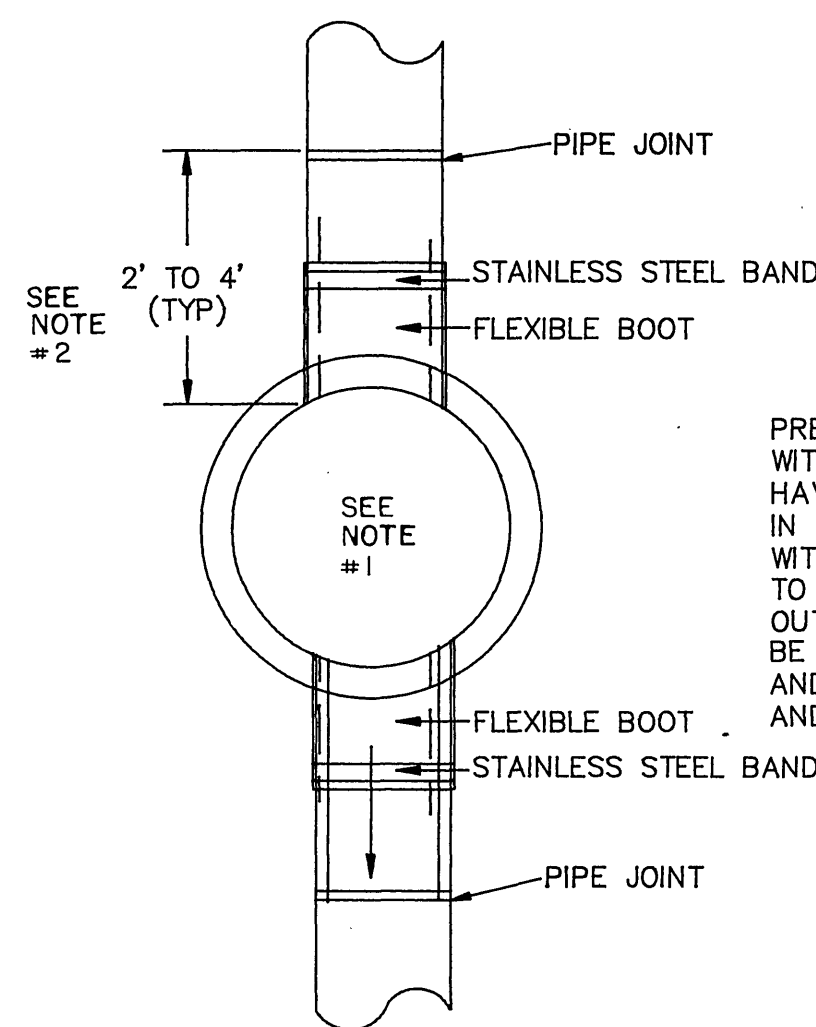
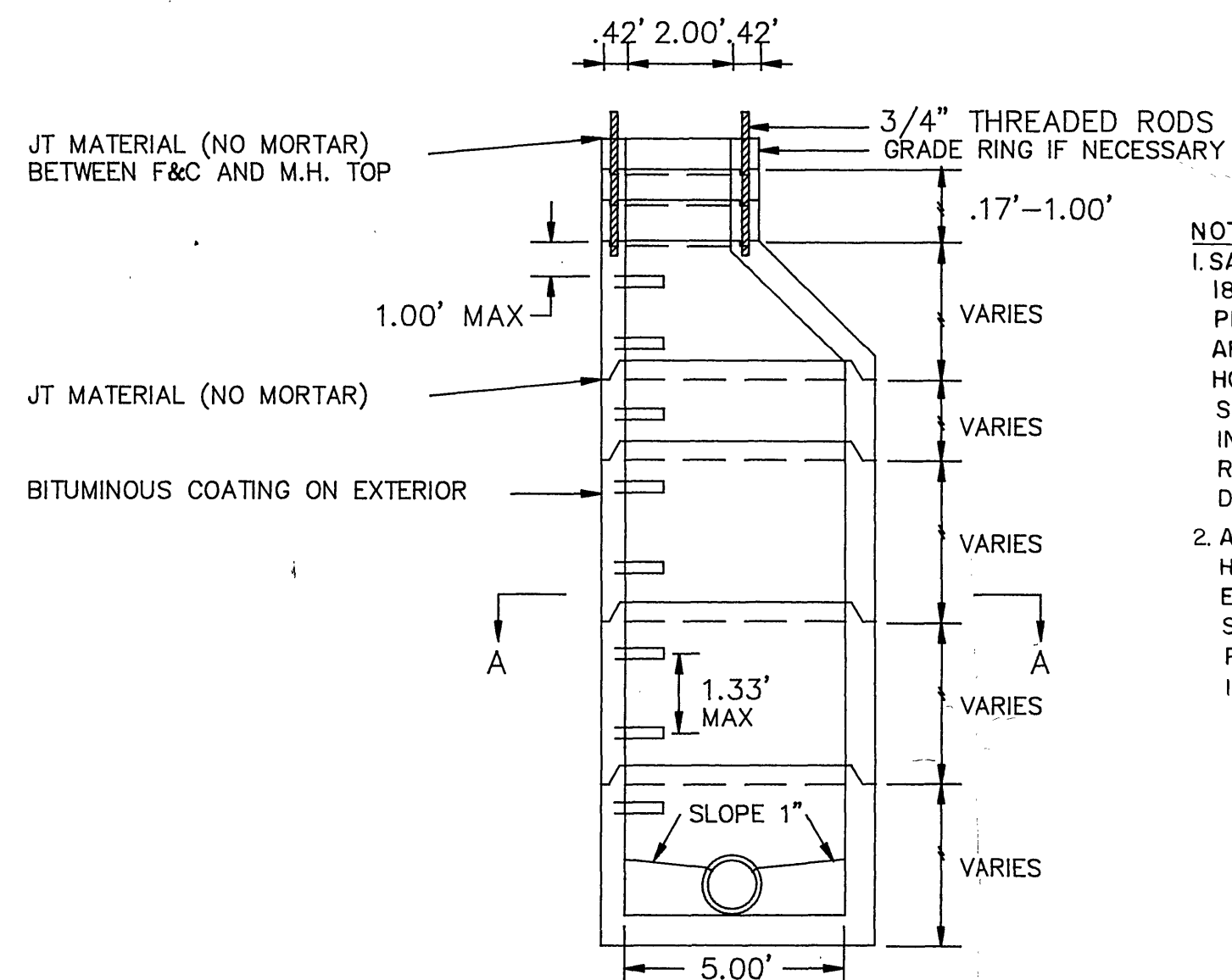




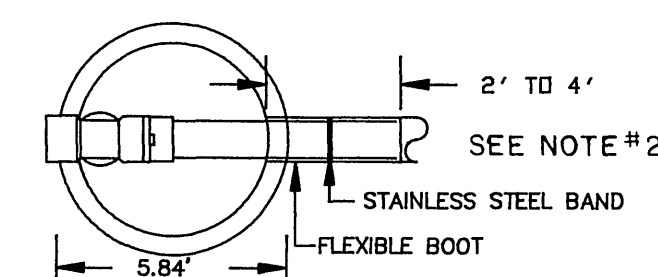
SECTION A-A

PRE-CAST MANHOLE INVERTS WITH LASER BOWLES MUST HAVE THEIR BOWLES FILLED IN AND INVERTS FORMED WITH EPOXY TO CONFORM TO THE SHAPE OF THE INFLOW-OUTFLOW PIPES. INVERTS WILL BE THE SAME SIZE AS THE PIPE AND SUFFICIENT SIZE FOR PLUGS AND TESTING EQUIPMENT.

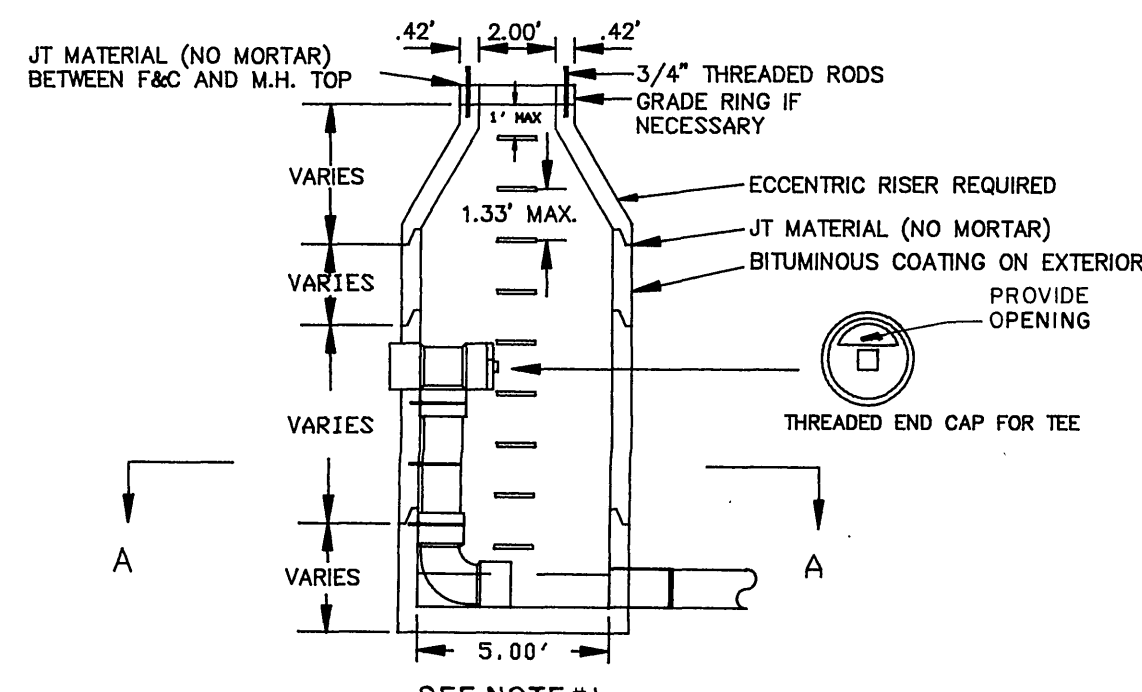


STANDARD MANHOLE
NO SCALE

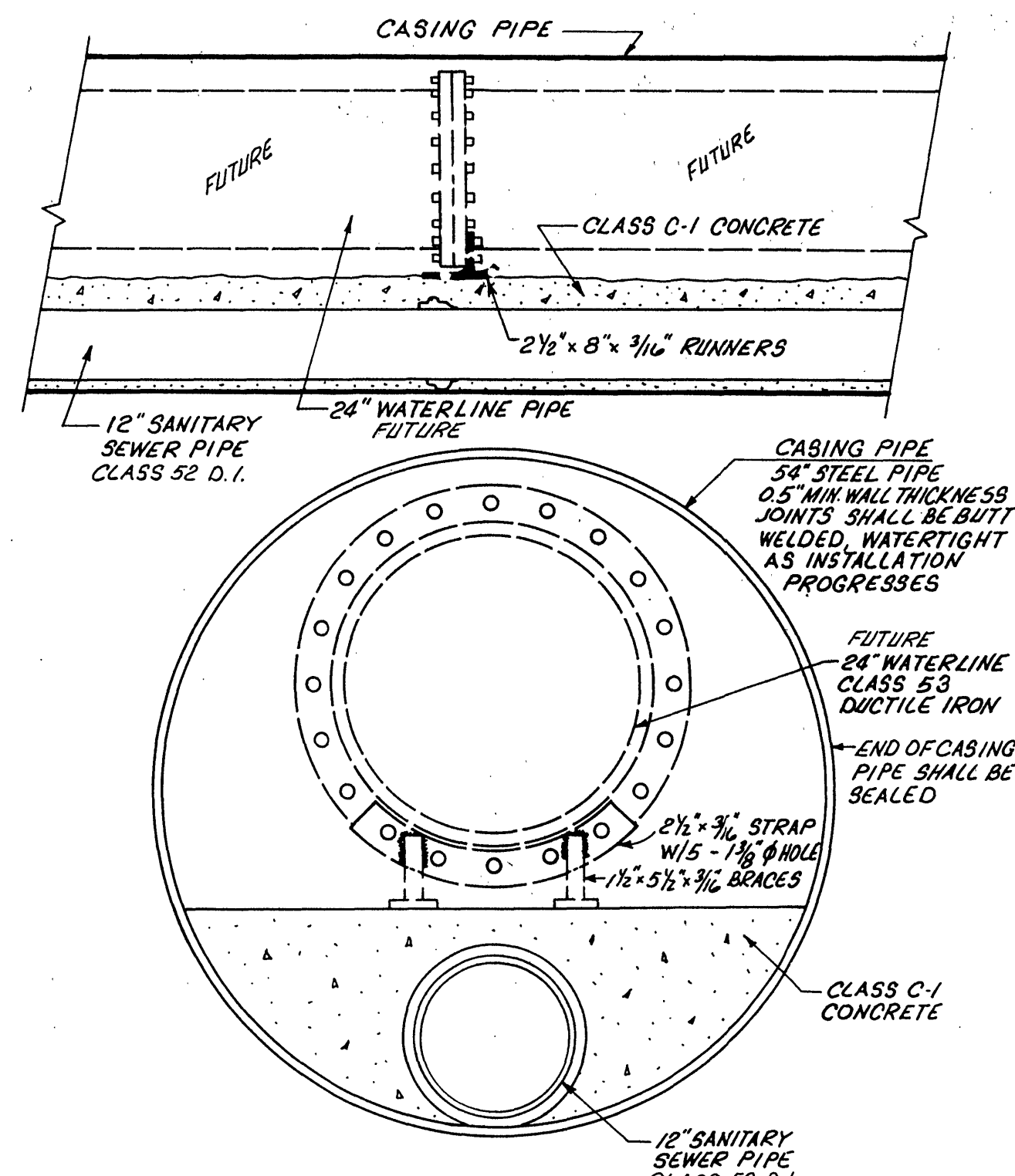
NOTES
1. SANITARY SEWER MAINS WITH 18" OR LESS INSIDE DIAMETER PIPES WILL REQUIRE STANDARD 4" INSIDE DIAMETER MANHOLES AND ALL SANITARY SEWER MAINS WITH 20" TO 36" INSIDE DIAMETER PIPES WILL REQUIRE STANDARD 5" INSIDE DIAMETER MANHOLES.
2. ALL 5" INSIDE DIAMETER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION A-A, REQUIRING A PIPE JOINT 2'-4" FROM THE INSIDE OF THE MANHOLE.



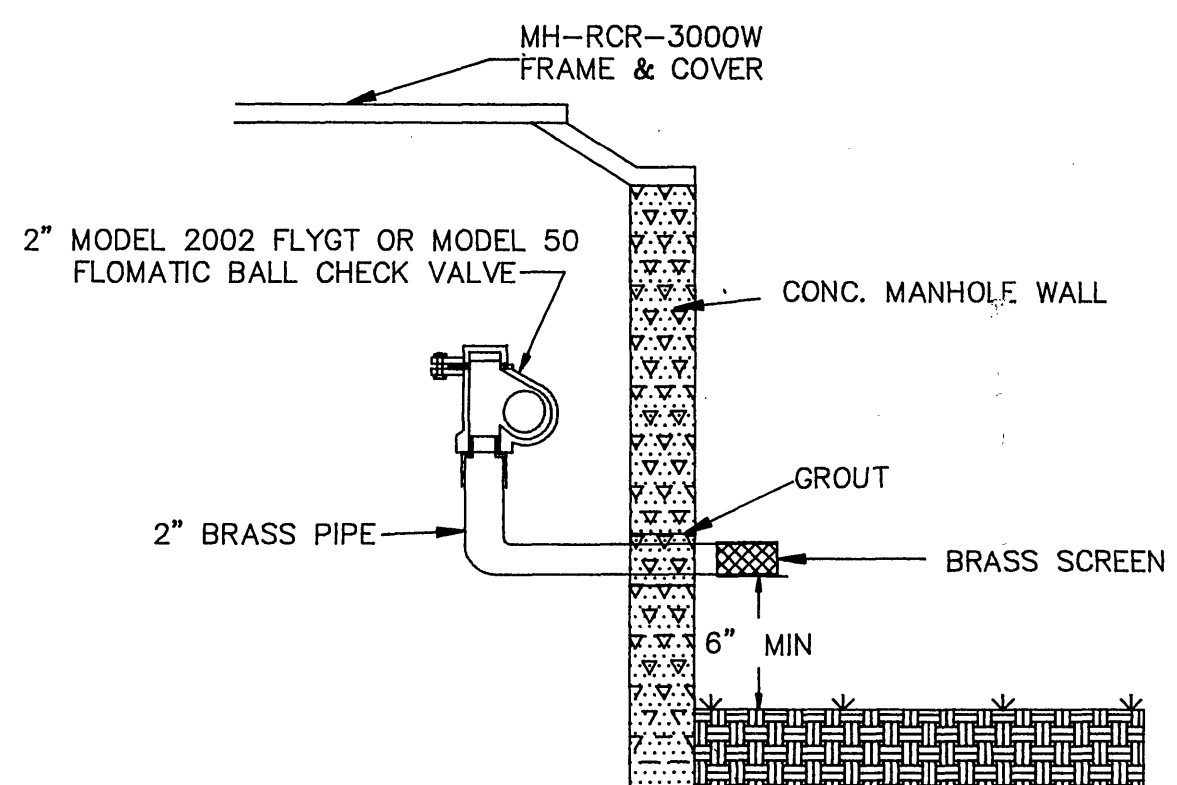
SECTION A-A



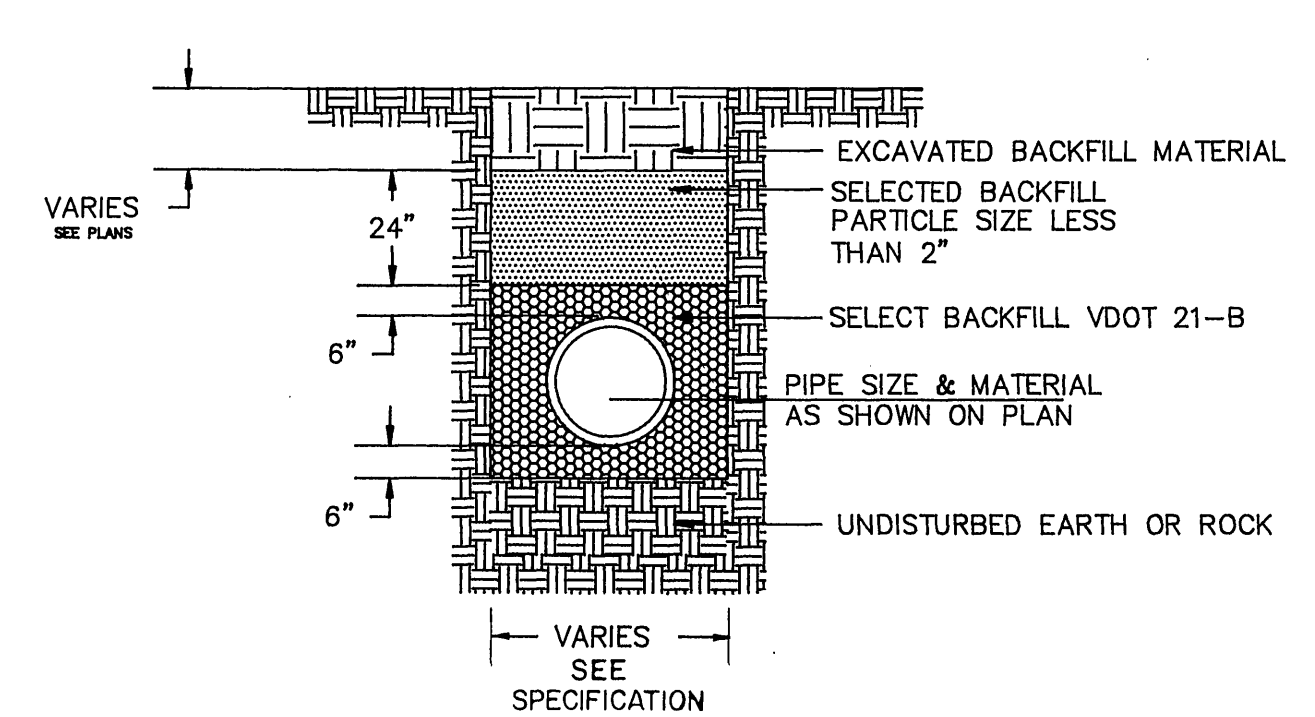
STANDARD DROP MANHOLE
NO SCALE



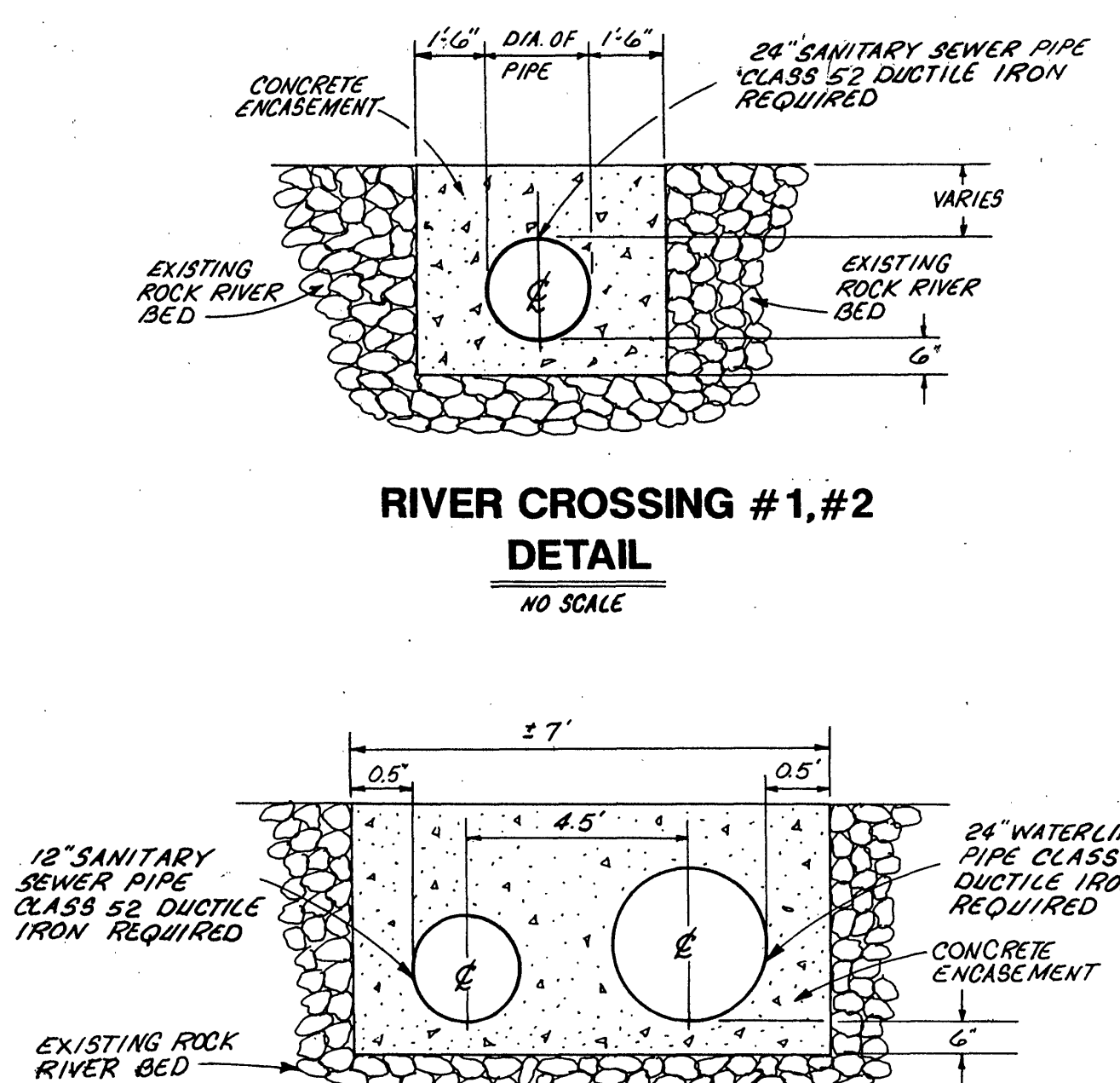
RAILROAD BORE-TUNNEL DETAIL
NO SCALE



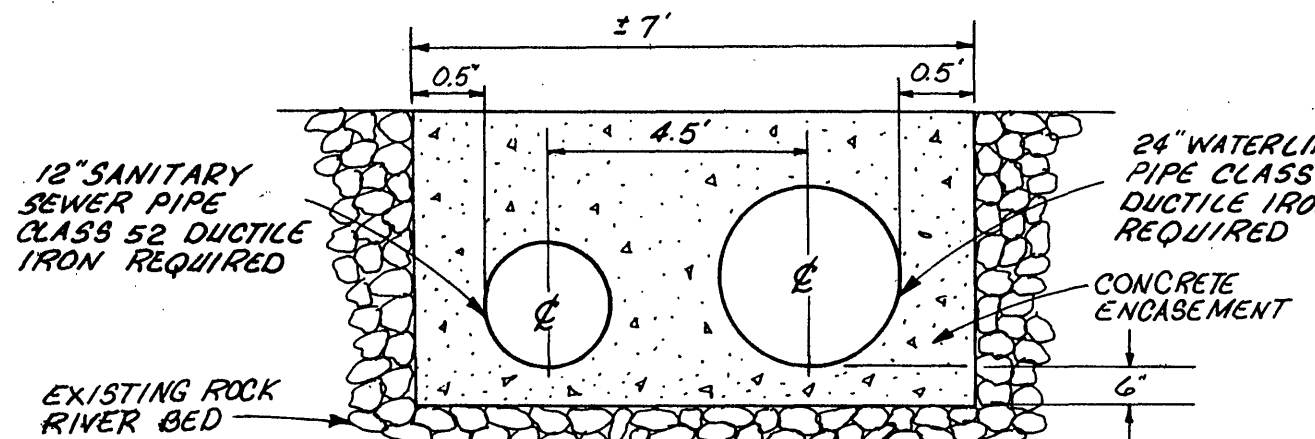
TYPE 1 MANHOLE VENT
NO SCALE



PIPE BACKFILL DETAIL
NO SCALE

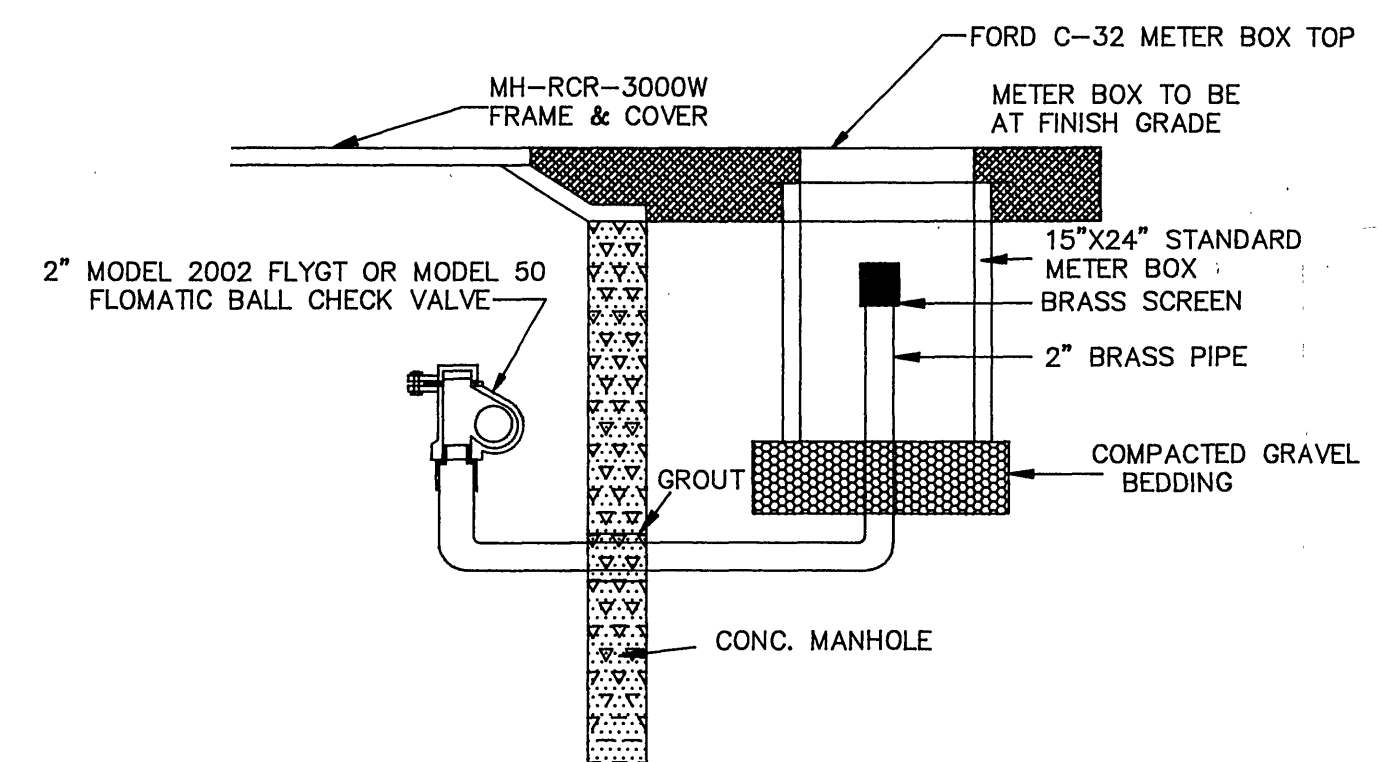


RIVER CROSSING #1, #2
DETAIL
NO SCALE

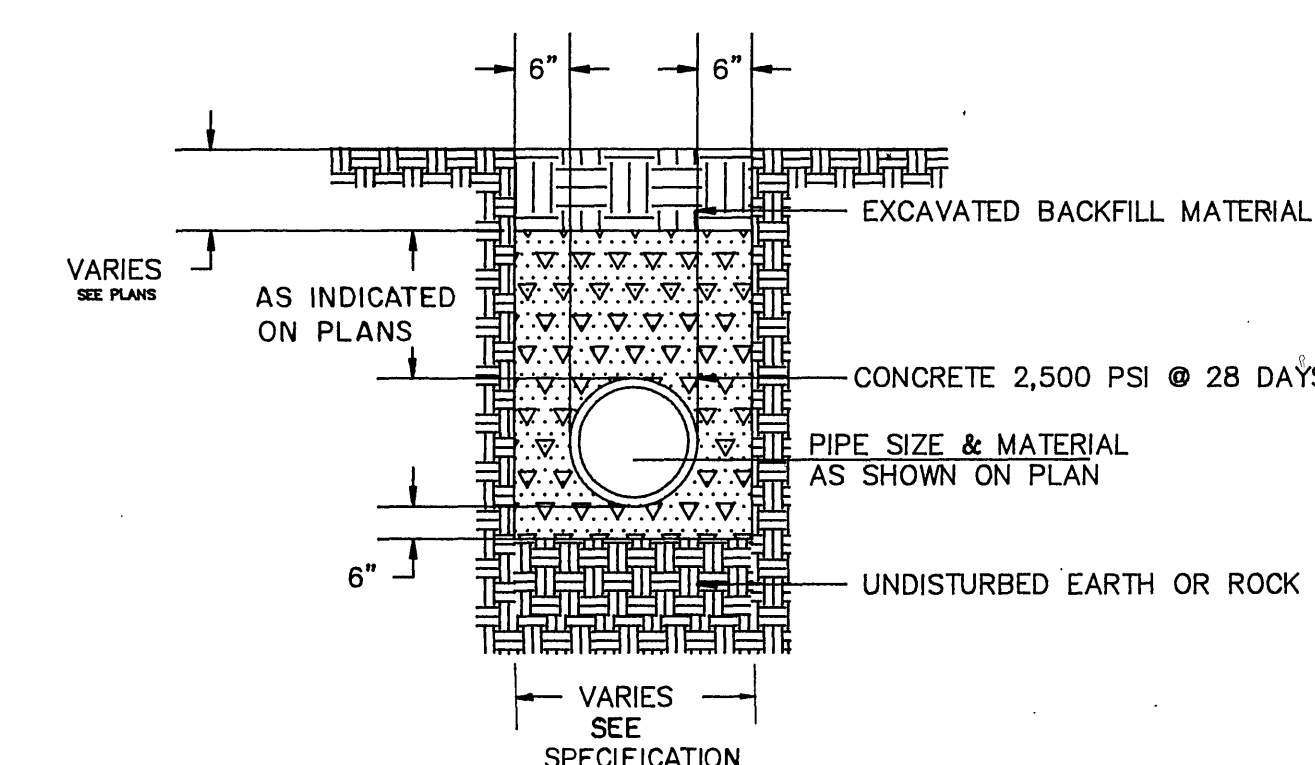


RIVER CROSSING #3
DETAIL
NO SCALE

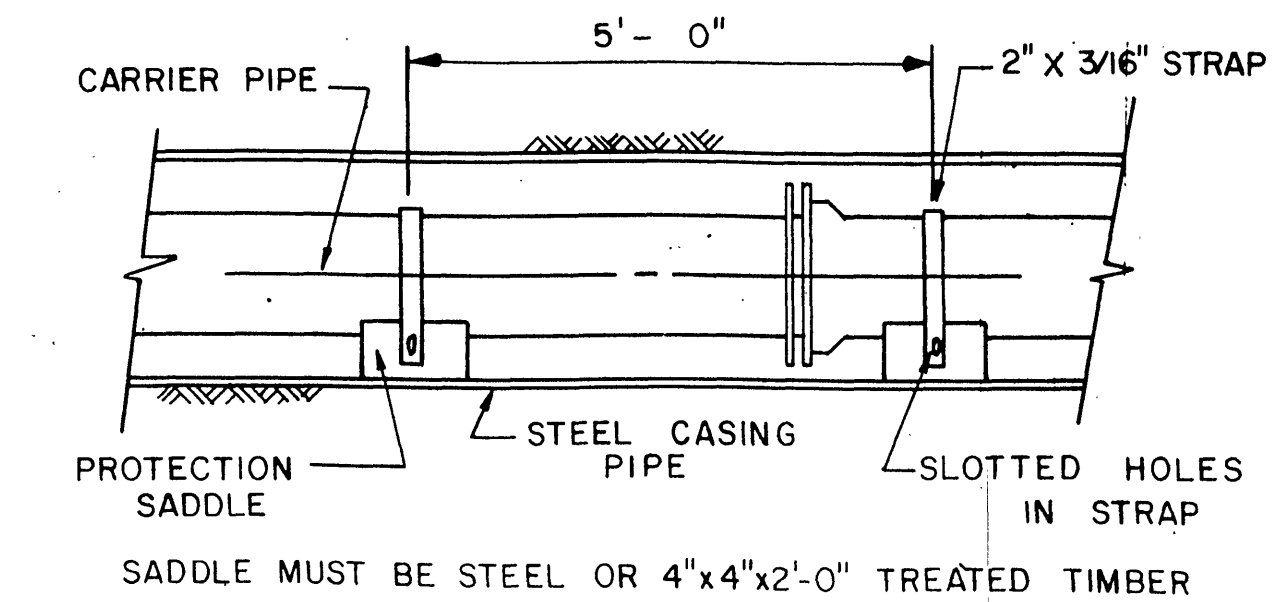
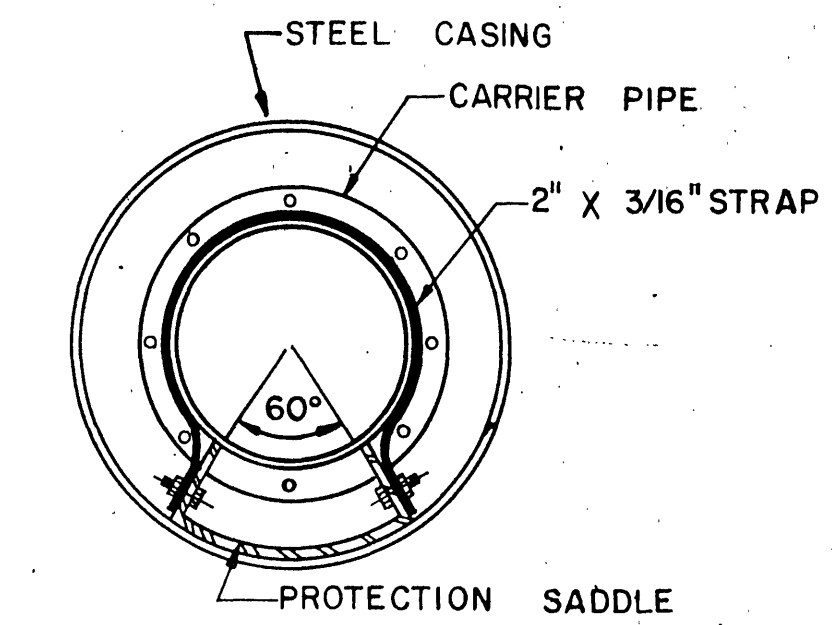
RIVER CROSSING DETAILS
NO SCALE



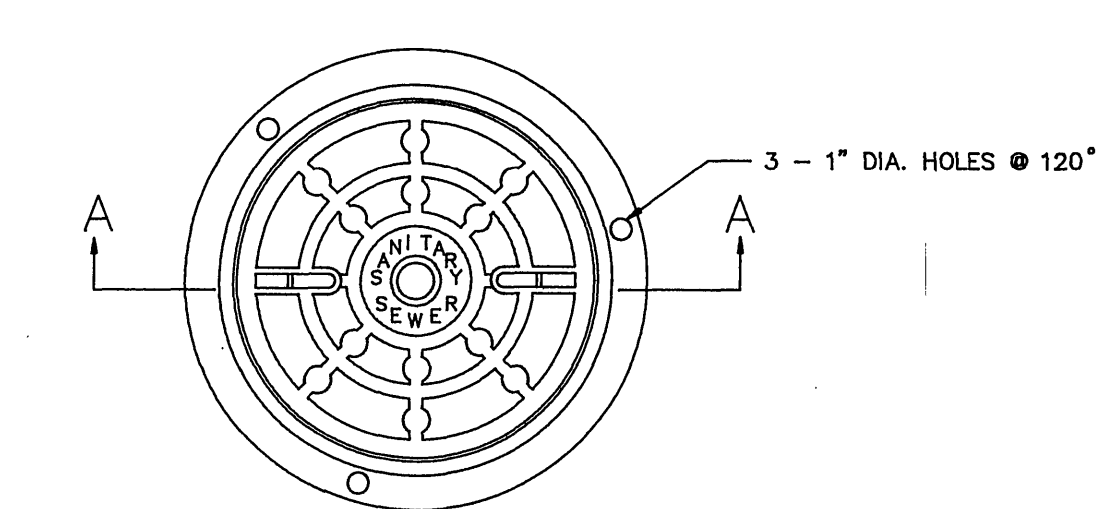
TYPE 2 MANHOLE VENT
NO SCALE



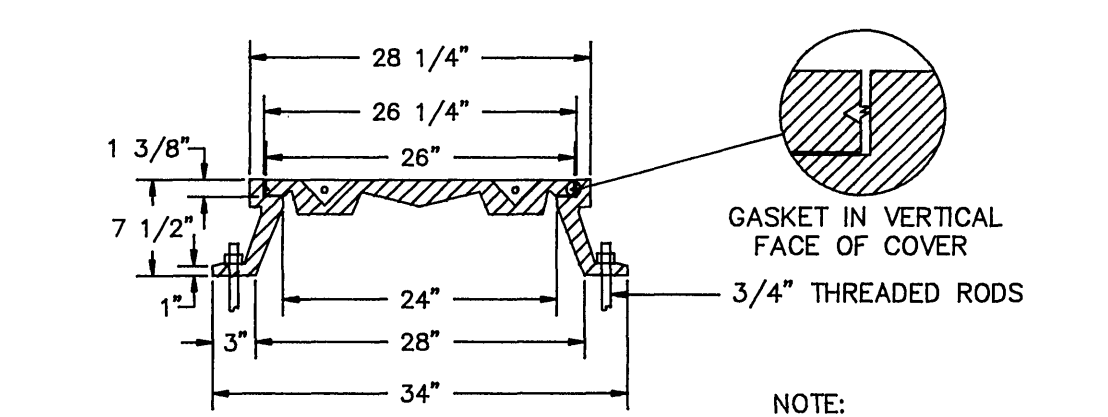
CONCRETE ENCASED PIPE
NO SCALE



BORING AND CASING DETAIL
NO SCALE



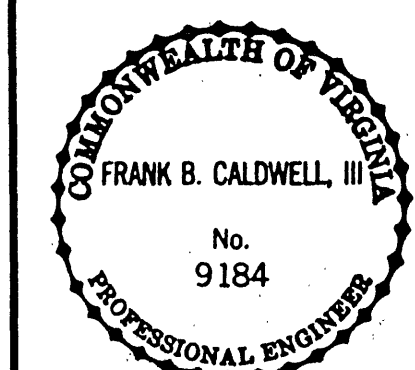
PLAN



SECTION A-A

NOTE: DEWEY BROTHERS INC. MH-RCR-3000W WATERTIGHT F&C.

WATERTIGHT
MANHOLE FRAME AND COVER



ROANOKE RIVER SANITARY SEWER INTERCEPTOR PHASE III FOR COUNTY OF ROANOKE			
DETAIL SHEET			
T. P. PARKER & SON ENGINEERS SURVEYORS PLANNERS 816 Boulevard Post Office Box 59 Salem, Virginia 24153 Telephone: 703-387-1153 FAX: 703-388-6797	DESIGNED R.C.P.S.A. DATE JAN. 18, 1991	DRAWN CLW(CADD) W.C.# 90-1738 N.B. R.C.P.S.A. #4	SHEET 8 OF 8