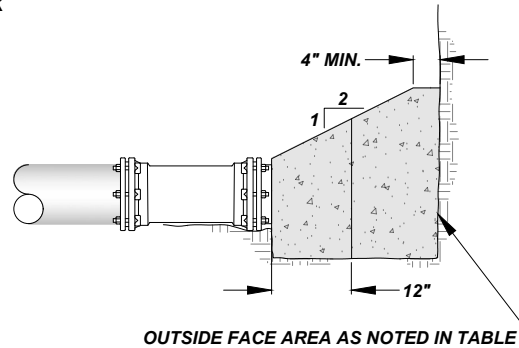
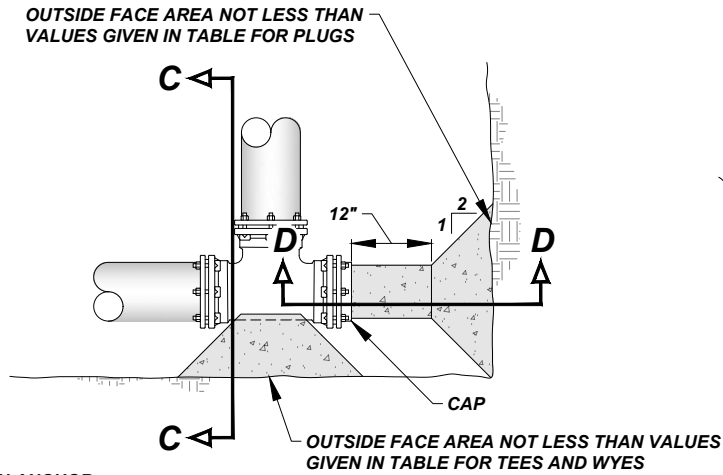
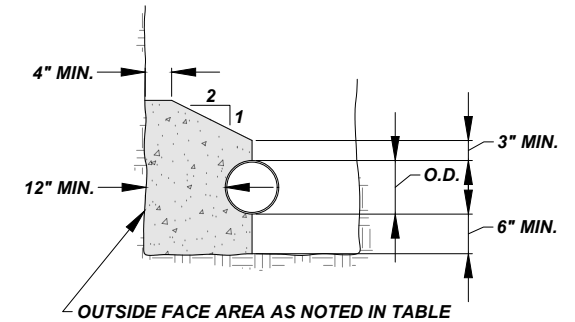
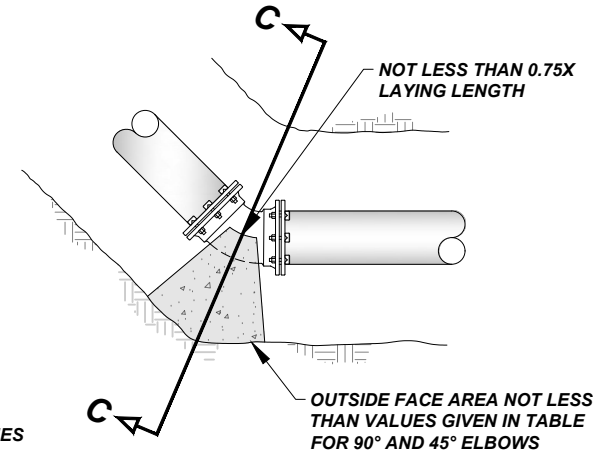


DOWNWARD BEND



SECTION D - D



SECTION C - C

BLOCKING FOR PLUGS AND ELBOWS					
OUTSIDE FACE AREA (SQ. FT.)					
PIPE SIZE (IN.)	PLUG	90° ELBOW	45° ELBOW	22 1/2° ELBOW	11 1/4° ELBOW
20	16	25	14	7*	4*
16	12	16	9	5*	3*
12	7	9	5	3*	2*
10	4	7	4	2*	1*
8	3	5	3	2*	1*
6	2	3	2	1*	1*

* NOT REQUIRED UNLESS SPECIFIED

BLOCKING FOR TEES AND WYES		
SIZE OF RUN (IN.)	SIZE OF BRANCH (IN.)	OUTSIDE FACE AREA (SQ. FT.)
20 OR 16	16	12
	12	7
	10	6
	8	5
12 OR LESS	12	7
	10	6
	8	4
	6	2

NOTES:

1. USE CLASS 'B' CONCRETE FOR ALL THRUST BLOCKS
2. THRUST BLOCKS ARE INCIDENTAL TO THE INSTALLATION OF WATER MAIN
3. FOLLOW DIPA PIPE RESTRAINT REQUIREMENTS FOR PIPE LENGTH INTO AND OUT OF A FITTING
4. MECHANICAL RESTRAINTS ARE REQUIRED WITH THRUST BLOCKS

WATER MAIN RESTRAINT/THRUST BLOCKS

NOT TO SCALE