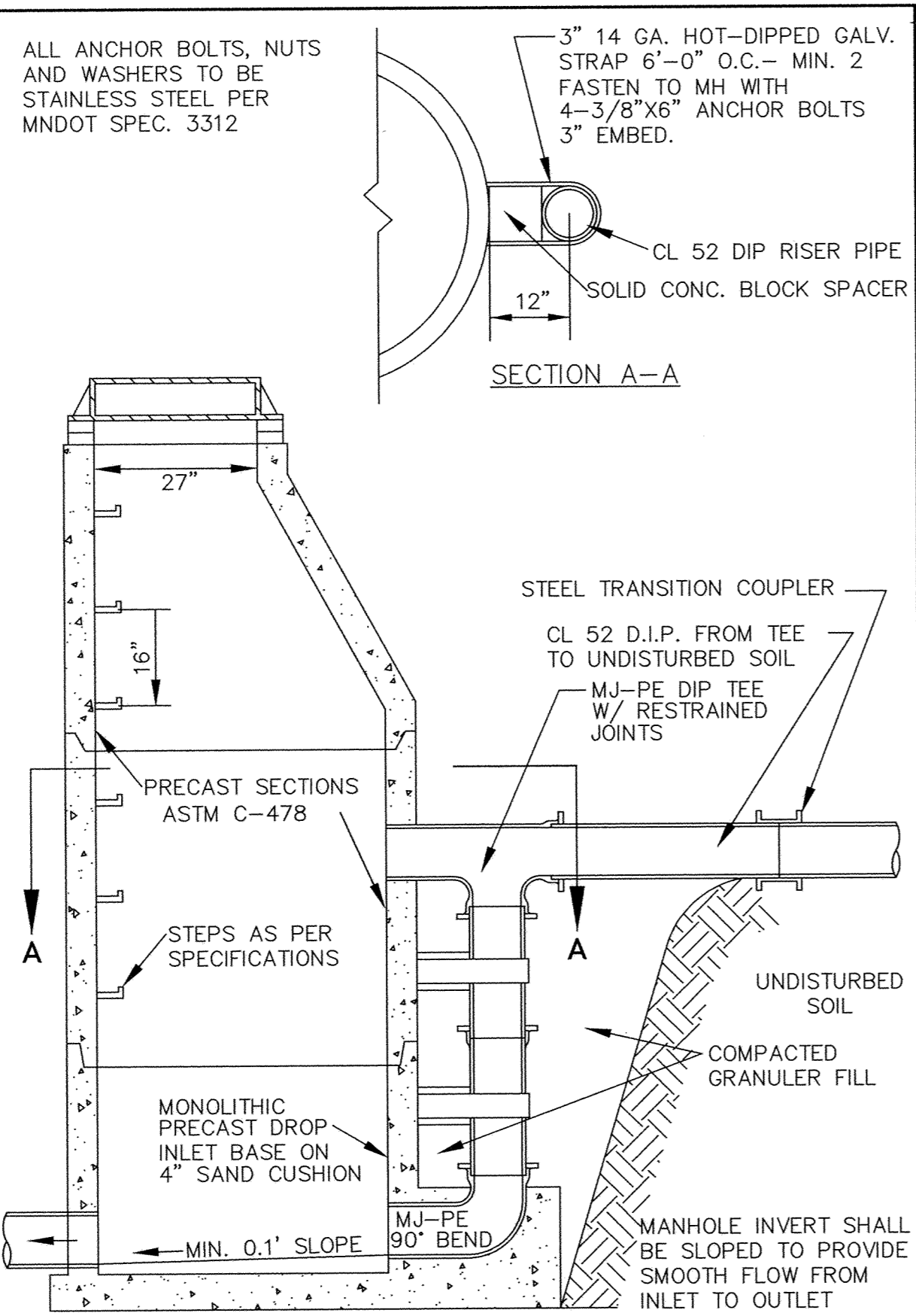
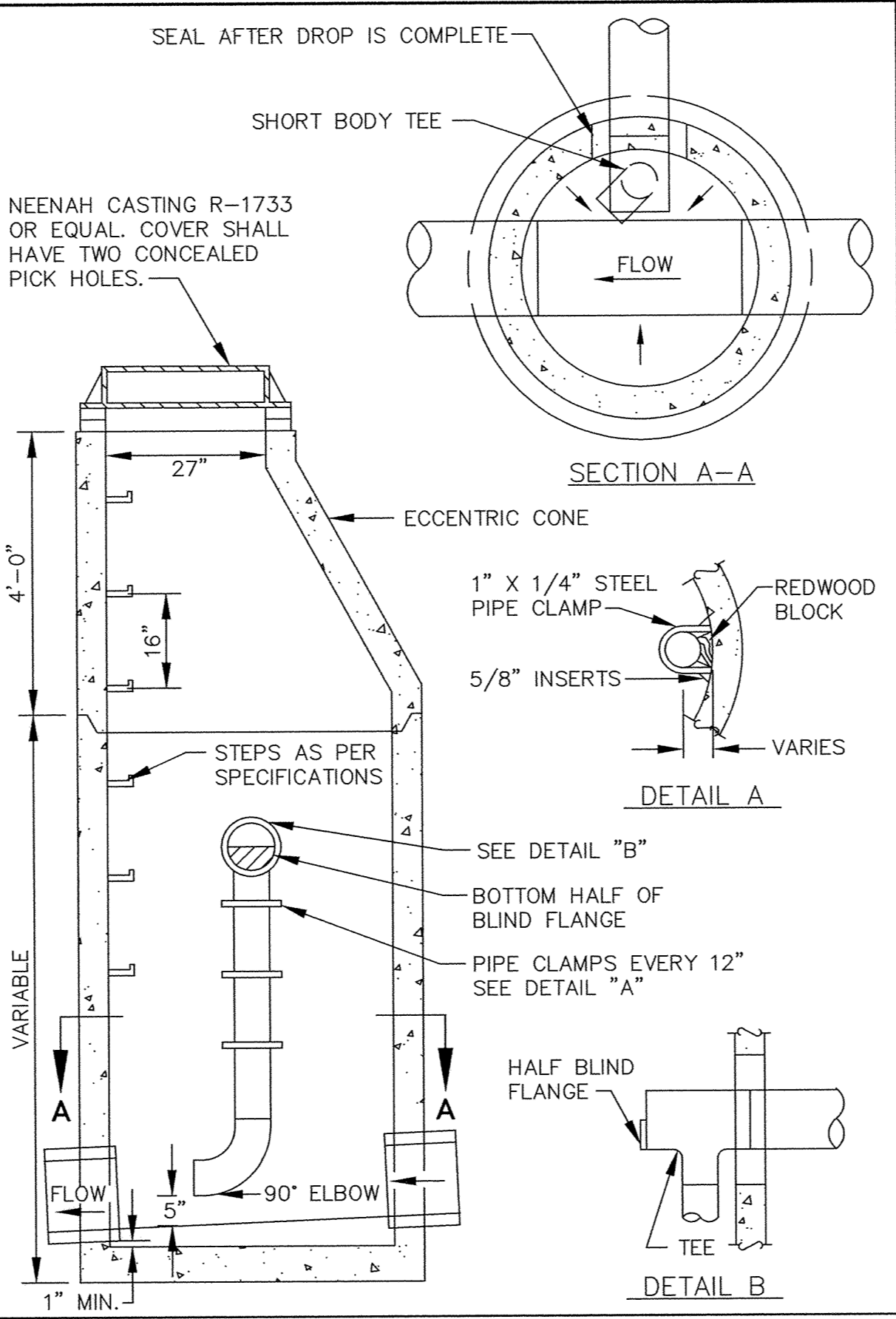


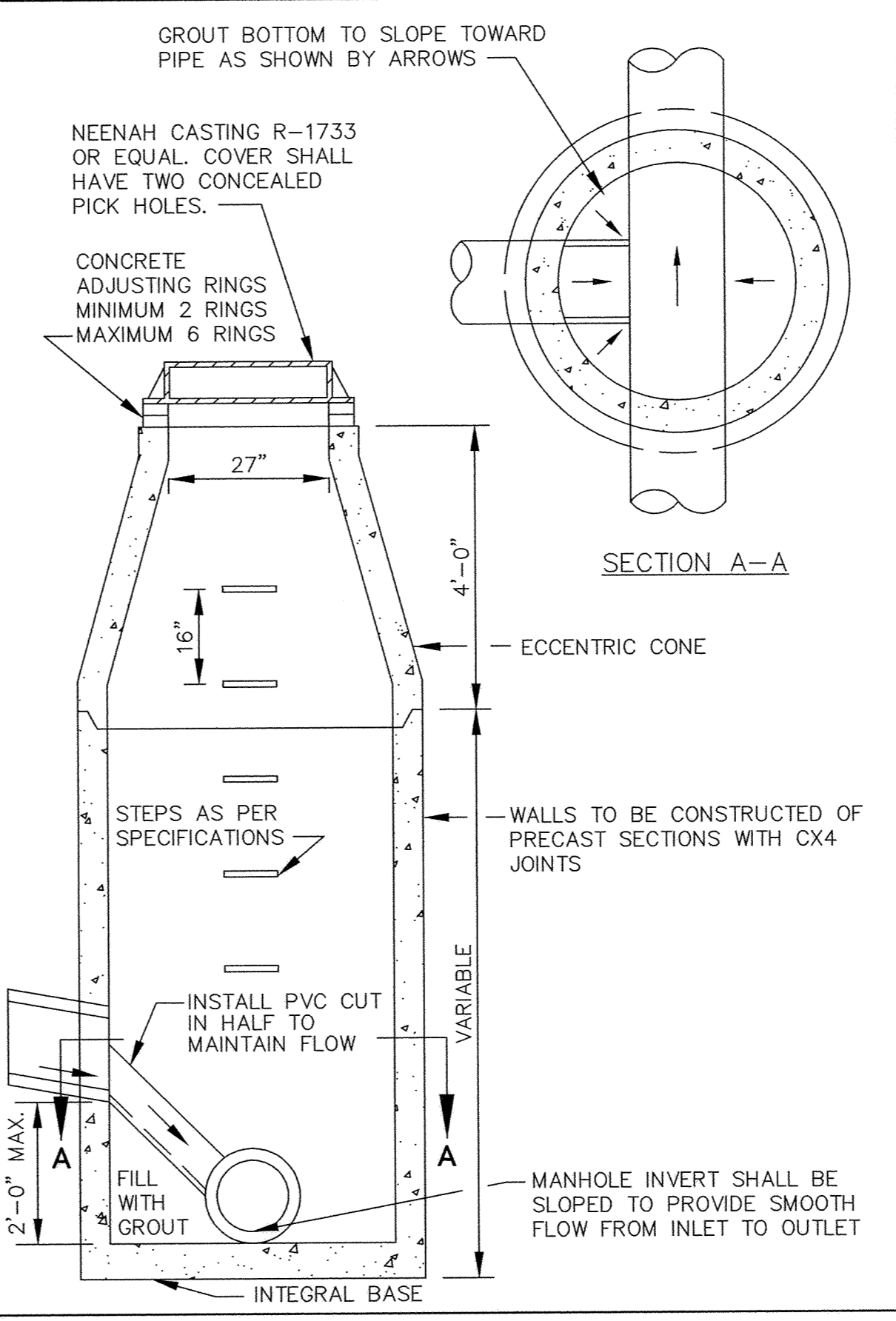
STANDARD AIR RELIEF MANHOLE



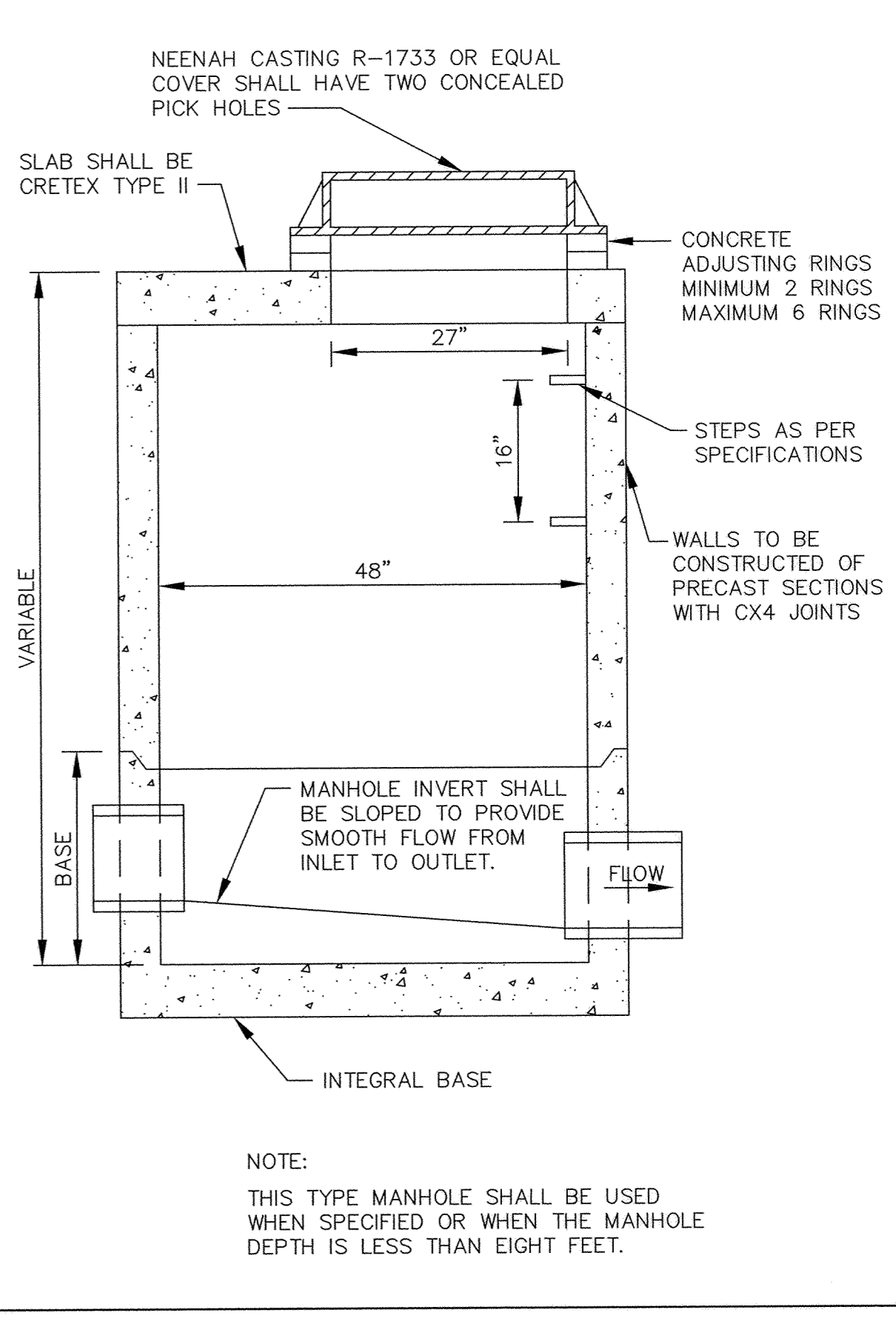
OUTSIDE DROP MANHOLE



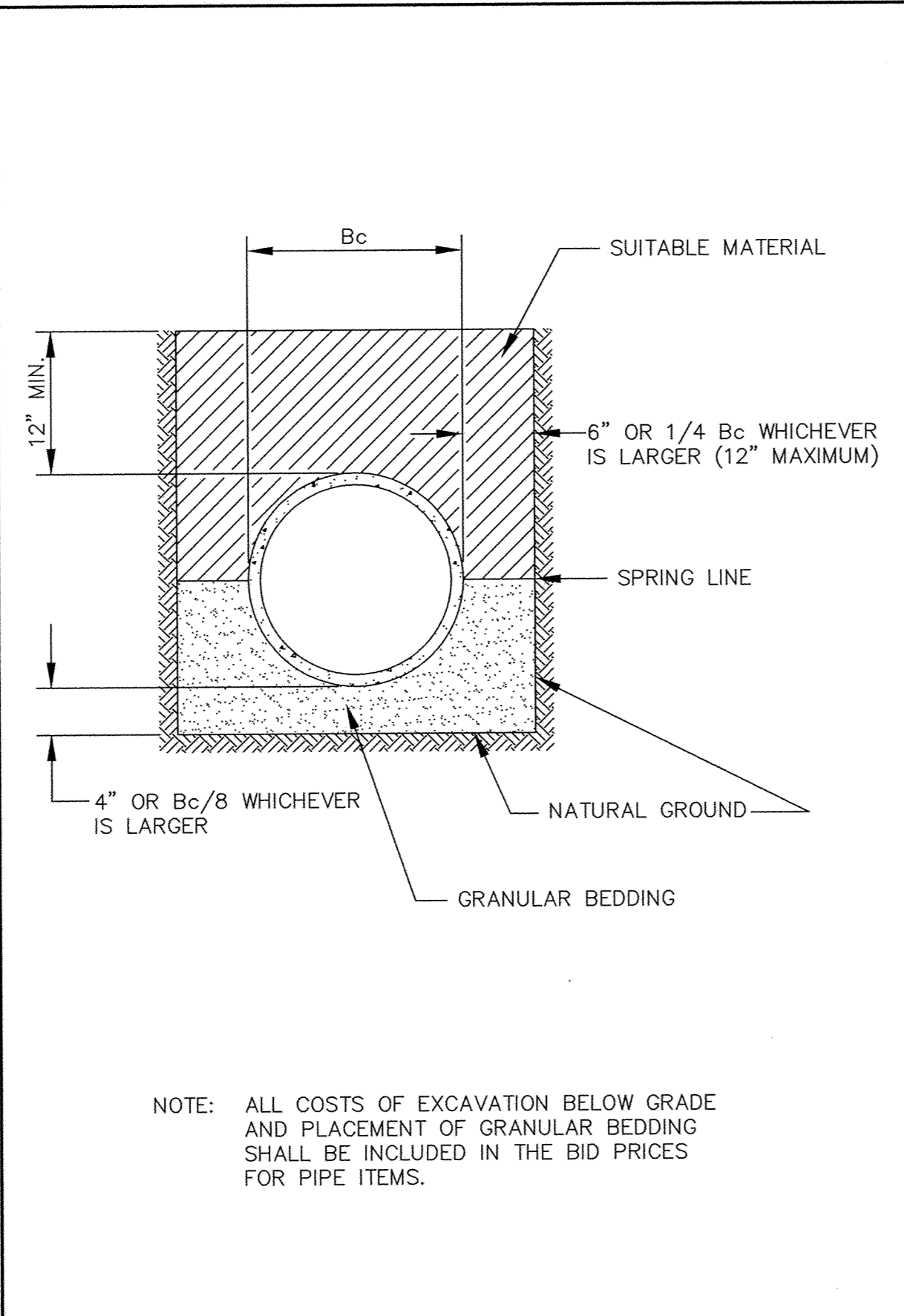
INSIDE DROP MANHOLE



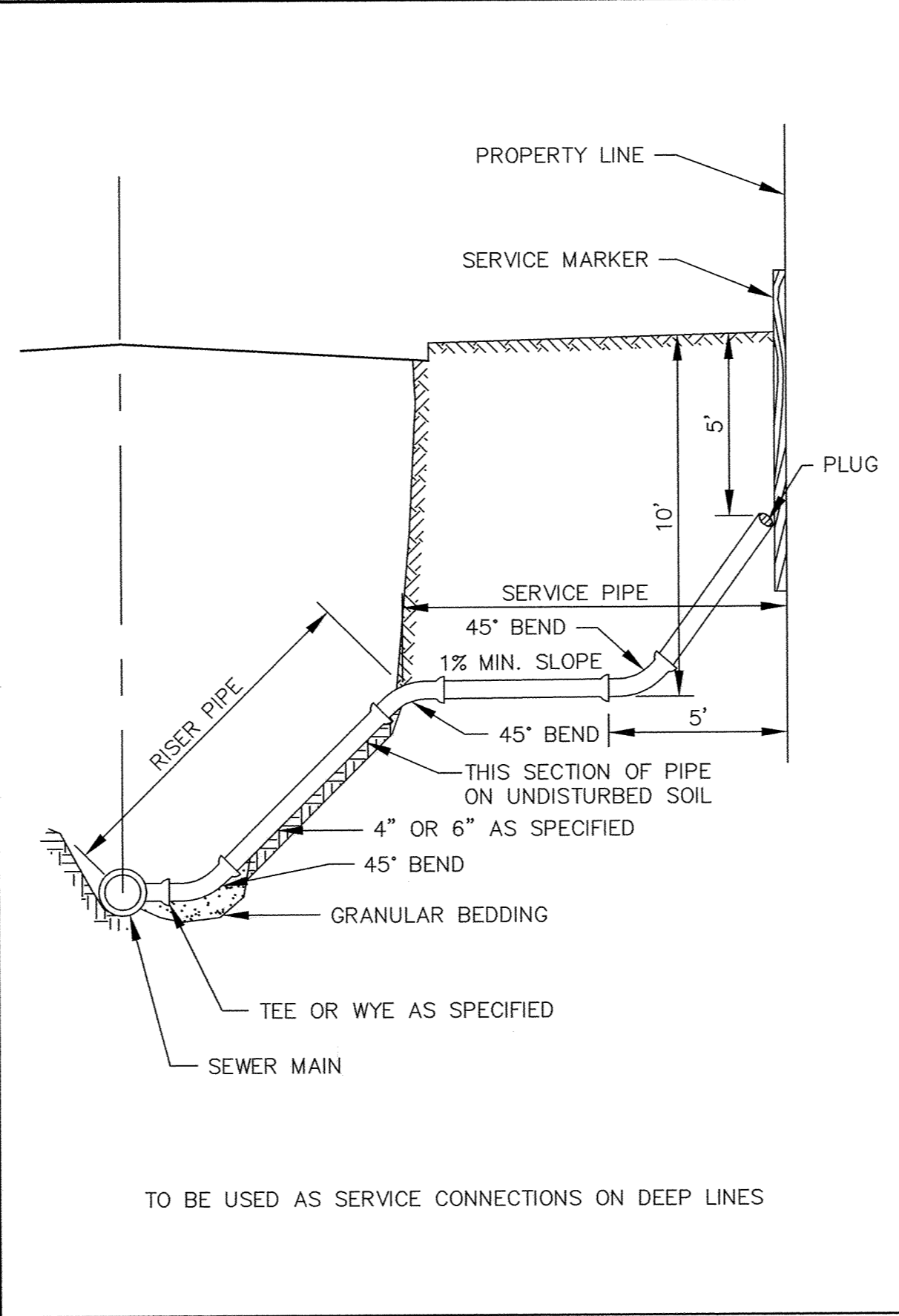
INSIDE DROP MANHOLE (TWO FEET OR LESS)



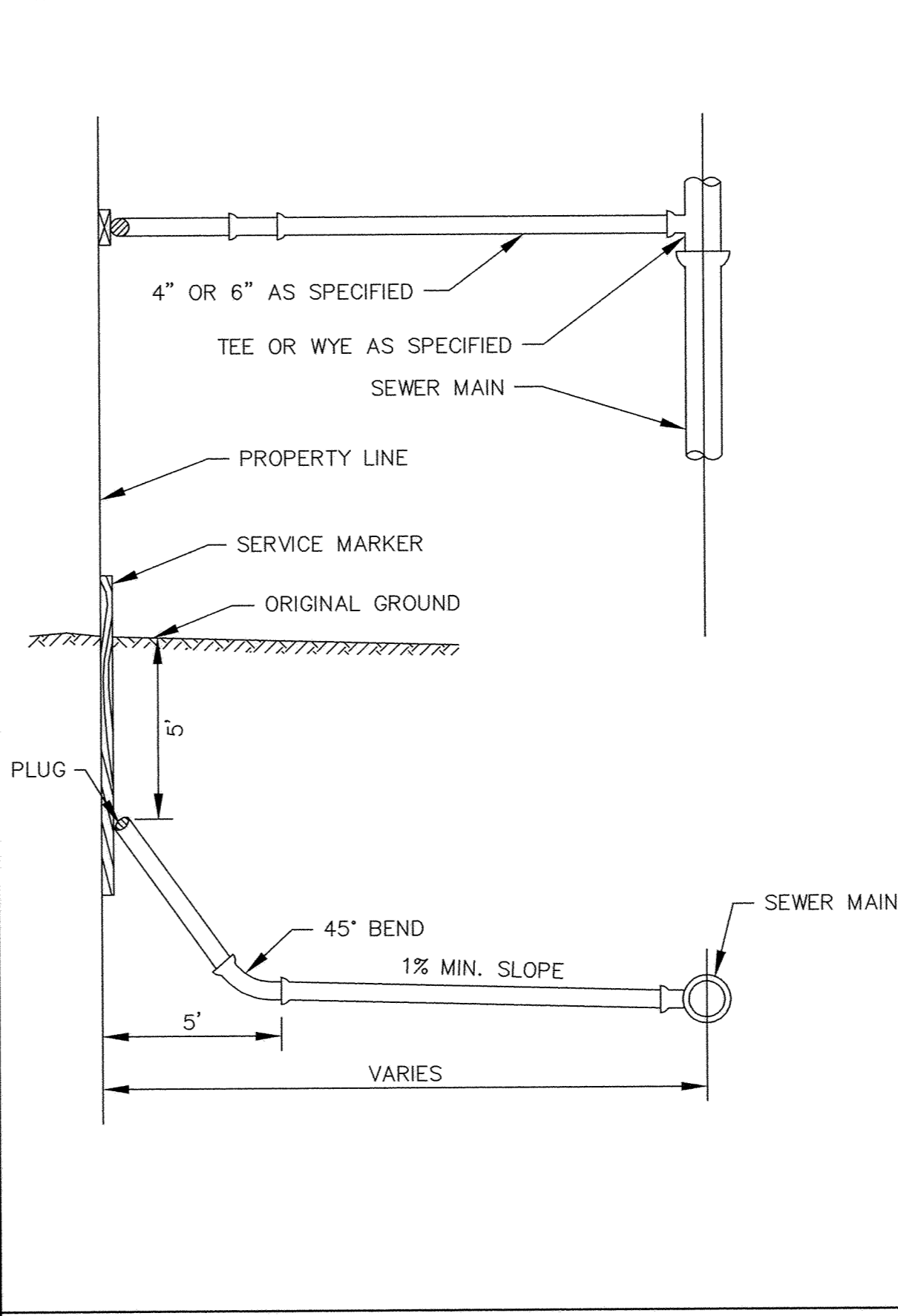
SLAB TOP MANHOLE



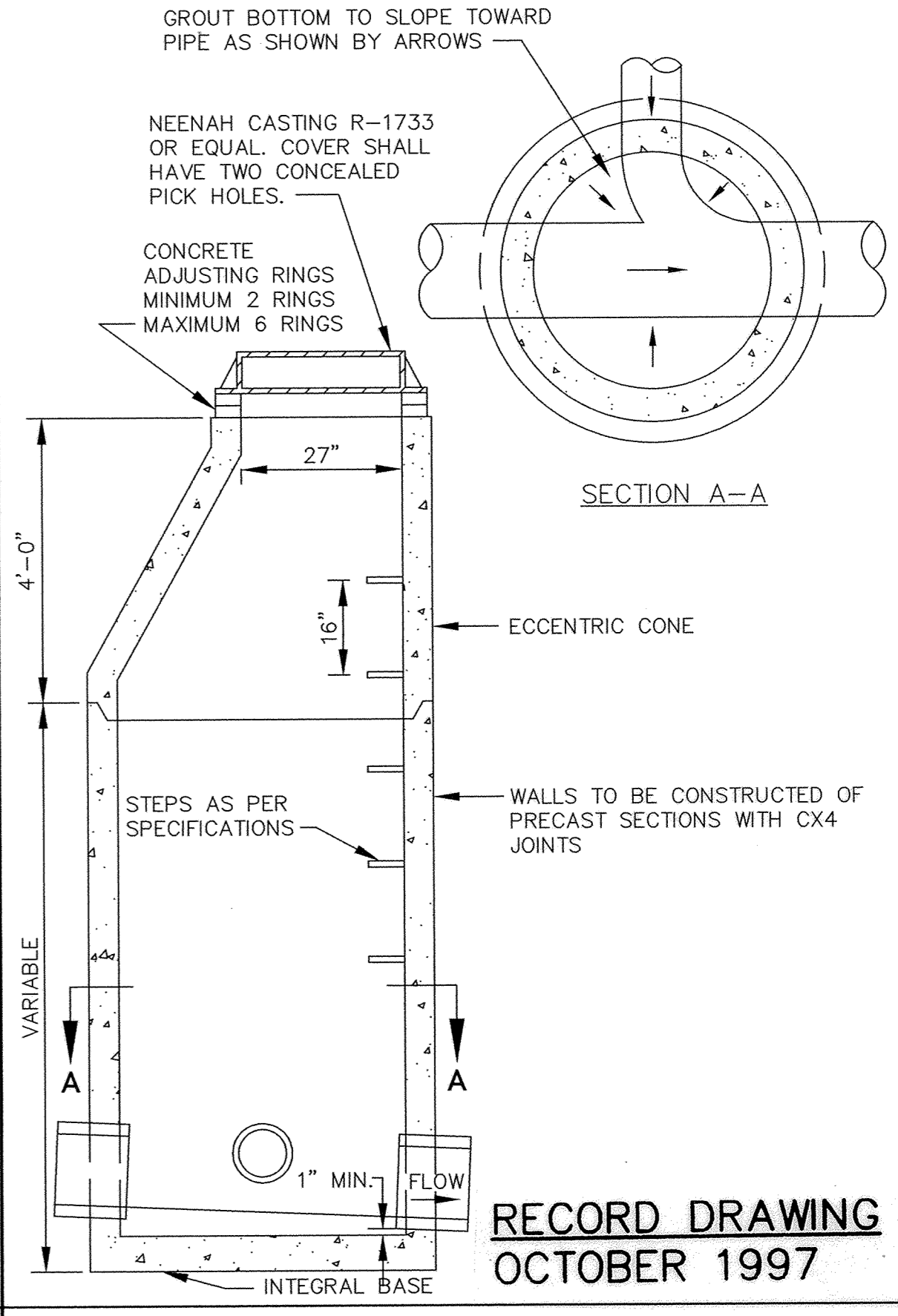
CLASS B PIPE BEDDING



SERVICE RISER SECTION



TYPICAL HOUSE SERVICE



STANDARD MANHOLE

ER320-SA

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.
Greg J. Mauer
 DATE 12/9/96 REG. NO. 15316

MSA
 CONSULTING ENGINEERS

1326 ENERGY PARK DRIVE
 ST. PAUL, MINNESOTA 55108
 (612) 644-4389

DATE	DESCRIPTION	DESIGNED	SEF
		CHECKED	PK
		DRAWN	RKM
		GRAPHIC SCALE	
		0	HORIZ.
		0	VERT.

CITY OF ELK RIVER ORONO LAKE 3RD ADD., JOPLIN STREET & LOWELL AVENUE SANITARY SEWER DETAILS			
DATE	NOV. 1996	SHEET	30 OF 31 SHEETS
PROJECT NO.	230-320		

DRAWING NUMBER
 30
 DRAWING NUMBER
 ORONO3.96
 DRAWING NUMBER
 1076