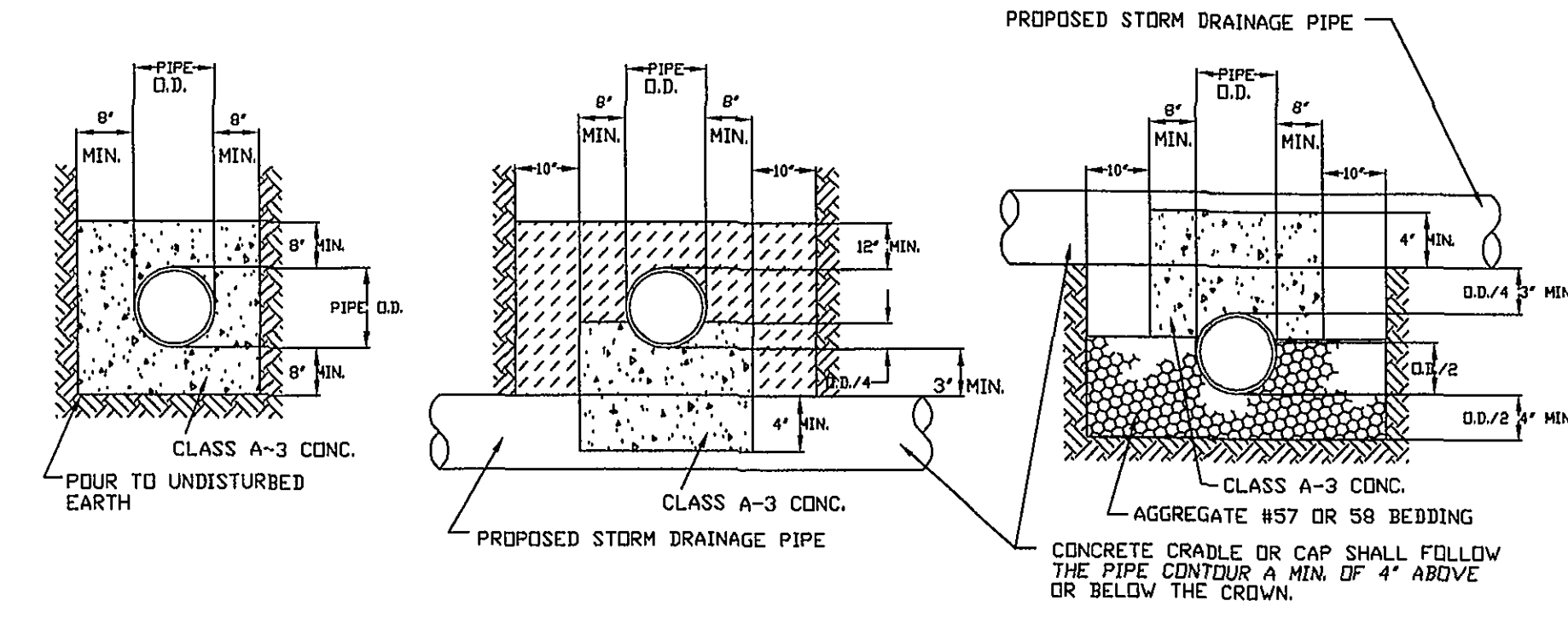
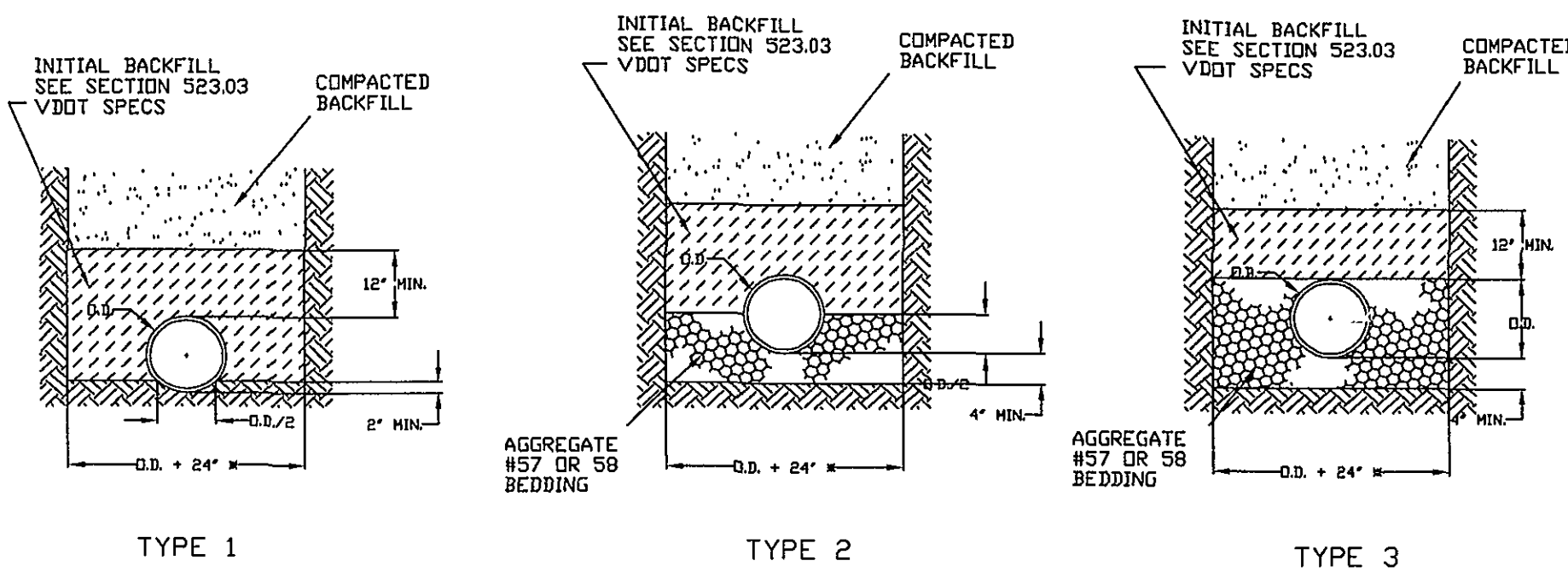


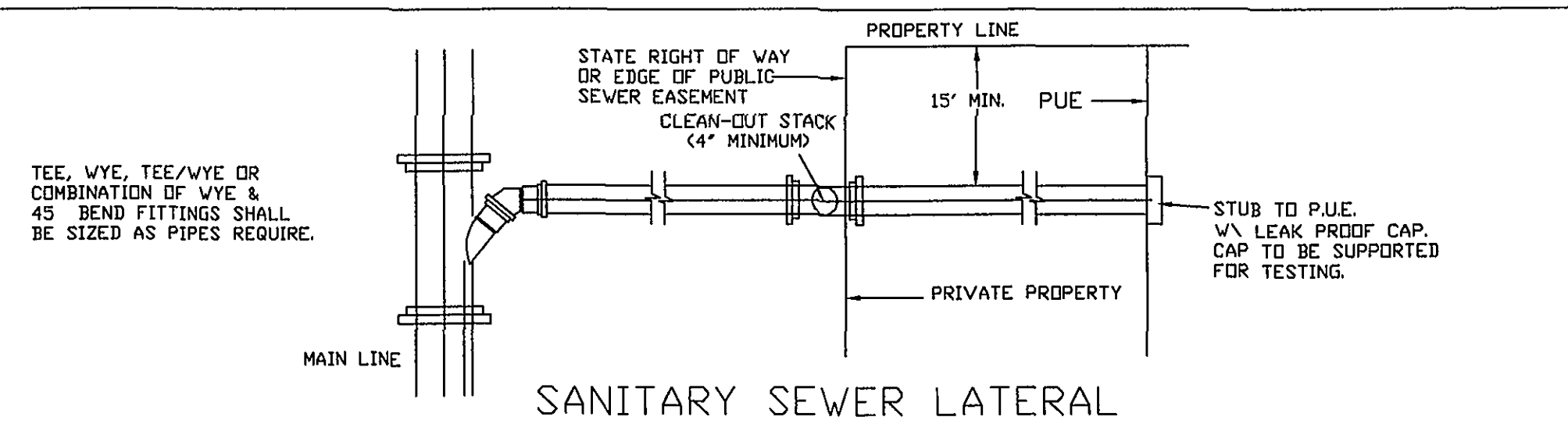
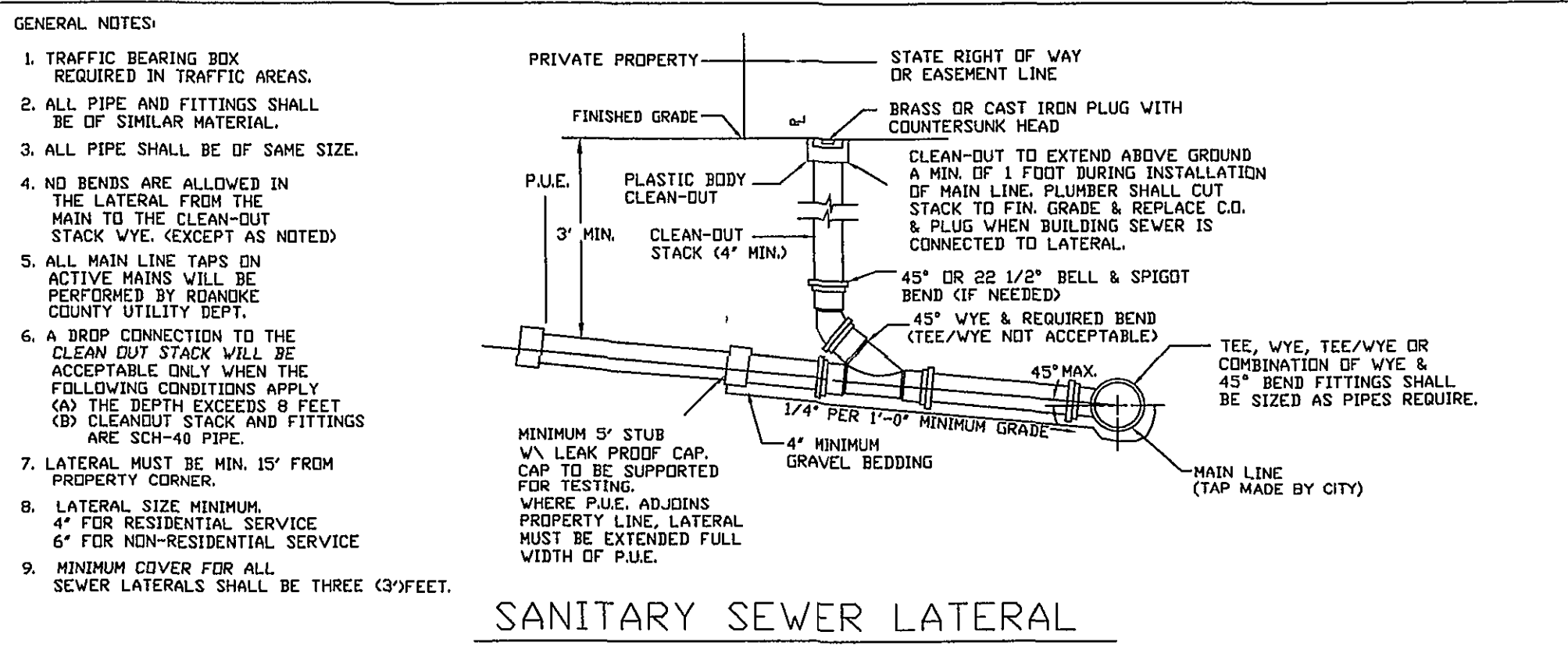
UTILITY BEDDING AND PROTECTION WATER AND SANITARY SEWER FACILITIES



TYPE 1 TYPE 2 TYPE 3

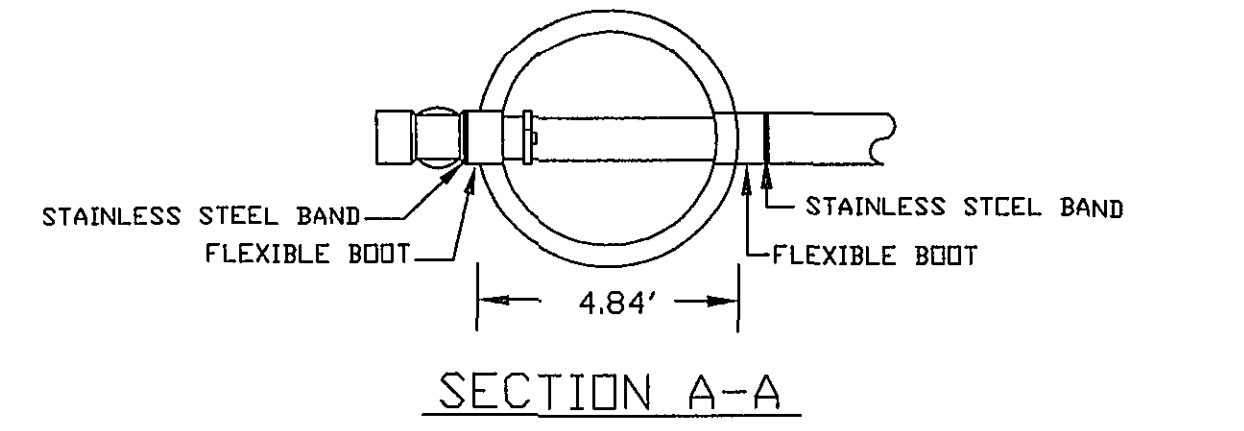
CONCRETE ENCASEMENT CONCRETE CRADLE CONCRETE CAP

NOTES:
1. WHERE THE TRENCH BOTTOM IS IN ROCK, IT SHALL BE EXCAVATED TO A MINIMUM OF 8" BELOW THE BOTTOM OF THE PIPE AND BACKFILL WITH BEDDING MATERIAL.
2. WHERE PIPE FOUNDATIONS ARE YIELDING, PIPE SHALL BE BEDDED ON A MINIMUM OF 8" BEDDING MATERIAL.
* FOR PIPE LESS THAN 12" THE TRENCH WIDTH MAY BE 36" MAXIMUM.

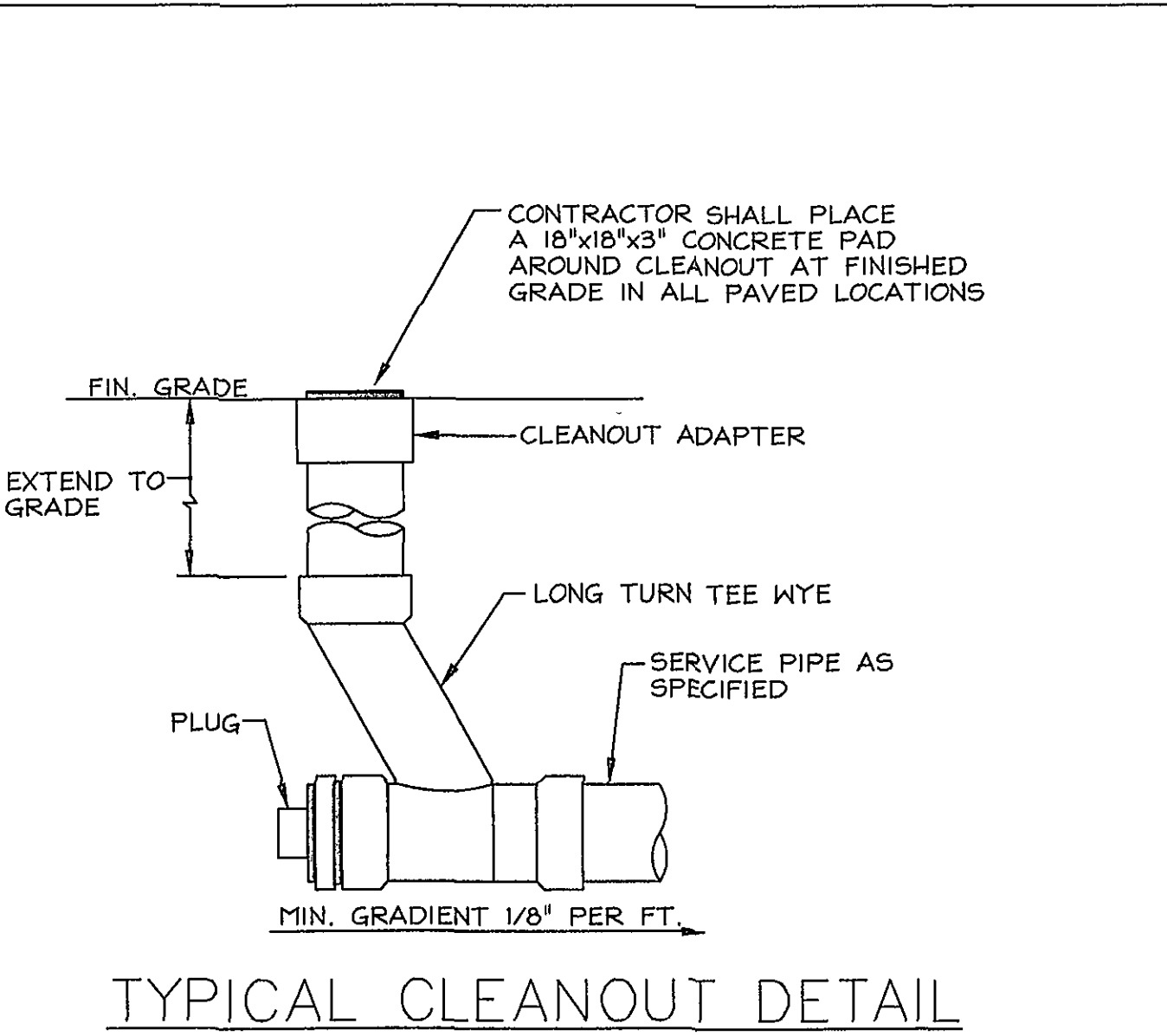


SANITARY SEWER LATERAL

- GENERAL NOTES:**
1. WORK IN THIS PROJECT SHALL CONFORM TO THE LATEST EDITIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, THE VDOT ROAD AND BRIDGE STANDARDS, THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS, OR PLANS THE MOST STRINGENT SHALL GOVERN.
 2. THE LOCATION OF EXISTING UTILITIES AS SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL PUBLIC OR PRIVATE UTILITIES WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AT HIS EXPENSE, ALL EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION CALL MISS UTILITY LOCATION SERVICE AT 1-800-552-7001. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB & GUTTER, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OF WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
 3. ALL MATERIALS USED FOR FILL OR BACK-FILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS, OR ANY OTHER NON-COMPACTABLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE.
 4. COMPACTION OF FILL MATERIAL UNDER BUILDING SLABS SHALL BE BASED UPON RECOMMENDATIONS OF SOILS ENGINEER AFTER COMPLETION OF STANDARD PROCTOR TEST AND SHALL MEET BEARING REQUIREMENTS OF ARCHITECT FOR BUILDINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING.
 5. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACK-FILL AROUND DRAINAGE STRUCTURES OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACK-FILL SHALL BE COMPACTION TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AS SET OUT IN ASTM STANDARD D-698. THE CONTRACTOR SHALL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACK-FILLING, SUBMIT THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS SHALL BE CONDUCTED BY A CERTIFIED MATERIALS TESTING LABORATORY AND THE CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER.
 6. TRAFFIC CONTROL ON PUBLIC STREETS SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND AS FURTHER DIRECTED BY TOWN INSPECTORS.
 7. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
 8. ALL CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH CURRENT ROANOKE STANDARD SPECIFICATIONS AND DETAILS.



DROP MANHOLE
(FOR USE WITH PVC PIPE)



TYPICAL CLEANOUT DETAIL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	REVISION	DATE	DRAWN BY	CHECKED BY

PREPARED IN THE OFFICE OF:

Kimley-Horn and Associates, Inc.
P.O. BOX 33068 - RALEIGH, NORTH CAROLINA 27636-3068
PHONE: (919) 677-2000 FAX: (919) 677-2050

CLIENT: **FIRST CITIZENS BANK**

TITLE: **WATER AND SEWER DETAILS**

DESIGNED BY: **PETER A. BISHOP**
No. 032023
CHECKED BY: **WSH**
SEAL: **10/20/05**
SCALE: **1" = 20'**

PROJECT: **McCLANAHAN STREET ROANOKE, VA**

ATTACHED REFERENCE FILES: **101737090**

SHEET NUMBER: **C5** OF **5**