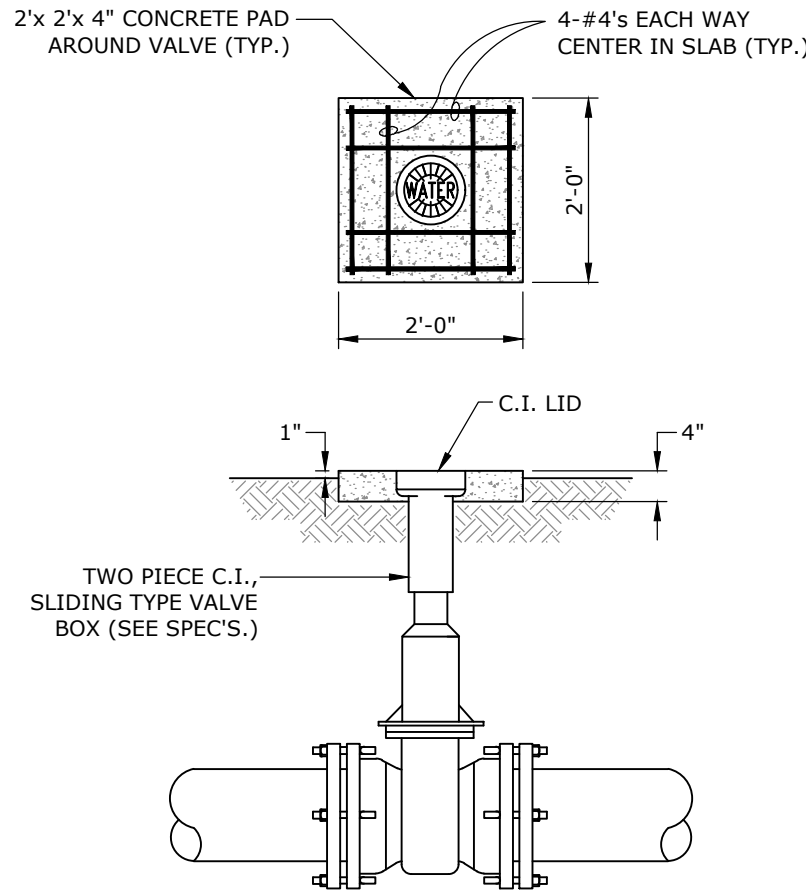
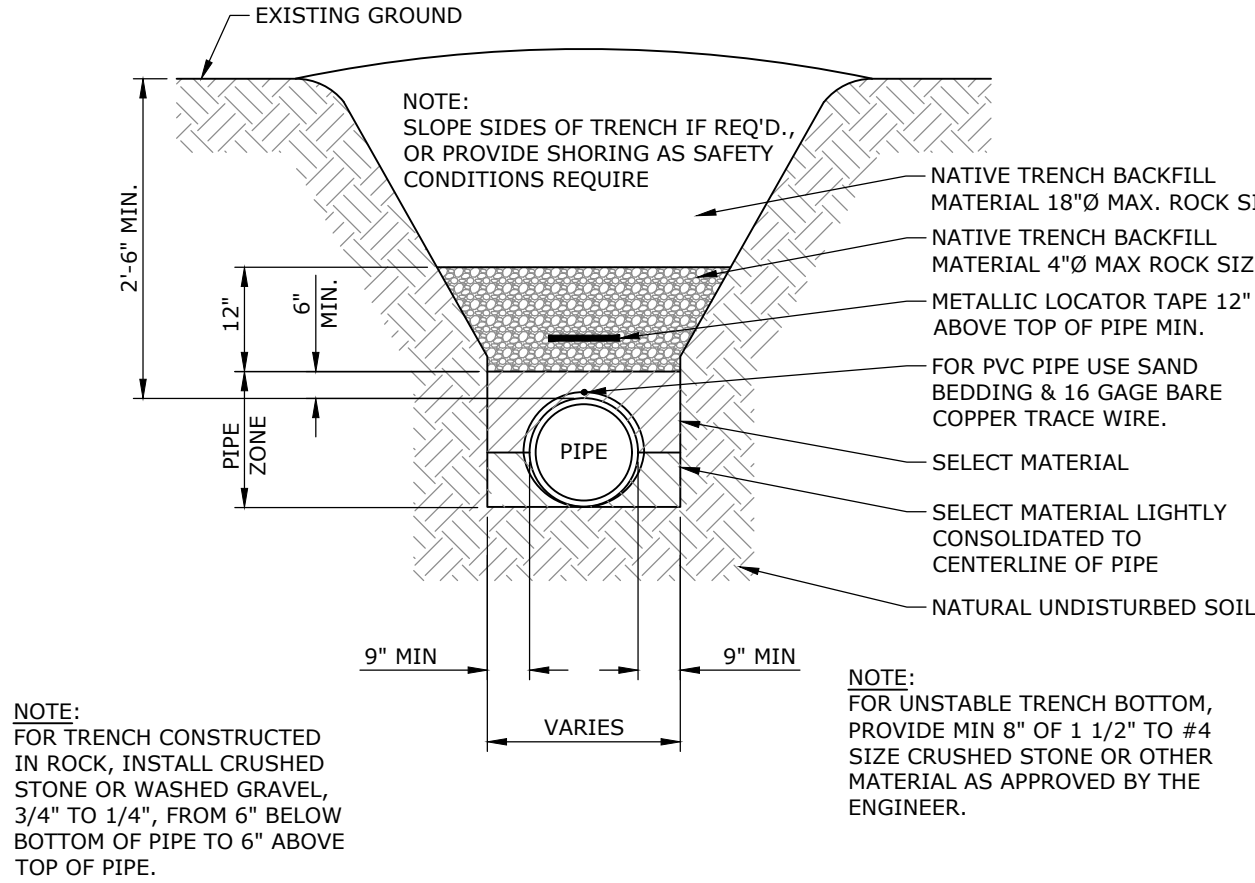
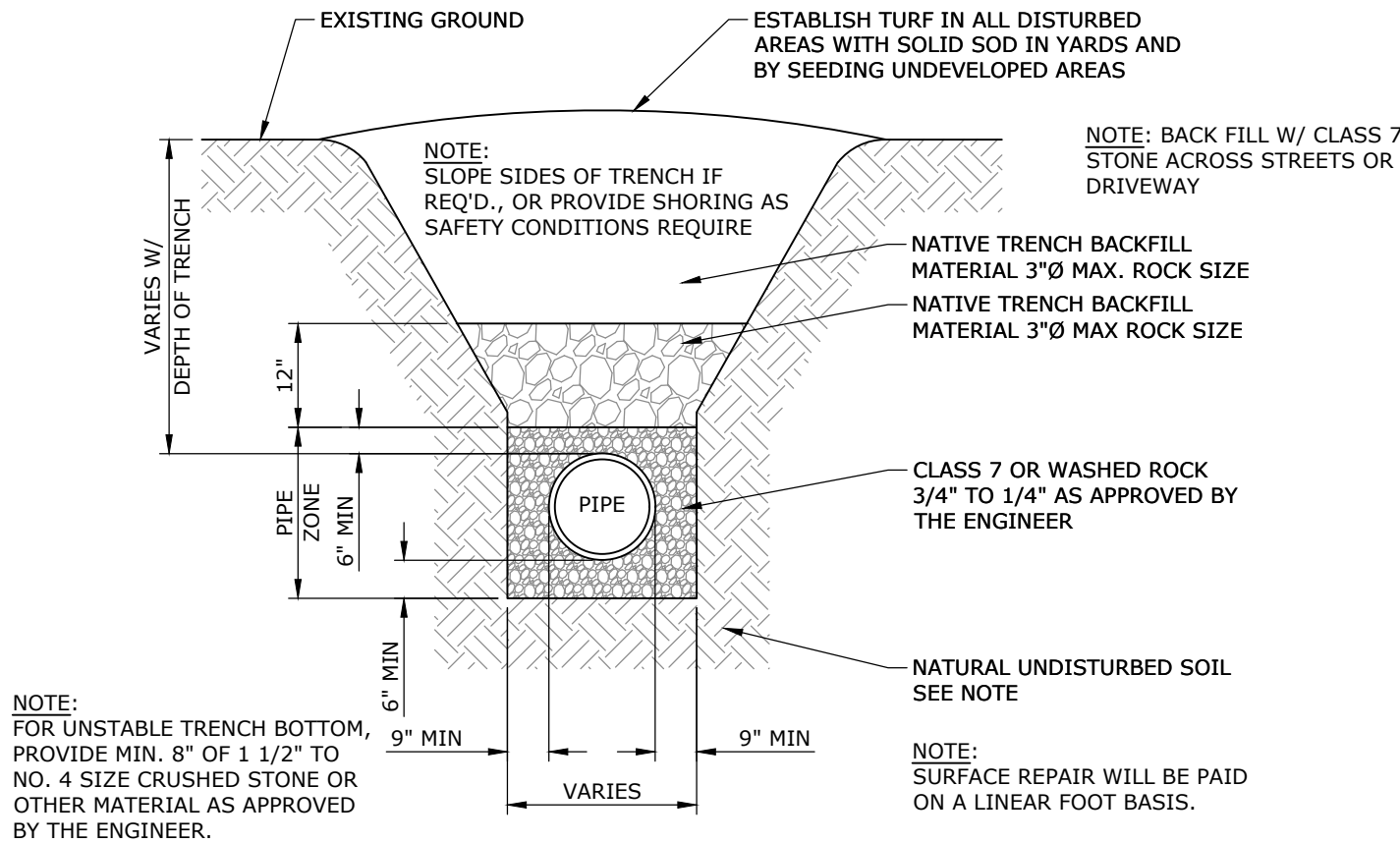




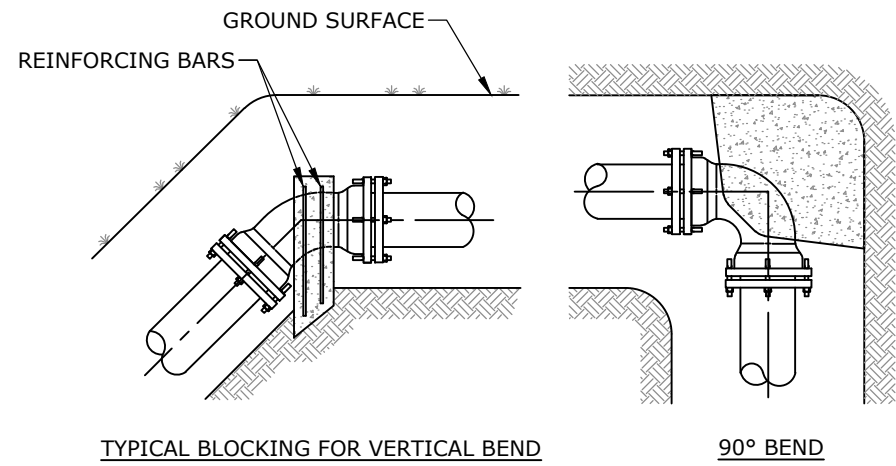
DETAIL-VALVE BOX
N.T.S.



TYPICAL WATERLINE TRENCH
N.T.S.

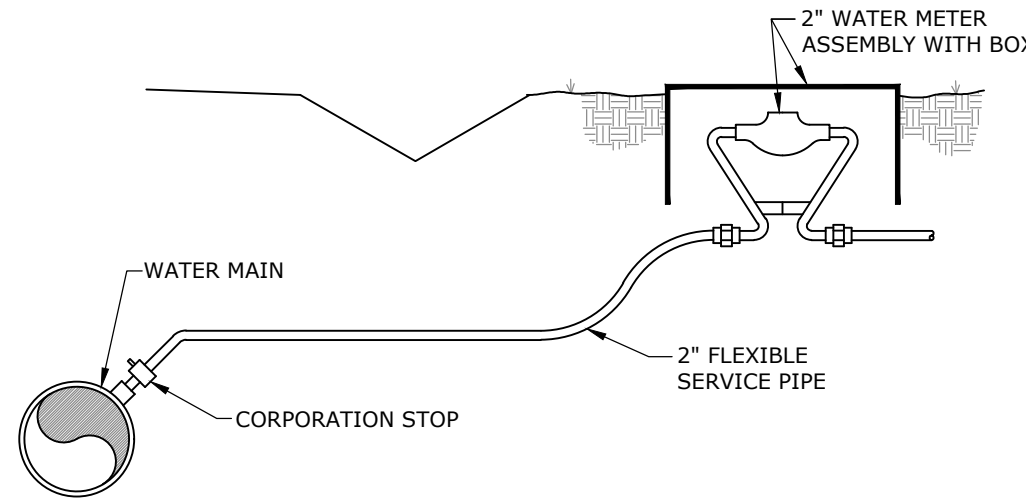


TYPICAL PVC SEWER TRENCH NOT
UNDER PAVEMENT
N.T.S.

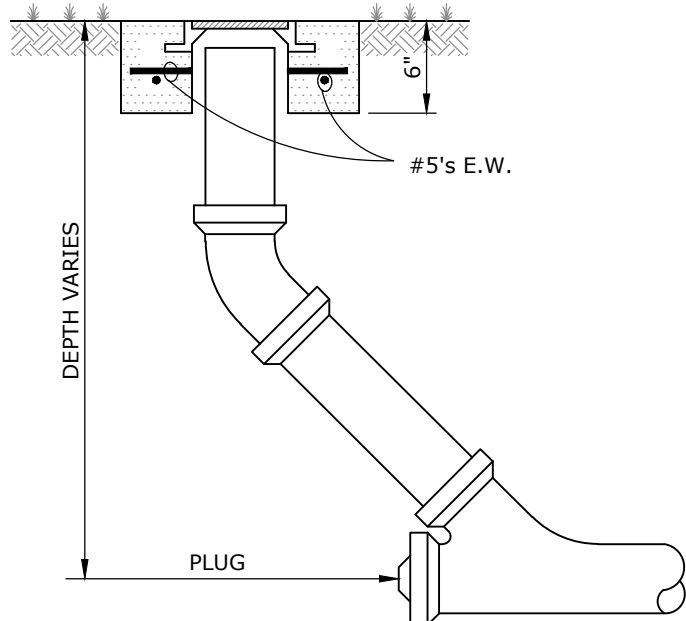
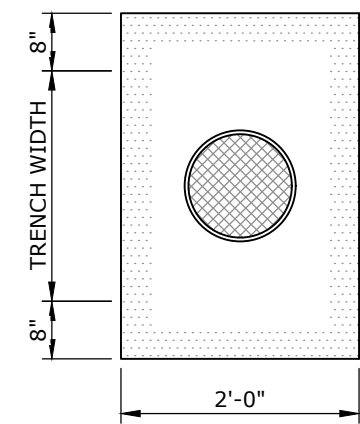


TYPICAL BLOCKING FOR VERTICAL BEND

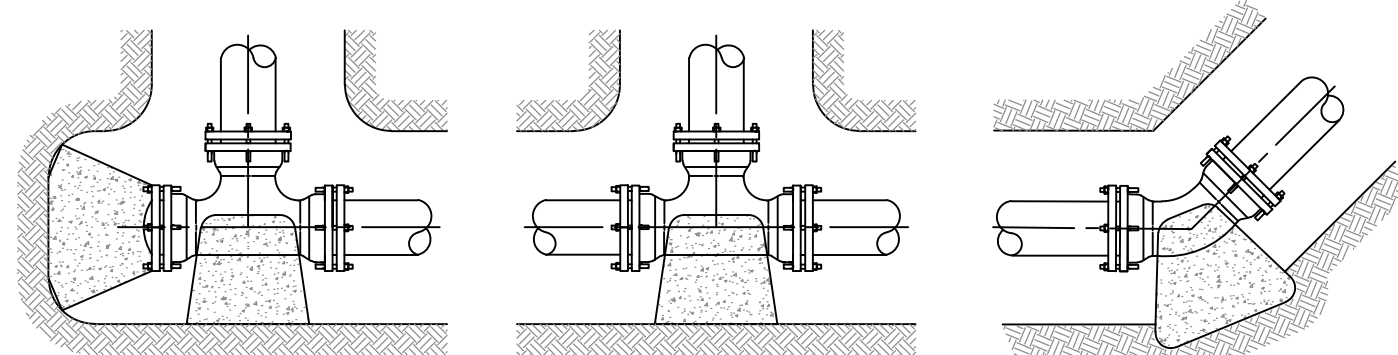
90° BEND



2" METER SERVICE WITH METER BOX
N.T.S.



CLEANOUT
N.T.S.



SPECIAL BLOCKING FOR TEE WITH PLUG

TEE

HORIZONTAL 45° BEND

TYPICAL BLOCKING DETAILS
N.T.S.

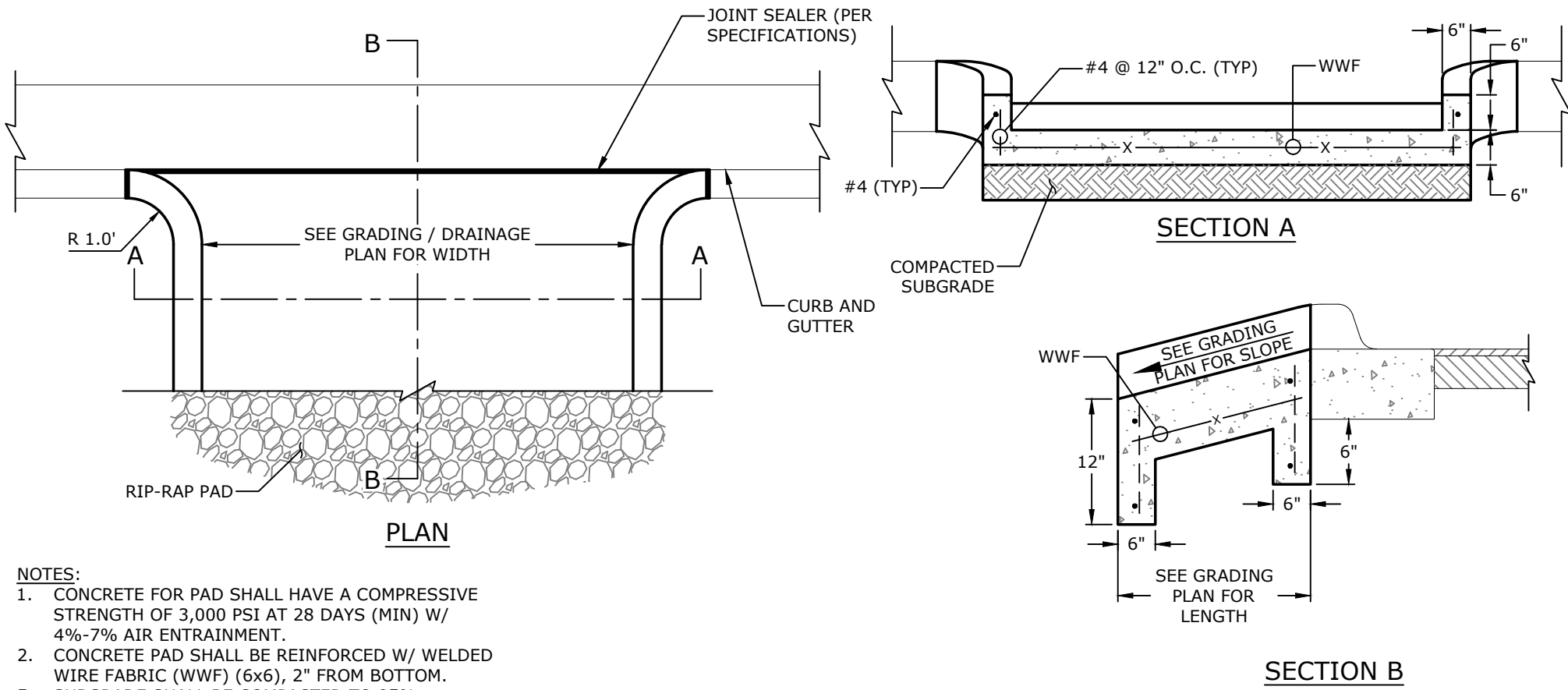
BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)									
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND, PLUGGED CROSS	TEE PLUGGED ON RUN		BEND ANGLE				
			A ₁	A ₂	45°	22 1/2°	11 1/4°		
4	1.0	1.4	1.0	1.4	1.0	-	-		
6	2.1	3.0	2.1	3.0	1.6	1.0	-		
8	3.8	5.3	3.8	5.4	2.9	1.5	1.0		
10	5.9	8.4	5.9	8.4	4.6	2.4	1.2		
12	8.5	12.0	8.5	12.0	6.6	3.4	1.7		
14	11.5	16.3	11.5	16.3	8.9	4.6	2.3		
16	15.0	21.3	15.0	21.3	11.6	6.0	3.0		
18	19.0	27.0	19.0	27.0	14.6	7.6	3.8		
20	23.5	33.3	23.5	33.3	18.1	9.4	4.7		
24	34.0	48.0	34.0	48.0	26.2	13.6	6.8		

VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)					
FITTING SIZE	BEND ANGLE				
	45°	22 1/2°			
4	1.1	0.4	0.2		
6	2.7	1.0	0.4		
8	4.0	1.5	0.6		
10	6.0	2.3	0.9		
12	8.5	3.2	1.3		
14	11.5	4.3	1.6		
16	14.8	5.6	2.3		

GALVANIZED π RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES).		
FITTING SIZES	ROD SIZES	EMBEDMENT
12" AND LESS	#6'S	30"
14" - 16"	#8'S	36"

THRUST BLOCK NOTES:

- KEEP CONCRETE CLEAR OF JOINT ACCESSORIES.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- REQUIRED VOLUMES OR BEARING AREAS A. FITTINGS SHALL BE AS INDICATED 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 TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS. /150) x (TABLE VALUE).
- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON 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, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESS. /150) x (2000/SOIL BEARING STRESS) x (TABLE VALUE).
- THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUST SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
- BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
- BEARING AREA 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. SEE PLANS.



- NOTES:
- CONCRETE FOR PAD SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS (MIN) W/ 4%-7% AIR ENTRAINMENT.
 - CONCRETE PAD SHALL BE REINFORCED W/ WELDED WIRE FABRIC (WWF) (6x6), 2' FROM BOTTOM.
 - SUBGRADE SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
 - REBAR SHALL BE GRADE 60 AND HAVE A MINIMUM 1 1/2" COVER, UNLESS OTHERWISE NOTED.

CURB CUT WITH CONCRETE FLUME
N.T.S.

MASSARD ROAD
ARCARE

2709 MASSARD RD
FORT SMITH, AR



REVISIONS:

PROJECT NUMBER:
DE25-48
DATE:
MAY 2026

C7.2

MISCELLANEOUS
DETAILS III