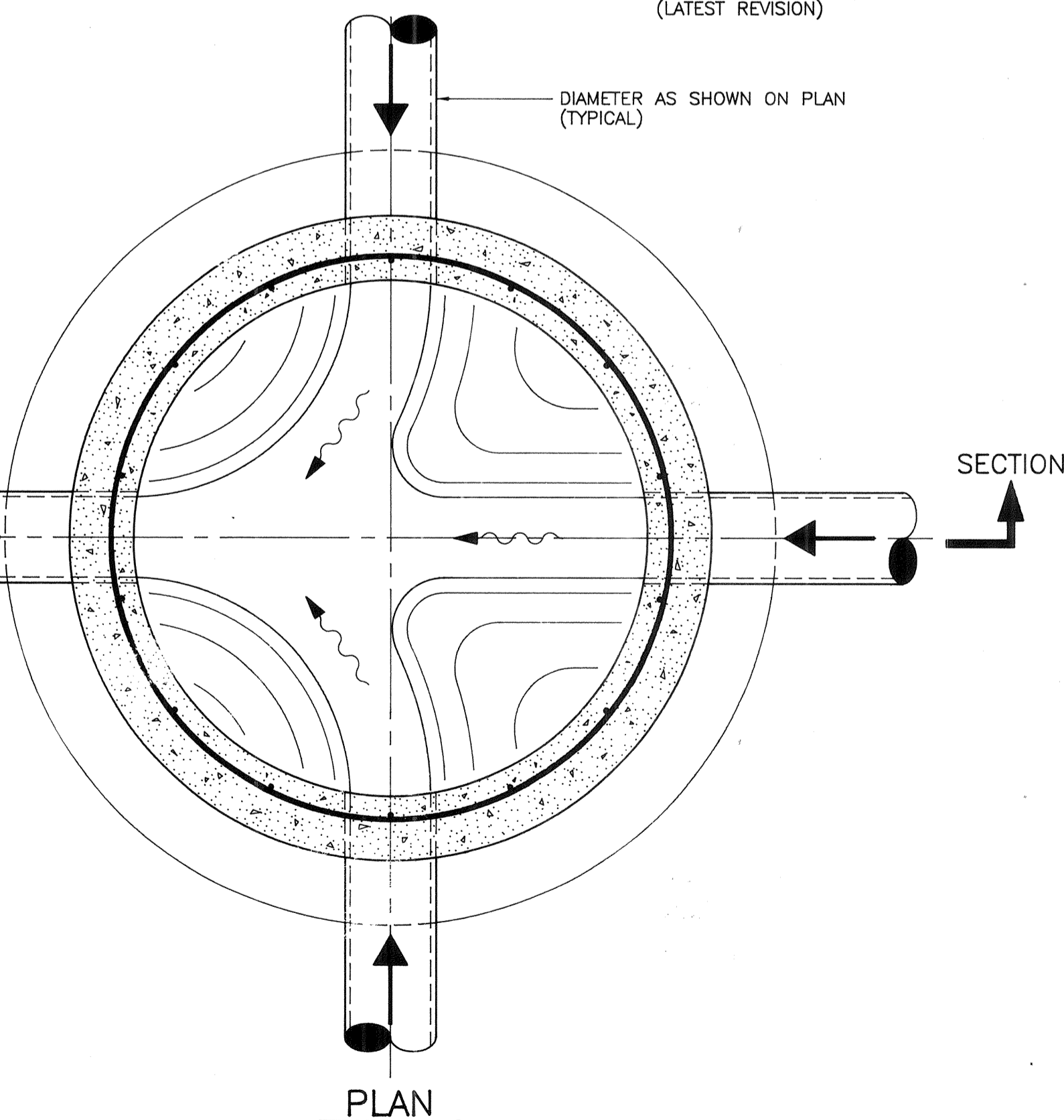


TYPICAL JOINT DETAIL

N.T.S.



**TYPICAL PIPE ARRANGEMENT
STANDARD PRECAST MANHOLE**

N.T.S.

- ① MANHOLES SHALL COMPLY WITH ASTM C-478, LATEST REVISION. USE 8" WALL AND BASE SLAB THICKNESS.
- ② SHAPE ALL CHANNELS TO DIRECTION OF FLOW
- ③ MANHOLE COATINGS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS
- ④ IMPROPER CASTING OF PIPE WINDOWS SHALL BE CAUSE FOR REJECTION OF THAT SECTION OF MANHOLE
- ⑤ PIPE TO MANHOLE RUBBER GASKET SEAL CAST INTEGRALLY INTO THE PIPE OPENING OF THE MANHOLE BASE AT THE TIME OF MANUFACTURE "A-LOK" OR EQUAL
- ⑥ ALL CONCRETE USED FOR PRECAST CONCRETE MANHOLES SHALL BE 4000 P.S.I. @ 28 DAYS MIN. COMPRESSIVE STRENGTH WITH TYPE V CEMENT.
- ⑦ NO STEPS SHALL BE INSTALLED
- ⑧ MANHOLE RING AND COVER SHALL BE U.S. FOUNDRY CORP. TYPE B WITH DOVETAIL GROVED COVER TO ACCOMMODATE 1/4 DIA. O-RING. THE WORDS "WASTE WATER" CAST INTO THE COVER.

GENERAL CONSTRUCTION NOTES FOR WASTEWATER COLLECTION SYSTEM

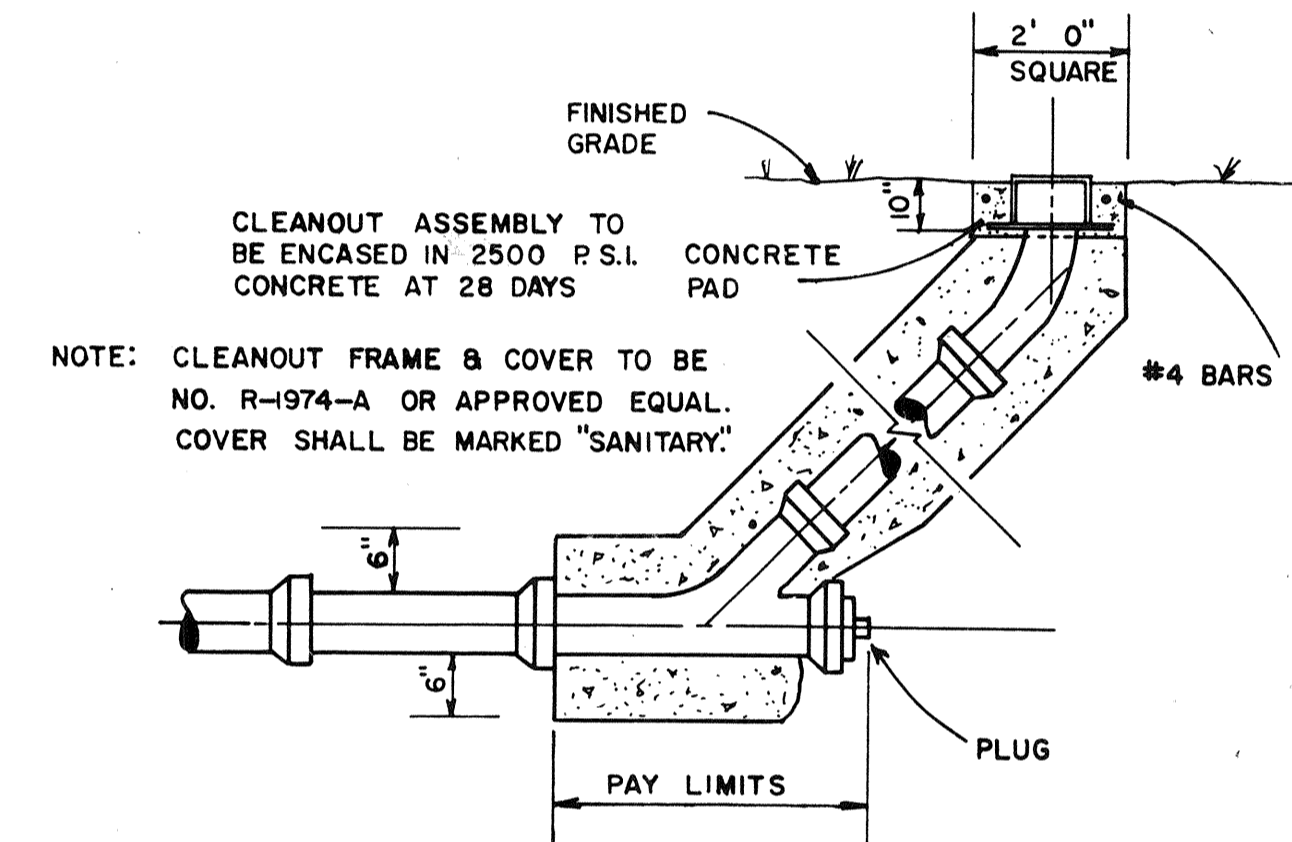
- WASTEWATER COLLECTION GENERAL:**
1. ALL CONSTRUCTION SHALL MEET THE MINIMUM REQUIREMENTS OF THE LONGBOAT KEY BUILDING DEPARTMENT.
 2. THE FOLLOWING NOTES ARE INTENDED AS A SUPPLEMENT TO THE PROJECT SPECIFICATIONS AND ARE NOT INTENDED TO SUPERSEDE THESE SPECIFICATIONS.
 3. ELEVATIONS SHOWN ON THE PLANS FOR FLOWLINES OF PROPOSED SEWER MAINS SHALL BE ADHERED TO. IN MOST CASES THE DESIGN GRADES ARE CRITICAL AND ADJUSTMENTS CAUSED BY MISALIGNMENT OR IMPROPER GRADES ARE IMPRACTICAL. COST TO RELAY MAIN, IF NECESSARY, WILL BE BORNE BY THE CONTRACTOR.
 4. FOR PAINTING AND SURFACE FINISHING REQUIREMENTS REFER TO DIVISION OF THE PROJECT SPECIFICATIONS.
- SERVICE DETAILS:**
1. AN "8" OR "10" SHALL BE STAMPED IN CURB WHERE SEWER SERVICE OR MANHOLE IS LOCATED. A MINIMUM OF 1/2 INCH, A MEASUREMENT FROM THE EDGE OF CURB, TAKEN BY THE CONTRACTOR, SHALL BE SHOWN ON THE "AS-BUILT" PLANS FOR REFERENCE IN LOCATING SERVICE OR MANHOLE. BRANDING IRONS OR STAMP WILL BE APPROVED BY THE ENGINEER PRIOR TO THEIR USE.
 2. DUCTILE IRON PIPE SHALL BE WRAPPED IN 8 MIL POLYETHYLENE.

TRENCH DETAILS:

1. WHERE WATER AND SEWER MAINS CROSS WITH LESS THAN EIGHTEEN INCHES (18") VERTICAL CLEARANCE, THE SEWER WILL BE TWENTY FEET (20') OF EITHER DUCTILE IRON PIPE CONCRETE ENCASED VITRIFIED CLAY PIPE (CVCP) OR CONCRETE, CENTERED ON THE POINT OF CROSSING. WHEN A WATER MAIN PARALLELS A SEWER MAIN, A SEPARATION OF AT LEAST TEN FEET (10') SHOULD BE MAINTAINED HORIZONTALLY.
2. TRENCH SHALL BE BRACED OR SHORED AS REQUIRED.
3. WIDTH OF TRENCH SHALL BE OUTSIDE DIAMETER OF PIPE SOCKET PLUS TWELVE INCHES (12") MAXIMUM.
4. CONTRACTOR SHALL PLACE METALLIC BURIAL IDENTIFICATION TAPE WITHIN 18" DIRECTLY ABOVE SEWER LINES.
5. ALL WELL POINT HOLES WILL BE FILLED WITH COARSE SAND OR OTHER SATISFACTORY GRANULAR MATERIAL AT TIME WELL POINTS ARE PULLED.

TESTING:

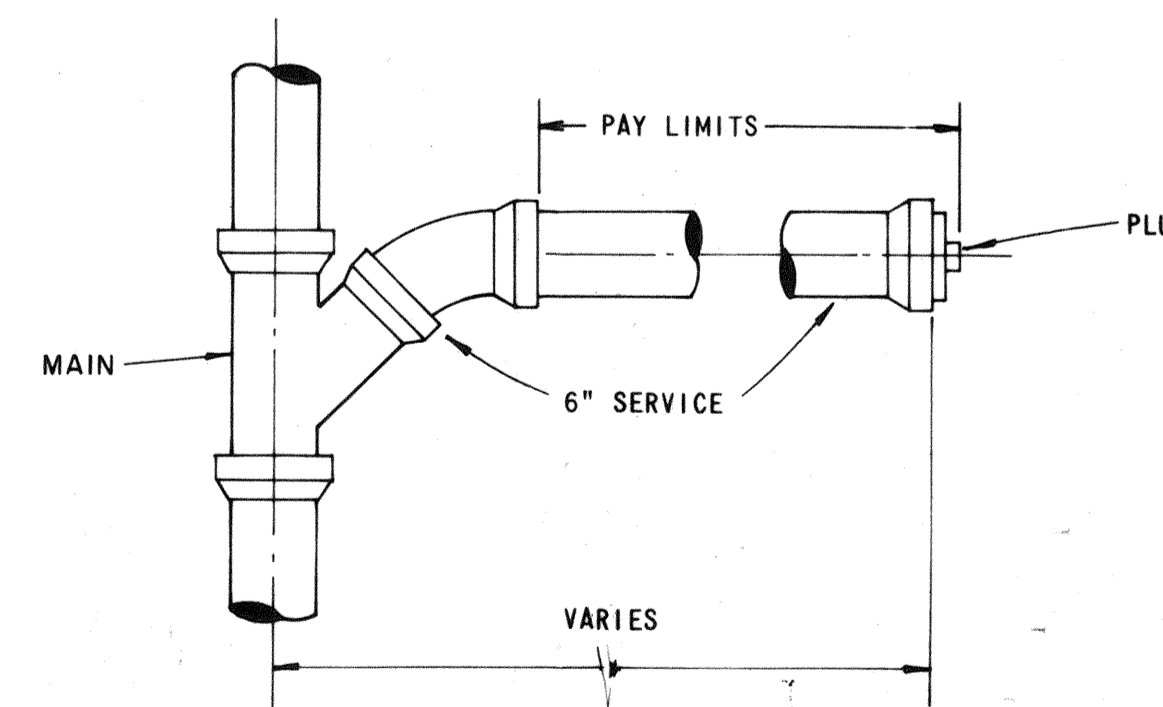
1. THE CONTRACTOR SHALL INCLUDE IN HIS COST FOR THE VARIOUS ITEMS CONTAINED IN THE BID SCHEDULE, THE ADDITIONAL COSTS INVOLVED WITH LAMPING THE NEWLY LAID SEWER PIPE, EXFILTRATION OR INFILTRATION TESTING AND PIPE DEFLECTION TESTS, ALL AS REQUIRED BY LONGBOAT KEY STANDARDS.



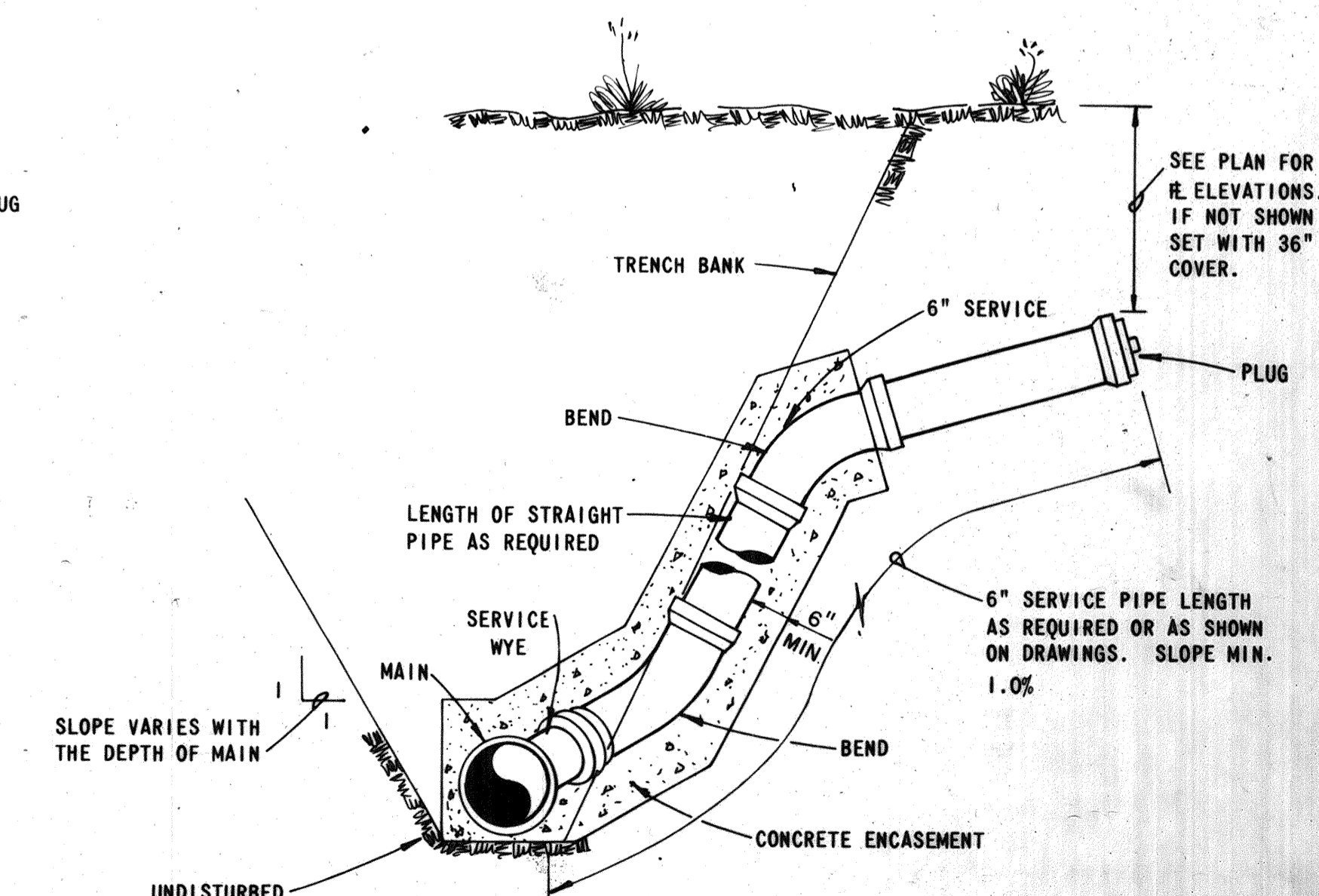
NOTE: CLEANOUT FRAME & COVER TO BE NO. R-1974-A OR APPROVED EQUAL. COVER SHALL BE MARKED "SANITARY".

CLEANOUT DETAIL

END OF LINE
N.T.S.



PLAN



TYPICAL SINGLE SERVICE CONNECTION

N.T.S.

DESIGNED BY	J. M. B.
DATE	JULY, 1990
SCALE	AS SHOWN
CHECKED BY	E. P.
PROJECT NO.	2591
DRAWN BY	E. P.
FOR: YALE PROPERTIES	
INDEX NO. 8-2591-022	
DRAWING NUMBER	17
REVISION	
L'AMBIANCE WASTEWATER CONSTRUCTION DETAILS	
SMALLY, WELLFORD & NALVEN, Inc. CONSULTING ENGINEERS & SURVEYORS	
133 SOUTH McINTOSH RD. SARASOTA, FLA. 33562	