

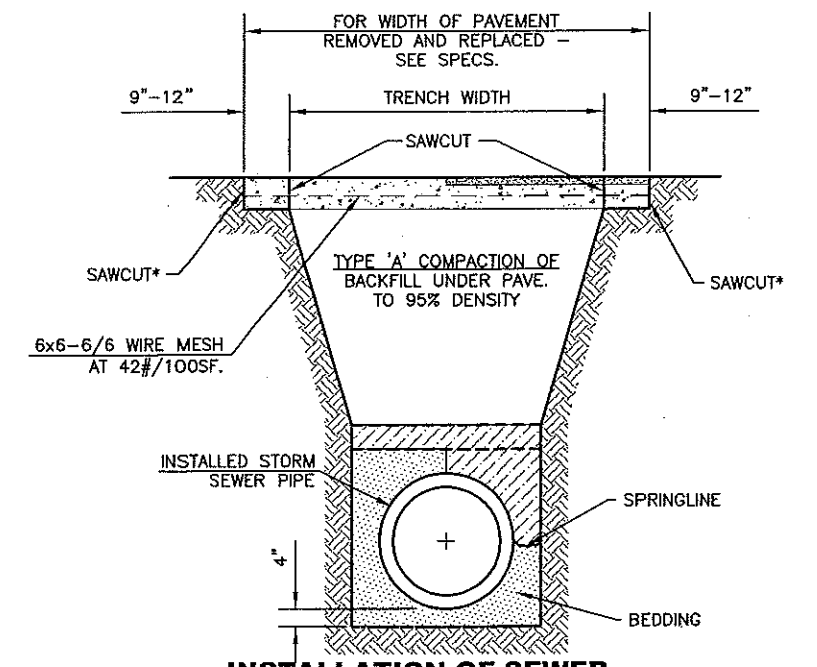
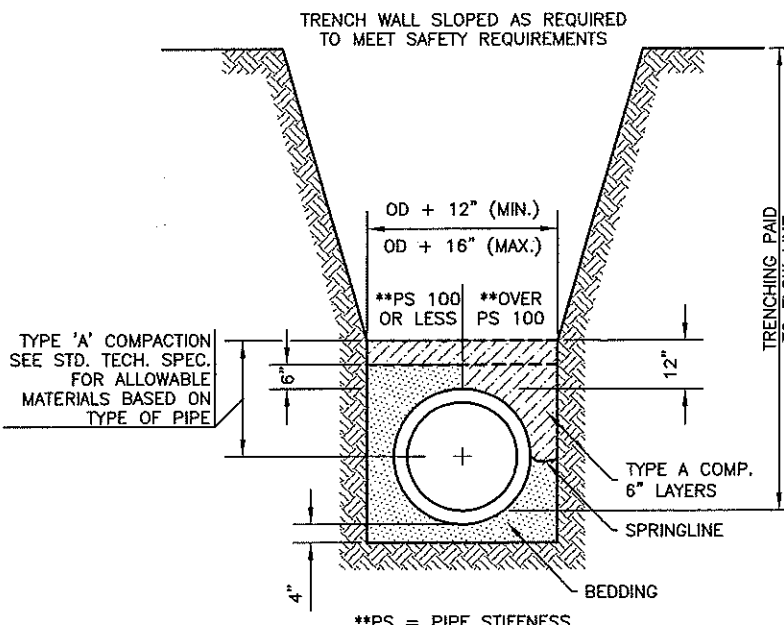
MAXIMUM ALLOWABLE DEPTH OF TRENCH (IN FEET)

REINFORCED CONCRETE PIPE (RCP)

ASTM PIPE CLASS	PIPE DIAMETER (INCHES)				
	12, 15, 18, 21	24, 27, 30, 36	42, 48, 54	60, 66, 72	78, 84
II	8	11	12	15	17
III	11	14	16	18	21
IV	20	22	23	25	27

CORRUGATED STEEL PIPE (CSP), ALUMINIZED STEEL TYPE 2

PIPE DIAMETER (INCHES)	HEIGHT OF COVER ABOVE TOP OF PIPE (FEET) (H-20 LOADING)							
	CSP				CSPA			
	1 - 10		11 - 15		16 - 20		2 - 9	
	2.66x.5	3x1	2.66x.5	3x1	2.66x.5	3x1	2.66x.5	3x1
12	16 ga.		16 ga.		16 ga.		16 ga.	
15	16 ga.		16 ga.		16 ga.		16 ga.	
18	16 ga.		16 ga.		16 ga.		16 ga.	
21	16 ga.		16 ga.		16 ga.		16 ga.	
24	16 ga.		16 ga.		16 ga.		16 ga.	
27	16 ga.		16 ga.		16 ga.		16 ga.	
30	16 ga.		16 ga.		16 ga.		16 ga.	
33	16 ga.		16 ga.		16 ga.		16 ga.	
36	16 ga.	16 ga.	16 ga.	16 ga.	16 ga.	16 ga.	16 ga.	16 ga.
42	14 ga.	16 ga.	14 ga.	16 ga.	14 ga.	16 ga.	14 ga.	16 ga.
48	14 ga.	16 ga.	14 ga.	16 ga.	14 ga.	16 ga.	14 ga.	16 ga.
54	12 ga.	14 ga.	12 ga.	14 ga.	12 ga.	14 ga.	12 ga.	14 ga.
60	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.
66	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.
72	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.	10 ga.	14 ga.
78	14 ga.		14 ga.		14 ga.		14 ga.	
84	12 ga.		12 ga.		12 ga.		12 ga.	
90	12 ga.		12 ga.		12 ga.		12 ga.	
96	12 ga.		12 ga.		12 ga.		12 ga.	

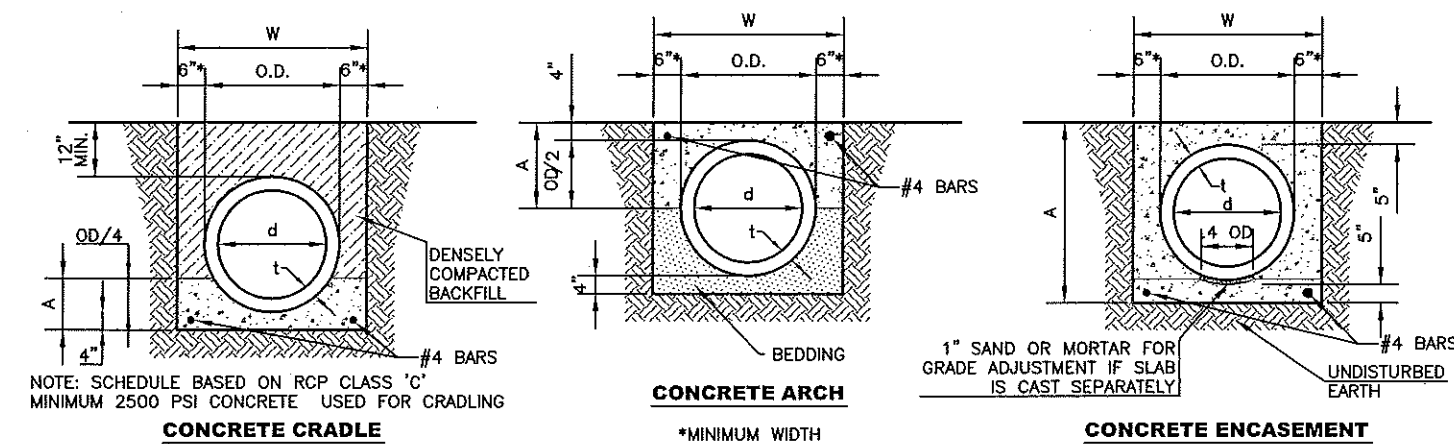


INSTALLATION OF SEWER UNDER EXISTING PAVEMENT

PAVEMENT SHALL BE SAWED AND REMOVED WITHOUT DAMAGE TO ADJACENT PAVEMENT.

* SECOND PAVEMENT CUT TO BE MADE AND PAVEMENT REMOVED AFTER TRENCH IS PROPERLY BACKFILLED.

** CONCRETE PAVEMENT SHALL BE JOINED TO ADJACENT CONCRETE PAVEMENT AS PER "FULL PANEL REPAIR AND UTILITY CUTS FOR CONCRETE PAVEMENT" AS SHOWN ON MISCELLANEOUS DETAILS I.



NOTE: SCHEDULE BASED ON RCP CLASS 'C' MINIMUM 2500 PSI CONCRETE USED FOR CRADLING

d	t	O.D.	W	CRADLE		ARCH		ENCASE.	
				A	A	A	A		
15	2.25	19.5	31.5	8.9	.057	13.8	.073	29.5	.162
18	2.50	23.0	34.0	9.8	.067	15.5	.086	33.0	.190
21	2.75	26.5	38.5	10.6	.077	17.3	.100	36.5	.220
24	3.00	30.0	42.0	11.5	.089	19.0	.114	40.0	.250
27	3.25	33.5	45.5	12.4	.100	20.8	.129	43.5	.282
30	3.50	37.0	49.0	13.3	.113	22.5	.145	47.0	.316
33	3.75	40.5	52.5	14.1	.126	24.3	.162	50.5	.351
36	4.00	44.0	56.0	15.0	.140	26.0	.179	54.0	.387
42	4.50	51.0	63.0	16.8	.169	29.5	.215	61.0	.463
48	5.00	58.0	70.0	18.5	.200	33.0	.254	68.0	.545
54	5.50	65.0	77.0	20.3	.234	36.5	.296	75.0	.632
60	6.00	72.0	84.0	22.0	.270	40.0	.341	82.0	.724

SCHEDULE FOR CONCRETE CRADLE, CONCRETE ARCH, AND CONCRETE ENCASEMENT FOR STORM SEWERS

TRENCHING DETAILS

NOTES:

- THE TRENCH SHALL BE EXCAVATED TO 4" BELOW BOTTOM OF THE PIPE BARREL & BACKFILLED AS SHOWN ABOVE WITH AN APPROVED BEDDING MATERIAL.
- WHEN THE SEWER IS TO BE INSTALLED IN ROCK, THE TRENCH IS TO BE EXCAVATED TO A MINIMUM DEPTH OF 4" BELOW THE BOTTOM OF THE PIPE AND BACKFILLED IN 6" COMPACTED LAYERS WITH AN APPROVED BEDDING MATERIAL AS SHOWN ABOVE. THE ROCK EXCAVATED TO BE PAID AS A SEPARATE BID ITEM. THE EMBEDMENT, IN ALL CASES, TO BE INCLUDED IN THE PRICE BID PER TRENCH, EXCAVATION, AND BACKFILL.

STANDARDS FOR SETTING LINE AND GRADE FOR SEWER CONSTRUCTION:

- STAKES, SPIKES, SHINERS, OR CROSSES SET BY TRANSIT AT THE SURFACE ON AN OFFSET FROM THE SEWER CENTER LINE.
- STAKES ARE TO BE SET IN THE TRENCH BOTTOM ON THE SEWER LINE AS THE ROUGH GRADE FOR SEWER IS COMPLETED.
- ELEVATIONS GIVEN TO THE FINISHED TRENCH GRADE AND SEWER INVERT, WHILE SEWER LAYING PROGRESSES.

STANDARD METHODS FOR TRANSFERRING LINE AND GRADE TO SEWER TRENCH BOTTOM:

ELECTRONIC LASER EQUIPMENT-STAKING SHALL BE AT 25' INTERVALS FOR THE FIRST 100' AND EVERY 100' THEREAFTER UNTIL THE NEXT MANHOLE IS REACHED.

BATTER BOARDS AND BATTER BOARD SUPPORTS-STAKING SHALL BE EVERY 25'.

PAVEMENT PLACEMENT SCHEDULE

SCHEDULE TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

ORIGINAL SURFACE	NEW PAVEMENT
CONCRETE	8" REINFORCED CONCRETE 4,000psi
BRICK OVER CONCRETE	7" REINFORCED CONC.BASE 4,000psi PLUS ONE-COURSE RELAID BRICK.
ASPHALT	MATCH EXISTING PAVEMENT THICKNESS WITH A MINIMUM OF 6" HOT-MIX ASPHALTIC CONCRETE.
ASPHALT OVER CONCRETE	7" REINFORCED CONCRETE BASE 4000 psi PLUS 2" HOT MIX ASPHALTIC CONCRETE. 7" REINFORCED CONCRETE BASE SHALL BE JOINED TO ADJACENT PAVEMENT WITH #4 REBARS x 3'-0" AT 48" CENTERS, DRILLED AND EPOXY GROUTED INTO PLACE ALONG LONGITUDINAL AND TRANSVERSE EDGES. THE WEARING SURFACE WILL CONFORM TO CITY/COUNTY STANDARD SPECIFICATIONS.
BRICK OVER BRICK/SUBGRADE	7" HOT-MIX ASPHALTIC CONCRETE PLUS ONE-COURSE RE-LAID BRICK.

PAVEMENT SHALL BE SAWED AND REMOVED WITHOUT DAMAGE TO ADJACENT PAVEMENT.

NOTES:

- THE TRENCH SHALL BE EXCAVATED TO 4" BELOW BOTTOM OF THE PIPE BARREL & BACKFILLED AS SHOWN ABOVE WITH AN APPROVED BEDDING MATERIAL.
- WHEN THE SEWER IS TO BE INSTALLED IN ROCK, THE TRENCH IS TO BE EXCAVATED TO A MINIMUM DEPTH OF 4" BELOW THE BOTTOM OF THE PIPE AND BACKFILLED IN 6" COMPACTED LAYERS WITH AN APPROVED BEDDING MATERIAL AS SHOWN. THE ROCK EXCAVATED TO BE PAID AS A SEPARATE BID ITEM. THE EMBEDMENT, IN ALL CASES, TO BE INCLUDED IN THE PRICE BID PER TRENCH, EXCAVATION, AND BACKFILL.

NO.	DATE	REVISION	BY	APP'D
1	Feb. 2008	Mod.Pvmt.Sch. and Cradle, Arch. & Encase.	DHS	SB

DRAWN BY: *rm/mc*
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STANDARD DETAILS

STORM SEWER DETAILS
 (DT-008)

DATE: Month Year
 SHEET: X of X
 PROJ.: X-XXXXXX.XX