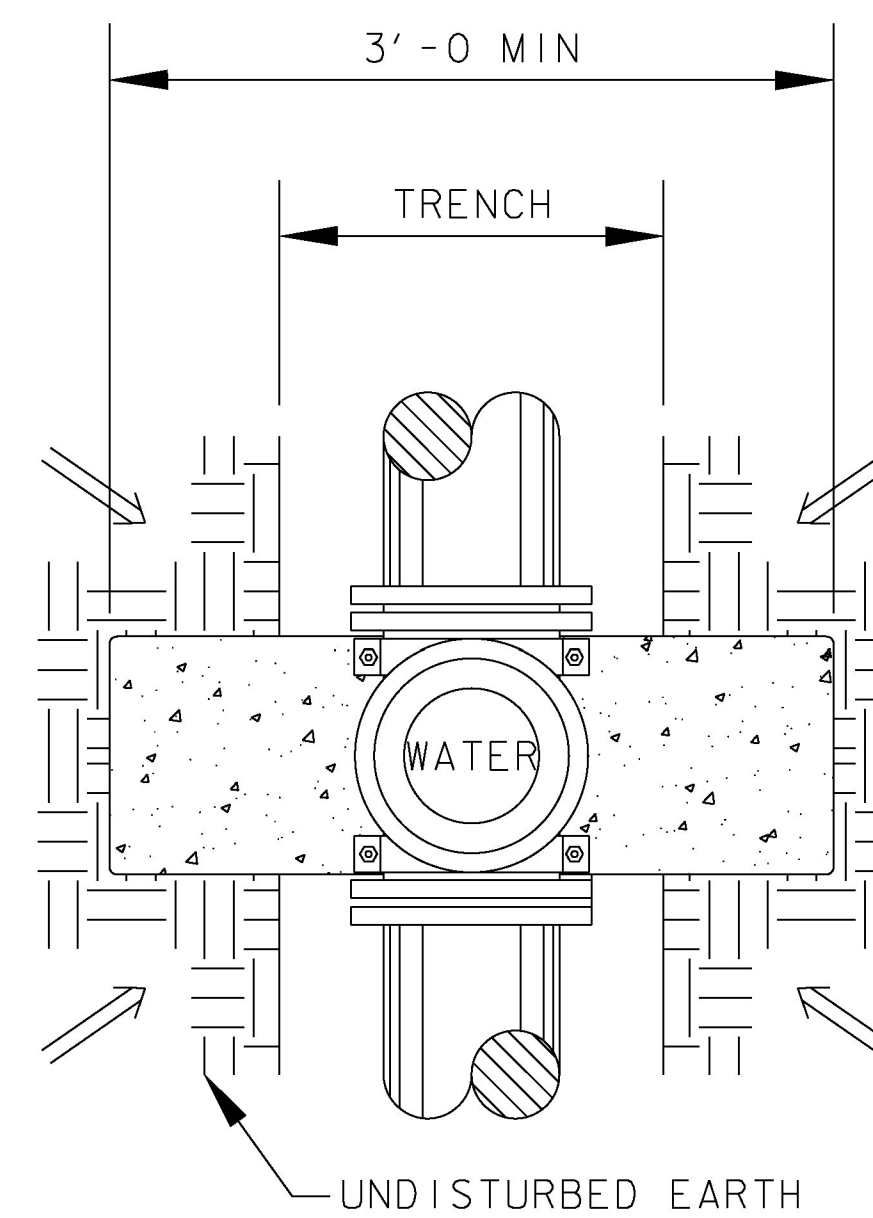


THRUST BLOCK DETAILS
NOT TO SCALE

THRUST BLOCK SCHEDULE SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL			
REACTION TYPE	PIPE SIZE		
	6"	12"	
TEST PRESSURE = 100 PSIG	(A)	2.19	8.62
	(B)	1.55	6.09
	(C)	1.19	4.66
	(D)	0.60	2.37
	(E)	0.30	1.19
OTHER TEST PRESSURES FOR THE ABOVE REACTIONS	SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE, AT 200 PSI TEST PRESSURE FOR ABOVE NUMBERS DOUBLE.		

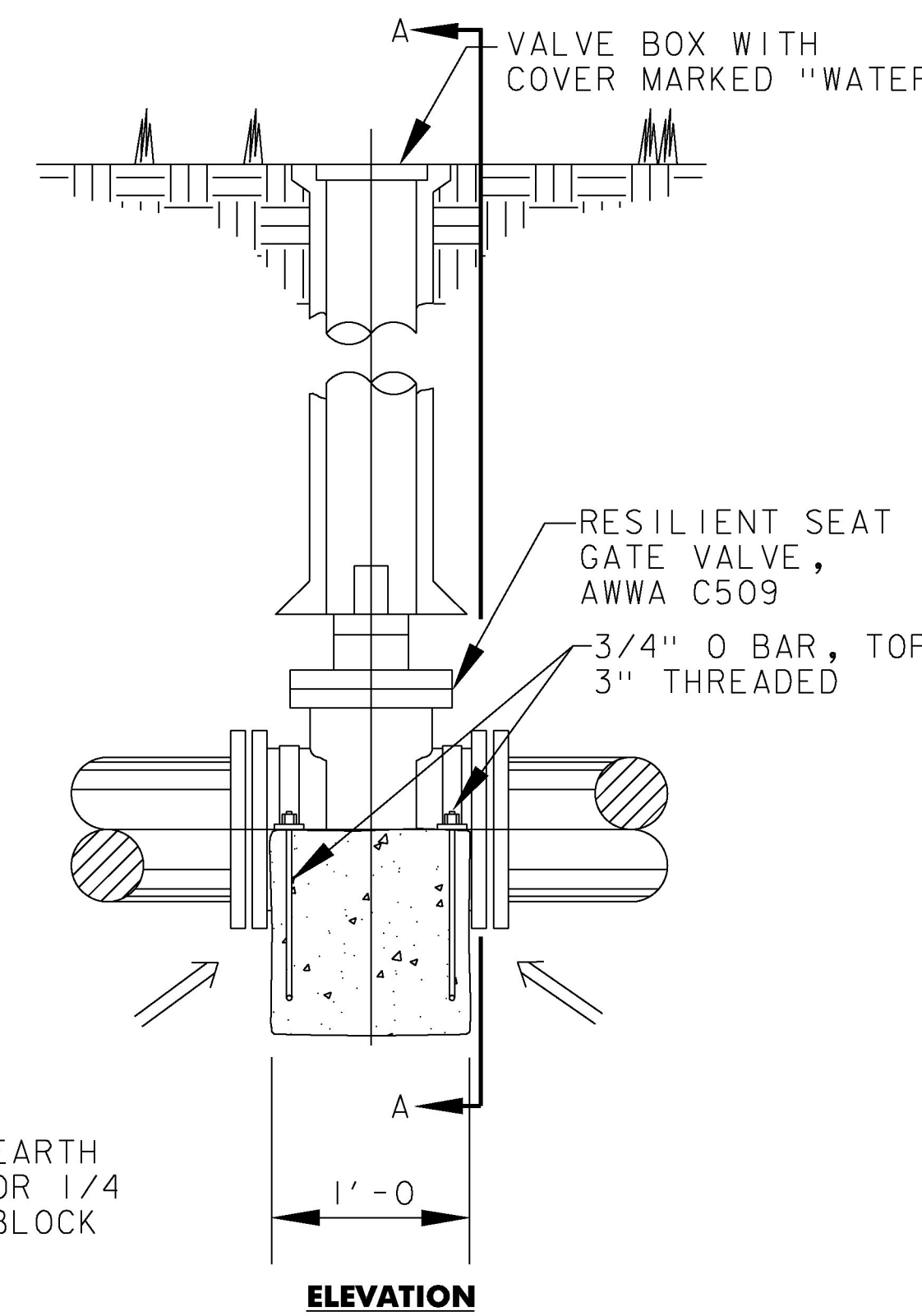
NOTES:

- THRUST BLOCKS SHALL BE CONSTRUCTED WITH CLASS B CONCRETE. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
- ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- PLACE CONCRETE PATIO BLOCKS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
- REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF 1 TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
- RETAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINTS. THESE GLANDS DO NOT REDUCE THE REQUIREMENTS FOR THRUST RESTRAINT.
- ALL FITTINGS SHALL BE WRAPPED IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE RESTRAINT.
- THREADED ROD SHALL BE ANSI A242 FY50 PIPE RESTRAINT NUTS TO MATCH AWWA C111. THREADED RODS AND NUTS TO BE FIELD COATED WITH BITUMINOUS PAINT.
- THRUST RESTRAINT IS REQUIRED FOR ALL TEES, BENDS, REDUCERS, CAPS, PLUGS, OR CROSSES.
- INSTALL LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.
- PAYMENT FOR ALL THRUST RESTRAINT FOR PIPE OR VALVES, AS APPROPRIATE, WILL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE CONTRACT BID ITEM.

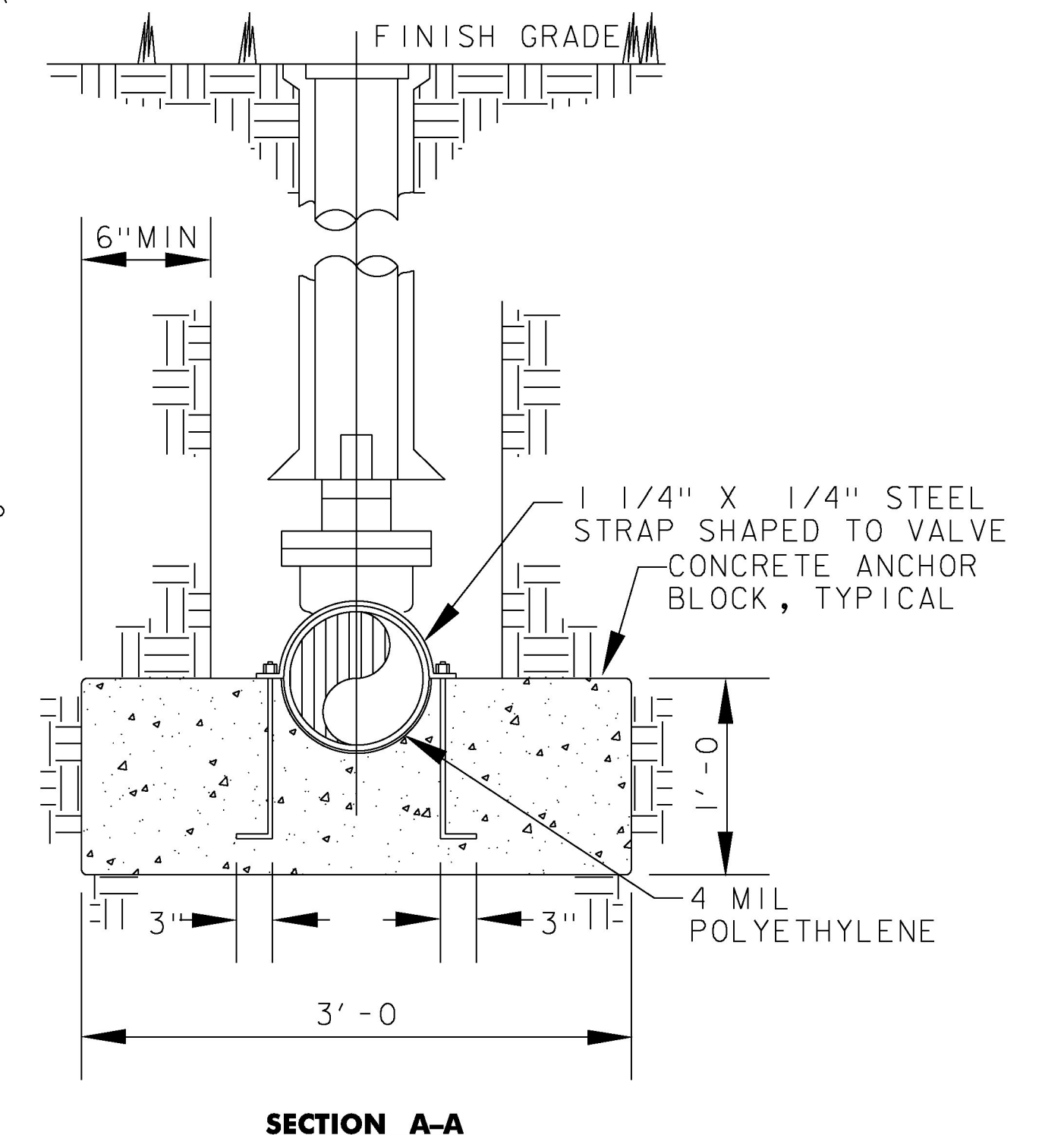


AREA OF BEARING ON UNDISTURBED EARTH (ARROWS) SHALL BE THE SAME AS FOR 1/4 BEND THRUST BLOCK. SEE THRUST BLOCK SIZING DETAIL, THIS DRAWING.

PLAN



VALVE ANCHOR DETAILS
NOT TO SCALE



PAYMENT FOR VALVE ANCHORS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.620, SPECIAL PROVISION (GATE VALVE WITH VALVE BOX, ALL INCLUSIVE) (10")

PROJECT NAME: ST JOHNSBURY	PLOT DATE: 9/30/2016
PROJECT NUMBER: BRO 1447(30)	DRAWN BY: D. HARRINGTON
FILE NAME: z12j164wtr_dets2d.dgn	DESIGNED BY: D. CAMPBELL
PROJECT LEADER: M. CHENETTE	CHECKED BY: G. SANTY
WATER DETAILS 3	SHEET 55 OF 76

