

CONSTRUCTION DETAILS  
MISCELLANEOUS WATER DETAILS  
SUPPLEMENTAL SHEET

ALLOWABLE SAFE LATERAL BEARING OF SOILS IN P.S.F.

MIX & PEAT	0*
SOFT CLAY	500
SAND	1000
SAND & GRAVEL	1500
SAND & GRAVEL CEMENTED W/CLAY	2000
SHALE	5000

\*USE TIE-ROD ANCHORS, LOCKING JOINT FITTINGS, FLANGED FITTINGS OR TREATED TIMBER PILES W/CONC. THRUST BLOCKS

(THRUSTS FOR VARIOUS FITTINGS AND TEST PRESSURES THRUST IN POUNDS)

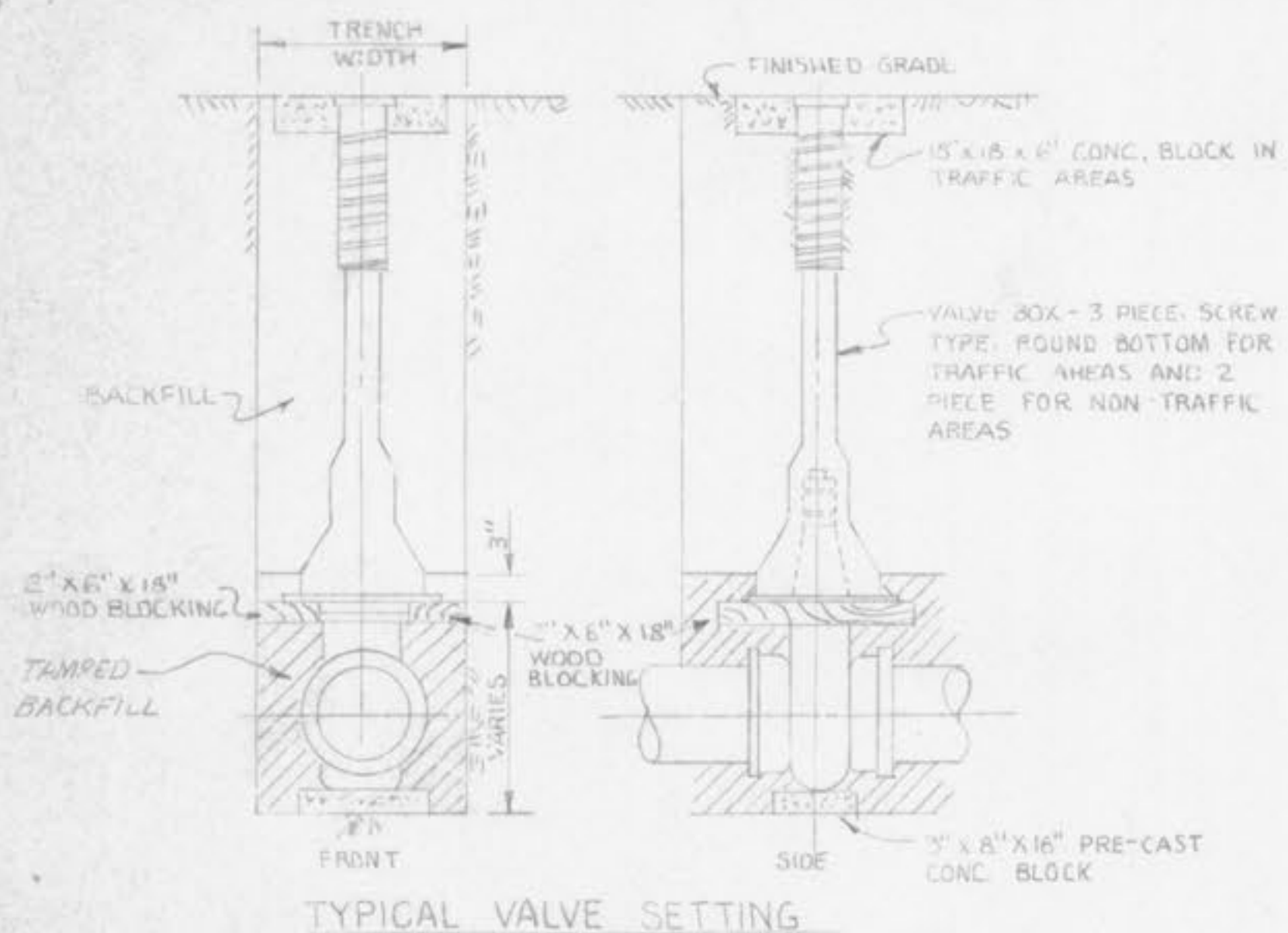
PIPE SIZE	90° BENDS			TEES & DEAD ENDS			45° BENDS			22 1/2° BENDS			11 1/4° BENDS		
	225# TEST PR	150# TEST PR	100# TEST PR	225# TEST PR	150# TEST PR	100# TEST PR	225# TEST PR	150# TEST PR	100# TEST PR	225# TEST PR	150# TEST PR	100# TEST PR	225# TEST PR	150# TEST PR	100# TEST PR
2"	1000	700	500	800	500	-	600	400	-	500	-	-	600	400	-
3"	4000	3000	2000	5000	4000	1000	5000	1500	1000	1000	800	500	600	400	-
4"	9000	6000	4000	7000	4000	5000	5000	4000	2000	3000	2000	1000	1500	1000	600
6"	17000	11000	7000	11000	8000	5000	9000	6000	4000	5000	3000	2000	2000	2000	1000
8"	24000	17000	11000	18000	17000	8000	10000	10000	6000	8000	5000	3000	4000	3000	2000
10"	36000	24000	16000	25000	17000	11000	21000	14000	9000	10000	7000	5000	5000	4000	2000
12"	50000	33000	22000	32000	23000	15000	29000	20000	13000	14000	10000	7000	7000	5000	3000
14"	65000	43000	29000	45000	36000	20000	37000	25000	16000	18000	12000	8000	3000	6000	4000
16"	82000	54000	37000	57000	38000	25000	47000	32000	20000	23000	15000	10000	11000	8000	5000

NOTE: FOR AREA OF THRUST BLOCK IN SQ. FT. DIVIDE APPROPRIATE THRUST BY ALLOWABLE SOIL BEARING. TEST PRESSURES SHALL BE AS INDICATED IN THE SPECIFICATIONS OR SPECIAL CONDITIONS UNDER PRESSURE TESTING OF PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THRUST BLOCKS OR ANCHORAGE FOR VARIOUS PIPE SIZE AND FITTINGS ACCORDING TO APPROPRIATE SOIL BEARING AND TEST PRESSURE. COST OF THRUST ANCHORAGE SHALL BE INCLUDED IN PRICE BID FOR FITTINGS OR PIPE.

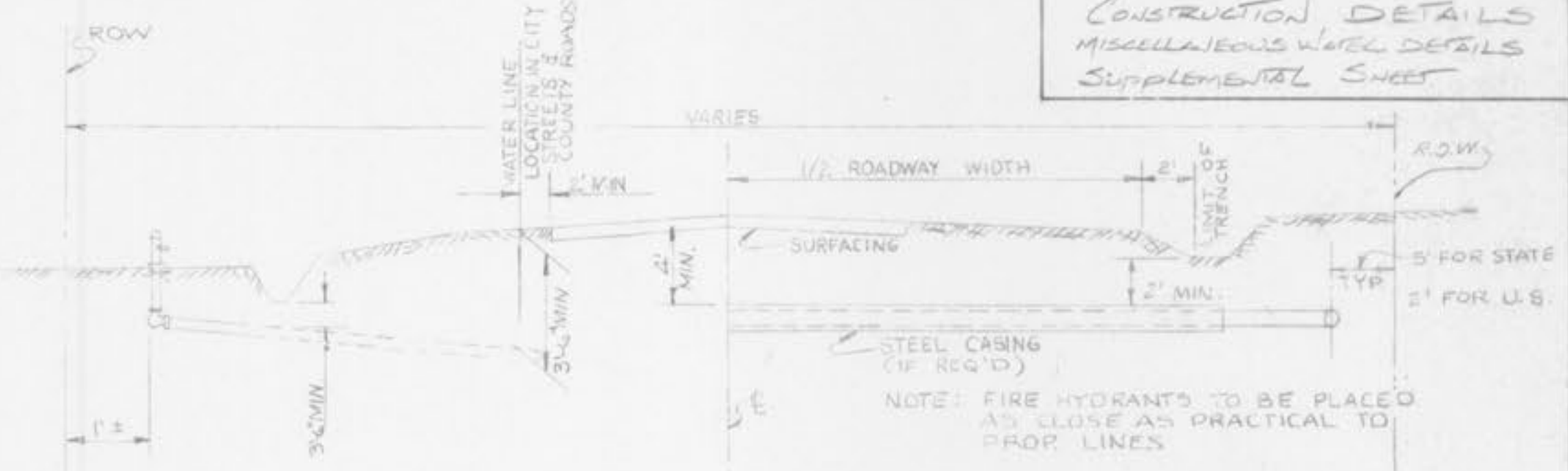
THRUST ANCHORAGE DATA

MAXIMUM SIZE SERVICE STRAP CLAMP PERMITTED				MAXIMUM SIZE TAP PERMITTED IN CAST IRON PIPE	
PIPE SIZE INCHES	CAST IRON SIZE	ASBESTOS CEMENT SIZE	GALVANIZED SIZE	PIPE SIZE	TAP SIZE
2"	1"	-	3/4"	2"	1/2"
3"	1 1/4"	-	1"	3"	1/2"
4"	1 1/2"	-	1 1/2"	4"	3/4"
6"	2"	1"	-	6"	1"
8"	2 1/2"	1 1/2"	-	8"	1 1/4"
10"	3"	2"	-	10"	1 1/2"
12"	4"	2 1/2"	-	12"	2"

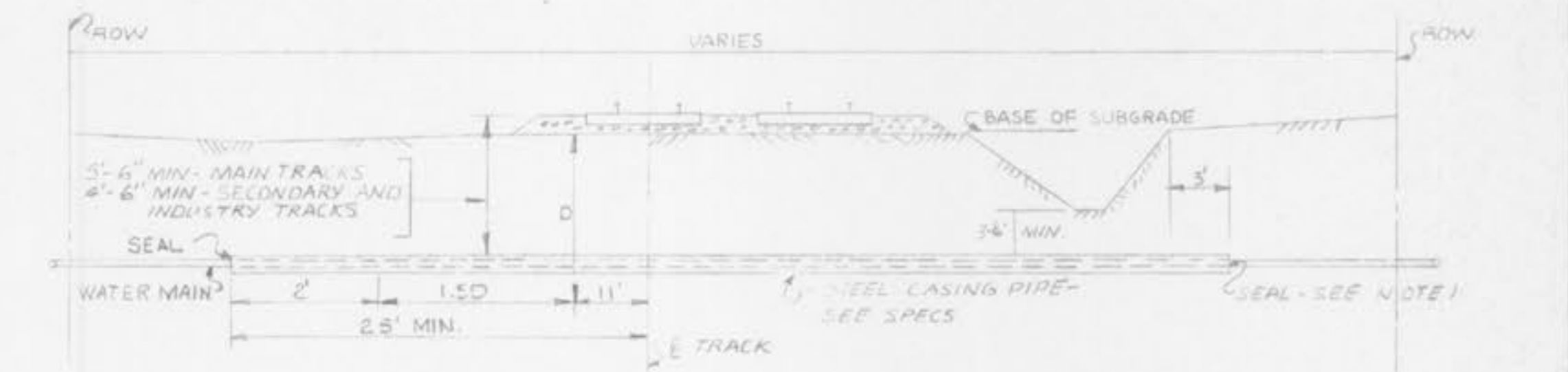
MAXIMUM TAP AND SERVICE CLAMP SIZES



TYPICAL VALVE SETTING

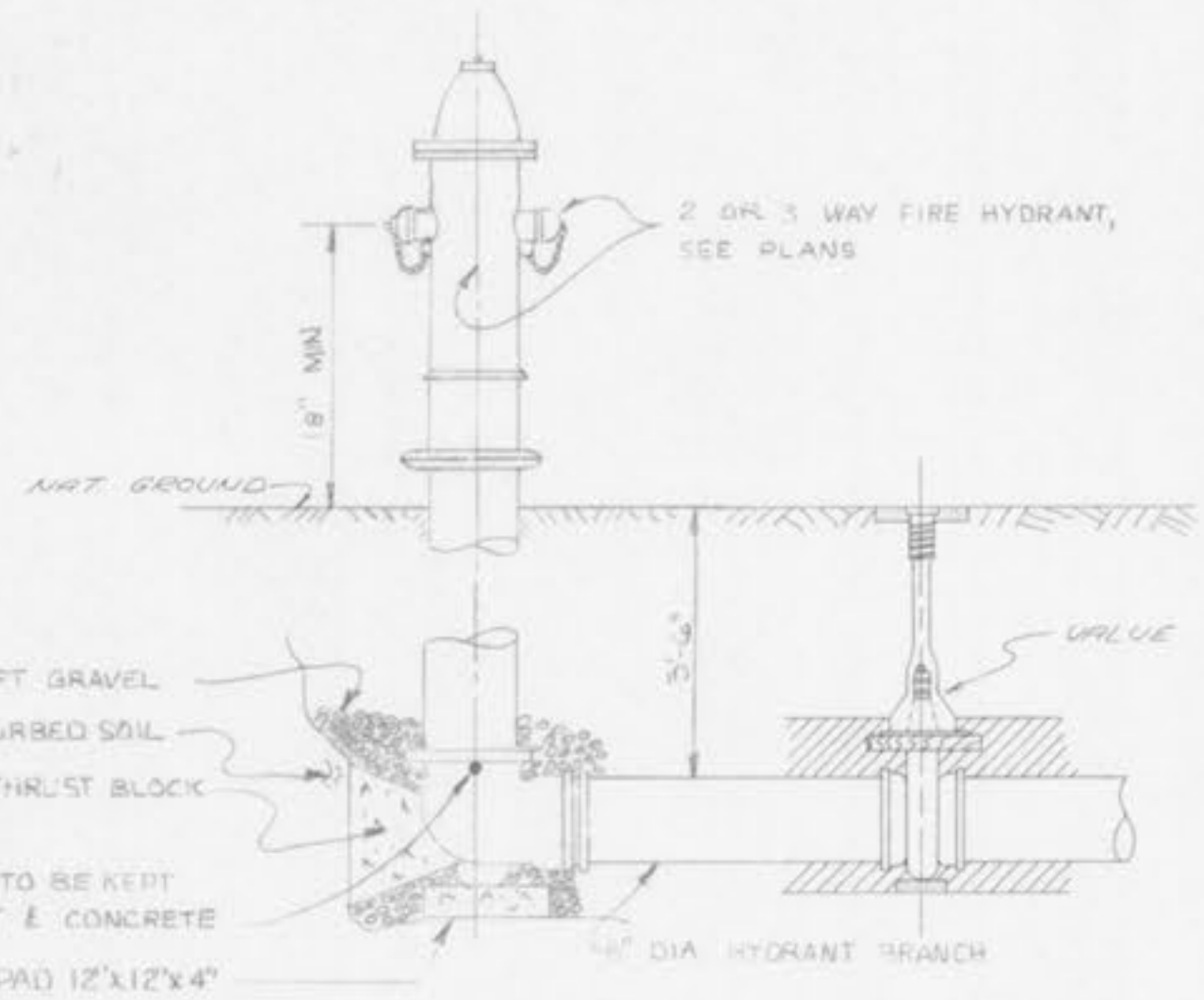


MUNICIPAL STREET OR COUNTY ROADWAY SECTION



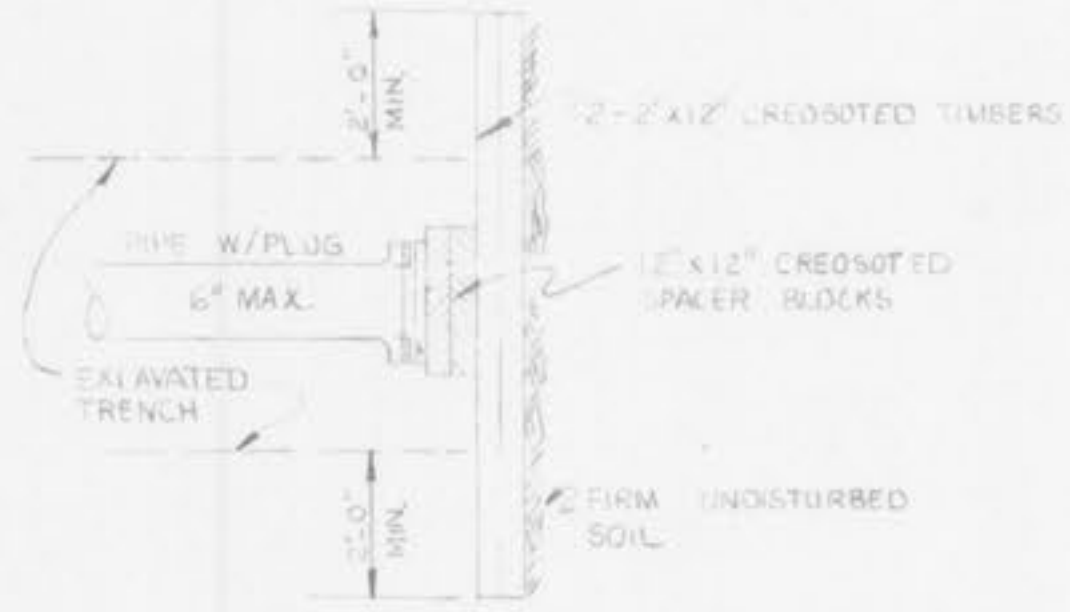
TYPICAL DETAIL OF RAILROAD CROSSING

NOTES: 1. SEAL NOT REQUIRED IF CASING ENDS ABOVE GROUND WHERE DRAINAGE IS AVAILABLE.  
2. CASING TO BE JACKED AND BORED.  
3. INSIDE DIA. OF CASING TO BE A MIN. OF 2\"/>



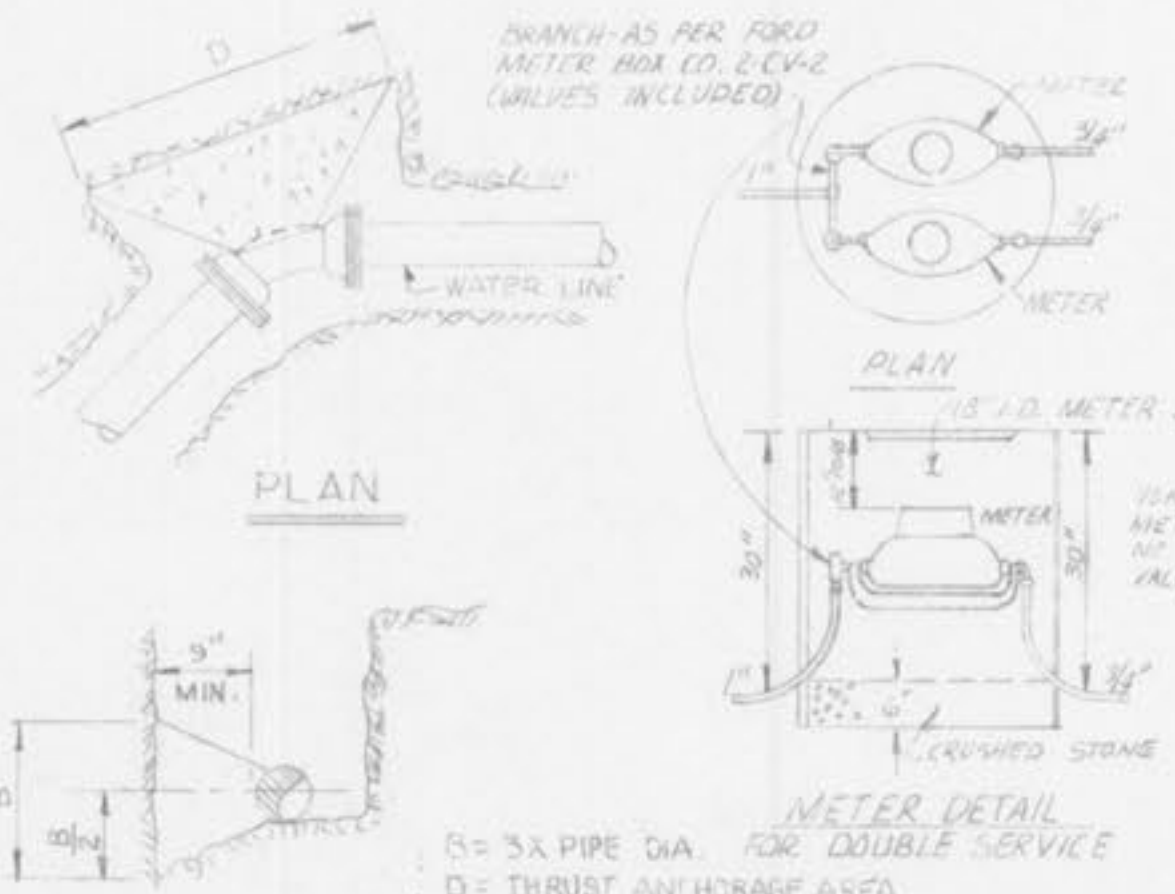
TYPICAL DETAIL FOR FIRE HYDRANT INSTALLATION

NOTE: USE TIMBER THRUST BLOCK FOR TEMPORARY PLUG ON 6\"/>



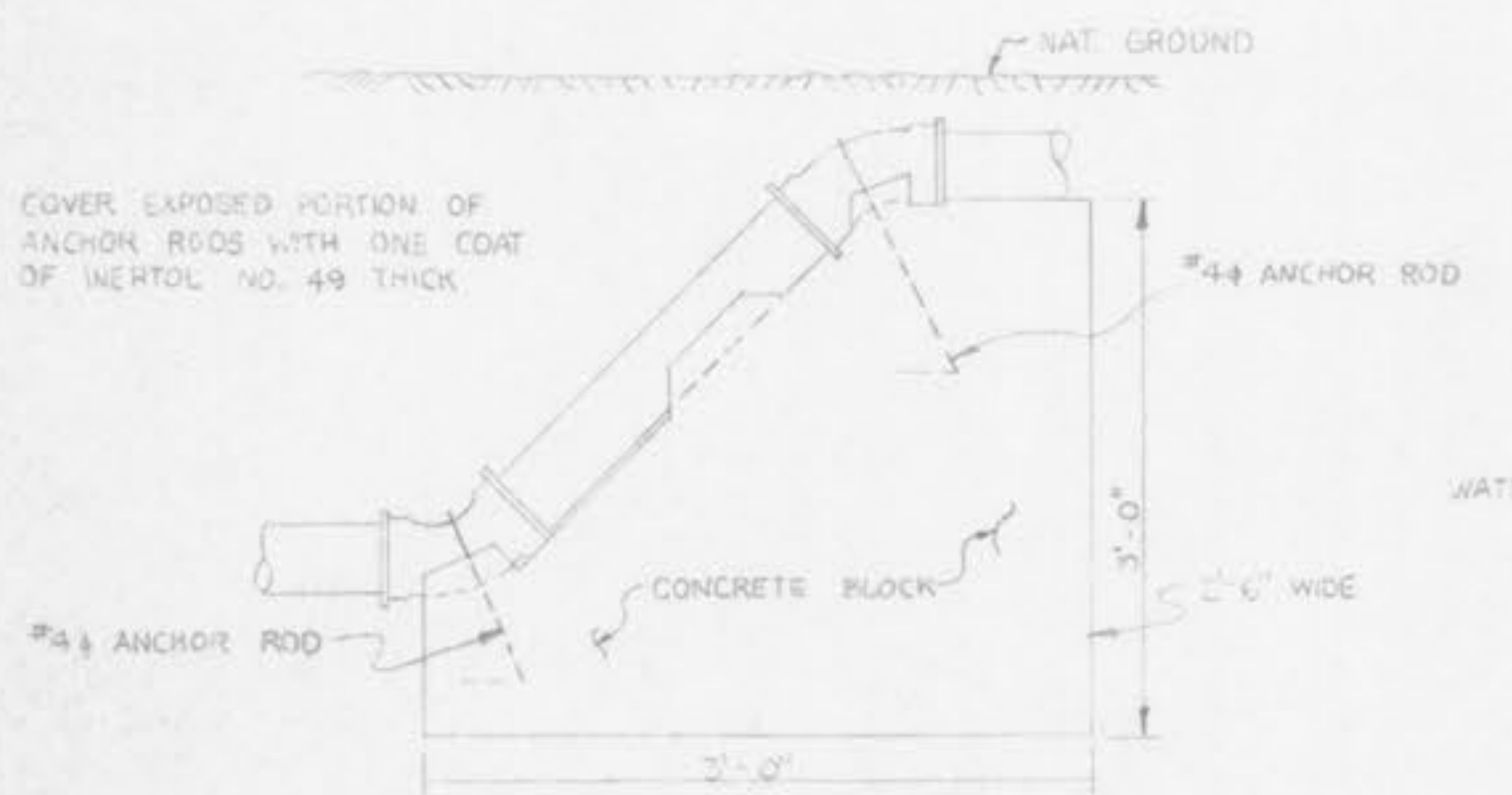
PLAN PLUG DETAIL

NOTES: 1. SPECIAL REQ. FOR PLASTIC PIPE: (A) FOR 6\"/>



PLAN

ELEVATION



THRUST BLOCK FOR VERTICAL OFFSETS

NOTE: 1. 3/4\"/>

THRUST BLOCK FOR HORIZONTAL OFFSETS

2. SPECIAL REQUIREMENTS FOR SERVICE CONNECTIONS: (A) DOUBLE STRAP SERVICE SADDLES SMITH-BLAIR NO. 813 OR EQUAL SHALL BE PROVIDED FOR ASBESTOS CEMENT AND P.V.C. PIPE THAT IS 4\"/>

3. CONCRETE DRIVEWAYS: (A) WHERE CONCRETE DRIVEWAYS ARE ENCOUNTERED ON STATE MAINTAINED HIGHWAYS, JACKING & BORING WILL BE REQUIRED.

4. OPTIONS: (A) ASBESTOS-CEMENT COUPLINGS MAY BE UTILIZED FOR SERVICE CONNECTIONS FOR P.V.C. AND A.C. PIPE. (B) PLASTIC TEES W/ RUBBER RINGS MAY BE SUBSTITUTED FOR TAPPED TEES.