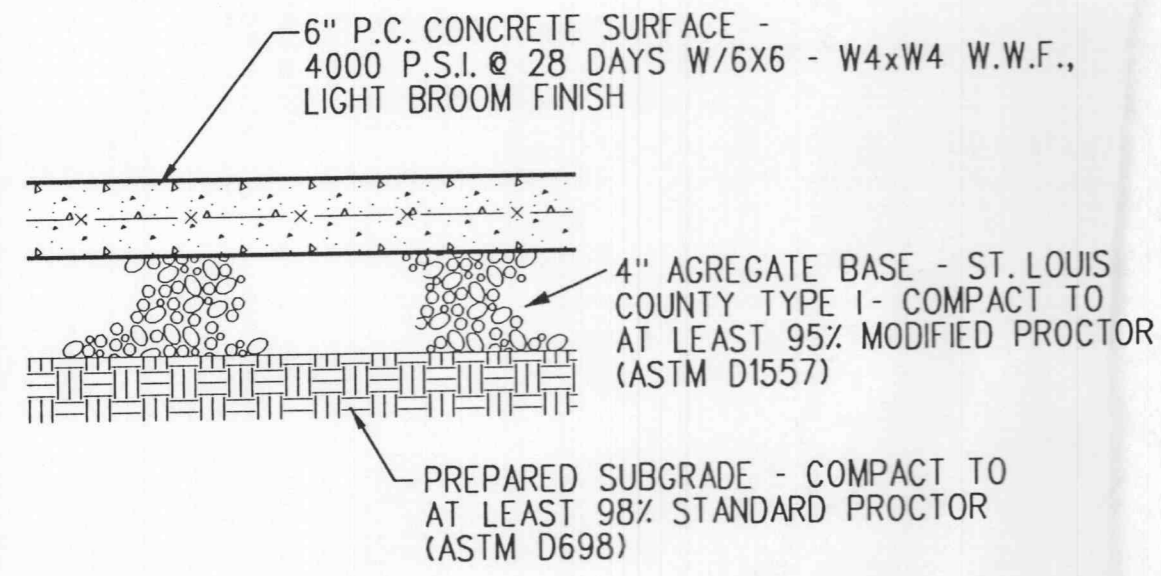
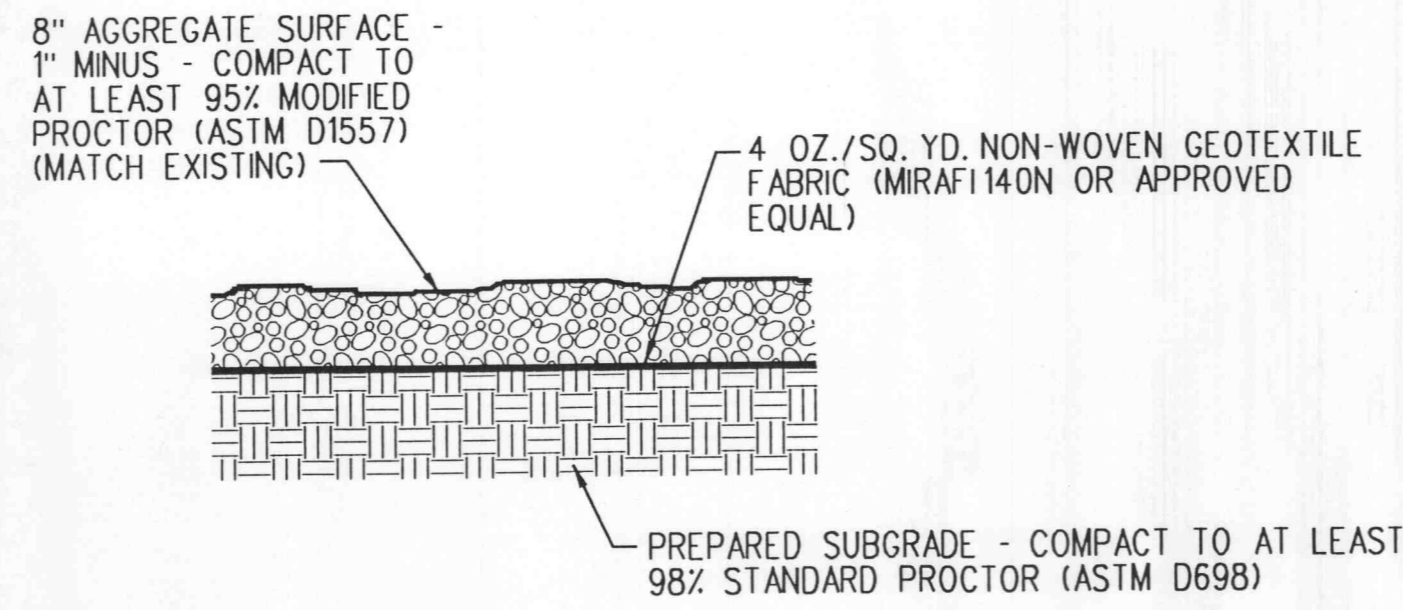


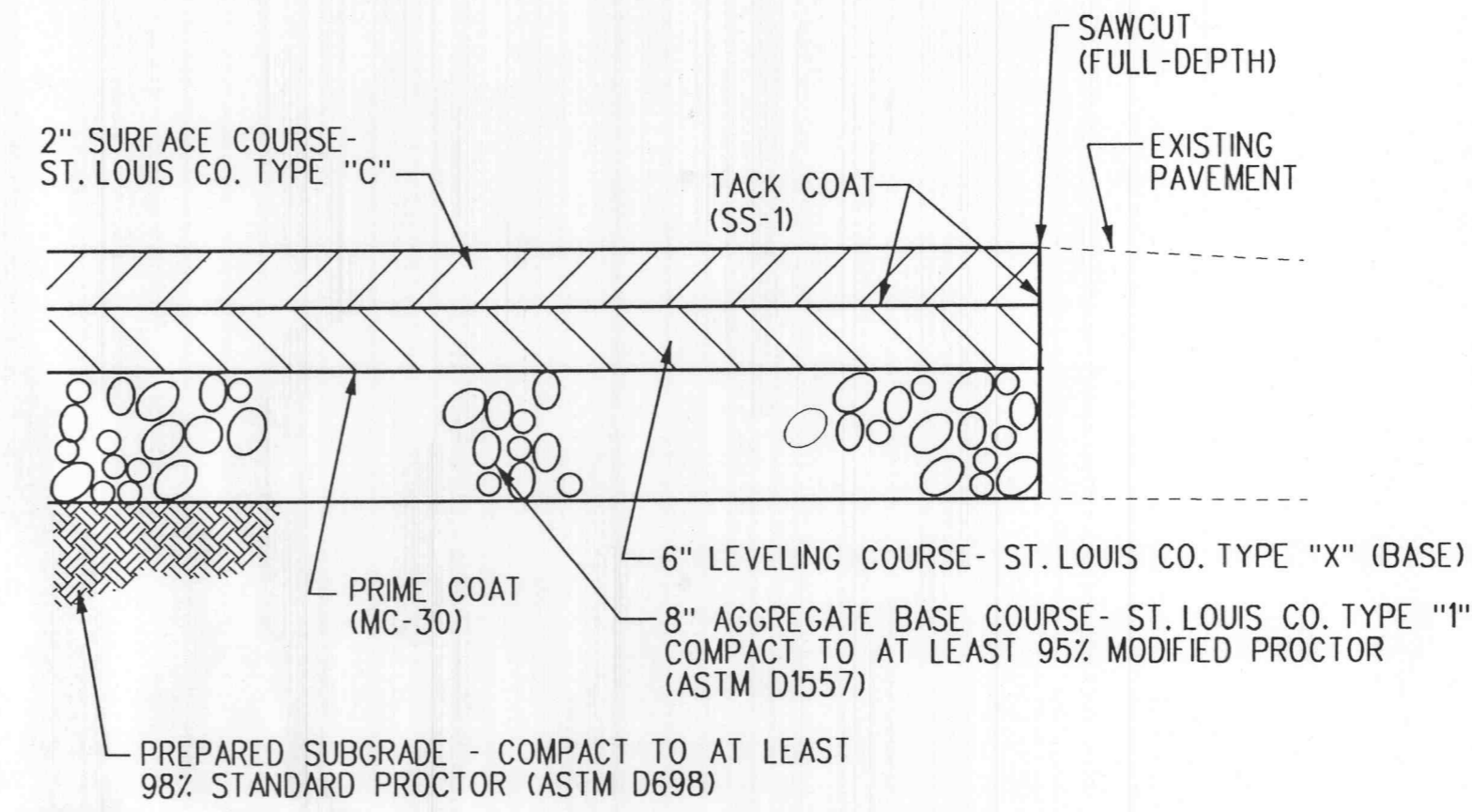
NOTE:
 - EXPANSION/ISOLATION JOINTS @ 40' O.C. (MAX.)
 - CONSTRUCTION JOINTS @ 10' O.C. (MAX.)



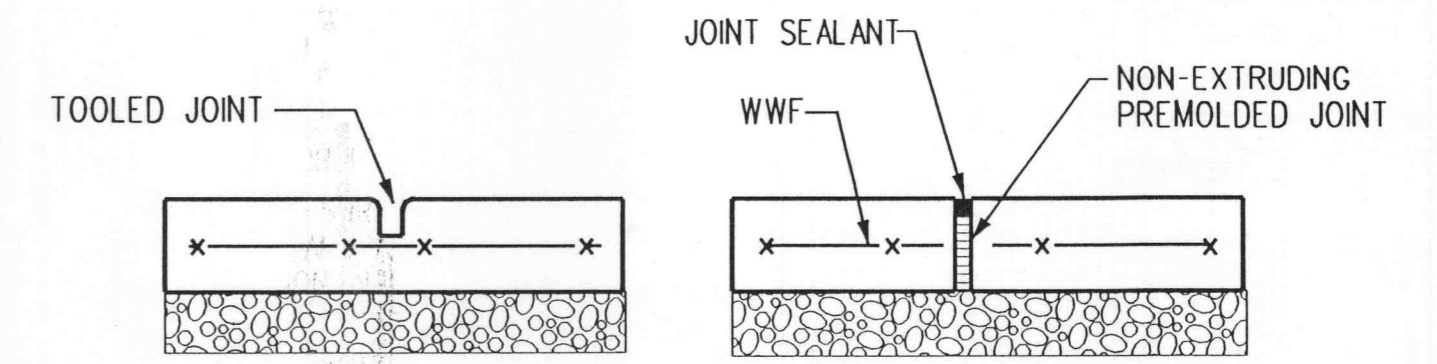
CONCRETE WALK 1
 N.T.S. C301



AGGREGATE PAVEMENT 2
 N.T.S. C301

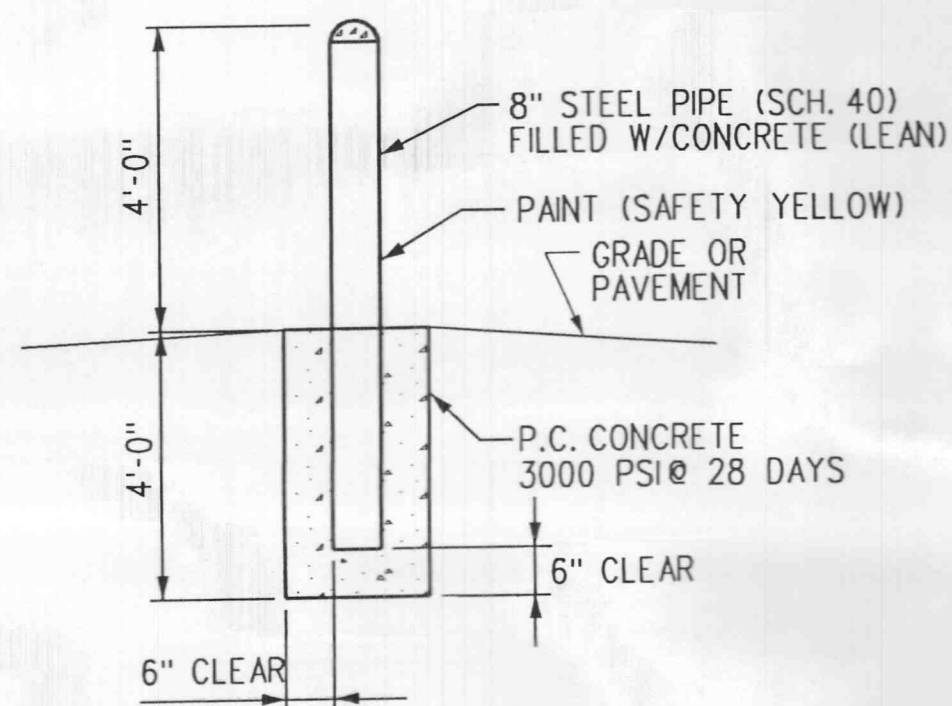


ASPHALTIC CONCRETE PAVEMENT 3
 N.T.S. C301



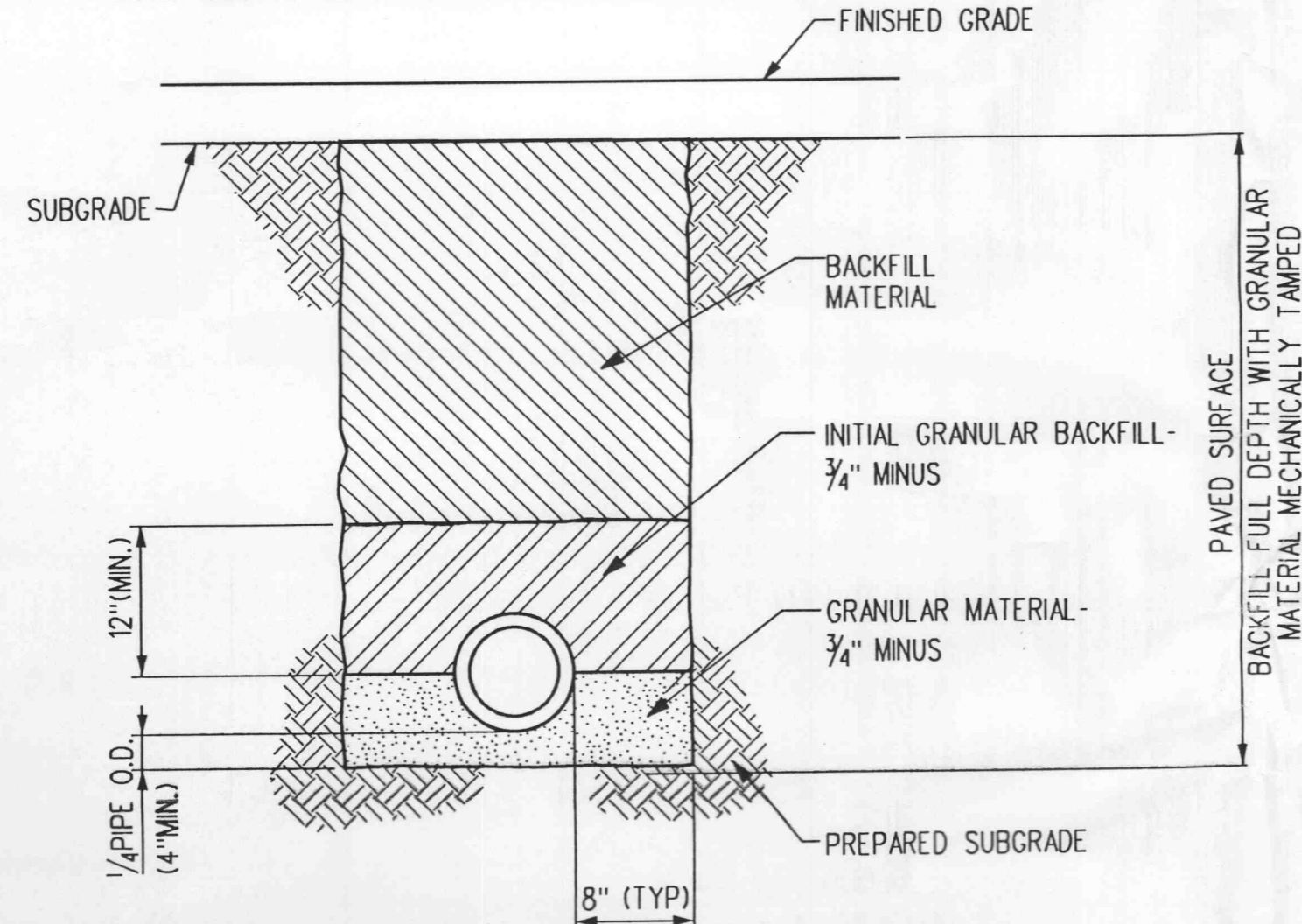
CONCRETE JOINT DETAILS 4
 N.T.S. C301

NOTE: FINISH EXPOSED STEEL WITH ONE (1) COAT PRIMER AND TWO (2) COATS ENAMEL PAINT.



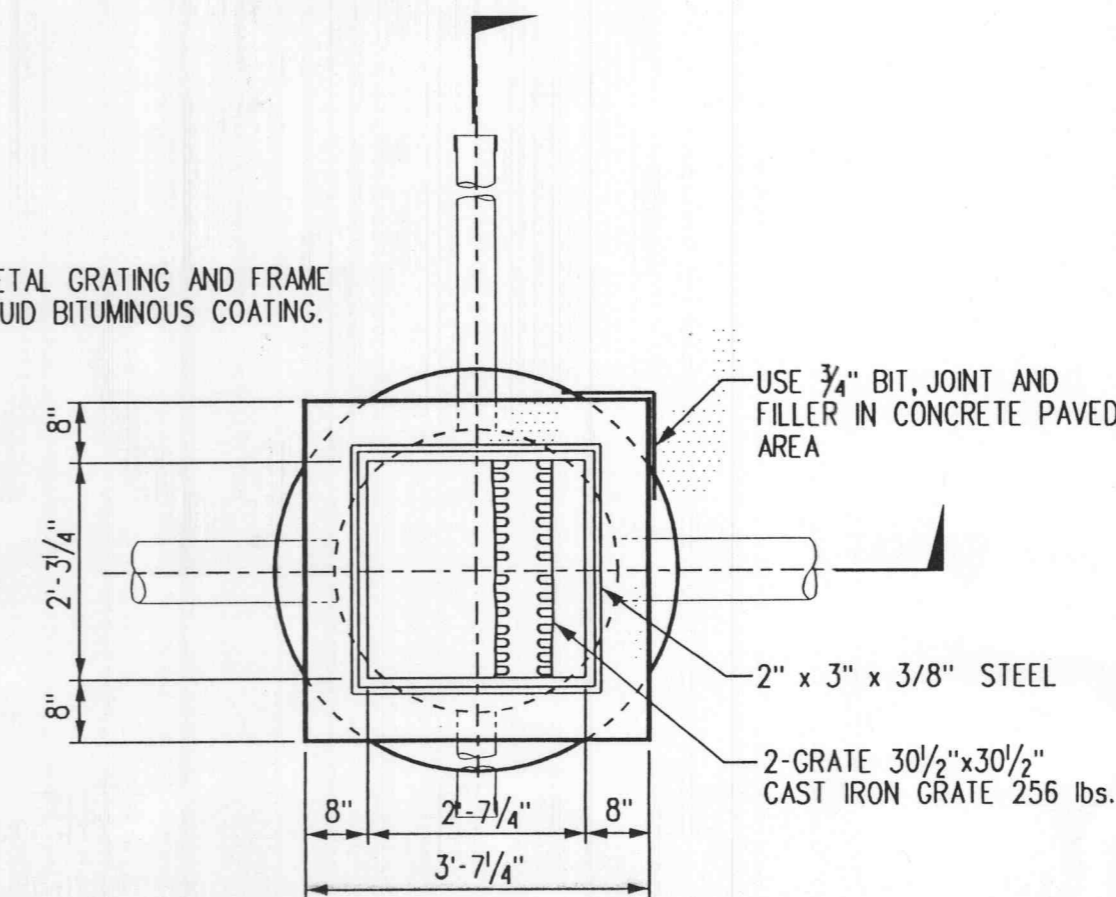
TYPICAL GUARD POST DETAIL 5
 N.T.S. C301

NOTE: COMPACT BACKFILL TO AT LEAST 95% MODIFIED PROCTOR (ASTM D1557).

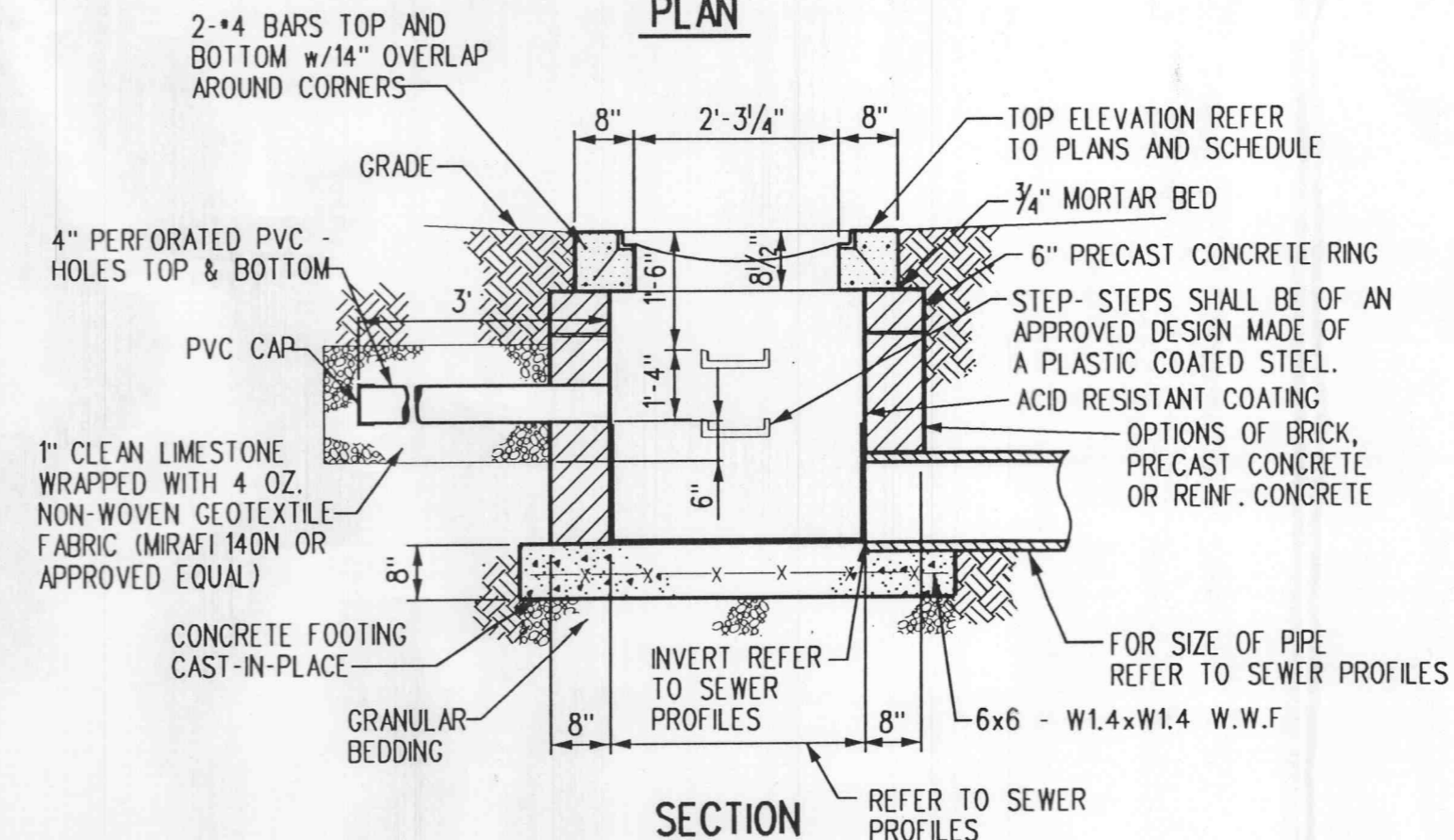


PIPE BEDDING DETAIL 6
 N.T.S. C301

NOTE: FINISH METAL GRATING AND FRAME WITH 10 MIL LIQUID BITUMINOUS COATING.



PLAN



SECTION

2-GRATE INLET DETAIL 8
 N.T.S. C301

INLETS, INCLUDING THE BASE SECTION AND ANY GROUT USED IN CONSTRUCTION OF THE INLET, SHALL BE PREPARED AND COATED AS SPECIFIED BELOW TO A HEIGHT OF THREE FEET ABOVE THE INVERT OF THE MANHOLE.

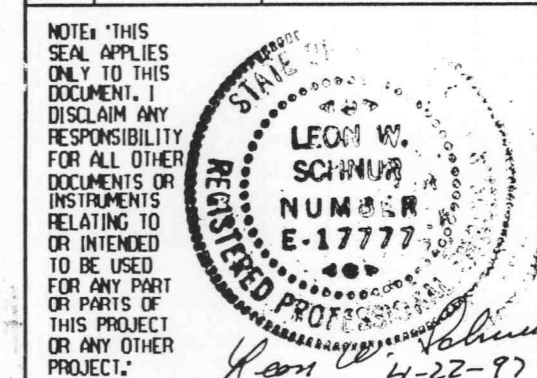
SURFACE PREPARATION
 CONCRETE SURFACES TO BE COATED SHALL BE ABRASIVE BLAST CLEANED TO REMOVE LANTAGE AND ANY SURFACE CONTAMINANTS. PRIOR TO AND DURING COATING APPLICATION, ALL SURFACES SHALL BE CLEAN, DRY AND FREE FROM BLASTING DEBRIS.

COATING SYSTEMS
 CONCRETE AND MANHOLES (PROCESS MANHOLES ONLY):

PRIMER: TNEC SERIES 66 HB EPOXOLINE AT 5 MILS D.F.T. APPLIED TO ALL CONCRETE AND AS A TIE COAT OVER 46H-413 UP TO THE POINT OF TRANSITION TO THE 262 ELASTO-SHIELD. FINISH: TNEC SERIES 262 ELASTO-SHIELD AT 50 MILS D.F.T.

MANHOLE COVER AND FRAME:
 MANHOLE COVER AND FRAME SHALL BE FINISHED WITH 10 MIL LIQUID BITUMINOUS COATING.

REV.	BY	DESCRIPTION	DATE
0	E DAVIS	ISSUED FOR CONSTRUCTION	04/22/97

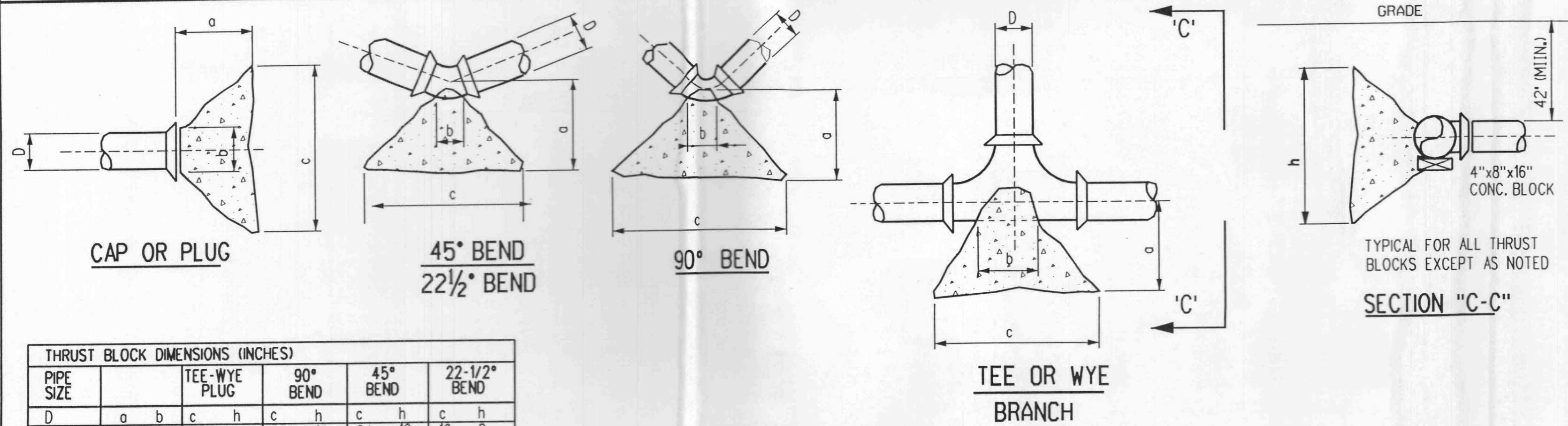


FRU-CON ENGINEERING, INC.
 15933 CLAYTON ROAD
 ST. LOUIS COUNTY
 BALLWIN, MISSOURI 63011
 PHONE: (314) 391-6700
 FAX: (314) 391-4513
 PROJECT NO. 207010-01

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MISCELLANEOUS CIVIL DETAILS
 ZONE 043 AND ZONE 083
 300mm DIST. EXPER. LINE

DRAWN BY	E DAVIS	DATE	04/22/97	SCALE	PLOT DATE
CHECKED BY	M. Schumacher	DATE	04/21/97	AS NOTED	
PROJECT NO.	97025	PLANT	16	SIZE	000.021
		ZONE	D	TYPE	C
				NUMBER	301
				REV.	0



TYPICAL THRUST BLOCK - DETAILS 7
 N.T.S. C301

NOTE: CONCRETE SHALL BE 2500 PSI @ 28 DAYS.

PIPE SIZE	THRUST BLOCK DIMENSIONS (INCHES)							
	TEE-WYE PLUG		90° BEND		45° BEND		22-1/2° BEND	
D	a	b	c	h	c	h	c	h
4	14	4	26	13	30	15	24	12
6	22	6	36	18	44	22	32	16
8	29	8	50	25	58	29	42	21
10	37	10	62	31	74	37	55	27
12	45	12	74	37	88	44	66	33
14	52	14	86	43	103	52	76	38
16	59	16	96	49	118	58	86	43
18	67	18	112	56	134	66	96	49
20	74	20	124	62	148	74	109	55
24	90	24	150	74	173	88	131	65

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