.25	0.887
90	6	2.3	2.2	1.15	0.118
	8	3.1	2.9	1.55	0.278
	10	3.8	3.7	1.90	0.530
	12	4.6	4.4	2.30	0.921
	16	6.1	5.9	3.05	2.142
TEES	6	2.1	1.8	1.00	0.073
	8	2.6	2.5	1.30	0.170
	10	3.2	3.1	1.60	0.319
	12	3.9	3.7	1.95	0.565
	16	5.1	5.0	2.55	1.303

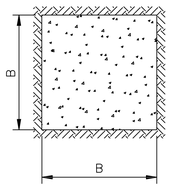
NOTES:
1. DIMENSIONS OF THRUST BLOCKS WERE CALCULATED ASSUMING A STATIC PRESSURE OF 250 PSI AND A SOIL BEARING PRESSURE OF 2,000 PSF.
2. DIMENSIONS SHOWN CAN BE VARIED AS FIELD CONDITIONS DICTATE, BUT IT IS IMPORTANT THAT THE CORRECT VOLUME AS SHOWN IN TABLE BE USED AND THAT ALLOWABLE SOIL BEARING PRESSURE NOT BE EXCEEDED.
3. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO VERIFY THAT THE THRUST BLOCKS IN THE CHART MEET THE REQUIRED FORCES THAT ARE ASSOCIATED WITH THE PROPOSED WATER LINE OR FORCE MAIN.

DeKalb County GEORGIA	STANDARD DETAILS Blocking Detail Horizontal Thrust Water and Forcemain NOT TO SCALE	09/17 WATER Matters DETAIL NO. G-001



PLAN

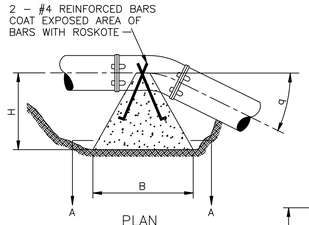
FITTING q	DIA (IN)	B (FT)	H (FT)	VOL (YD^3)
11–1/4	6	1.0	0.3	0.008
	8	1.2	0.4	0.012
	10	1.5	0.6	0.026
	12	1.9	0.8	0.055
	16	2.4	1.0	0.110
22–1/2	6	1.3	0.5	0.017
	8	1.7	0.7	0.039
	10	2.1	0.9	0.075
	12	2.5	1.1	0.129
	16	3.2	1.6	0.308
45	6	1.7	0.7	0.039
	8	2.2	0.9	0.083
	10	2.7	1.2	0.164
	12	3.3	1.5	0.305
	16	4.3	2.0	0.688



SECTION A–A

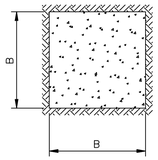
NOTE:
1. DIMENSIONS OF THRUST BLOCKS WERE CALCULATED ASSUMING A STATIC PRESSURE OF 250 PSI, A DEPTH OF COVER OF 4 FT., AND A SOIL BEARING PRESSURE OF 2,000 PSF.
2. DIMENSIONS SHOWN CAN BE VARIED AS FIELD CONDITIONS DICTATE, BUT IT IS IMPORTANT THAT THE CORRECT VOLUME AS SHOWN IN TABLE BE USED AND THAT ALLOWABLE SOIL BEARING PRESSURE NOT BE EXCEEDED.
3. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO VERIFY THAT THE THRUST BLOCKS IN THE CHART MEET THE REQUIRED FORCES THAT ARE ASSOCIATED WITH THE PROPOSED WATER LINE OR FORCE MAIN.

DeKalb County GEORGIA	STANDARD DETAILS Blocking Detail Downward Thrust NOT TO SCALE	09/17 WATER Matters DETAIL NO. G-002



PLAN

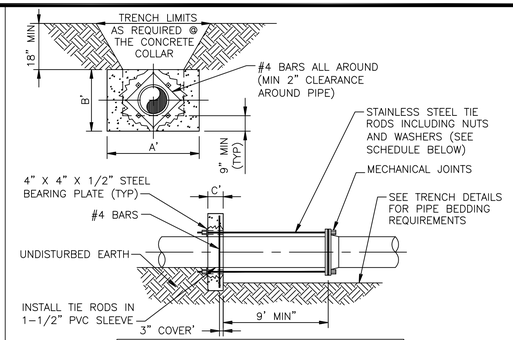
FITTING q	DIA (IN)	B (FT)	H (FT)	VOL (YD^3)
11–1/4	6	3.0	2.2	0.4
	8	3.5	2.4	0.6
	10	4.0	3.2	1.0
	12	4.5	3.5	1.4
	16	5.0	4.8	2.4
22–1/2	6	3.5	2.9	0.7
	8	4.0	3.9	1.2
	10	4.5	4.6	1.9
	12	5.5	4.8	2.7
	16	6.5	5.9	4.8
45	6	4.5	3.4	1.3
	8	5.0	4.6	2.2
	10	6.0	5.1	3.5
	12	6.5	6.2	5.0
	16	8.0	7.3	8.8



SECTION A–A

NOTES:
1. VOLUME WAS CALCULATED NEGLECTING WEIGHT OF FITTING, WATER, AND BACKFILL USING A STATIC PRESSURE OF 250 PSI.
2. DIMENSIONS OF BLOCK WERE CALCULATED ASSUMING A SOIL BEARING PRESSURE OF 2,000 POUNDS PER SQUARE FOOT.
3. DIMENSIONS SHOWN CAN BE VARIED AS FIELD CONDITIONS DICTATE, BUT IT IS IMPORTANT THAT THE CORRECT VOLUME AS SHOWN IN TABLE BE USED AND THAT ALLOWABLE SOIL BEARING PRESSURE NOT BE EXCEEDED.
4. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO VERIFY THAT THE THRUST BLOCKS IN THE CHART MEET THE REQUIRED FORCES THAT ARE ASSOCIATED WITH THE PROPOSED WATER LINE OR FORCE MAIN.

DeKalb County GEORGIA	STANDARD DETAILS Blocking Detail Upward Thrust NOT TO SCALE	09/17 WATER Matters DETAIL NO. G-003



SCHEDULE OF DIMENSIONS AND MATERIALS					
PIPE SIZE (INCHES)	DIMENSIONS (FT.)			TIE RODS REQ'D	
	A	B	C	DIA. INCHES	NO.
6	2.0	2.0	1.0	3/4	2
8	2.5	2.5	1.0	3/4	2
10	3.5	3.0	1.0	3/4	2
12	5.0	3.0	1.0	3/4	2
16	6.0	4.0	1.5	3/4	4
20	8.0	5.0	1.5	3/4	6
24	9.0	6.0	1.5	3/4	8
NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS./SF SOIL RESTRAINT BEARING.					

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARDS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE:150 PSI.
7. PIPE SIZE GREATER THAN 24" DIAMETER SHALL HAVE THRUST RESTRAINT DESIGNED BY A REGISTERED P.E.

DeKalb County GEORGIA	STANDARD DETAILS Thrust Restraint (150 psi) Tie-rod Installation Detail NOT TO SCALE	09/17 WATER Matters DETAIL NO. G-008

DeKalb County
GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

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Plumbing, Mechanical, Gas, and Electrical sections [illegible] been reviewed for [illegible] codes and will be [illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004653
EXPIRATION DATE: 6/30/2022

RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD
PUMP STATION &
PIPELINE PROJECT

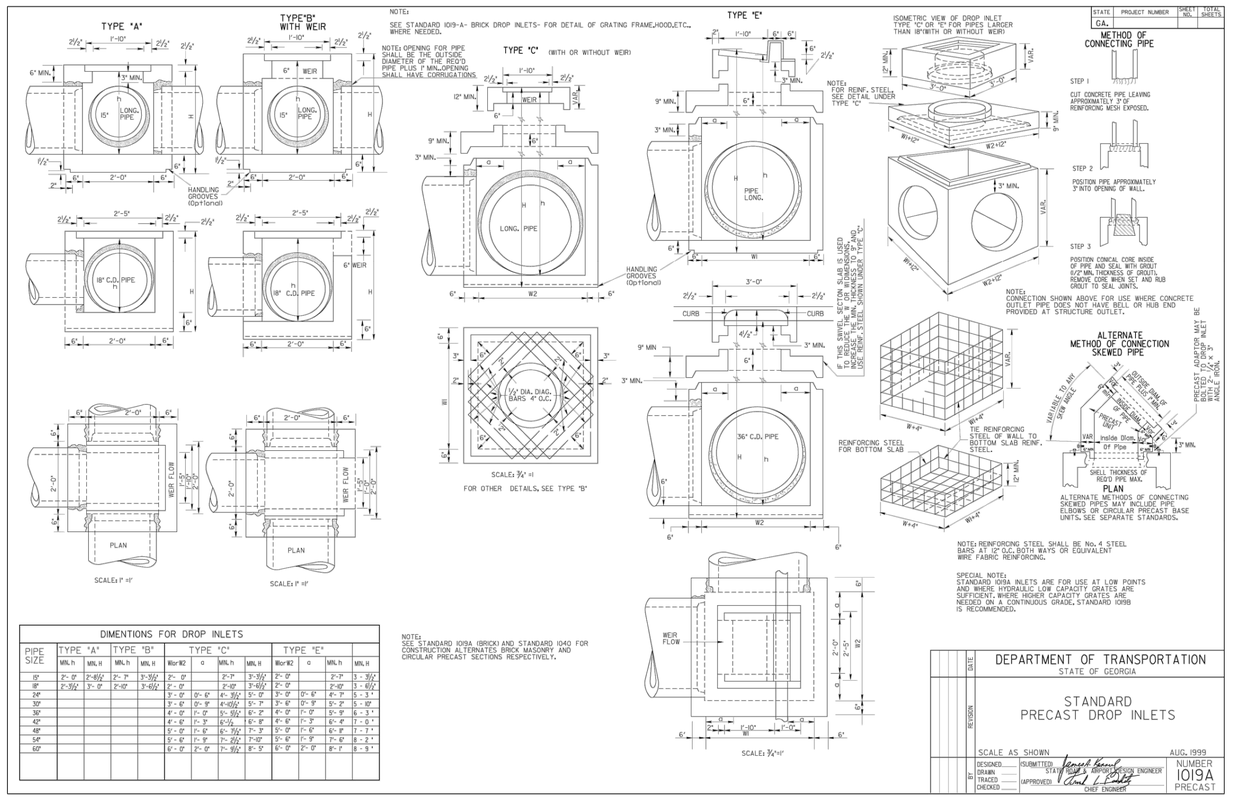
REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION

STAMP:

SHEET TITLE:
CIVIL
DETAILS

ISSUED: SEPTEMBER 25, 2020
PROJECT NO. 14-902883
SCALE: NONE
CHKD BY: AR
DESIGNED BY: JRC
DRAWN BY: JRC

CD-05



DIMENTIONS FOR DROP INLETS												
PIPE SIZE	TYPE "A"		TYPE "B"		TYPE "C"				TYPE "E"			
	MIN. h	MIN. H	MIN. h	MIN. H	W or W2	O	MIN. h	MIN. H	W or W2	O	MIN. h	MIN. H
15"	2'- 0"	2'-8½"	2'- 7"	3'-3½"	2'- 0"		2'-7"	3'-3½"	2'- 0"		2'-7"	3 - 3½"
18"	2'-3½"	3'- 0"	2'-10"	3'-6½"	2'- 0"		2'-10"	3'-6½"	2'- 0"		2'-10"	3 - 6½"
24"					3'- 0"	0'- 6"	4'- 3½"	5'- 0"	3'- 0"	0'- 6"	4'- 7"	5 - 3 "
30"					3'- 6"	0'- 9"	4'-10½"	5'- 7"	3'- 6"	0'- 9"	5'- 2"	5 - 10"
36"					4'- 0"	1'- 0"	5'- 5½"	6'- 2"	4'- 0"	1'- 0"	5'- 9"	6 - 3 "
42"					4'- 6"	1'- 3"	6'-1½"	6'- 8"	4'- 6"	1'- 3"	6'- 4"	7 - 0 "
48"					5'- 0"	1'- 6"	6'- 9½"	7'- 3"	5'- 0"	1'- 6"	6'- 8"	7 - 7 "
54"					5'- 6"	1'- 9"	7'- 2½"	7'-10"	5'- 6"	1'- 9"	7'- 0"	8 - 2 "
60"					6'- 0"	2'- 0"	7'- 9½"	8'- 5"	6'- 0"	2'- 0"	8'- 1"	8 - 9 "

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

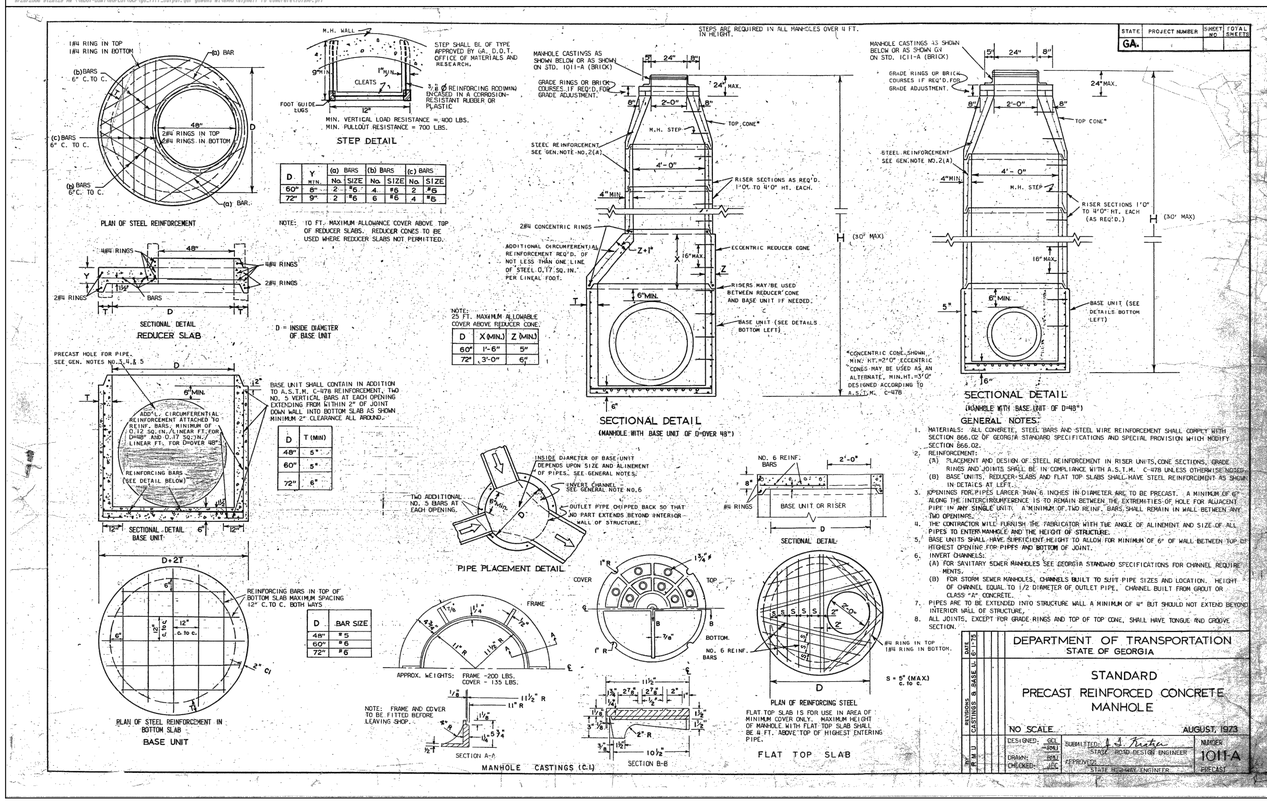
STANDARD
PRECAST DROP INLETS

SCALE: AS SHOWN — AUG. 1999

DESIGNED ____ DRAWN ____ TRACED ____ CHECKED ____

SUBMITTED: STATE BRIDGE DESIGN ENGINEER
APPROVED: CHIEF ENGINEER

NUMBER 1019A PRECAST



D	Y MIN.	(a) BARS No.	(a) BARS SIZE	(b) BARS No.	(b) BARS SIZE	(c) BARS No.	(c) BARS SIZE
60"	8"	2	#6	4	#5	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	X (MIN.)	Z (MIN.)
60"	1'-6"	5"
72"	1'-9"	6"

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

D = INSIDE DIAMETER OF BASE UNIT

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

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

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
PRECAST REINFORCED CONCRETE MANHOLE

NO SCALE — AUGUST, 1973

DESIGNED: SCL DRAWN: BWJ CHECKED: WJC

SUBMITTED: STATE ROAD DESIGN ENGINEER
APPROVED: STATE HIGHWAY ENGINEER

NUMBER 1011-A PRECAST

CASTINGS & BASE (SEE NOTE 8)

R2T
RIVER TO TAP
1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY DEPARTMENT OF WATERSHED MANAGEMENT
DEKALB COUNTY, GEORGIA

PROJECT:
KENSINGTON ROAD PUMP STATION & PIPELINE PROJECT

REV	DATE	DESCRIPTION
0	9/25/20	ISSUED FOR CONSTRUCTION
1	11/3/20	LDP COMMENTS
2	12/4/20	LDP COMMENTS

STAMP:
GEORGIA REGISTERED No. 26889 PROFESSIONAL 12/04/20 ENGINEER GEORGE M.Y.

SHEET TITLE:
CIVIL DETAILS

ISSUED: NOVEMBER 03, 2020
PROJECT NO. 14-902883
SCALE: AS NOTED
CHKD BY: AR
DESIGNED BY: GR
DRAWN BY: YZ

CD-06

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
AP 1244223
DATE 01/11/21

This Department is not responsible for any errors or omissions by engineers or other design professionals on design or county code requirements of this project.

The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of applicable codes or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of applicable codes or any other ordinance of the jurisdiction shall not be valid. The

documents and other data shall not prevent the

GEORGIA CERTIFICATE OF AUTHORIZATION
R2T, INC.
LICENSE NO. PEF004458
EXPIRATION DATE: 6/30/2022

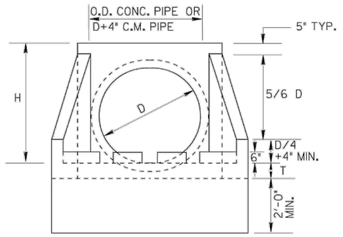
Plumbing, Mechanical, Gas, and Electrical sections

has been reviewed for

jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

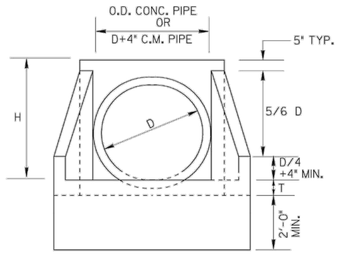
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET HEADWALL

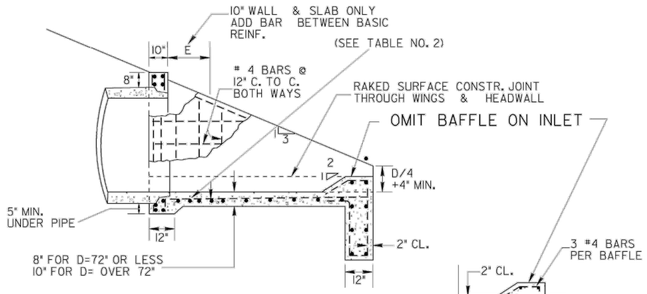


FRONT ELEVATION

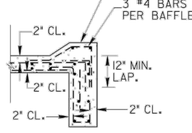
INLET HEADWALL



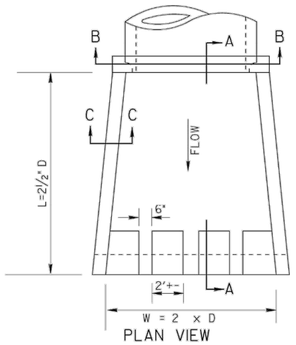
FRONT ELEVATION



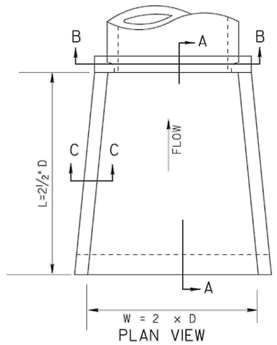
SECTION A-A



10" SLAB

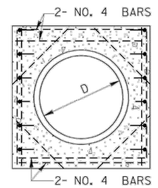


PLAN VIEW

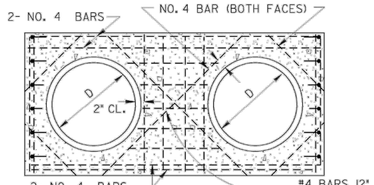


PLAN VIEW

D = INSIDE DIAMETER OF PIPE



SECTION B-B
(SINGLE PIPE LINE)



SECTION B-B
(MULTIPLE PIPE LINE)

TABLE NO.1- QUANTITIES FOR HEADWALLS

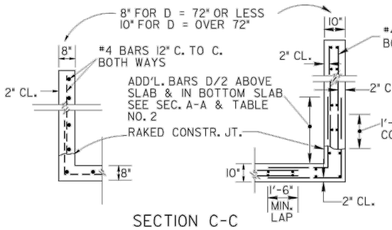
	CU. YDS. CONCRETE (PAY QUANTITIES)						LBS. STEEL (GIVEN FOR INFORMATION ONLY)					
	FOR SINGLE LINE			ADD FOR ADD'L LINE			FOR SINGLE LINE			ADD FOR EACH ADD'L LINE		
D	INLET	OUTLET		INLET	OUTLET		INLET	OUTLET		INLET	OUTLET	
15"	0.87	0.93		0.60	0.66		102	113		73	83	
18"	1.10	1.16		0.85	0.93		106	117		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

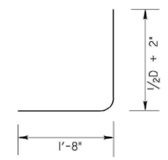
H = D + 10" MIN. FOR C.M. PIPE
H = D + PIPE WALL THICKNESS + 8" FOR CONC. PIPE
(13/12 D + 9" TYP.)

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

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
TAPERED
INLET HEADWALL - OUTLET HEADWALL
(BUILT-IN-PLACE)

NO SCALE REV. & REDR. OCT., 1999

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

(SUBMITTED) STATE ROAD & AIRPORT DESIGN ENGR.

(APPROVED) CHIEF ENGINEER

DeKalb County GEORGIA
DEVELOPMENT SERVICES
APPROVED
NUMBER
AP 25
DATE 12/14/21

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Plans for Mechanical, Gas, and Electrical sections [illegible] been reviewed for [illegible] codes and will be [illegible]

[illegible] jobsite at all times and shall not be modified or altered without authorization from DeKalb County Development Services.

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R2T, INC.
LICENSE NO.: PEF004653
EXPIRATION DATE: 6/30/2022

R2T
RIVER TO TAP

1841 PEELER RD.
UNIT C
ATLANTA, GA 30338
PHONE: (678) 336-5721
WWW.R2TINC.COM

CLIENT:
DEKALB COUNTY
DEPARTMENT OF
WATERSHED
MANAGEMENT
DEKALB COUNTY, GEORGIA

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PUMP STATION &
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2	12/4/20	LDP COMMENTS

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GEORGIA REGISTERED NO. 29089 PROFESSIONAL ENGINEER 12/04/20 GEORGE A.Y.

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CIVIL DETAILS

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CHKD BY: AR
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CD-07

7/7/2004 10:49:48 AM \\GDOT-DSN1\GOPLOTS\GCF\GD_TIFF_OUTPUT.DCF DOWENS M:\GARY\ENGLISH STANDARDS UPDATED AND UPDATED INDEX\1126.PRF