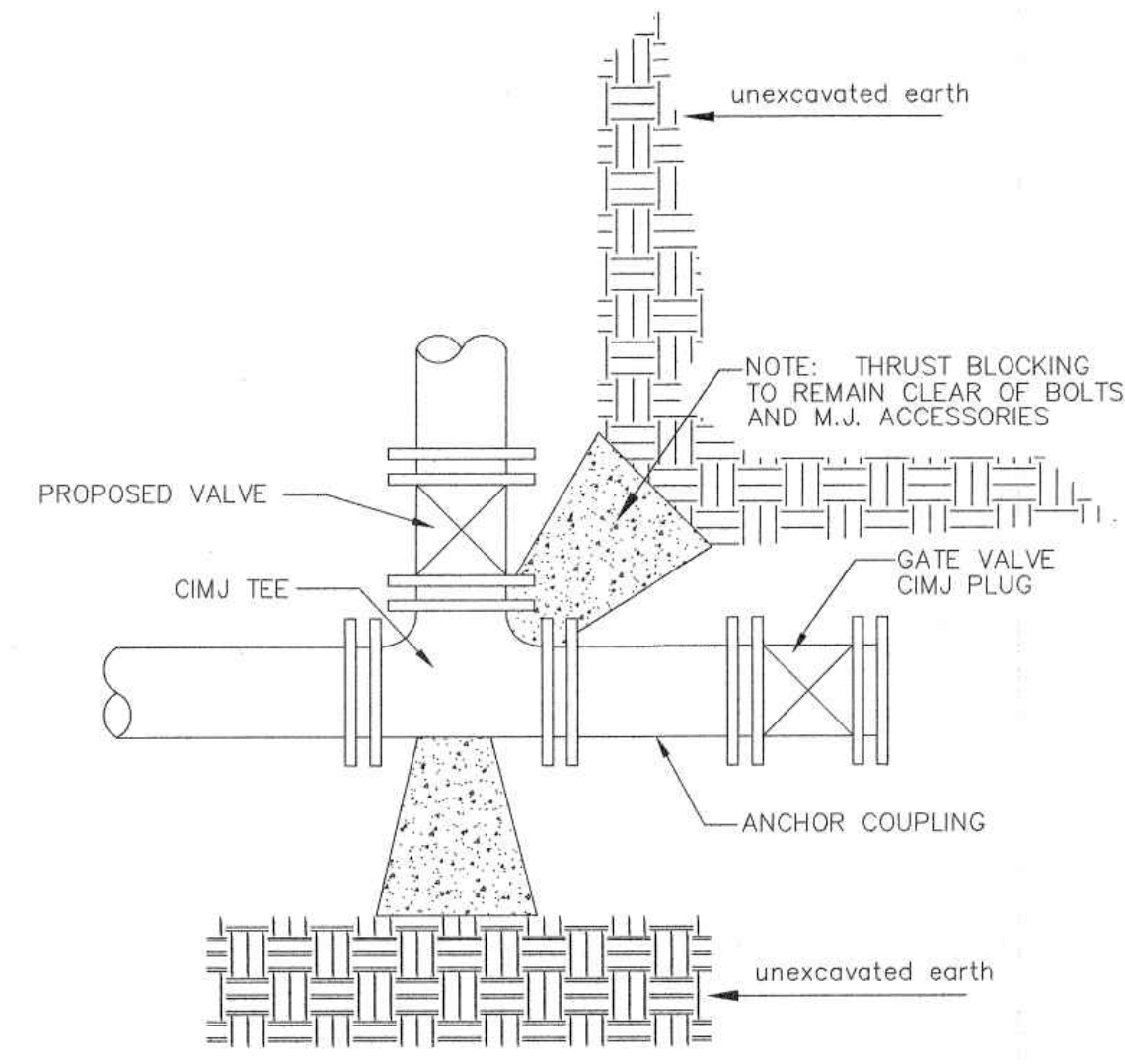


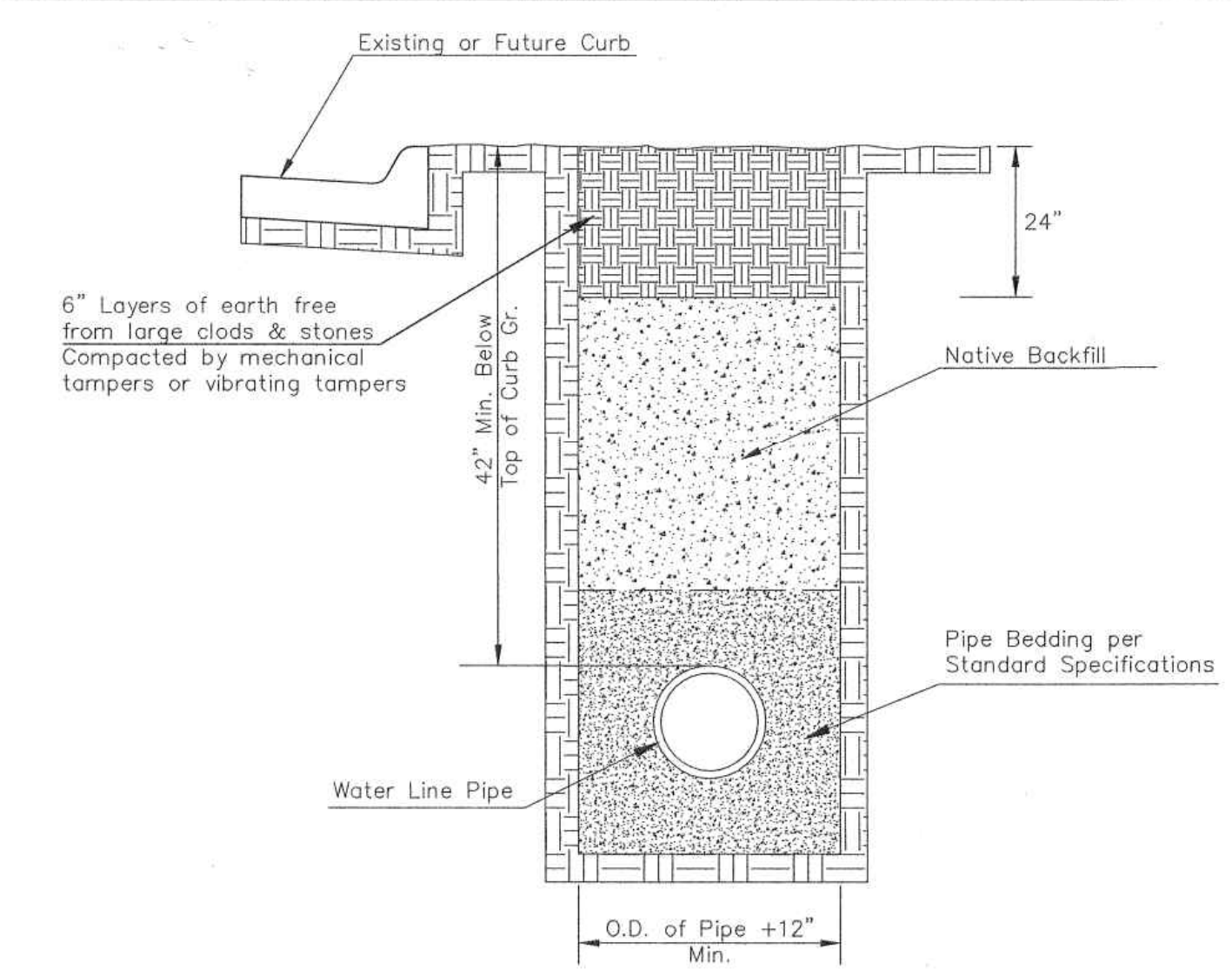
PIPE SIZE	THRUST AT FITTINGS IN TONS-AT 150#/IN <sup>2</sup> P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS

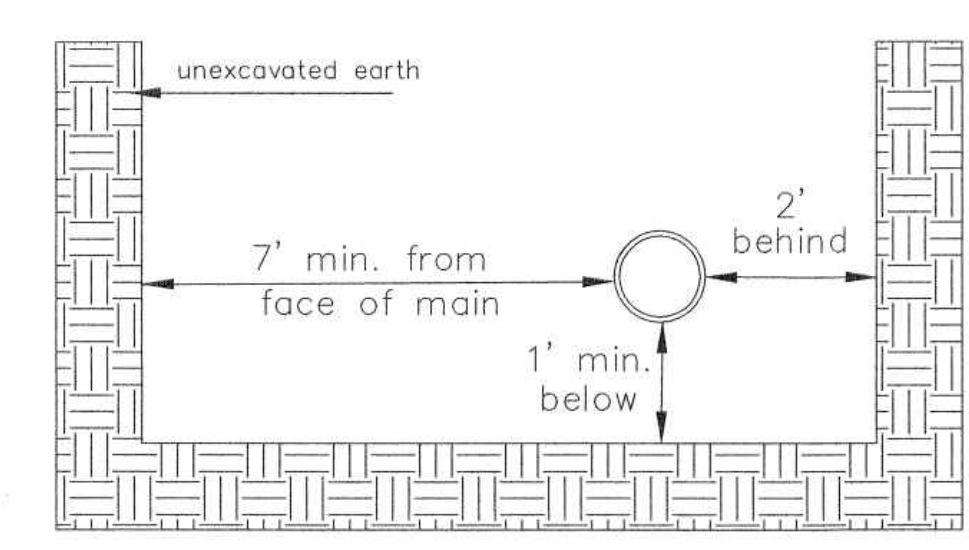


KEY BLOCK DETAIL

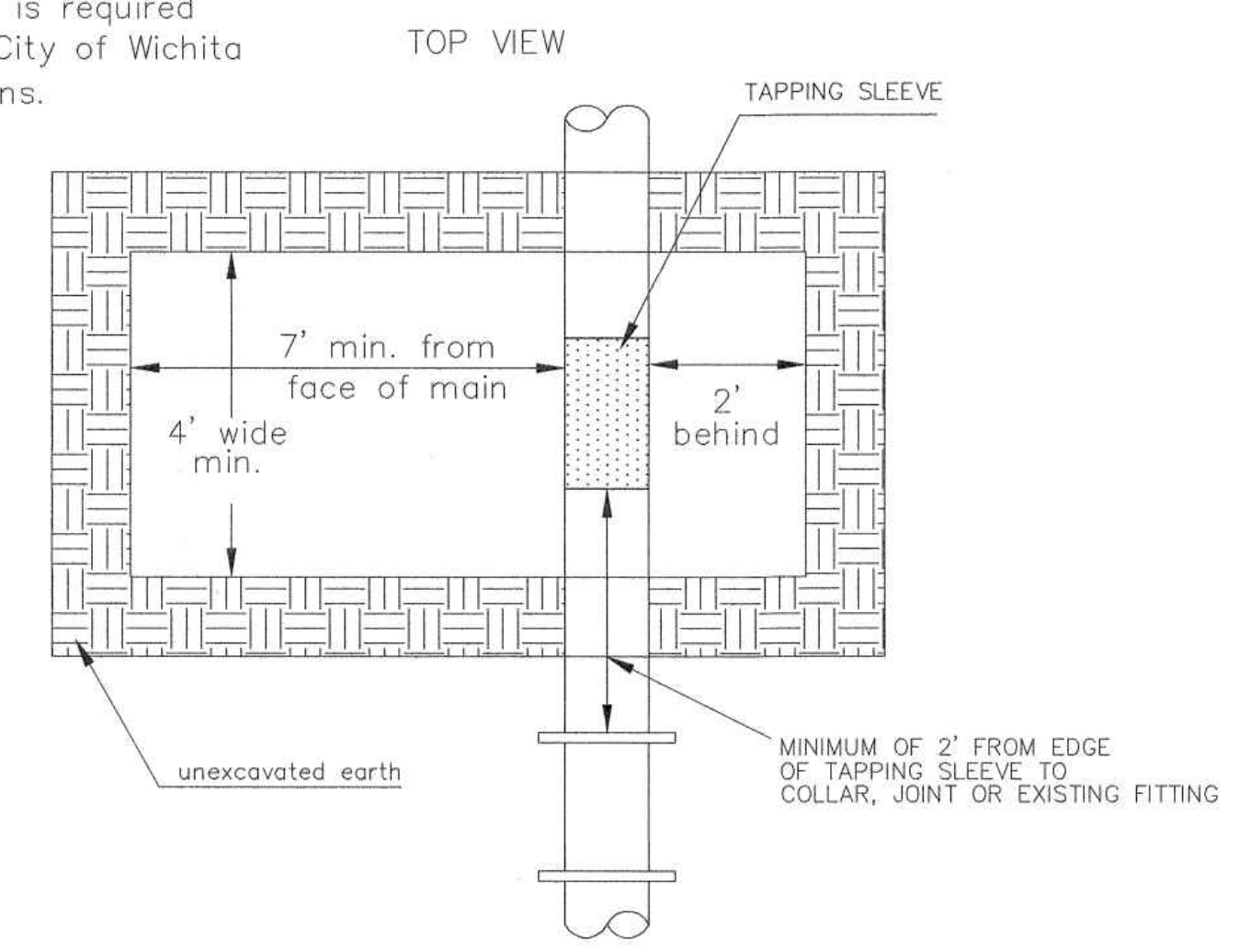
\* PLANS GOVERN UNLESS OTHERWISE NOTED ON PLANS



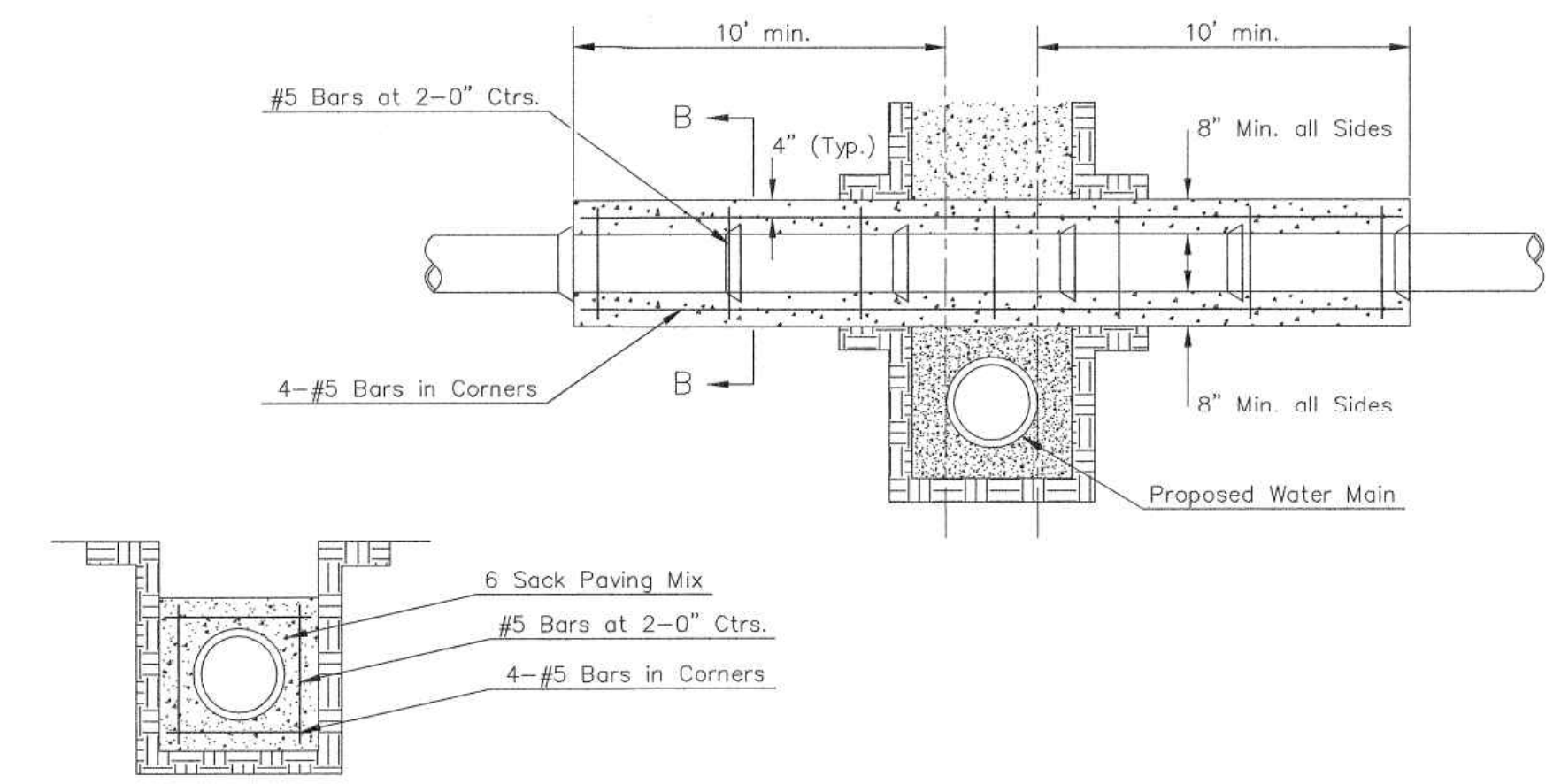
TRENCH COMPACTION IN ROAD RIGHT-OF-WAY



Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

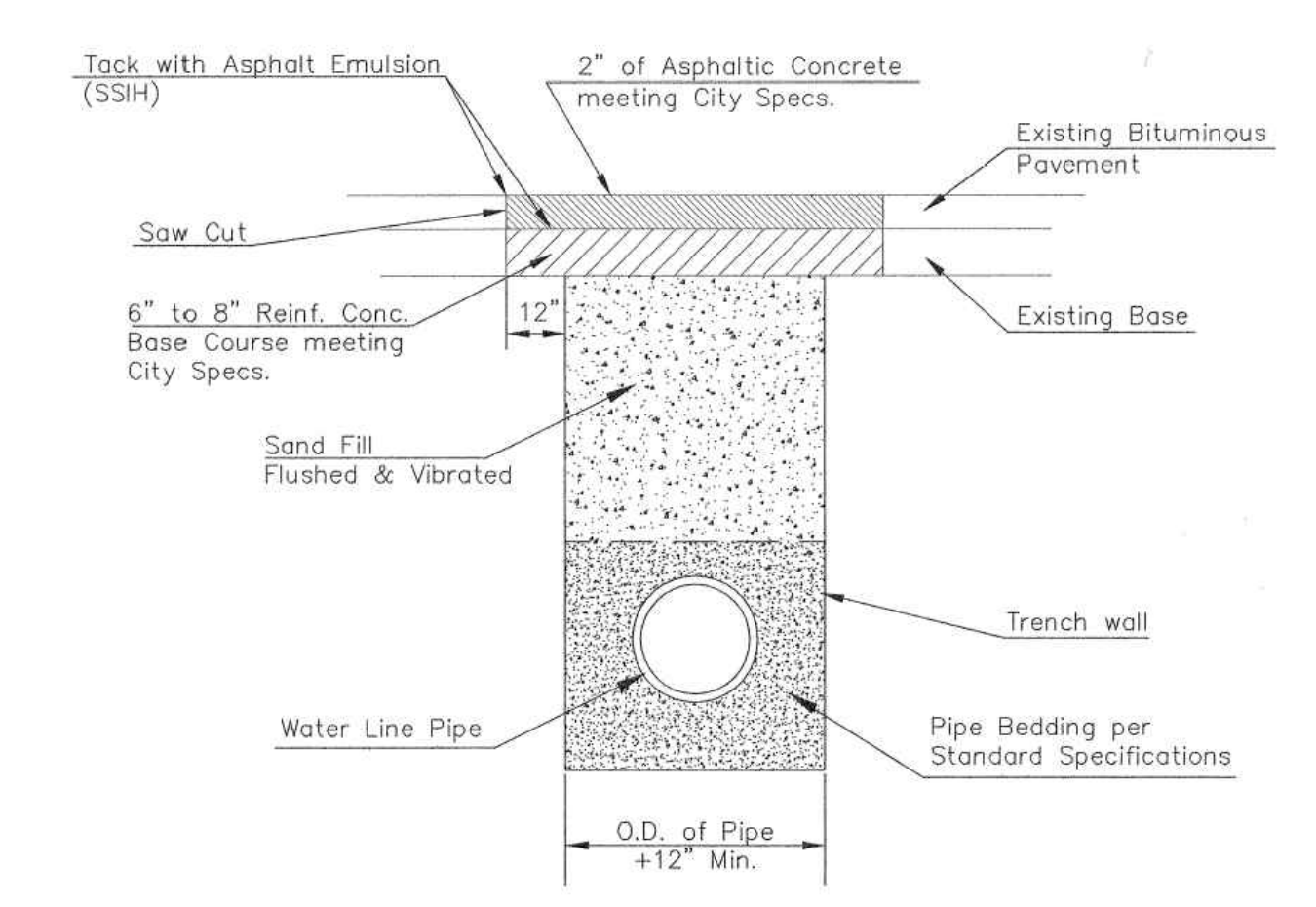


EXCAVATION FOR WET TAP

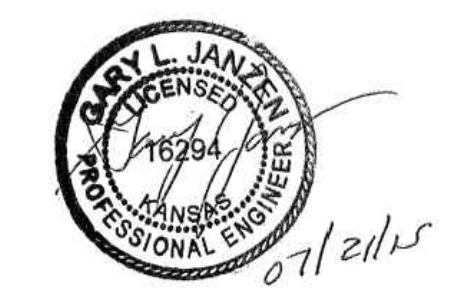


Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS



REVISD: JULY 2015

**CITY OF WICHITA**

PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

MISCELLANEOUS WATER DETAILS

CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE	CITY ENGINEER'S OFFICE	CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR	CITY HALL - SEVENTH FLOOR	CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET	455 NORTH MAIN STREET	455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620	WICHITA, KANSAS 67202-1620	WICHITA, KANSAS 67202-1620
(316) 268-4501	(316) 268-4501	(316) 268-4501

PROJ. NO. G14D0066

DESIGNER SRS DRAWN BY EAM

CFN 0066WDET

SHEET 05 REV 0

CHK	CHK
MLT	MLT
DSN	DSN
REV	DESCRIPTION
0	2-26-2016 FINAL PLANS - FOR CONSTRUCTION
0	2-26-2016 FINAL PLANS - FOR CONSTRUCTION
0	2-26-2016 FINAL PLANS - FOR CONSTRUCTION

SCOTT R. SERVIS  
ENGINEER  
KS # 17874

200 N. EMPORIA, SUITE 100  
WICHITA, KANSAS 67203-4400-4309  
PH: (316) 268-4400  
www.kawvalley.com | www.kveing.com

**KAW VALLEY ENGINEERING**

KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES IN THE STATE OF KANSAS UNDER CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/16

**NAHOLA ADDITION**  
5223 WEST ELM CIRCLE  
WICHITA, KANSAS

STANDARD DETAILS