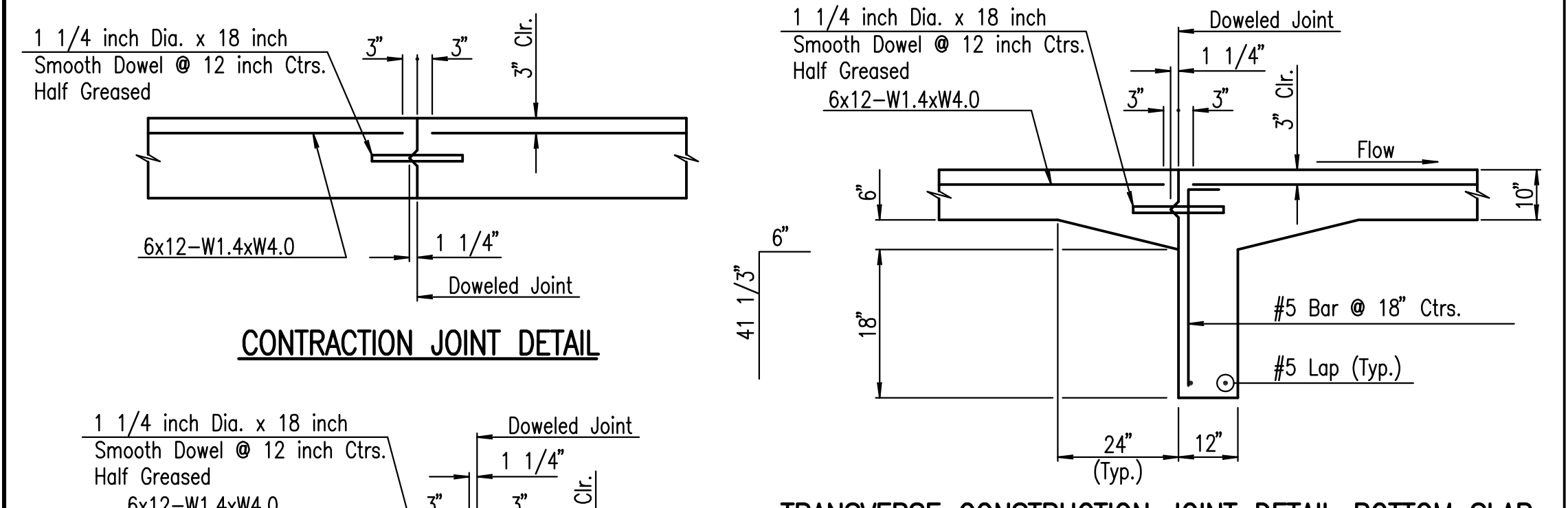


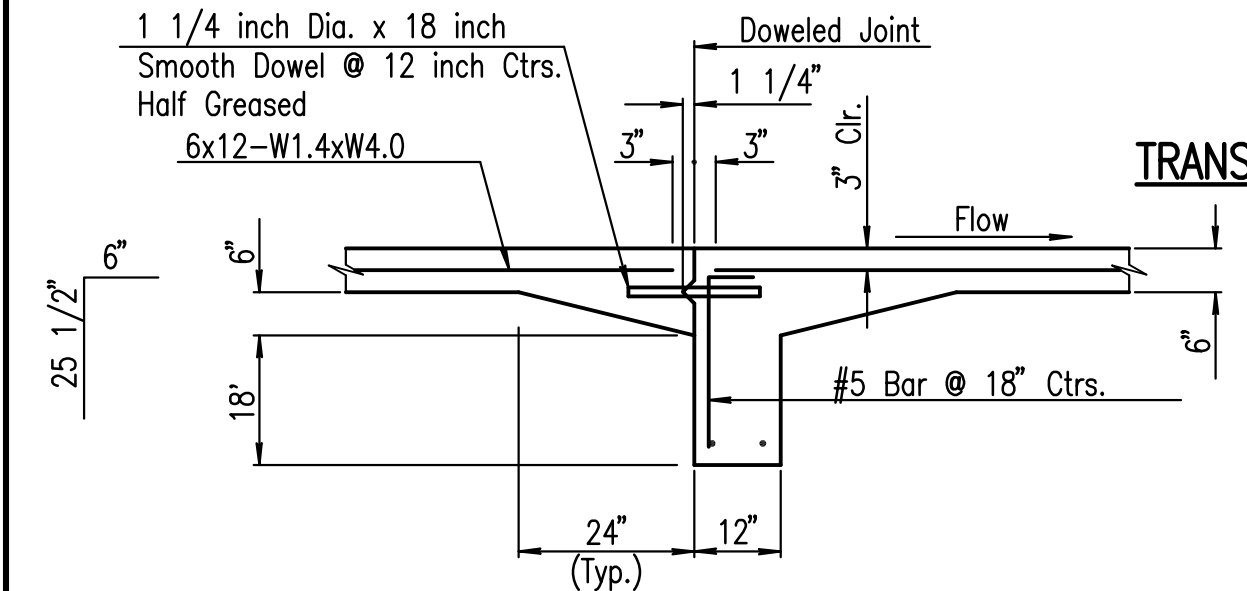
CONCRETE COLLARS SHALL BE PROVIDED AT CONNECTION TO EXISTING CONDUITS WHERE, IN THE OPINION OF THE ENGINEER, A COLLAR IS REQUIRED FOR A SATISFACTORY CONNECTION. CLASS A CONCRETE OR THE MIX USED IN CONCRETE PAVEMENT SHALL BE USED THROUGHOUT. CONCRETE COLLARS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS PIPES INVOLVED.

CAST-IN-PLACE CONCRETE COLLAR DETAIL

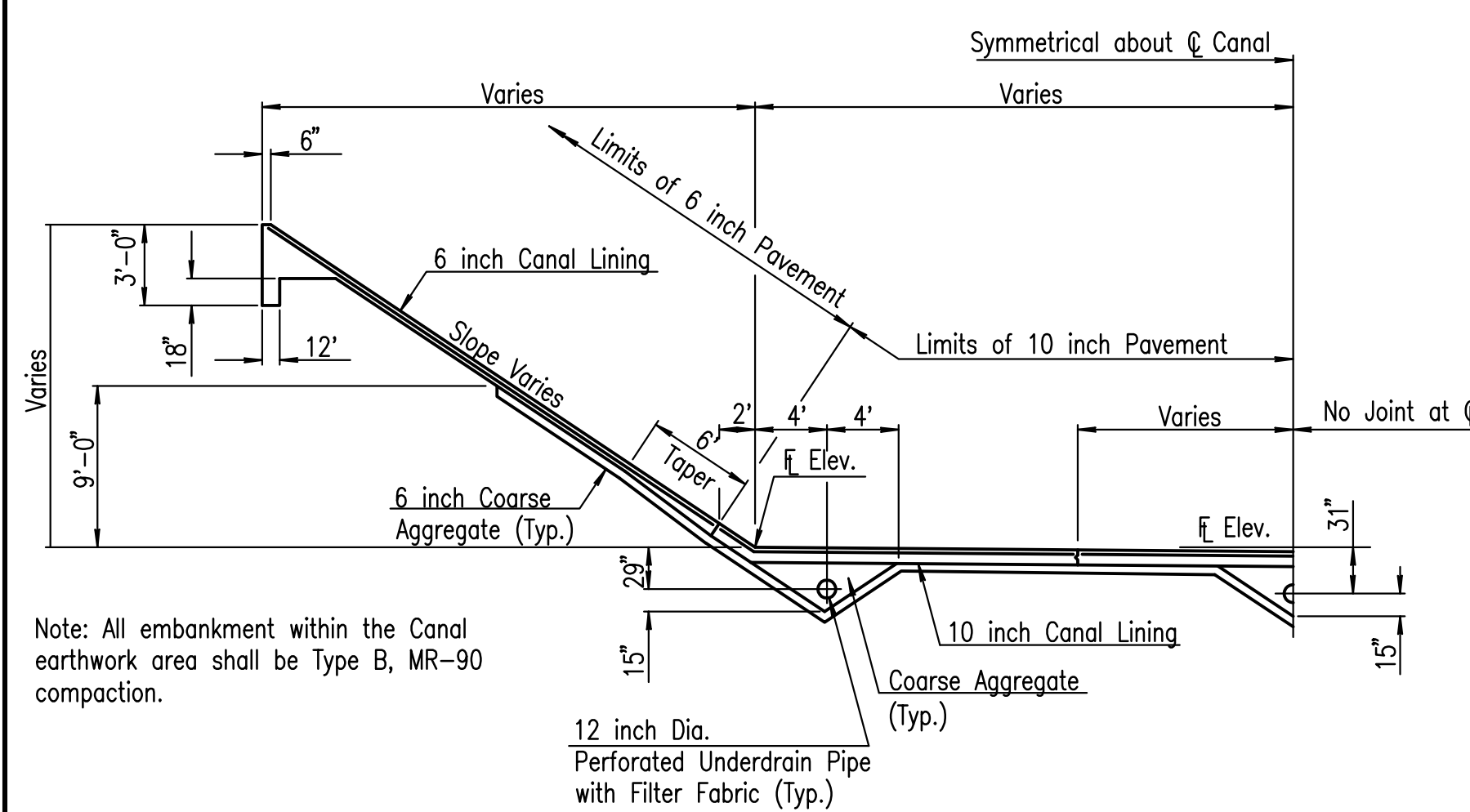


CONTRACTION JOINT DETAIL

TRANSVERSE CONSTRUCTION JOINT DETAIL BOTTOM SLAB



TRANSVERSE CONSTRUCTION JOINT DETAIL SIDE SLOPES



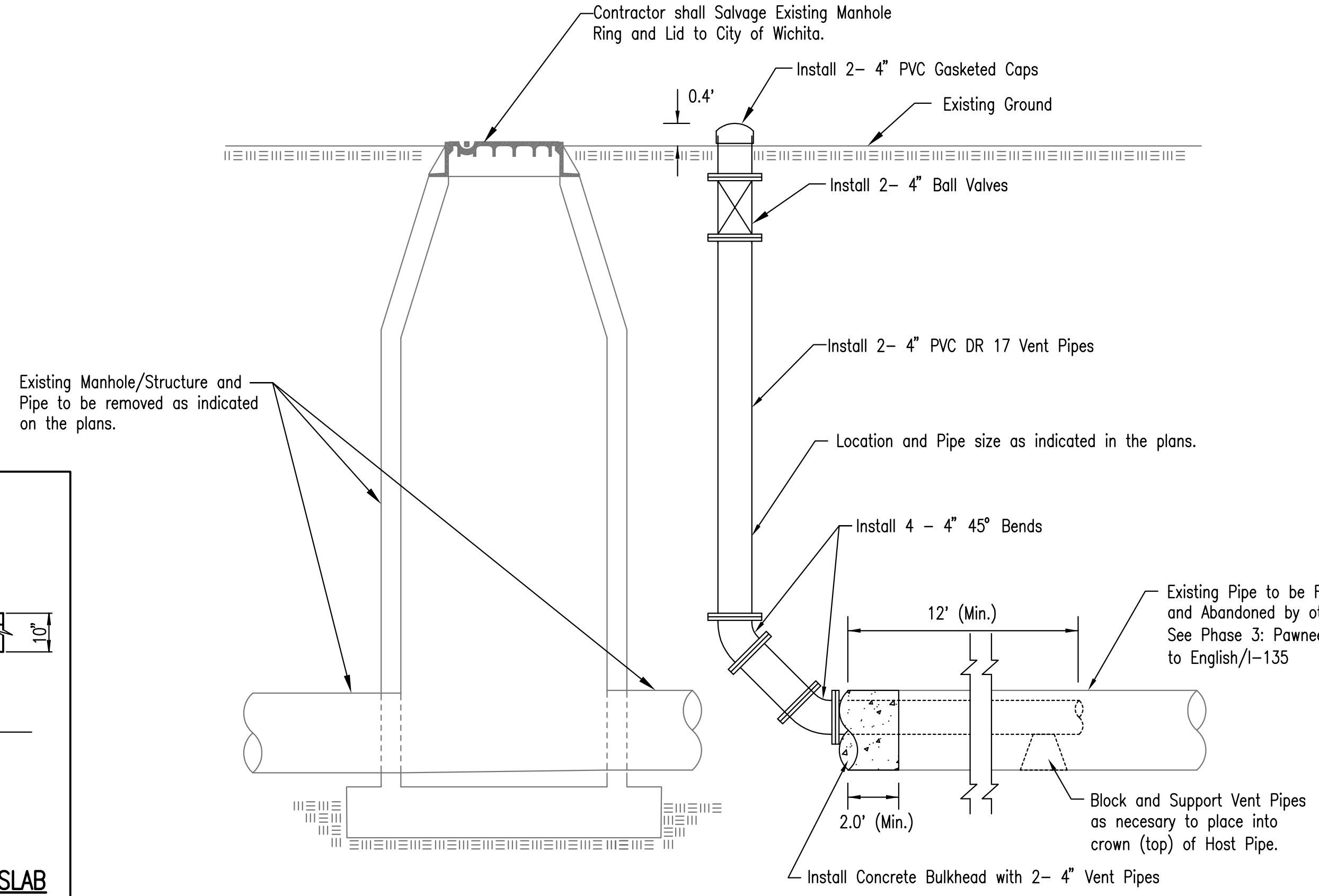
TYPICAL HALF-SECTION OF CANAL LINING

Note: All embankment within the Canal earthwork area shall be Type B, MR-90 compaction.
Concrete Riprap shall be Grade 25 (A.E.). Wire Reinforcing Mesh shall be of the Electrically Welded Mesh Type and shall be Composed of W1.4 Steel Wire spaced at 6 inch Centers and W4.0 Steel Wire spaced at 12 inch Centers. Approximate Weight - 2.56 Lbs Per Sq. Ft.

Measurement of "Canal Concrete Lining" shall be in Sq. ft. and shall be the Outside Surface Area, including the Toewalls, regardless of the Thickness shown on the Plans.
When a Pier Column, Headwall, or any other obstruction falls within the Riprapped Surface, 1.5 inches Joint Material Type B will be used around the obstruction. Type B Joint Material will be Subsidiary to the "Canal Concrete Lining" bid item.

The Coarse Aggregate placed to the limits shown in the Details shall be considered Subsidiary to the "Canal Concrete Lining" bid item. Coarse Aggregate around underdrain pipe shall be UD-1, with subgrade material being crushed rock.

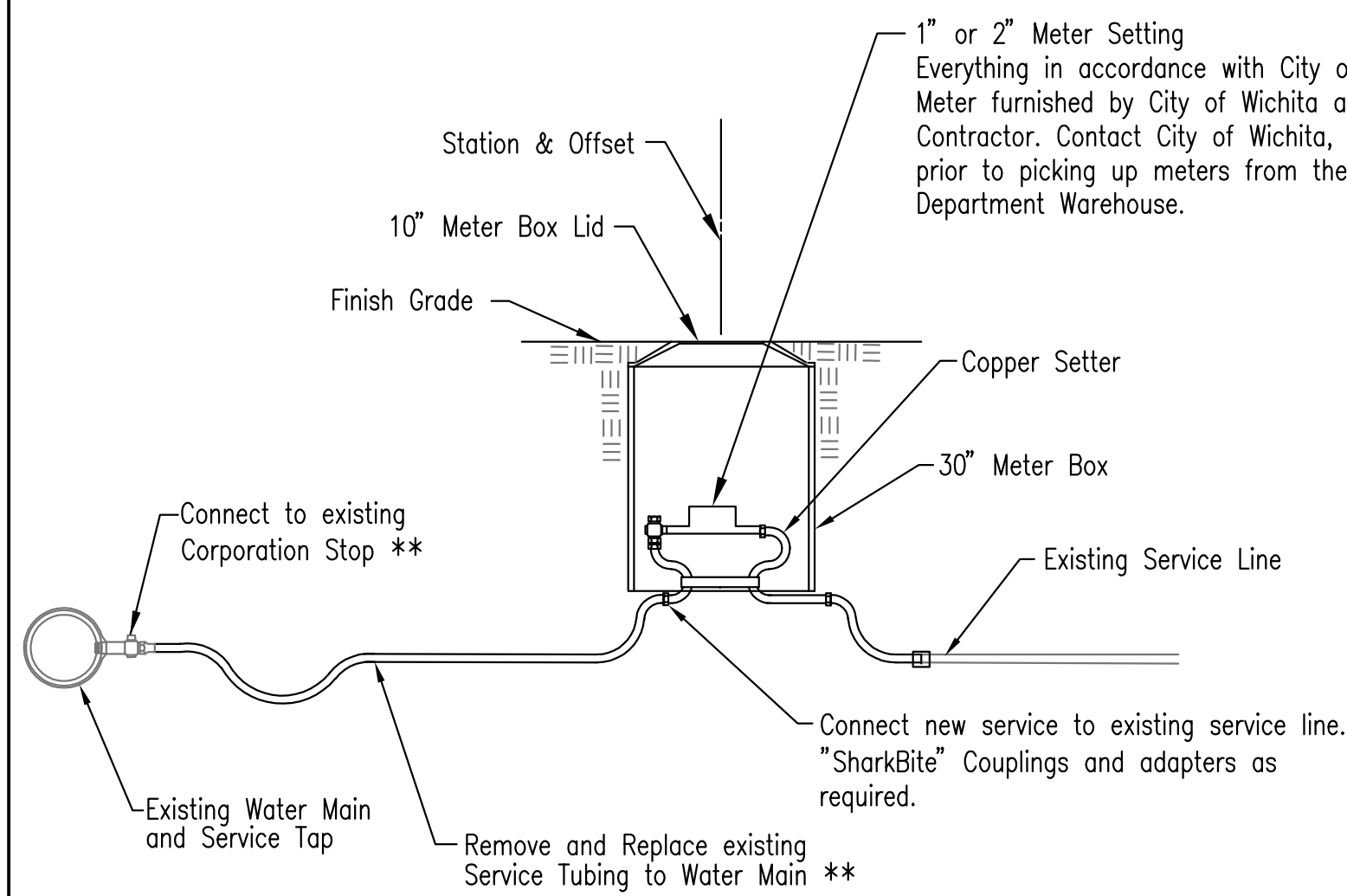
CANAL CONCRETE LINING DETAILS



PLUG AND VENT PIPE DETAIL

(NOT TO SCALE)

NOTE: COSTS FOR LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL BULKHEAD AND VENT PIPES AS DETAILED WILL BE PAID FOR THE RESPECTIVE UNIT BID FOR "PLUG AND VENT PIPE".



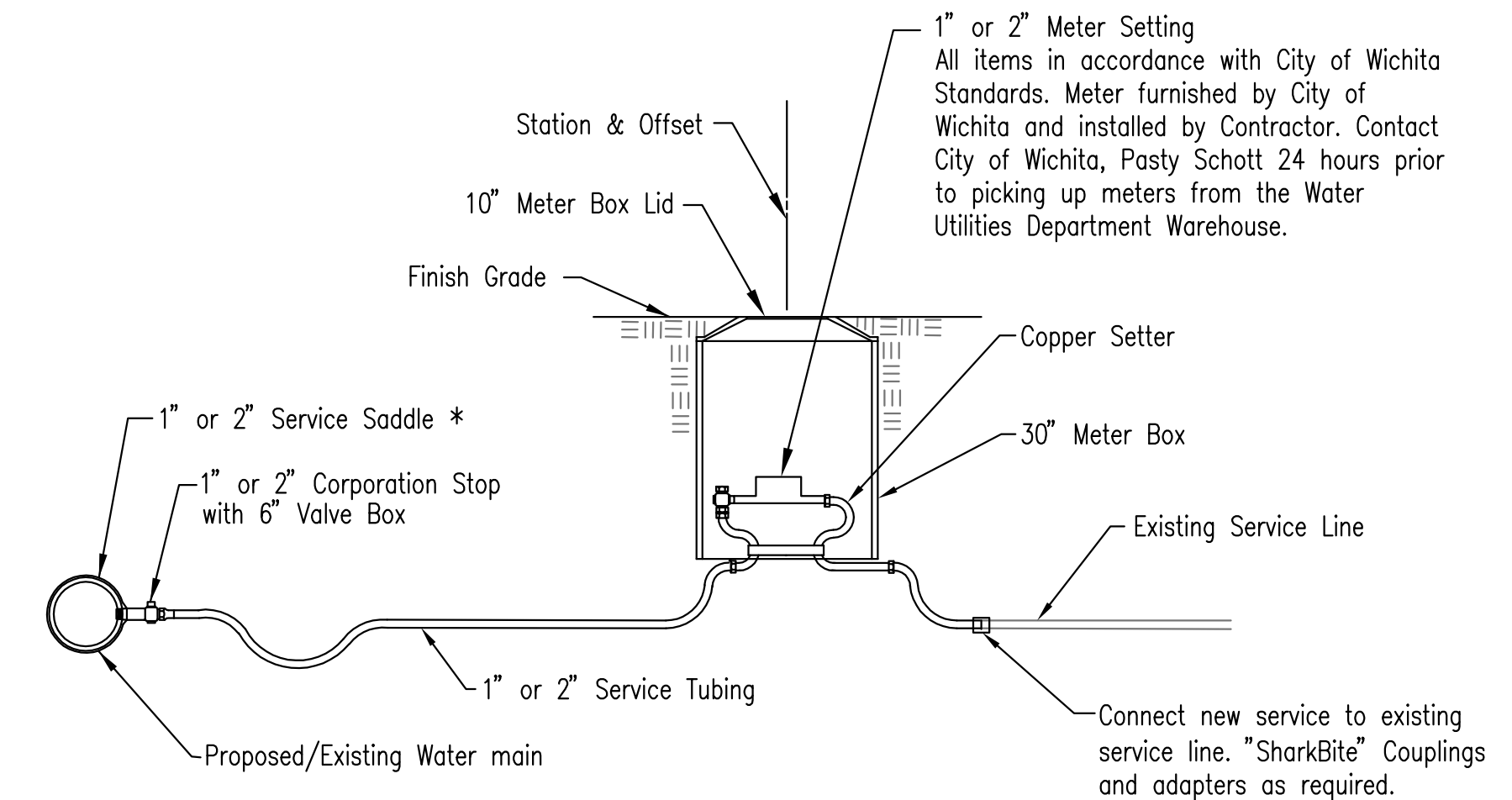
REPLACE WATER SERVICE LINE AND METER

** PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXCAVATE EXISTING SERVICE LINE AND VERIFY SIZE. ALL EXISTING 3/4" SERVICE LINE SHALL BE REPLACED WITH 1". ALL OTHER SIZES SHALL BE REPLACED IN LIKE KIND. FITTINGS, ADAPTORS AND MATERIALS NECESSARY TO COMPLETE THE CONNECTION TO THE EXISTING SERVICE TAP SHALL BE CONSIDERED SUBSIDIARY.

SERVICE LINES CROSSING PAVED AREAS SHALL BE INSTALLED USING TRENCHLESS METHODS. ANY PAVEMENT REMOVED AS PART OF THIS WORK INCLUDING EXCAVATION OF WATER MAIN WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE PRICE BID FOR "REPLACE WATER SERVICE LINE AND METER".

CROSSING STATION	CONNECTION LOCATION	METER BOX LOCATION	METER TYPE	APPROX. SERVICE LINE REQUIRED
SS Line No. 1, Sta. 38+17	24', Lt.	19', Rt.	1"	43'
SS Line No. 1, Sta. 38+73	24', Lt.	12', Rt.	1"	36'
SS Line No. 1, Sta. 39+08	24', Lt.	13', Rt.	1"	37'
SS Line No. 1, Sta. 39+70	24', Lt.	13', Rt.	1"	37'
SS Line No. 1, Sta. 40+19	23', Lt.	13', Rt.	1"	36'
SS Line No. 1, Sta. 41+30	23', Lt.	12', Rt.	1"	35'
SS Line No. 1, Sta. 42+43	23', Lt.	13', Rt.	1"	36'
SS Line No. 1, Sta. 42+82	23', Lt.	18', Rt.	1"	41'
SS Line No. 1, Sta. 43+54	23', Lt.	15', Rt.	1"	38'
SS Line No. 1, Sta. 44+07	23', Lt.	14', Rt.	1"	37'
SS Line No. 1, Sta. 44+85	23', Lt.	12', Rt.	1"	35'
SS Line No. 1, Sta. 45+63	23', Lt.	12', Rt.	1"	35'
SS Line No. 1, Sta. 46+04	23', Lt.	14', Rt.	1"	37'
SS Line No. 1, Sta. 47+03	24', Lt.	13', Rt.	1"	37'
SS Line No. 1, Sta. 47+62	24', Lt.	13', Rt.	1"	37'
SS Line No. 1, Sta. 47+91	24', Lt.	17', Rt.	1"	41'
SS Line No. 1, Sta. 49+26	24', Lt.	20', Rt.	1"	44'
SS Line No. 1, Sta. 50+43	25', Lt.	22', Rt.	1"	47'
SS Line No. 1, Sta. 51+03	25', Lt.	18', Rt.	1"	43'
SS Line No. 1, Sta. 51+48	24', Lt.	16', Rt.	1"	40'
SS Line No. 1, Sta. 52+09	24', Lt.	17', Rt.	1"	41'
SS Line No. 1, Sta. 52+69	24', Lt.	16', Rt.	1"	40'
SS Line No. 1, Sta. 53+29	24', Lt.	16', Rt.	1"	40'
SS Line No. 1, Sta. 54+41	24', Lt.	9', Rt.	1"	33'
SS Line No. 1, Sta. 55+79	24', Lt.	12', Rt.	1"	36'
SS Line No. 1, Sta. 57+22	23', Lt.	13', Rt.	1"	36'
SS Line No. 1, Sta. 57+67	21', Lt.	17', Rt.	1"	38'
SS Line No. 1, Sta. 57+92	20', Lt.	24', Rt.	1"	44'
SS Line No. 1, Sta. 58+88	17', Lt.	19', Rt.	1"	36'
SS Line No. 1, Sta. 93+46	21', Lt.	16', Rt.	1"	37'
SS Line No. 1, Sta. 93+89	21', Lt.	16', Rt.	1"	37'
SS Line No. 1, Sta. 94+45	22', Lt.	16', Rt.	1"	38'
SS Line No. 1, Sta. 94+89	22', Lt.	17', Rt.	1"	39'
SS Line No. 1, Sta. 95+65	22', Lt.	16', Rt.	1"	38'
SS Line No. 1, Sta. 96+12	22', Lt.	17', Rt.	1"	39'
SS Line No. 1, Sta. 96+71	21', Lt.	18', Rt.	1"	39'

** TOTAL APPROXIMATE SERVICE LINE = 1,383'
TOTAL METER BOXES = 36



SERVICE RECONNECTION DETAIL

* CONTRACTOR SHALL MAKE SERVICE CONNECTION TAPS AS PART OF THE SERVICE REPLACEMENT.

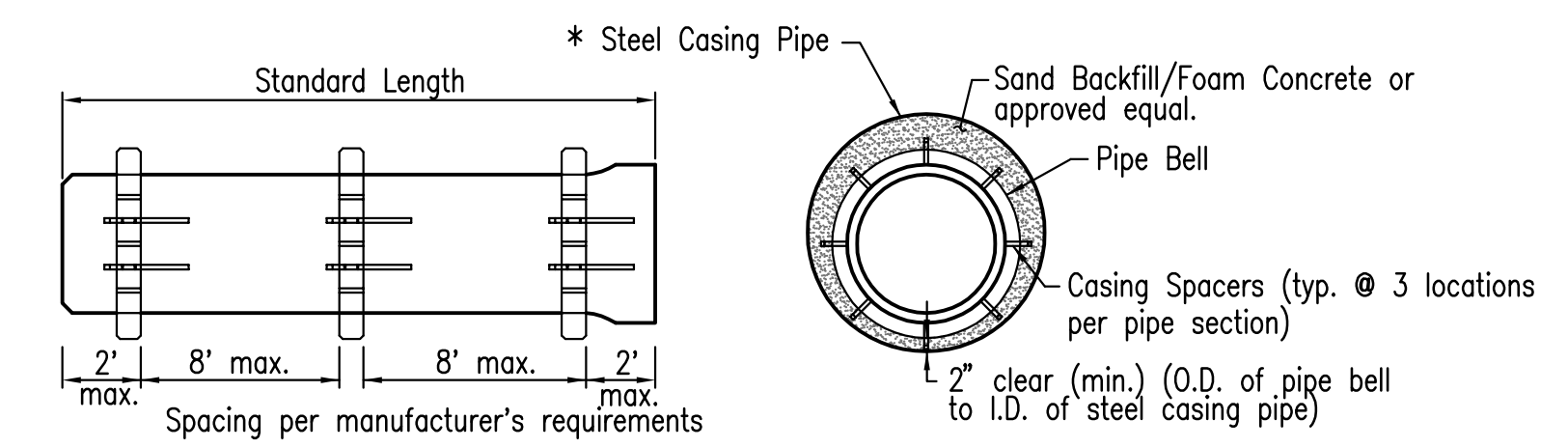
WATER SERVICE RECONNECTION SCHEDULE				
TAP LOCATION	METER BOX LOCATION	METER TYPE	APPROXIMATE 1" SERVICE LINE REQUIRED (FT.)	APPROXIMATE 2" SERVICE LINE REQUIRED (FT.)
Ash St., Sta. 11+96, 36', Lt.	19', Rt.	1"	55'	
Ash St., Sta. 12+74, 34', Lt.	18', Rt.	1"	51'	
Ash St., Sta. 13+55, 35', Lt.	Ash St., Sta. 13+64, 17', Rt.	1"	56'	
Ash St., Sta. 14+32, 34', Lt.	17', Rt.	1"	51'	
Ash St., Sta. 14+87, 33', Lt.	17', Rt.	1"	50'	
Ash St., Sta. 15+40, 32', Lt.	18', Rt.	1"	51'	
Ash St., Sta. 18+02, 29', Lt.	19', Rt.	1"	47'	
Ash St., Sta. 19+46, 29', Lt.	19', Rt.	1"	49'	
Ash St., Sta. 21+16, 30', Lt.	20', Rt.	1"	50'	
Ash St., Sta. 22+76, 30', Lt.	23', Rt.	1"	53'	
WL 1, Sta. 0+50.13	N/A	N/A		5'
WL 2, Sta. 0+51.40	N/A	N/A		25'
WL 3, Sta. 0+26.06	N/A	N/A		5'
WL 4, Sta. 0+50 *	9', Lt.	2"		16'
WL 4, Sta. 1+06	13', Rt.	1"	13'	
WL 4, Sta. 1+63	10', Rt.	1"	10'	
WL 4, Sta. 2+10	10', Rt.	1"	10'	
WL 4, Sta. 2+64	9', Rt.	1"	9'	
WL 4, Sta. 2+81	27', Lt.	1"	27'	
WL 4, Sta. 2+96	8', Rt.	1"	8'	
WL 4, Sta. 3+46	26', Lt.	1"	26'	
WL 4, Sta. 3+60	9', Rt.	1"	9'	
WL 4, Sta. 3+68	25', Lt.	1"	25'	
WL 4, Sta. 4+09	10', Rt.	1"	10'	
WL 4, Sta. 4+39	26', Lt.	1"	26'	
WL 4, Sta. 4+62	9', Rt.	1"	9'	
WL 4, Sta. 4+88	28', Lt.	1"	28'	
WL 4, Sta. 5+08	8', Rt.	1"	8'	
WL 4, Sta. 5+31	28', Lt.	1"	28'	
WL 4, Sta. 5+64	10', Rt.	1"	10'	
WL 4, Sta. 6+14	14', Rt.	1"	14'	

TOTAL METER BOXES = 28

TOTAL APPROXIMATE 1" SERVICE LINE = 783'
TOTAL APPROXIMATE 2" SERVICE LINE = 51'

ALL NEW SERVICE MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.

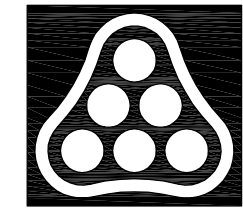
* INSTALL NEW 2" SERVICE METER, SETTER AND METER BOX, THEN REMOVE EXISTING METER SET INCLUDING VALVES IN THE VAULT AND CONNECT TO EXISTING 2 1/2" SERVICE LINE (W) THROUGH THE EXISTING VAULT.



STEEL ENCASEMENT DETAIL

* "Permalok" Steel Casing may be used in lieu of welded steel casing.

No.	Revision	By	Date
RELOCATION OF SANITARY SEWER NO. 23 PHASE 2: KELLOGG/GROVE TO PAWNEE/1-135 MISCELLANEOUS DETAILS JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84375 Professional Engineering Consultants, P.A. 303 S. TOPKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	MDK, EJB	Job No.	35-07600-001
Drawn by	CSL, JAN	Date	AUGUST 2008



Sowed: 03-09-2010 4:14:16 PM by: CSL
 Plot Scale: 1:1 03-09-2010 4:14:42 PM by: CSL
 03-2007\07600\001\Phase 2\07600-001-C-Misc Details