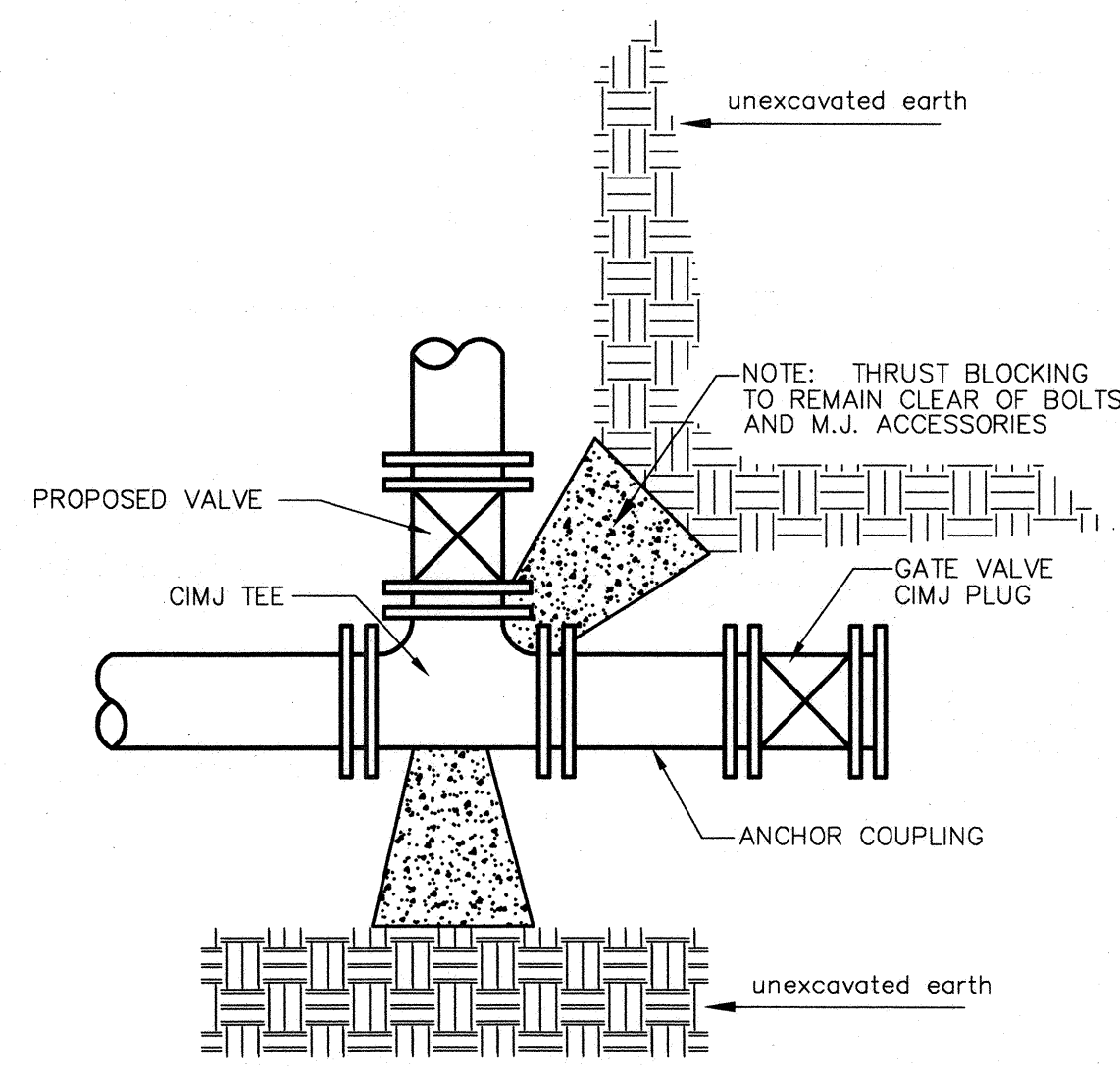


REINFORCED CONCRETE ENCASUREMENT OF SANITARY SEWER

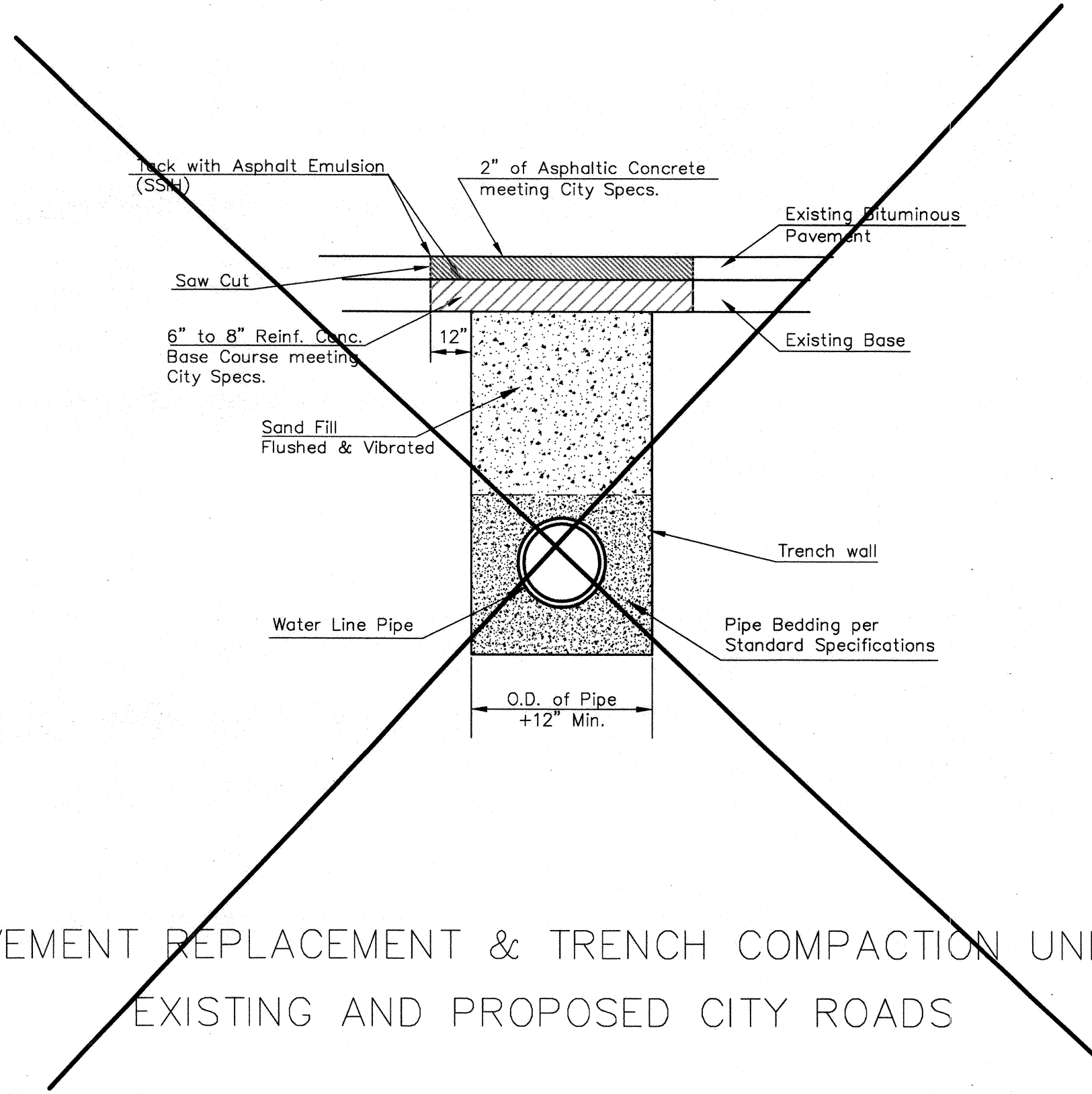
PIPE SIZE	THRUST AT FITTINGS IN TONS-AT 150#/IN <sup>2</sup> P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS



KEY BLOCK DETAIL

TRENCH COMPACTION IN ROAD RIGHT-OF-WAY



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

<p>CITY OF WICHITA PUBLIC WORKS &amp; UTILITIES ENGINEERING DIVISION</p>	<p>MISCELLANEOUS WATER DETAILS</p> <p>CITY ENGINEER <b>JAMES L. ARMOUR, P.E., L.S.</b></p>		
	PROJECT NUMBER 448-90567	OCA NUMBER 635811	DATE 12/2011
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 34 of 37