

PART III

GENERAL CONDITIONS

A. GENERAL INFORMATION

This section outlines miscellaneous conditions for water and sewer construction.

B. SAFETY OF PUBLIC

Construction operations shall be scheduled so as to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross or interfere with roads, driveways, and walks, whether public or private, suitable and safe bridges, detours, or other temporary provisions for the accommodation of public and private travel shall be provided and maintained. Reasonable notice shall be given to owners of private driveways before disturbing the driveway. The contractor shall designate a safety officer from his staff to be responsible for his operation.

C. PROTECTION OF EXISTING FACILITIES

All construction operations in the vicinity of other existing facilities shall be performed with great care to prevent damage to these utilities. Prior to construction operations all utility companies shall be requested to verify location of their utilities in the field. Any damaged utility shall be repaired with new materials and restored to its original condition.

In accordance with the Underground Utility Damage Prevention Act and specifically Section 56-265.17 of the Virginia Code, no person shall begin or make excavation or demolition without making required notification.

"Miss Utility" of Virginia is the notification control center and can be reached at 1-800-552-7001 for most utilities. Forty-eight (48) hours notice is required.

Existing Utilities:

It shall be the Contractor's responsibility to conduct the work in such a

manner as to avoid damage to or interference with utilities. If damage or interruption of service occurs as a result of his work, it is the Contractor's responsibility to promptly notify the inspector and the utility and to repair or correct it immediately at his own expense and to the satisfaction of the Authority and owner of the utility.

D. SEPARATION OF WATER AND SEWER LINES

A. There shall be no physical connection between a drinking water supply line and a sewer or appurtenance.

No sewer line shall pass within one hundred (100) feet of a potable water supply well or other potable water supply source or structure unless special construction and/or pipe materials are used to obtain adequate protection.

B. Water lines shall be laid at least ten (10) feet horizontally from a sewer or sewer manhole whenever possible; the distance shall be measured edge-to-edge. When local conditions prevent a horizontal separation of ten (10) feet, the water line may be laid closer to a sewer or sewer manhole provided that:

1. The bottom (invert) of the water main shall be at least eighteen (18) inches above the top (crown) of the sewer.

2. Where this vertical separation cannot be obtained, the sewer shall be constructed of AWWA approved Ductile Iron water pipe, pressure tested in place without leakage prior to backfilling.

3. The sewer manhole shall be of watertight construction and tested in place.

Water lines crossing sewers shall be laid to provide a separation of at least eighteen (18) inches between the bottom of the water line and the top of the sewer whenever possible. When local conditions prevent this vertical separation, the following construction shall be used:

1. Sewers passing over or under water lines shall be constructed of AWWA approved Ductile Iron water pipe.

2. Water lines passing under sewers shall, in addition, be protected by providing:

- a) A vertical separation of at least eighteen (18) inches between the bottom of the sewer and the top of the water line;
- b) Adequate structural support for the sewers to prevent excessive deflection of the joints and the settling on and breaking of the water line;
- c) That the length of the water line be centered at the point of the crossing so that joints shall be equidistant and as far as possible from the sewer.

No water pipe shall pass through or come in contact with any part of a sewer manhole.

E. PIPELINE INSTALLATION UNDER EXISTING PUBLIC HIGHWAYS

1. General

Work in public highway rights-of-way shall be subject to VDOT approval. Permit requirements are outlined in the "Manual on Permits, Virginia Department of Transportation, Richmond, Virginia," current revision. No work will be authorized by the Authority that has not been approved by VDOT. Specifications of VDOT governing work within public highway rights-of-way shall govern this work. Where there is a conflict between the VDOT specifications and these specifications, the more stringent requirement shall apply.

Construction operations in public streets, roads, or alleys shall be confined to as small a working space as practical so as not to cause undue inconvenience to the public or to adjacent properties. At the time of undertaking the work, the contractor shall notify VDOT and the project engineer twenty-four (24) hours in advance of construction.

2. Pipeline Installation

Main water distribution lines and sanitary sewer lines under existing public highways shall be installed by open cutting if approved by VDOT. If not approved, they shall be installed by bore and jacking inside with a spiral-welded steel casing pipe with a minimum thickness of one-quarter (1/4) inch. The casing pipe shall extend from back of curb to back of curb, or beyond concrete or paved ditches, or a minimum of five (5) feet beyond the edge of pavement, whichever is greater.

The steel casing pipe shall be no less than twice the diameter of the carrier pipe for water installations and no less than three times the

diameter of the carrier pipe for sewer installations. All carrier pipe installed in steel casings shall be ductile iron and shall be supported with steel casing spacers as manufactured by Advance Product Systems, Inc., or Cascade, or approved equal. For steel sleeves under roadways see Part VII, Figure S-5, Page TD-9 and Figure W-10, Page TD-28.

Bore and jacking of pipe or tunneling under pavement shall be done only upon prior written approval by the Authority. If any pipe is installed in this manner, the contractor shall submit a detailed schedule of operation and shall show the equipment and the exact method to be used. Only workmen skilled in this class of work shall be employed in it.

3. Pavement & Shoulder Replacement

The work includes the replacement of all pavement and shoulders removed or damaged by the contractor during the course of construction. All work replaced shall match the existing work as nearly as practicable. Materials to be replaced shall be approximately 1-1/2 times those removed and shall be in accordance with the Virginia Department of Transportation Road and Bridge Specifications, dated January, 1991 or current revision.

F. PIPELINE INSTALLATION UNDER EXISTING RAILROADS

Local railway companies require permits for any construction within the confines of their right-of-way limits or properties. All requirements relative to design and construction must be met prior to approval by the Authority. Notice or verification of meeting such requirements shall be submitted to the Authority with the construction plans. Main water and sewer distribution lines under railroads shall be installed and sleeved in accordance with the "AREA Manual for Railway Engineering - Part 5, Pipelines," current revision. Approvals by the railway company involved and the Authority are necessary prior to authorization of work to commence. For steel sleeves under railroads, see Part VII, Figure S-6, Page TD-10 and Figure W-11, Page TD-29.

G. BLASTING

1. Blasting, where required, shall be done with care in accordance with all applicable Federal, State, and local laws, ordinances, rules and regulations of the authorities having jurisdiction and by skilled and experienced blasters. A blasting permit must be obtained from the Albemarle County Fire Prevention Office prior to commencing the work.

2. All Federal, State, and local regulations governing construction safety shall be adhered to and any violation of such regulations shall be deemed the sole responsibility of the contractor and/or developer.
3. Precautions shall be taken to prevent injury to persons and damage to property. No blasting shall be done within twenty-five (25) feet of any completed work or adjacent to any other structures unless proper precautions are taken. Ends of utility lines adjacent to the blasting area shall be covered to avoid debris and damage.
4. Proper notification shall be given to the Authority and the public prior to the commencement of blasting operations.
5. Blasting on Saturdays, Sundays, and holidays will be permitted only with special written permission from the Authority.
6. Whenever blasting will be undertaken in the vicinity of an existing utility, it shall only be done with direct "onsite" supervision of the Authority. Any damage as a result of blasting operations shall be the sole responsibility of the contractor and/or developer.

H. RESTORATION

The Contractor shall restore all surfaces disturbed by his operations to a condition at least equal to that which existed prior to commencement of the work. Restoration work shall be commenced immediately following the completion of the work on any section of the project. All drainage structures shall be restored using like materials and details.

All ditches shall be restored to the prior existing grade and cross section. All pavement, walks, curbs, gutters, and entrances removed or damaged by the Contractor shall be replaced to equal or better condition.

All streets, roads, and highways shall be restored as required by VDOT.

Work performed on private property shall be confined to the easements obtained and the area shall be seeded or sodded. Landscaping, fences or other improvements shall be restored, where applicable, to their original condition.

The contractor shall be responsible for all restoration necessary as a result of his operations for the period of one (1) year following

acceptance of the work by the Authority.

I. Erosion Control

An Erosion Control Plan shall be submitted as necessary to the Albemarle County Soil Erosion Control Committee for their review. Construction activity disturbing in excess of 10,000 sq. ft. shall require a Soil Erosion Control permit from the Albemarle County Engineering Department. Special precaution shall be taken for activity occurring within the drainage basin of any water supply impoundment.

J. Utilities Within Streets of Planned Developments

Utilities to be installed in planned subdivisions may be installed within streets, subject to approval of VDOT, where such streets are to be dedicated to VDOT for public use. Guidelines have been developed to assist in planning utility installations within the right-of-way of tertiary subdivision streets including cul-de-sacs, loops, and other streets of fixed generation. These streets are designed in accordance with table 1A of the VDOT Subdivision Streets Manual. The following guidelines are for proposed utility placement within the right-of-way in the Culpeper District for subdivision streets designed under table 1A.

(1) Waterlines will be allowed under the pavement (5 feet from the outside edge of the pavement or 7 feet from the face of curb) on undivided roadways. This guideline will be recognized unless, as determined by VDOT, there are compelling design or safety issues which would demand consideration of an alternate location.

(2) Waterlines greater than 24 inches in diameter under the pavement parallel with the roadway alignment will be reviewed on a case-by-case basis.

(3) Sanitary manholes and surface structures should be located outside the roadway shoulder and ditch line or beyond the back of the roadway curb. Connecting lines between manholes will be allowed under the pavement around curves and at crossings. However, these scenarios will be minimized by the guidelines herein. Manholes and surface structures will be allowed in cul-de-sac bulbs and dead-end roads where topography dictates. Special situations beyond these guidelines will be reviewed on a case-by-case basis.