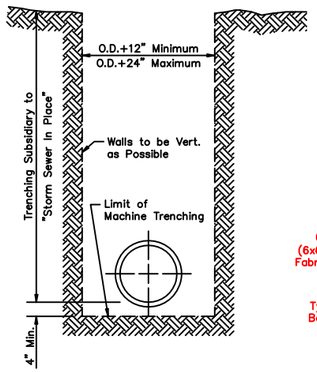
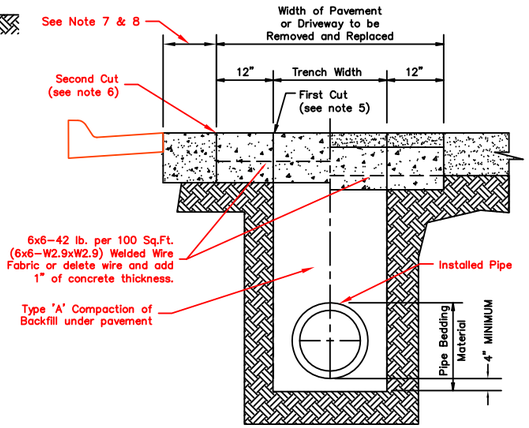
MAXIMUM ALLOWABLE DEPTH OF TRENCH (IN FEET)

REINFORCED CONCRETE PIPE (RCP)					
ASTM PIPE CLASS	PIPE DIAMETER (INCHES)				
	12, 15, 18, 21	24, 27, 30, 33, 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 METAL PIPE (CMP)							
PIPE DIAMETER (INCHES)	HEIGHT OF COVER ABOVE TOP OF PIPE (FEET)						
	CMP			CMMAC			
	1'–10'	11'–15'	16'–20'	END AREA S.F.	DIMENSIONS (IN) RISE X SPAN	0.75'–2'	2'–9'
12	16 ga.	16 ga.	16 ga.	1.1	11 X 18	16 ga.	16 ga.
15	"	"	"	1.6	13 X 22	"	"
18	"	"	"	2.2	16 X 25	"	"
21	"	"	"	2.8	18 X 29	14 ga.	14 ga.
24	"	"	14 ga.	4.4	22 X 36	"	"
27	14 ga.	14 ga.	"	6.4	27 X 43	12 ga.	12 ga.
30	"	"	"	8.7	31 X 50	"	"
33	"	"	12 ga.	11.4	36 X 58	10 ga.	"
36	"	"	"	14.3	40 X 65	"	"
42	12 ga.	12 ga.	"	17.6	44 X 72	8 ga.	10 ga.
48	"	"	"				
54	"	"	10 ga.				
60	10 ga.	10 ga.	8 ga.				
66	"	"	"				
72	"	8 ga.	"				



TRENCHING DETAILS



PAVEMENT PATCH METHODS		
Six methods of pavement patches shall be used dependent upon the original roadway surface type and traffic volumes. Schedule to be used unless authorized by City Engineer.		
ORIGINAL SURFACE TYPE	PAVEMENT PATCH METHOD	NEW PAVEMENT TYPE
CONCRETE	METHOD 1	8" Class I Concrete, 4,000 p.s.i.
	METHOD 2	6" Class I Concrete, 4,000 p.s.i.
ASPHALTIC CONCRETE	METHOD 3	8" Class I Concrete Base, 4,000 p.s.i. Plus 2" BM-2 Asphaltic Concrete
	METHOD 4	6" Class I Concrete Base, 4,000 p.s.i. Plus 2" BM-2 Asphaltic Concrete
BRICK	METHOD 5	8" Class I Concrete Base, 4,000 p.s.i. Plus One-Course Relaid Brick
	METHOD 6	6" Class I Concrete Base, 4,000 p.s.i. Plus One-Course relaid Brick

Notes:

1. Methods 1,3,and 5 shall use 8 sack concrete and be used on arterial, intersections, and other heavily traveled streets (see Major Street System Map).

2. Method 2,4, and 6 shall be used for residential streets.

3. Method 2 shall be used for driveway, alley and curb and gutter repairs also.

4. All concrete is to be 8 sack mix.

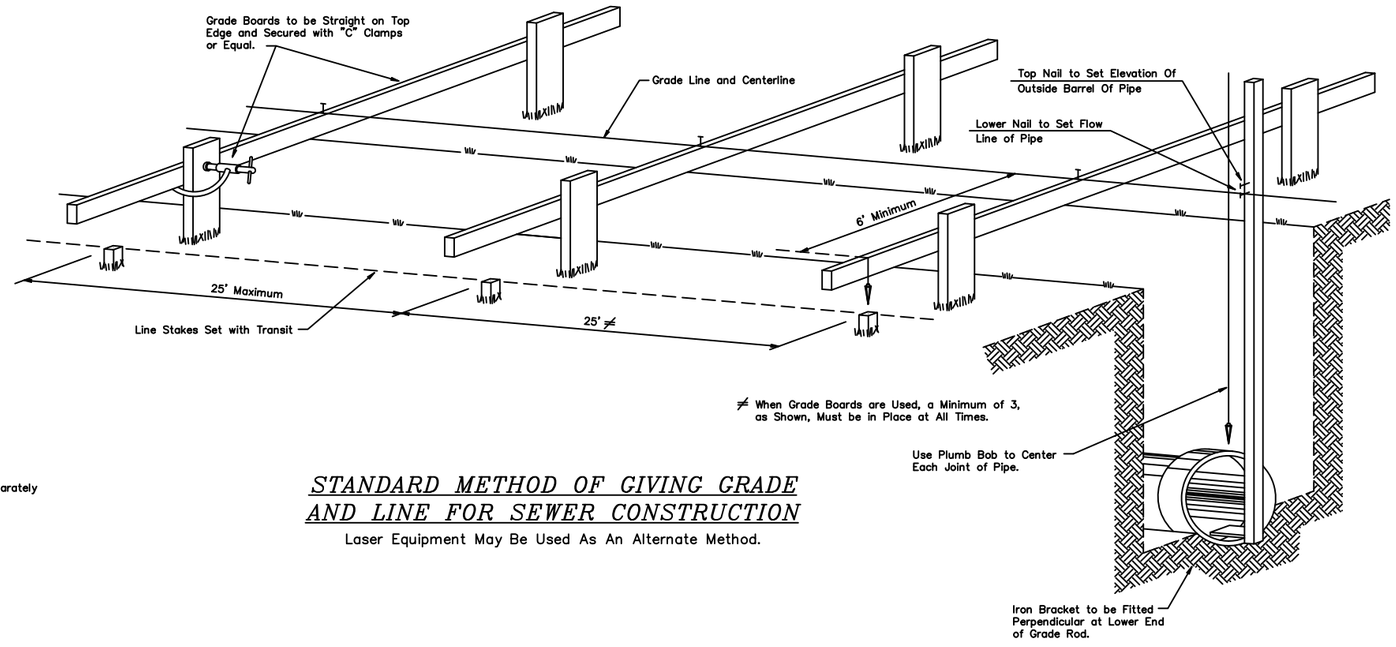
5. First Cut - This cut may be by rock saw or other means and shall be full depth of the existing pavement.

6. Second Cut - All pavement and driveway cuts shall be full depth without damage to adjacent pavement. This cut shall be straight and clean with a smooth edge. A rock saw may be used for second cut on asphalt pavement only, however a straight, semi-smooth edge shall be required.

7. If distance between Second Cut and any joint or edge of pavement is less than 24" pavement shall be removed to the joint or edge of pavement.

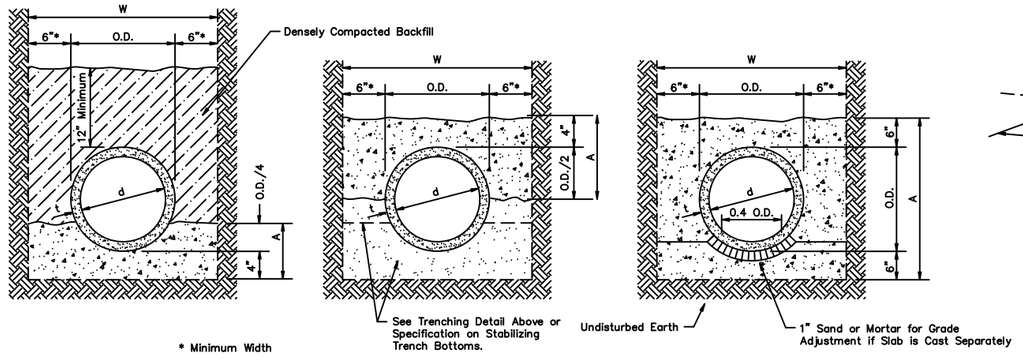
8. If 4' or less pavement width is removed from the outside edge of pavement a minimum of 4 feet must be removed & replaced. Subgrade preparation (Type 'A' Compaction min. 18" deep if outside of trench width) for replacement shall extend a minimum of 2' outside the proposed outside edge of pavement.

INSTALLATION OF PIPE UNDER EXISTING PAVEMENT



STANDARD METHOD OF GIVING GRADE AND LINE FOR SEWER CONSTRUCTION

Laser Equipment May Be Used As An Alternate Method.



CONCRETE CRADLE — CONCRETE ARCH — CONCRETE ENCASEMENT

d	t	O.D.	W	CRADLE A		ARCH A		ENCASE. A	
IN.	IN.	IN.	IN.	IN.	CY/FT	IN.	CY/FT	IN.	CY/FT
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	.065	15.5	.082	33.0	.182
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	.101	20.8	.130	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	.271	40.0	.341	82.0	.724

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

Schedule Based on R.C.P. and Class II, 3,000 p.s.i.,
Concrete will be used for Cradling

No.	Date	Revision	By	Approved
5	11/08	Pipe under pavement notes	JMS	JSP
4	08/08	Pipe under pavement notes	JMS	JSP
3	12/03	Add Conc. note/install of pipe under exist. p'vmt	PLM	HHM
2	11/99	Updated Welded Mesh Note	BLG	HHM
1	01/97	CADD Update – Bretton Drafting Service	RDB	HHM

CITY OF HUTCHINSON, KANSAS
ENGINEERING DEPARTMENT

STORM SEWER DETAILS

STANDARD DETAIL 6

Date: January, 1988
Drawn By: R.D.B.
Approved By: H.H.M.

SHEET NUMBER __ of __