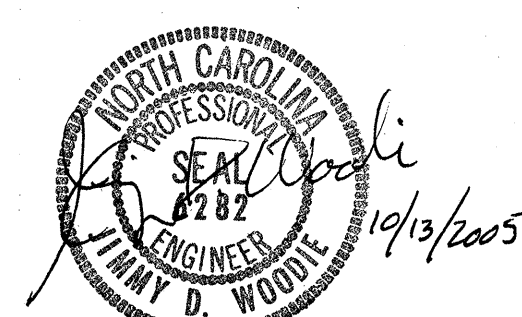


REVISIONS

PROJECT REFERENCE NO. U-3823B SHEET NO. UC-7

R/W SHEET NO.

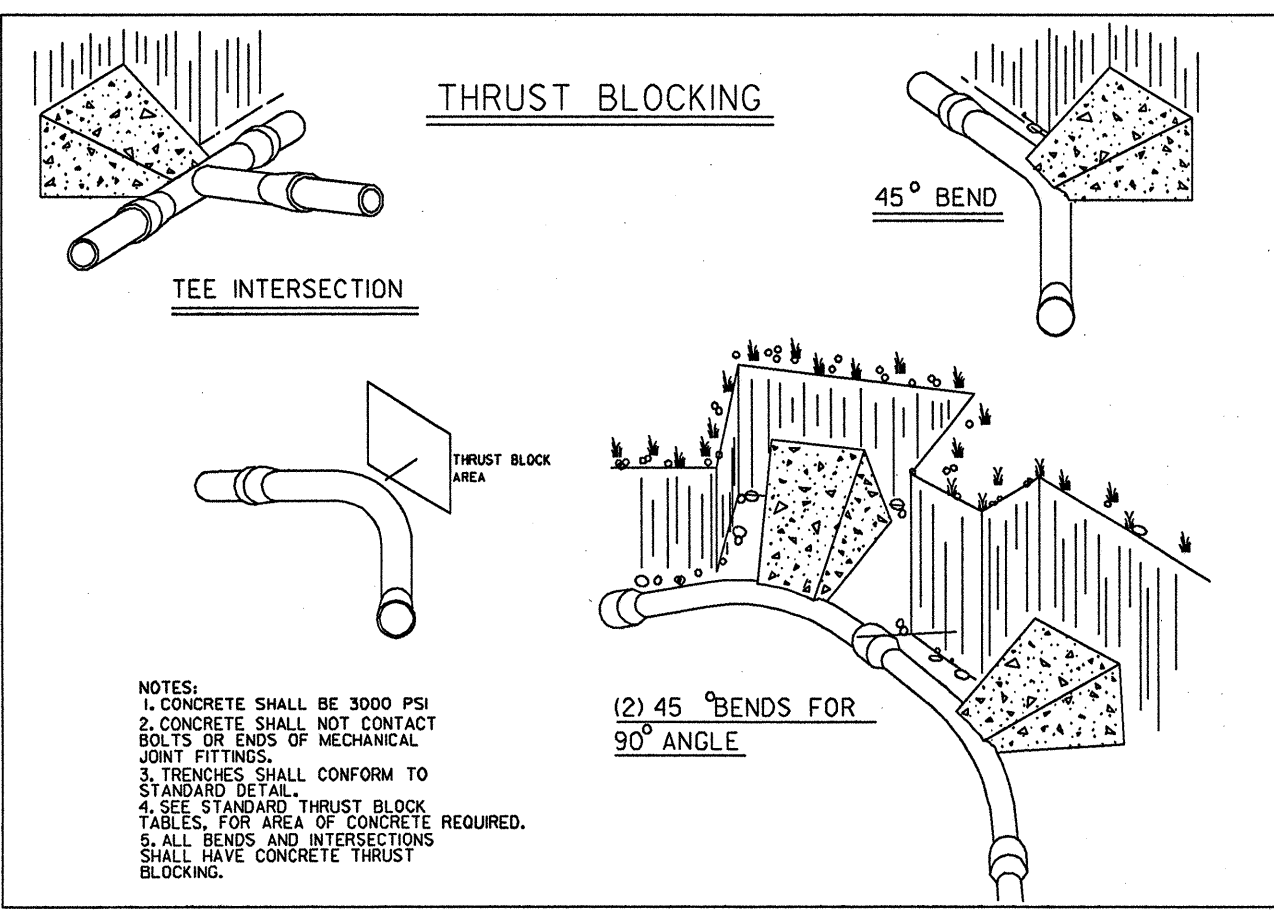


UTILITY CONSTRUCTION DRAWINGS

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

TRENCH WIDTH DETAIL

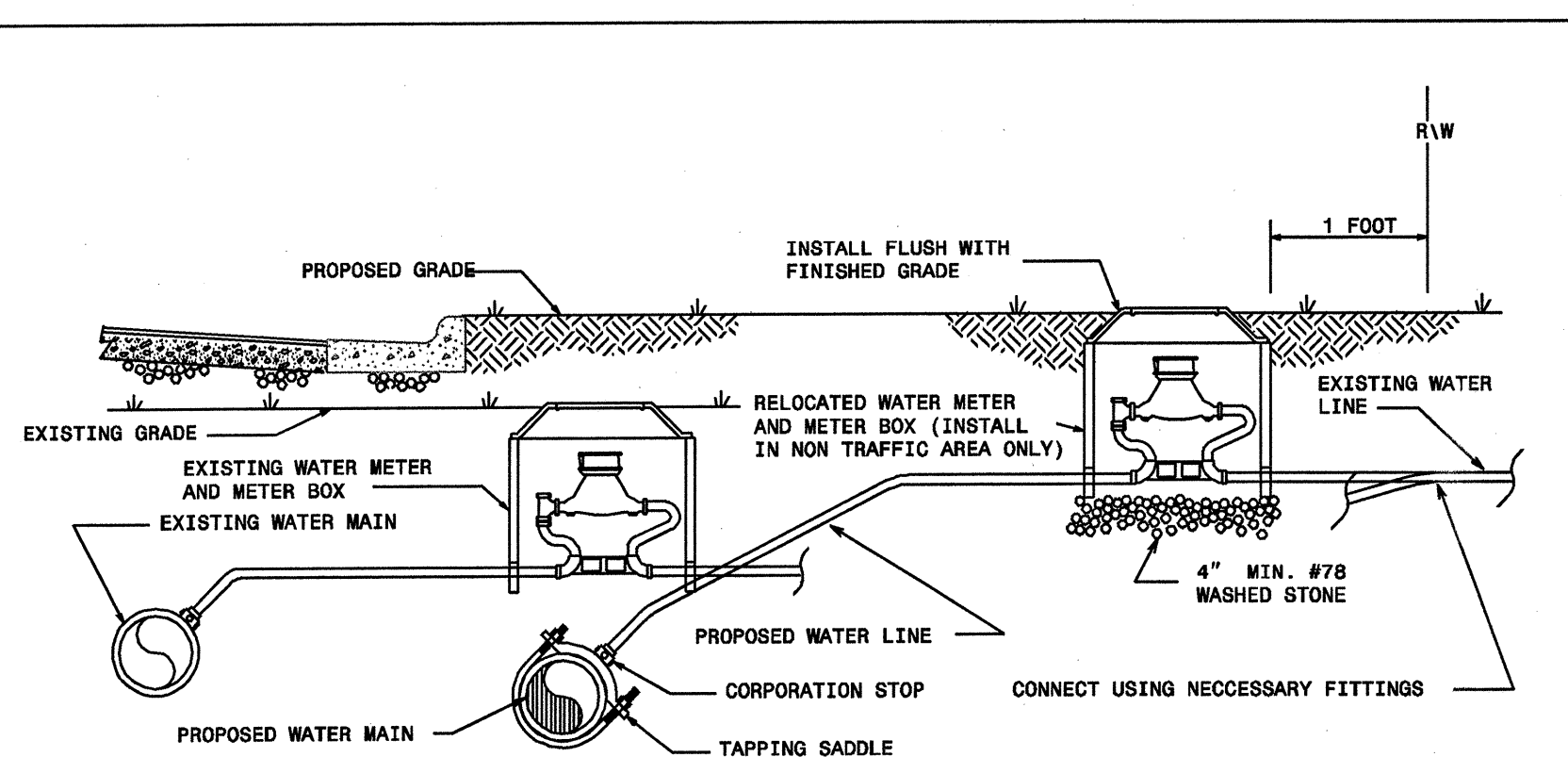


THRUST BLOCKING DETAIL

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS  
 BASED ON TEST PRESSURE OF 200PSI AND SAFETY FACTOR OF 1.5

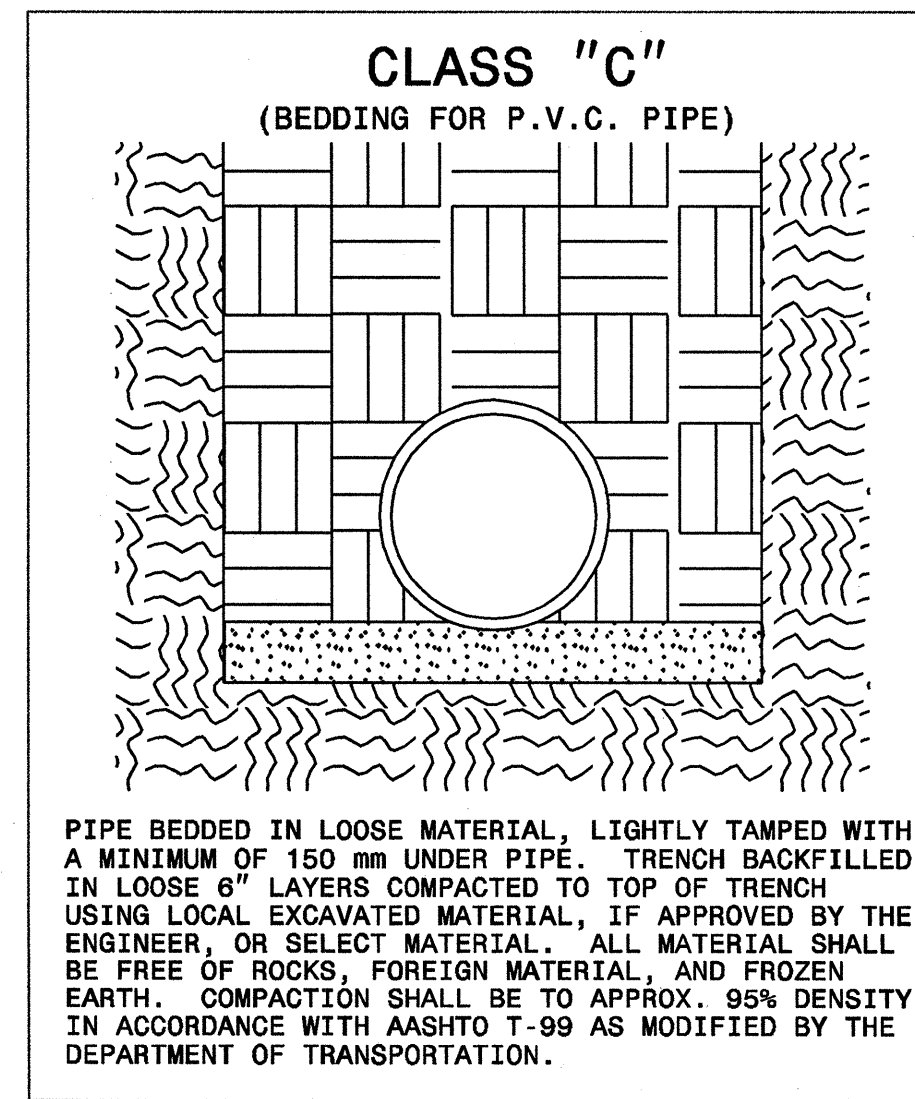
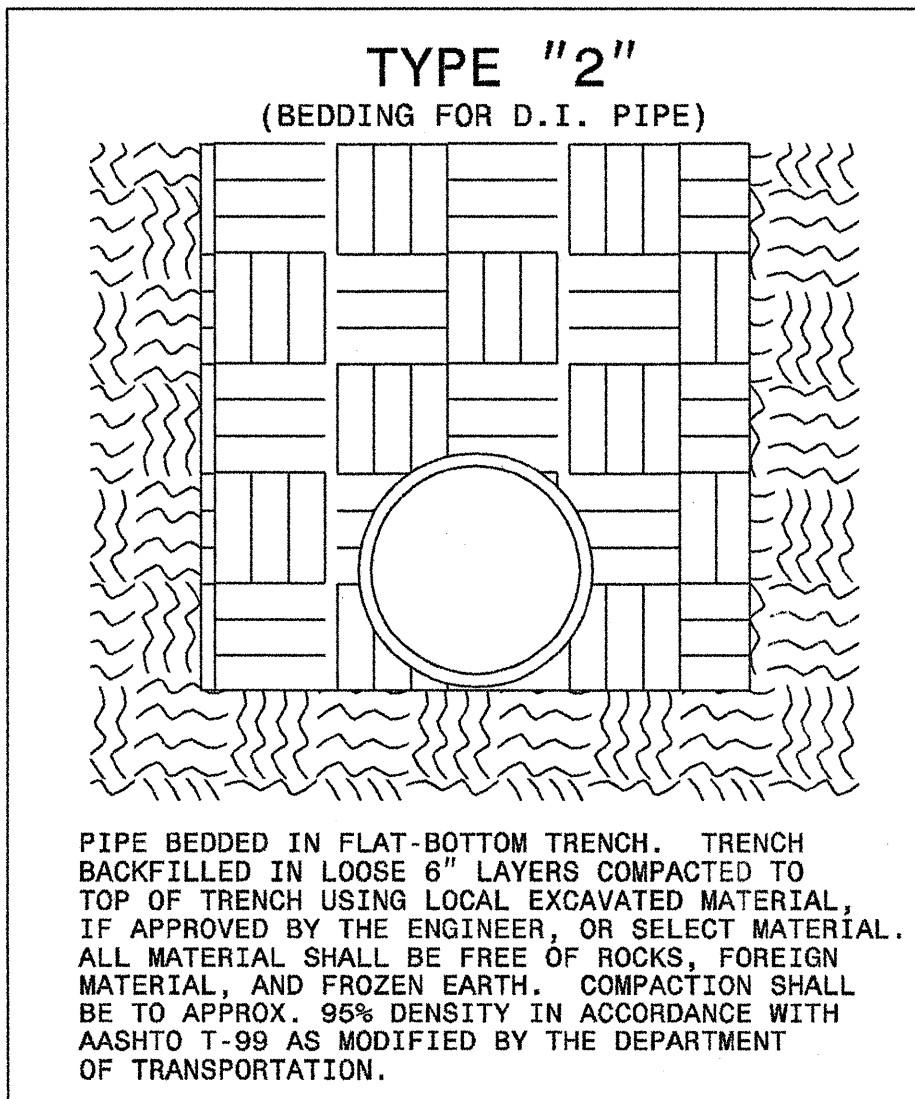
SIZE AND DEGREE OF PIPE BEND	STATIC THRUST IN POUNDS	BEARING AREA (A <sub>r</sub> ) IN SF							
		SOFT CLAY (#/SF)	SILT (#/SF)	GRAVEL OR COURSE SAND (#/SF)	SANDY SILT (#/SF)	SAND (#/SF)	SANDY CLAY (#/SF)	HARD CLAY (#/SF)	
11 1/4"	1,462	2	1	1	1	1	0	0	
22 1/2"	2,911	4	3	3	1	1	1	0	
45°	5,710	9	6	5	3	2	1	1	
90°	10,550	16	11	10	5	4	3	2	
PLUG & BRANCH	1,460	11	7	7	4	3	2	1	
11 1/4"	2,521	4	3	2	1	1	1	0	
22 1/2"	5,018	8	5	5	3	2	1	1	
45°	9,843	15	10	9	5	4	2	2	
90°	18,187	27	18	17	9	7	5	3	
PLUG & BRANCH	12,860	19	13	12	6	5	3	2	
11 1/4"	3,791	6	4	4	2	1	1	1	
22 1/2"	7,546	11	8	7	4	3	2	1	
45°	14,802	22	15	14	7	6	4	2	
90°	27,351	41	27	26	14	10	7	5	
PLUG & BRANCH	19,340	29	19	18	10	7	5	3	
11 1/4"	11,707	18	12	11	6	4	3	2	
22 1/2"	23,502	35	23	22	12	9	6	4	
45°	45,708	69	46	43	23	17	11	8	
90°	84,457	127	84	79	42	32	21	14	
PLUG & BRANCH	59,720	90	60	56	30	22	15	10	

THRUST BLOCKING TABLE

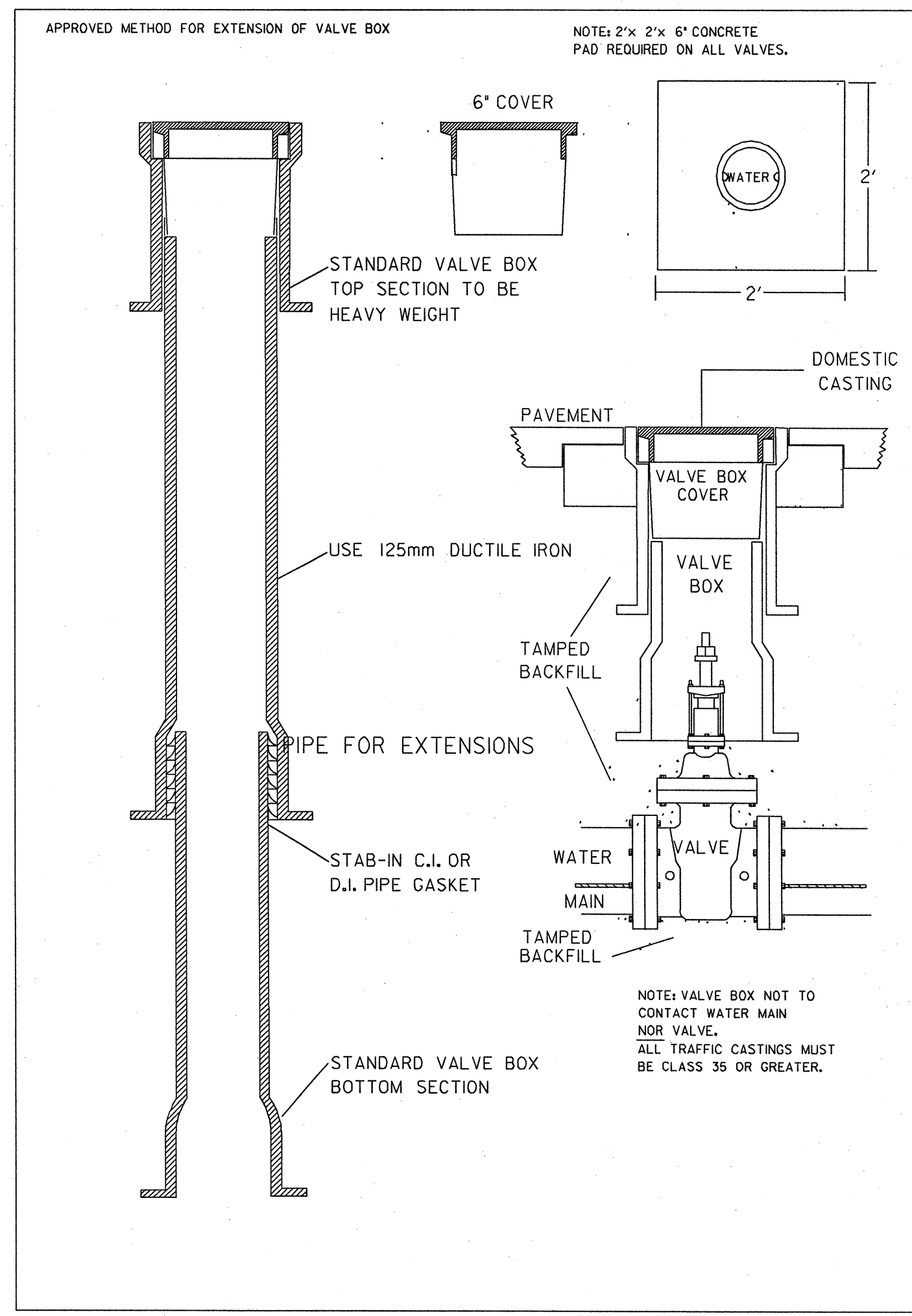


- NOTES:
1. RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, METER VALVES, AND METER BOX WITH LTD.
  2. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
  3. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 3 FEET COVER BELOW FINISHED GRADE.

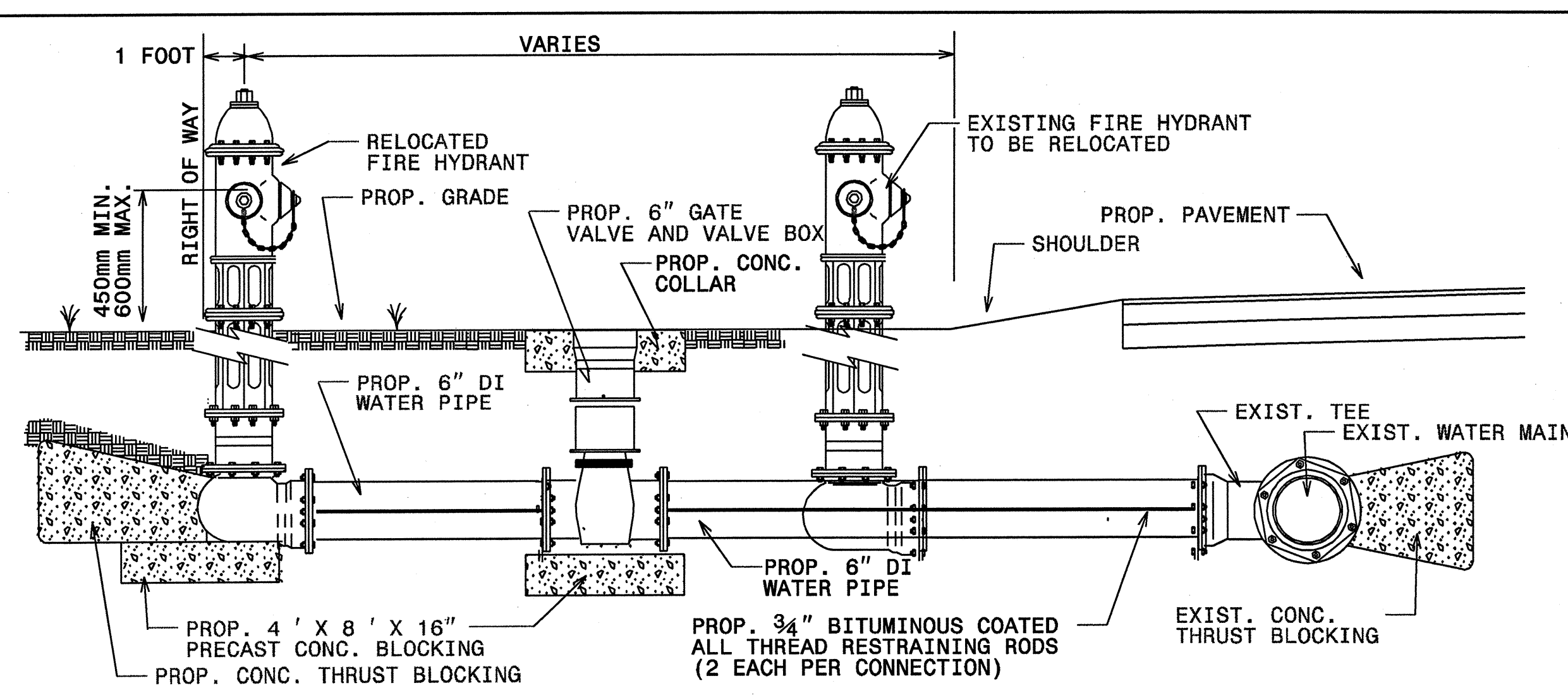
WATER METER RELOCATION DETAIL



TRENCH DETAILS



GATE VALVE DETAIL



FIRE HYDRANT RELOCATION DETAIL