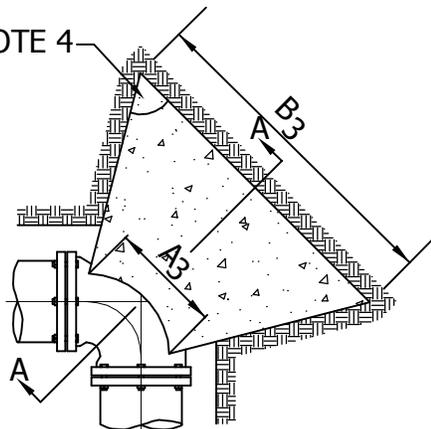


NOTES:

1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POURED AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION C1,C2,C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1,A2,A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
4. $\theta = 45^\circ$ MINIMUM.
5. PLACE POLYETHYLENE BETWEEN CONCRETE & PIPE.

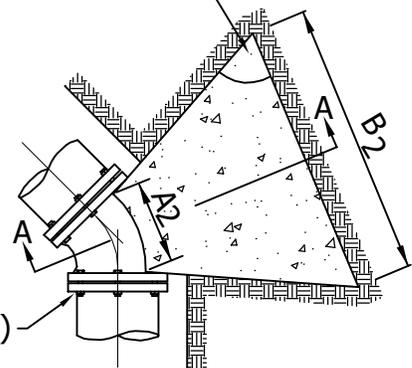
BUTTRESS DIMENSIONS						
PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND	
	B1	D1	B2	D2	B3	D3
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	6'-2"	3'-6"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"
30"	-	-	9'-3"	6'-0"	17'-0"	6'-0"

θ - SEE NOTE 4



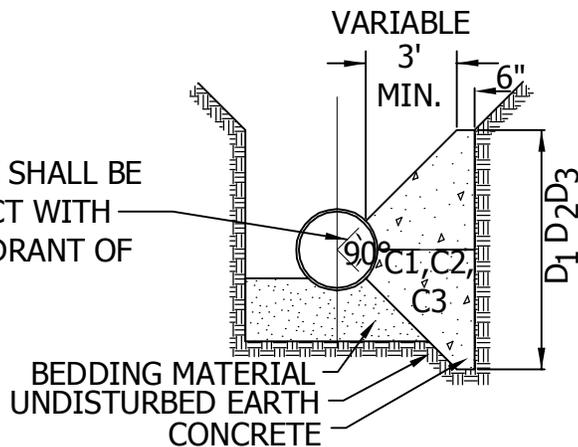
PLAN 90° BENDS

θ - SEE NOTE 4



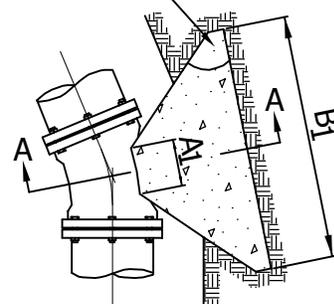
PLAN 45° BENDS

CONCRETE SHALL BE IN CONTACT WITH THIS QUADRANT OF PIPE



SECTION A-A

θ - SEE NOTE 4



PLAN 22 1/2° BENDS



STANDARD DETAILS
CONCRETE THRUST BLOCKING

COTTAGE GROVE, MINNESOTA

LAST REVISION:
JAN 2014

PLATE NO.
WAT-6