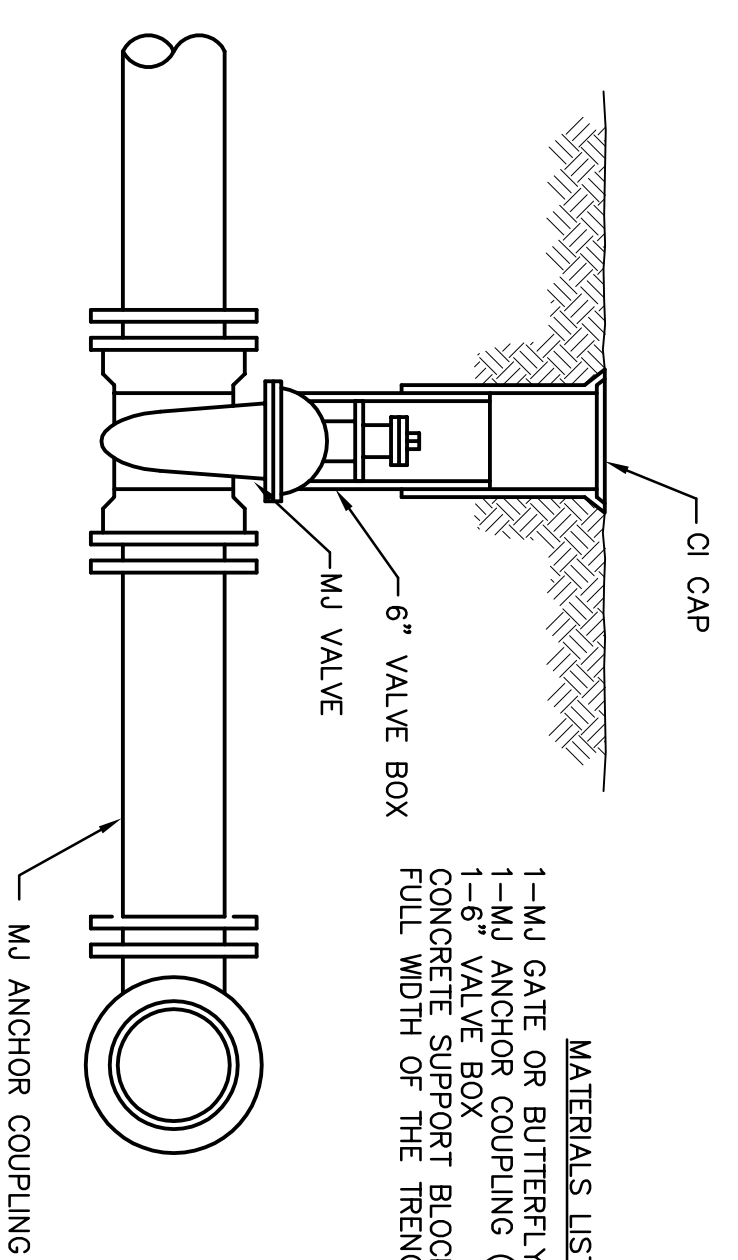


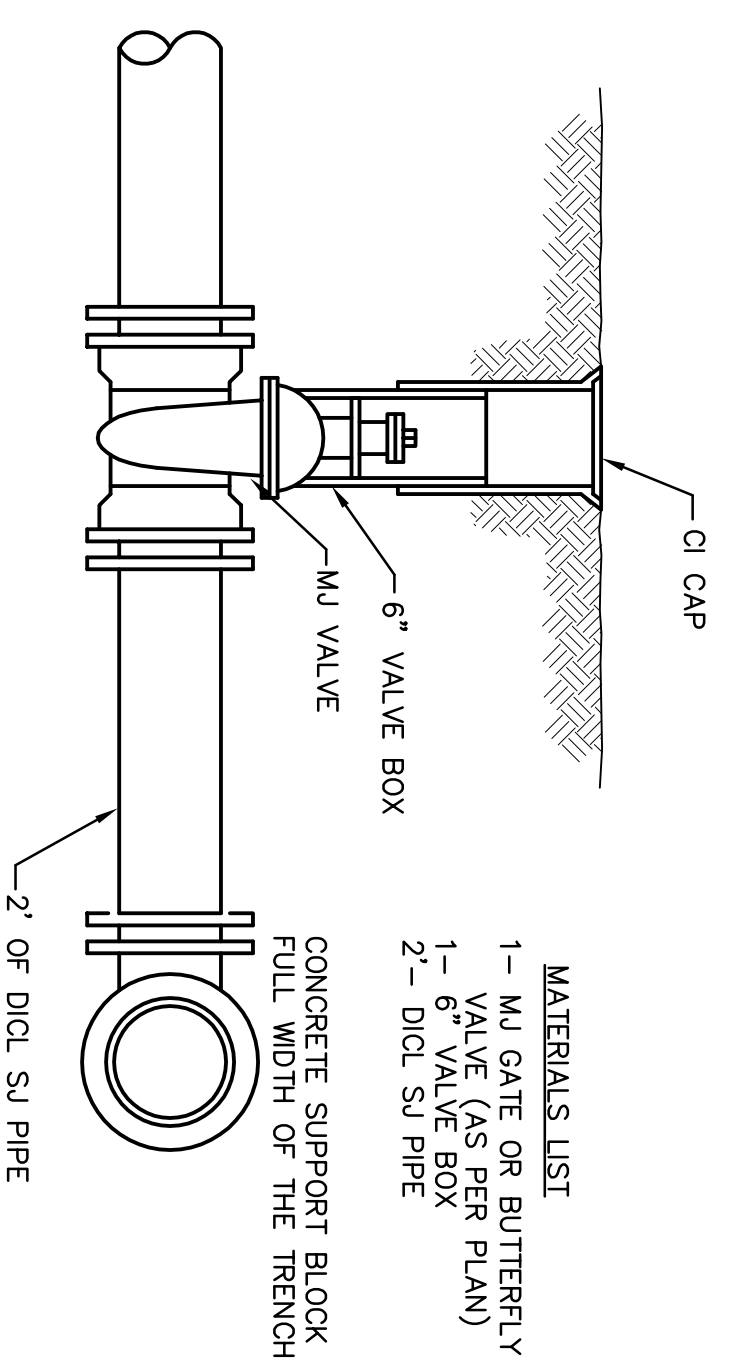
MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



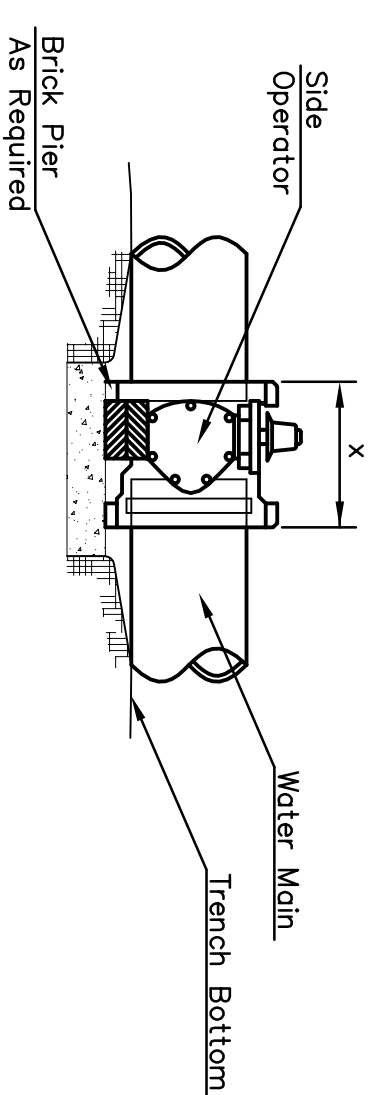
MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 1-6" ANCHOR COUPLING (12" OR SMALLER)
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



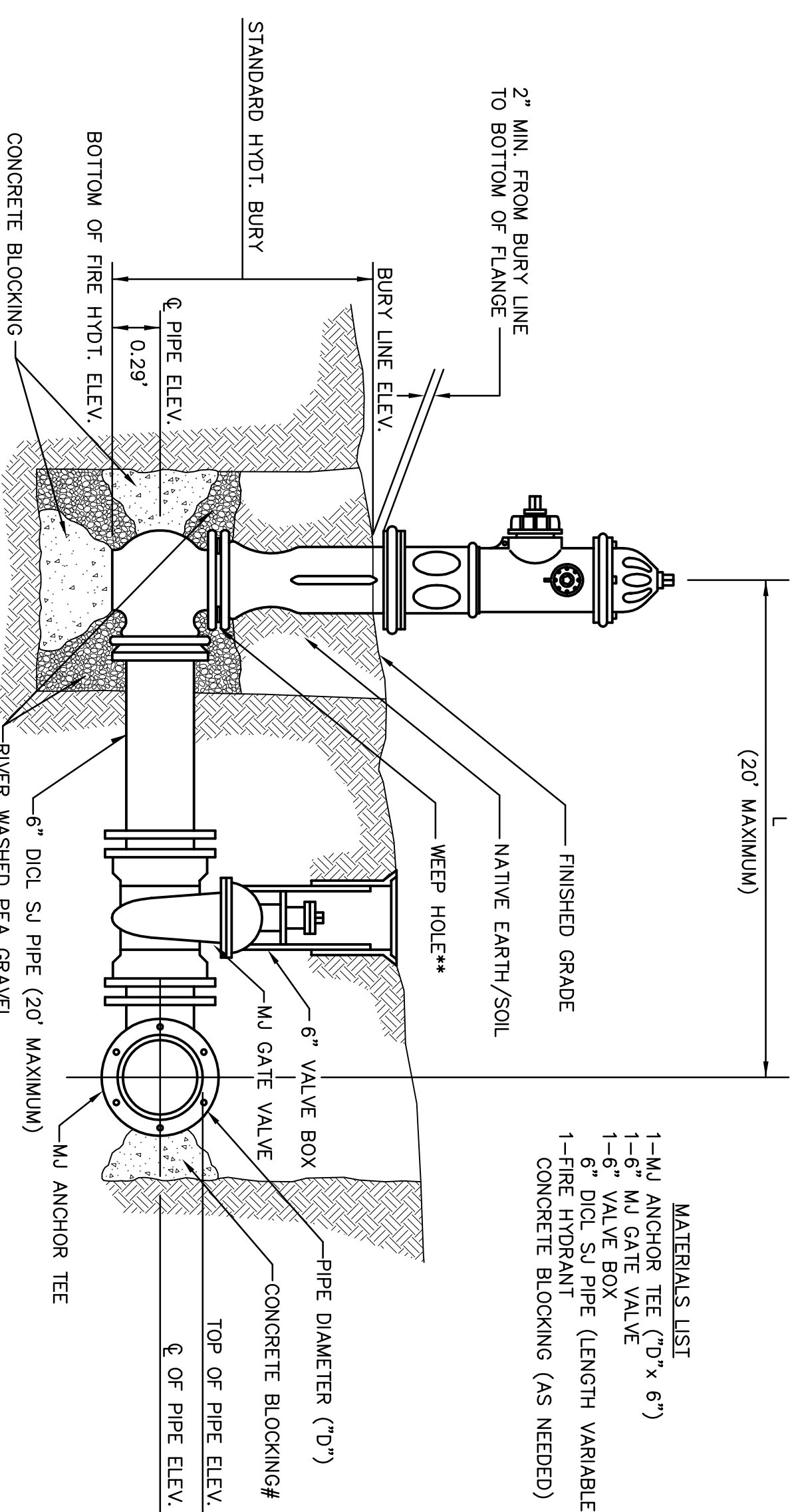
MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 2- 2" DICL SJ PIPE
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regard- less of type of pipe or joint used. Larger lines to be detailed on plans.
 - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
 - Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

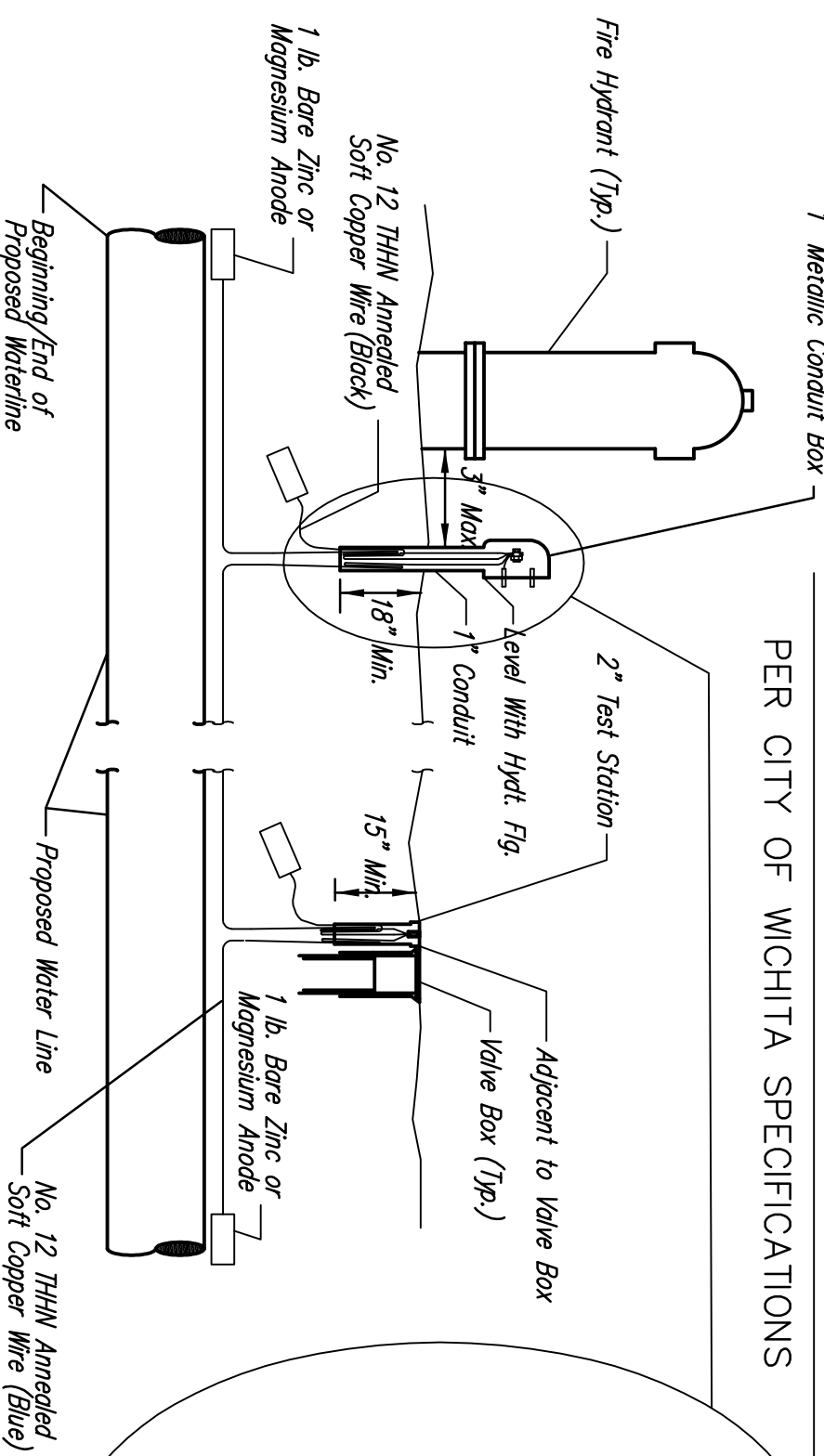


MATERIALS LIST
 1-MJ ANCHOR TEE (10" x 6")
 1-6" MJ GATE VALVE
 1-6" VALVE BOX
 6" DICL SJ PIPE (LENGTH VARIABLE)
 1-FIRE HYDRANT
 CONCRETE BLOCKING (AS NEEDED)

**** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.**
 CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.
 * IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

FIRE HYDRANTS REQUIRED					
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED		
LINE NO. 2 10+32.50	1298.60	1294.00	5.22'		
LINE NO. 3 11+90	1297.25	1291.00	7.12'		
LINE NO. 3 14+15	1297.50	1292.80	5.32'		
LINE NO. 4 10+10.50	1297.25	1291.00	6.87'		
LINE NO. 6 10+33	1296.25	1290.65	6.22'		
LINE NO. 7 10+33	1294.00	1289.36	5.28'		
LINE NO. 10 10+10.50	1298.20	1291.44	5.38'		

FIRE HYDRANT ASSEMBLY PER CITY OF WICHITA SPECIFICATIONS

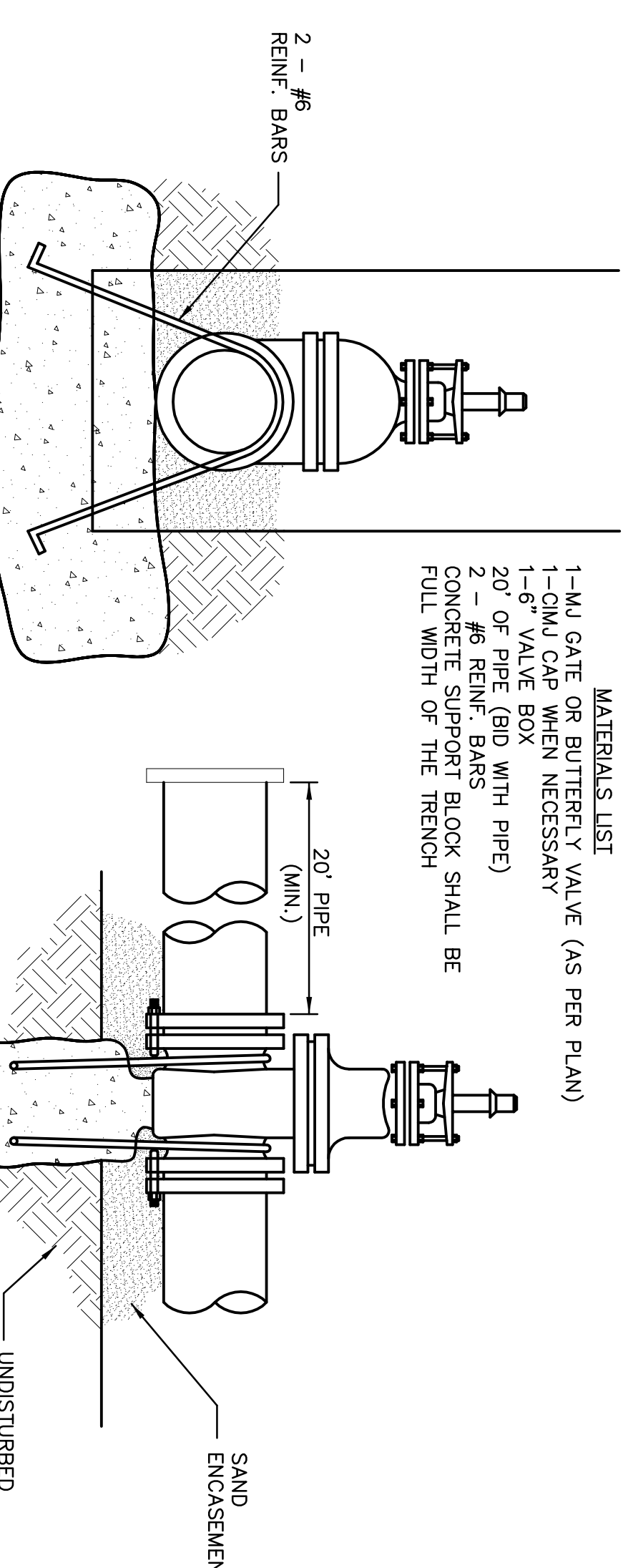


The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDELEY Industries or approved equal. The conduit style shall be installed adjacent to all the hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

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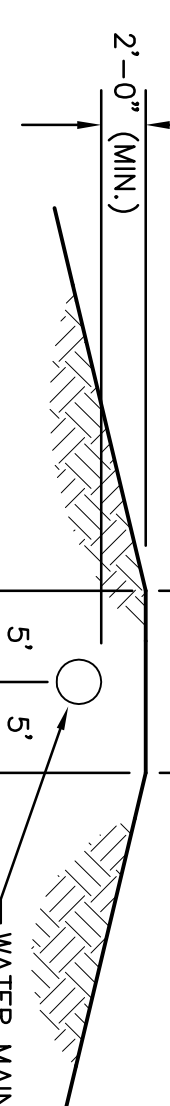


MATERIALS LIST
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-CMU CAP WHEN NECESSARY
 1-6" VALVE BOX
 20" OF PIPE (BID WITH PIPE)
 2 - #6 REIN. BARS
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

- Notes:**
- Concrete Block at Valve to have sufficient bearing undisturbed soil to prevent thrust movement as shown. Thrust blocking shall be provided to prevent thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
 - All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

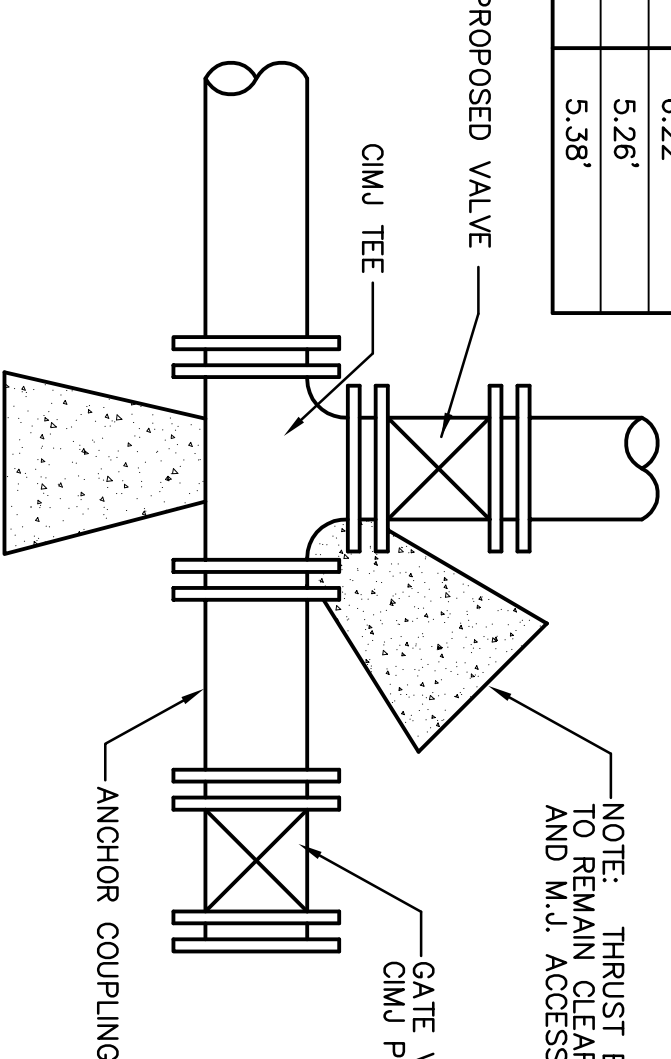
THRUST AT VALVES	
VALVE	THRUST AT 150 #/sq ²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

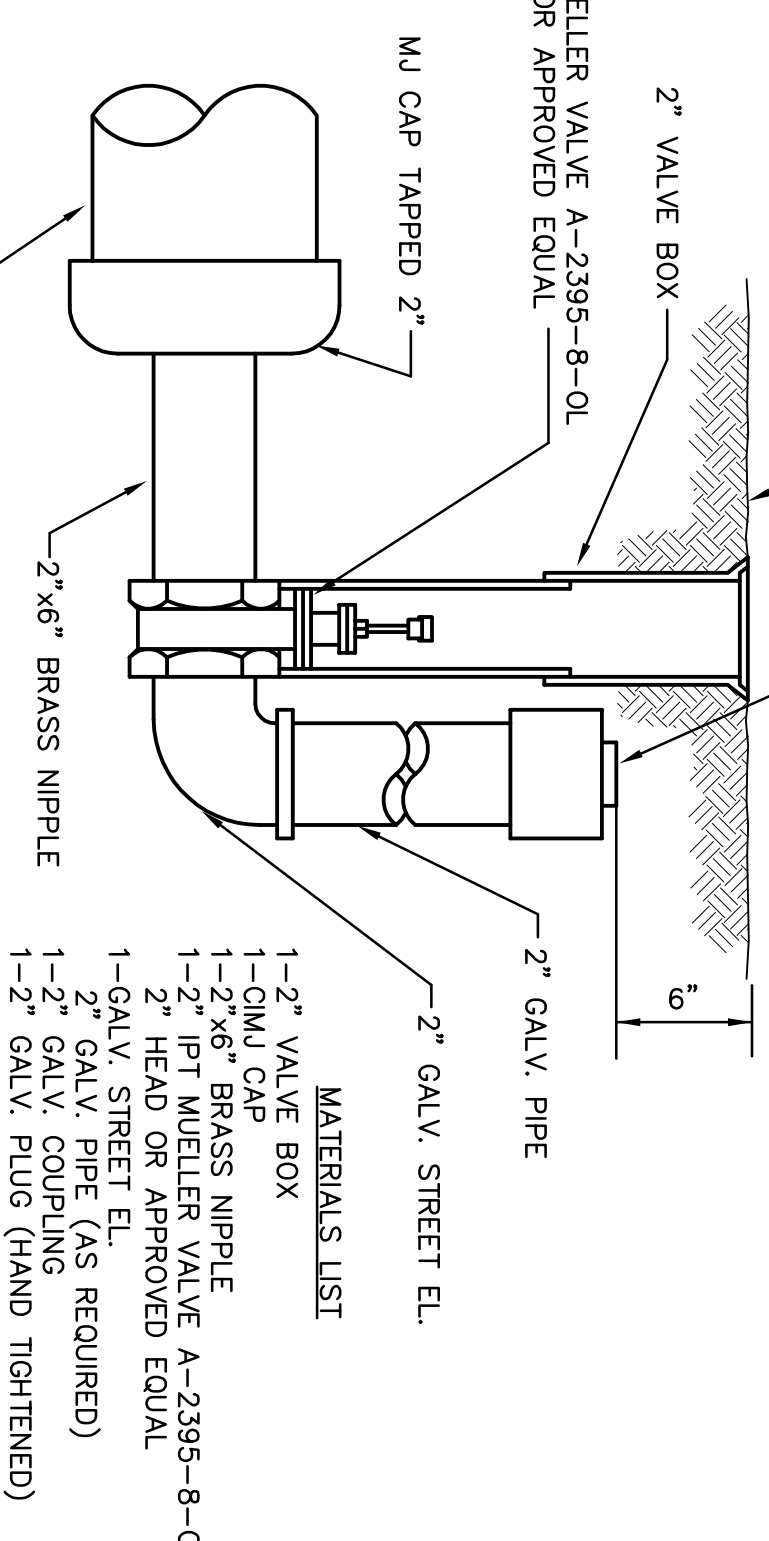


PROTECTIVE FILL DETAIL
 MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER PIPE IS REQUIRED (COST SUBSIDIARY TO PIPE INSTALLATION)

KEY BLOCK DETAIL



2 Blue Wires and 1 Block Wire All Connected to Single Test Lead With Split Bolt Connection and Blue No. 12 THHN Annealed Soft Copper Wire



MATERIALS LIST
 1-2" VALVE BOX
 1-CMU CAP
 1-2"x6" BRASS NIPPLE
 1-2" IPT WUELLER VALVE A-2395-8-OL
 2" HEAD OR APPROVED EQUAL
 1-GALV. STREET EL.
 1-2" GALV. PIPE (AS REQUIRED)
 1-2" GALV. COUPLING
 1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY

TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION

REV: 8-14-01, MCG

STANDARD WATER ASSEMBLY DETAILS	
M. E. LINDBERK P.E. - CITY ENGINEER	
PROJECT NUMBER XXX-XXXXX	INDC CODE XXXXXX
DATE DEC 98	SHEET W1.1