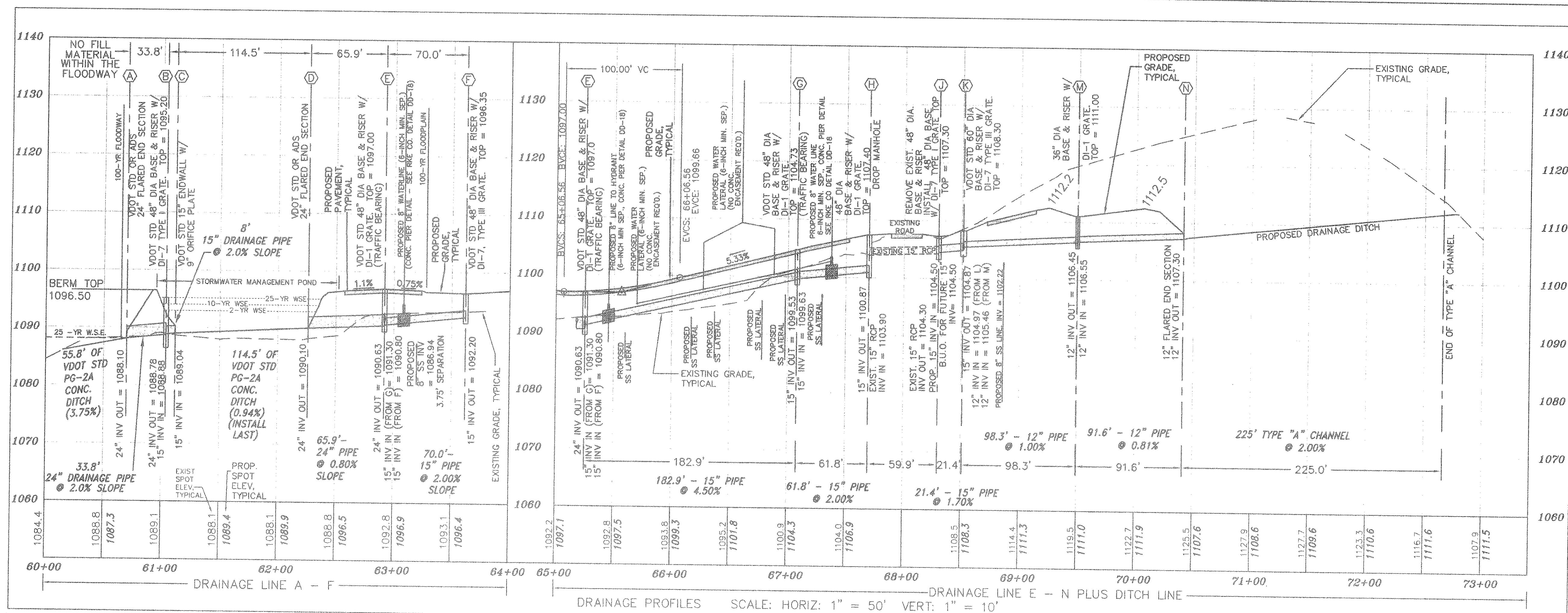
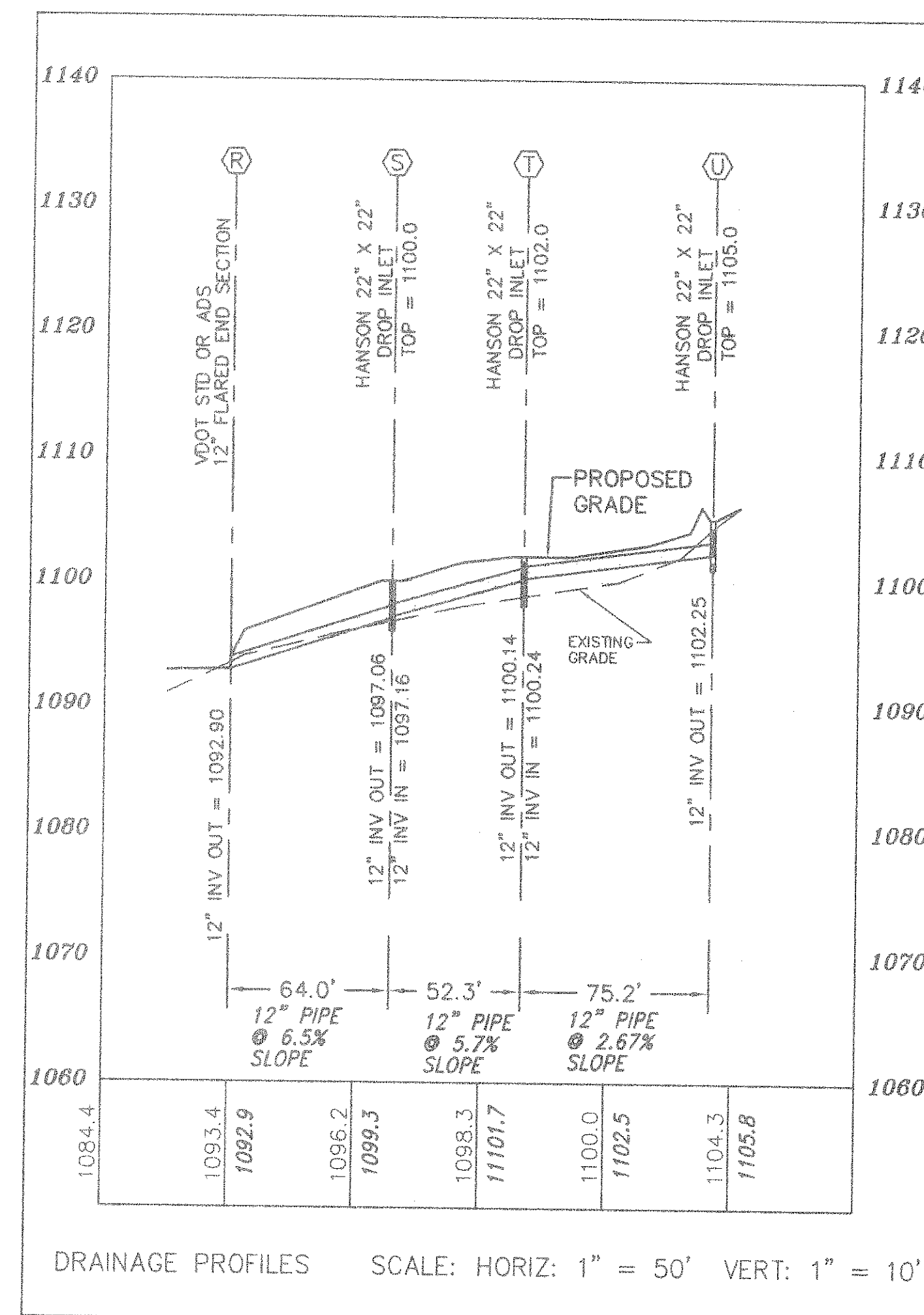
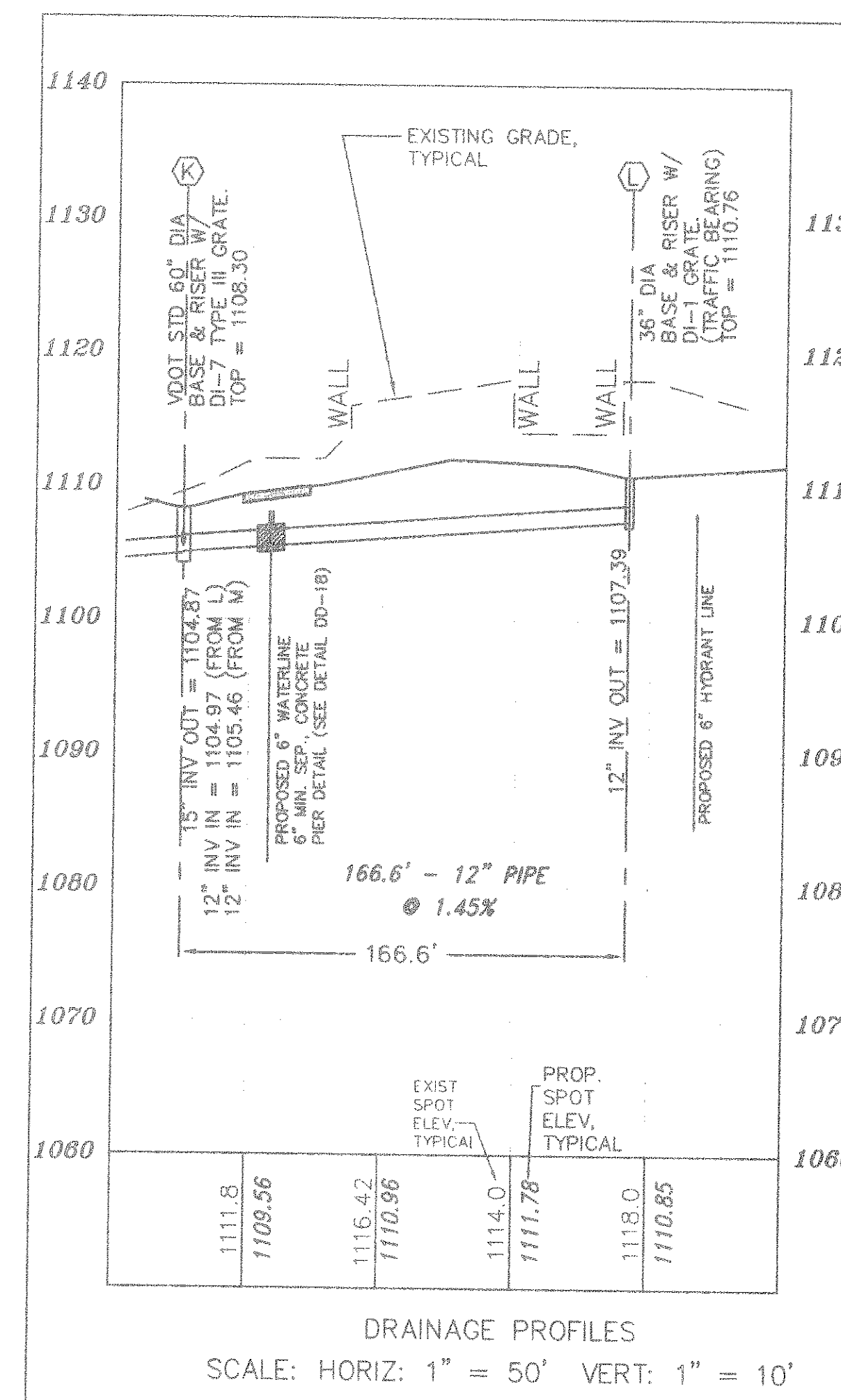
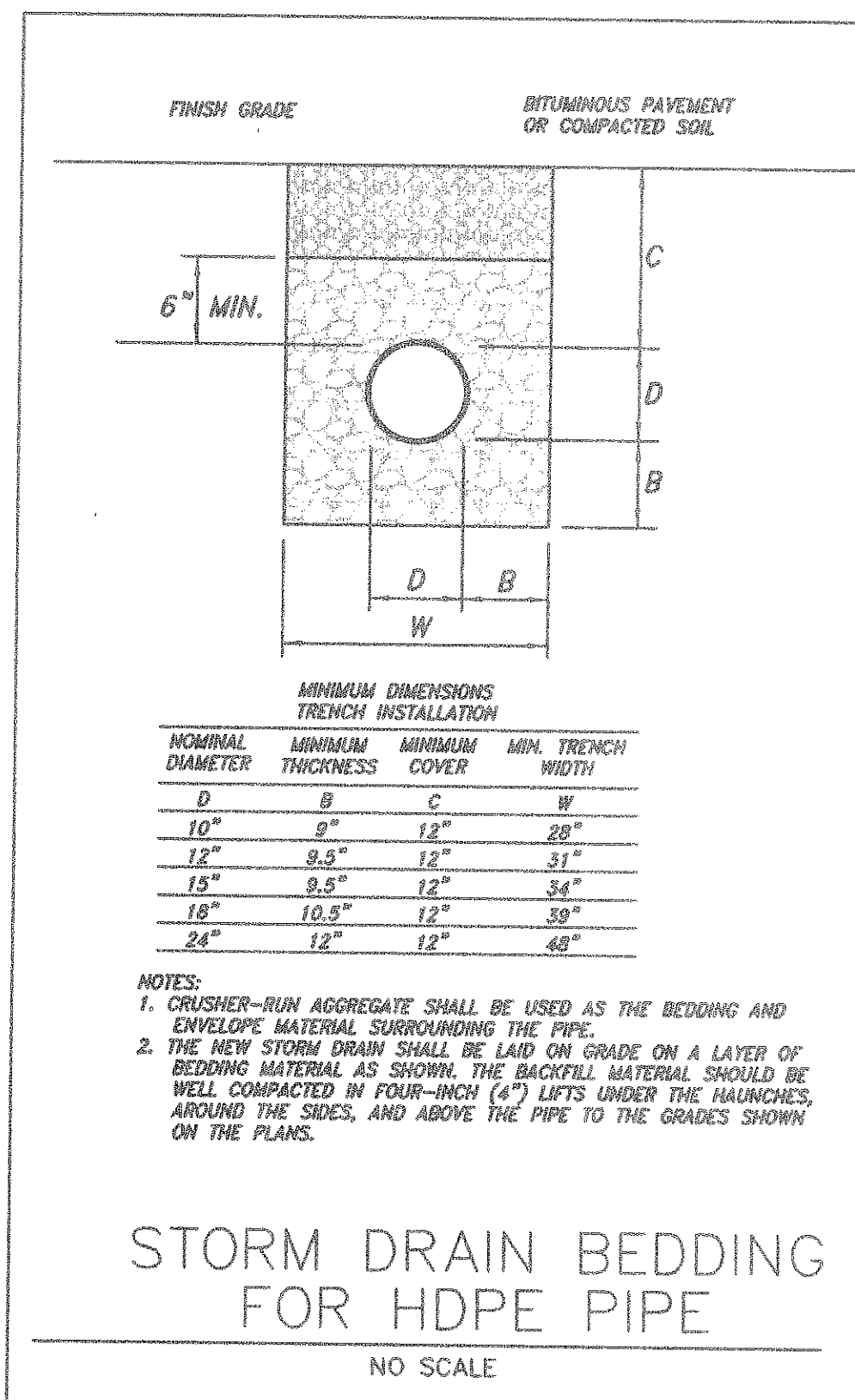




NOTE TO ROANOKE COUNTY:
 SWM DETENTION LEVELS:
 2-YR W.S.E. = 1093.0
 10-YR W.S.E. = 1094.1
 25-YR W.S.E. = 1095.2
 100-YR W.S.E. = 1096.2



- ADDITIONAL NOTES FOR THE DRAINAGE STRUCTURES PLACED EAST OF NORTH BROOK DRIVE**
- FOR THE DRAINAGE LINES LOCATED EAST OF NORTH BROOK DRIVE (STRUCTURES A - H), THE DRAINAGE LINES REQUIRE ADDITIONAL FILL PRIOR TO PLACING THE DRAINAGE LINES.
 - THE ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT REQUIRES COMPACTION TEST RESULTS ON THE STORMWATER MANAGEMENT POND TO INSURE 95% COMPACTION (STANDARD PROCTOR). SEE REQUIREMENTS ON SHEET C8.
 - THE CONTRACTOR SHALL NOTE THE LIMITED SEPARATION BETWEEN THE PROPOSED DRAINAGE LINES, THE WATER LATERALS, AND THE SEWER LATERALS. ALL LINES MUST BE INSTALLED PER THE REGULATIONS OF THE ROANOKE COUNTY UTILITY DEPARTMENT AND THE ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT.
 - ALL WATERLINES AND LATERALS SHALL BE INSTALLED ABOVE THE DRAINAGE AND SANITARY SEWERS.
 WATER MAINS (6-INCH & 8-INCH LINES) SHALL UTILIZE 6-INCH MINIMUM SEPARATION ABOVE THE CROSSING UTILITY LINE AND UTILIZE CONCRETE PIERS PER ROANOKE COUNTY DETAIL DD-18.
 WATER LATERALS SHALL BE INSTALLED ABOVE THE CROSSING UTILITY WITH A 6-INCH MINIMUM SEPARATION. CONCRETE PIERS SHALL NOT BE UTILIZED FOR LATERAL CROSSINGS.

- DRAINAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, PROPOSED DRAINAGE PIPE SHALL BE:
 A) REINFORCED CONCRETE PIPE (RCP), OR
 B) ADS, HIGH DENSITY POLYETHYLENE PIPE (HDPE), TYPE N-12, BELL AND SPIGOT, OR
 C) APPROVED EQUAL.
 - THE CONTRACTOR SHALL PRICE EACH AND PROVIDE A PRICE TO THE OWNER. THE OWNER SHALL DECIDE THE MATERIAL PRIOR TO CONSTRUCTION.
 - HDPE PIPE MUST BE INSTALLED AT LEAST PER MANUFACTURER'S RECOMMENDATIONS. THE BEDDING AND BACKFILL FOR THE HDPE PIPE SHALL BE NO. 57 AGGREGATE STONE AND SHALL EXCEED THE TOP OF THE PIPE. REFERENCE IS DIRECTED TO THIS PAGE FOR HDPE PIPE BEDDING.
 - REFERENCE IS DIRECTED TO THE MINIMUM COVER REQUIREMENTS OF HDPE PIPE DURING CONSTRUCTION. WHILE THE PIPE MAY HAVE FINAL COVER AT TIME OF COMPLETION OF THE PROJECT, THE PIPE MAY NOT HAVE MINIMUM COVER DURING CONSTRUCTION TO WITHSTAND CONSTRUCTION LOADING.
 - ALL STRUCTURES SHALL UTILIZE VDOT STD IS-1 INLET SHAPING.

DESIGNED BY: P.J. BROWN
 DRAWN BY: PJB
 CHECKED BY: JIP, SR
 W.O. #: 01-0207
 N.B.: RR-5
 TAX NO.: 028.05-01-12/13

COMMONWEALTH OF VIRGINIA
 T. P. PARKER
 CERTIFICATE NO. 5447
 10/30/02
 PROFESSIONAL ENGINEER

DRAINAGE PROFILES FOR MEADOWBROOK VILLAGE TOWNHOUSES PHASE V
BARRENS DEVELOPMENT CORPORATION
 NORTH BROOK DRIVE & U.S. ROUTE 11,
 HOLLINS MAGISTERIAL DISTRICT
 ROANOKE COUNTY, VIRGINIA
 REVISED: 14 OCT 2002 SCALE: AS SHOWN

TPP&S
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