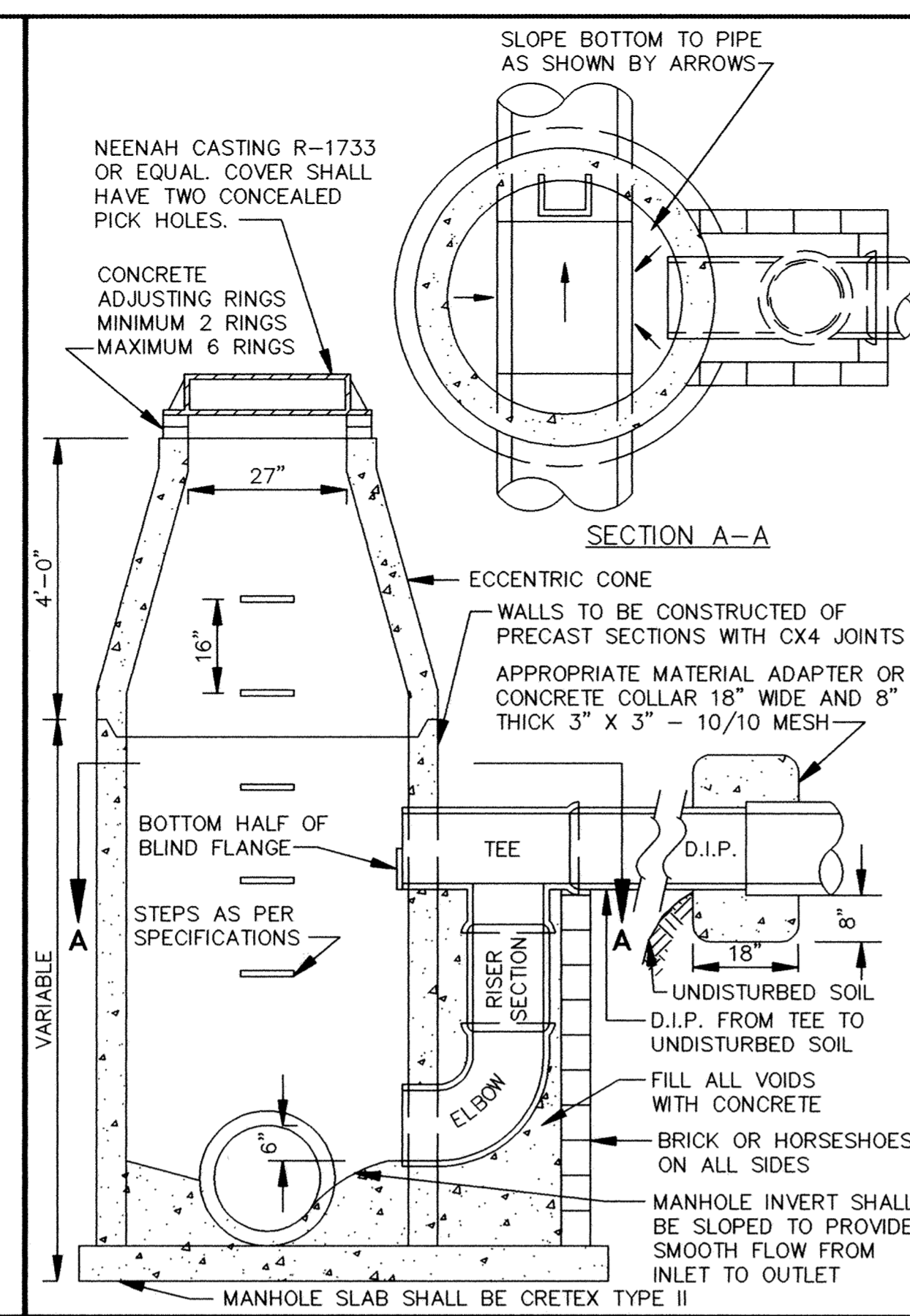
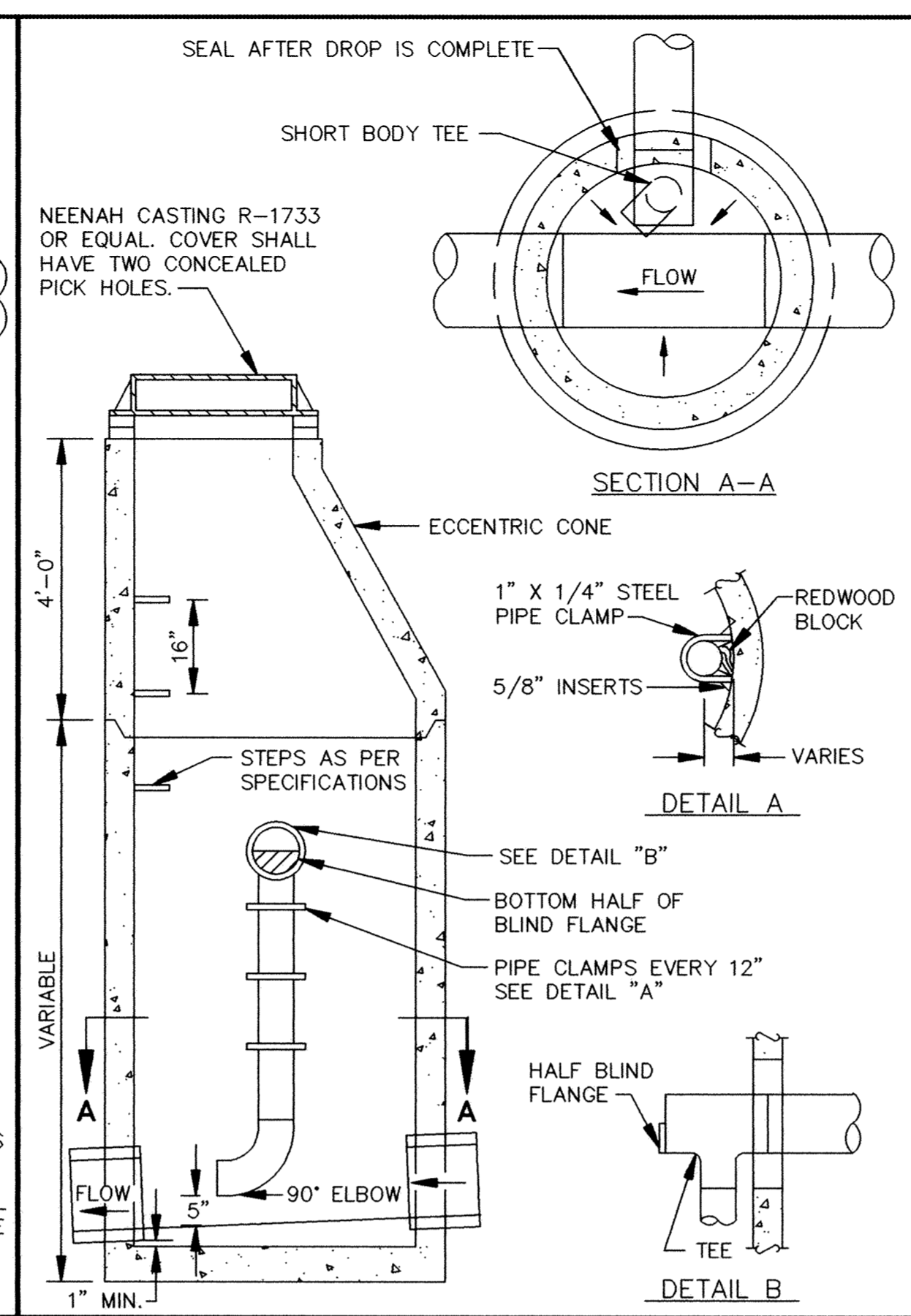


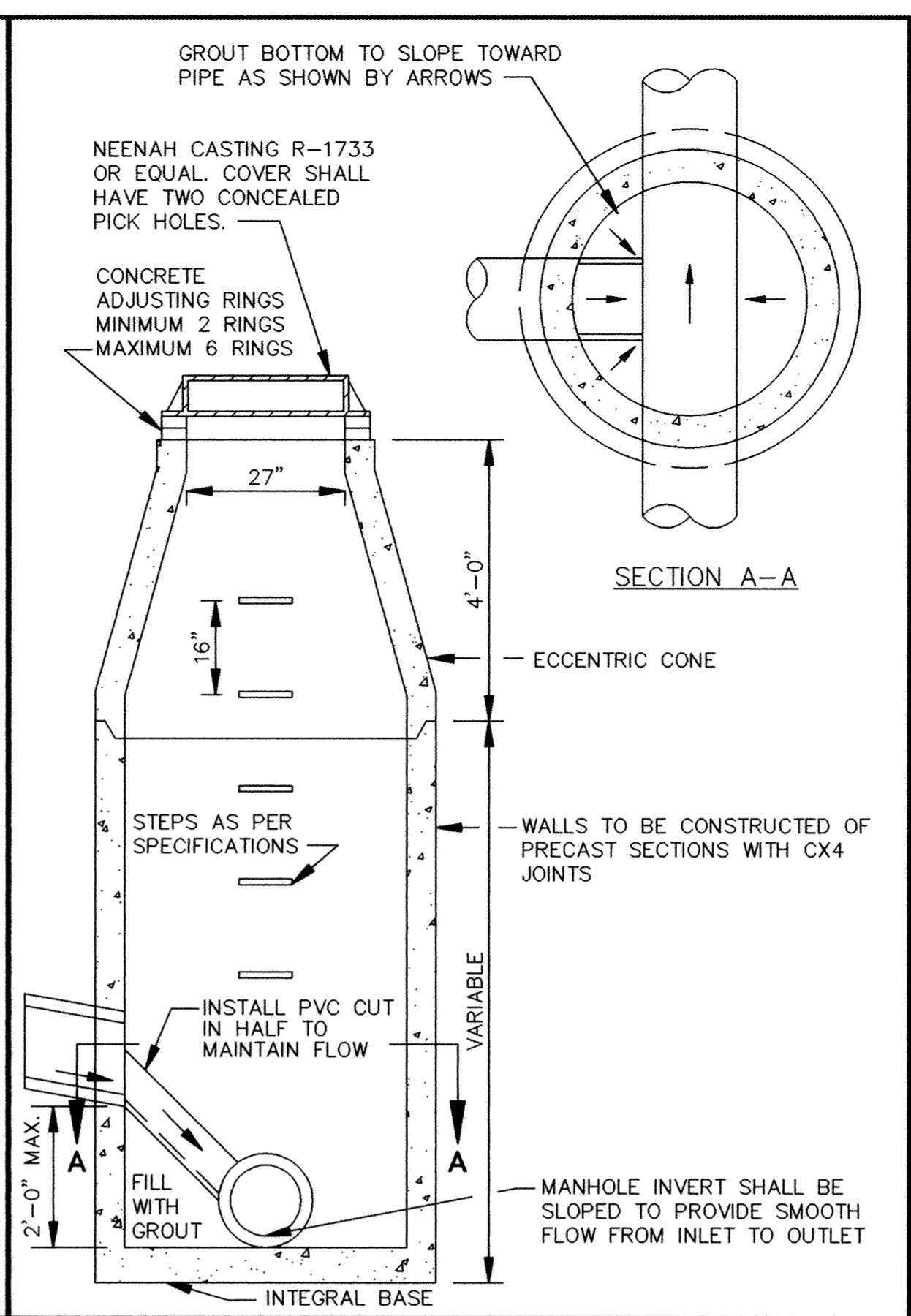
STANDARD AIR RELIEF MANHOLE



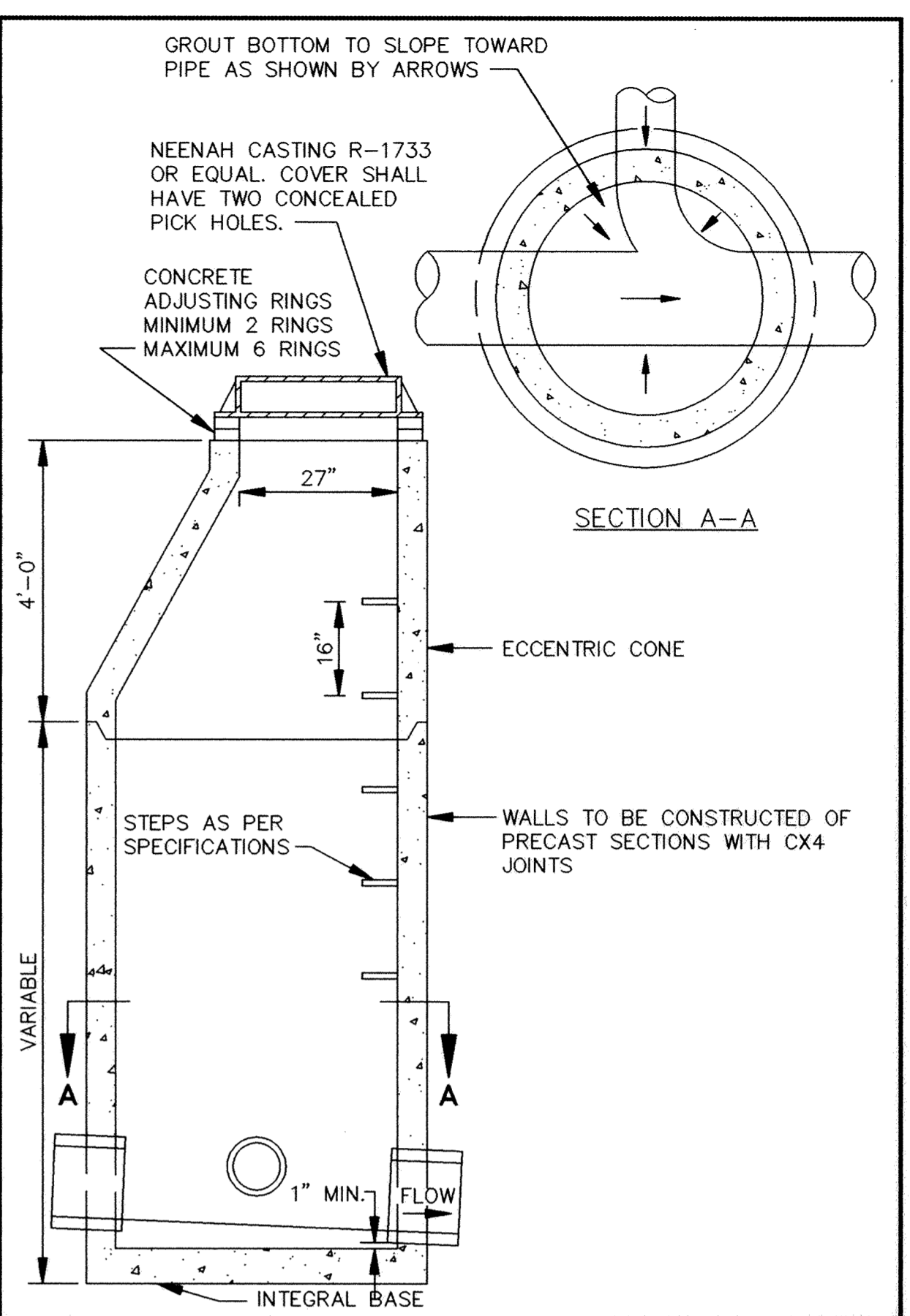
OUTSIDE DROP MANHOLE



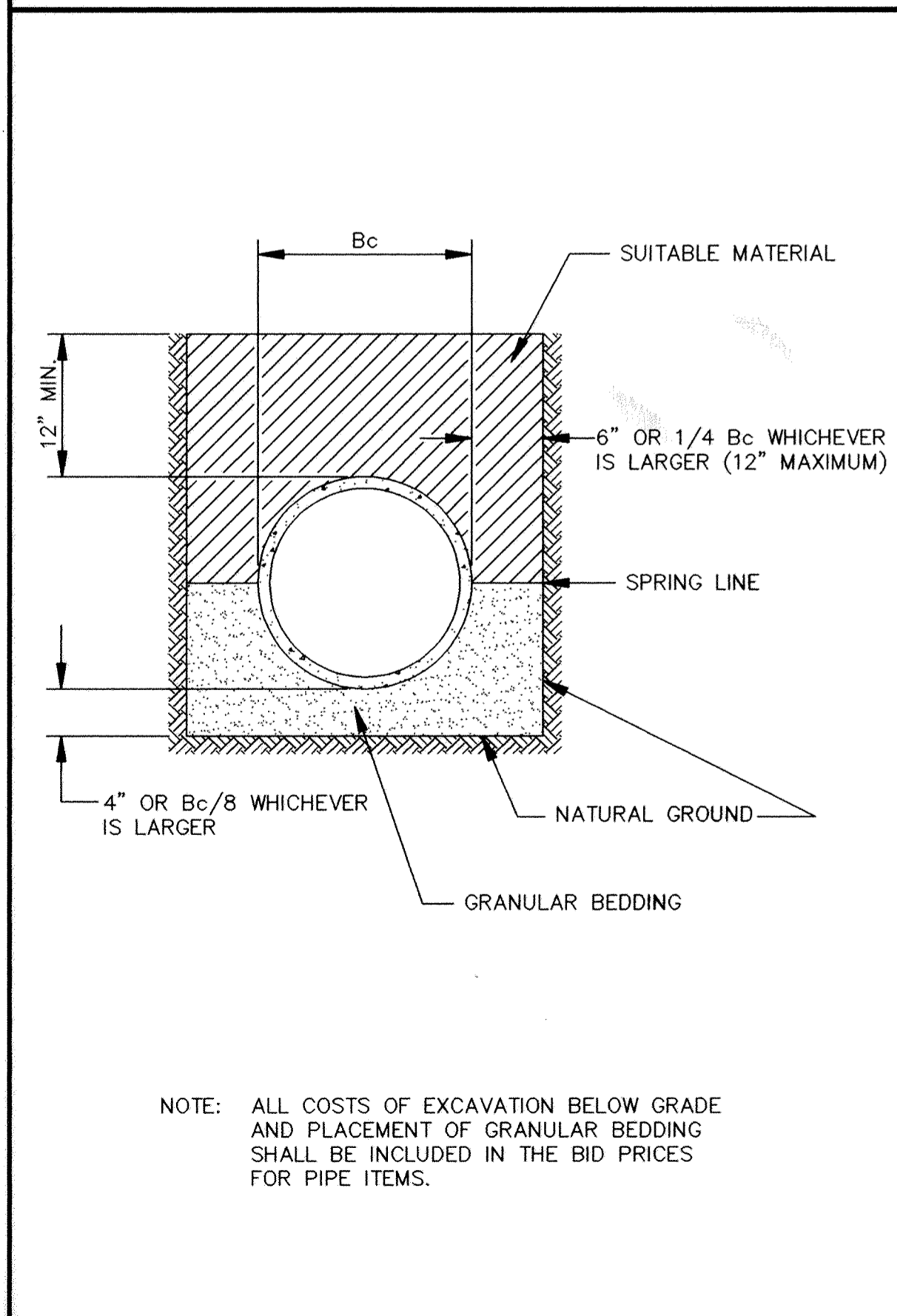
INSIDE DROP MANHOLE



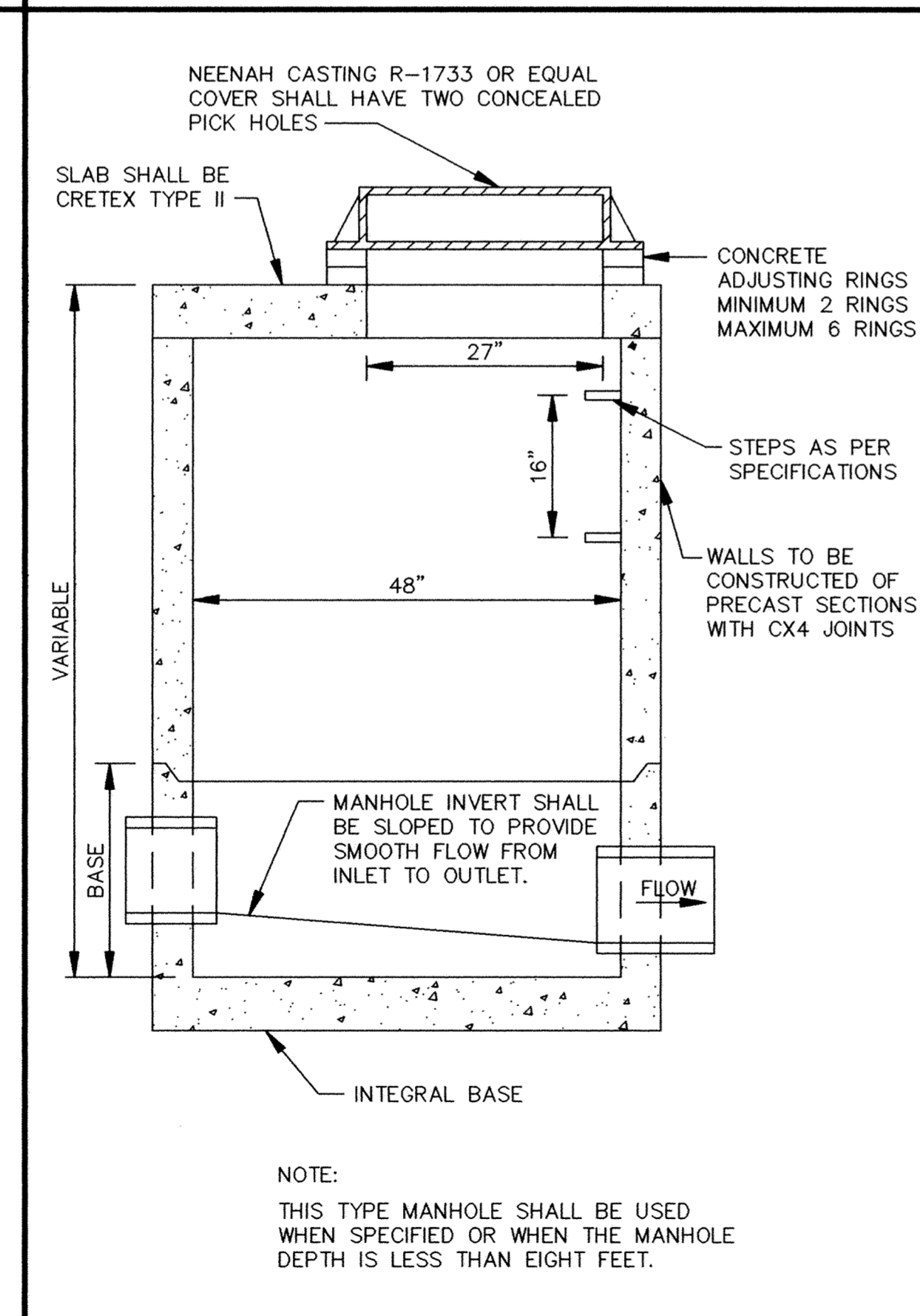
INSIDE DROP MANHOLE (TWO FEET OR LESS)



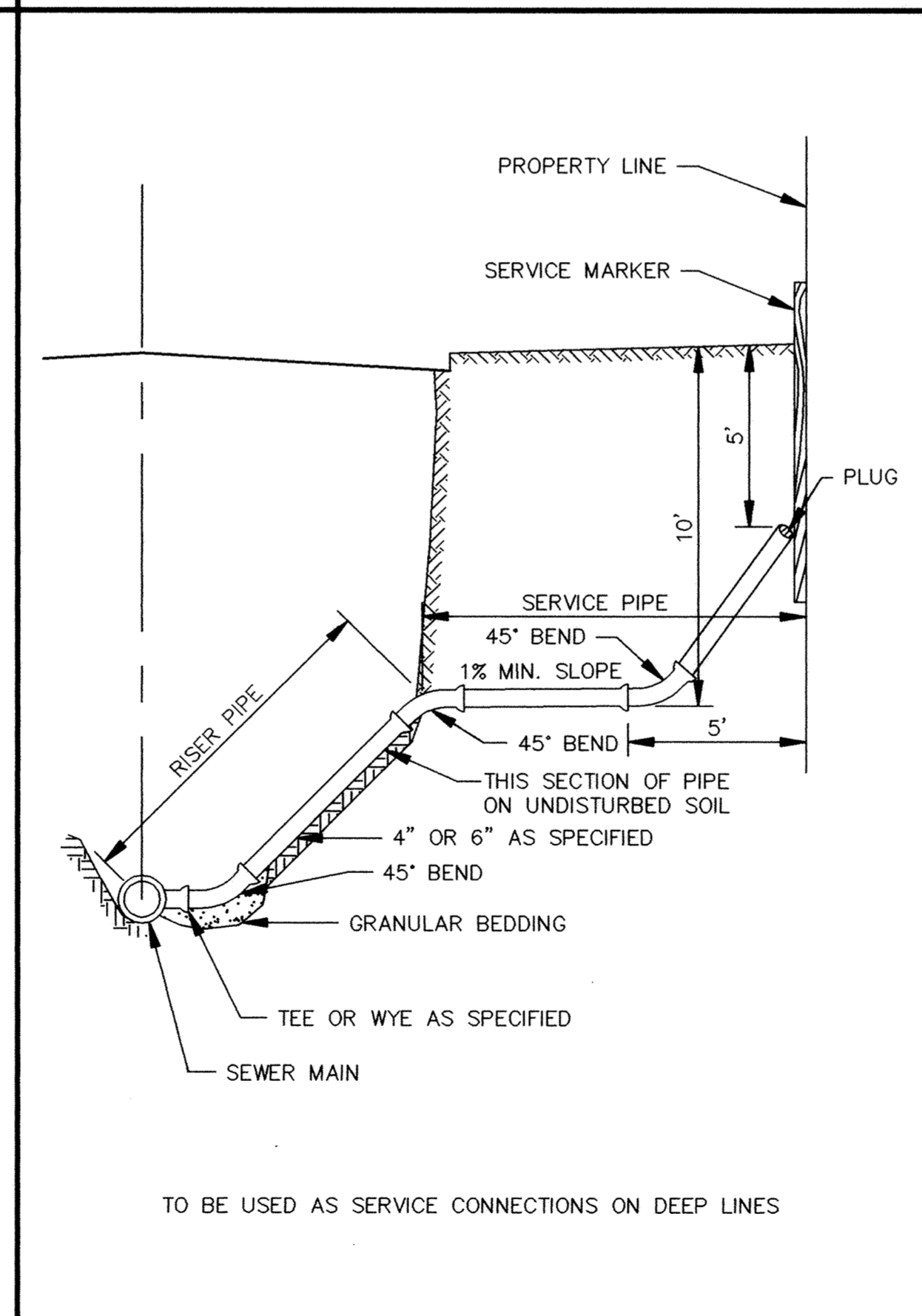
STANDARD MANHOLE



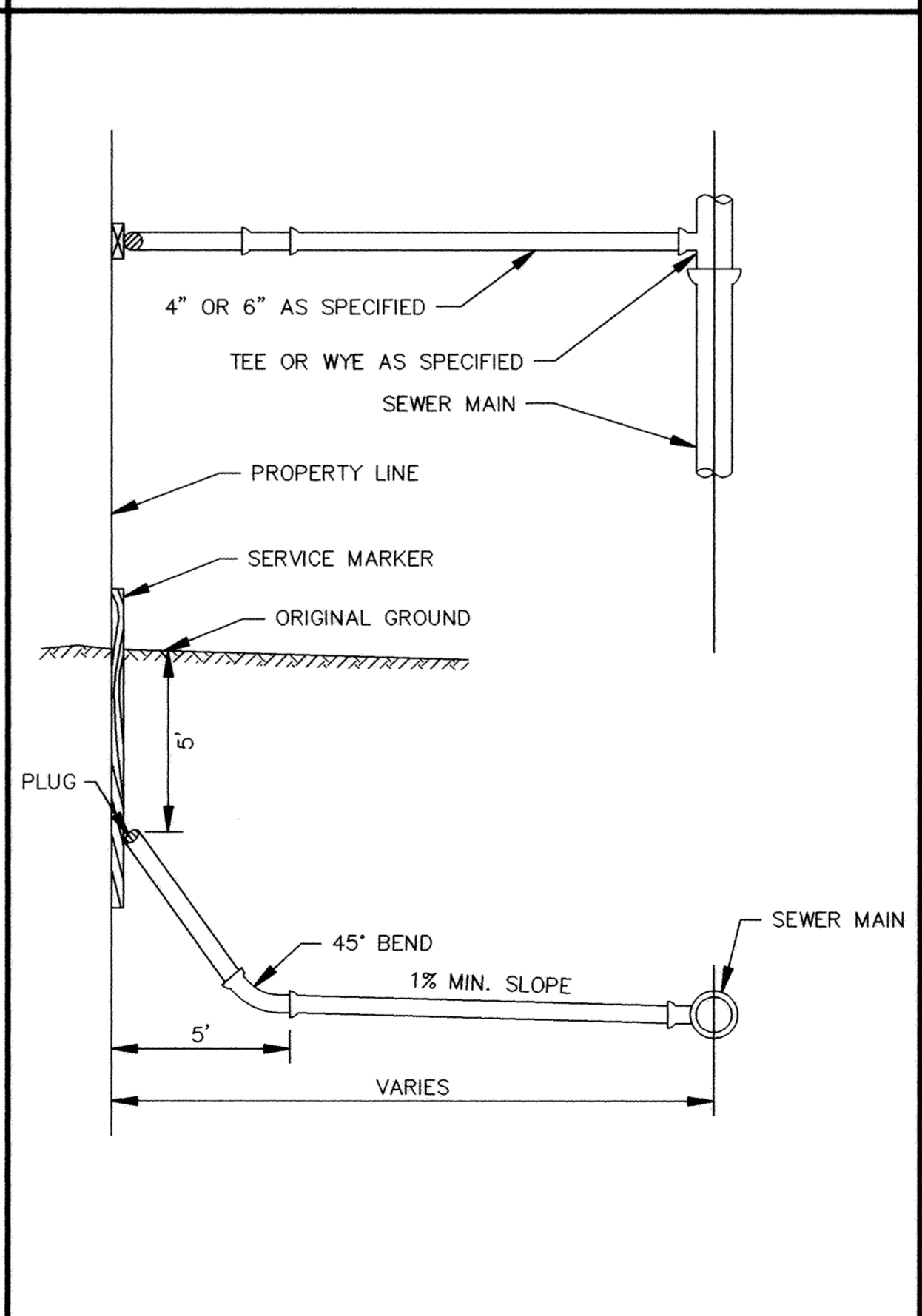
CLASS B PIPE BEDDING



SLAB TOP MANHOLE



SERVICE RISER SECTION



TYPICAL HOUSE SERVICE

RECORD PLAN NOV, 1993

3 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Maier Stewart & Associates Inc.
DATE 11/93 REG. NO. 19130

MSA CONSULTING ENGINEERS
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1959 SLOAN PLACE (612) 774-6021 ST. PAUL, MINNESOTA 55117
9800 SHELARD PARKWAY (612) 546-0432 MINNEAPOLIS, MINNESOTA 55441

DATE	DESCRIPTION	DESIGNED	SJM
		CHECKED	TJM
		DRAWN	CLS
REVISIONS		GRAPHIC SCALE	
		0	HORIZ.
		0	VERT.

CITY OF ELK RIVER MISSISSIPPI OAKS, PHASE I SANITARY SEWER DETAILS			
DATE	JUNE 1993	SHEET	13 OF 16 SHEETS
PROJECT NO.	230-164		