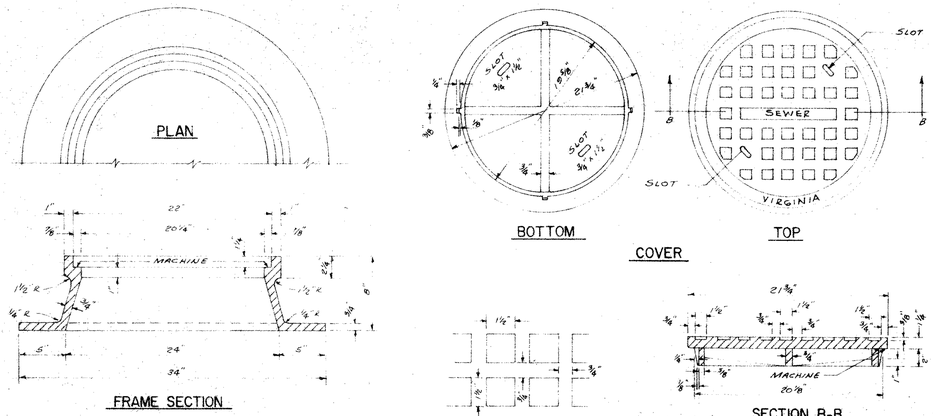
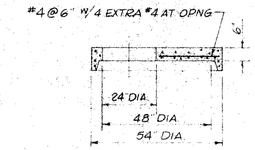
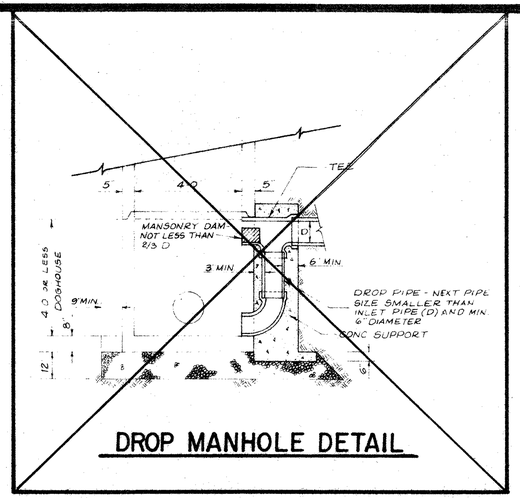



NOTE: MIN. WT. M.H. COVER 130 lbs
MIN. WT. M.H. FRAME 210 lbs
TOTAL MIN. WT. 340 lbs

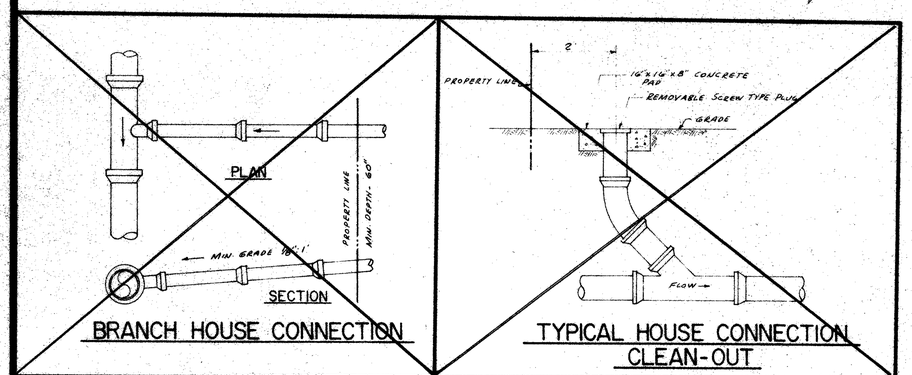
## MANHOLE FRAME AND COVER




## ALT. TOP FOR SHALLOW MANHOLES

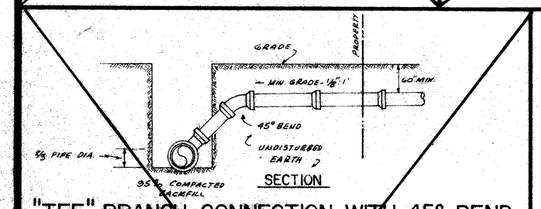



## DROP MANHOLE DETAIL

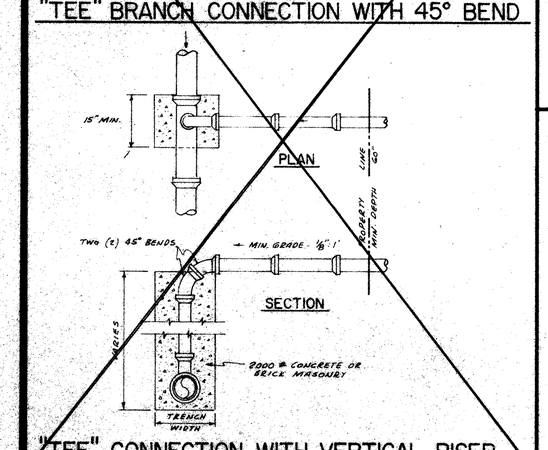



## BRANCH HOUSE CONNECTION

## TYPICAL HOUSE CONNECTION CLEAN-OUT




## "TEE" BRANCH CONNECTION WITH 45° BEND



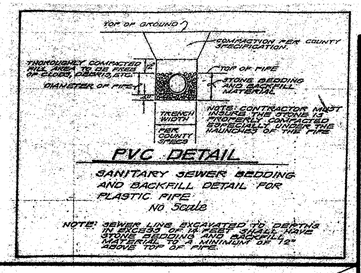

## "TEE" CONNECTION WITH VERTICAL RISER

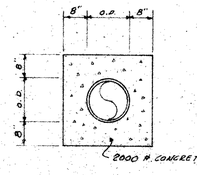
## NOTES

1. ALL MATERIALS FOR UTILITIES SHOWN, SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST APPLICABLE SPECIFICATIONS OF PRINCE GEORGE COUNTY, VA.
2. ALL WORK SHALL BE SUBJECT TO INSPECTION BY DESIGNATED COUNTY OFFICIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF APPROPRIATE COUNTY OFFICIALS 48 HRS PRIOR TO START OF WORK.
3. MINIMUM COVER FOR ALL WATER PIPES SHALL BE 3.5 FEET.
4. THE CONTRACTOR SHALL ACQUIRE ANY AND ALL CONSTRUCTION PERMITS.
5. MINIMUM DEPTH OF SANITARY SEWER IN STREETS SHALL BE 6.0'.
6. SEWER PIPE SHALL BE OF THE TYPES INDICATED IN NOTE 14 ON THIS SHEET, TO BE BID AT CONTRACTORS OPTION. ALL SEWER JOINTS TO BE AS SPECIFIED BY MANUFACTURER.
7. ALL EASEMENTS ARE AS SHOWN ON SUBDIVISION MAP.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF PROPER TOP ELEVATIONS, BEFORE CONSTRUCTING MANHOLES.
9. CONTRACTOR SHALL INSTALL 6" SEWER SERVICE CONNECTIONS TO ALL LOTS. (R/W LINE OR EDGE OF PAVEMENT, AS SHOWN.)
10. INSTALLATION OF WATER SERVICE CONNECTIONS SHALL BE DONE BY DEVELOPER.
11. MANHOLE TOPS AS SHOWN ON PROFILES ARE APPROXIMATE ONLY, AND ARE TO BE USED FOR ESTIMATING PURPOSES ONLY. THE EXACT MANHOLE TOP SHOULD BE ON THE SAME GRADE AS THE FINISHED ROAD GRADE.
12. BACKFILL FOR ALL UTILITIES WITHIN PURPOSED SUBDIVISION STREETS SHALL BE PLACED GENERALLY IN ACCORDANCE WITH PRINCE GEORGE CO. SPECIFICATIONS, AND THE FOLLOWING CRITERIA: 1) NO TRENCH SHALL BE BACKFILLED UNTIL AUTHORIZED BY THE COUNTY. MATERIALS USED FOR BACKFILL FROM THE BOTTOM OF THE TRENCH TO 12" ABOVE THE PIPE, SHALL BE SELECT MATERIAL FREE FROM ROOT, LARGE CLODS, STONES, & DEBRIS. IT SHALL BE CAREFULLY COMPACTED TO INSURE A SOUND BACKFILL, AROUND AND OVER THE PIPE. 2) BACKFILL SHALL BE COMPACTED BY MECHANICAL TAMPING IN THE TRENCH TO OBTAIN 95% DENSITY AT OPTIMUM MOISTURE ± 20% 3) IF MATERIAL TAKEN FROM THE TRENCH IS UNACCEPTABLE FOR BACKFILL IT SHALL BE REMOVED & REPLACED WITH SUITABLE FILL.
13. PRIOR TO CONSTRUCTION OF WATER SYSTEMS, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE ROADS & DITCHES ARE GRADED WITHIN 6" OF SUBGRADE.
14. SANITARY SEWER PIPE SHALL BE EITHER VITRIFIED CLAY, CAST IRON, DUCTILE IRON, REINFORCED CONCRETE, CEMENT ASBESTOS, NON-REINFORCED CONCRETE, TRUSS PIPE, OR POLYVINYL CHLORINE AS DESIGNATED ON PLANS.
15. PIPE CLASS/STRENGTH SHALL BE AS FOLLOWS:

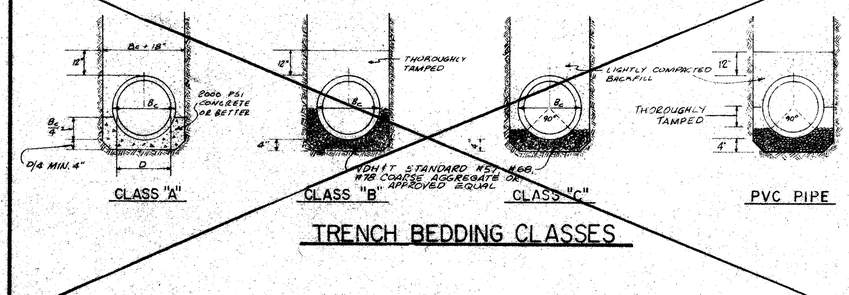
| | |
|---|---|
| VITRIFIED CLAY | - ASTM C700, EXTRA STRENGTH |
| CAST IRON | - ANSI A21.1, A21.4, A21.6 ASTM A-74 |
| DUCTILE IRON | - ANSI A21.50, A21.51 |
| CEMENT ASBESTOS | - ASTM C428, CLASS 2400 |
| CONCRETE (REINF) | - ASTM C-76, CLASS III |
| CONCRETE | - ASTM C-14, CLASS 2 |
| ARMCO "TRUSS" | - ASTM D2680-72 |
| POLYVINYL CHLORINE | - ASTM D3034-78, SDR-35 15"/12"/10" |
| " " | - ASTM F794, Series 10, Johns Manville Perma-Loc or approved Equal. 21"/18" only |

16. TRENCH BEDDING SHALL BE CLASS 'B', UNLESS INDICATED OTHERWISE ON PLANS OR SPECIFICATIONS.
17. THE FRONT PROPERTY PINS OF ALL LOTS FRONTING ON A CUL-DE-SAC, WITH LESS THAN 50' ROAD FRONTAGE, SHALL BE STAKED AT SUCH TIME AS THE UTILITY CONTRACTOR INSTALLS THE 6-INCH HOUSE CONNECTIONS.

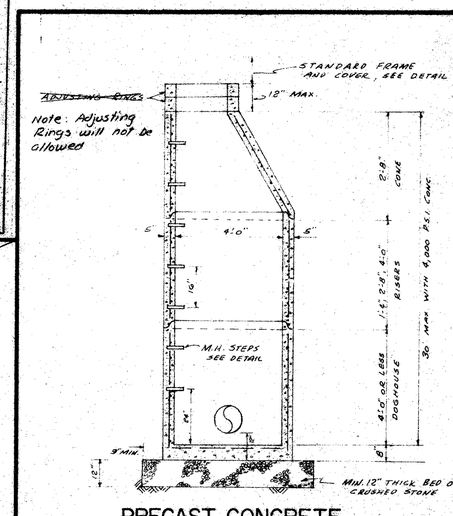



## PIPE ENCASEMENT DETAIL




## TRENCH BEDDING CLASSES




## PRECAST CONCRETE MANHOLE WITH MONOLITHIC BASE

(CONFORM TO ASTM C478)

FINAL


J. K. TIMMONS & ASSOCIATES, P.C.
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FOUNTAIN RIDGE SEC3
OFFSITE SEWER
DETAILS

1-8-88

REVISIONS

COMMONWEALTH OF VIRGINIA
WALTER M. ALTMAN III
LICENSE NO 11039
PROFESSIONAL ENGINEER

STAMP: NONE
SCALE: WMA Jr
DRAWN BY: 6-25-87
DATE DRAWN: WMA III
DESIGNED: WMA III
CHECKED: 4 OF 4
SHEET NUMBER: 8610-44
JOB NUMBER

SP 36