

ABANDONED
ACRES
ADJACENT
AGGREGATE
ALUMINUM
ANCHOR
BACK OF CURU BEGINNING BITUMINOUS BELL JOINT BASE LING BUILDING MECHANICAL JOINT METAL NAIL AND CAP BENCH MARK RI OW-OFF VALV BLACK STEEL PIPE SUTTERFLY VALVE NON-POTABLE WATER NOT TO SCALE BEGIN VERTICAL CURVE ELEVATION BEGIN VERTICAL CURVE STATION VERHEAD ELECTR ENTER LINE CMP
CMU
CO
COMB
CONC
CONST
CONV
COR
CTR
CTV
CULV
D
DAW
DE
DEQ US ARMY CORPS OF ENGINEERS POINT OF INTERSECTION CONVEYOR
CORNER
CENTER
CABLE TELEVISION POINT OF TANGENT PUBLIC UTILITY EASEMENT
PUBLIC UTILITY & PEDESTRIAN PATHWAY DRAINAGE EASEMENT VIRGINIA DEPARTMENT OF ENVIRONMENTAL POLYVINYL CHLORIDE POINT OF VERTICAL CURVE POINT OF VERTICAL INTERSECTION QUALITY DROP INLET DUCTILE IRON PIPE DEGREE OF CURVE DETAIL DRAWING DWELLING EACH REQUIRED
REVISION
RAILROAD
ROUTE
SIDEWALK
SANITARY
SOUTHINOUND LANE
STORM DRAIN EACH FACE BLECTRICAL ELEVATION ENGINEER ENTRANCE END OF LINE EDGE OF PAVEMENT
EQUAL
EQUIPMENT
END VERTICAL CURVE ELEVATION FLARED END SECTIO
FINISHED FLOOR ELE
FIGURE
FINISH
FLANGE
FORCE MAIN
FOOT, FEET
FOOTING
FUTURE
GAUGE
GALLON
GALVANIZED
GARAGE
GROUND
GOVERNMENT
GALLONS PER DAY
GALLONS PER MINUTE
GRAVEL
GRATING
GATUND
GATUNE
GRAVEL
GRATING
GATUNE
GALONS PER MINUTE
GRAVEL
GRATING
GATUNG
GATUN TOP OF WALL UNDERGROUND GAS

HUII AND TAC

HUB AND TAC
HOLLOW METAL
HORIZONTAL
HIGH POINT
HOUR
HYDRANT
INSIDE DIAMETEF
INCH
INSULATION
INTERIOR
INVERT
INON PIN SET
LENGTILL LONG

LENGTH, LONG

LINEAR FOOT LIGHT POLE

UNDERWRITER'S LABORATOR

UNDERGROUND TELEPHONE
VENT

VERTICAL VIRGINIA EROSION AND SEDIMEN

U.S GEOLOGIC SURVEY

VERTICAL CURVE

CONTROL HANDBOOK

WATER MANHO

WATER SURFAC

WEIGHT WATERTIGHT

PROPOSED EXISTING **___** +1025.00 X 1025 FG ______ ____ EXEST. CONC WALK EN HETREFRANCE EXCEPT. PROFESENT alinghan speak $\sim\sim\sim$ $\sim\sim\sim$ © ∞ **6**8 — x —— x = ---------- L---------- t -----SD ----- 55 -----------FM------- G ---------- W ---------OHE ----- or--------- t/E--------- UT-----——⊗—— ____ ____ ------ PANTO OTICI PAVED DITCH CULVERT WITH FLARED END SECTION >----< AIR RELEASE VALVE / VAULT ASSEMBLY PLAN BLOW OFF VALVE / VAULT ASSEMBLY STEEL ENCASEMENT

DESCRIPTION

BUILDING WITH PORCH OR STOOP FOUNDATION ONLY CONTOUR, CONTOUR WITH ELEVATION SPOT ELEVATION CONCRETE CURB CONCRETE CURB & GUTTER CONCRETE WALK OR SLAB PAVEMENT UNPAVED OR GRAVEL ROAD TREE LINE TREE OR SHRUB FENCE (EXISTING OR PROPOSED NOTED) CENTERLINE CREEK, SWALE, DITCH PROPERTY LINE CENTERLINE OR BASELINE FIELD SURVEY TRAVERSE POINT GEOLOGIC BORE HOLE BENCH MARK (EXISTING OR SET NOTED) STORM DRAIN SANITARY SEWER FORCE MAIN GAS MAIN OR SERVICE LINE WATER MAIN OR SERVICE LINE OVERHEAD ELECTRICAL LINE OVERHEAD TELEPHONE LINE UNDERGROUND ELECTRICAL LINE UNDERGROUND TELEPHONE LINE PIPE FITTINGS FIRE HYDRANT **GATE VALVE** CLEANOUT MANHOLE DROP INLET (CURB AND GRATING TYPES) UTILITY POLE LIGHT POLE TELEPHONE PEDESTAL BURIED TELEPHONE VAULT

CONCRETE ENCASEMENT

LIMITS OF DISTURBED AREA

ABANDON OR REMOVE

WATERLINE PLUG

- 1. All construction methods and materials shall conform to the latest edition of the design and construction standards and specifications of the Western Virginia Water Authority (Authority) available at www.westernvawater.org or by contacting the Authority at 540-853-5700. The project shall also comply with the governing jurisdiction's standards and other agency standards (e.g., VDOT, DEQ, DCR, VDII, etc.) where applicable.
- the existing sewerline, shore the trench per OSHA requirements, and clean the existing sewerline prior to the Authority performing the tap. The contractor shall notify the Authority's Utility Line Services Division at 540-853-2792 at least seventy-two (72) hours prior to requiring the connection. 3. The contractor shall perform all manhole connections. The coring and boot installation shall be inspected and
- Authority's construction inspector responsible for the project at least one (1) day prior to initiating the manhole
- The contractor shall notify the Authority's Engineering Coordinator, Chuck Clark, at 540-537-3243 at least three (3)
- days prior to construction.
- least two (2) days prior to any construction. The contractor shall have a valid Miss Utility ticket prior to excavation. Contact Miss Utility at 1-800-552-7001.
- All existing utilities may or may not be shown in their exact location. Contractor shall locate all utilities and determine all inverts prior to construction to allow for adjustments due to conflicts with other utilities. The contractor shall comply with the Virginia State Water Works Regulations, Section 12.05.03, and the Virginia State Sewage Collection and Treatment Regulations where lines cross.
- An approved set of plans and permits must be available at the construction site at all times. Construction debris shall be containerized in accordance with the Virginia Litter Control Act.
- Prior to commencing work, the contractor's certified Responsible Land Disturber shall obtain an Erosion and Sediment Control Permit for the project from the local governing jurisdiction and DCR (if required). All erosion and sediment control measures must be in accordance with the latest edition of the Virginia Erosion and Sediment Control Handbook, Latest Edition and shall be installed prior to construction.
- Field changes shall be approved by the Authority's Engineering Division prior to such construction.
- installed to grade and flush with the final payement. Manholes installed within the Roanoke County Greenway Trail (Hanging Rock Battlefield Trail) shall have the manhole tops installed at six inches below finished grade; installation shall be coordinated with Roanoke County Parks and Recreation Department.
- 16. Unrepaired roadways opened to traffic shall have, at a minimum, compacted aggregate material VDOT 21a or 21b flush with the adjacent roadway surface and shall be inspected and repaired on a daily basis. Some areas will require a temporary patch until final paving can be completed.
- 18. The contractor shall supply the Authority and Roanoke County Parks & Recreation Department with correct as-built
- plans before substantial completion will be granted.
- 20. There are no wetlands or streams impacted by this project.

- 2. All connections to existing sanitary sewerlines shall be performed by the Authority. The contractor shall excavate to
- approved by an Authority construction inspector prior to activating sewer service. The contractor shall contact the
- Prior to construction in the right-of-way, all applicable permit(s) from the governing jurisdiction and/or agency must be obtained and a copy kept on the project site.
- A pre-construction conference shall be scheduled with Roanoke County Community Development and WVWA at

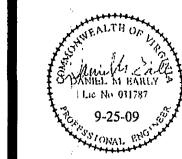
- 12. The contractor shall provide adequate means of cleaning all vehicles and equipment prior to entering public streets. It is the contractor's responsibility to ensure that the streets are kept in a clean, mud- and dust-free condition at all
- The contractor shall make provisions to provide access to all properties during construction and shall maintain safe
- accessibility to fire hydrants at all times. The contractor shall be responsible for locating and uncovering all manholes after paving. Manhole rims shall be
- 17. The contractor shall not excavate more trench length than can be restored within the same work day. All trenches shall be backfilled or plated at the end of each work day or when the contractor is not on site.
- The disturbed area is 0.62 acres for this project. Permits from DCR and DEQ are not required.

- 1. Installation of sewer utilities shall be in strict conformance with current WVWA Standards and Specifications. The contractor shall be responsible for procuring a copy of the most recently adopted standards and specifications and keep them at the job site at all times.
- 2. Work shall not commence prior to a formal Pre-Construction Conference. WVWA shall coordinate the conference at the request of the contractor.
- 3. All Erosion and Sediment Control Measures shall adhere to the minimum standards as set forth by Roanoke County
- and the State of Virginia. Refer to the Virginia Erosion Control Handbook, latest edition. 4. Upon site inspection, additional erosion and sediment control measures may be required by Roanoke County
- personnel if installed measures are deemed inadequate 5. A material staging and equipment storage area shall be maintained at a location to be determined by the contractor and approved prior to construction by Roanoke County Parks & Recreation if so located within the Greenway Trail Right of Way. The material and equipment storage area shall be fully restored to a condition deemed acceptable by Roanoke County prior to final payment to the contractor. Procurement and payment for the staging area shall be the
- contractor's responsibility. Refer to Utilty Plan & Profile sheets on C3.1 through C3.3
- 7. The contractor shall ensure a safe and orderly project site. Barricades, safety fencing, signage, and security personnel shall be employed at all times to prevent unauthorized access to the work. The contractor shall undertake the work in a manner that reduces Greenway Trail closure time to a minimum. 8. Trenches shall not be left opened after work hours. All trenches shall be filled to ground level at the end of each
- Coordinate undergound utility locations per WVWA and State of Virginia Requirements. 10. The contractor shall be responsible for locating and determining the exact horizontal and vertical location of all
- underground utilities as affected by the proposed installation of the new sewer lines. Conflicts shall be reported to ACS DESIGN and WVWA prior to continuation of utility installation. WVWA and ACS DESIGN shall provide suggested alternate utility installation in the event of a conflict.
- 11. All existing physical improvements such as mailboxes, fencing, and other existing infrastructure shall be re-installed or replaced with new materials depending on the condition of the existing material. All removal and replacement of mailboxes shall be coordinated with USPS. Any new fence posts, new wire or new fence material shall be installed by the contractor.
- 12. Work in the right-of-way is to be performed per Virginia Department of Transportation right-of-way excavation and restoration standards.
- 13. Contractor shall procure all necessary Land Use Permits and or Road Bore Permits from the Virginia Department of Transportation. Coordinate permitting with the local VDOT Residency.
- 14. Construction stakeout shall utilize the services of a licensed land surveyor licensed to perform work in the
- Commonwealth of Virginia. Stakeout shall reflect the approved construction drawings set forth in these documents. · 15. All sewer manhole tops proposed for installation within the existing Hanging Rock Battlefield Trail Greenway shall be installed 6-inches below finished grade per WVWA Requirements. Manhole Frames and Covers shall be of wateright construction. All sewer manholes proposed for construction outside of the greenway shall have the tops installed at finished grade level.
- 16. The contractor shall salvage the existing flyash aggregate walking surface on the greenway trail affected by sewer line construction and stockpile it per the approved construction drawings. The flyash aggregate shall be utilized for
- pipe bedding and backfill per WVWA trench backfill requirements. 17. The greenway walking surface shall be restored to original grade and width per the Standard Greenway Typical Section Detail indicated in the construction documents on Sheet C3.5. The restored width of the Greenway Trail shall be 10-foot wide where it can be accommodated to match existing conditions. Greenway restoration shall be in accordance with Roanoke County Parks and Recreation requirements.
- 18. The Hanging Rock Battlefield Greenway shall be closed along the entire length of the project affected by construction. The contractor shall be responsible for installing and maintaining trail closure and warning signs at the intersection of the greenway trail and Kessler Mill Road and at the entrance to the Roanoke County Parks and Recreation Department facility located near the Interstate 81 overpass. Trail closure and warning signs shall be maintained at all times during construction. Removal of signage shall only occur after receiving written approval from Roanoke County Parks and Recreation.
- 19. The contractor shall submit a Traffic Maintnenance and Control Plan to VDOT prior to commencing construction activities. The Traffic Maintenance and Control Plan shall reflect the minimum standards set forth in the Work Area Protection Manual, the Manual for Uniform Traffic Control Devices, and all applicable VDOT traffic control regulations. The Traffic Maintenance and Control Plan may be derived from the traffic control plan indicated in the construction documents.

20. A material and equipment staging area may be established within the greenway trail right of way immediately south

of the Emergency Services Entrance. Written approval of this staging area shall be secured by the contractor at the

21. The Contractor shall maintain a red-line set of As-Built Plans and shall submit the original As-Built Plan to ACS DESIGN at the and of the arrivat



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DRAWN BY:

DESIGNED BY:

CHECKED BY:		SFE
DATE:		September 20, 2009
JOB NUI	MBER:	09030
REVISIO	NS:	
No. 1		10-15-09
revised per WVWA & Roanoke Co.		
No. 2		

SHEET NO .:

Plan Sheet Index Symbols, Abbreviations, & General Notes