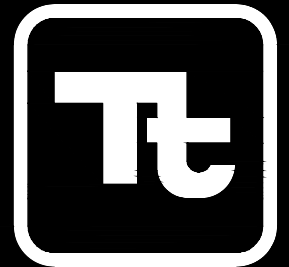


FAYETTE COUNTY RISING STAR CULVERT REPLACEMENT PROJECT PROJECT NUMBER 6509C

1899 POWERS FERRY ROAD SE, SUITE 400
ATLANTA, GA 30339
TEL: (770) 850-0949 FAX: (770) 850-0950



TETRA TECH

www.tetrattech.com

PROJECT LOCATION:
121 RISING STAR RD
FAYETTEVILLE, GA 30215

CLIENT INFORMATION:

Tt PROJECT No.:
200-01297-16022

CLIENT PROJECT No.:

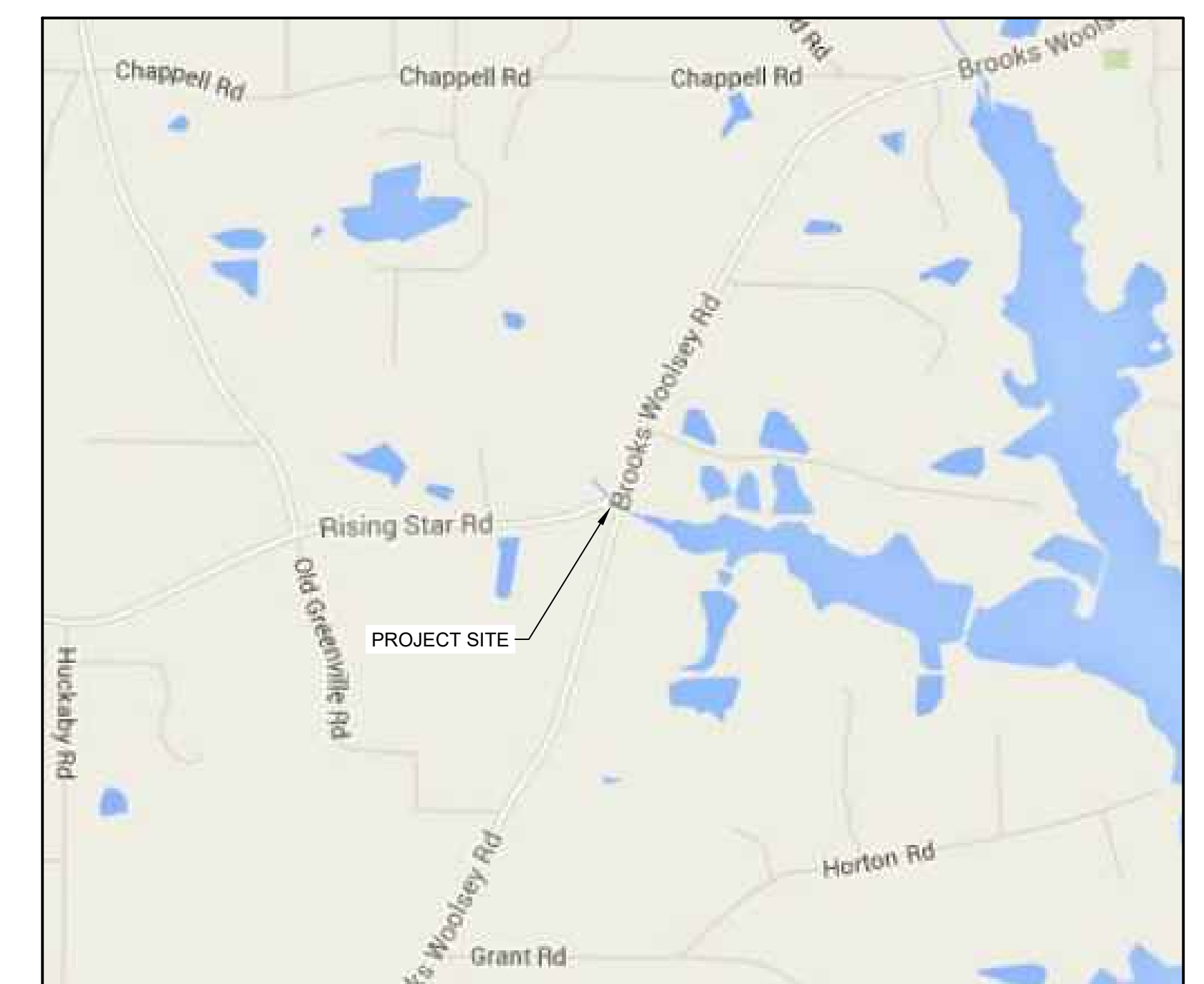
PROJECT DESCRIPTION / NOTES:

REFERENCE DATUM: NAD83 GEORGIA STATE PLANE, WEST ZONE, US FOOT

ISSUED:

ISSUED FOR CONSTRUCTION - 5/26/2017

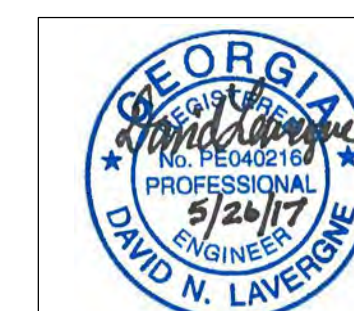
VICINITY MAP:



NOT TO SCALE



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GSWCC LEVEL II
CERT. # 0000073529

LIST OF STANDARD ABBREVIATIONS

A	AAP ALARM ANNUNCIATOR PANEL	E	EAST	LEN	LENGTH	RR	RAILROAD
AARV	AUTOMATIC AIR RELEASE VALVE	EA	EACH	LB	LINEAR FEET	RT	RIGHT
AAV	AUTOMATIC AIR VENT	ECC	ECCENTRIC	LF	LIGHT POLE	RVT	RIVETED
AB	ANCHOR BOLT	LS	LINE SLURRY	LP	LINE POLE	RW	RAW WATER
ABAN	ABANDON(ED)	EFF	EFFLUENT	LSS	LIME STABILIZED SLUDGE	RWW	RAW WASTEWATER
ABRSV	ABRASIVE	EFL	EASEMENT LINE	LVR	LOUVER	R/W	RIGHT-OF-WAY
ABS	ACRYLONITRILE BUTADIENE STYRENE	EL	ELEVATION	LWL	LOW WATER LEVEL	S	SOUTH
ABV	ABOVE	ELAST	ELASTOMERIC	M	METER	SA	SAMPLE LINE
AC	ALTERNATING CURRENT	ELEC	ELECTRICAL	MAINT	MAINTAIN OR MAINTENANCE	SAN	SANITARY
ACOMP	ASPHALT-COATED CORRUGATED METAL PIPE	EMER	EMERGENCY	MAN	MANUAL(LY)	SCHED	SCHEDULE
ACP	ASBESTOS CEMENT PIPE	EMC	ENCASE(MENT)	MAS	MASONRY	SD	STORM DRAIN
ADDM	ADDENDUM	ENGR	ENGINEER	MATL	MATERIAL	SE	SOUTHEAST
ADH	ADHESIVE	EP	EDGE OF PAVEMENT	MAX	MAXIMUM	SECT	SECTION
AFF	ABOVE FINISHED FLOOR	EPDM	ETHYLENE PROPYLENE DIENE MONOMER	MOC	MOTOR CONTROL CENTER	SEFF	SECONDARY EFFLUENT
AFG	ABOVE FINISHED GRADE	EQ	EQUIPMENT	ME	METERED END	SF	SQUARE FOOT OR FEET
AFS	ABOVE FINISHED SLAB	ER	ECCENTRIC REDUCER	MECH	MECHANICAL	SHT	SHEET(ED)(ING)
AHD	AHEAD	ESTM	EASEMENT	MFG	MATCH EXISTING GRADE	SIG	SIGNAL
AL	ALUMINUM	EST	ESTIMATE(D)	MFR	MANUFACTURE(R)	SIM	SIMILAR
ALT	ALTERNATE	EW	EACH WAY	MG	MILLION GALLONS	SL	SLUDGE
AMP	AMPERE	EXC	EXCAVATE	MGD	MILLION GALLONS PER DAY	SLV	SLEEVE
AMT	AMOUNT	EX	EXPANSION	MH	MANHOLE	SM	SHEET METAL
APRX	APPROXIMATE(LY)	EXST	EXISTING	MI	MILE(S)	SOLN	SOLUTION
ARCH	ARCHITECT(URAL)	EXST GR	EXISTING GRADE	MIN	MINIMUM, MINUTE(S)	SP	SOIL PIPE, SPACE(ING)
AS	ALUM SOLUTION	EXT	EXTERIOR	MISC	MISCELLANEOUS	SPEC	SPECIFICATION
ASPH	ASPHALT	EXTN	EXTENSION	MJ	MECHANICAL JOINT	SQ	SQUARE
ASSY	ASSEMBLY	F	FABRICATE(D)	MIXED LIQ	MIXED LIQUOR	SQ	SANITARY SEWER
AVE	AVENUE	FAB	FABRICATE(D)	MO	MASONRY OPENING	SSE	SUBSTANDARD EFFLUENT
A/C	AIR CONDITIONING	FCA	FLANGED COUPLING ADAPTER	MON	MONUMENT	SST	STAINLESS STEEL
A/VV	AIR/VACUUM AIR VALVE	FB	FLAT BAR	MPH	MILES PER HOUR	ST	STREET
B	BAFFLE	FCV	FLOW CONTROL VALVE	MPT	MALE PIPE THREAD	STA	STATION
BCV	BALL CHECK VALVE	FD	FLOOR DRAIN	MSP	MOTOR STARTER	STD	STANDARD
BF	BLIND FLANGE	FDN	FOUNDATION	MTD	MOUNTED	STK	STEEL
BFV	BUTTERFLY VALVE	FE	FILTER(ED) EFFLUENT	MV	MOTORIZED VALVE	STR	STRAIGHT
BHP	BRAKE HOSEPOWER	FEH	FIRE HYDRANT	MW	MANWAY	STRUCT	STRUCTURAL
BI	BLACK IRON	FIG	FIGURE	MWL	MEAN WATER LEVEL	SURF	SURFACE
BITUM	BITUMINOUS OR BITUMASTIC	FIN	FINISHED	MWP	MAXIMUM WORKING PRESSURE	SVCE	SERVICE
B/L	BASELINE	FIN FLR	FINISH FLOOR	N	NORTH	SW	SERVICE WATER
BLDG	BUILDING	FIN GR	FINISH GRADE	NaOCl	SODIUM HYPOCHLORITE	SWD	SOUTHWEST
BLK	BLOCK	FL	FLUORIDE	NE	NORTH EAST	SWH	SEWER WASH
BM	BENCH MARK	FLG	FLANGE(D)	NE	NORTH EAST	SYMBL	SYMBOL
BOC	BACK OF CURB	FLI	FLOW LINE	NO	NOT IN CONTRACT	SYMM	SYMMETRICAL
BOT	BOTTOM	FLTR	FILTER	NOM	NOMINAL	SW	SIDEWALK
BP	BASE PLATE	FM	FORCE MAIN	NPF	NATIONAL PIPE THREAD	T	TANGENT
BRG	BEARING	FPM	FEET PER MINUTE	NPT	NATIONAL PIPE THREAD (THREAD)	TAN	TANGENT
BSP	BLACK STEEL PIPE	FPS	FEET PER SECOND	NPW	NON-POTABLE WATER	TB	TOP OF BEAM
BV	BALL VALVE	FRP	FIBERGLASS REINFORCED	NRS	NON-RISING SYSTEM	TB-xx	TEST BORING-xx (e.g. TB-1)
BW	BOTH WAYS	FT	FOOT OR FEET	NTS	NOT TO SCALE	TD	TRENCH DRAIN
BWW	BACKWASH WATER	FUT	FUTURE	NW	NORTHWEST	TDH	TOTAL DYNAMIC HEAD
C	CAPACITY	FV	FOOT VALVE	N/A	NOT APPLICABLE	TE	TOTALLY ENCLOSED
CA	COMPRESSED AIR	FW	FINISHED WATER	O	OXYGEN	TEFC	TOTALLY ENCLOSED FAN COOLED
CAV	COMBINATION AIR VALVE	FWP	FACTORY WIRED PANEL	O2	OXYGEN	TEL	TELEPHONE
CB	CATCH BASIN	F/F	FACE TO FACE	OC	ON CENTER	TENV	TOTALLY ENCLOSED NON-VENTILATED
CCC	CHLORINE CONTACT CHAMBER	G	GALLON(S)	OD	OUTSIDE DIAMETER	THD	THREADED
CE	CHLORINATED EFFLUENT	GAL	GALLON(S)	ODP	OPEN DRIP PROOF	THK	THICKNESS
CFM	CUBIC FEET PER MINUTE	GALV	GALVANIZED	OF	OUTSIDE FACE	TLM	TELEMETRY
CFS	CUBIC FEET PER SECOND	GALVZ	GALVANIZED IRON PIPE	OH	OVER HEAD	TOB	TOP OF BANK
CV	CHECK VALVE	GJ	GROOVE JOINT	OHW	OVER HEAD WIRE	TOC	TOP OF CURB
CI	CAST IRON	GND	GROUND	OPP	OPPOSITE	TOS	TOE OF SLOPE
CIP	CAST IRON PIPE	GPD	GALLONS PER DAY	OPT	OPTIONAL	TOT	TOTAL
CISP	CAST IRON SOIL PIPE	GPH	GALLONS PER HOUR	OR	OFFICIAL RECORDS	TP	TELEPHONE POLE
CJ	CONSTRUCTION JOINT	GPM	GALLONS PER MINUTE	OSY	OUTSIDE SCREW AND YOKE OPERATION AND MAINTENANCE	TS	THICKENED SLUDGE
CKT	CIRCUIT	GPS	GALLONS PER SECOND	O&M	OPERATION AND MAINTENANCE	TV	TELEVISION
CL	CENTER LINE	GR	GRADE	P	PROCESS AIR	TYP	TYPICAL
CL2	CHLORINE GAS	GRTG	GRATING	PA	POINT OF CURVE	T&B	TOP AND BOTTOM
CLF	CHAIN LINK FENCE	GS	GALVANIZED STEEL	PC	PERMANENT CONTROL MONUMENT	U	UNDERDRAIN
CLR	CLEAR OR CLEARANCE	GSP	GALVANIZED STEEL PIPE	PCM	PERMANENT CONTROL MONUMENT	UD	UNDERGROUND
CLVT	CULVERT	GSR	GROUND STORAGE RESERVOIR	PE	PLAIN END	UG	UNDERGROUND
CMP	CORRUGATED METAL PIPE	GST	GROUND STORAGE TANK	PG	PRESSURE GAGE	ULT	ULTIMATE
CMPA	CORRUGATED METAL PIPE ARCH	GT	GROUT	PI	POINT OF INTERSECTION	UN	UNLESS OTHERWISE NOTED
CMU	CONCRETE MASONRY UNIT	GV	GATE VALVE	PL	PLATE	UNON	UNDERGROUND ELECTRIC CABLE
CND	CONDUIT	H	HOSE BIBB	PL	PROPERTY LINE	UTC	UNDERGROUND TELEPHONE CABLE
CNR	CORNER	HD	HEAVY DUTY	PIN	PINCH VALVE	UTL	UTILITY
CO2	CARBON DIOXIDE	HDPE	HIGH-DENSITY POLYETHYLENE	POB	POINT OF BEGINNING	V	VOLT(S)
COAG	COAGULANT	HDR	HYDRAULIC	POJ	PUSH-ON JOINT	VAC	VACUUM
COL	COLUMN	HFA	HYDROFLUOSILICIC ACID	POL	POLYMER	VAR	VARIABLE
COM	COMMON	HGR	HANGER	PP	POWER POLE	VC	VERTICAL CURVE
CONC	CONCRETE	HGT	HEIGHT	PPD	POUNDS PER DAY	VCP	VITRIFIED CLAY PIPE
CONN	CONNECTION	HNDRL	HAND RAIL	PPM	PARTS PER MILLION	VEL	VELOCITY
CONSTR	CONSTRUCTION(ION)	HOA	HAND-OFF-AUTO	PREFAB	PREFABRICATED	VERT	VERTICAL
CONT	CONTINUOUS	HORIZ	HORIZONTAL	PRESS	PRESSURE	VFD	VARIABLE FREQUENCY DRIVE
CONTR	CONTRACT(OR)	HP	HORSEPOWER	PRV	PRESSURE REDUCING VALVE	VOL	VOLUME
COORD	COORDINATE	HPA	HIGH PRESSURE AIR	PRW	PROCESS WATER	W	WATT, WEST
CO	CONCRETE PIPE	HR	HOUR	PSR	POUNDS PER SQUARE FOOT	WAS	WASTE ACTIVATED SLUDGE
CPA	CONCRETE PIPE ARCH	HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	PSI	POUNDS PER SQUARE INCH	WCO	WALL CLEAN OUT
CPLG	COUPLING	HWL	HIGH WATER LEVEL	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	WF	WIDE FLANGE
CPVC	CHLORINATED POLYVINYL CHLORIDE	HWY	HIGHWAY	PSIG	POUNDS PER SQUARE INCH GAGE	WH	WALL HYDRANT
CR	CONCENTRIC REDUCER	HZ	HERTZ	PT	POINT OF TANGENCY	WL	WATER LINE
CS	CHLORINE SOLUTION	I	INSIDE DIAMETER	PV	PLUG VALVE	WM	WATER MAIN
CSG	CASING	ID	INSIDE DIAMETER	PVC	POLYVINYL CHLORIDE	WP	WATER PROOF(ING), WORKING POINT
CTV	CABLE TELEVISION	IN	INCH(ES)	PVMT	PAVEMENT	WPR	WORKING PRESSURE
CY	CUBIC YARD	INF	INFLUENT	PW	POTABLE WATER	WS	WATER SURFACE
CYL	CYLINDER	INT	INTERSECTION	PWR	POWER	WSP	WELDED STEEL PIPE
C&G	CURB AND GUTTER	INTR	INTERIOR	Q	FLOW QUANTITY	WT	WEIGHT
C/C	CENTER TO CENTER	IP	IRON PIPE	QTY	QUANTITY	WTP	WATER TREATMENT PLANT
D	DATUM	IPS	INTERNATIONAL PIPE STANDARD	R	RADIUS	WW	WASH WATER
DBL	DOUBLE	IR	INTERNAL RECYCLE	RAS	RETURN ACTIVATED SLUDGE	WWF	WELDED WIRE FABRIC
DC	DIRECT CURRENT	IW	IRRIGATION WATER	RC	REINFORCED CONCRETE	WWM	WELDED WIRE MESH
DEMO	DEMOLITION	J	JUNCTION BOX	RCB	REINFORCED CONCRETE BOX	WWM	WASTEWATER TREATMENT PLANT
DEPT	DEPARTMENT	JB	JUNCTION BOX	RCP	REINFORCED CONCRETE PIPE	WWT	WASTEWATER TREATMENT PLANT
DESC	DESCRIPTION	JT	JOINT	RCPA	REINFORCED CONCRETE PIPE ARCH	W	WITH
DET	DETAIL	K	KIP (1,000 LB)	RD	REDUCER	W/O	WITHOUT
DF	DIESEL FUEL	KPL	KICK PLATE	RDR	REDUCING STEEL	X	CROSS
DIA	DIAMETER	KV	KILOVOLT	REF	REFERENCE	XFER	TRANSFER
DIFF	DIFFUSER	KVA	KILOVOLT-AMPERE	REIN	REINFORCE(D)(ING)(MENT)	Y	YARD(S)
DIM	DIMENSION	KW	KILOWATT	REIN	REINFORCE(D)(ING)(MENT) REMOVABLE	YD	YARD HYDRANT
DIP	DUCTILE IRON PIPE	L	LEFT	REQ'D	REQUIRED	YR	YEAR(S) YR
DISCH	DISCHARGE	L	LABORATORY	RF	RESTRAINED JOINT	Y	YARD(S)
DIR	DIRECTION	LAM	LAMINATE OR LAMINATION	RJ	RESTRAINED JOINT	YH	YEAR HYDRANT
DMH	DROP MANHOLE	LATL	LATERAL	RM	ROOM	YR	YEAR(S) YR
DN	DOWN	LAV	LAVATORY	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER		
DR	DRAIN			RPM	REVOLUTIONS PER MINUTE		
DR	DIAPHRAGM VALVE						
DV	DRIVEWAY						
DW	DRAWING						
DWV	DRAIN, WASTE, AND VENT						

PIPING LEGEND

FITTING/ APPURTENANCE	FLANGED				MECHANICAL JOINT				GROOVE JOINT				SOLVENT WELD			
	SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE		SINGLE-LINE		DOUBLE-LINE	
	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
BEND																
TEE																
WYE																
REDUCER																
CAP/ BLIND FLANGE					N/A	N/A	N/A	N/A								
PLUG	N/A	N/A	N/A	N/A					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BUTTERFLY VALVE																
BALL VALVE					N/A	N/A	N/A	N/A								

GENERAL NOTES

PROJECT INFORMATION:

1. THE PROJECT SHALL CONSIST OF THE DEMOLITION OF THE EXISTING CMP CULVERTS UNDER RISING STAR ROAD AND THE INSTALLATION OF 66 LINEAR FEET OF DOUBLE 9'X7' BOX CULVERTS ALONG WITH THE RELOCATION OF THE EXISTING UTILITIES IN THE AREA.
2. THE ORDER OF MAJOR LAND DISTURBING ACTIVITIES IS INDICATED IN THE ACTIVITY SCHEDULE LOCATED ON SHEET C-505.
3. THE DISTURBED ACREAGE FOR THE PROJECT IS 0.60 ACRES.
4. THE CULVERT REPLACEMENT PROJECT LOCATION (BEGINNING AND END) IS:
33.3341°N 84.4430°W

FAYETTE COUNTY WATER SYSTEM NOTES:

1. FAYETTE COUNTY WATER SYSTEM SPECIFICATIONS AND DETAILS SHALL GOVERN ALL WATER MAIN CONSTRUCTION.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH FAYETTE COUNTY WATER SYSTEM AND AWWA STANDARDS AND SPECIFICATIONS.
3. DUCTILE IRON PIPE (D.I.P.) SHALL BE MINIMUM PRESSURE CLASS 300 CEMENT MORTAR LINED, PER ANSI C151/A21.51. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON PER ANSI A21.10 OR A21.53. ALL SERVICE PIPING SHALL BE COPPER.
4. PROVIDE THRUST RESTRAINT (THRUST BLOCKS OR RESTRAINED JOINTS) AT ALL BENDS, TEES, CROSSES AND END OF LINES. (EOL) SIDE FORMS SHALL BE USED TO PREVENT ENCASEMENT OF BOLTS. SERVICE TAPS SHALL NOT BE LOCATED BENEATH PAVEMENT.
5. MAINTAIN 24" MINIMUM CLEARANCE BETWEEN WATERLINE AND OTHER STRUCTURES.
6. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4' OVER ALL WATER LINES.
7. CONTRACTOR SHALL FLAG WATER LINE AND SERVICE LOCATIONS TO PREVENT DAMAGE BY OTHER UTILITY CONTRACTORS.
8. PROPER COMPACTION IS REQUIRED THROUGHOUT THE PROJECT. (95% PERVIOUS, 98% IMPERVIOUS)
9. UNSUITABLE SOIL MATERIALS SHALL BE REPLACED WITH SUITABLE MATERIALS.
10. NEW WATER LINE SHALL BE PRESSURE TESTED FOR 2 HOURS AT 200 P.S.I. UNACCEPTABLE LEAKAGE SHALL BE REPAIRED AND WATER LINE SHALL BE RETESTED PRIOR TO ACCEPTANCE BY FAYETTE COUNTY WATER SYSTEM. MAIN MUST BE DISINFECTED PRIOR TO BEING PLACED IN SERVICE.
11. TOP OF CURBS SHALL BE PERMANENTLY MARKED AND PAINTED BLUE AT MAIN AND SERVICE CROSSINGS, AS WELL AS, VALVE AND METER LOCATIONS.
12. WATERLINE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL, INCLUDING SIGNAGE AND FLAGMEN, WHILE WORKING WITHIN THE RIGHT OF WAY OF ANY EXISTING ROAD.
13. WATERLINE CONTRACTOR PERFORMING ANY WORK WITHIN AN EXISTING RIGHT OF WAY MUST COMPLY WITH THE MUTCD 2003 EDITION WITH REVISIONS NUMBER 1 AND 2 INCORPORATED, DATED DECEMBER 2007. FLAGGERS MUST POSSESS A CURRENT CERTIFICATION CARD. DOCUMENTATION SHALL BE AVAILABLE UPON REQUEST BY ANY COUNTY EMPLOYEE.
14. WATER TO BE PROVIDED BY FAYETTE COUNTY WATER SYSTEM.
15. ALL TIE-INS SHALL BE COORDINATED WITH FAYETTE COUNTY WATER SYSTEM. EXISTING VALVES SHALL BE OPERATED BY COUNTY PERSONNEL ONLY.
16. CONTRACTOR MUST NOTIFY FAYETTE COUNTY WATER SYSTEM 24 HOURS PRIOR TO BEGINNING CONSTRUCTION OR REQUESTING INSPECTIONS. ALL WORK MUST BE INSPECTED PRIOR TO BACKFILL AND COMPACTION. ANY WORK COVERED PRIOR TO INSPECTION IS SUBJECT TO REJECTION UNTIL IT HAS BEEN EXPOSED AND INSPECTED BY FAYETTE COUNTY WATER PERSONNEL.
17. NO TRENCHES OR PITS ARE TO BE LEFT OPEN OVERNIGHT OR THROUGH A WEEKEND. IF CREW VACATES JOB SITE DURING DAYTIME HOURS, A PROPERLY CONSTRUCTED, HIGHLY VISIBLE BARRICADE MUST BE ERECTED.
18. WHILE THE EXCAVATION IS OPEN, UNDERGROUND INSTALLATIONS SHALL BE PROTECTED, SUPPORTED OR REMOVED AS NECESSARY TO SAFEGUARD EMPLOYEES.
19. MEANS OF EGRESS FROM TRENCH EXCAVATIONS, A STAIRWAY, LADDER, RAMP OR OTHER SAFE MEANS OF EGRESS SHALL BE LOCATED IN TRENCH EXCAVATIONS THAT ARE 4 FEET OR MORE IN DEPTH SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL FOR EMPLOYEES.
20. CONTACT MATT BERGEN AT THE FAYETTE COUNTY WATER SYSTEM TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO BEGINNING ANY WORK. PHONE: 770-320-6020 FAX: 770-719-5576
21. ALL CONTRACTORS MUST HAVE A CERTIFIED COMPETENT PERSON ON SITE WHILE WORK IS BEING PERFORMED. DOCUMENTATION SHALL BE AVAILABLE UPON REQUEST BY ANY COUNTY EMPLOYEE.
22. ALL CONTRACTORS PERFORMING ANY LAND DISTURBING ACTIVITY SHALL HAVE ATTENDED THE GSWCC SUB CONTRACTOR AWARENESS COURSE WHEN WORKING IN A COMMON DEVELOPMENT WHERE THE PRIMARY PERMITTEE HAS OBTAINED A LEVEL 1A CERTIFICATION. THE PRIMARY PERMITTEE IS REQUIRED TO HAVE A LEVEL 1A CERTIFIED REPRESENTATIVE ON SITE AT ALL TIMES. DOCUMENTATION SHALL BE AVAILABLE UPON REQUEST BY ANY COUNTY EMPLOYEE.
23. ANY CONTRACTOR PERFORMING ANY LAND DISTURBING ACTIVITY UNDER CONTRACT FOR FAYETTE COUNTY WATER SYSTEM SHALL BE CONSIDERED THE SECONDARY PERMITTEE FOR EACH PROJECT. THE CONTRACTOR SHALL BE REQUIRED TO HAVE A GSWCC LEVEL 1A CERTIFIED REPRESENTATIVE ON SITE AT ALL TIMES. DOCUMENTATION SHALL BE AVAILABLE UPON REQUEST BY ANY COUNTY EMPLOYEE.
24. BEFORE RELEASE OF THE WATER LINES, 2 CERTIFIED AS - BUILTS (24 X 36) MUST BE SUBMITTED ALONG WITH 2 SIGNED FINAL PLATS OR FINAL SITE PLANS. ONE ELECTRONIC COPY OF EACH DOCUMENT SHOULD BE SENT TO THE INSPECTOR UPON ACCEPTANCE.

GENERAL:

1. BENCHMARK FOR CONSTRUCTION HAS BEEN PROVIDED ON SHEET C-101 .
2. ALL LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY THE FAYETTE COUNTY. WHERE CONFLICTS OR OMISSIONS EXIST, THE FAYETTE COUNTY STANDARDS SHALL DICTATE. SUBSTITUTIONS AND DEVIATION FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
3. SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
4. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE FAYETTE COUNTY DEVELOPMENT REGULATIONS, LATEST EDITION, UNLESS OTHERWISE WAIVED.
5. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN HAND BEFORE BEGINNING ANY CONSTRUCTION. NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. ANY PENALTIES, STOP WORK ORDERS OR ADDITIONAL WORK RESULTING FROM THE CONTRACTOR BEING IN VIOLATION OF THE REQUIREMENTS ABOVE, SHALL BE FULLY BORNE BY THE CONTRACTOR.

GENERAL (CONTINUED):

6. THE LOCATION OF ALL EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FIRST. ANY FEES ASSOCIATED WITH UTILITY RELOCATIONS SHALL BE BORNE IN ACCORDANCE WITH RESPECTIVE UTILITY COMPANY STANDARDS. IT IS REQUESTED UTILITY COMPANIES MOVE THEIR PARTICULAR UTILITIES. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
7. THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING TO BE HELD BETWEEN FAYETTE COUNTY, UTILITIES, ENGINEER OF RECORD, AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF EVERY KIND, INCLUDING LANDSCAPE SPRINKLERS, SHALL BE PLACED BENEATH THE PAVEMENT AND ITS EDGES PRIOR TO THE CONSTRUCTION OF THE PAVEMENT. THE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL OF THE ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND AT LEAST 48 HOURS HOURS BEFORE REQUIRED INSPECTION ON EACH AND EVERY PHASE OF WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO ANY SCHEDULED TESTING. NO PRESSURE TESTING, OR FINAL TESTING WILL BE ACCEPTED UNLESS WITNESSED BY THE ENGINEER'S REPRESENTATIVE.
10. ALL CONTRACTORS, CITY REPRESENTATIVES, COUNTY REPRESENTATIVES, AND UTILITY COMPANIES ARE RESPONSIBLE FOR THEIR RESPECTIVE SURVEYING AND LAYOUT FROM BENCHMARK PROVIDED ON CONSTRUCTION PLANS. ANY SURVEY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED UPON COMPLETION OF THE WORK BY A REGISTERED LAND SURVEYOR.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING ANY CONSTRUCTION ACTIVITIES FROM TAKING PLACE OUTSIDE OF THE LIMITS OF CONSTRUCTION SHOWN ON THE PLANS. ANY ON-SITE OR OFFSITE AREAS DISTURBED SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER.
12. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS AND ALL PERMITS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF RECORD DRAWINGS TO THE ENGINEER OF RECORD WITHIN TWO (2) WEEKS AFTER CONSTRUCTION HAS BEEN COMPLETED ON EACH PHASE.
13. TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE TAKEN FROM SURVEY PROVIDED BY: ROCHESTER AND ASSOCIATES, INC.
14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXISTING SITE CONDITIONS OF SOIL PRIOR TO N.T.P. CONSTRUCTION TO DETERMINE IF ANY OFF SITE MATERIALS WILL NEED TO BE IMPORTED TO ACHIEVE THE GRADES SPECIFIED ON THE PLANS.
15. CLEAR AREAS INDICATED SHALL BE COMPLETELY CLEAR OF ALL TIMBER, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH, AND ALL OTHER DEBRIS AND OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE GROUND.
16. PRIOR TO BID PREPARATION, THE CONTRACTOR MUST BECOME FAMILIAR WITH THE OVERALL SITE CONDITIONS AND PERFORM ADDITIONAL INVESTIGATIONS AS DETERMINED NECESSARY TO UNDERSTAND THE LIMIT AND DEPTH OF EXPECTED ORGANIC SILT PEAT AREAS, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFFSITE, AND MATERIALS TO BE DISPOSED OF OFFSITE, ALL OF WHICH WILL AFFECT HIS PRICING. ANY DELAY, INCONVENIENCE, OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED. THE MATERIALS ANTICIPATED TO BE ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE DRYING PRIOR TO USE AS BACKFILL, AND THE CONTRACTOR MAY HAVE TO IMPORT MATERIALS, AT NO EXTRA COST, FROM OFFSITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL.

DEMOLITION:

1. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND LICENSES FOR PERFORMING THE DEMOLITION WORK AND SHALL FURNISH A COPY OF THESE ITEMS TO THE ENGINEER PRIOR TO COMMENCING THE WORK. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OR LOCAL AUTHORITIES FURNISHING GAS, WATER, ELECTRICAL, TELEPHONE, OR SEWER SERVICE SO THEY CAN REMOVE, RELOCATE, DISCONNECT, CAP OR PLUG THEIR EQUIPMENT IN ORDER TO FACILITATE DEMOLITION.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL TREES, STRUCTURES, AND UTILITIES NOT MARKED FOR REMOVAL OR DEMOLITION AND SHALL PROMPTLY REPAIR ANY DAMAGE AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.
4. THE CONTRACTOR SHALL REMOVE PAVING MARKED FOR DEMOLITION WHICH INCLUDES ALL ASPHALT, CONCRETE, BASE, AND RETAINING WALLS (INCLUDING THE FOOTERS).
5. THE CONTRACTOR SHALL REMOVE TREES MARKED FOR REMOVAL WHICH INCLUDES THE ROOTS ASSOCIATED WITH THE TREE. TREES NOT MARKED FOR REMOVAL SHALL BE PROTECTED IN ACCORDANCE WITH THE FAYETTE COUNTY REGULATIONS.
6. THE CONTRACTOR SHALL REMOVE UNSALVAGEABLE MATERIALS AND YARD WASTE FROM THE SITE IMMEDIATELY AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
7. THE CONTRACTOR SHALL SAW-CUT A SMOOTH STRAIGHT EDGE ON ANY PAVEMENT PROPOSED FOR DEMOLITION PRIOR TO ITS REMOVAL. PRIOR TO CONNECTING PROPOSED PAVEMENT TO EXISTING PAVEMENT, THE CONTRACTOR SHALL ENSURE THAT THE EDGE OF THE EXISTING PAVEMENT IS STRAIGHT AND UNIFORM.

EARTHWORK, GRADING, STABILIZATION, PAVING AND DRAINAGE:

1. COMPACT ALL UTILITY TRENCHES WITHIN ROADWAYS TO 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T - 180) AND TO 95% WITHIN OTHER AREAS.
2. ALL ORGANIC SOILS BELOW UTILITY TRENCHES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AND COMPACTED TO NO LESS THAN 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T - 180).
3. STABILIZED SUBGRADE TO MEET SPECIFIED REQUIREMENTS.
4. ASPHALTIC CONCRETE TO GDOT STANDARD SPECIFICATION (LATEST EDITION) SECTION 916.1 AND FAYETTE COUNTY, WHICHEVER IS GREATER.
5. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
6. ALL CONCRETE FLUMES, WALKS, AND CURBS SHALL BE CONSTRUCTED WITH 3000 PSI CONCRETE.
7. ALL ON-SITE AREAS DISTURBED BY THE CONSTRUCTION SHALL BE STABILIZED WITH SOD (SAME AS SURROUNDING AREA OR BETTER) OR APPROVED EQUAL. CONTRACTOR IS RESPONSIBLE FOR IRRIGATION OF PERMANENT GRASSING.
8. THE REINFORCED CONCRETE PIPE SHALL BE CLASS III WITH WALL THICKNESS "B" CONFORMING TO ASTM C - 76 OR AWWA 302 - 74 AND GASKETS SHALL BE IN ACCORDANCE WITH ASTM C - 443 OR ASTM D - 412.
9. ALL PIPE CALL OUTS ARE MEASURED CENTER LINE TO CENTER LINE FOR MANHOLES AND INLETS AND FROM THE END OF THE PIPE FOR MITERED END SECTIONS.
10. ALL DEWATERING COSTS ASSOCIATED WITH THE INSTALLATION AND CONSTRUCTION OF THE UNDERGROUND UTILITIES; STORM WATER PIPES AND MANHOLES; SANITARY SEWER MAINS, FORCE MAINS, MANHOLES, AND LIFT STATIONS; AND STORM WATER MANAGEMENT SYSTEMS SHALL BE INCLUDED AS PART OF THE CONSTRUCTION BID COSTS. THE CONTRACTOR SHALL SUBMIT FOR WATER USE PERMITS IF REQUIRED FOR DEWATERING ACTIVITIES.

EARTHWORK, GRADING, STABILIZATION, PAVING AND DRAINAGE (CONTINUED):

11. ALL PIPES SHALL HAVE 3 FEET MINIMUM COVER UNLESS OTHERWISE SPECIFIED IN PLANS, CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER GRADE ELEVATIONS AND ALIGNMENTS.
12. THE CONTRACTOR MUST INSTALL AND MAINTAIN GRASS OR SOD ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETED FINAL GRADES, AS NOTED ON PLANS, AND AT ANY OTHER TIME AS NECESSARY TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES TO ANY DOWNSTREAM WATER BODY, WETLAND, OR OFF-SITE PROPERTY. SODDING ON SLOPES 3:1 AND STEEPER SHALL BE STAKED.
13. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO CONTROL TURBIDITY AND SEDIMENT INCLUDING, BUT NOT LIMITED TO, THE INSTALLATION OF TURBIDITY BARRIERS AND SILT FENCES AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY AND SEDIMENT BARRIERS MUST BE MAINTAINED AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVING THE BARRIERS.

OTHER UTILITY INFORMATION:

1. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES WHICH MAY HAVE THEIR UTILITIES WITHIN THE CONSTRUCTION AREAS TO LOCATE THEIR FACILITIES IN THE FIELD FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION.
2. DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE TWENTY-FIVE (25) FEET ON EACH SIDE OF ANY PERPENDICULAR CROSSING OF METALLIC GAS MAINS OR ANY OTHER CATHODICALLY PROTECTED PIPELINE AND FOR LOCATIONS PARALLEL TO AND WITHIN TEN FEET OF METALLIC GAS MAINS OR OTHER CATHODICALLY PROTECTED PIPE AND THROUGH THE AREA OF INFLUENCE OF CATHODIC PROTECTION ANODE BED.

SPILL CONTROL NOTES:

1. IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS NOTES OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
 - a. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
 - b. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - c. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
 - d. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
 - e. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.



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CERT. # 0000073529

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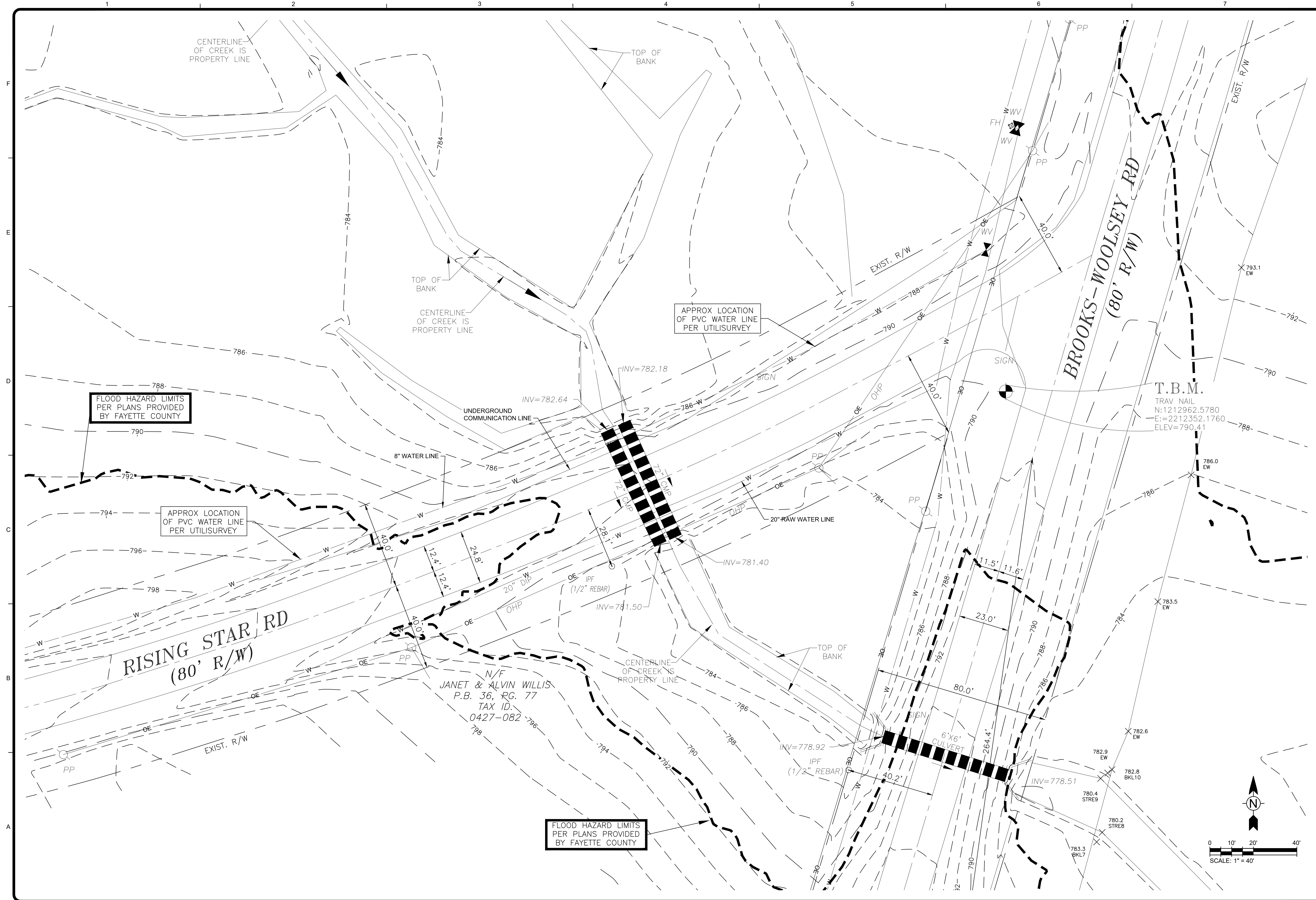
RISING STAR CULVERT REPLACEMENT
GENERAL NOTES

Project No.: 200-01297-16022
Designed By: DL
Drawn By: CG
Checked By: DL

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Bar Measures 1 inch

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Professional Engineer
DAVID N. LAVERGNE
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GSWCC LEVEL II
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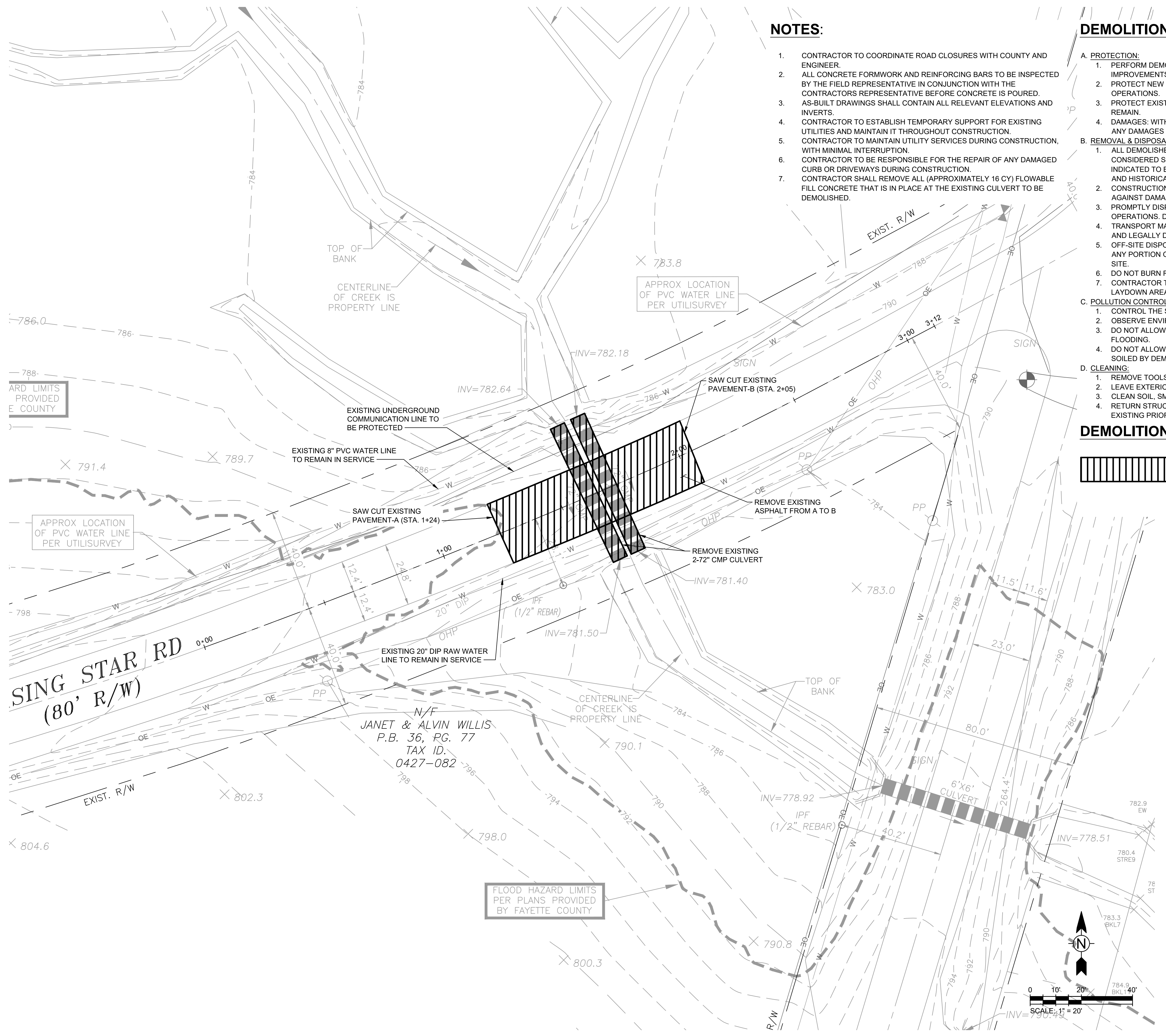
RISING STAR CULVERT REPLACEMENT
EXISTING CONDITIONS

Project No.: 200-01297-16022
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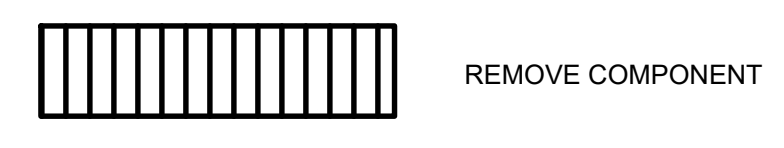
NOTES:

1. CONTRACTOR TO COORDINATE ROAD CLOSURES WITH COUNTY AND ENGINEER.
2. ALL CONCRETE FORMWORK AND REINFORCING BARS TO BE INSPECTED BY THE FIELD REPRESENTATIVE IN CONJUNCTION WITH THE CONTRACTORS REPRESENTATIVE BEFORE CONCRETE IS POURED.
3. AS-BUILT DRAWINGS SHALL CONTAIN ALL RELEVANT ELEVATIONS AND INVERTS.
4. CONTRACTOR TO ESTABLISH TEMPORARY SUPPORT FOR EXISTING UTILITIES AND MAINTAIN IT THROUGHOUT CONSTRUCTION.
5. CONTRACTOR TO MAINTAIN UTILITY SERVICES DURING CONSTRUCTION, WITH MINIMAL INTERRUPTION.
6. CONTRACTOR TO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED CURB OR DRIVEWAYS DURING CONSTRUCTION.
7. CONTRACTOR SHALL REMOVE ALL (APPROXIMATELY 16 CY) FLOWABLE FILL CONCRETE THAT IS IN PLACE AT THE EXISTING CULVERT TO BE DEMOLISHED.

DEMOLITION NOTES:

- A. PROTECTION:**
1. PERFORM DEMOLITION SO AS TO PREVENT DAMAGE TO ADJACENT IMPROVEMENTS AND FACILITIES TO REMAIN.
 2. PROTECT NEW OR EXISTING WORK FROM DAMAGE DURING DEMOLITION OPERATIONS.
 3. PROTECT EXISTING SITE APPURTENANCES AND LANDSCAPING TO REMAIN.
 4. DAMAGES: WITHOUT COST TO THE OWNER AND WITHOUT DELAY, REPAIR ANY DAMAGES CAUSED TO FACILITIES TO REMAIN.
- B. REMOVAL & DISPOSAL OF DEMOLISHED MATERIALS:**
1. ALL DEMOLISHED OR REMOVED ITEMS AND MATERIALS SHALL BE CONSIDERED SCRAP EXCEPT FOR THOSE INDICATED TO REMAIN, THOSE INDICATED TO BE REINSTALLED, THOSE INDICATED TO BE SALVAGED, AND HISTORICAL ITEMS.
 2. CONSTRUCTION OR ITEMS INDICATED TO REMAIN SHALL BE PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS.
 3. PROMPTLY DISPOSE OF MATERIALS RESULTING FROM DEMOLITION OPERATIONS. DO NOT ALLOW MATERIALS TO ACCUMULATED ON SITE.
 4. TRANSPORT MATERIALS RESULTING FROM DEMOLITION OPERATIONS AND LEGALLY DISPOSE OF OFF-SITE.
 5. OFF-SITE DISPOSAL LOCATION SHALL NOT BE WITHIN ONE-HALF MILE OF ANY PORTION OF THE PROJECT SITE OR WITHIN SIGHT OF THE PROJECT SITE.
 6. DO NOT BURN REMOVED MATERIALS ON PROJECT SITE.
 7. CONTRACTOR TO COORDINATE THE LOCATION OF ANY MATERIAL LAYDOWN AREAS WITH THE COUNTY.
- C. POLLUTION CONTROLS:**
1. CONTROL THE SPREAD OF DUST AND DIRT WITH PRACTICAL MEANS.
 2. OBSERVE ENVIRONMENTAL PROTECTION REGULATIONS.
 3. DO NOT ALLOW WATER USAGE THAT RESULTS IN FREEZING OR FLOODING.
 4. DO NOT ALLOW ADJACENT IMPROVEMENTS TO REMAIN OR BECOME SOILED BY DEMOLITION OPERATIONS.
- D. CLEANING:**
1. REMOVE TOOLS AND EQUIPMENT. DISPOSE OF SCRAP.
 2. LEAVE EXTERIOR AREAS FREE OF DEBRIS.
 3. CLEAN SOIL, SMUDGES, AND DUST FROM SURFACES TO REMAIN.
 4. RETURN STRUCTURES AND SURFACES TO REMAIN TO CONDITION EXISTING PRIOR TO COMMENCEMENT OF DEMOLITION.

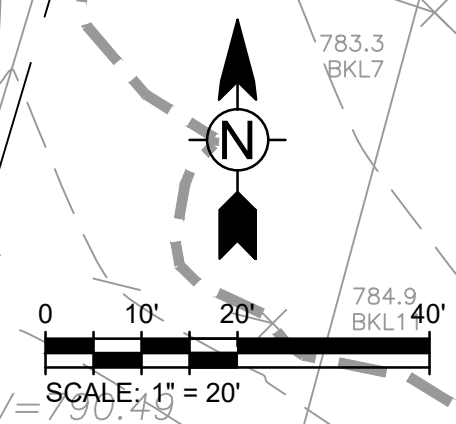
DEMOLITION LEGEND:



ARD LIMITS PROVIDED BY COUNTY

FLOOD HAZARD LIMITS PER PLANS PROVIDED BY FAYETTE COUNTY

N/F
JANET & ALVIN WILLIS
P.B. 36, PG. 77
TAX ID.
0427-082



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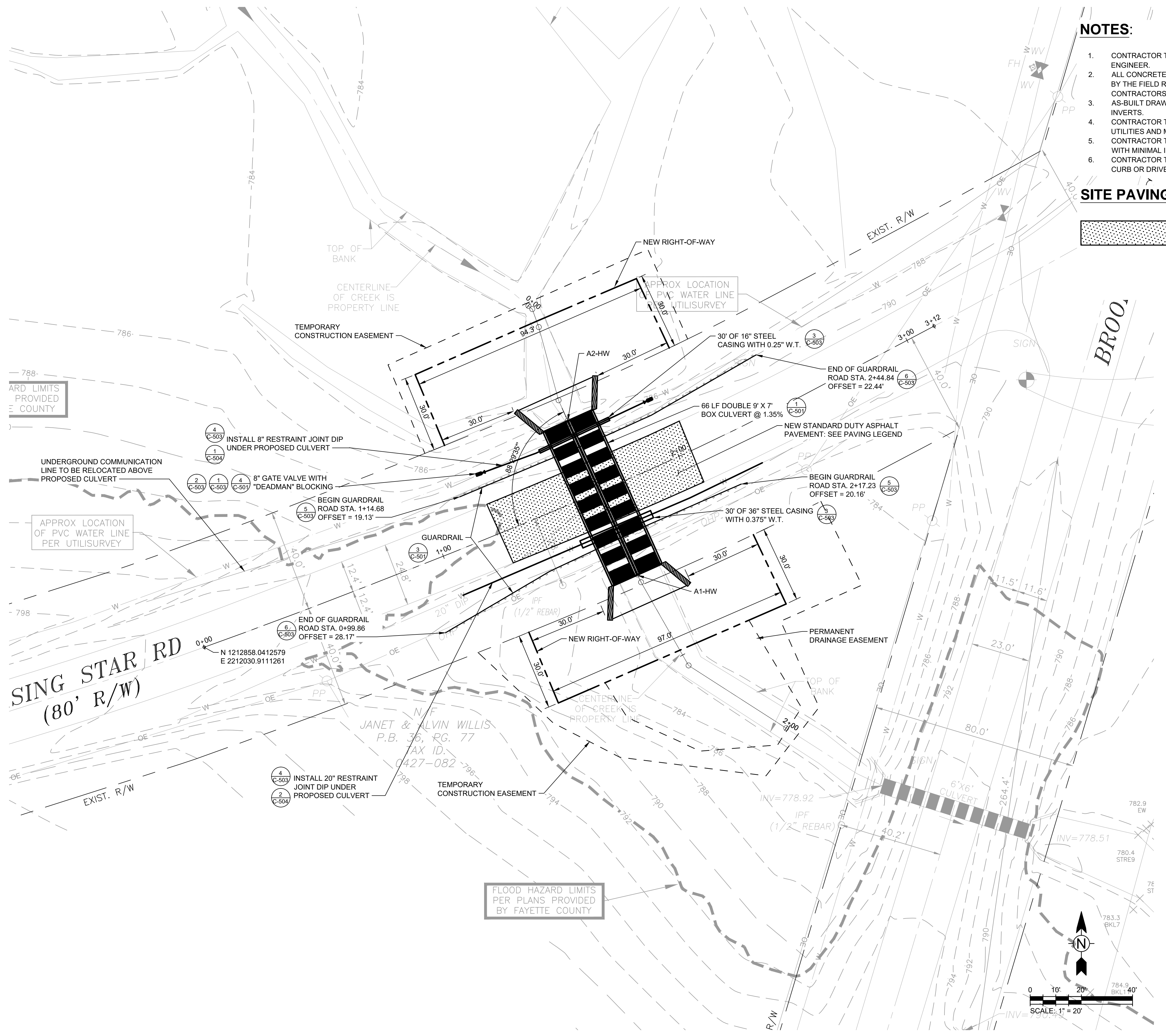
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CERT. # 0000073529

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RISING STAR CULVERT REPLACEMENT
DEMOLITION PLAN

Project No.:	200-01297-16022
Designed By:	DL
Drawn By:	CG
Checked By:	DL



NOTES:

1. CONTRACTOR TO COORDINATE ROAD CLOSURES WITH COUNTY AND ENGINEER.
2. ALL CONCRETE FORMWORK AND REINFORCING BARS TO BE INSPECTED BY THE FIELD REPRESENTATIVE IN CONJUNCTION WITH THE CONTRACTORS REPRESENTATIVE BEFORE CONCRETE IS POURED.
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5. CONTRACTOR TO MAINTAIN UTILITY SERVICES DURING CONSTRUCTION, WITH MINIMAL INTERRUPTION.
6. CONTRACTOR TO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED CURB OR DRIVEWAYS DURING CONSTRUCTION.

SITE PAVING LEGEND:

- NEW STANDARD DUTY ASPHALT PAVEMENT:
 - 1.5" 9.5mm SUPERPAVE ASPHALT TOPPING (165 LBS/SY).
 - TACK COAT (0.35 GAL/SY)
 - 8" GRADED AGGREGATE BASE COMPACTED TO 100% MAX DRY DENSITY.
 - UPPER 12" OF SUBGRADE TO BE COMPACTED TO 98% OF MAX DRY DENSITY.

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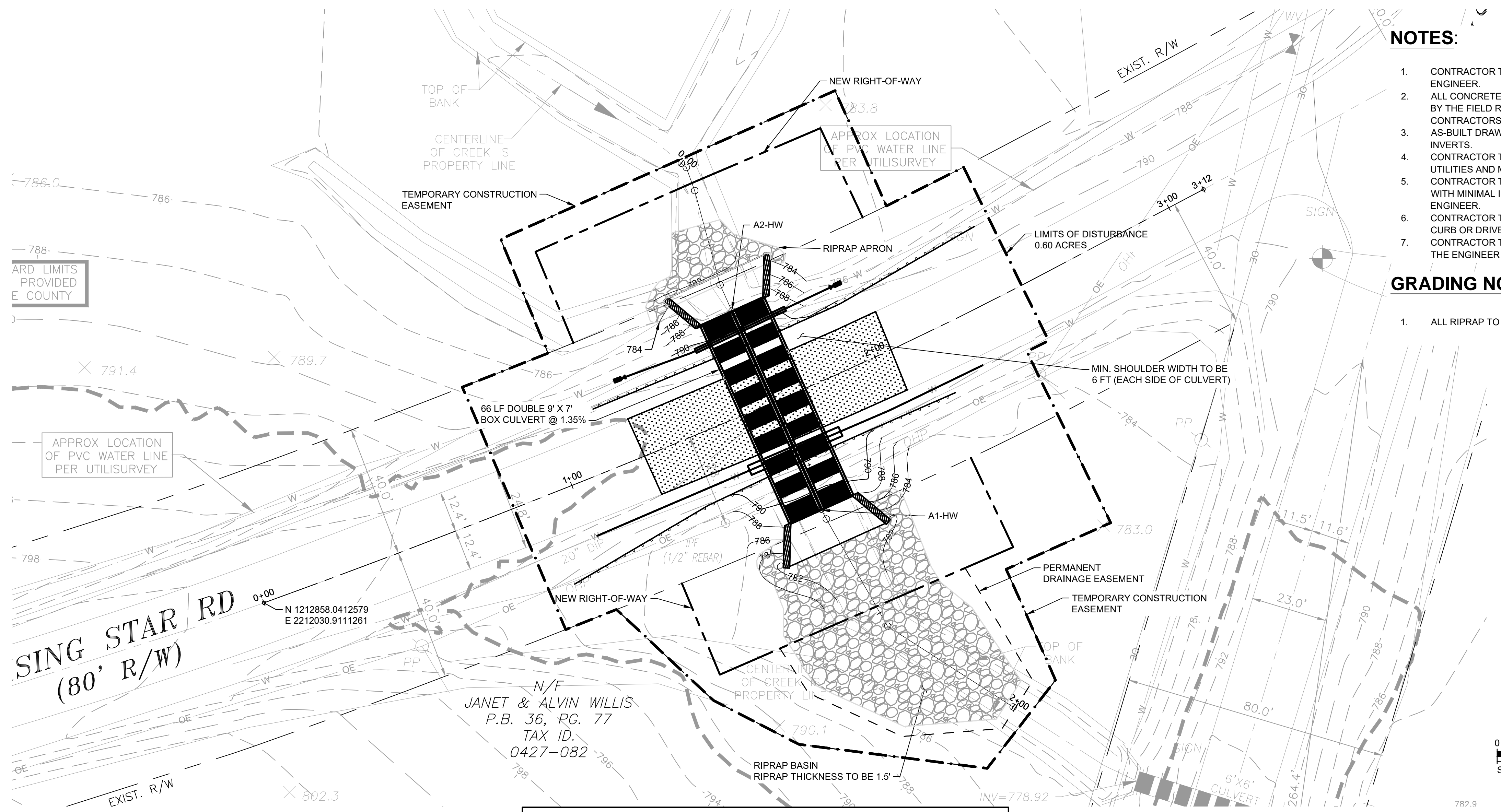
GEORGIA
No. PE0402163
PROFESSIONAL
ENGINEER
DAVID N. LAVERGNE
5/20/17
GSWCC LEVEL II
CERT. # 0000073529

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RISING STAR CULVERT REPLACEMENT
SITE PLAN

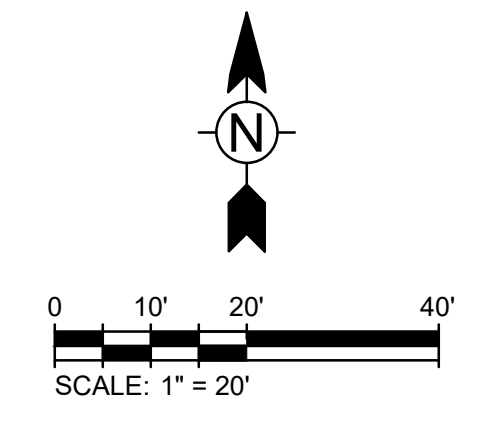
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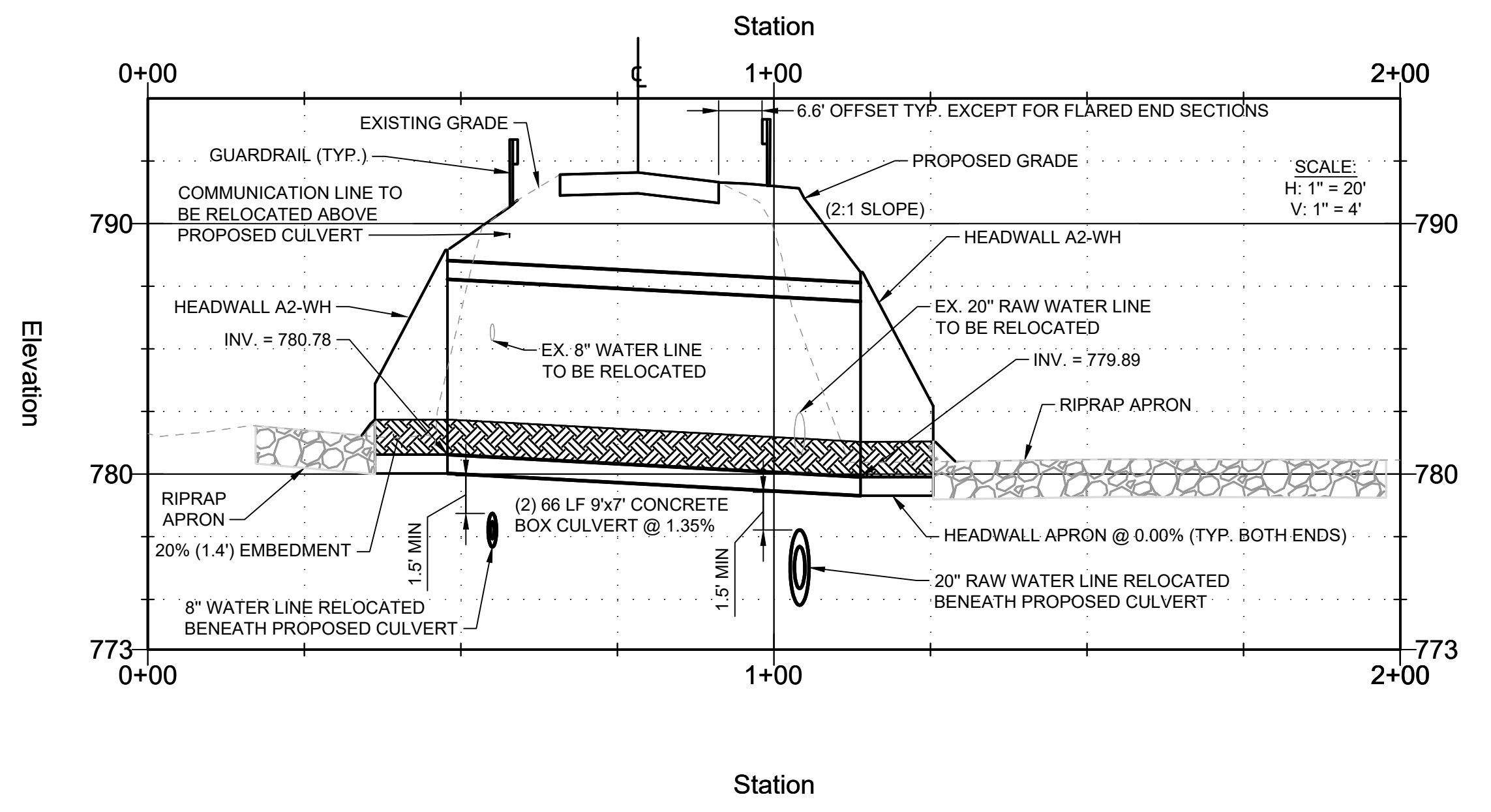


- NOTES:**
- CONTRACTOR TO COORDINATE ROAD CLOSURES WITH COUNTY AND ENGINEER.
 - ALL CONCRETE FORMWORK AND REINFORCING BARS TO BE INSPECTED BY THE FIELD REPRESENTATIVE IN CONJUNCTION WITH THE CONTRACTORS REPRESENTATIVE BEFORE CONCRETE IS POURED.
 - AS-BUILT DRAWINGS SHALL CONTAIN ALL RELEVANT ELEVATIONS AND INVERTS.
 - CONTRACTOR TO ESTABLISH TEMPORARY SUPPORT FOR EXISTING UTILITIES AND MAINTAIN IT THROUGHOUT CONSTRUCTION.
 - CONTRACTOR TO MAINTAIN UTILITY SERVICES DURING CONSTRUCTION, WITH MINIMAL INTERRUPTION AND COORDINATE WITH COUNTY AND ENGINEER.
 - CONTRACTOR TO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED CURB OR DRIVEWAYS DURING CONSTRUCTION.
 - CONTRACTOR TO PROVIDE BYPASS PUMPING PLAN TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

- GRADING NOTES:**
- ALL RIPRAP TO BE GDOT TYPE 3.



TYPICAL RISING STAR CULVERT PROFILE



FLOW SUMMARY TABLE

STORM FREQUENCY	FLOW (CFS)	OUTLET VELOCITY (FPS)	DOWNSTREAM VELOCITY (FPS)
10-YEAR	577.1	12.0	1.9
25-YEAR	746.8	12.9	2.2
100-YEAR	1003.3	14.0	2.6

DRAINAGE AREA = 1787.5 ACRES
STREAM SLOPE = 1.00%

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RISING STAR CULVERT REPLACEMENT
GRADING PLAN AND STORM PROFILE

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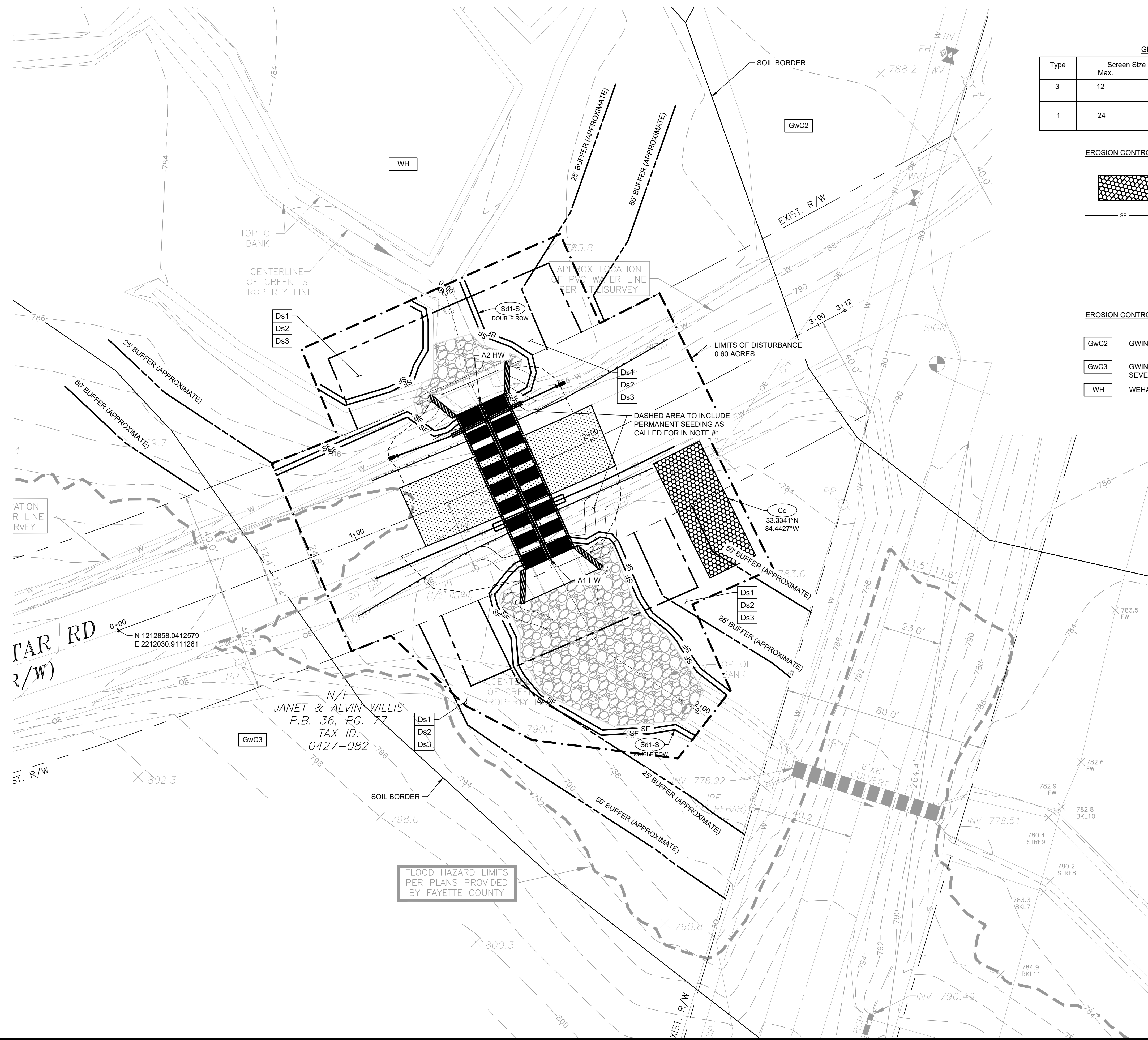


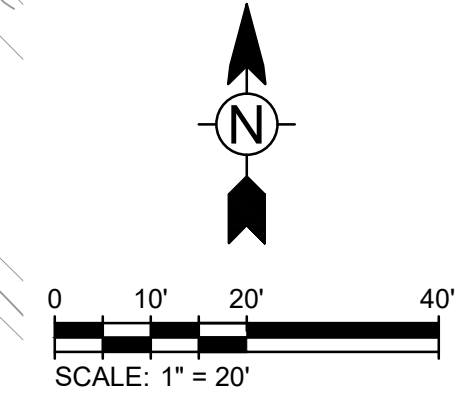
TABLE NO. 1
GRADED RIP RAP STONE

Type	Screen Size inches (Sq. opening)	Max.	Avg.	Min.	Common Uses	Filter Stone ASTM D-448
3	12	9	5		Creek Banks Pipe Outlets	6 or 57
1	24	12	7		Lakes & Shorelines, Rivers	3, 4 or 5

- EROSION CONTROL LEGEND**
- Co CONSTRUCTION EXIT
 - Sd1-S SEDIMENT BARRIER
 - Ds1 Ds1 SOIL STABILIZATION (MULCHING)
 - Ds2 Ds2 SOIL STABILIZATION (TEMP. SEEDING)
 - Ds3 Ds3 SOIL STABILIZATION (PERM. VEGETATION)

- EROSION CONTROL LEGEND**
- GwC2 GWINNETT SANDY CLAY LOAM, 6 TO 10 PERCENT SLOPES, ERODED
 - GwC3 GWINNETT SANDY CLAY LOAM, 6 TO 10 PERCENT SLOPES SEVERELY ERODED
 - WH WEHADKEE SOILS

- NOTES:
- PERMANENT VEGETATION SEED MIX SHALL CONSIST OF 1 LB OF ORCHARDGRASS, 0.5 LB OF RED CLOVER, AND 2 OZ OF LADINO CLOVER PER 1000 SQ. FT.



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GEORGIA
No. PE040216
5/20/17
PROFESSIONAL
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DAVID N. LAVERGNE
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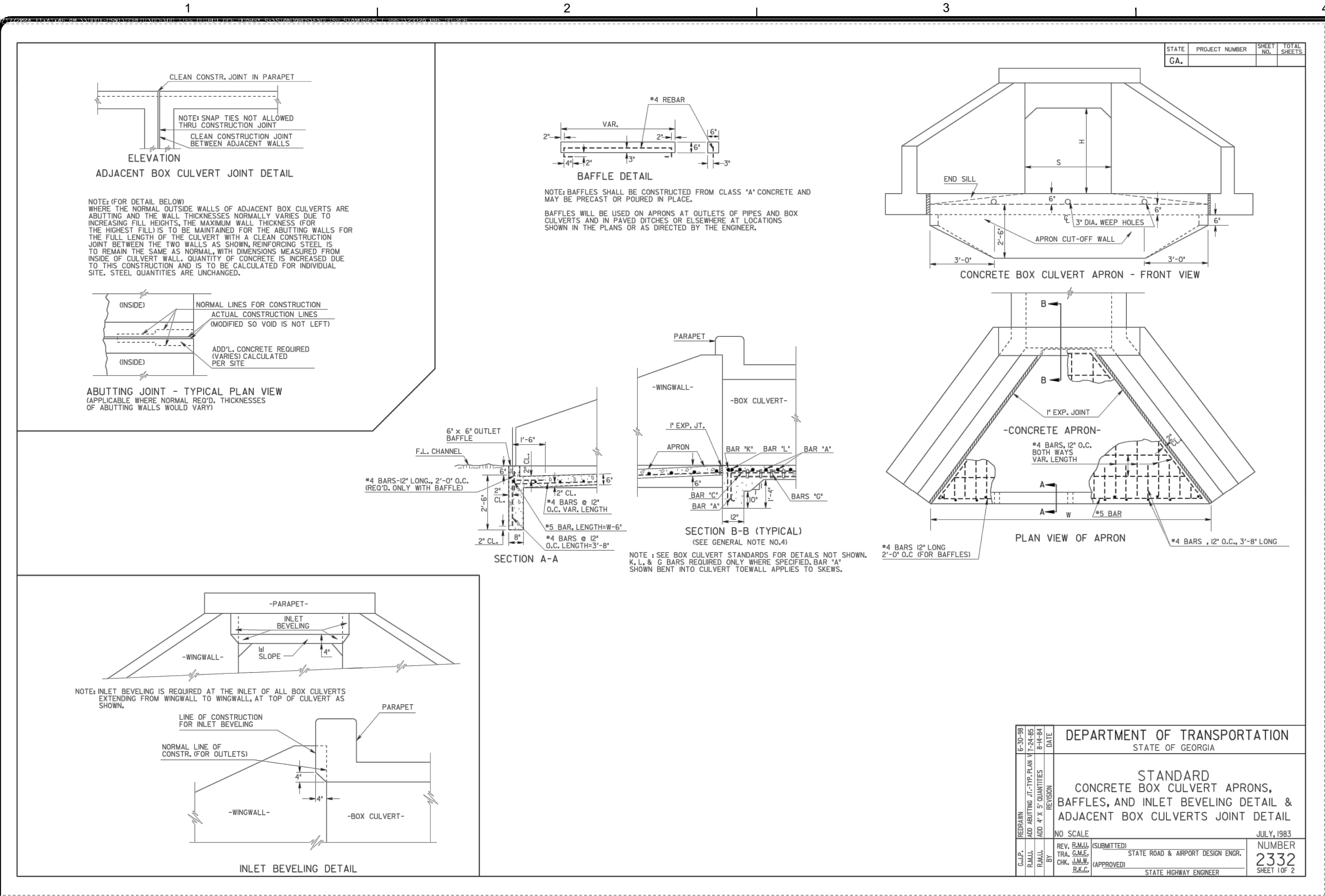
RISING STAR CULVERT REPLACEMENT
EROSION CONTROL PLAN

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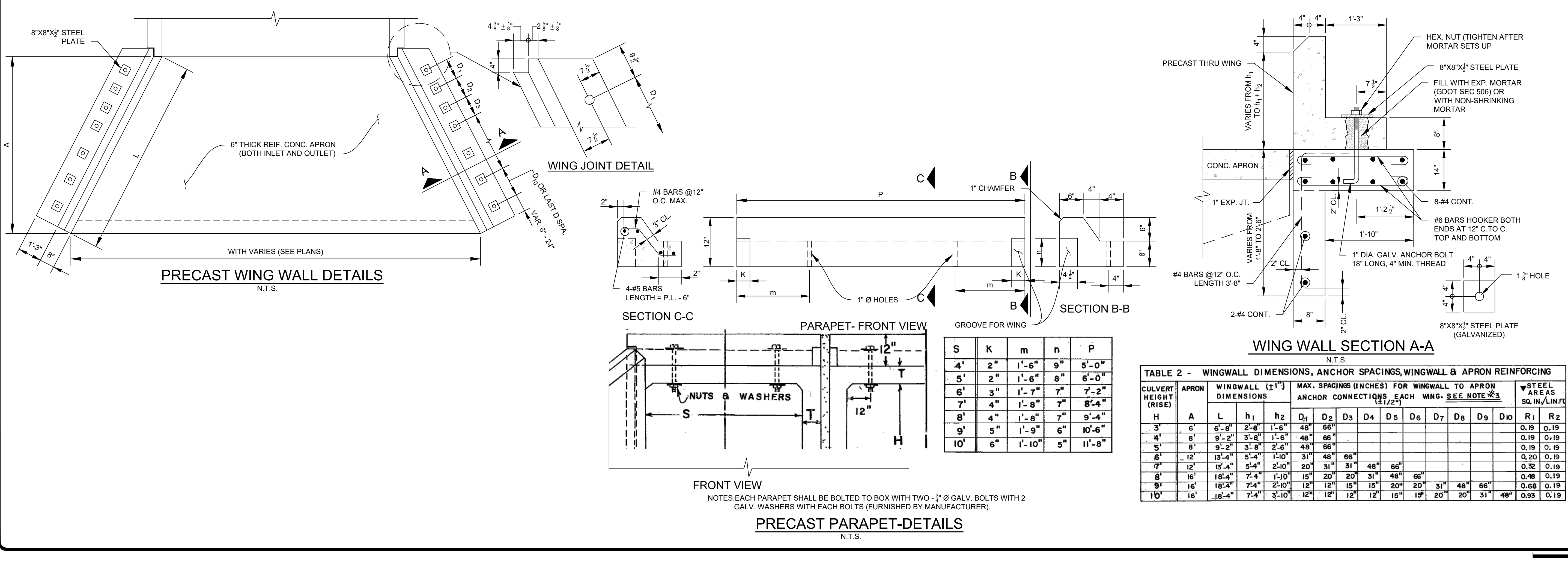
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S	H	APRON QUANTITIES FOR CONCRETE BOX CULVERTS												S	H																								
		SINGLE - 90°	SINGLE - 75°	SINGLE - 60°	SINGLE - 45°	DOUBLE - 90°	DOUBLE 75°	DOUBLE 60°	DOUBLE 45°	TRIPLE 90°	TRIPLE 75°	TRIPLE 60°	TRIPLE 45°																										
4	4	13.83	1.70	1.99	14.468	1.91	1.55	16.469	2.28	1.83	23.239	3.17	2.49	17.800	2.59	2.02	19.297	2.87	2.23	21.828	3.42	2.64	23.850	4.63	3.59	22.466	3.48	2.66	24.225	3.83	2.92	27.288	4.56	3.46	36.345	5.92	4.47	4	4'
5	5	15.883	2.34	2.63	16.458	2.41	1.89	17.466	2.52	2.00	24.649	3.46	2.71	18.800	2.97	2.30	21.366	3.28	2.53	24.225	3.58	2.79	25.649	5.03	3.90	25.466	4.08	3.08	27.230	4.44	3.37	30.654	6.29	3.89	40.654	6.80	5.00	5	5'
6	6	16.733	2.67	2.97	18.38	2.86	2.26	20.09	3.47	2.71	23.387	4.72	3.64	20.000	3.35	2.67	23.436	3.69	2.82	26.434	4.43	3.35	28.474	5.72	4.53	28.466	4.63	3.49	30.536	5.06	3.81	34.8	6.02	4.57	44.893	7.68	5.74	6	6'
7	7	18.733	3.28	3.58	20.658	3.25	2.53	23.447	4.03	3.27	27.566	5.33	3.87	28.266	5.3	3.86	32.447	6.29	4.73	33.006	7.39	5.98	35.400	6.98	5.20	36.374	6.97	5.20	40.468	8.55	6.36	54.076	10.68	7.92	5	7'			
8	8	20.533	3.84	4.14	22.945	3.75	2.89	25.444	4.63	3.55	30.627	6.07	4.63	32.366	5.87	4.48	35.950	7.76	6.24	38.403	9.08	6.98	41.200	7.89	5.98	38.658	7.77	5.79	43.466	9.24	7.08	56.764	12.89	8.89	6	8'			
9	9	22.533	4.44	4.74	25.450	4.64	3.55	28.559	5.73	4.36	33.999	7.55	5.72	35.658	6.9	5.18	37.547	8.58	6.56	40.558	10.84	8.08	43.900	8.84	6.56	40.765	8.76	6.04	46.558	12.29	9.03	62.225	14.03	10.45	7	9'			
10	10	24.533	5.04	5.34	28.050	5.26	3.79	31.430	6.62	5.00	36.463	8.96	6.79	37.766	8.06	5.96	40.558	9.96	7.45	43.366	12.00	9.00	46.200	9.69	7.00	43.366	10.00	7.00	46.200	12.00	9.00	64.800	16.00	12.00	8	10'			

GENERAL NOTES:
 1. SPECIFICATIONS IN GEORGIA STANDARDS CURRENT EDITION, AND SUPPLEMENTS THEREOF.
 2. CONCRETE APRONS AND BAFFLES ARE REQUIRED AT ALL OUTLETS OF ALL BOX CULVERTS. APRON IS NOT TO BE CONSTRUCTED AT INLETS UNLESS THE ENGINEER DETERMINES THAT BED ROCK WILL PREVENT EROSION AND MAKE THE APRON DIFFICULT TO CONSTRUCT. APRONS (WITHOUT BAFFLES) ARE USED AT INLETS ONLY IF PLANS SPECIFY.
 3. DETAILS HEREON APPLY TO BOTH STANDARD AND SPECIAL DESIGN BOX CULVERTS, UNLESS OTHERWISE NOTED.
 4. WHERE CONCRETE APRONS ARE REQUIRED, THE TOEWALL OF THE BOX CULVERT MAY BE REDUCED AS SHOWN IN SECTION B-B OR MAY BE AS SHOWN ON APPLICABLE STANDARDS FOR BOX CULVERTS, WHERE APPLICABLE IS NOT REQUIRED, DO NOT USE TOEWALL AS SHOWN IN SECTION B-B BUT SEE BOX CULVERT STANDARD DETAILS.
 5. ALL CONCRETE SHALL BE CLASS A CONCRETE.
 NOTE: SEE SEPARATE STANDARD DETAILS AND/OR SPECIAL DESIGN DETAILS APPLICABLE FOR DETAILS OF BOX CULVERTS, WINGWALLS, PARAPETS, ETC.



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 ATLANTA, GA 30339
 TEL: (770) 850-0949 FAX: (770) 850-0950

GEORGIA
 No. PE040216
 PROFESSIONAL ENGINEER
 DAVID N. LAVERGNE

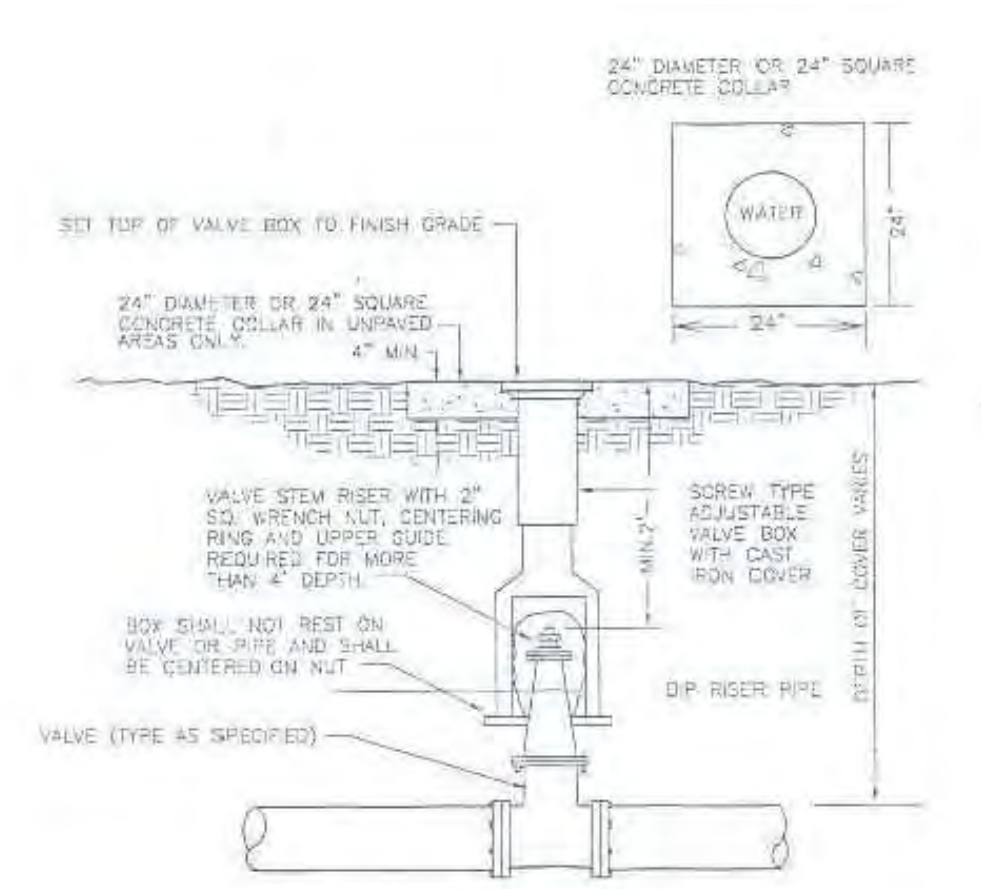
GSWCC LEVEL II
 CERT. # 0000073529

BY: CH
 DATE: 05/28/17
 DESCRIPTION: ISSUED FOR CONSTRUCTION

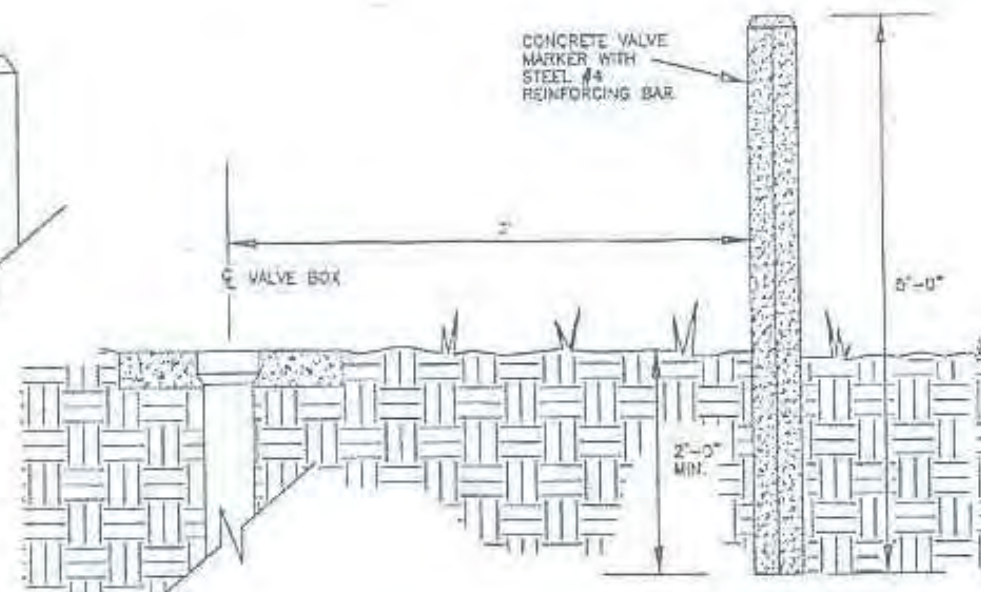
MARK: 0
 DATE: 05/28/17
 DESCRIPTION: RISING STAR CULVERT REPLACEMENT

CONSTRUCTION DETAILS

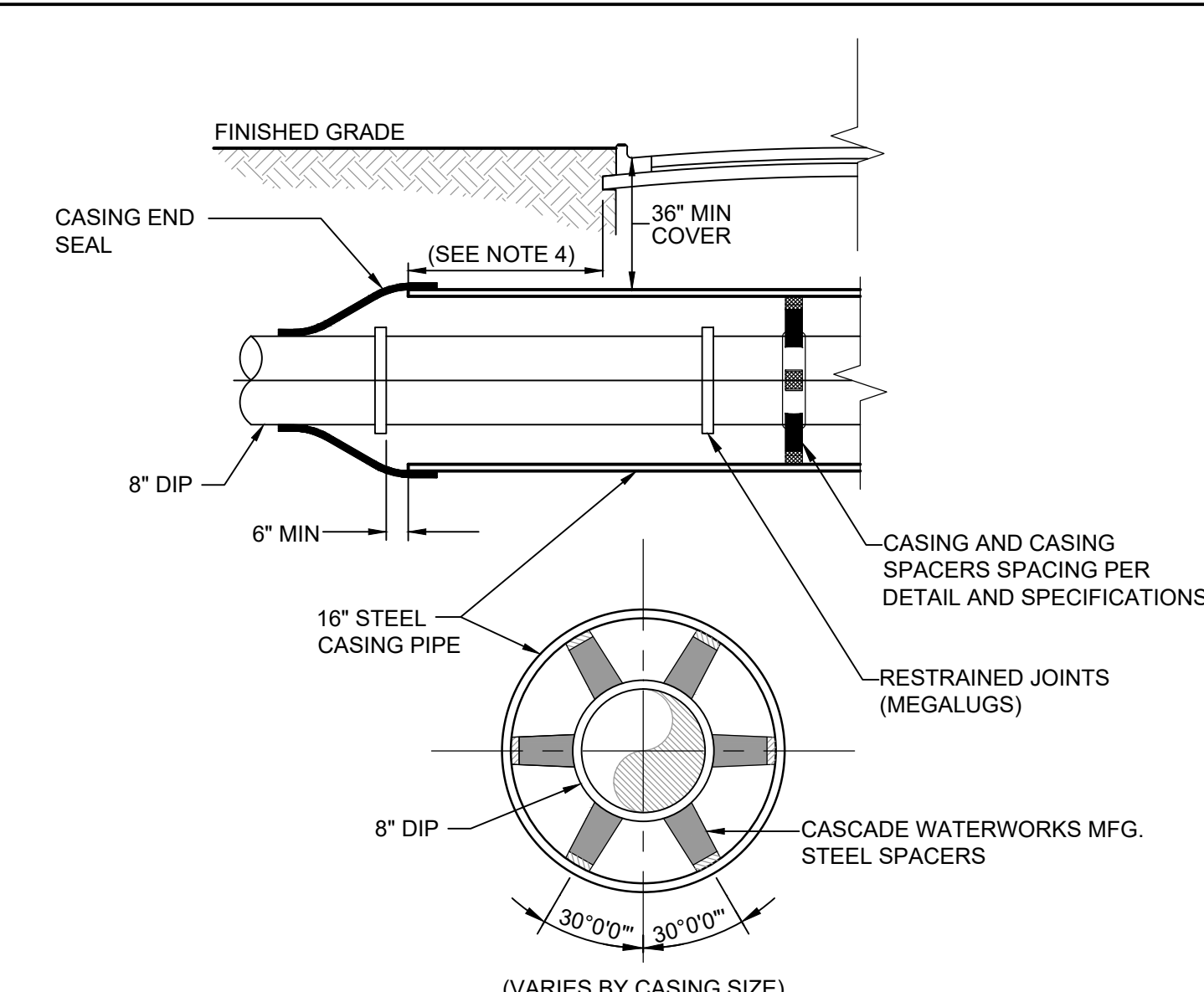
C-502
 Sheet
 Bar Measures 1 inch



1 **DETAIL**
SCALE: N.T.S.

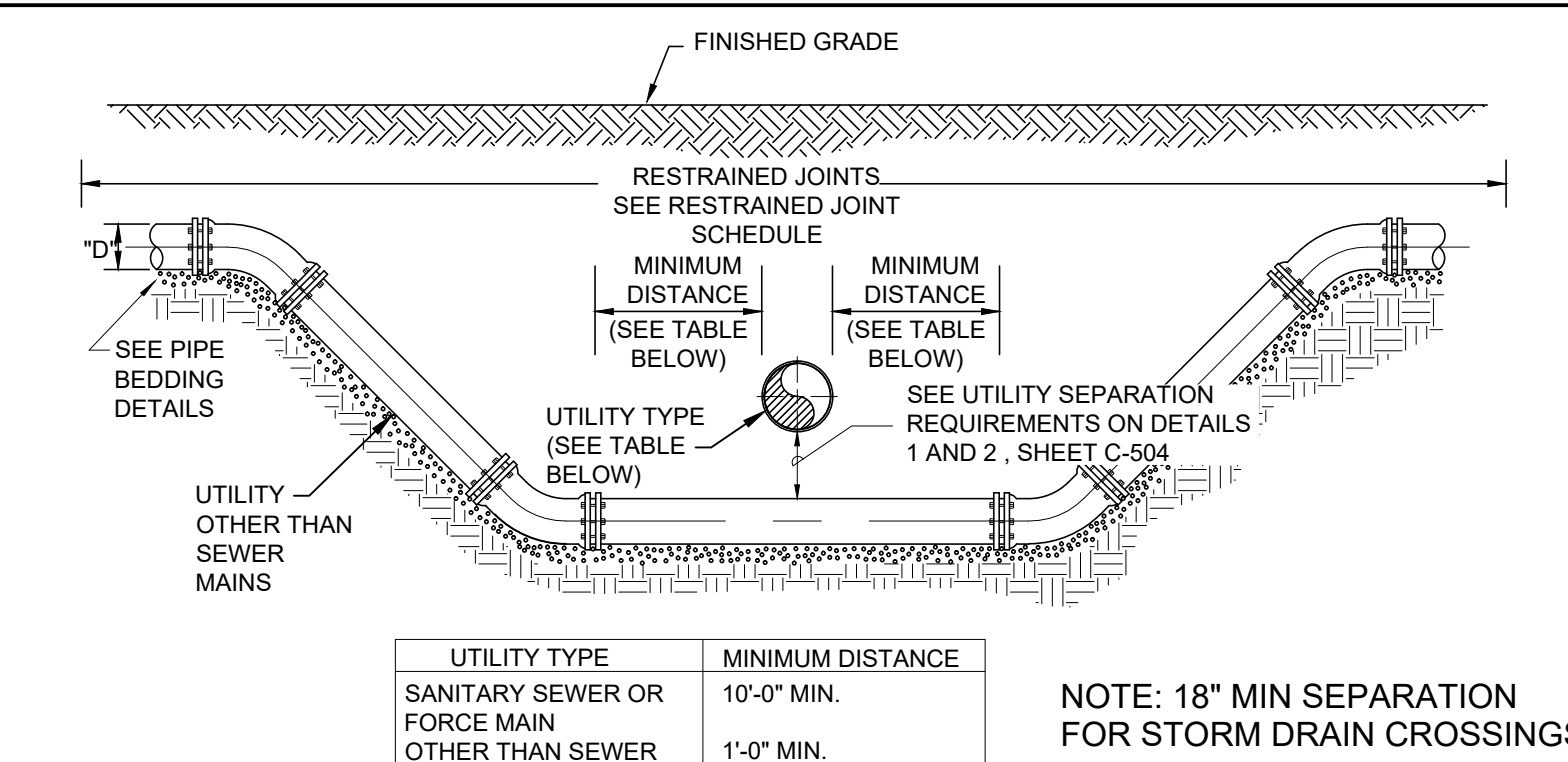


2 **DETAIL**
SCALE: N.T.S.



- NOTES:**
1. WHEN CONSTRUCTION IS WITHIN FAA OR FDOT JURISDICTION, ADDITIONAL REQUIREMENTS OF THE UTILITY ACCOMMODATION GUIDE SHALL BE MET.
 2. DISTANCE BETWEEN SPACERS TO BE PER PROJECT SPECIFICATIONS.
 3. NO FLOWABLE FILL BETWEEN THE ANNULAR SPACE OF THE CASING OR CARRIER PIPE.
 4. SHALL BE A MINIMUM OF 8" OR MEET FAYETTE COUNTY SPECIFICATIONS REQUIREMENTS, WHICHEVER IS GREATER.

3 **DETAIL**
SCALE: N.T.S.



UTILITY TYPE	MINIMUM DISTANCE
SANITARY SEWER OR FORCE MAIN	10'-0" MIN.
OTHER THAN SEWER	1'-0" MIN.

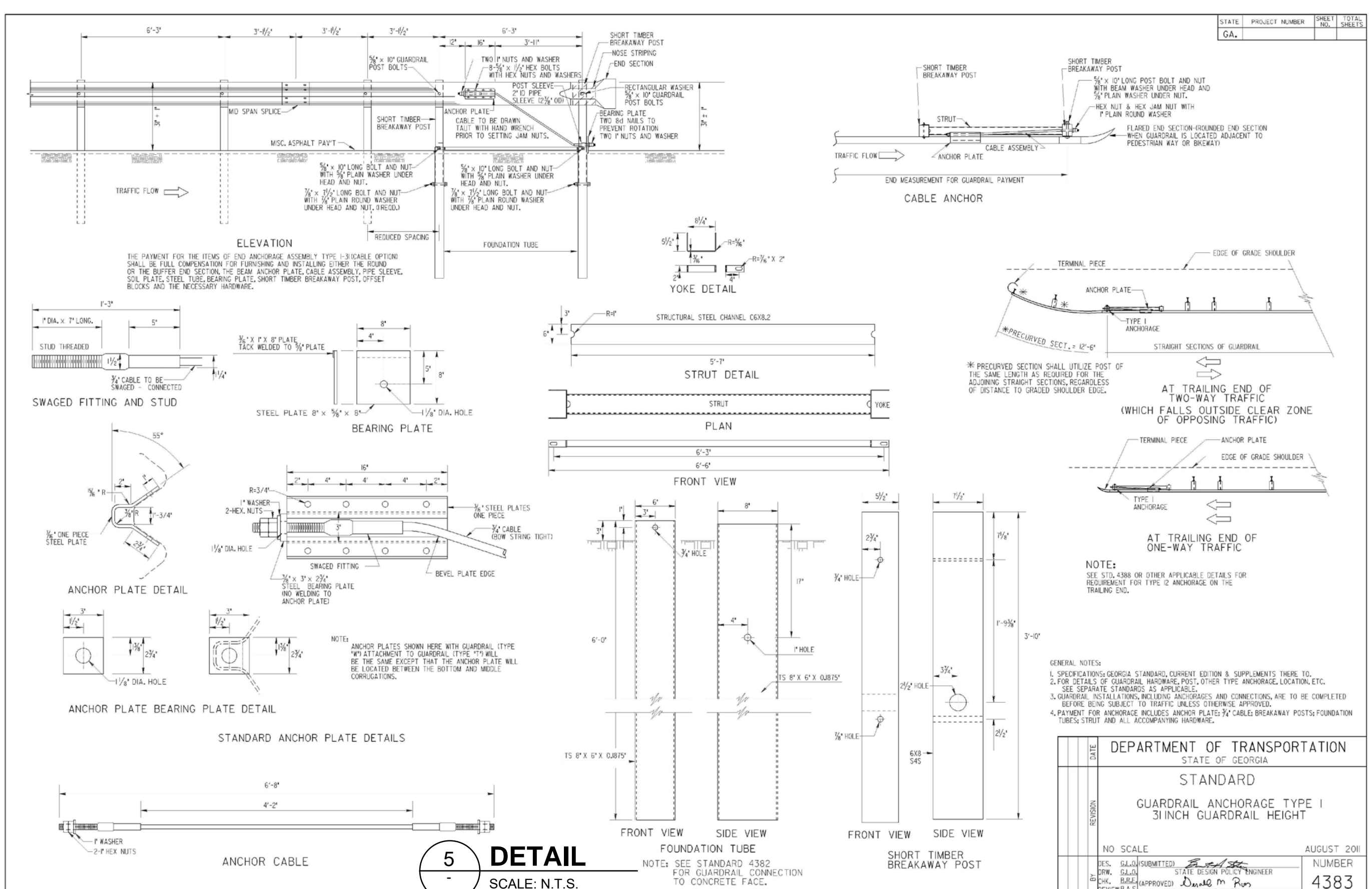
NOTE: 18" MIN SEPARATION FOR STORM DRAIN CROSSINGS

RESTRAINED JOINT UTILITY CROSSING FOR UTILITIES OTHER THAN SEWER MAINS

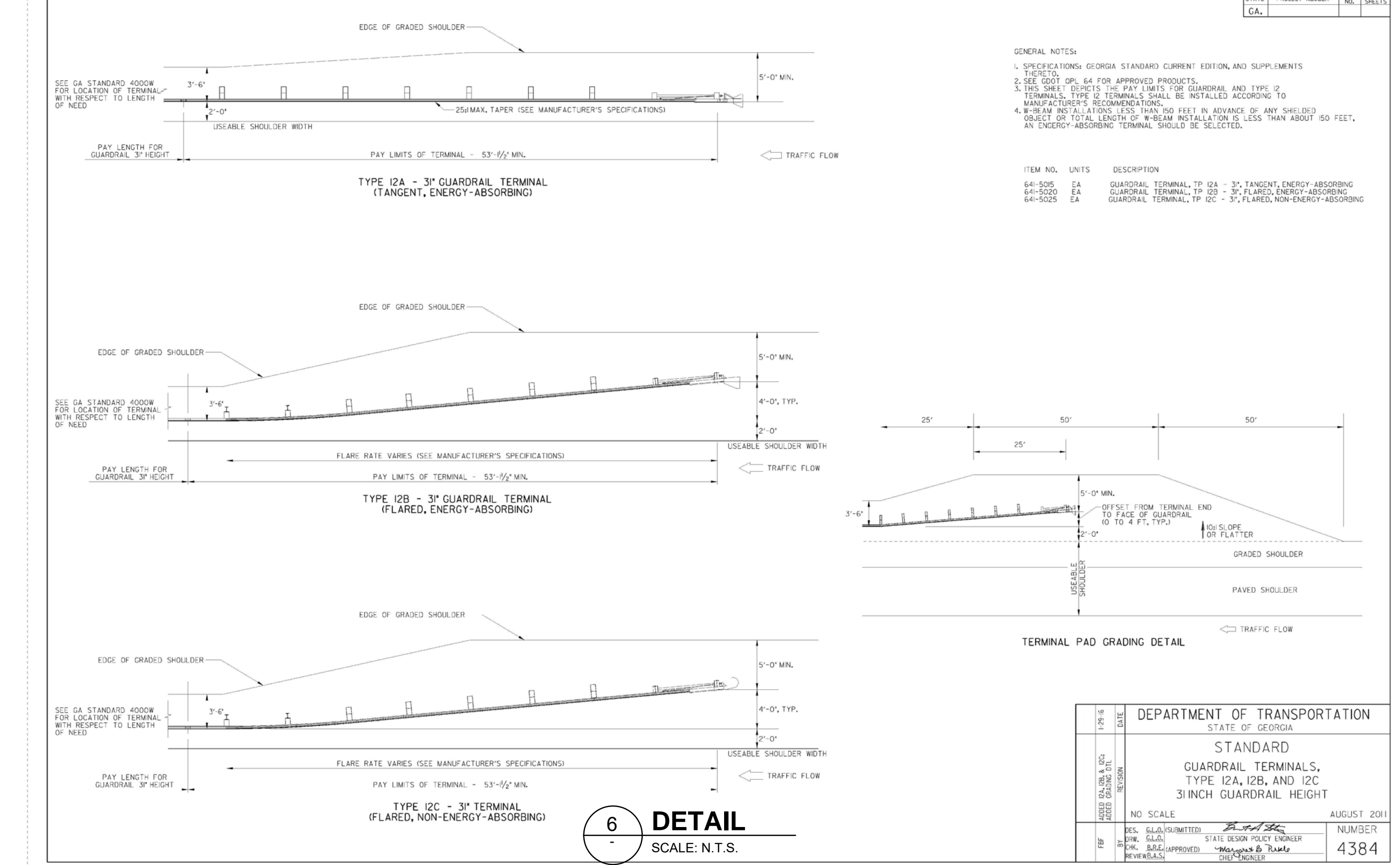
PIPE DIA (Inches)	RESTRAINED LENGTH EACH SIDE OF RESTRAINED FITTING (FEET)						RESTRAINED LENGTH FOR REDUCERS													
	DIP			PVC			3	4	6	8	10	12	16	20	24	30	36			
4	35	15	10	5	55	25	15	10	40	-	-	-	-	-	-	-	-	PVC		
6	55	25	10	5	80	35	20	10	50	45	-	-	-	-	-	-	-	PVC		
8	65	30	15	10	90	40	20	10	75	70	40	-	-	-	-	-	-	PVC		
10	80	35	20	10	110	50	25	15	95	90	70	40	-	-	-	-	-	PVC		
12	95	40	20	10	130	55	30	15	120	115	100	75	40	-	-	-	-	PVC		
16	120	50	25	15	165	70	35	20	160	155	140	125	100	70	-	-	-	PVC		
20	150	65	30	15	200	85	40	20	200	195	185	170	150	130	75	-	-	PVC		
24	160	70	35	20	210	90	45	25	160	155	150	140	135	120	90	50	-	DIP		
30	190	80	40	20	250	105	50	25	195	190	185	180	170	160	120	105	70	-	DIP	
36	220	95	45	25	-	-	-	-	225	220	215	210	205	195	180	150	125	70	-	DIP
42	245	105	50	25	-	-	-	-	245	240	235	230	225	220	205	180	155	105	50	DIP
48	260	120	60	30	-	-	-	-	255	250	245	240	235	230	215	195	175	125	70	DIP

RESTRAINED LENGTHS FOR DEAD ENDS, BRANCHES AND HDPE TO PVC TRANSITIONS SHALL BE THE SAME AS FOR 90° BENDS. IN-LINE VALVES SHALL BE RESTRAINED 20' EACH SIDE OF THE VALVE. (IF A JOINT FALLS AT THE MAXIMUM DISTANCE, IT SHALL BE RESTRAINED). TABLE BASED ON IRON FITTINGS. TEST PRESSURE 150 PSI.

RESTRAINED JOINT SCHEDULE
4 **DETAIL**
SCALE: N.T.S.



5 **DETAIL**
SCALE: N.T.S.



6 **DETAIL**
SCALE: N.T.S.

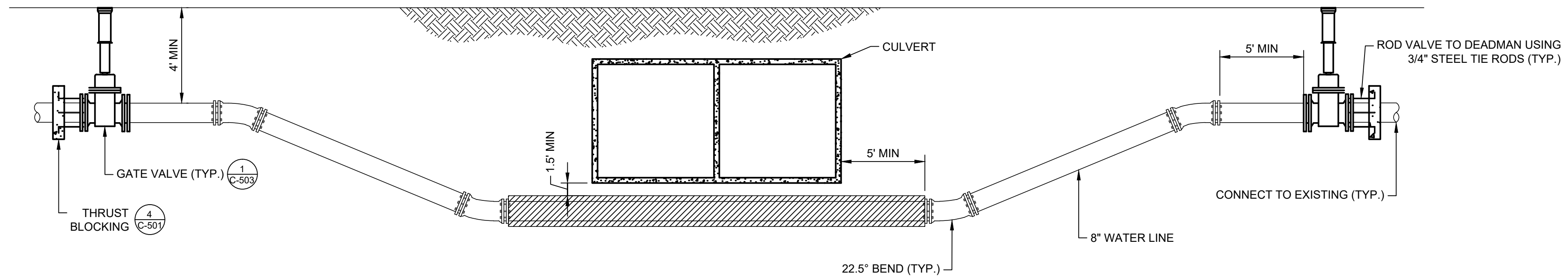
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GEORGIA
No. PE0402163
PROFESSIONAL ENGINEER
DAVID N. LAVERGNE
GSWCC LEVEL II
CERT. # 0000073529

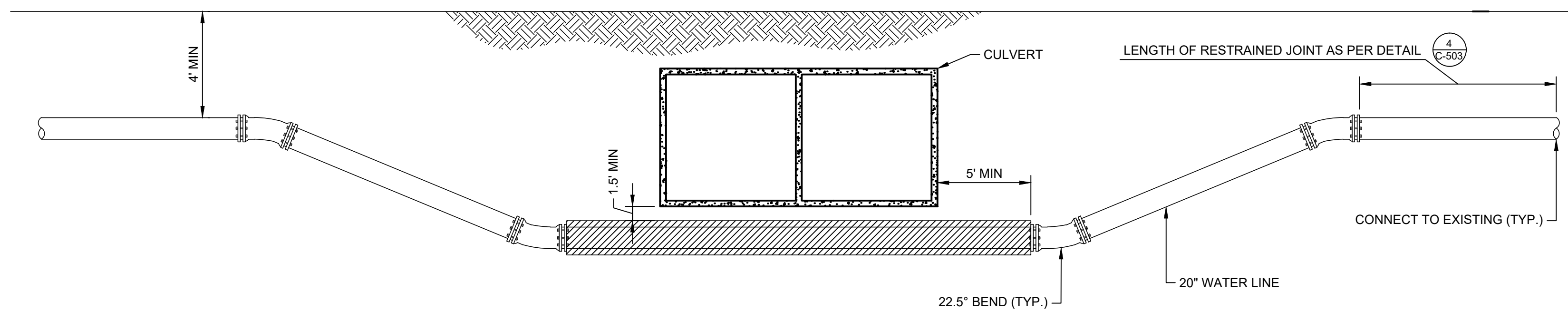
MARK	DATE	DESCRIPTION
0	05/26/17	ISSUED FOR CONSTRUCTION

CONSTRUCTION DETAILS
Project No.: 200-01287-16022
Designed By: BDR
Drawn By: HCR
Checked By: JRW
C-503
Sheet
Bar Measures 1 inch



8" WATER LINE CULVERT CROSSING

1 **DETAIL**
SCALE: N.T.S.



20" RAW WATER LINE CULVERT CROSSING

2 **DETAIL**
SCALE: N.T.S.



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GSWCC LEVEL II
CERT. # 0000073529

MARK	DATE	DESCRIPTION	BY	CH
0	05/26/17	ISSUED FOR CONSTRUCTION		

RISING STAR CULVERT REPLACEMENT
CONSTRUCTION DETAILS

Project No.: 200-01297-16022
Designed By: BDR
Drawn By: HCR
Checked By: JRW

C-504
Sheet

Bar Measures 1 inch

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EROSION CONTROL ACTIVITIES

Table with 4 columns: Activity, Symbol, Description, and Notes. Includes items like Construction Exit, Sediment Barrier, Disturbed Area Stabilization, etc.

FOR TEMPORARY PROTECTION OF CRITICAL AREAS WITHOUT SEEDING, THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHICH MAY BE SUBJECT TO EROSION FOR 6 MONTHS OR LESS, WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT WHICH CAN BE STABILIZED WITH A MULCH COVER.

Table with 2 columns: MATERIALS and INSTALLATION. Lists materials like Dry Straw or Hay, Wood Waste, Sawdust, etc. and their installation depths.

EROSION CONTROL MATTING OR NETTING APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS

CUTBACK ASPHALT (SLOW CURING) 1200 GALLONS PER ACRE, OR 1/2 GALLON PER SQUARE YARD

POLYETHYLENE FILM SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION

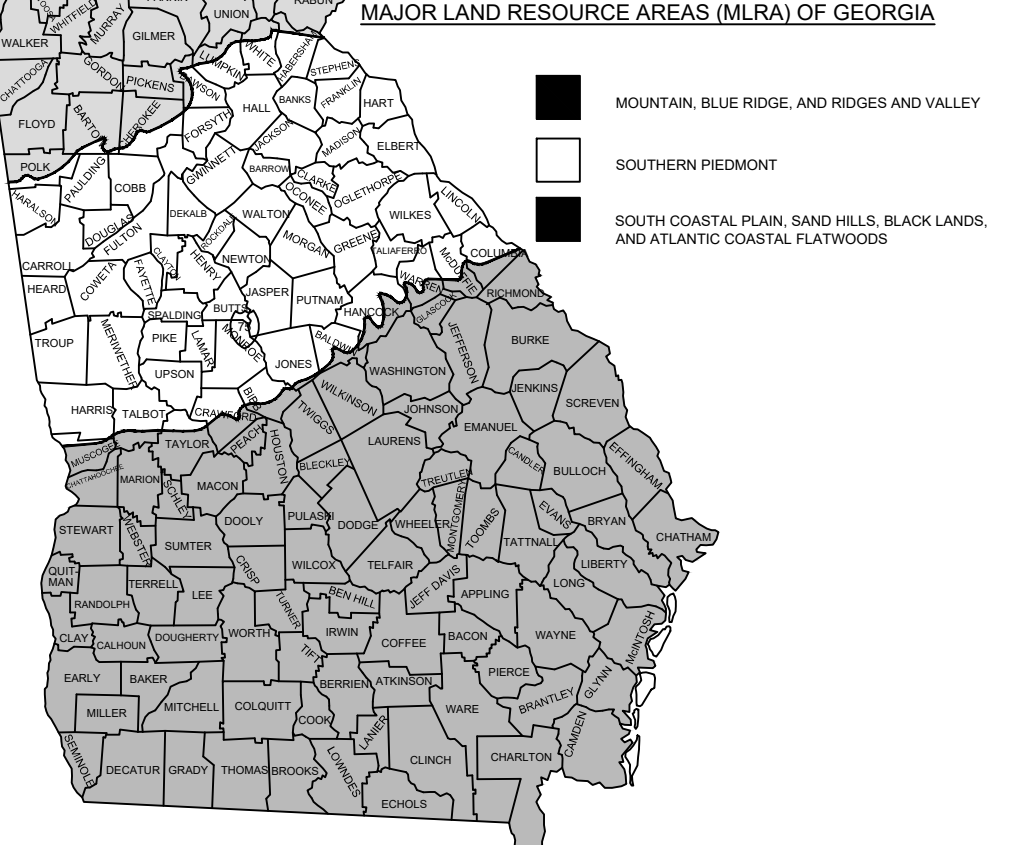
DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

Ds1 2014 MANUAL FOR EROSION AND SEDIMENT CONTROL (GREEN BOOK)

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS 1/

Large table with columns: Species, Broadcast Rates, Resource Area, Planting Dates, and Remarks. Lists various plant species and their recommended planting rates and schedules.

1/ TEMPORARY COVER CROPS ARE VERY COMPETITIVE AND WILL CROWN OUT PERENNIALS IF SEEDING TOO HEAVILY. 2/ REDUCE SEEDING RATES BY 50% WHEN DRILLED. 3/ PLS IS AN ABBREVIATION FOR PINE LIME SEED. 4/ MRL REPRESENTS TO MOUNTAIN, BLUE RIDGE, AND RIDGES AND VALLEYS MRLs. 5/ R REPRESENTS THE SOUTHERN PIEDMONT MRL. 6/ C REPRESENTS THE SOUTHERN COASTAL PLAIN, SAND HILLS, BLACK LANDS, AND ATLANTIC COAST FLATWOODS MRLs. (SEE FIGURE 6-4.1, P. 6-4 IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL FOR GEORGIA)



Ds2 DISTURBED AREA STABILIZATION (TMP. SEEDING) 2014 MANUAL FOR EROSION AND SEDIMENT CONTROL (GREEN BOOK) Figure 6-27.2

Table with columns: Type of Species, Year, Analysis or Equivalent N-P-K, Rate, and N Top Dressing Rate. Lists various species and their corresponding nutrient and nitrogen requirements.

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 germinated. 5/ Apply to grass species only. 6/ Apply when plants grow to a height of 2 to 4 inches.

FERTILIZER AND MULCHING REQUIREMENTS

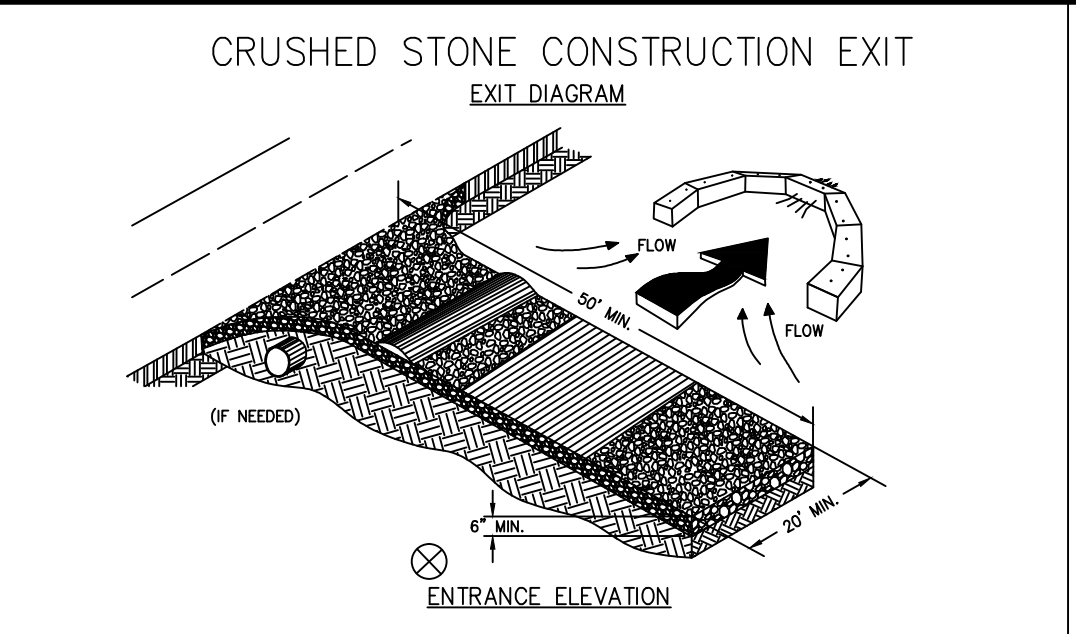
Table with columns: Species, Broadcast Rates, Resource Area, Planting Dates, and Remarks. Lists various species and their fertilizer and mulching requirements.

Table with columns: Species, Broadcast Rates, Resource Area, Planting Dates, and Remarks. Lists various species and their recommended planting rates and schedules.

1/ TEMPORARY COVER CROPS ARE VERY COMPETITIVE AND WILL CROWN OUT PERENNIALS IF SEEDING TOO HEAVILY. 2/ REDUCE SEEDING RATES BY 50% WHEN DRILLED. 3/ PLS IS AN ABBREVIATION FOR PINE LIME SEED. 4/ MRL REPRESENTS TO MOUNTAIN, BLUE RIDGE, AND RIDGES AND VALLEYS MRLs. 5/ R REPRESENTS THE SOUTHERN PIEDMONT MRL. 6/ C REPRESENTS THE SOUTHERN COASTAL PLAIN, SAND HILLS, BLACK LANDS, AND ATLANTIC COAST FLATWOODS MRLs. (SEE FIGURE 6-4.1, P. 6-4 IN THE MANUAL FOR EROSION AND SEDIMENT CONTROL FOR GEORGIA)

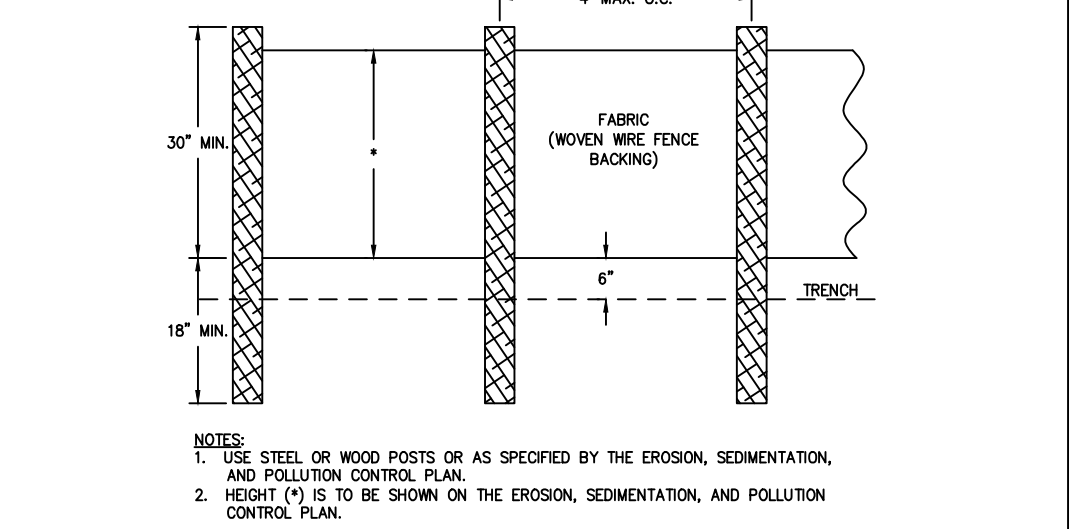
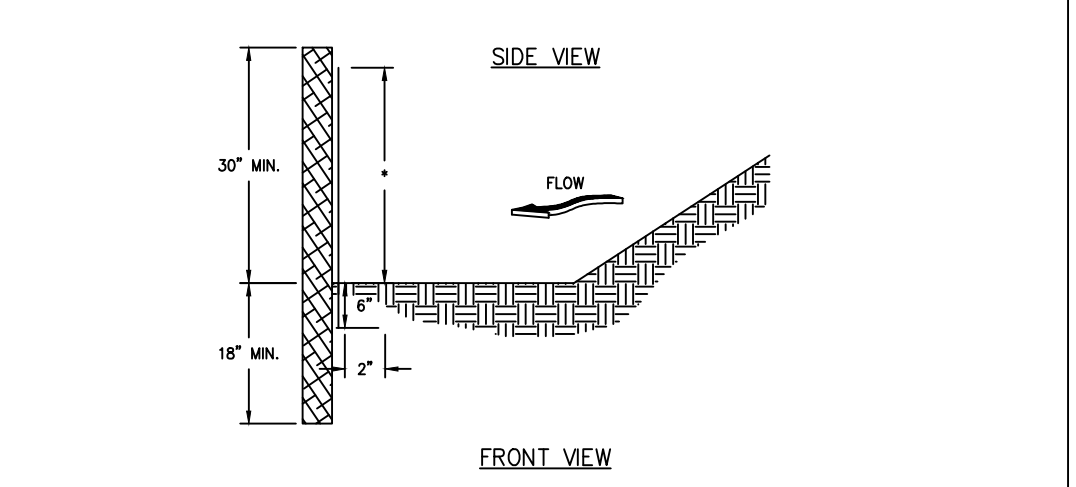
Table with columns: Species, Broadcast Rates, Resource Area, Planting Dates, and Remarks. Lists various species and their recommended planting rates and schedules.

Ds3 DISTURBED AREA STABILIZATION (PERMANENT VEGETATION) 2014 MANUAL FOR EROSION AND SEDIMENT CONTROL (GREEN BOOK) Figure 6-27.2

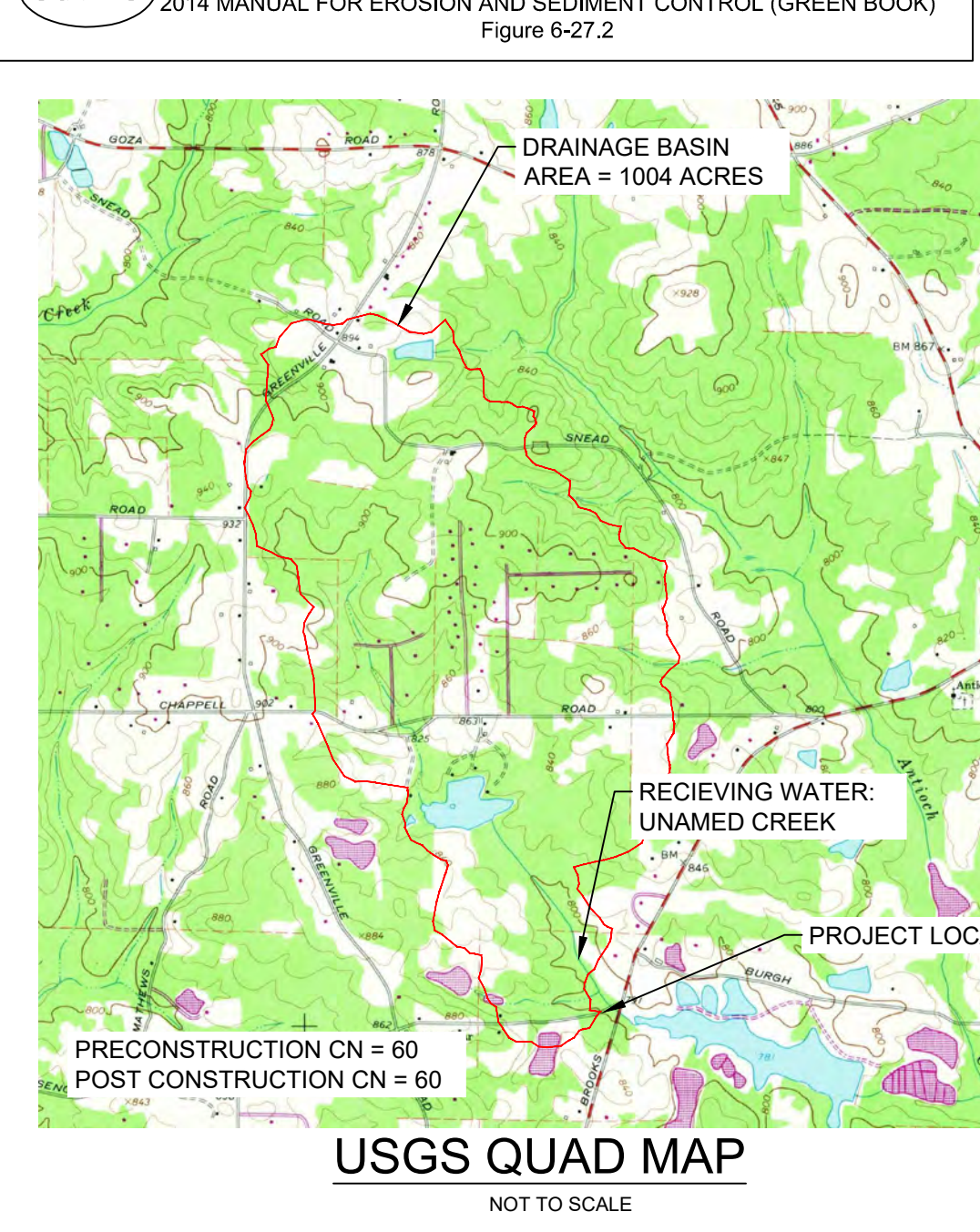


CRUSHED STONE CONSTRUCTION EXIT EXIT DIAGRAM ENTRANCE ELEVATION NOTES: 1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND DRAINAGE OR POSITIVE DRAINAGE. 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH 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 TO THE 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. WASHING IS REQUIRED. IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (INVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE). 9. WASHROCKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHROCK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT. 10. MAINTAIN AREA IN A MANNER THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP PRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

CONSTRUCTION EXIT 2014 MANUAL FOR EROSION AND SEDIMENT CONTROL (GREEN BOOK) Figure 6-14.1



SILT FENCE-TYPE SENSITIVE 2014 MANUAL FOR EROSION AND SEDIMENT CONTROL (GREEN BOOK) Figure 6-27.2



EROSION CONTROL NOTES:

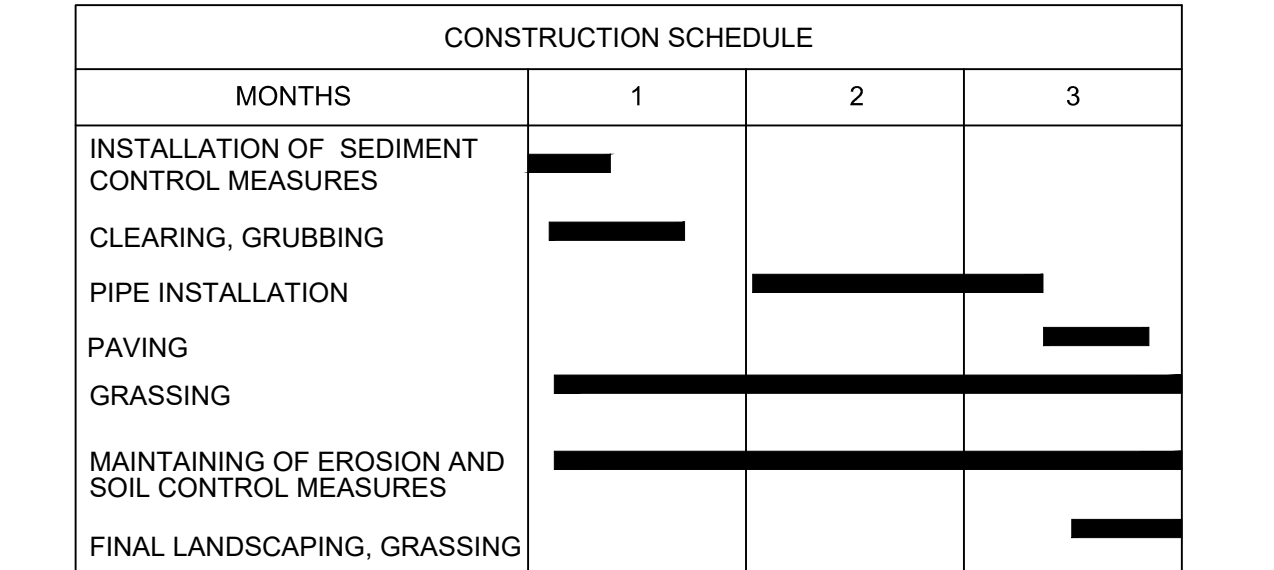
- 1. EROSION CONTROL PRACTICES MUST COMPLY WITH THE MINIMUM BEST MANAGEMENT PRACTICES FOR EROSION CONTROL AND SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS IN THE "MANUAL FOR EROSION CONTROL AND SEDIMENT CONTROL IN GEORGIA".
2. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE.
3. DISTURBED AREAS LEFT IDLE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED WITH TEMPORARY MULCH (DS1) OR VEGETATION (DS2). DISTURBED AREAS LEFT IDLE FOR TWO WEEKS OR MORE WILL BE ESTABLISHED WITH PERMANENT VEGETATION (DS3). ALL AREAS AT FINAL GRADE WILL BE ESTABLISHED WITH PERMANENT VEGETATION IMMEDIATELY UPON COMPLETION. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDING AREA WITHIN 24 HOURS OF SEEDING. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER (DS3). ON SLOPES THAT ARE 2:1 OR STEEPER, MULCH WILL BE ANCHORED.
4. IN CONCENTRATED FLOW AREAS: ALL SLOPES STEEPER THAN 2.5:1, HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFER, STABILIZE WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
5. 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 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.
6. SEDIMENT/EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE THIRD THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
7. THE USE OF POLYMERS (PAMS) IS ACCEPTED AS A BMP AS RECOMMENDED BY THE STATE SOIL & WATER CONSERVATION COMMISSION BMP "GREEN BOOK". POLYMERS USED TO STABILIZE CONSTRUCTION SITES MUST BE USED IN CONJUNCTION WITH MULCHING AND OR HYDROSEEDING.
8. MULCH, TEMPORARY VEGETATION, AND PERMANENT (PERENNIAL) VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE.
9. ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED BY ENGINEER DURING CONSTRUCTION.
10. DUE TO THE NATURE AND LOCATION OF THE CONSTRUCTION ACTIVITY, PROVIDING SEDIMENT STORAGE FOR 67 CUBIC YARDS OF SEDIMENT PER ACRE DISTURBED IS NOT FEASIBLE. APPROPRIATE BMPs THAT LIMIT THE TRANSPORT OF SEDIMENT FROM THE SITE WILL BE UTILIZED. THESE BMPs INCLUDE BUT ARE NOT LIMITED TO SILT FENCE AND TEMPORARY MULCHING, GRASSING OR PERMANENT GRASSING FOR THE DISTURBED AREAS OF THE PROJECT.

EROSION CONTROL CHECKLIST CERTIFICATIONS:

- 1. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFER AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
2. 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.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
4. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
5. ALL STREAM BUFFER DISTURBANCES ARE ASSOCIATED WITH THE CULVERT REPLACEMENT. THE PROJECT DISTURBS LESS THAN 100 LINEAR FEET OF STREAM AND IS CLASSIFIED AS A UTILITY CROSSING. AS SUCH NO USACE PERMIT OR BUFFER VARIANCE IS ANTICIPATED.

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

Table with columns: Structural Practices and Vegetative Practices. Lists practices like Construction Exit, Sediment Barrier, Disturbed Area Stabilization, etc.



TETRA TECH logo and contact information: www.tetratech.com, 1899 POWERS FERRY ROAD SE, SUITE 400 ATLANTA, GA 30339 TEL: (770) 850-0949 FAX: (770) 850-0950

Professional Engineer seal for David N. Lavergne, No. PE0402163, State of Georgia, GSWCC LEVEL II CERT. # 0000073529

Table with columns: Mark, Date, Description, Issued for Construction, By, and CH. Includes project details like Project No. 200-01297-16022, Designer DL, Drawn By CG, Checked By DL, and Sheet C-505.

PRIMARY PERMITTEE TO BE PROVIDED AFTER PROJECT IS AWARDED. 24 HOUR EROSION CONTROL CONTACT: PHILIP MALLON (770-313-9855)

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

SWCD: Towaliga

Project Name: Rising Star Culvert Replacement Project Address: Rising Star Rd, Fayetteville, Ga 30214
City/County: Fayetteville/Fayette Date on Plans: 5/26/2017

Plan Page #	Included Y/N
C-506	<input type="checkbox"/>

TO BE SHOWN ON ES&PC PLAN

- 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)
- Level II certification number issued by the Commission, signature and seal of the certified design professional.
(Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)
- The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
- Provide the name, address and phone number of primary permittee.
- Note total and disturbed acreage of the project or phase under construction.
- Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude in decimal degrees.
- Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
- Description of the nature of construction activity.
- Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
- Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
- Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 15 of the permit.
- 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 page 15 of the permit.*
- Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative sampling as stated on page 26 of permit as applicable.*
- 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 in accordance with part IV.A.5. within 7 days after installation."
- 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 wreted 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."
- Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
- 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."
- Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."
- 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."

C-105, C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
G-003	<input type="checkbox"/>
G-003	<input type="checkbox"/>
ALL	<input type="checkbox"/>
G-003	<input type="checkbox"/>
COVER	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
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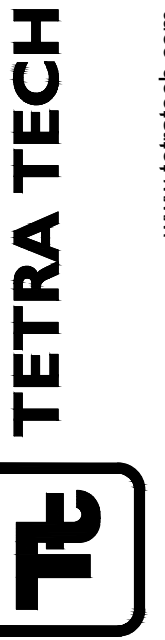
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NA	<input type="checkbox"/>
ALL	<input type="checkbox"/>
C-104	<input type="checkbox"/>
NA	<input type="checkbox"/>

- 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."
- Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
- 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.*
- 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.*
- BMPs for concrete washdown of ftools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
- Provide BMPs for the remediation of all petroleum spills and leaks.
- 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.*
- Description of the practices that will be used to reduce the pollutants in storm water discharges.*
- 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).
- Provide complete requirements of inspections and record keeping by the primary permittee.*
- Provide complete requirements of sampling frequency and reporting of sampling results.*
- Provide complete details for retention of records as per Part IV.F. of the permit.*
- Description of analytical methods to be used to collect and analyze the samples from each location.*
- Appendix B rationale for NTU values at all outfall sampling points where applicable.*
- 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.*
- 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.*
- Graphic scale and North arrow.
- 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
- 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.

NA	<input type="checkbox"/>
C-105	<input type="checkbox"/>
NA	<input type="checkbox"/>
NA	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-104	<input type="checkbox"/>
C-105	<input type="checkbox"/>
G-003	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-505	<input type="checkbox"/>
C-105, C-505	<input type="checkbox"/>

- 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.*
 - 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.
 - Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
 - Delineation and acreage of contributing drainage basins on the project site.
 - Delineate on-site drainage and off-site watersheds using USGS 1": 2000' topographical sheets.
 - An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
 - Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
 - Soil series for the project site and their delineation.
 - The limits of disturbance for each phase of construction.
 - 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.
 - 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.
 - 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.
 - 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, 2017**



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GSWCC LEVEL II
CERT. # 0000073529

MARK	DATE	DESCRIPTION	BY
0	05/26/17	ISSUED FOR CONSTRUCTION	CH

RISING STAR CULVERT REPLACEMENT
**EROSION CONTROL
CHECKLIST**

Project No.: 200-01297-16022
Designed By: CG
Drawn By: DL
Checked By: CG

C-506
Sheet

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Bar Measures 1 inch