

GENERAL NOTES:

- THE CONTRACTOR SHALL FURNISH ALL SERVICES, EQUIPMENT, MATERIALS, TOOLS AND LABOR REQUIRED FOR COMPLETE AND PROPER INSTALLATION AND TESTING OF HDPE USING HORIZONTAL DIRECTIONAL DRILLING (HDD) METHODS AT THE LOCATIONS SHOWN ON THE DRAWINGS.
- ALL HDD ACTIVITIES SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1962 AND CHAPTER 12 OF THE PPI HANDBOOK.
- ALL DEPTHS FOR DRILLING SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 15FT OF VERTICAL CLEARANCE BETWEEN THE TOP OF THE BOREHOLE AND THE OBSTACLE BEING BORED.
- THE CONTRACTOR SHALL FURNISH AND INSTALL FULLY PRESSURE RATED HDPE FABRICATED FITTINGS AS REQUIRED TO CONNECT THE DRILLED PIPE TO THE REST OF THE PIPELINE ALIGNMENT AT THE PROPER DEPTH AT EACH END OF THE BORE.
- THE CONTRACTOR SHALL SUBMIT A WORK PLAN TO THE ENGINEER WITHIN 2 WEEKS OF THE NOTICE TO PROCEED CONTAINING THE FOLLOWING:
 - A COMPLETE LIST OF CONSTRUCTION MATERIALS, EQUIPMENT AND SUPPLIES INCLUDING HDPE FITTINGS, DRILLING MUD, AND DRILLING FLUID ACTIVITIES.
 - SPECIFICATIONS ON TYPE OF DRILLING EQUIPMENT INCLUDING DRILLING RIG, MUD SYSTEM, MUD MOTORS, DOWN-HOOL TOOLS, GUIDANCE SYSTEM, AND SAFETY SYSTEMS.
 - WORK PLAN CONSISTING OF A DETAILED PROCEDURE AND SCHEDULE TO BE USED, LIST OF PERSONNEL, AND THEIR QUALIFICATIONS, LIST OF SUBCONTRACTORS, A SAFETY PLAN INCLUDING MSDS OF ANY POTENTIALLY HAZARDOUS SUBSTANCES, THE METHOD OF DRILLING FLUID DISPOSAL AND AN ENVIRONMENTAL PROTECTION PLAN.
 - BORE PLAN CONSISTING OF A SCALED DRAWING OF THE PILOT BORE PLAN FOR REVIEW, SHOW PROPOSED GRADE, DEFLECTION RADII OF THE BORE BORE, ALL EXISTING UTILITIES WITH MINIMUM HORIZONTAL AND VERTICAL CLEARANCES, ADDRESS THE LOCATION OF THE DRILL RIG SETUP, THE LENGTHS OF EACH BORE BASED ON SOIL CONDITIONS, EQUIPMENT USED, TOPOGRAPHY, ETC. THE PROPOSED VERTICAL AND HORIZONTAL CLEARANCES BETWEEN THE BORED PIPE AND ANY EXISTING/PROPOSED CONDUCTING PIPES, CONDUITS OR OBSTRUCTIONS SHALL BE AT LEAST TWO TIMES THE GUIDANCE SYSTEM ACCURACY TOLERANCE.
 - SUBMIT SUPPORTING CALCULATIONS, CERTIFICATIONS OR MATERIALS DEMONSTRATING THE STRENGTH OF THE PRODUCT PIPE ARE ABLE TO WITHSTAND THE DESIGN AND CONSTRUCTION STRESSES AND PRESSURES.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FIVE DAYS PRIOR TO THE COMMENCEMENT OF DRILLING ACTIVITIES AND 24 HOURS PRIOR TO THE START OF DRILLING INCLUDING PILOT HOLE DRILLING, PRE-REAMING OR HOLE ENLARGEMENT, BACK PULLING AND BENDING ACTIVITIES.
- THE CONTRACTOR SHALL SECURE INFORMATION CONCERNING THE LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES IN PROXIMITY TO THE PIPELINE ALIGNMENT, PRIOR TO THE START OF DRILLING AND CONFIRM THE ALIGNMENT OF ALL CRITICAL UTILITIES USING VACUUM EXCAVATION OR OTHER SUITABLE EXCAVATION METHOD, FOR FURTHER DETAILED CONFIRMATIONS AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- TEST DIRECTIONAL DRILLING PIPE AFTER PULLBACK PER ASTM F2164-13.
- IF, AS A RESULT OF THE HYDRASTATIC TEST, THE ENGINEER DETERMINES THAT THE PIPE IS NOT ACCEPTABLE, THE DRILLER WILL ABANDON THE LINE IN PLACE BY FURNISHING A CAP TO BOTH ENDS OF THE HDPE CONDUIT AND REPLACE THE LINE AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTAIN AND CONVEY ALL USED DRILLING FLUID AND DRILLING FLUID SPILLED DURING OPERATIONS OF THE DRILLING FLUID RECYCLING SYSTEM OR REMOVE BY VACUUM TRUCKS OR OTHER METHODS ACCEPTABLE TO THE OWNER.
- TAKE ALL NECESSARY MEASURES TO ELIMINATE THE DISCHARGE OF WATER, DRILLING MUD, AND CUTTINGS TO NEARBY WATERWAYS DURING THE BORE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ANY DAMAGE CAUSED BY HEAVING, SETTLEMENT, SEPARATION OF PAVEMENT, OR ESCAPE OF DRILLING FLUID FROM THE HDD OPERATION.
- AT THE COMPLETION OF THE HDD, THE CONTRACTOR SHALL SUBMIT RECORD DRAWINGS TO THE ENGINEER NOTING ALL DEVIATIONS FROM THE PLANS THAT RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
- UPON ACCEPTANCE OF THE PIPE INSTALLATION, THE CONTRACTOR SHALL REMOVE ALL OF HIS/HER EQUIPMENT, MATERIALS AND SUPPLIES FROM THE SITE, FILL IN ALL HOLES OR EXCAVATIONS WITH ENHANCED MATERIAL FREE FROM DEBRIS AND ORGANIC MATTER, GRADE THE SITE TO PRE-CONSTRUCTION ELEVATIONS AND RESTORE SURFACES TO EQUAL TO OR BETTER THAN THE CONDITION PRIOR TO THE START OF WORK.

HORIZONTAL DIRECTIONAL DRILLING GENERAL NOTES

HDD-01

6120 Powers Ferry Road NW, Suite 300
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HDPE FITTING DETAILS
 NOT TO SCALE

HDD-04

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DIRECTIONAL BORE DETAILS
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DEAD-MAN ANCHOR BLOCK FACE VIEW
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TYPICAL PROFILE
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HORIZONTAL DIRECTIONAL DRILLING (HDD) DETAILS

C.43
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**NORTHGATE HIGH SCHOOL
 SANITARY SEWER
 COWETA COUNTY WATER AND
 SEWERAGE AUTHORITY**

CATL190025

ISSUE	DATE
PRELIMINARY	08.15.2019
75% SUBMITTAL	10.01.2019
BID READY	10.18.2019

DRAWN BY: DS
 CHECKED BY: CB

REGISTERED PROFESSIONAL ENGINEER
 No. 2441
 10-18-19
 TROY G. BLAYDES