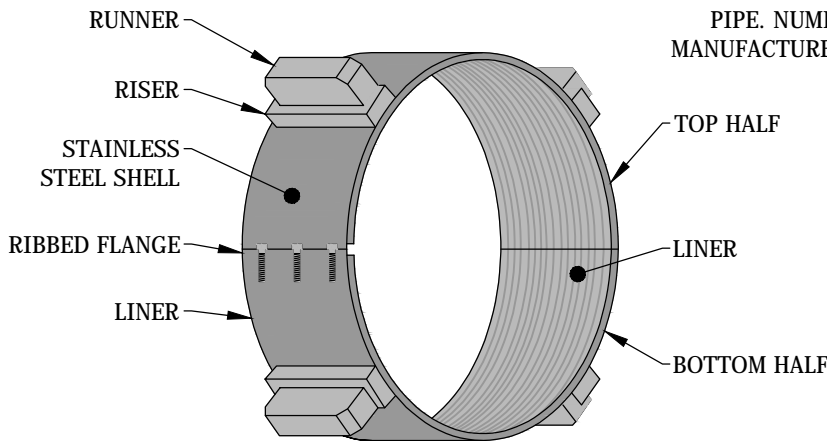
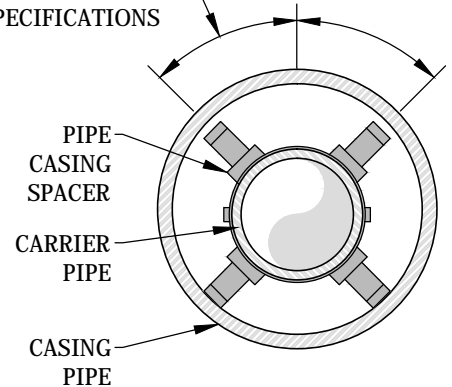


CARRIER PIPE		
PIPE SIZE	CASING O.D.	THICKNESS *
6"	16"	1/4"
8"	18"	1/4"
10"	20"	5/16"
12"	24"	5/16"
16"	30"	3/8"
18"	30"	3/8"
20"	36"	1/2"
24"	42"	1/2"

* UNLESS OTHERWISE REQUIRED BY IN. D.O.T., RAILROAD OR OTHER SUCH GOVERNING AUTHORITY.



ANGLES TO BE CONSTANT AROUND ENTIRE CIRCUMFERENCE OF THE PIPE. NUMBER OF SPACERS PER MANUFACTURER'S SPECIFICATIONS

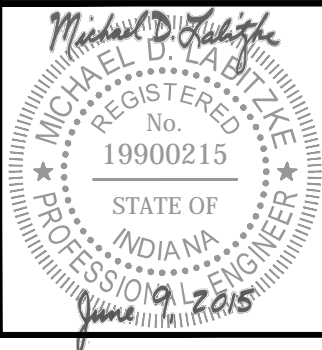


SECTION "A-A"

NOTE:

- CASING SPACERS SHALL BE CCS SERIES BY CASCADE WATERWORKS MFG. ALTERNATE CASING SPACERS MAY BE USED WITH PRIOR APPROVAL FROM CITY UTILITIES PROJECT ENGINEER.
- CITY UTILITIES APPROVED CASING SPACERS AND END SEALS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. USE A "CENTERED" CONFIGURATION AND PROVIDE THE MANUFACTURER WITH THE FOLLOWING INFORMATION: CARRIER PIPE O.D., CASING PIPE I.D., AND CASING LENGTH.

File: F:\ENGINEER\AUTOCAD\Standards\Detail Drawings\Water\DW18-Typical Casing Spacers.dwg



TYPICAL CASING SPACERS

Approved: 06/09/15	Adopted: 06/09/15	Figure DW18
Approved By: Michael D. Labitzke, P.E.	Scale: N.T.S.	