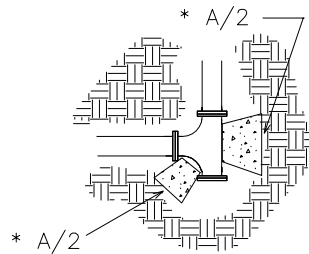
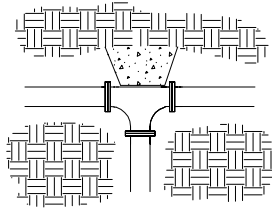


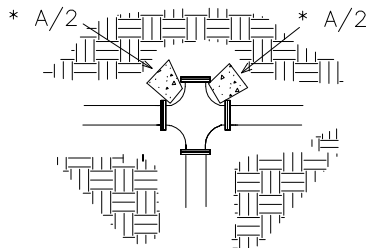
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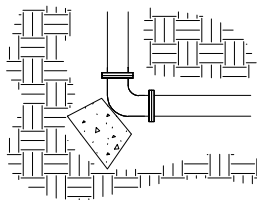
TEE



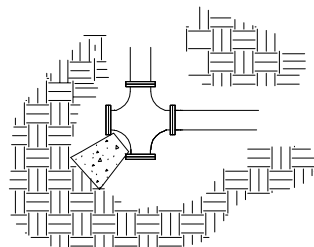
TEE



PLUGGED CROSS



BEND



PLUGGED CROSS

## THRUST BLOCK NOTES

- KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- REQUIRED VOLUMES AND BEARING AREAS AT FITTINGS SHALL BE AS INDICATED IN TABLE BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
- THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON A TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE OF 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:  $VOLUME = (TEST\ PRESS./150) \times (TABLE\ VALUE)$ .
- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON A TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ.FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR  $(13.33)(P'/Sb')$ .  
  
WHERE:  $P'$ =ACTUAL TEST PRESSURE, PSIG  
 $Sb'$ =ACTUAL BEARING PRESSURE, PSF
- THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUST SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
- MORE CONSERVATIVE BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
- BEARING AREAS OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ. FT.
- VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS.

## TYPICAL THRUST BLOCK CONFIGURATIONS

\* EACH AREA ( A/2 ) IS HALF OF TABULATED TOTAL AREA

### BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)

FITTING SIZE	TEE, WYE PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE		
			A <sub>1</sub>	A <sub>2</sub>	45°	22 1/2°	11 1/2°
4	1.0	1.4	1.9	1.4	1.0	1.0	1.0
6	2.1	3.0	4.3	3.0	1.6	1.0	1.0
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8



**W**ATER  
WORKS & SANITARY SEWER BOARD  
Montgomery Alabama

## MISCELLANEOUS DETAILS

TITLE:

THRUST BLOCK SIZING DETAIL

DRAWING NO.:

115

DESIGNED:  
CHECKED:

TL  
BH

DATE: 07/01  
REVISED:

SCALE:  
NOT TO SCALE