

**Choctaw Standard Construction Fees**

(a) The fee for supervision and inspection shall be paid to the City according to the following schedule:

Estimated Cost of Construction	Fee
Up to \$2,000.00	3.5%
Next \$3,000.00 (\$2,001.00 to \$5,000.00)	3.0%
Next \$5,000.00 (\$5,001.00 to \$10,000.00)	2.5%
Next \$15,000.00 (\$10,001.00 to \$25,000.00)	2.0%
Next \$25,000.00 (\$25,001.00 to \$50,000.00)	1.5%
Over \$50,000.00	1.0%

**GENERAL NOTES**

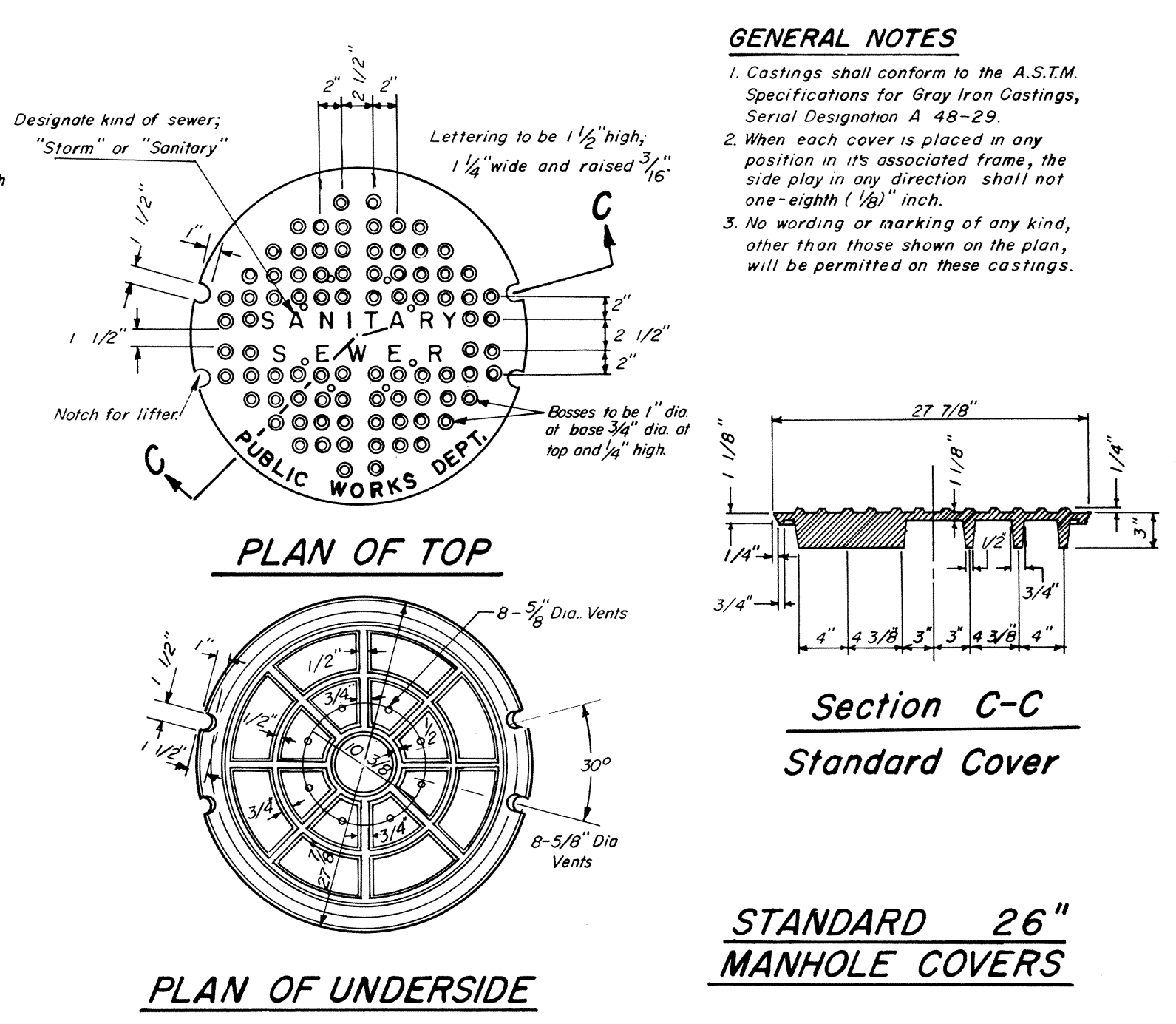
- All construction shall be in accordance with the Choctaw City Standard Specifications for construction of Sanitary Sewers and appurtenances.
- The contractor shall be responsible for the safety of all utilities, either public or private, shown on these plans or found during construction.
- All work not classified as a contract pay item shall be considered as incidental and the cost thereof shall be included in the unit bid prices for items which are classified for payment.
- Bid item "Manholes Complete, 0'-6" Deep" shall consist of furnishing all materials (including ring and cover) and constructing manholes complete up to 6' deep. Where manholes are greater than 6' deep, each additional foot of wall shall be paid for as "Extra Depth Manhole Walls".
- Place one cubic foot of 3500 psi concrete around each wye.
- Water-tamp or water flush all sand backfill.
- Backfill under existing and future paving with crushed rock, Max. size 1".
- Backfill with riversand around all existing water lines exposed during construction.
- Sand backfill shall not be paid for as such but shall be included in the unit bid prices for other items.
- The cost of removing or moving and replacing all fences, trees, structures or other obstruction necessary for construction will not be paid for as such, but shall be included in the unit bid prices for other items.
- Bid item "Crushed Rock Cradle" shall be paid for at the unit price bid per ton. Crushed Rock Cradle shall be used only where authorized in writing by the Engineer, for bedding purposes.
- All Testing shall be performed in accordance with DEQ, Title 252, OAC, Chapter 655, WPC, Construction Standards, Sections 1. Manholes (252-655-9-4) 2. Exfiltration/Infiltration (252-655-9-1-c) 3. Deflection (252-655-9-2-g-5) Effective May 26, 1994
- Wyes shall be installed for all planned and known future lots.
- Risers shall be extended to within 4' of the surface.
- Fiberglass Manholes Are Not Permitted.
- Interior Surfaces of all manhole walls shall receive two (2) coats of Koppers (Super Service Block) paint. A minimum interval of 24 hours shall elapse between applications of coating. See Coatings, Std. S-3.

**SPECIAL NOTES**

- See Detail Sheet M-1 For Sealed And Secured Manhole Ring & Covers When Specified.
- Deflection Tests Shall Be Performed On All Flexible Pipe In Accordance With OSDH Bulletin No. 0587, Par. 22.75, Latest Revision Thereof.
- Certified Ductile Iron Manhole Frame & Cover Models "GTS" & "URBAN S" With Gaskets May Be Used Providing They Are Furnished With A 26" Clear Opening
- "Sewer Guard" A Dished Polyethylene By METHODS ENGINEERING CORP. OR PRECO INDUSTRIES, LTD. Must Be Installed in Each Manhole When Required on the Plans. It Shall Be Sized For A Manhole With A Clear Opening of 26"
- See Detail Sheet S-2 For Reversible (Neenah) Manhole Frame & Cover.

**GENERAL NOTES**

- Castings shall conform to the A.S.T.M. Specifications for Gray Iron Castings, Serial Designation A 48-29.
- When each cover is placed in any position in its associated frame, the side play in any direction shall not be more than 1/8" inch.
- No wording or marking of any kind, other than those shown on the plan, will be permitted on these castings.

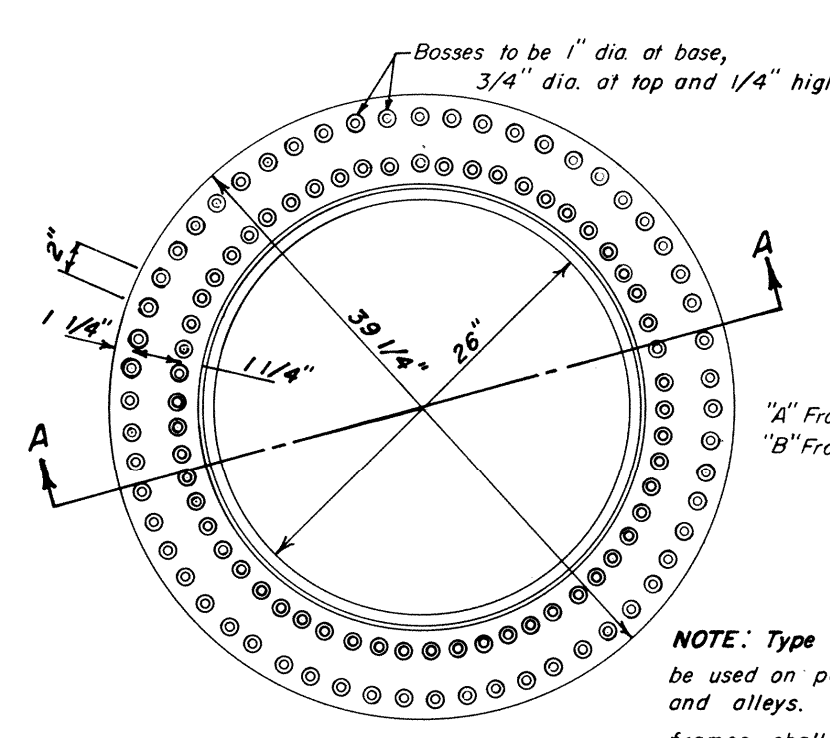


**STANDARD 26" MANHOLE COVERS**

**CASTING WEIGHTS**

The average weight of castings shall not be less than 98% of the weights shown hereafter. Weights of individual castings shall not be less than 95% of the weights shown hereafter.

"A" ring only 347 lbs.; "B" ring only 392 lbs.; Cover only 251 lbs; Total type "A" 598 lbs; Total type "B" 643 lbs.



**SECTION A-A STANDARD FRAME TYPE B**

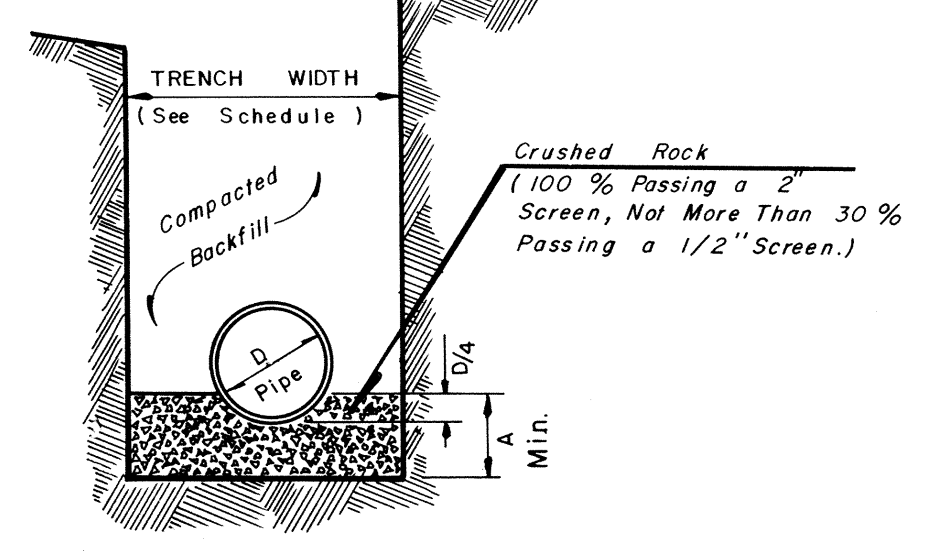
**SECTION B-B STANDARD FRAME TYPE A**

**STANDARD 26" MANHOLE FRAMES**

**TRENCH SCHEDULE**

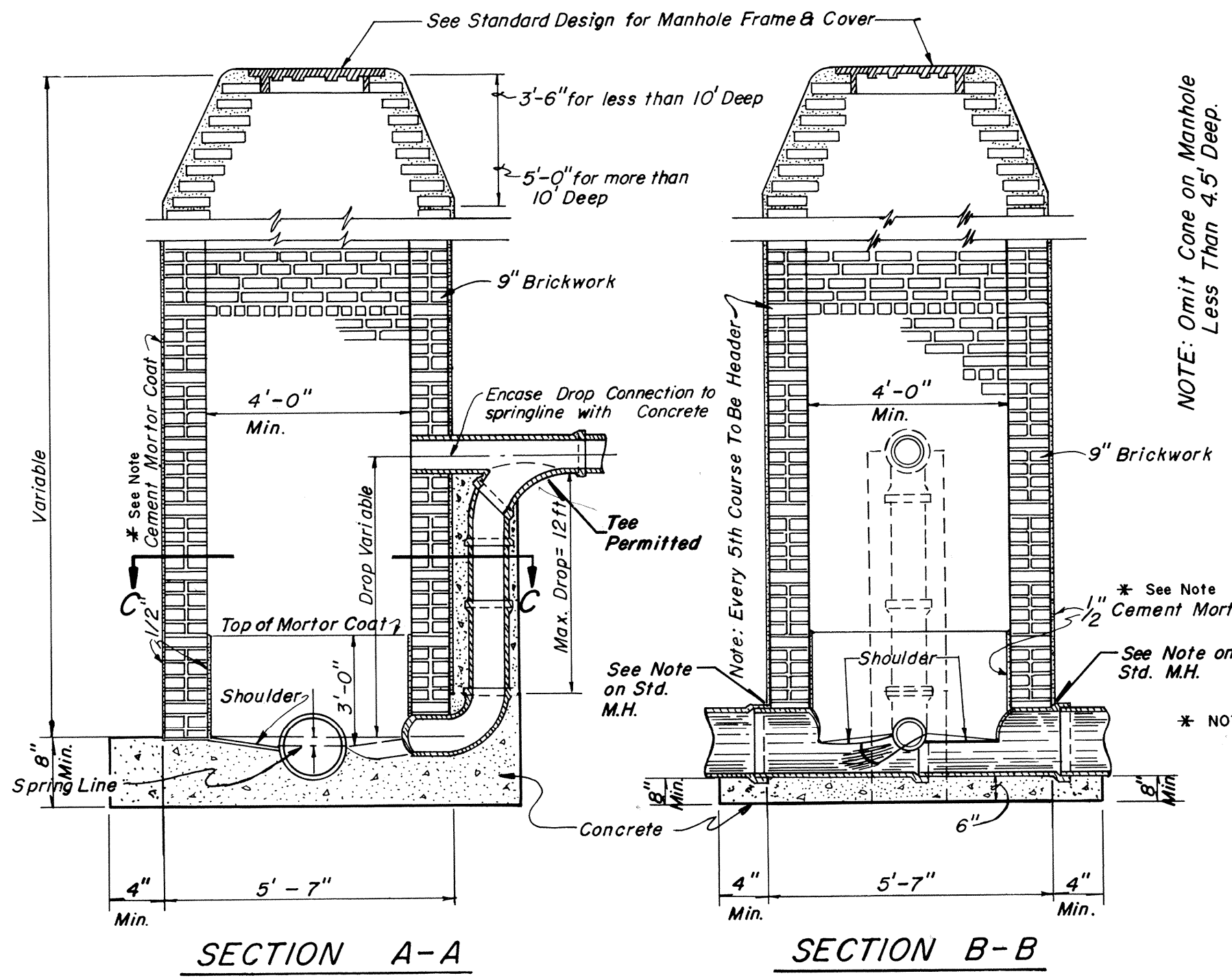
TRENCH WIDTH	Pipe D	Min. A	Min. B	C.Y. Crushed Rock, Per L.F.
2.2'	8"	8"		.052
2.2'	10"	9"		.058
2.2'	12"	10"		.063
2.6'	15"	11"		.082
2.9'	18"	12"		.099
3.3'	21"	13"		.121
3.8'	24"	14"		.149
4.2'	27"	15"		.175
4.5'	30"	16"		.199
4.9'	33"	17"		.229
5.2'	36"	18"		.256

NOTE: Stone Shall Be Hand or Mechanically Tamped.



**TYPICAL SECTION**

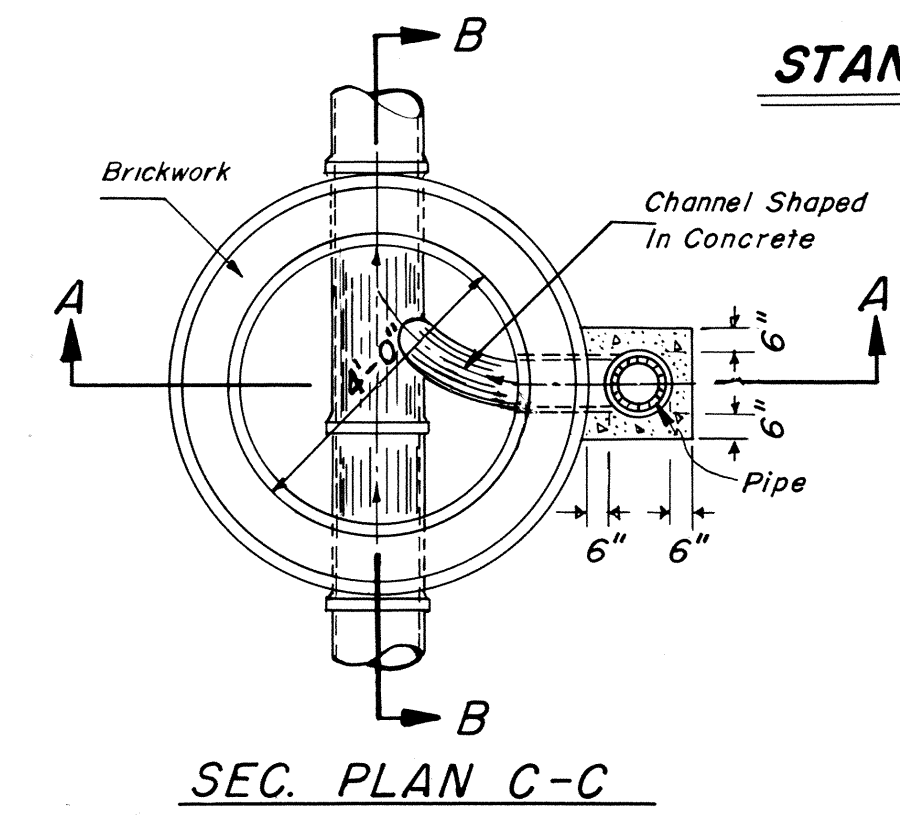
GRAVEL BEDDING (SEE NOTE NO. 11)



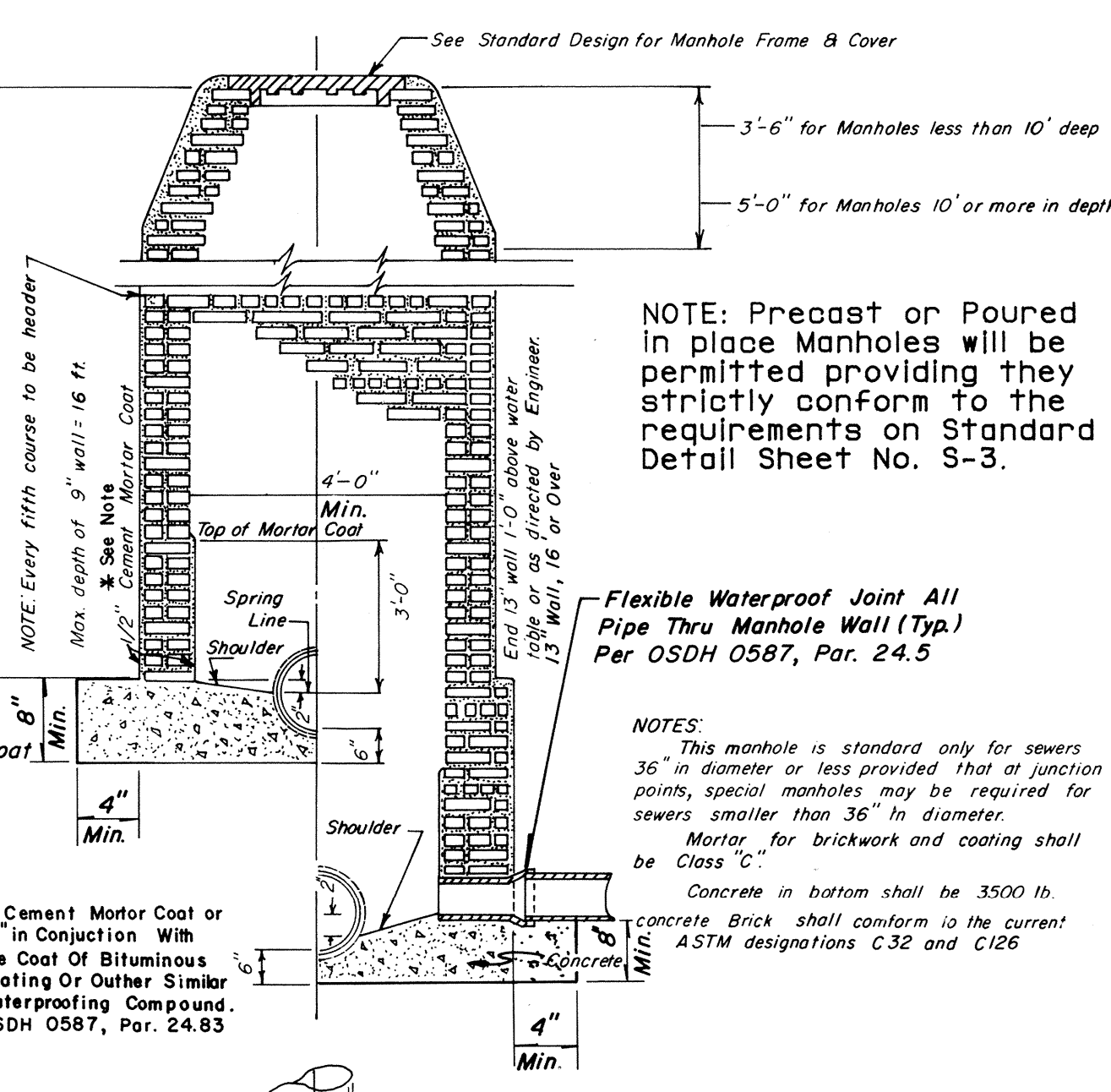
**STANDARD DROP MANHOLE**

No Scale

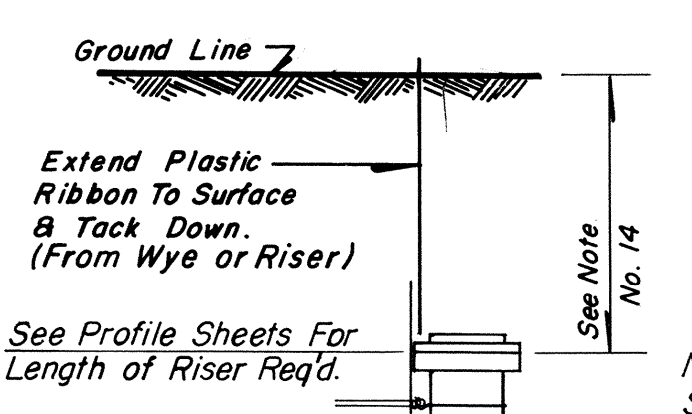
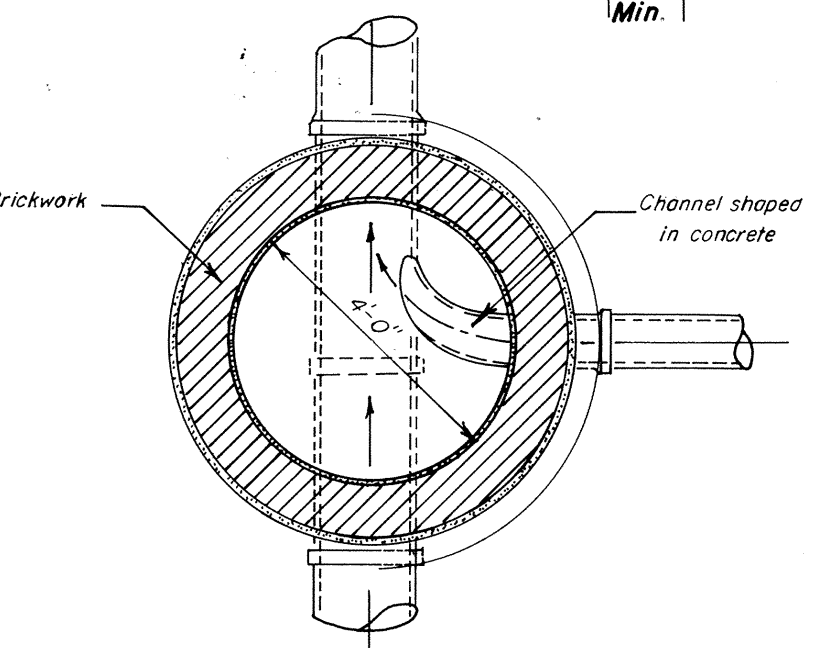
NOTE: Required Where Flowline of Incoming Line is 24" or More Above Invert of Manhole.



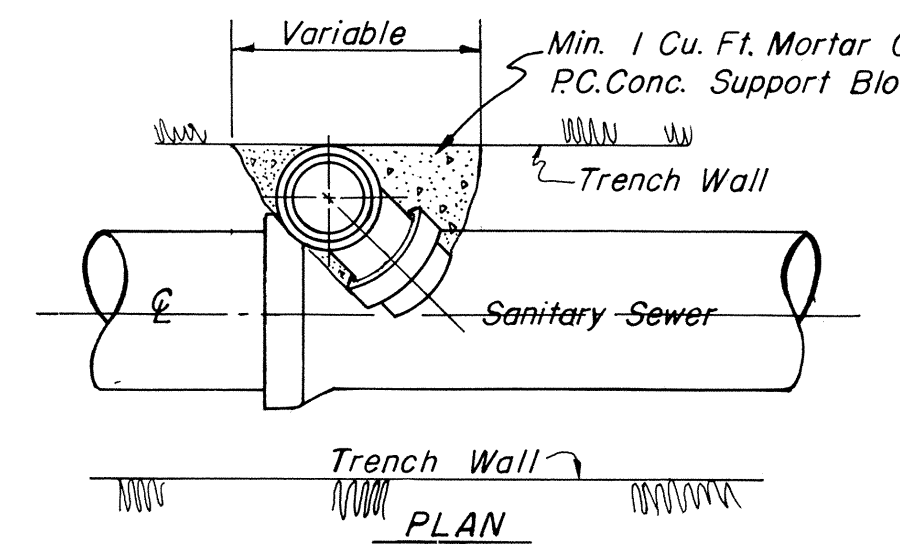
**SEC. PLAN C-C**



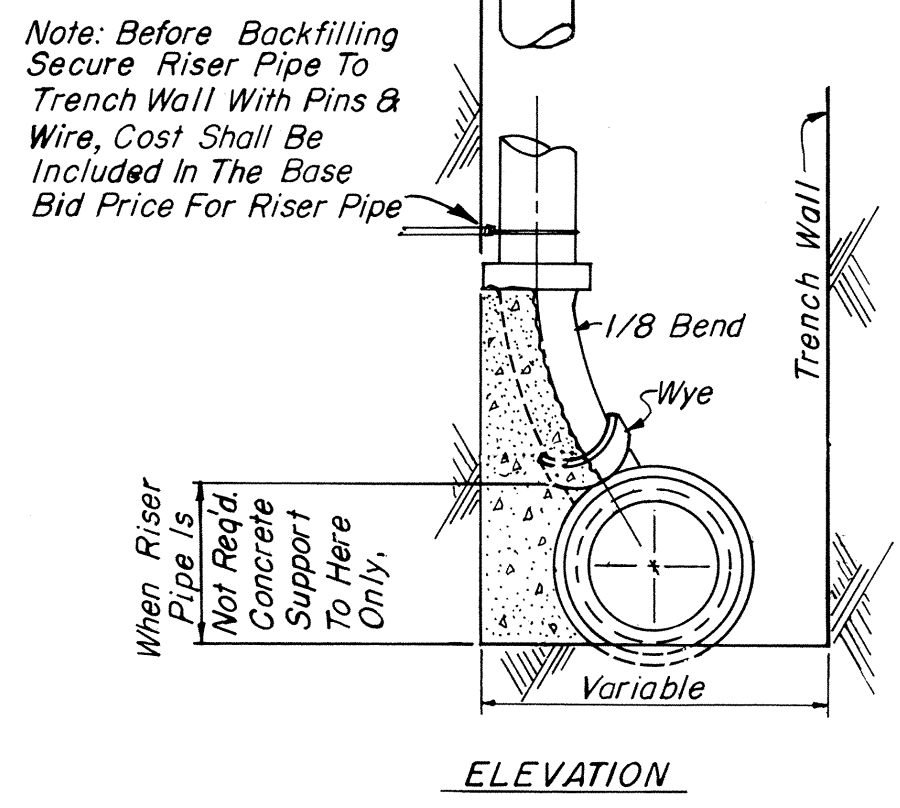
**STANDARD MANHOLE**



**ELEVATION**



**PLAN**



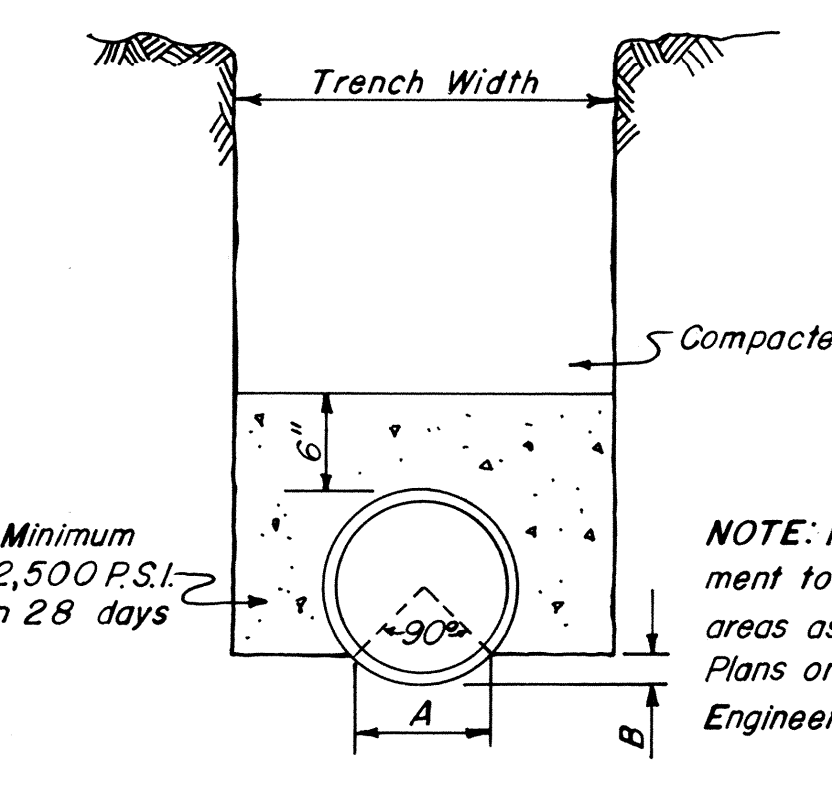
**WYE AND RISER DETAIL**

**WYE AND RISER DETAIL**

No Scale

Where trench walls are sloped, the riser shall be secured to the sloping trench wall after it has been shaped to assure that the riser is supported throughout its length. The riser shall not be extended to a point outside of the easement shown on the plans. When this method is used, the Contractor shall also keep a list of the horizontal distances from the centerline of the pipe over to the top of the riser, along with his record of wye locations.

Pipe Size	Trench Width	A (ft.)	B (ft.)	CY CONC. PER L.F. Encasement
8"	2.2'	0.574	0.119	0.079
10"	2.2'	0.707	0.146	0.083
12"	2.2'	0.843	0.174	0.086
15"	2.6'	1.049	0.217	0.111
18"	2.9'	1.263	0.261	0.133
21"	3.3'	1.473	0.305	0.163
24"	3.8'	1.679	0.347	0.206
27"	4.2'	1.892	0.392	0.243
30"	4.5'	2.099	0.434	0.272
33"	4.9'	2.294	0.475	0.314
36"	5.2'	2.489	0.515	0.347



**CONCRETE ENCASEMENT DETAIL**

(NOT RECOMMENDED FOR PLASTIC PIPE)

3-15-01  
 7-24-96  
 5-23-95  
 8-16-89  
 12-13-88  
 11-22-88  
 4-12-88  
 Latest Revision 6-17-88  
 BY: DESIGN ENGINEERS, INC.

9-3-85  
 ORDINANCE No. 291

APPROVED *Gene W. Sayers*  
 Gene W. Sayers  
 City Engineer

SANITARY SEWER IMPROVEMENTS MAINTENANCE BOND - 100% OF CONSTRUCTION COST FOR 2 YEARS.

DESIGN STANDARD DETAILS  
 CITY OF CHOCTAW OKLAHOMA  
**STANDARD MANHOLE & MISCELLANEOUS SEWER DETAILS**

S-1