



MINIMUM END AREAS

PIPE SIZES (D)	TEES & PLUGS	90° BENDS	45° BENDS	22 1/2° BENDS
6"	5.1 SQ.FT.	6.7 SQ.FT.	3.9 SQ.FT.	2.0 SQ.FT.
8"	8.8 SQ.FT.	11.8 SQ.FT.	6.7 SQ.FT.	3.4 SQ.FT.
10"	14.3 SQ.FT.	18.5 SQ.FT.	11.0 SQ.FT.	5.6 SQ.FT.
12"	20.4 SQ.FT.	26.7 SQ.FT.	15.7 SQ.FT.	7.9 SQ.FT.
14"	27.7 SQ.FT.	36.3 SQ.FT.	21.2 SQ.FT.	10.7 SQ.FT.
16"	35.8 SQ.FT.	47.4 SQ.FT.	27.5 SQ.FT.	13.9 SQ.FT.

- NOTES:**
- 1) D IS NOMINAL PIPE DIAMETER.
  - 2) THE ABOVE END AREAS ARE BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 P.S.F. THE ENGINEER SHALL DETERMINE THE REQUIRED END AREAS.
  - 3) ALL FITTINGS AND/OR PIPE MAKING CONTACT WITH CONCRETE SHALL BE WRAPPED WITH 4 MIL POLYETHYLENE SHEETING PRIOR TO PLACEMENT OF CONCRETE.
  - 4) BEARING SURFACE OF THRUST BLOCK SHALL BE NORMAL TO RESULTANT THRUST OF BEND.

**TYPICAL CONCRETE BLOCKING**

APPROVED BY:

County Engineer:

DATE: 3/20/2003

REVISION:

DESCRIPTION:

DATE:

K.P. STANDARD REVIEW 02-28-03

STANDARD PLAN

W-7

SHEET 1 OF 1

FILE NAME: G:\USERS\STANDARD\WATER\W7

