

STEPS WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OF 4'-0" OR GREATER UNLESS ETHERWISE NOTED ON THE PLANS.

ALL STEPS SHALL PROTRUDE 5" FROM INSIDE FACE OF STRUCTURE WALL.

MAXIMUM STEP SPACING TO BE 1'-4" C-C.

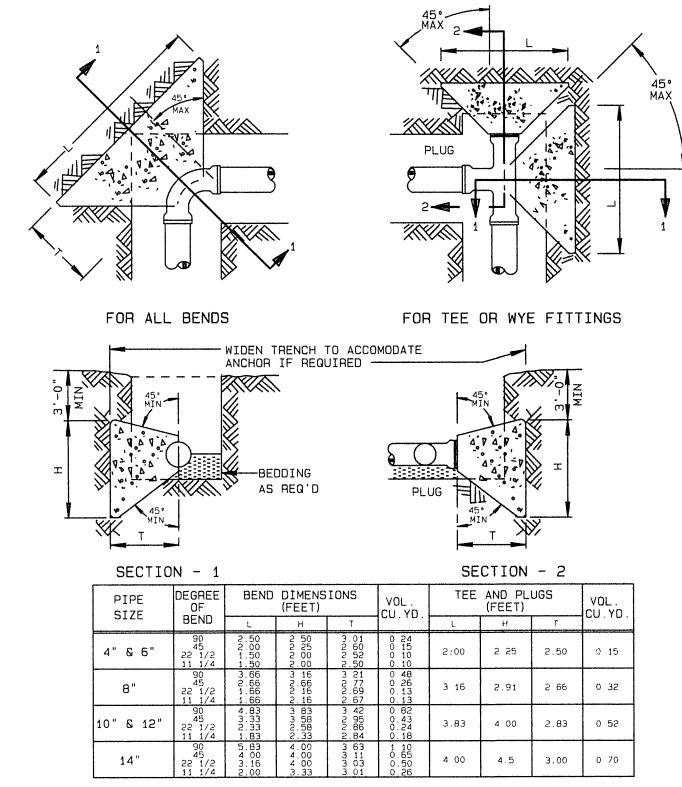
STEPS SHALL WITHSTAND A MINIMUM LOAD OF 300 POUNDS WHEN EXTENDED 5" FROM THE FACE OF THE SUPPORT.

STEPS ARE TO BE VERTICALLY ALIGNED AND UNIFORMILY SPACED FOR THE ENTIRE DEPTH OF ANY STRUCTURE.

IN PRECAST UNITS STEPS MAY BE CAST IN PLACE OR MORTORED INTO HOLES PROVIDED BY THE FABRICATOR.

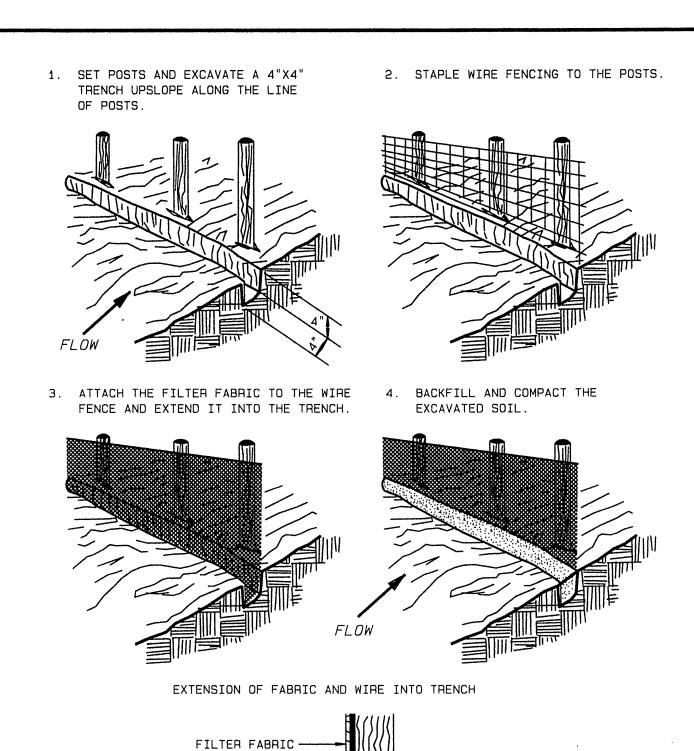
STEPS OFFERING DIMENSIONS, CONFIGURATIONS, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THEY MEET THE MINIMUM REQUIRMENTS SHOWN HEREON AND THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS AND CERTIFIED TEST REPORTS OF THE PROPOSED SUBSTITUTE AND HAS RECIEVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.

MANHOLE STEP DETAIL



- 1. THRUST BLOCKS ARE REQUIRED WHENEVER THE PIPELINE: CHANGES DIRECTION, CHANGES SIZE, DEAD ENDS AND AT VALVES.
- 2. USE 3000 P.S.I. CONCRETE.
- 3. NO CONCRETE SHALL BE POURED ON ANY PART OF THE JOINT.
- 4. TAR PAPER OR PLASTIC SHALL BE PLACED AROUND END OF WATER MAIN AND AROUND VALVES WHERE CONCRETE ANCHOR BLOCK IS POURED.

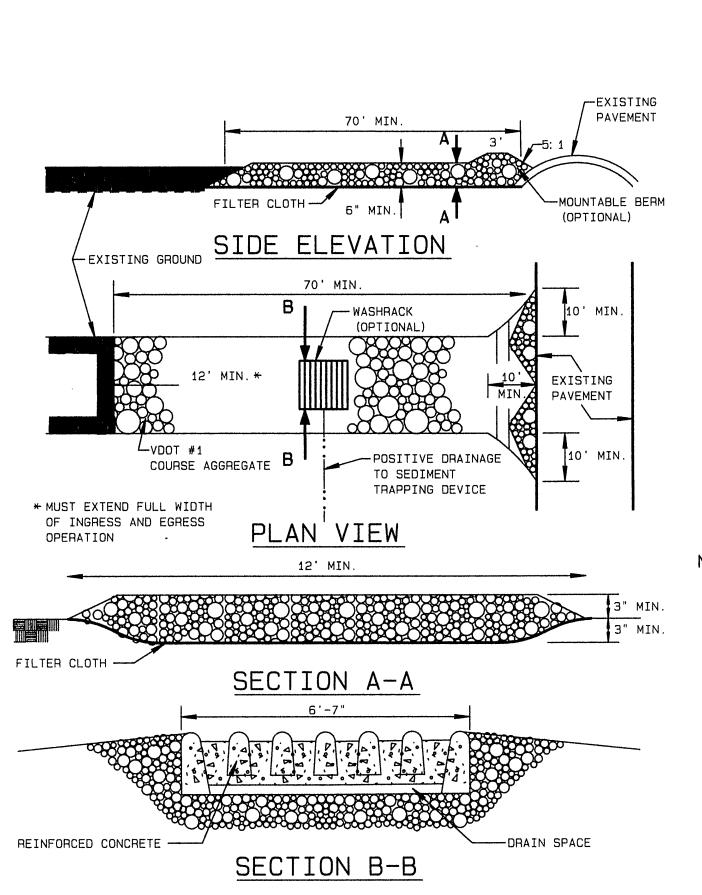
THRUST BLOCK DETAIL



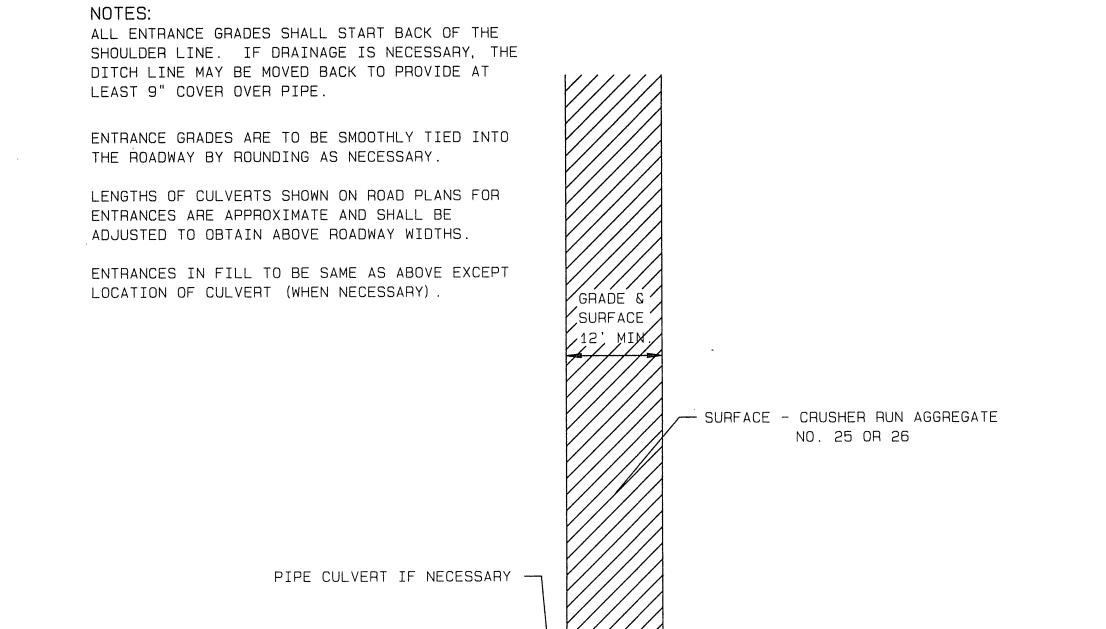


NOTE: THIS DETAIL IS FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK-1992. THE CONTRACTOR SHALL COMPLY WITH THE DESIGN CRITERIA, THE CONSTRUCTION SPECIFICATION, THE MAINTENANCE REQUIREMENTS AND THE REMOVAL REQUIREMENTS CONTAINED THEREIN FOR THIS ITEM.

SILT FENCE DETAIL



CONSTRUCTION ENTRANCE DETAIL

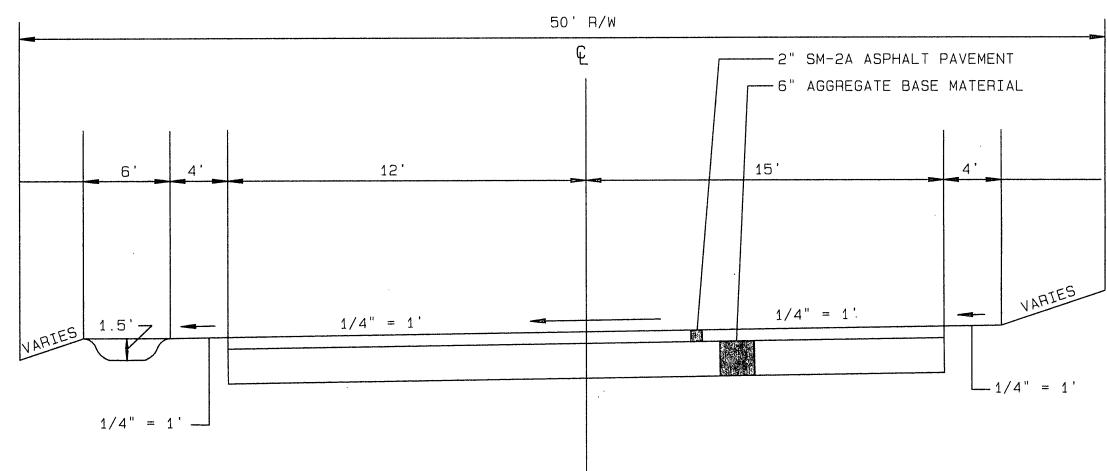


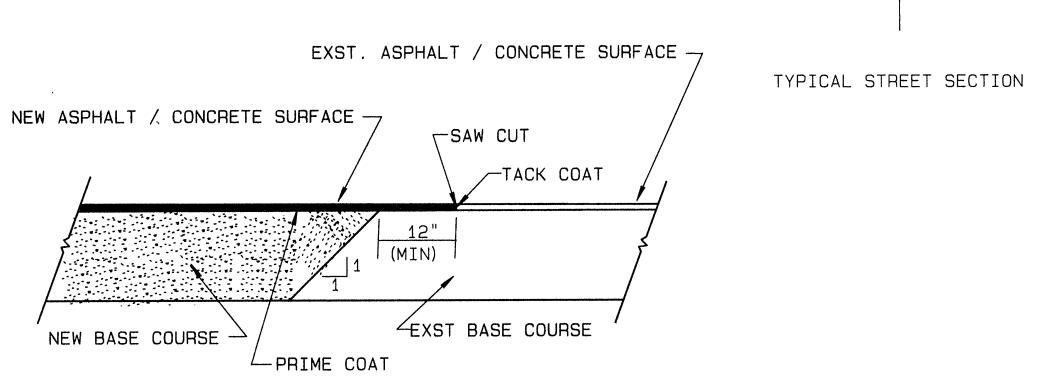
TYPICAL CITY STANDARD ENTRANCEWAY

DITCH

- MAIN ROADWAY PAVEMENT

SHOULDER





PAVEMENT TRANSITION DETAIL

SCALE: NONE SHEET DESCRIPTION REV. DATE DATE HABITAT COURT SUBDIVISION 12/16/93 1993 CITY OF ROANOKE, VIRGINIA COMM. LICENSE NO. 1483 DETAILS 905B



DESIGNED: CHECKED:

SKYLE D. AUSTIN Igh O. Austri