

FAYETTE COUNTY

LEE'S MILL CULVERT REPLACEMENT PROJECT

PROJECT NUMBER 6509I

1899 POWERS FERRY ROAD SE, SUITE 400

ATLANTA, GEORGIA 30339

TEL: (770) 850-0949 FAX: (770) 850-0950

www.tetratech.com



PROJECT LOCATION:

386-470 LEES MILL RD

FAYETTEVILLE, GA 30214

CLIENT INFORMATION:

Tt PROJECT No.:

200-01297-16021

CLIENT PROJECT No.:

940-P - TASK NO: 13

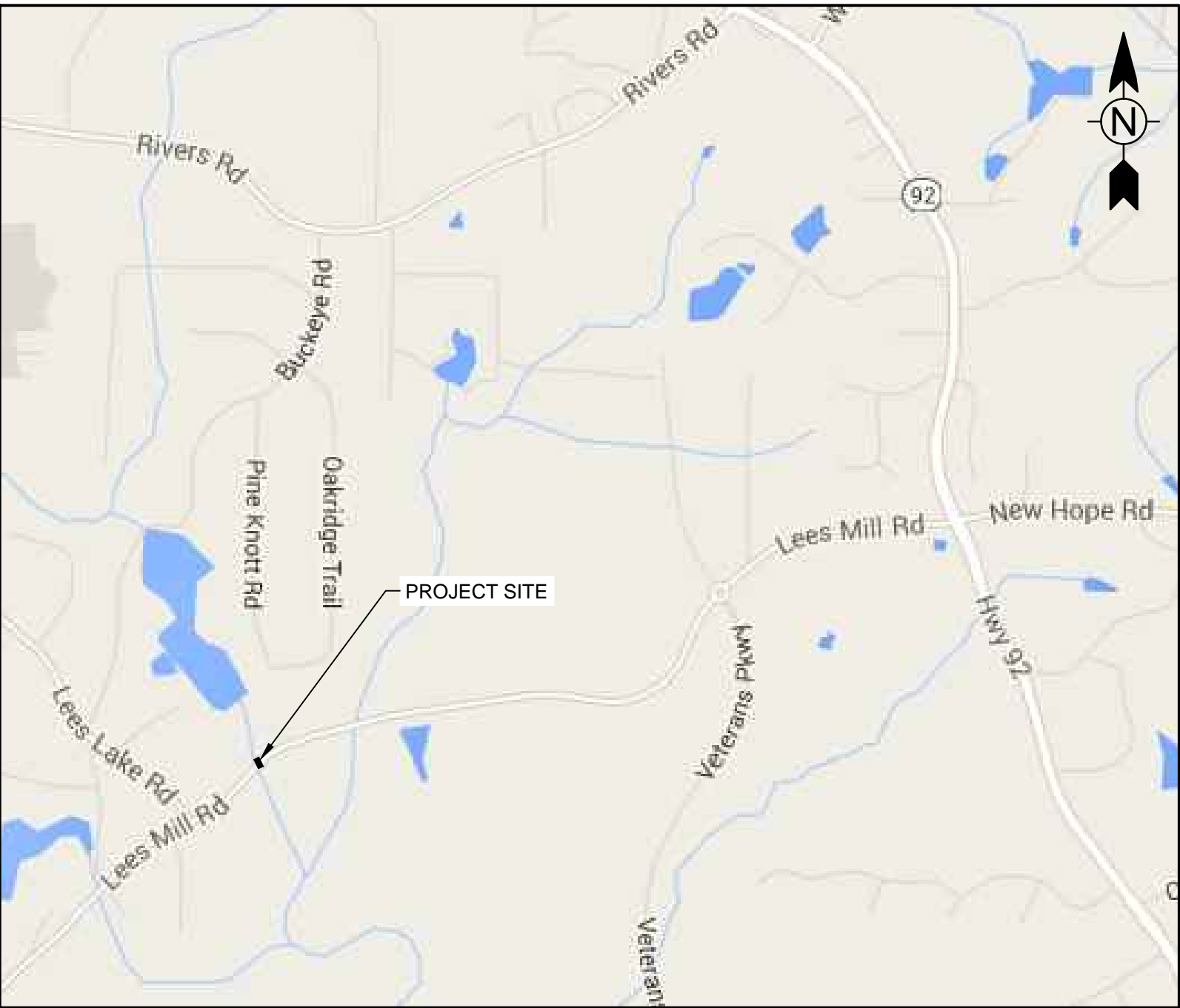
PROJECT DESCRIPTION / NOTES:

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

ISSUED:

ISSUED FOR CONSTRUCTION

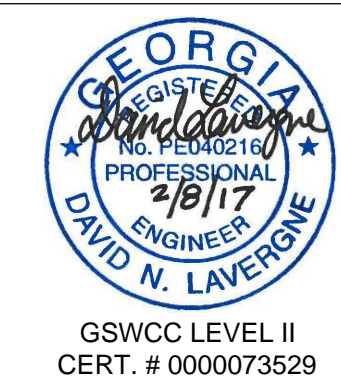
VICINITY MAP:



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INDEX OF DRAWINGS	
Sheet No.	Title
GENERAL	
G-001	COVER SHEET AND DRAWING INDEX
G-002	LEGEND AND ABBREVIATIONS
G-003	GENERAL NOTES
CIVIL	
C-101	EXISTING CONDITIONS
C-102	DEMOLITION PLAN
C-103	SITE PLAN
C-104	GRADING PLAN AND STORM PROFILE
C-105	EROSION CONTROL PLAN
C-501	CONSTRUCTION DETAILS
C-502	CONSTRUCTION DETAILS
C-503	CONSTRUCTION DETAILS
C-504	CONSTRUCTION DETAILS
C-505	EROSION CONTROL DETAILS
C-506	EROSION CONTROL CHECKLIST



LIST OF STANDARD ABBREVIATIONS

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

CIVIL LEGEND

	GAS LINE
	UNDERGROUND PHONE
	PROPERTY LINE
	RIGHT OF WAY LINE (R-O-W)
	LIMITS OF CONSTRUCTION
	EASEMENT
	PROPOSED CONTOUR MAJOR
	PROPOSED CONTOUR MINOR (LABEL OPTIONAL)
	WATER
	STORM SEWER
	SANITARY SEWER
	SANITARY SEWER (FORCE MAIN)
	GUARD RAIL
	STEEL FENCE
	WOOD FENCE
	VEGETATION
	TOP
	BOTTOM
	WELL
	MANHOLE
	TRANSFER
	YARD
	YARD HYDRANT
	YEAR

REFERENCE SYMBOLS

	DENOTES SECTION LETTER IDENTIFICATION
	DENOTES DETAIL NUMBER IDENTIFICATION
	DENOTES SECTION LETTER IDENTIFICATION
	DENOTES DETAIL NUMBER IDENTIFICATION

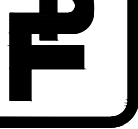
HATCHING LEGEND

EXISTING	PROPOSED

MECHANICAL/DRAFTING LEGEND

EXISTING	PROPOSED

TETRA TECH



GSWCC LEVEL II
CERT. # 0000073529

BY	CG	DATE	DESCRIPTION
		02/08/17	ISSUED FOR CONSTRUCTION

LEE'S MILL CULVERT REPLACEMENT
LEGEND AND ABBREVIATIONS

Project No.: 200-01297-16021
Designed By: DL
Drawn By: CG
Checked By: DL

G-002

Sheet
Bar Measures 1 inch

2/9/2017 9:33:04 AM - P:\R\01297200-01297-16021\CADD\SHEETFILES\G-001.DWG - GULMIRE, CALEB

GENERAL NOTES

PROJECT INFORMATION:

- THE PROJECT SHALL CONSIST OF THE DEMOLITION OF THE EXISTING CMP CULVERTS UNDER LEE'S MILL ROAD AND THE INSTALLATION OF 50 LINEAR FEET OF DOUBLE 10'X8' BOX CULVERTS ALONG WITH THE RELOCATION OF THE EXISTING UTILITIES IN THE AREA.
- THE ORDER OF MAJOR LAND DISTURBING ACTIVITIES IS INDICATED IN THE ACTIVITY SCHEDULE LOCATED ON SHEET C-504.
- THE DISTURBED ACREAGE FOR THE PROJECT IS 0.66 ACRES.
- THE CULVERT REPLACEMENT PROJECT LOCATION (BEGINNING AND END) IS:

33.2373°N 84.5214°W

FAYETTE COUNTY WATER SYSTEM NOTES:

- FAYETTE COUNTY WATER SYSTEM SPECIFICATIONS AND DETAILS SHALL GOVERN ALL WATER MAIN CONSTRUCTION.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH FAYETTE COUNTY WATER SYSTEM AND AWWA STANDARDS AND SPECIFICATIONS.
- 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.
- 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.
- MAINTAIN 24" MINIMUM CLEARANCE BETWEEN WATERLINE AND OTHER STRUCTURES.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4' OVER ALL WATER LINES.
- CONTRACTOR SHALL FLAG WATER LINE AND SERVICE LOCATIONS TO PREVENT DAMAGE BY OTHER UTILITY CONTRACTORS.
- PROPER COMPACTION IS REQUIRED THROUGHOUT THE PROJECT. (95% PERVIOUS, 98% IMPERVIOUS)
- UNSUITABLE SOIL MATERIALS SHALL BE REPLACED WITH SUITABLE MATERIALS.
- 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.
- TOP OF CURBS SHALL BE PERMANENTLY MARKED AND PAINTED BLUE AT MAIN AND SERVICE CROSSINGS, AS WELL AS, VALVE AND METER LOCATIONS.
- WATERLINE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL, INCLUDING SIGNAGE AND FLAGMEN, WHILE WORKING WITHIN THE RIGHT OF WAY OF ANY EXISTING ROAD.
- 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.
- WATER TO BE PROVIDED BY FAYETTE COUNTY WATER SYSTEM.
- ALL TIE-INS SHALL BE COORDINATED WITH FAYETTE COUNTY WATER SYSTEM. EXISTING VALVES SHALL BE OPERATED BY COUNTY PERSONNEL ONLY.
- 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.
- 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.
- WHILE THE EXCAVATION IS OPEN, UNDERGROUND INSTALLATIONS SHALL BE PROTECTED, SUPPORTED OR REMOVED AS NECESSARY TO SAFEGUARD EMPLOYEES.
- 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.
- 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
- 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.
- 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.
- 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.
- 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:

- BENCHMARK FOR CONSTRUCTION HAS BEEN PROVIDED ON SHEET C-101 .
- 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.
- SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE FAYETTE COUNTY DEVELOPMENT REGULATIONS, LATEST EDITION, UNLESS OTHERWISE WAIVED.
- 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):

- 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.
- THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING TO BE HELD BETWEEN FAYETTE COUNTY, UTILITIES, ENGINEER OF RECORD, AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 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.
- 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.
- 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.
- 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.
- 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.
- TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WERE TAKEN FROM SURVEY PROVIDED BY: ROCHESTER AND ASSOCIATES, INC.
- 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.
- 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.
- 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:

- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL REMOVE PAVING MARKED FOR DEMOLITION WHICH INCLUDES ALL ASPHALT, CONCRETE, BASE, AND RETAINING WALLS (INCLUDING THE FOOTERS).
- 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.
- 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.
- 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:

- COMPACT ALL UTILITY TRENCHES WITHIN ROADWAYS TO 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T - 180) AND TO 95% WITHIN OTHER AREAS.
- 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).
- STABILIZED SUBGRADE TO MEET SPECIFIED REQUIREMENTS.
- ASPHALTIC CONCRETE TO GDOT STANDARD SPECIFICATION (LATEST EDITION) SECTION 916.1 AND FAYETTE COUNTY, WHICHEVER IS GREATER.
- ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- ALL CONCRETE FLUMES, WALKS, AND CURBS SHALL BE CONSTRUCTED WITH 3000 PSI CONCRETE.
- 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.
- 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.
- 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.
- 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):

- ALL PIPES SHALL HAVE 3 FEET MINIMUM COVER UNLESS OTHERWISE SPECIFIED IN PLANS, CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER GRADE ELEVATIONS AND ALIGNMENTS.
- 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.
- 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:

- 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.
- 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:

- 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:
 - 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.
 - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
 - 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.
 - THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

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GSWCC LEVEL II
CERT. # 0000073529

MARK	DATE	DESCRIPTION	BY	CG					
0	02/08/17	ISSUED FOR CONSTRUCTION							

LEE'S MILL CULVERT REPLACEMENT

GENERAL NOTES

Project No.: 200-01297-16021

Designed By: DL

Drawn By: CG

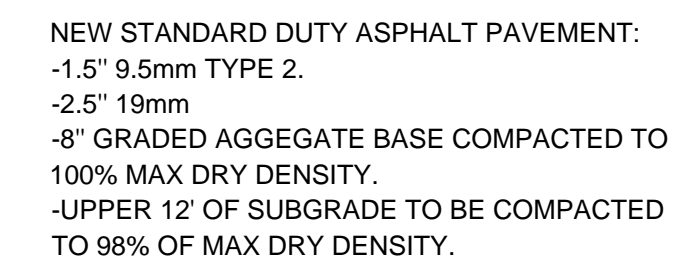
Checked By: DL

G-003

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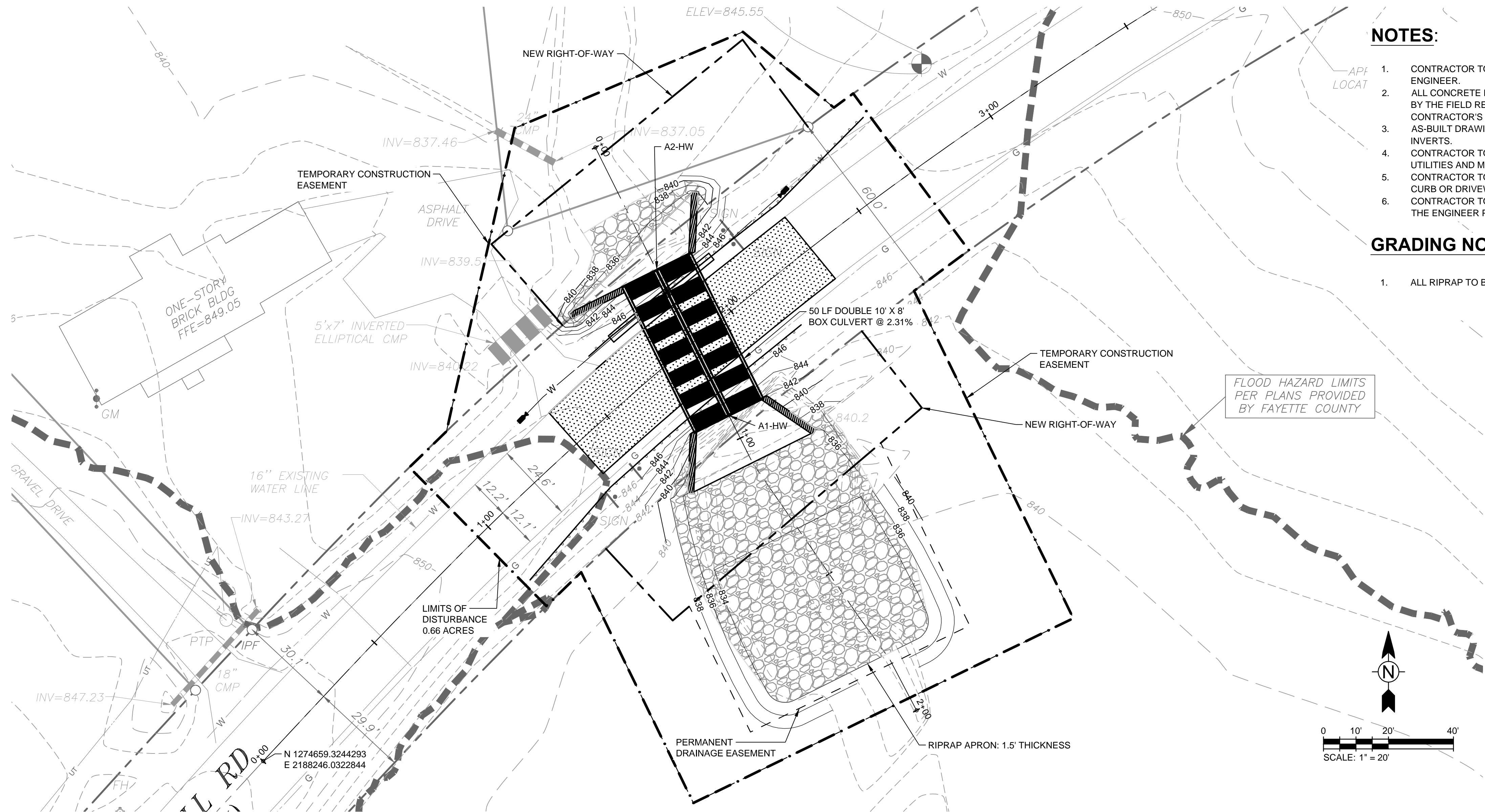
Bar Measures 1 inch

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Bar Measures 1 inch

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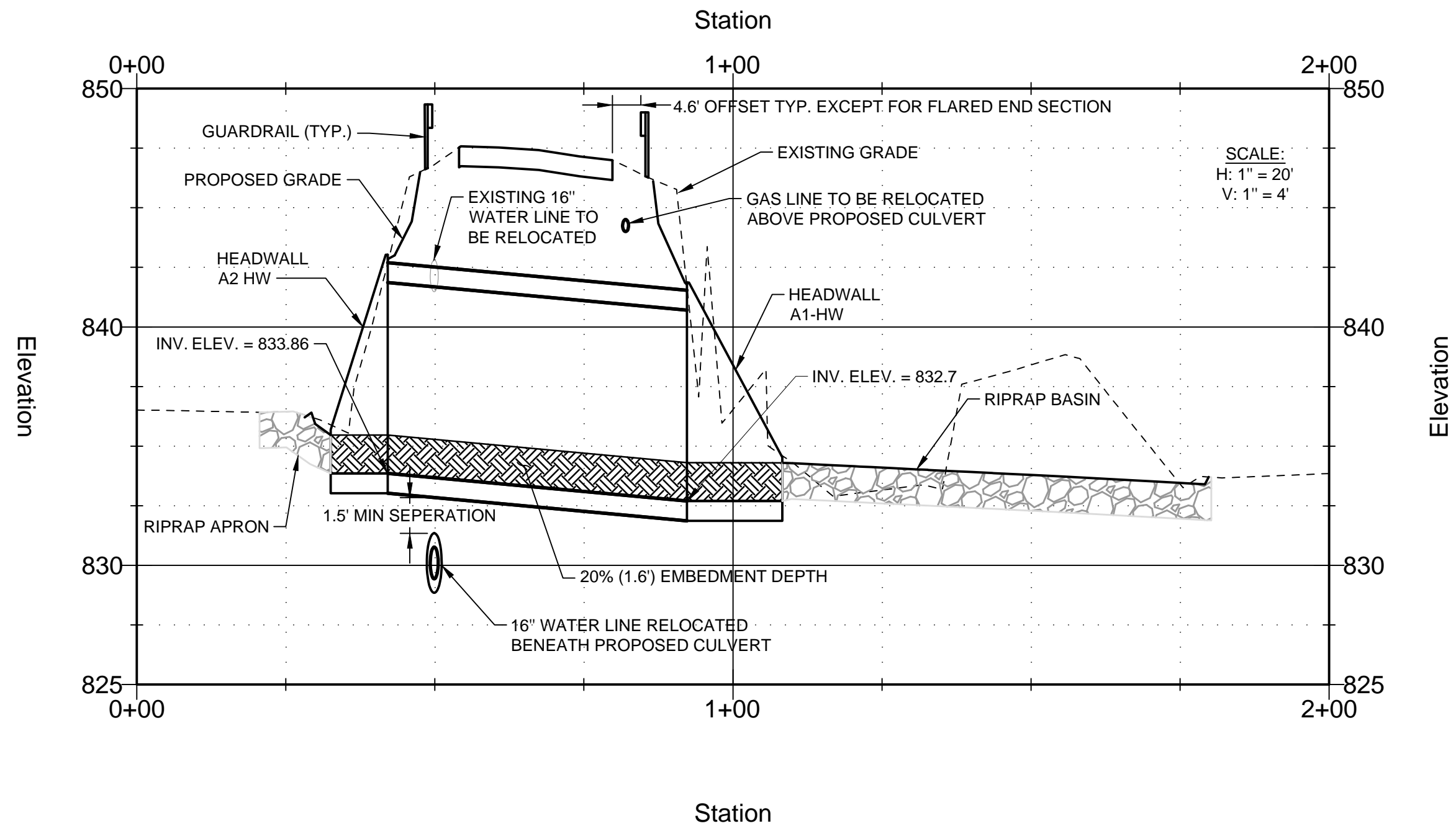
NOTES:

1. CONTRACTOR TO COORDINATE ROAD CLOSURE WITH COUNTY AND ENGINEER.
2. ALL CONCRETE FORMWORK AND REINFORCING BARS TO BE INSPECTED BY THE FIELD REPRESENTATIVE IN CONJUNCTION WITH THE CONTRACTOR'S 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 BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED CURB OR DRIVEWAYS DURING CONSTRUCTIONS.
6. CONTRACTOR TO PROVIDE BYPASS PUMPING PLAN TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

GRADING NOTES:

1. ALL RIPRAP TO BE GDOT TYPE 3.

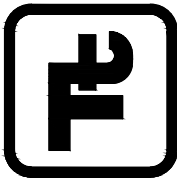
LEE'S MILL RD CUVLERT PROFILE



FLOW SUMMARY TABLE			
STORM FREQUENCY	FLOW (CFS)	OUTLET VELOCITY (FPS)	DOWNSTREAM VELOCITY (FPS)
25-YEAR	1271.1	15.7	2.8
50-YEAR	1480.0	16.3	3.1
100-YEAR	1671.0	16.8	3.4

DRAINAGE AREA = 1787.5 ACRES
STREAM SLOPE = 2.80%

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GSWCC LEVEL II
CERT. # 0000073529

MARK	DATE	DESCRIPTION	BY
0	02/08/17	ISSUED FOR CONSTRUCTION	CG

LEE'S MILL CUVLERT REPLACEMENT

GRADING PLAN

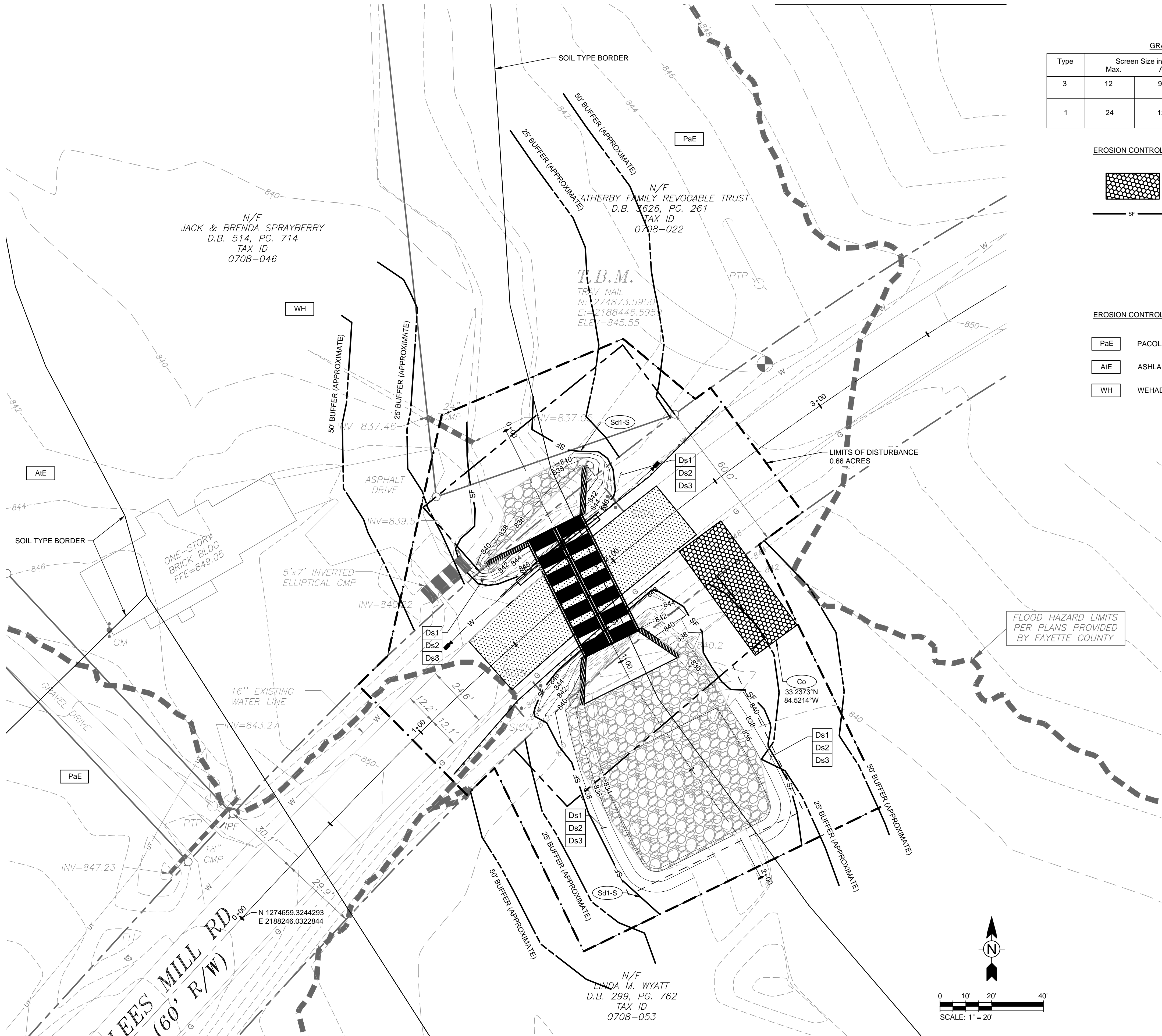
Project No.: 200-01297-16021
Designed By: DL
Drawn By: CG
Checked By: DL

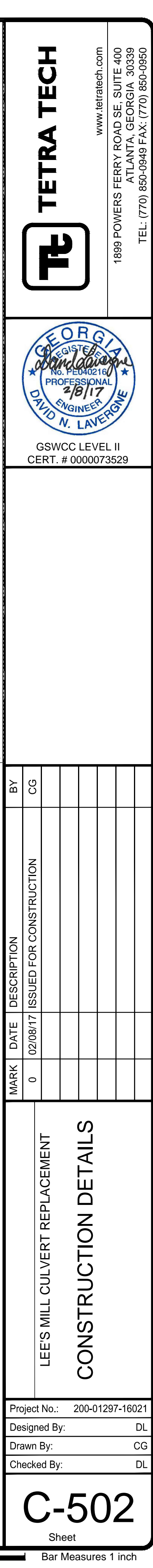
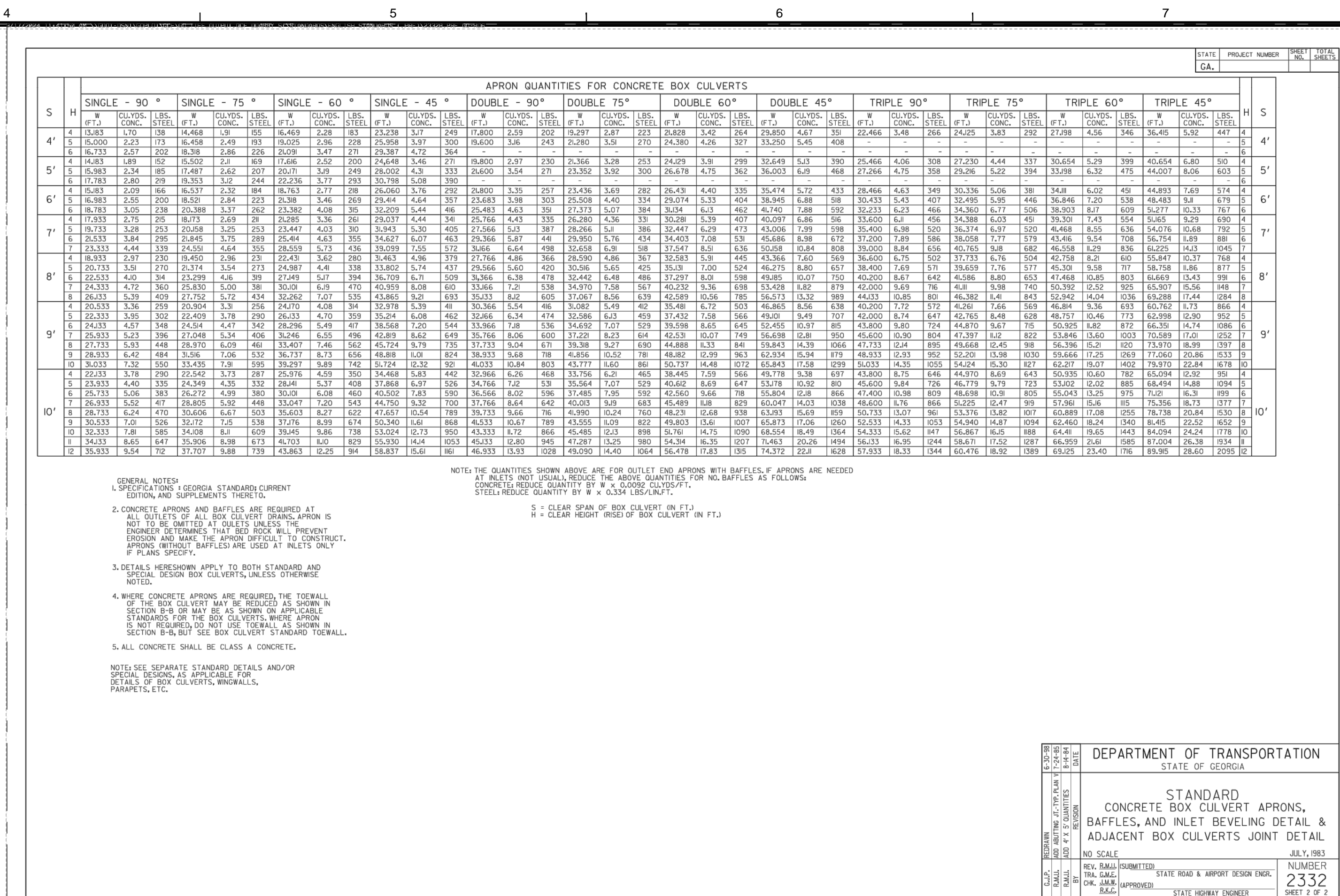
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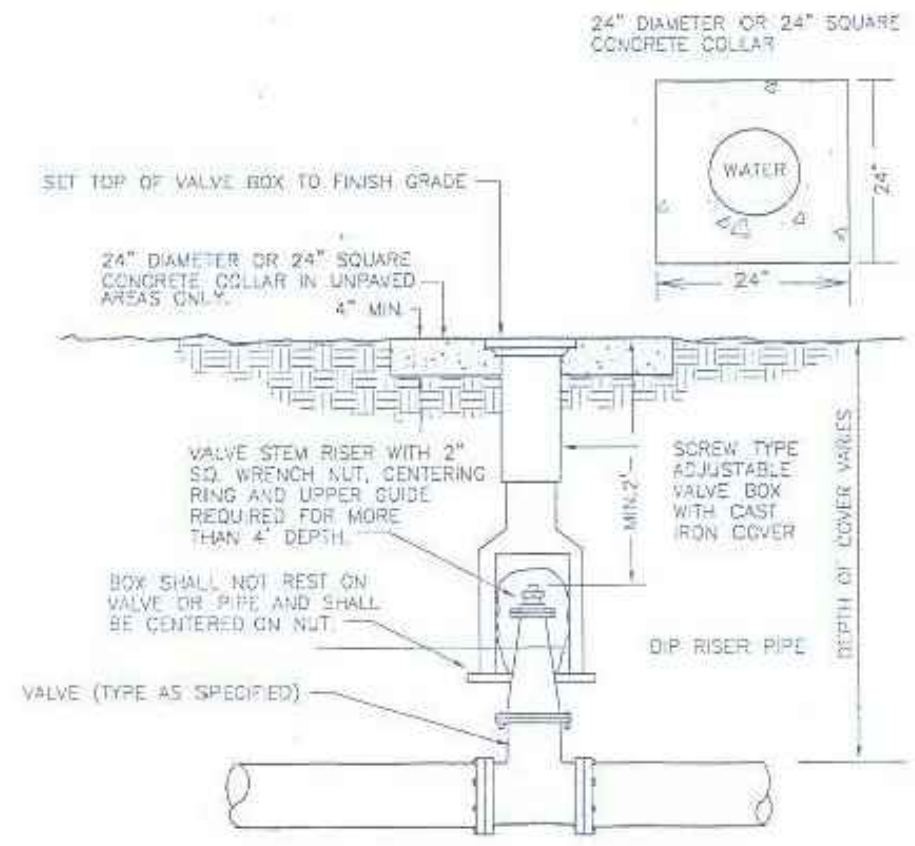
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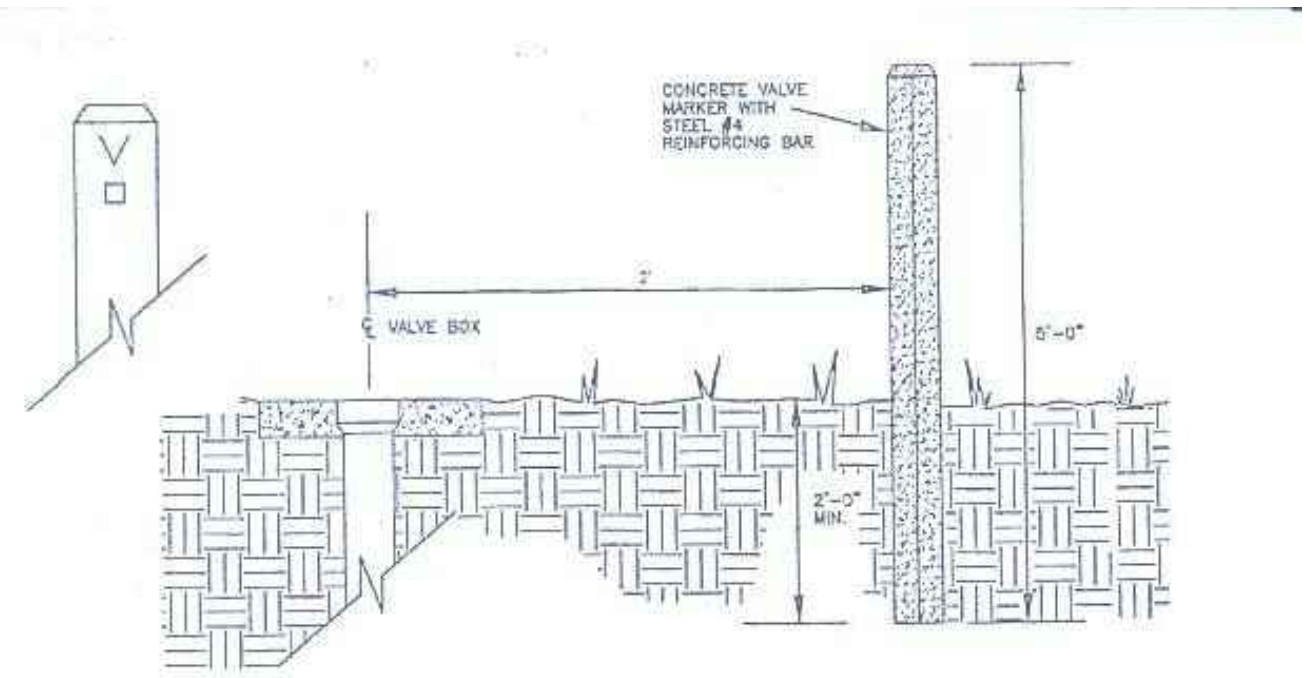






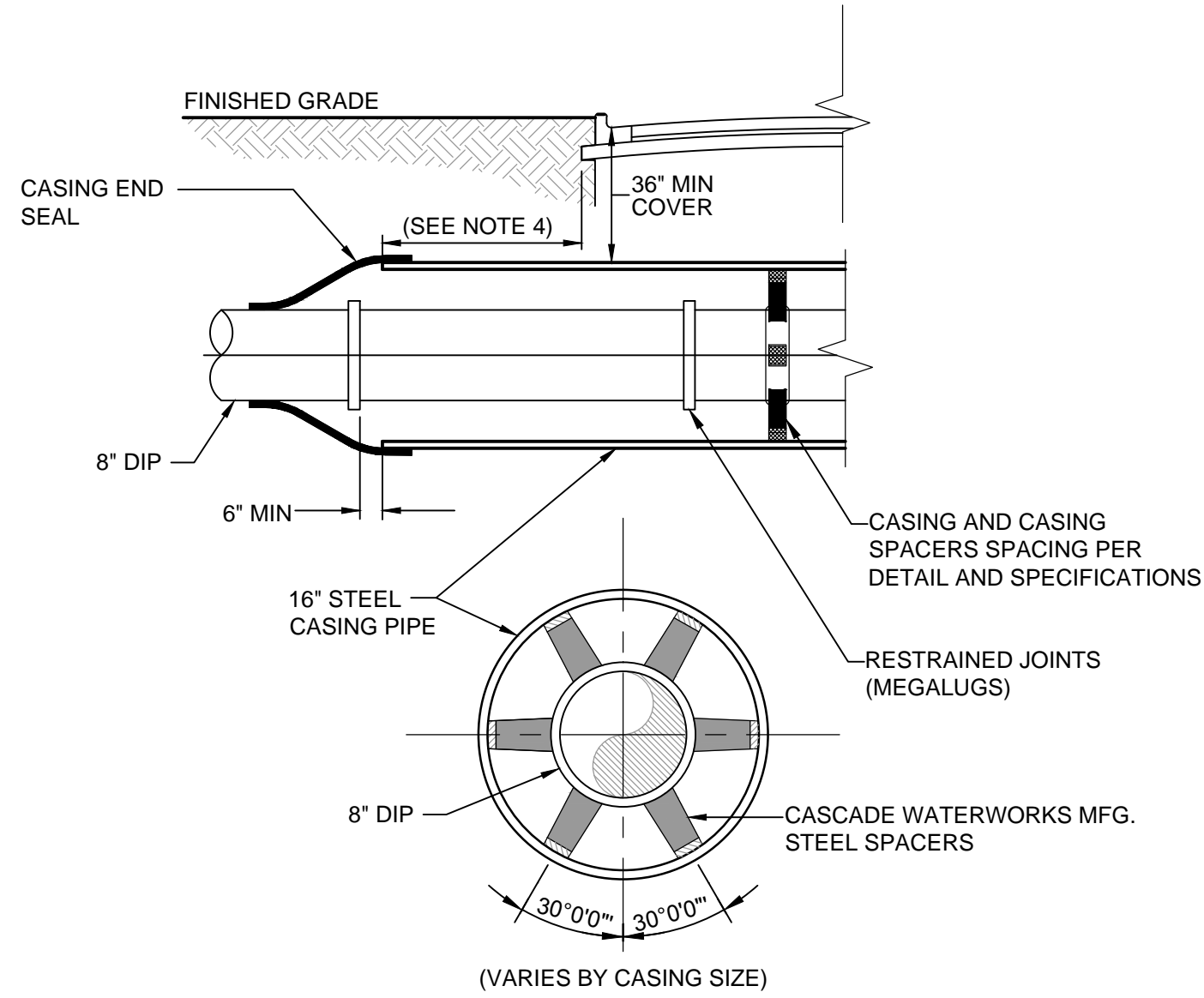
VALVE & VALVE BOX DETAIL

1
DETAIL
SCALE: N.T.S.



VALVE MARKER DETAIL

2
DETAIL
SCALE: N.T.S.

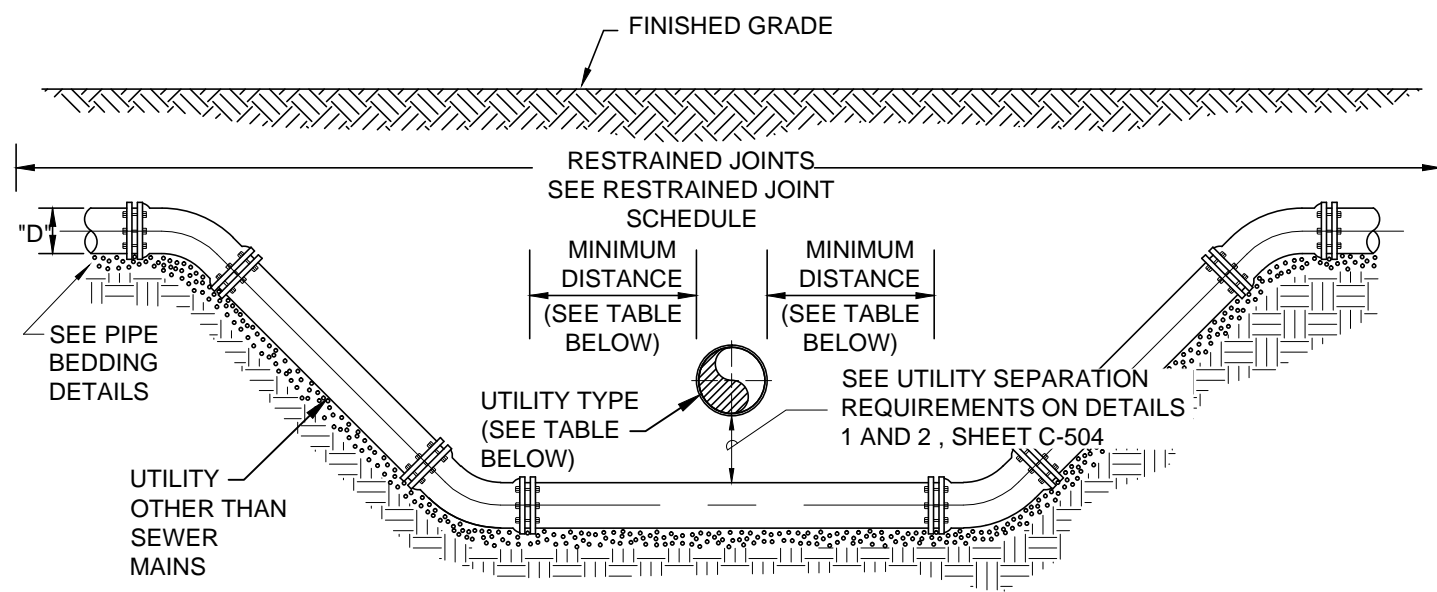


NOTES:

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.

STEEL CASING

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													
	90°	45°	22-1/2°	11-1/4°	90°	45°	22-1/2°	11-1/4°	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 HOPE 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.

LENGTH OF RESTRAINED JOINT FOR LARGER DIAMETER PIPE

RESTRAINED JOINT SCHEDULE

4
DETAIL
SCALE: N.T.S.



GSWCC LEVEL II
CERT. # 0000073529

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LEE'S MILL CULVERT REPLACEMENT
CONSTRUCTION DETAILS

Project No.:	200-01297-16021
Designed By:	DL
Drawn By:	CG
Checked By:	DL

C-503
Sheet

Bar Measures 1 inch

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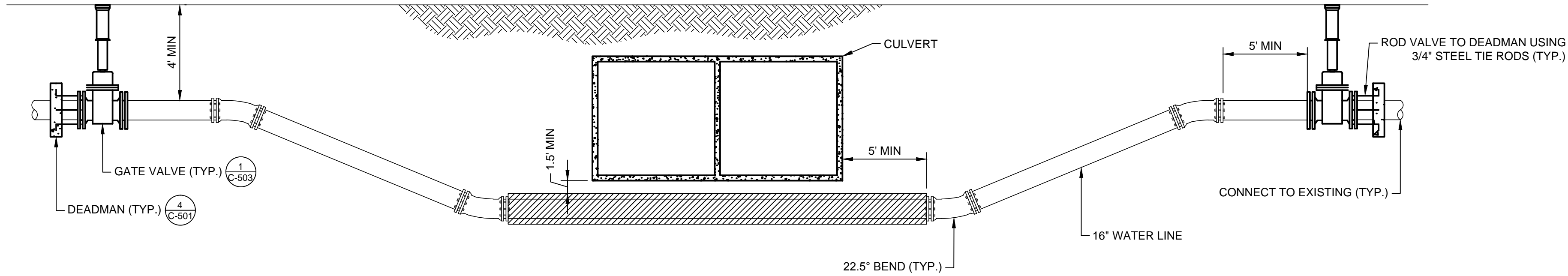
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4

5

6

7



16" WATER LINE CULVERT CROSSING

1
-
DETAIL
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CERT. # 0000073529

MARK	DATE	DESCRIPTION	BY
0	02/08/17	ISSUED FOR CONSTRUCTION	CG

LEE'S MILL CULVERT REPLACEMENT
CONSTRUCTION DETAILS

Project No.:	200-01297-16021
Designed By:	BDR
Drawn By:	HCR
Checked By:	JRW

C-504
Sheet

Bar Measures 1 inch

Bar Measures 1 inch