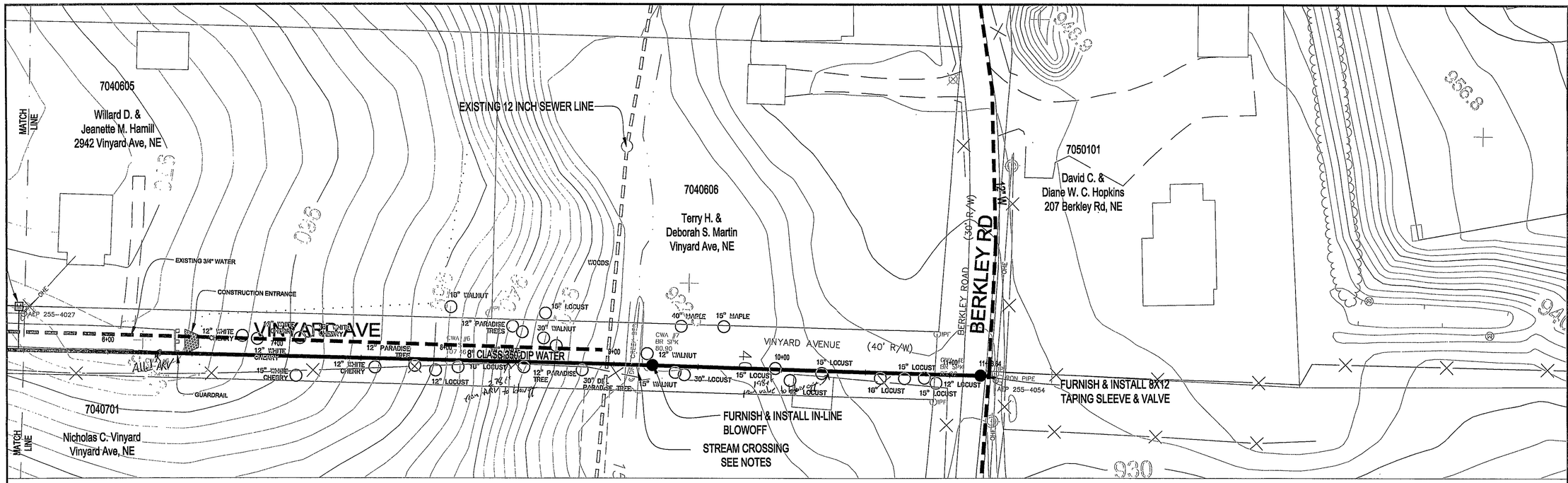


Temporary Culvert Crossing

A. The depth of the stone cover over the culvert shall be 12 inches.

B. If the structure will remain in place for up to 14 days, the culvert shall be large enough to convey the flow from a 2-year frequency storm without appreciably altering the stream flow characteristics. The crossing shall be removed within 14 days.

C. All culverts shall be strong enough to support their cross-sectioned area under maximum expected loads.

D. The length of the culvert shall be adequate to extend the full width of the crossing, including side slopes.

E. The slope of the culvert shall be at least 0.25 inch per foot. Current slope is 1.08%

F. The temporary waterway crossing shall be at right angles to the stream.

G. The centerline of both roadway approaches shall coincide with the crossing alignment centerline for a minimum distance of 50 feet from each bank of the waterway being crossed. If physical or right-of-way restraints preclude the 50 feet minimum, a shorter distance may be provided. All fill materials associated with the roadway approach shall be limited to a maximum height of 2 feet above the existing flood plain elevation, which is 933 feet.

H. The approaches to the structure shall consist of stone pads meeting the following specifications:

1) Stone: VDOT # 1
2) Minimum thickness: 6 inches
3) Equal to the width of the structure

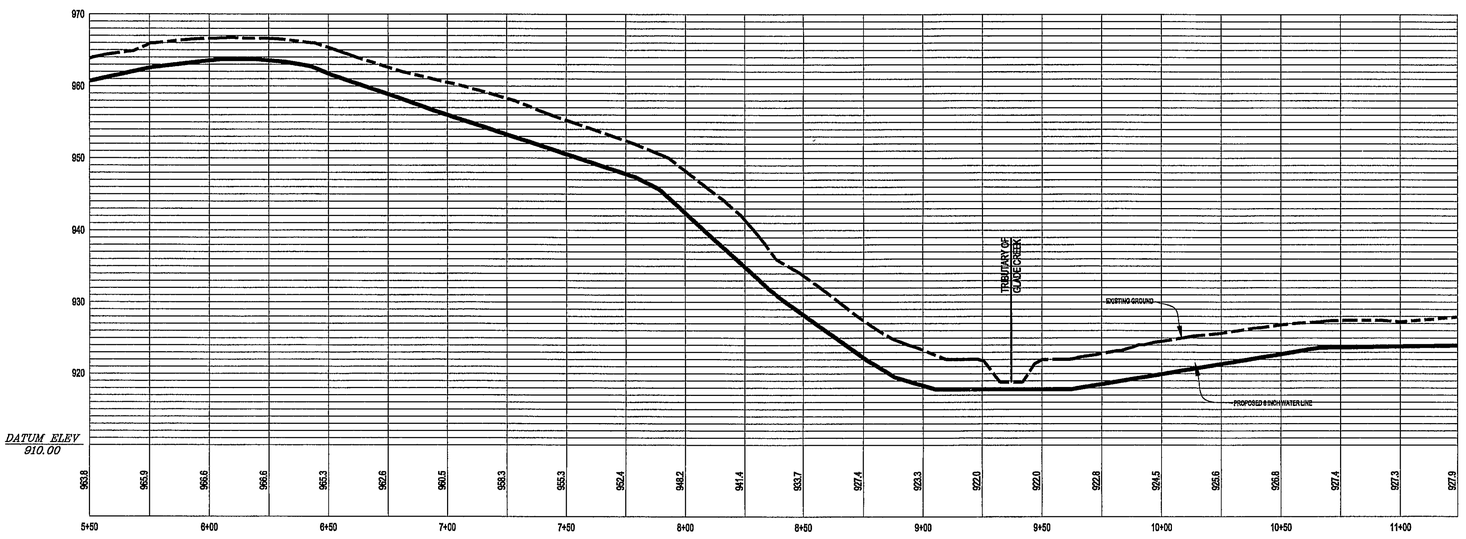
I. The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration.

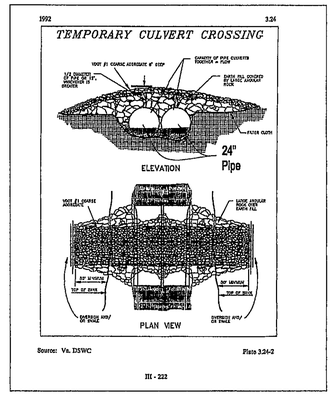
J. Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum of six inches and a maximum of one foot beyond the end of the culvert and bedding material.

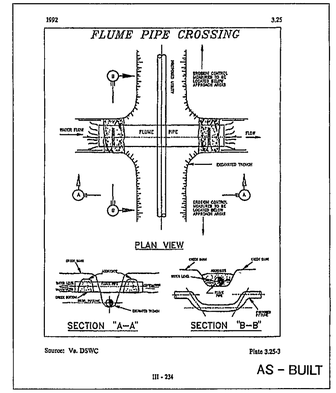
K. The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.

L. When the crossing has served its purpose, all structures including culverts, bedding and filter cloth materials shall be removed. Removal of the structure and clean-up of the area shall be accomplished without construction equipment working in the waterway channel.

M. Upon removal of the structure, the stream shall immediately be shaped to its original cross-section and properly stabilized.







AS - BUILT

NOTES:

1. CONSTRUCTION WILL COMPLY WITH NATIONWIDE PERMIT NO. 12.
2. ALL E & S CONTROLS WILL BE IN PLACE AT THE CREEK BEFORE TRENCHING BEGINS ON THE UNDEVELOPED PORTION OF THE RIGHT OF WAY.
3. THE PIPE TRENCH CROSSING THE STREAM CANNOT BE FILLED WITH EXTENSIVE GRAVEL CREATING A FRENCH DRAIN EFFECT
4. LAND CLEARING NECESSARY TO CONSTRUCT THE WATER LINE SHALL BE KEPT TO THE MINIMUM NECESSARY AND PRECONSTRUCTION CONTOURS ARE TO BE MAINTAINED AS NEAR AS POSSIBLE.
5. THE STREAM BANK AREA THAT IS EXCAVATED MUST BE LIMITED TO THE MINIMUM NECESSARY TO CONSTRUCT THE WATER LINE.
6. EXCESS MATERIAL SHALL BE REMOVED TO UPLAND AREAS IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ANY EXPOSED SLOPES AND STREAMS BANKS MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF THE WATER LINE CROSSING THE STREAM AND SEEDED IN ACCORDANCE WITH THE AUTHORITY SEEDING AND MULCHING STANDARD (SECTION 2900)

30' 15' 0' 30' 60'
Scale : 1" = 30'

SCALE: HOR. 1 IN. = 30 FT.
VERT. 1 IN. = 10 FT.

LEGEND

- EXISTING SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER EASEMENT
- PROPERTY LINE
- EXISTING FENCELINE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING WATER VALVE
- PROPOSED WATER VALVE

WVWA ID# 6P3H9X

WESTERN VIRGINIA WATER AUTHORITY

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COMMONWEALTH OF VIRGINIA
J. GREGORY REED
027721
PROFESSIONAL ENGINEER
9-26-05

VINYARD AVENUE, NE
PROPOSED WATER EXTENSION

Designed By:	AJC
Drawn By:	AJC
Checked By:	JGR
Date:	09/26/05
Scale:	AS NOTED
Plan #:	
Sheet:	2 OF 2