

ROCKDALE WATER RESOURCES FIELDSTONE PUMP STATION ELIMINATION



OWNER/DEVELOPER:

DESIGN ENGINEER:

ROCKDALE WATER RESOURCES 958 MILSTEAD AVE. CONYERS, GA. 30012 (770) 278-7432

ROCKDALE WATER RESOURCES
1329 PORTMAN DRIVE, STE. H
CONYERS, GA. 30012
CONTACT: DAVID CERVONE

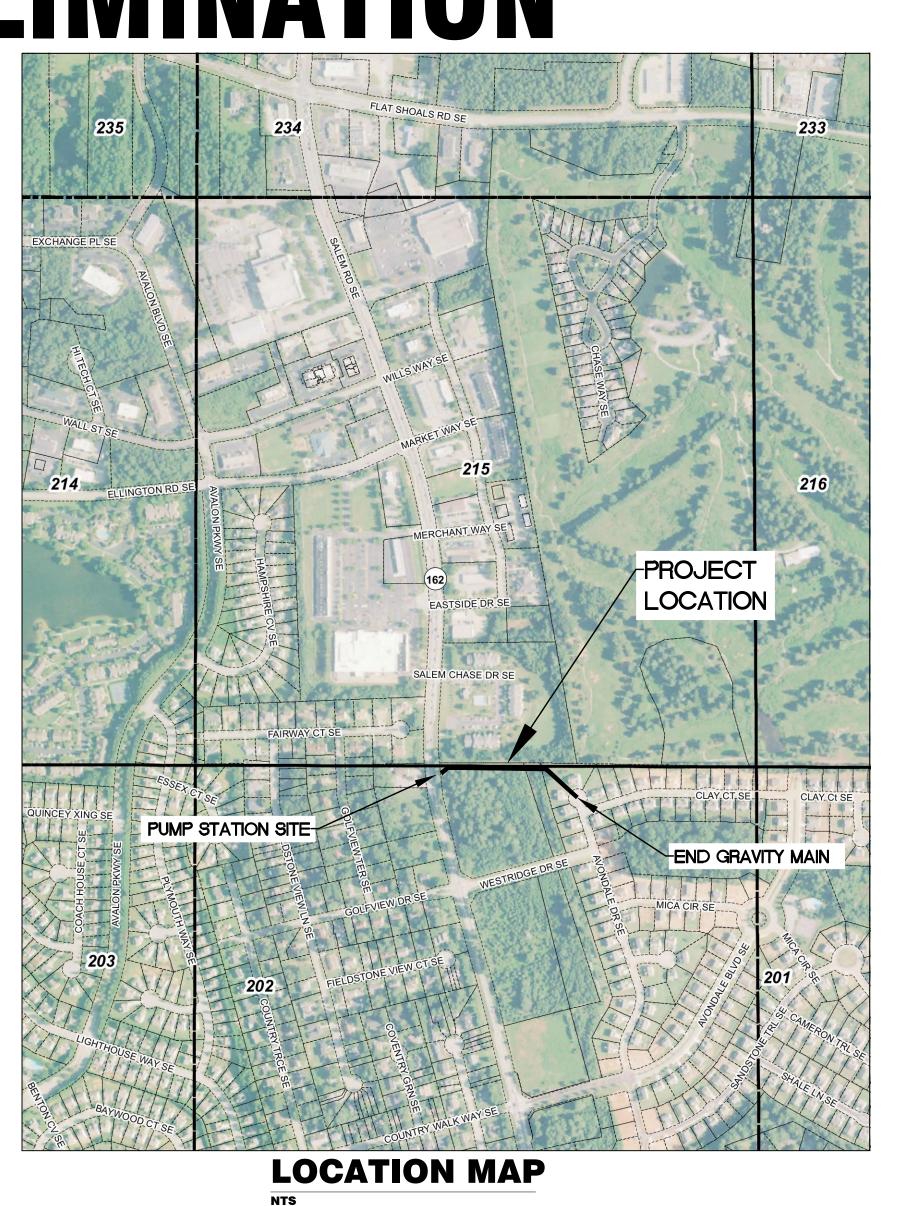
(770) 278 - 7486

SITE ADDRESS:

SITE: SALEM ROAD SE CONYERS, GA. 30013

NOTE:

GRAPHIC SCALE BASED ON 24"X36" PLAN SIZE.



DRAWING LIST			
SHEET	SHEET DRAWING No. DESCRIPTION		
GENERAL			
1	G-00	TITLE, VICINITY AND LOCATION MAP	
2	G-01	DRAWING LIST, SYMBOLS & ABBREVIATIONS	
3	G-02	GENERAL NOTES	
4	G-03	SITE PLAN	
CIVIL			
5	C-01	PLAN AND PROFILE	
6	C-02	PUMP STATION SITE DEMOLISTION	
7	C-03	CIVIL DETAILS	
8	C-04	EROSION CONTROL PLAN	
9	C-05	EROSION CONTROL NOTES	
10	C-06	EROSION CONTROL NOTES	
11	C-07	EROSION CONTROL DETAILS	
12	C-08	EROSION CONTROL DETAILS	

ABBREVIATIONS		
BLDG	BUILDING	
CO-SS	SEWER CLEAN OUT	
DIA	DIAMETER	
DIP	DUCTILE IRON PIPE	
PVC	POLYVINYL CHLORIDE	
HDPE	HIGH-DENSITY POLYETHYLENE	
DR	DRIVE	
ELEV	ELEVATION	
E/P	EDGE OF PAVEMENT	
FT	FEET	
FH	FIRE HYDRANT	
I.D.	INSIDE DIAMETER	
IP	IRON PIN	
IPF	IRON PIN FOUND	
IPS	IRON PIN SET	
LAT	LATITUDE	
LONG	LONGITUDE	
MIN	MINIMUM	
NTS	NOT TO SCALE	
O.D.	OUTSIDE DIAMETER	

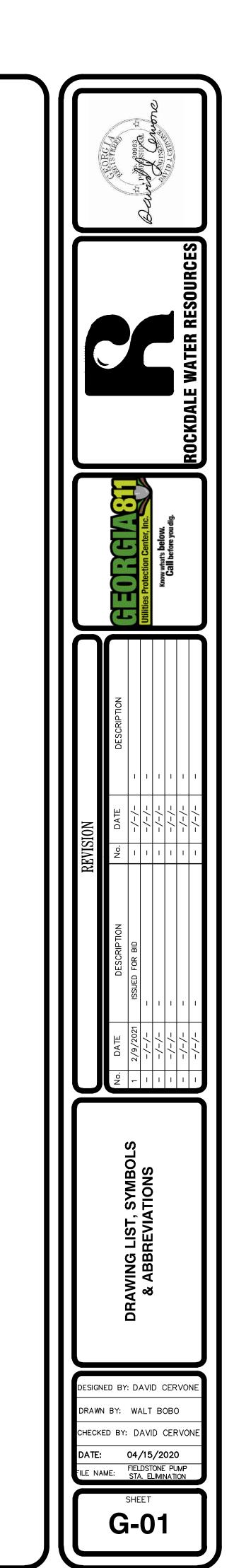
ABBREVIATIONS		
RCP	REINFORCED CONCRETE PIPE	
RD	ROAD	
LP	LAMP POST	
P/L	PROPERTY LINE	
RWR	ROCKDALE WATER RESOURCES	
R/W	ROAD RIGHT OF WAY	
СВ	CATCH BASIN	
SWCB	SINGLE WING CATCH BASIN	
DWCB	DOUBLE WING CATCH BASIN	
JB	JUNCTION BOX	
DI	DROP INLET	
YI	YARD INLET	
HW	HEADWALL	
МН	MANHOLE	
SSMH	SANITARY SEWER MANHOLE	
STA	STATION	
BC	BACK OF CURB	
INV	INVERT	
FES	FLARED END SECTION	
PROP	PROPOSED	

SEWER LEGEND			
S	S SEWER-MANHOLE EXISTING		
S	S SEWER-MANHOLE PROPOSED		
	S SEWER-CLEAN OUT EXISTING		
	S SEWER-EXISTING MAIN, SIZE & FLOW		
	S SEWER-PROPOSED MAIN		

WATER LEGEND				
	WATER-HYDRANT EXISTING			
	WATER-METER EXISTING			
wv 	WATER-VALVE EXISTING			
W	WATER-EXISTING SERVICE LINE			
——————————————————————————————————————	WATER-EXISTING MAIN & SIZE			

STORM LEGEND			
	STORM WATER-JUNCTION BOX EXISTING		
	STORM WATER-SINGLE WING CATCH BASIN EXISTING		
	STORM WATER-DOUBLE WING CATCH BASIN EXISTING		
	STORM WATER-FLARED END SECTION(FES)		
	STORM WATER-RECTANGULAR WEIR INLET EXISTING		
	STORM WATER-CIRCULAR GRATED INLET EXISTING		
	STORM WATER-RECTANGULAR GRATED INLET EXISTING		
12SD 12SD >	STORM WATER-EXISTING MAIN & SIZE		
	STORM WATER-EXISTING MAIN		

GENERAL LEGEND				
	UTILITY POLE			
	POWER POLE			
\	LAMP POST			
4	POWER JUNCTION BOX			
	COMMUNICATION BOX			
P	POWER BOX PANEL			
 O	STREET SIGN			
	REVISION CLOUD			
	SOIL BORE LOCATION			
810 808	CONTOURS-EXISTING			
G	GAS MAIN			
——————————————————————————————————————	OVERHEAD POWER			
UE	UNDER GROUND POWER			
oc	OVERHEAD COMMUNICATION			
UC	UNDER GROUND COMMUNICATION			
	CONSTRUCTION LIMITS			
	EXISTING PAVEMENT			



PIPELINE CONSTRUCTION NOTES:

- 1. PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. OPEN TRENCHES IN EXISTING ASPHALT SHALL BE PLATED OVERNIGHT WITH NON SKID STEEL PLATES.
- 3. ALL BACKFILL AND UNDISTURBED EARTH SHALL HAVE A MINIMUM DENSITY OF 90% STANDARD PROCTOR. COMPACTION UNDER ROADWAYS TO BE A MINIMUM OF 98% STANDARD PROCTOR DENSITY. TEST IN ACCORDANCE WITH ASTM D698.
- 4. UNLESS OTHERWISE NOTED, STATION ON PLANS REFERS TO CENTERLINE OF PIPELINE AND IS BASED ON HORIZONTAL DISTANCES.
- 5. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. CONFLICTS BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE ENGINEER, WHO WILL DETERMINE THE INTENT OF THE DESIGN.
- 6. EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND BASED ON RECORD DRAWINGS. POTHOLE AND SURVEY EXISTING UTILITIES THAT WILL BE AFFECTED BY TRENCHING OR EXCAVATIONS PRIOR TO ORDERING ANY MATERIALS. POTHOLES AND SURVEY DATA SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. POTHOLE DATA SHALL INCLUDE EXISTING UTILITY HORIZONTAL LOCATION, PIPE ELEVATION, PIPE ANGULAR CONFIGURATION, AND MATERIALS OF CONSTRUCTION. IDENTIFY POTENTIAL CONFLICTS WITH THE NEW PIPE LOCATION. PIPE ALIGNMENT ADJUSTMENTS THAT DO NOT INCREASE OVERALL PIPE OR FITTING QUANTITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE RWR.
- 7. PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION.
- 8. FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION, DIAMETER, AND ORIENTATION AT ALL CONNECTION POINTS AND COORDINATE WITH RWR PRIOR TO CONSTRUCTION. PROVIDE ALL PIPE MATERIALS AND FITTINGS, AS REQUIRED TO MEET EXISTING FIELD CONDITIONS FOR A COMPLETE INSTALLATION.
- 9. REPAIR DAMAGE TO LANDSCAPING, PAVING, UTILITIES, CURBS, GUTTERS, IRRIGATION, STRUCTURES, ETC., CAUSED BY THE WORK.
- 10. PAVEMENT CUTS SHALL BE PERFORMED BY SAW CUTTING OR GRINDING. RECUT PAVEMENT PRIOR TO REPAVING WHERE UNDERMINING HAS OCCURRED.
- 11. REPLACE TRAFFIC STRIPING OR STENCILING THAT IS OBLITERATED BY CONSTRUCTION TO THE SATISFACTION OF RWR.
- 12. SCHEDULE WITH RWR SHUTDOWNS NOT LESS THAN TWO WEEKS IN ADVANCE.
- 13. MAINTAIN 36" MINIMUM PIPELINE COVER PER RWR UNLESS OTHERWISE SHOWN ON THE PLANS OR UNLESS REDUCED DEPTH IS SPECIFICALLY APPROVED BY THE ENGINEER.
- 14. MAINTAIN A 10'-0" HORIZONTAL DISTANCE BETWEEN WATERLINE AND SANITARY SEWER PIPE LINES. MAINTAIN AN 18" VERTICAL SEPARATION BETWEEN WATERLINE AND SANITARY SEWER PIPE.
- 15. SHOULD ANY PAVEMENT BE DAMAGED AS A RESULT OF THE PROPOSED WORK, IT SHALL BE REPAIRED AND RESURFACED BY CONTRACTOR.
- 16. REMOVAL AND REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 17. TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH PLANS AND SPECIFICATION SECTION 02200.
- 18. HORIZONTAL STATIONING ALONG THE PIPELINE ALIGNMENT IS FOR LEVEL LINE MEASUREMENT AND FOR PAYMENT OF THE PIPELINES. FURNISH AND INSTALL THE ACTUAL PIPE LENGTH TO BE DETERMINED BY THE SLOPE OR CURVE ON WHICH THE PIPE IS INSTALLED.
- 19. ALL TRENCH EXCAVATION SHALL COMPLY WITH THE MOST CURRENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS.
- 20. DELETERIOUS MATERIALS AND EXCAVATED MATERIALS NOT USED IN BACKFILL OR GRADING SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF.
- 21. CONCRETE TRUCKS SHALL BE CLEANED IN DESIGNATED AREAS WITH WATER PROOF LINING IN COMPLIANCE WITH THE SWPPP AND OTHER PERMITS. ALL WASTE AND MATERIAL SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF.
- 22. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING IS SHOWN.
- 23. ANY FENCES, MAILBOXES, OR OTHER PERMANENT STRUCTURES IN THE PATH OF THE PROPOSED SEWER LINE SHALL BE (IF NECESSARY) TEMPORARILY REMOVED PRIOR TO INSTALLATION AND REPLACED IN THE ORIGINAL LOCATION BEFORE GRASSING AND SEEDING. THESE TEMPORARILY REMOVED LINES MUST NOT REMAIN OUT OF SERVICE FOR MORE THAN 12 HOURS. MAILBOXES SHALL BE REPLACED, IF NECESSARY, AT NO ADDITIONAL COST TO THE OWNER.
- 24. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK, INCLUDING SPOIL PILES, BE PERFORMED WITHIN THE RIGHT—OF—WAY. IN AREAS WHERE THIS CAN NOT BE ACCOMPLISHED, OR WHERE THE SEWER LINE CROSSES PRIVATE PROPERTY, EASEMENT SHOULD BE OBTAINED.
- 25. SPOIL PILES ARE NOT TO BE PLACED ON THE PAVEMENT.
- 26. ALL DISTURBED DRAINAGE DITCHES AND SWALES SHALL BE RECONSTRUCTED TO THEIR ORIGINAL CONDITIONS TO PROVIDE POSITIVE DRAINAGE FOR UPSTREAM RUNOFF THROUGH DISTURBED AREA TO EXISTING DOWNSTREAM ELEMENTS OF THE DRAINAGE SYSTEM.
- 27. CONTRACTOR WILL COMPLY WITH OSHA STANDARDS.
- 28. ALL COSTS FOR INSTALLATION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INCLUDED IN THE BID PACKAGE.
- 29. ANY ROCKDALE COUNTY INFRASTRUCTURE OR PROPERTY DAMAGED DURING, OR AS RESULT OF, CONSTRUCTION OF THIS PROJECT WILL BE REPAIRED OR REPLACED TO THE SATISFACTION OF ROCKDALE COUNTY. [THIS INCLUDES, FOR EXAMPLE (BUT NOT LIMITED TO) PAVING, CURB, CURB/GUTTER, SHOULDERS, DITCHES, STORM DRAINAGE PIPES OR STRUCTURES; SIGNS; WATER DISTRIBUTION LINES OR APPURTENANCES, WATER TREATMENT FACILITIES, FIRE HYDRANTS, VALVES, METERS; WASTEWATER (SANITARY SEWER), COLLECTION LINES OR APPURTENANCES, MANHOLES OR OTHER STRUCTURES, FORCE MAINS, PUMP STATIONS OR APPURTENANCES; LANDSCAPING OR PLANT MATERIALS, INCLUDING MULCH, GRASSING, SHRUBBERY, TREES; STRUCTURES OF ANY NATURE, INCLUDING FENCING.]
- 30. NO WORK WILL BE PERFORMED ON PRIVATE PROPERTY UNLESS AN APPROPRIATE EASEMENT HAS BEEN OBTAINED OR THE ROCKDALE COUNTY BOARD OF COMMISSIONERS HAVE APPROVED A WORK ON PRIVATE PROPERTY FORM.

GENERAL CONSTRUCTION NOTES:

- 1. WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 2. NOTIFY THE RWR REPRESENTATIVE AND ALL OTHER INTERESTED PARTIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF WORK.
- 3. OBTAIN REQUIRED PERMITS AND NECESSARY DISTRICT BUSINESS LICENSE(S) PRIOR TO BEGINNING CONSTRUCTION.
- 4. TRAFFIC CONTROL COSTS SHALL BE INCLUDED IN THE BID. PROCEDURES SHALL CONFORM TO THE ROCKDALE COUNTY AND GEORGIA DEPARTMENT OF TRANSPORTATION, IF REQUIRED AND IN ACCORDANCE WITH ALL APPLICABLE PERMITS, AND WITH THE SPECIFICATIONS.
- 5. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE HOURS REFERENCED IN THE SPECIFICATIONS AND PERMITS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE, DURING THE CONSTRUCTION PROCESS, FOR THE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S (OR SUBCONTRACTOR'S) EFFORTS DURING THE CONSTRUCTION OF THIS PROJECT.
- 7. 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. COST TO BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION TO BE ALLOWED, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS.
- 8. DURING CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, OBSERVE, FOLLOW AND IMPLEMENT THE REQUIREMENTS OF THE NPDES AND STORMWATER POLLUTION PREVENTION PROGRAM AND KEEP THE WORK SITE CLEAN FROM RUBBISH AND DEBRIS. ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING AND SPRINKLING WITH WATER AND USING DUST FENCES OR THEIR METHODS AS DIRECTED BY THE RWR'S REPRESENTATIVE THROUGHOUT THE CONSTRUCTION OPERATION.
- 9. KEEP A STRICT RECORD OF ALL CHANGES AND SUBMIT THIS RECORD TO THE RWR. ALSO COORDINATE TRANSFERRING "AS-BUILT" INFORMATION ON THE CONTRACT DRAWINGS AND DELIVER THE CERTIFIED "AS-BUILT" PLANS TO THE DISTRICT BEFORE THE RELEASE FOR FINAL ACCEPTANCE OF THE PROJECT SHALL BE FILED.
- 10. EXERCISE DUE CARE TO AVOID INJURY TO EXISTING IMPROVEMENTS OR FACILITIES, UTILITY FACILITIES, ADJACENT PROPERTY, AND TREES AND SHRUBBERY THAT ARE NOT TO BE REMOVED. ALL DAMAGE CAUSED TO COUNTY & CITY STREETS, INCLUDING HAUL ROUTES, SIDEWALKS, CURBS OR STREET FURNISHINGS, OR TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE RWR REPRESENTATIVE.
- 11. DESIGNATE AND KEEP ON THE PROJECT WHILE WORK IS BEING PERFORMED A COMPETENT SUPERINTENDENT WHO SHALL NOT BE REPLACED WITHOUT A WRITTEN NOTICE TO THE RWR'S REPRESENTATIVE. THE SUPERINTENDENT WILL BE THE CONTRACTOR'S REPRESENTATIVE AT THE SITE AND SHALL HAVE AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR. COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR. DURING PERIODS WHEN THE WORK IS SUSPENDED, MAKE APPROPRIATE ARRANGEMENTS FOR EMERGENCY WORK WHICH WILL BE REQUIRED.
- 12. WHEN THE WORK ON ANY PORTION OF IT IS SUFFICIENTLY COMPLETE TO BE UTILIZED OR PLACED INTO SERVICE, RWR SHALL HAVE THE RIGHT UPON WRITTEN NOTIFICATION TO THE CONTRACTOR TO UTILIZE SUCH PORTIONS OF THE WORK AND TO PLACE THE OPERABLE PORTIONS INTO SERVICE AND TO OPERATE SAME. UPON SAID NOTICE AND COMMENCEMENT OF UTILIZATION OR OPERATION BY THE RWR, THE CONTRACTOR SHALL BE RELIEVED OF THE DUTY OF MAINTAINING THE PORTIONS SO UTILIZED OR PLACED INTO OPERATION; PROVIDED, HOWEVER, THAT NOTHING IN THIS NOTE SHALL BE CONSTRUED AS RELIEVING THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR COMPLETING THE WORK IN ITS ENTIRETY, FOR MAKING GOOD DEFECTIVE WORK AND MATERIALS, FOR PROTECTING THE WORK FROM DAMAGE, AND FOR BEING RESPONSIBLE FOR DAMAGE.
- 13. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK; AND FULLY COMPLY WITH STATE/FEDERAL AND OTHER LAWS, RULES, REGULATIONS, AND ORDER RELATING TO SAFETY OF WORKERS AND ALL OTHERS. THIS INCLUDES THE ISSUANCE OF PERSONAL PROTECTIVE EQUIPMENT.

- 14. UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY RWR OR THOSE SHOWN ON RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. NOTIFY RWR OF THE UTILITIES CONCERNED BEFORE STARTING WORK.
- 15. TYPICAL DETAILS APPLY WHETHER OR NOT THEY ARE SPECIFICALLY REFERENCED ON INDIVIDUAL PLANS, DETAILS OR SECTIONS.
- 16. VERIFY DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK. ANY CONFLICT BETWEEN DETAILS OR DIMENSIONS ON THE DRAWINGS SHALL BE REPORTED PROMPTLY TO RWR REPRESENTATIVE WHO WILL DETERMINE THE INTENT OF THE DRAWINGS.
- 17. NO SMOKING IS ALLOWED WITHIN THE JOBSITE OR SITE ACCESS AREAS, A FIRE SPOTTER, FIRE EXTINGUISHER, ADEQUATE WATER SUPPLY AND SHOVELS SHALL BE AVAILABLE AND WITHIN REACH AT ALL TIMES DURING ANY WELDING OR TORCH WORK. THIS JOBSITE IS IN AN EXTREMELY HAZARDOUS FIRE AREA.
- 18. VIDEO RECORD AND DOCUMENT THE EXISTING CONDITION OF THE PROJECT LIMITS AND SUBMIT THE RECORDING AND DOCUMENT TO THE RWR PRIOR TO THE START OF CONSTRUCTION.
- 19. MAKE ARRANGEMENTS FOR EQUIPMENT, MATERIAL STORAGE & YARD SECURITY.

 20. EQUIPMENT AND MATERIALS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER'S REPRESENTATIVE. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN
- 21. STAGING AREA SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS AND ON—SITE STORAGE OF MATERIALS FOR THIS PROJECT ONLY.
- 22. PROVIDE TEMPORARY FENCING TO MAINTAIN SECURITY AT ALL TIMES.
- 23. CONDUCT OPERATIONS TO RESULT IN THE LEAST POSSIBLE OBSTRUCTION INCONVENIENCE TO THE PUBLIC, AND HAVE UNDER CONSTRUCTION NO GREATER LENGTH OR AMOUNT OF WORK THAT CAN BE PERFORMED PROPERLY WITH DUE REGARD TO THE RIGHTS OF THE PUBLIC OR AS STATED IN THE PERMITS. CONVENIENT ACCESS TO DRIVEWAYS, HOUSES AND BUILDINGS ALONG THE WORK SHALL BE MAINTAINED.

TOPOGRAPHIC MAPPING

THE TOPOGRAPHIC/PLANIMETRIC INFORMATION SHOWN HEREON WAS COMPILED FROM DATA COLLECTED FROM ROCKDALE WATER RESOURCES(RWR) GEOGRAPHIC INFORMATION SYSTEM MAP LAYERS, GPS SURVEY BY RWR AND SURVEY BY ROCHESTER & ASSOCIATES, INC. 4/15/2020.

SURVEY NOTES

1. THE FIELD DATA DATED 4/15/2020 WAS ADJUSTED USING LEAST SQUARES. A TRIMBLE S—SERIES ROBOTIC TOTAL STATION WAS USED FOR ANGULAR AND LINEAR MEASUREMENTS.

2. THE HORIZONTAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83 GEORGIA WEST ZONE) AND THE VERTICAL DATUM USED IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DETERMINED BY UTILIZING GPS. THE EQUIPMENT USED TO OBTAIN THIS DATA WAS A DUAL FREQUENCY TRIMBLE R6 GNSS GPS RECEIVER WITH A TRIMBLE TSC3 DATA COLLECTOR RECEIVING RTK CORRECTIONS VIA A WIRELESS NETWORK FROM BASE STATIONS OPERATED BY TRIMBLE NAVIGATION. THE AVERAGE RELATIVE POSITIONAL ACCURACY OBTAINED ON THE POSITIONS UTILIZED IN THIS SURVEY WAS 0.04 FT. HORIZONTAL AND 0.07 FT. VERTICAL. THESE VALUES WERE DERIVED FROM GPS PROCESSING SOFTWARE. THE REMAINDER OF THE FIELD WORK WAS PERFORMED WITH CONVENTIONAL EQUIPMENT AS DESCRIBED ABOVE.

3. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT; THEREFORE EXCEPTION IS MADE HEREIN TO ANY EASEMENTS, RESERVATIONS, RIGHTS OF WAY AND RESTRICTIONS OF RECORD, WHICH MAY EXIST. FURTHERMORE, THIS PROPERTY MAY BE SUBJECT TO EASEMENTS, RESERVATIONS, RIGHTS OF WAY, OR RESTRICTIONS, WHICH ARE NOT RECORDED OR NOT DISCLOSED BY THE TITLE COMMITMENT OR OTHERWISE UNKNOWN TO THE SURVEYOR; THEREFORE EXCEPTION IS TAKEN TO ANY SUCH ITEMS.

4. THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN MARKED BY UTILITY MARKING, LLC (678-357-1946) AND FIELD LOCATED BY ROCHESTER & ASSOC., INC. PERSONNEL. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

5. THIS PROPERTY MAY OR MAY NOT CONTAIN WETLAND AREAS. NO EFFORTS HAVE BEEN MADE BY THIS SURVEYOR TO IDENTIFY OR LOCATE ANY WETLAND AREAS ON THIS PROPERTY. A QUALIFIED WETLAND SPECIALIST OR BIOLOGIST, PRIOR TO ANY LAND DISTURBANCE, SHOULD PERFORM WETLAND IDENTIFICATION AND DELINEATION.

6. THIS PROPERTY IS LOCATED IN A FLOOD HAZARD ZONE "X" AS PER F.E.M.A. INSURANCE RATE MAP OF ROCKDALE COUNTY, GEORGIA. MAP NO. 13247C0176D, EFFECTIVE DATE DECEMBER 08, 2016.

7. DURING THE FIELD SURVEY PERFORMED ON THIS SITE THERE WERE NO VISIBLE ABOVE GROUND EVIDENCE OF A HUMAN BURIAL AREA OR CEMETERY OBSERVED. HOWEVER, THIS SURVEYOR DID NOT PERFORM A THOROUGH INSPECTION OF THE INTERIOR OF THIS SITE. THEREFORE EXCEPTION IS MADE HEREIN TO ANY HUMAN AREAS OR CEMETERIES THAT MAY EXIST WITHIN THE BOUNDARIES OF THIS SITE.

8. THIS SURVEY IS FOR THE EXCLUSIVE USE OF THE ENTITIES SHOWN HEREON; ANY USE BY THIRD PARTIES IS AT THEIR OWN RISK.

9. ALL DISTANCES AS SHOWN ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET (39.37 INCHES = 1 METER) 10. CONTOUR INTERVAL IS 1 FOOT.





below.

ROCKDALE W

| DESCRIPTION | No. DATE | DESCRIPTION | NO. D

GENERAL NOTES

DESIGNED BY: DAVID CERVONE

DRAWN BY: WALT BOBO

CHECKED BY: DAVID CERVONE

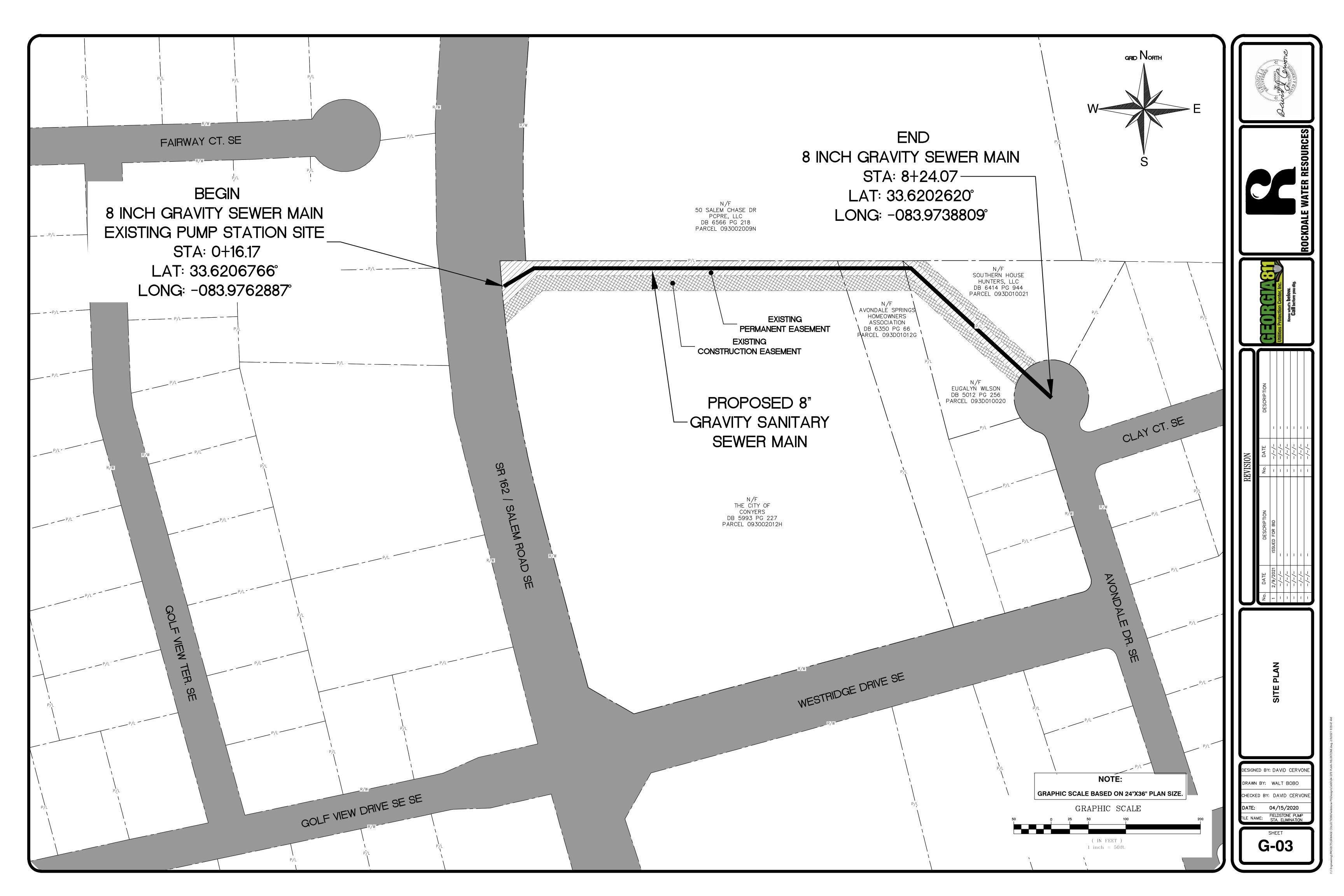
DATE: 04/15/2020

TILE NAME: FIELDSTONE PUMP

STA. ELIMINATION

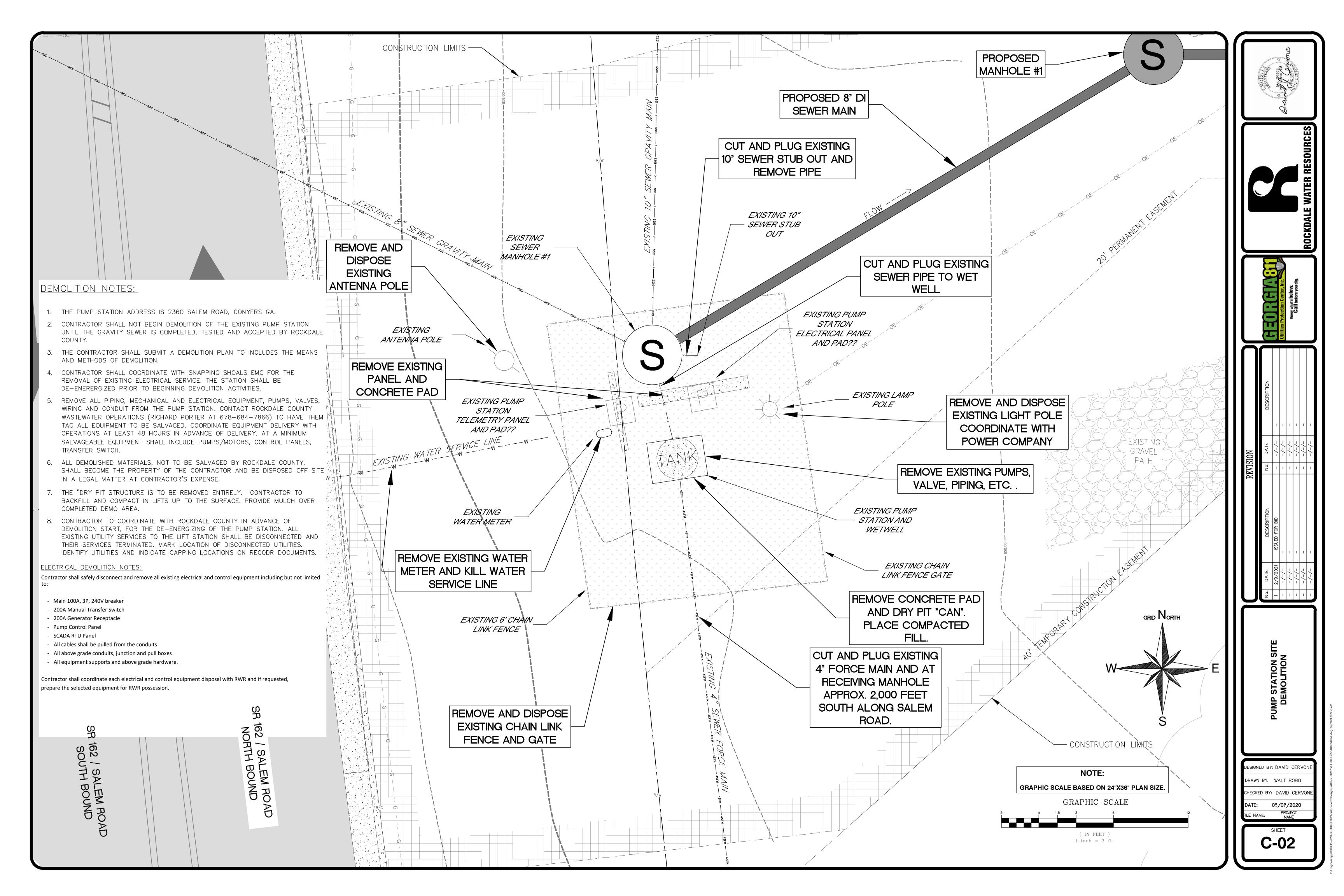
SHEET **G-02**

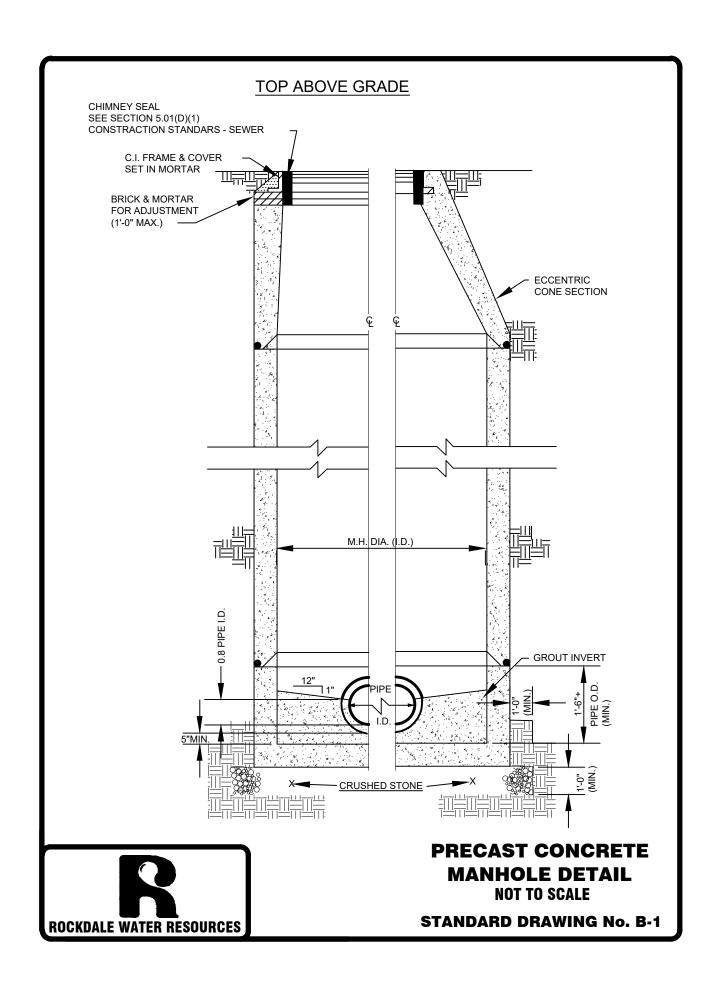
WAGE COLLECTION\Fieldstone PS\Design\CADD\03-GENERAL NOTES-FIEL

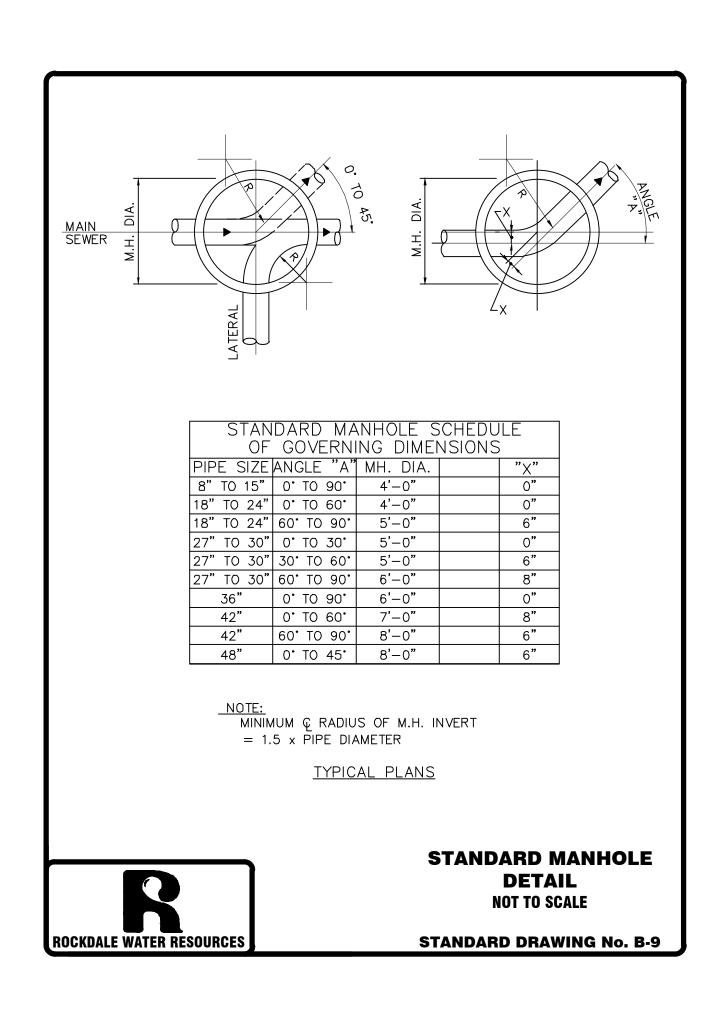


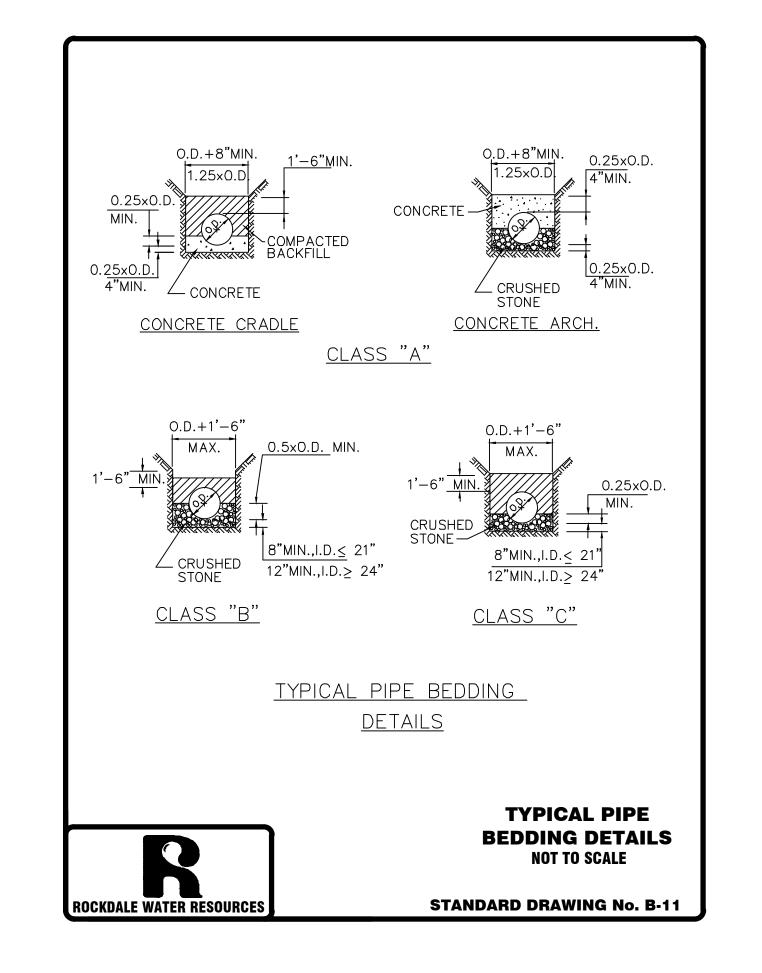
DRAWN BY: WALT BOBO CHECKED BY: DAVID CERVON 04/15/2020

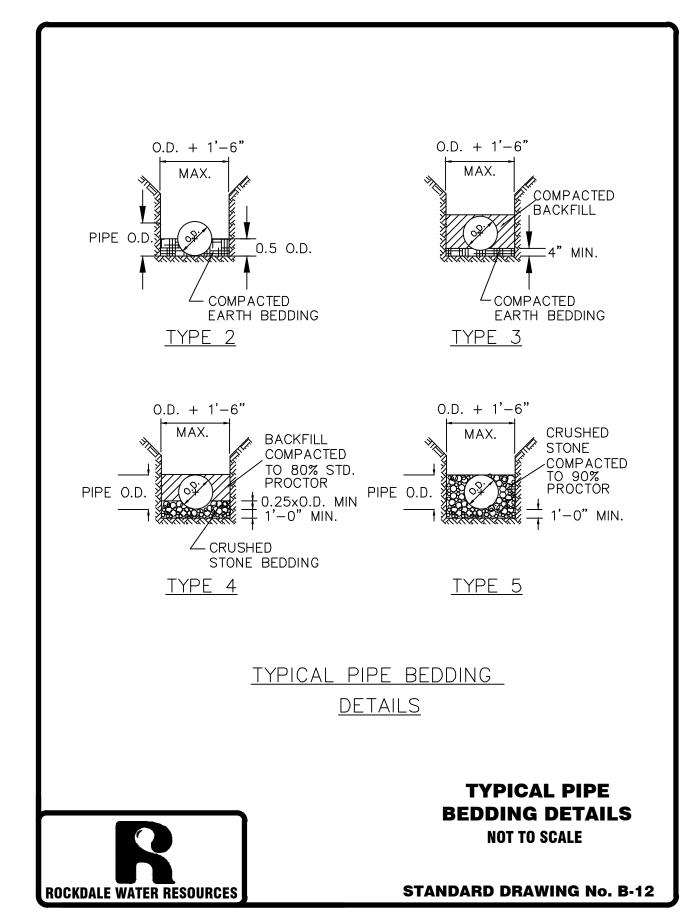
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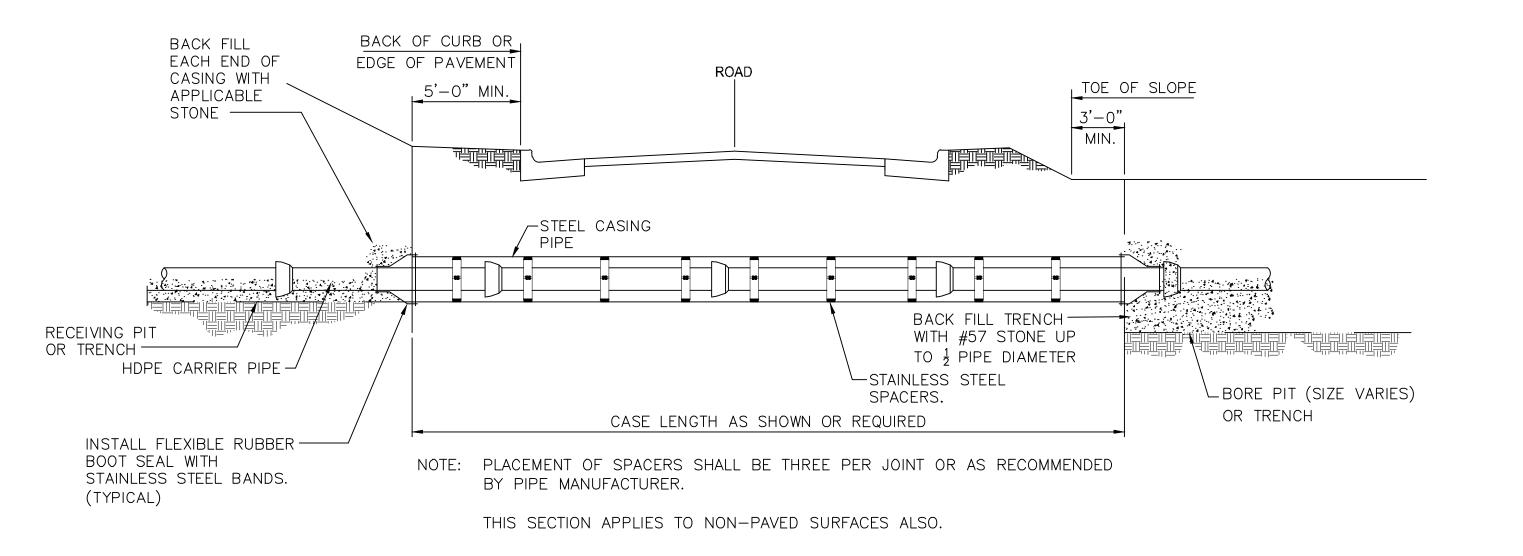




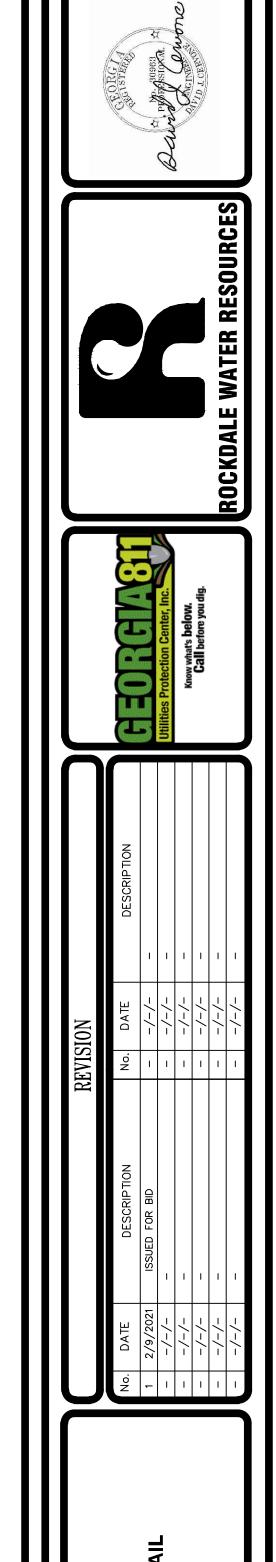








TYPICAL JACK AND BORE DETAIL



DESIGNED BY: DAVID CERVONE

DRAWN BY: WALT BOBO

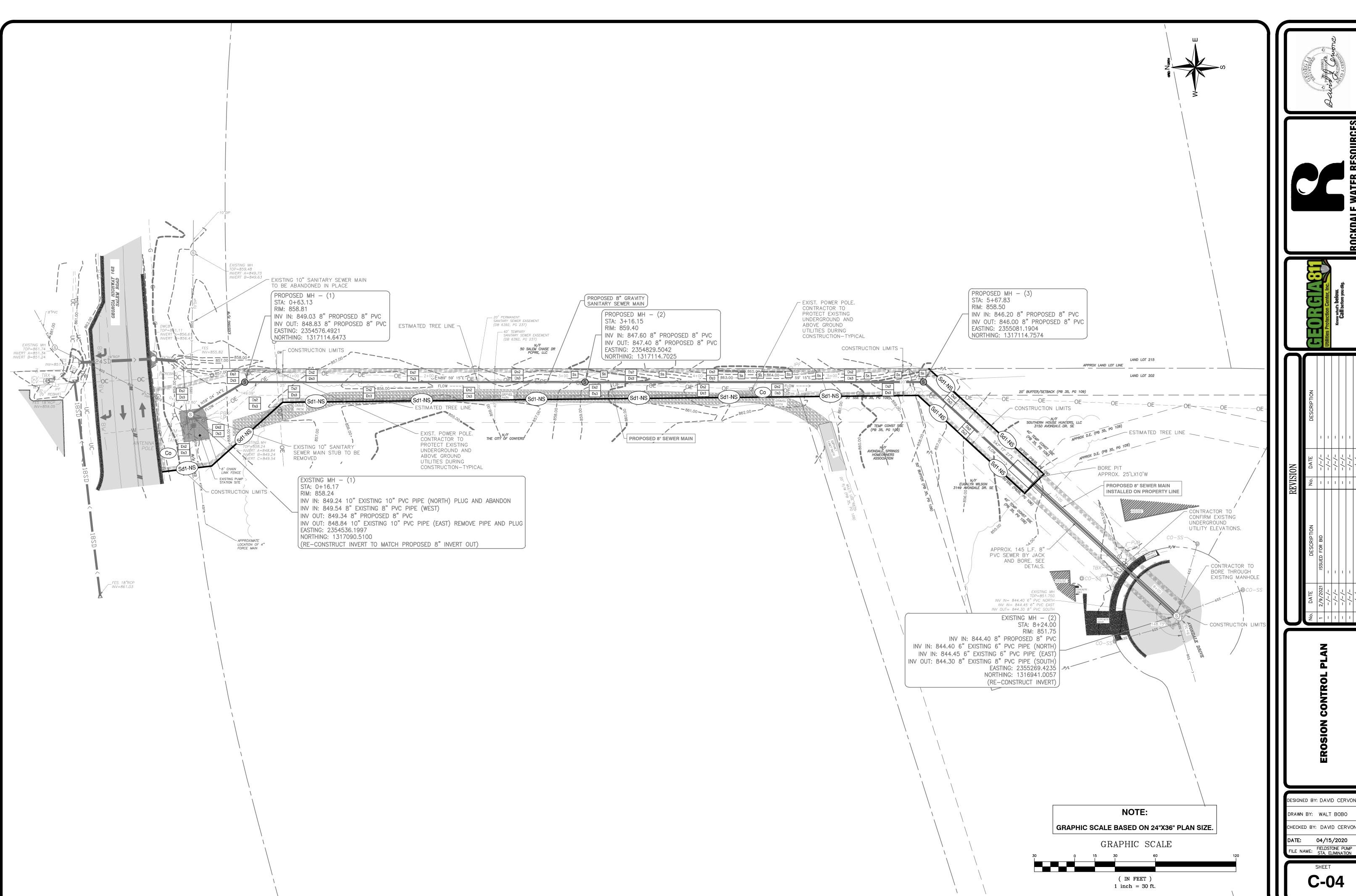
CHECKED BY: DAVID CERVONE

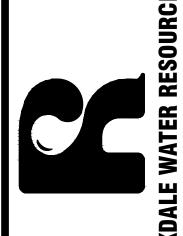
DATE: 04/15/2020

FILE NAME: FIELDSTONE PUMP

STA. ELIMINATION

SHEET







DESIGNED BY: DAVID CERVON CHECKED BY: DAVID CERVON

GENERAL NOTES

- 1. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER WORK IS IN PROGRESS.
- 2. EROSION AND SEDIMENT CONTROL SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR COMPLIANCE, INSTALLATION, MAINTENANCE AND REMOVAL AS REQUIRED BY THE STATE OF GEORGIA MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA 2016 EDITION AS PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THESE SPECIFICATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE INSTALLATION OF THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS A FIRST STEP IN CONSTRUCTION.
- 3. 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.
- 4. FAILURE TO INSTALL, OPERATE AND/OR MAINTAIN ALL EROSION CONTROL MEASURES SHALL BE JUSTIFICATION TO STOP CONSTRUCTION ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED IN ACCORDANCE WITH THE APPROVED PLANS OR AS DIRECTED BY THE ENGINEER.

SITE PREPARATION

- 1. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
- 2. MATERIAL STAGING AREA SHALL BE ENCOMPASSED WITH REFERENCED SILT FENCE.

DURING CONSTRUCTION

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL CREATED BY DRAINAGE PATTERNS AT VARIOUS STAGES DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES.
- 2. 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.
- 3. THE LOCATION OF SOME EROSION CONTROL DEVICES MAY BE ALTERED FROM THAT SHOWN ON PLANS AS APPROVED BY THE DESIGN ENGINEER AND CLAYTON COUNTY LAND DEVELOPMENT.
- 4. CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT OF WAY.
 THIS MAY REQUIRE PERIODIC DRESSING WITH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE OR SITE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN SHALL BE REMOVED IMMEDIATELY.
- 5. CONTROL DUST USING WATER OR OTHER METHODS AS REQUIRED TO PREVENT DUST FROM BEING A NUISANCE TO THE PUBLIC AND CONCURRENT WITH ON SITE WORK.
- 6. DISTURBED SOIL SHALL BE STABILIZED WITH EROSION AND SEDIMENT CONTROL MEASURES EACH DAY AND PRIOR TO ANY RAIN EVENT AS FOLLOWS. (A) DISTURBED SOIL SHALL BE RETURNED TO FINAL GRADE. (B) EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED. (C) GRADED SOIL SHALL BE TREATED WITH LIME AND FERTILIZER. (D) APPLY TEMPORARY AND/OR PERMANENT VEGETATION.
- 7. STRAW MULCHING SHALL BE USED WITH TEMPORARY AND PERMANENT VEGETATION APPLICATIONS AND SHALL BE FREE OF WEED SEEDS AND SPREAD AT A RATE OF 90 POUNDS PER 1,000 SQUARE FEET.
- 8. THE CONTRACTOR SHALL INSTALL MATTING AND BLANKETS WITHIN ALL DRAINAGE DITCHES UNLESS NOTED OTHERWISE.
- 9. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED BY THE CERTIFIED INSPECTOR AT THE END OF EACH DAYS WORK AND AT THE END OF EACH AND EVERY RAIN EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ANY FAILED OR INADEQUATELY INSTALLED SEDIMENT CONTROL DEVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES.
- 10. THE CONTRACTOR SHALL REMOVE SEDIMENT ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER.
- 11. ALL SILTS AND/OR SEDIMENT REMOVED FROM THE EROSION/SEDIMENT CONTROL DEVICES SHALL BE DISPOSED OF ONSITE IN SUCH A MANNER AS TO PREVENT SAID SILTS AND/OR SEDIMENTS FROM REENTERING THE CONTROL DEVICES AND/OR EXITING THE SITE THROUGH THE STORM DRAINAGE SYSTEMS AND/OR SURFACE DRAINAGE.
- 12. EROSION CONTROL MEASURES WILL BE MAINTAINED UNTIL ALL DISTURBED SOIL WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.

SITE COMPLETION

- 1. FINAL STABILIZATION SHALL BE WITH SAME VEGETATION AS EXISTING. UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES WILL BE CONSIDERED ACCEPTABLE WHEN 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN USED.
- 2. THE CONTRACTOR SHALL REMOVE SILT FENCE IN AREAS THAT HAVE UNDERGONE FINAL STABILIZATION AS DETERMINED BY CCWA INSPECTOR. CONTRACTOR SHALL DISPOSE SAID SILT FENCE IN ACCORDANCE WITH LOCAL REGULATIONS.
- 3. CONTRACTOR SHALL CONTACT LOCAL COUNTY EXTENSION FOR WETLAND SPECIES TO REPLANT.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND OR MAINTAINING ALL JOB SITE WORK AREAS THAT ARE BEING STABILIZED OR HAVE UNDERGONE FINAL STABILIZATION UNTIL CCWA HAS ISSUED A LETTER OF FINAL ACCEPTANCE.
- 5. THE PERSON ULTIMATELY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES ON THIS SITE AND WHO IS TO BE CONTACTED IN THE EVENT OF A STOP WORK ORDER, IS: DAVID CERVONE GSWCC LEVEL II CERTIFIED DESIGN PROFESSIONAL CERTIFICATION NUMBER: 0000074205 OFFICE 770-278-7486 MOBILE 678-476-4728
- 6. ANY REVISION TO THE PLANS AFTER THE INITIAL SUBMITTAL, OTHER THAN THE RESPONSE TO THE PLAN REVIEW COMMENTS, WILL BE INDICATED ON REVISIONS AND SUBMITTED WITH A WRITTEN EXPLANATION OF THE REVISIONS AND THE REASONS.
- 7. ANY VARIATIONS FROM THE PERMITTED PLANS, CHANGES IN DESIGN RESULTING FROM FIELD CONDITIONS, OR SUBSTITUTION OF CONSTRUCTION MATERIALS ARE TO BE REVIEWED AND APPROVED BY THE RESPONSIBLE DESIGN ENGINEER AND CLAYTON COUNTY LAND DEVELOPMENT.
- 8. PLANS ARE REVIEWED IN GENERAL. SPECIFIC DETAILS AND CALCULATIONS MAY NOT BE CHECKED. THE ENGINEERS STAMP AND SIGNATURE GUARANTEES THE ACCURACY OF THE CALCULATIONS AND DESIGN. PLAN APPROVAL DOES NOT OBLIGATE THE COUNTY TO ACCEPT THE WORK, NOR DOES IT RELIEVE THE DEVELOPER AND / OR ENGINEER FROM COMPLIANCE WITH ANY OTHER COUNTY, STATE OR FEDERAL ORDINANCES AND LAWS. PLAN APPROVAL DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR DAMAGES TO ADJACENT OR DOWNSTREAM PROPERTY RESULTING FROM THIS DEVELOPMENT.
- 9. THERE IS ESTABLISHED A 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION. NO LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED WITHIN A BUFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND-DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED. ONCE THE FINAL STABILIZATION OF THE SITE IS ACHIEVED, A BUFFER MAY BE THINNED OR TRIMMED OF VEGETATION AS LONG AS A PROTECTIVE VEGETATIVE COVER REMAINS TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY IS LEFT SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED; PROVIDED, HOWEVER, THAT ANY PERSON CONSTRUCTING A SINGLE-FAMILY RESIDENCE, WHEN SUCH RESIDENCE IS CONSTRUCTED BY OR UNDER CONTRACT WITH THE OWNER FOR HIS OR HER OWN OCCUPANCY, MAY THIN OR TRIM VEGETATION IN A BUFFER AT ANY TIME AS LONG AS PROTECTIVE VEGETATIVE COVER REMAINS TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY IS LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED.

 GEOOGGIA HOUSE BIII 1426
- 10. STREAM BANK RESTORATION AND STABILIZATION ARE REQUIRED IN ALL DISTURBED STATE WATERS BUFFERS. THE STREAM BANK CANOPY IS TO BE RESTORED WITHIN THE STATE WATERS BUFFERS. GEOMAT AND RIP RAP ARE TO BE PLACED AS NECESSARY TO PREVENT EROSION WITHIN THE STREAM BANKS.

DESCRIPTION AND CONSTRUCTION ACTIVITY

THE PROJECT CONSISTS OF INSTALLING APPROXIMATELY 808 LINEAR FEET OF 8-INCH DUCTILE IRON SANITARY SEWER MAIN AND THE REMOVAL OF A SANITARY SEWER PUMPING STATION AND SITE STRUCTURES. THE PIPE WILL BE INSTALLED FROM EXISTING PUMP STATION RUNNING EAST ACROSS THE CITY OF CONYERS PROPERTY TO AVONDALE SPRINGS SUBDIVISION LOTS 193 & 194 THEN RUNNING SOUTH EAST ALONG THE SHARED PROPERTY LINE OF LOTS 193 & 194 TO AN EXISTING SEWER MANHOLE WITHIN THE CUL DE SAC OF AVONDALE DRIVE. TOTAL PROJECT ACREAGE AND DISTURBED ACREAGE IS 0.48 IN ROCKDALE COUNTY CURRENTLY STABILIZED WITH GRASS.

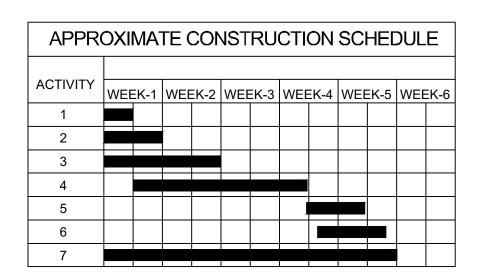
ES & PC NOTES:

- 1. INITIAL CONTROLS: INSTALL PERIMETER SILT FENCE WHERE APPLICABLE PRIOR TO CONDUCTING GRADING ACTIVITIES.
- 2. INTERMEDIATE CONTROLS: INSTALL SILT FENCE, CHECK DAMS, MATTS AND BLANKETING, TEMPORARY/PERMANENT SEEDING WITH MULCH AND GRAVEL (PAVEMENT AREAS) EVERY DAY AND PRIOR TO ANY RAIN EVENT.
- 3. FINAL CONTROLS: INSTALL TEMPORARY/PERMANENT SEEDING WITH MULCH EVERY DAY AND PRIOR TO ANY RAIN EVENT. INSTALL PAVEMENT TO MATCH EXISTING PAVEMENT AS CONDITIONS PERMIT.

CONSTRUCTION SCHEDULE

START PROJECT DATE: XX/XX/XXXX
COMPLETE PROJECT DATE: XX/XX/XXXX

- 1. INSTALL EROSION CONTROL FENCE.
- 2. CLEAR, CRUB AND GRADE SITE.
- 3. INSTALL AND MAINTAIN GRASSING AND MULCH (TEMPORARY VEGETATION)
- 4. CONSTRUCT WATER MAIN.
- 5. FINE GRADING.
- 6. FINAL STABILIZATION (PERMANENT VEGETATION), CLEAN STORM DRAIN SYSTEM.
- 7. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.











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OSION CONTROL NOTES

DESIGNED BY: DAVID CERVON

DRAWN BY: WALT BOBO

CHECKED BY: DAVID CERVON

DATE: 04/15/2020

ILE NAME: FIELDSTONE PUMP

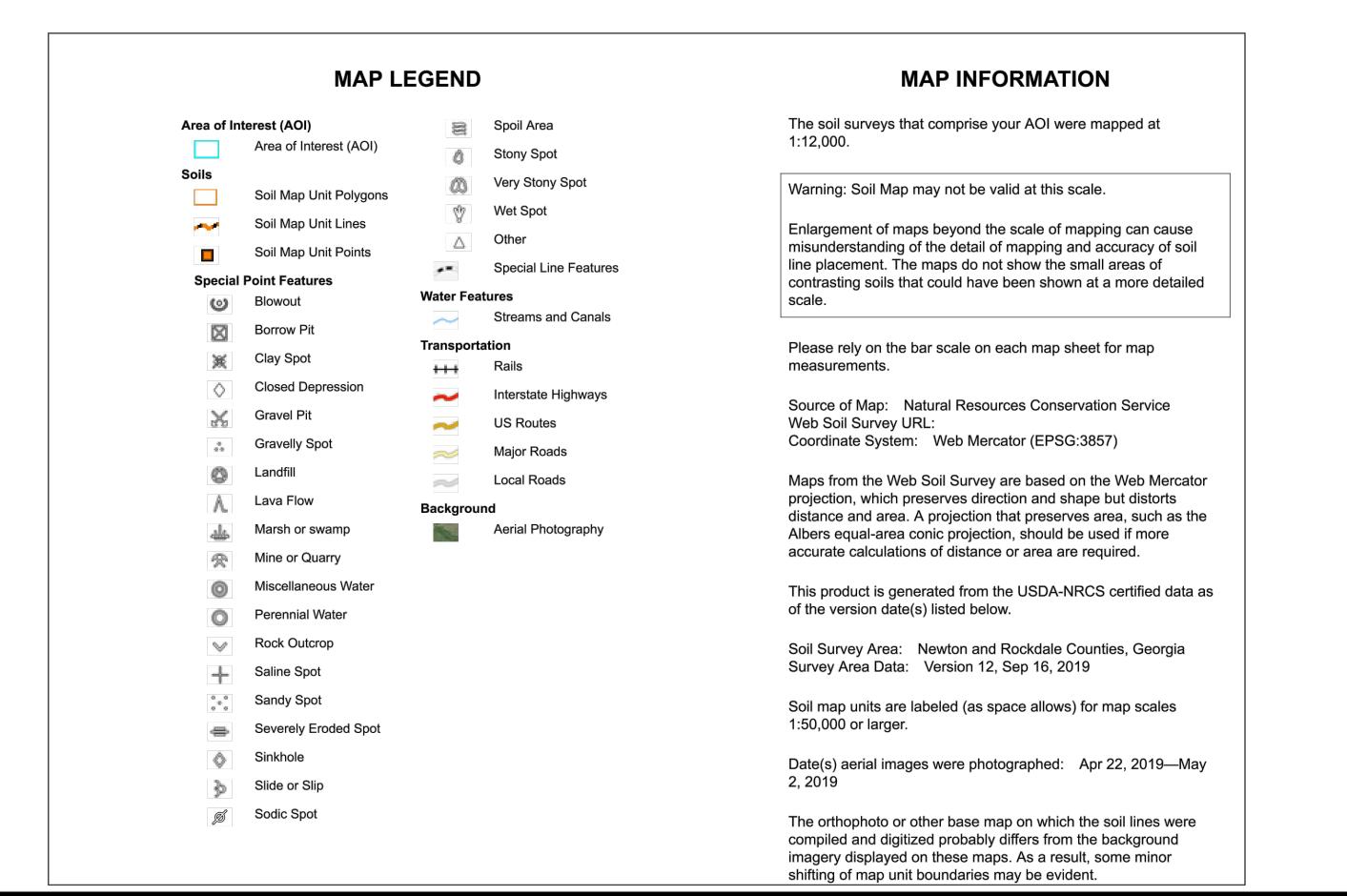
STA. ELIMINATION

SHEET **C-05**

VAGE COLLECTION/Fieldstone PS\Design\CADD\06-CIVIL&EROSION DETAILS-FIELDS

Custom Soil Resource Report

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



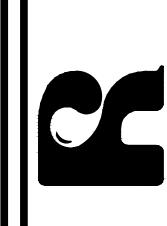
Custom Soil Resource Report

Map Unit Legend

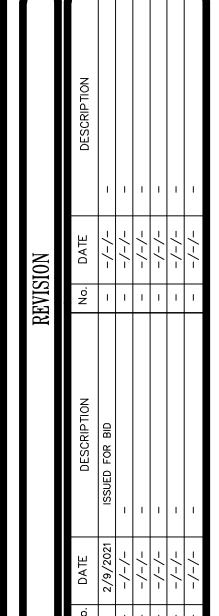
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AmB	Appling sandy loam, 2 to 6 percent slopes	2.5	1.4%
AmC	Appling sandy loam, 6 to 10 percent slopes	10.1	5.7%
CCA	Cartecay and Chewacla soils, frequently flooded	4.4	2.5%
СеВ	Cecil sandy loam, 2 to 6 percent slopes	75.9	42.6%
CeC	Cecil sandy loam, 6 to 10 percent slopes	3.8	2.1%
CfC2	Cecil sandy clay loam, 6 to 10 percent slopes, eroded	7.8	4.4%
CuC	Cecil-Urban land complex, 2 to 10 percent slopes	38.4	21.5%
НаВ	Helena sandy loam, 2 to 6 percent slopes	5.5	3.1%
PaC	Pacolet sandy loam, 6 to 10 percent slopes	17.0	9.5%
PfD2	Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	0.9	0.5%
Та	Toccoa fine sandy loam, rarely flooded	10.7	6.0%
W	Water	1.1	0.6%
Totals for Area of Interest		178.1	100.0%











DESIGNED BY: DAVID CERVON DRAWN BY: WALT BOBO CHECKED BY: DAVID CERVONI 04/15/2020

C-06

LE NAME: FIELDSTONE PUMP STA. ELIMINATION

HECKED BY: DAVID CERVON 04/15/2020

GEORGIA Major Land Resource Areas 128 Southern Appalachian Ridges and Valleys 129 Sand Mountain 130B Southern Blue Ridge 133A Southern Coastal Plain 136 Southern Piedmont 137 Carolina and Georgia Sand Hills 153A Atlantic Coast Flatwoods 153B Tidewater Area

82°0'0"W

85°0'0"W

DEFINITION

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

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

TEMPORARY SEEDING

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

variations and conditions.

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

SPECIFICATIONS

sediment barriers and others.

Seedbed Preparation

lodge and germinate.

Lime and Fertilizer

SEEDING RATES FOR

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

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

4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

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

No shaping or grading is required if slopes can be stabilized by hand-seeded

When a hydraulic seeder is used, seedbed preparation is not required. When

using conventional or handseeding, seedbed preparation is not required if the

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil

shall be pitted, trenched or otherwise scarified to provide a place for seed to

Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate of one ton per acre. Graded areas require lime

application. Soils can be tested to determine if fertilizer is needed. On reasonably fertile soils or soil material, fertilizer is not required. For soils with

land preparation and incorporated with a disk, ripper or chisel.

be "raked" lightly to cover seed with soil if seeded by hand.

Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

very low fertility, 500 to 700 pounds of 10-10-10 fertilizer or the equivalent per acre (12-16 lbs./1,000 sq. ft.) shall be applied. Fertilizer should be applied before

Select a grass or grass-legume mixture suitable to the area and season of the

year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker

cultipacker seeders should normally place seed one-quarter to one-half inch

Temporary vegetation can, in most cases, be established without the use of

mulch. Mulch without seeding should be considered for short term protection.

During times of drought, water shall be applied at a rate not causing runoff and

germination of the seed. Subsequent applications should be made when needed.

erosion. The soil shall be thoroughly wetted to a depth that will insure

deep. Appropriate depth of planting is ten times the seed diameter. Soil should

seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or

vegetation or if hydraulic seeding equipment is to be used.

soil material is loose and not sealed by rainfall.

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting. 2. For nursery stock plants, holes shall be large enough to accommodate roots

without crowding. 3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Hydraulic Seeding

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

Conventional Seeding

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

No-Till Seeding

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

Individual Plants

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

DEFINITION

A permanent vegetation using sods on highly erodible or critically eroded lands.

This application is appropriate for areas which require immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow.

CONSTRUCTION SPECIFICATIONS INSTALLATION

- Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils.

- Topsoil properly applied will help guarantee stand. Don't use topsoil recently treated with herbicides or soil sterilants. - Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.

Table 6-6.1. Fertilizer Requirements for Soil Surface Application				
Fertilizer Type (lbs./acre)	Fertilizer Rate (lbs./acre)	Fertilizer Rate	Seaso	

(103./4010)	(103.74616)				
10-10-10	1000	.025	Fall		
Agricultural lime should be applied based on soil tests or at a rate of 1 to 2					

- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod. - On slopes steeper than 3:1, sod should be anchored with wooden or

biodegradable pins or other approved methods. - Installed sod should be rolled or tamped to provide good contact between sod

- Irrigate sod and soil to a depth of 4" immediately after installation. - Sod should not be cut or spread in extremely wet or dry weather. - Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

DISTURBED AREA STABILIZATION (WITH SODDING)

MATERIALS

- Sod selected should be certified. Sod grown in the general area of the project

- Sod should be machine cut and contain 3/4" ±1/4" of soil, not including shoots

- Sod should be cut to the desired size within ±5%. Torn or uneven pads shoul - Sod should be cut and installed within 36 hours of digging.

- Avoid planting when subject to frost heave or hot weather if irrigation is not - The sod type should be shown on the plans or installed according to Table 6-6.2. See Figure 6-4.1 for your Resource Area. Table 6-6.2 Sod Planting Requirements

able 6-6.2. 300 FI	anting requirements			
Grass	Varieties	Resource Area	Growing Seas	
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L,P,C P,C P,C P,C	Warm Weatl	
Bahiagrass	Pensacola	P,C	Warm Weatl	
Centipede	-	P,C	Warm Weatl	
St. Augustine	Common Bitterblue Raleigh	С	Warm Weath	
Zoysia	Emerald Myer	P,C	Warm Weatl	
Tall Fescue	Kentucky	M-L,P	Cool Weath	

• Re-sod areas where an adequate stand of sod is not obtained. • New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified. • Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.

• Fertilize grasses in accordance with soil tests or Table 6-6.3. Table 6-6.3. Fertilizer Requirements for Sod

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
Cool	First	6-12-12	1500	50-100
Season	Second	6-12-12	1000	-
Grasses	Maintenance	10-10-10	400	30
Warm	First	6-12-12	1500	50-100
Season	Second	6-12-12	800	50-100
Grasses	Maintenance	10-10-10	400	30

DEFINITION

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

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

SPECIFICATIONS

Grading and Shaping

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

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

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

Seedbed Preparation

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

Broadcast plantings

. Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches; alleviate compaction; incorporate lime and fertilizer; smooth and firm the soil; allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used. Tillage may be done with any suitable equipment.

3. Tillage should be done on the contour where feasible.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

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

1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry discoloration. straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at 2. Hay and straw mulch shall be pressed into the soil immediately after the a rate of 2 1/2 tons per acre. 2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Drystraw or dry

hay shall be applied (at the rate indicated above) after hydraulic seeding. 3. One thousand pounds of wood cellulose or wood pulp fiber, which includes a leaving much of it in an erect position. Mulch shall not be plowed into the soil. tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper. 4. Sericea lespedeza hay containing mature seed shall be applied at a rate of

5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding Tb - Tackifiers and Binders. purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas

6. When using temporary erosion control blankets or block sod, mulch is not

7. Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and Irrigation materials must meet Georgia Department of Transportation specifications.

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

Applying Mulch

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

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

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following 1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is

ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment.

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of

Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt

mulch is spread. A special "packer disk" or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to

4. Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one half bushel per acre. 5. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to

manufacturer's specifications.

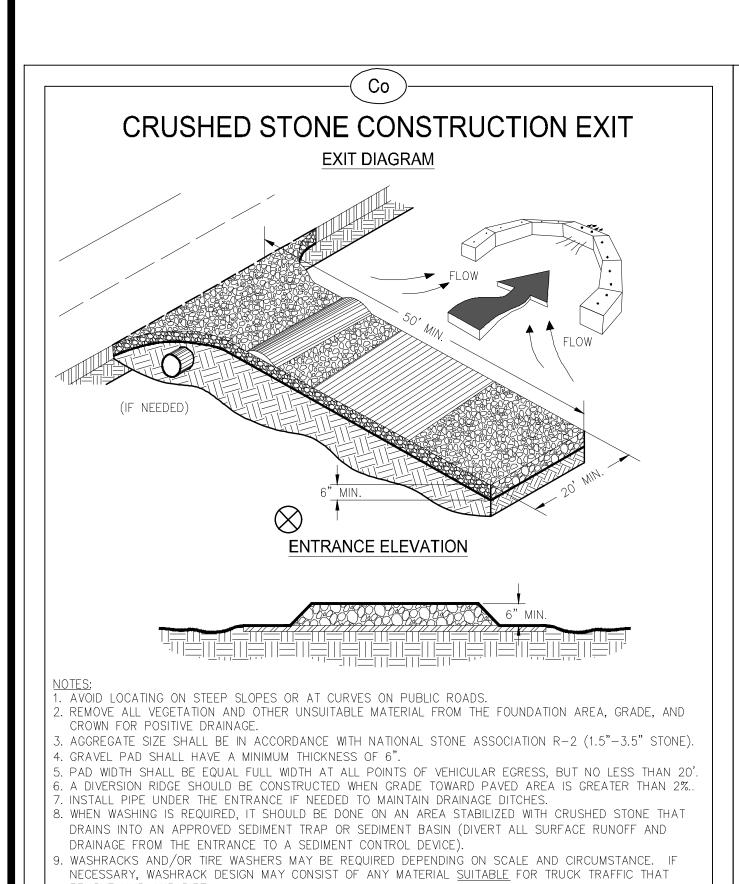
Irrigation shall be applied at a rate that will not cause runoff.

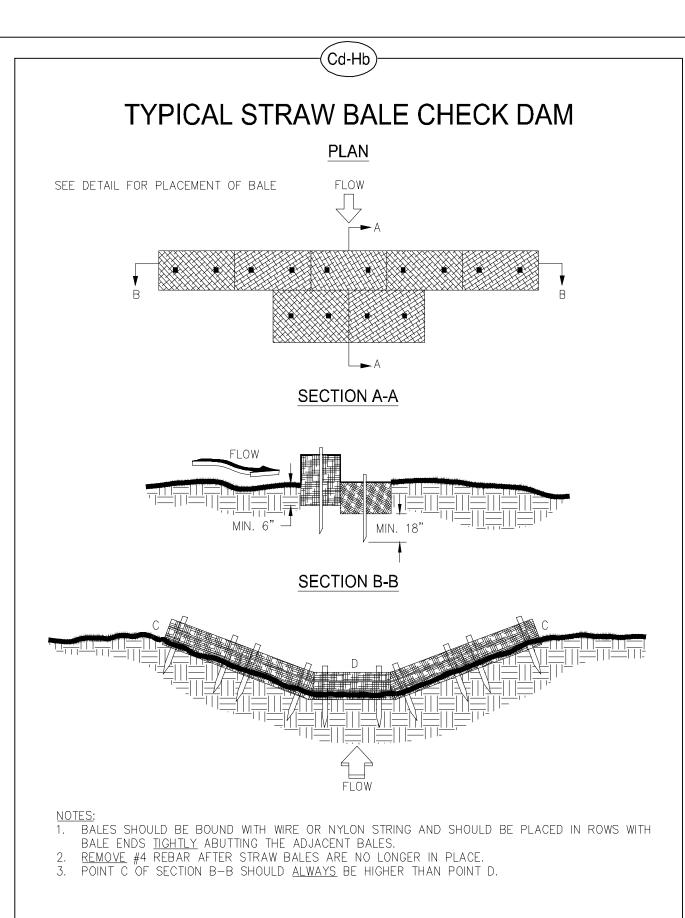
SEEDING RATES FOR PERMANENT SEEDING

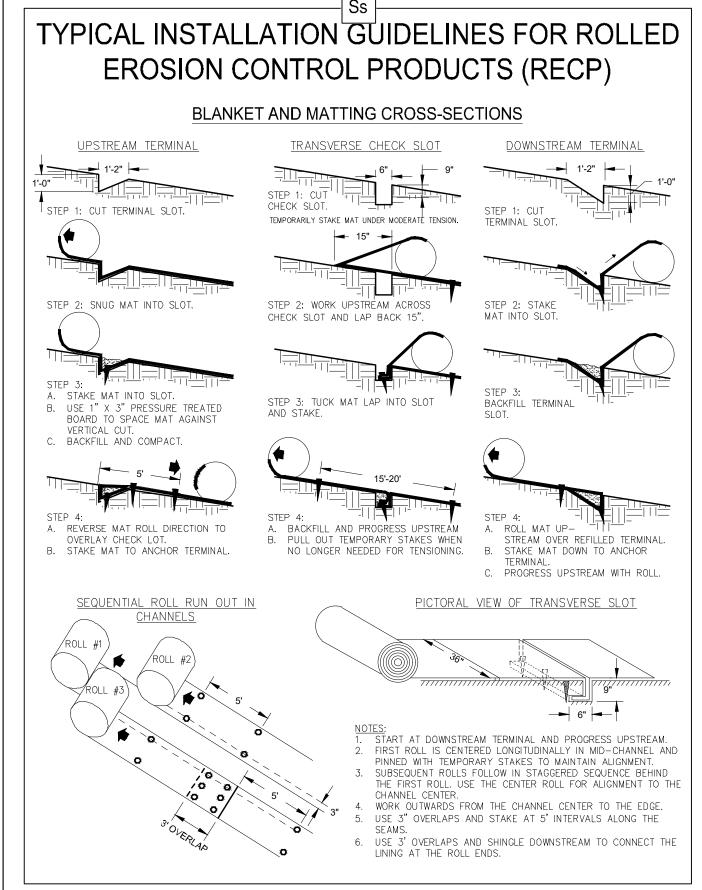
SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **	
BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31	
BERMUDA	0.2 POUND	10 LBS.	2/15-7/1	
CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1	
LESPEDEZA	1.7 POUNDS	75 LBS.	1/1-12/31	
WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15	
SWITCH GRASS	0.9 POUND	40 LBS.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

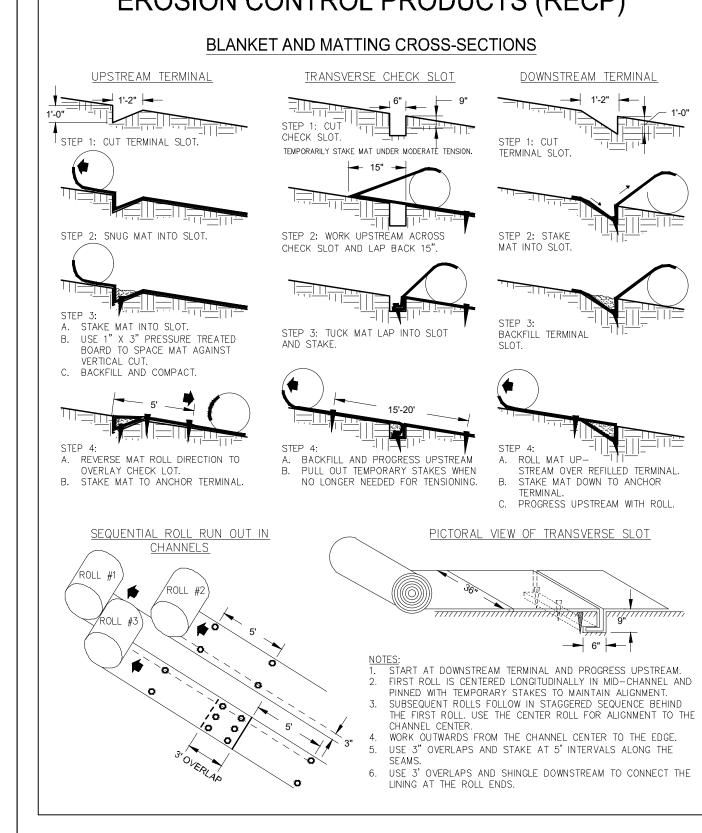
** Seeding dates may need to be altered to fit temperature variations and conditions.

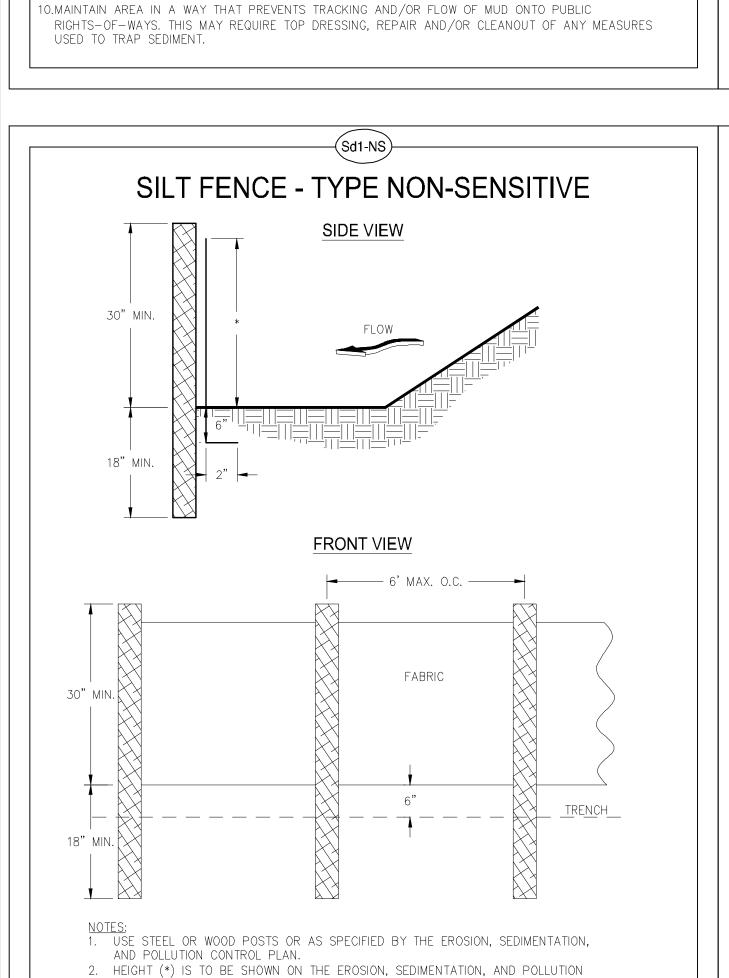
ESIGNED BY: DAVID CERVON DRAWN BY: WALT BOBO

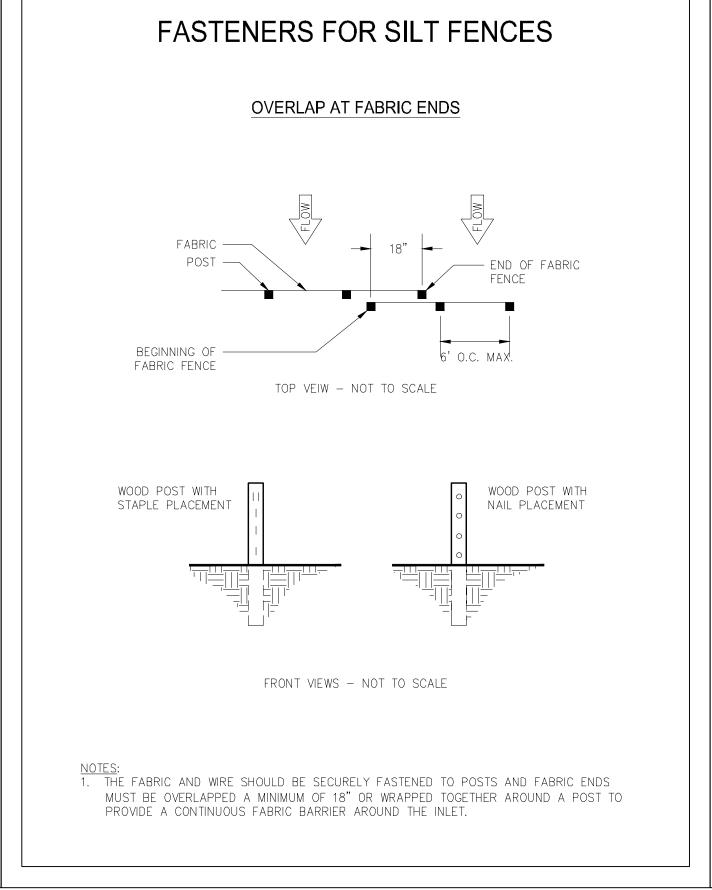


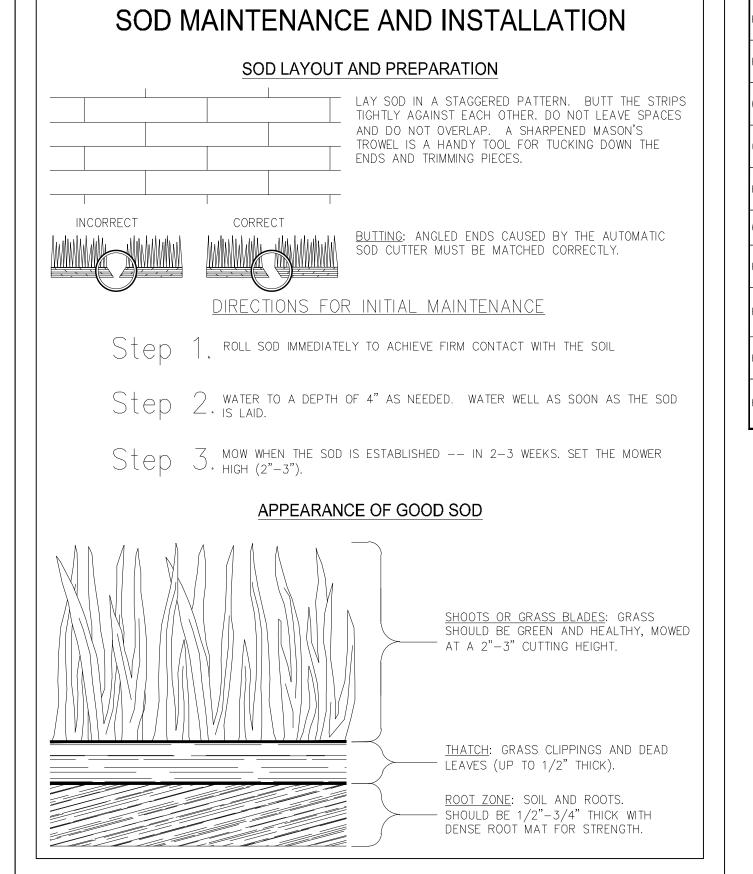












GEORGIA UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES					STRUCTURAL PRACTICES				
Œ	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
)	CHECKDAM		\$	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	Sr	TEMPORARY STREAM CROSSING		(AREL)	A temporary bridge or culvert—type structure protecting a stream or watercourse from damage by crossing construction equipment.
)	CHANNEL STABILIZATION		1	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	St	STORMDRAIN OUTLET PROTECTION		(3)	A paved or short section of riprap channel at the outlet of a storm drain system preventing erasion from the concentrated runoff.
)	CONSTRUCTION EXIT		(MBD)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.	Su	SURFACE ROUGHENING		⊢(Su)−1	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
(CONSTRUCTION ROAD STABILIZATION		© Co	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on—site vehicle transportation routes.	Tc	TURBIDITY CURTAIN		То	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
)	STREAM DIVERSION CHANNEL		*	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Тр	TOPSOILING		(SHOW STRIPING AND STORAGE AREAS)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.	Tr	TREE PROTECTION VEGETATED	0	(DENOTE TIME CENTERS)	To protect desirable trees from injury during construction activity.
<u>)</u>	TEMPORARY DOWNDRAIN STRUCTURE		Dn1 (LABO)	A flexible conduit of heavy—duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.	Wt	WATERWAY OR STORMWATER CONVEYANCE			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.
2)	PERMANENT DOWNDRAIN STRUCTURE		Dn2 (uea)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.					
)	FILTER RING	U		A temporary stone barrier constructed at storm drain inlets and pond outlets.	VEGETATIVE PRACTICES				
	GABION		1	Rock filter baskets which are hand—placed into position forming soil stabilizing structures.	CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
)	GRADE STABILIZATION STRUCTURE		(LARD)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.	Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
)	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.	Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)	James de	Cs (LABIL)	Planting vegetation on dunes that are denuder artificially constructed, or re-nourished.
)	ROCK FILTER DAM		1	A permanent or temporary stone filter dam installed across small streams or drainageways.	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.
	RETAINING WALL		Re (LASE)		Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
	RETRO FITTING		(UMEL)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)	11, 11, 10 a so	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
)			(LABLL)	A bandar de marrado aprilar colo forma la col	<u>L</u>	1			
<u>)</u>	SEDIMENT BARRIER		(NDICATE TYPE)	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, lags and poles, gravel, or a silt fence. An impounding area created by excavating	Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.

around a storm drain drop inlet. The excavated area will be filled and stabilized

ediment to drop out.

completion of construction activities. A basin created by excavation or a dam across a waterway. The surface water run is temporarily stored allowing the bulk of

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 rise

A buoyant device that releases/drains water from the surface of sediment ponds, traps, basins at a controlled rate of flow.

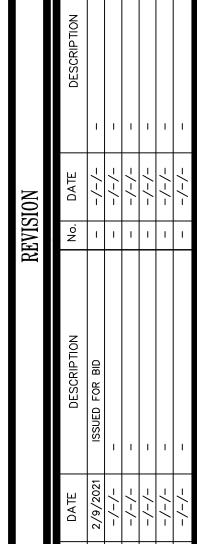
Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration while creating multiple sedimentation chamb











Du Controlling surface and air movement of dust on construction site, roadways and similar sites. Controlling surface and air movement of

The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and report englishments.

A protective covering used to prevent erosic and establish temporary or permanent vegetation on steep slopes, share lines, or

Substance used to anchor straw or hay mulch by causing the organic material to bind together.

particles in solution.

Substance formulated to assist in the FI-Co solids/liquid separation of suspended

repair small streambank erosion problems.

ESIGNED BY: DAVID CERVON DRAWN BY: WALT BOBO CHECKED BY: DAVID CERVON 04/15/2020 FIELDSTONE PUMP NAME: STA. ELIMINATION