



The diagram illustrates a manhole assembly installed in a trench. The components are labeled as follows:

- CI CAP
- 6" VALVE BOX
- MJ VALVE
- MJ ANCHOR COUPLING

**MATERIALS LIST**

- 1—MJ GATE OR BUTTERFLY
- 1—MJ ANCHOR COUPLING
- 1—6" VALVE BOX
- CONCRETE SUPPORT BLOCK
- FULL WIDTH OF THE TRENCH

CI CAP

6" VALVE BOX

MJ VALVE

2' OF DI CL SJ PIPE

MATERIALS LIST

1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)

1- 6" VALVE BOX

2'- DI CL SJ PIPE

CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

A cross-sectional diagram of a trench box installation. A vertical rectangular trench box is shown partially submerged in a trench. The top of the box is at ground level. A dimension line at the top indicates the width of the box is 'X'. Labels with leader lines point to various components: 'Side Operator' points to the top left corner of the box; 'Water Main' points to a horizontal pipe inside the box with an arrow indicating flow to the right; 'Trench Bottom' points to the bottom of the trench; and 'Brick Pier As Required' points to a brick pier at the bottom left corner of the box.

- ### NOTES
1. This detail covers Butterfly Valve installation, inclusive, regard—less of type of pipe or joint used. Larger lines to be detailed on plans.
  2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
  3. Conc. Support Block to be full width of trench.

**Technical Drawing of a Drinking Fountain Assembly**

**Annotations:**

- MOST DEPENDABLE DRINKING FOUNTAIN MODEL #410 DB OR APPROVED EQUAL.
- ACCESS DOOR
- 4-STAINLESS STEEL ALLEN HEAD 1/4 X 20
- ACCESS DOOR
- SLOPE TO DRAIN
- VALVE BOX, SHUT OFF VALVE DRAIN VALVE FOR DRAIN DOWN
- SLOPE TO DRAIN
- ROUND C.I. COVER W/2" RECESSED LIFT RINGS.
- MATCH FINISH GROUND
- STEEL SUPPORT IN CONCRETE
- 1-2" PVC DRAIN TO DRY WELL
- 1/2" NYLON REINFORCED TUBING WATER SUPPLY (NOTE: FLUSH SUPPLY LINES BEFORE HOOK-UP)
- SLOPE LINE BACK TO VALVE BOX.
- ROUND CONC. VALVE BOX. SIZE 18" DIA. MIN.
- PEA GRAVEL
- TO DRINKING FOUNTAIN
- INSULATE AND WEATHER PROOF PIPE AND VALVES.
- 36" MIN.
- 3"
- 4" MIN.
- DRAIN VALVE

**NOTES:**

1. MEETS ADA REGULATIONS.
2. DO NOT SCALE DRAWINGS.
3. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. RUN WATER SUPPLY LINE IN PVC CONDUIT, FROM PEDESTAL TO VALVE BOX FOR FUTURE ACCESSIBILITY & MAINTENANCE.
5. SHOWN WITH VALVE BOX WITH CUT OFF VALVE AND LOW POINT DRAIN.

Diagram illustrating the proposed valve installation. The diagram shows a horizontal pipe section with a vertical branch. The vertical branch is labeled "PROPOSED VALVE". The horizontal pipe is labeled "CIMJ TEE". The vertical branch is connected to the horizontal pipe via an "ANCHOR COUPLING". A "GATE VALVE CIMJ PLUG" is shown on the right side of the horizontal pipe. A note indicates: "NOTE: THRUST BLOCKING TO REMAIN CLEAR OF BOLTS AND M.J. ACCESSORIES".

**MATERIALS LIST**

CAST IRON OR BUTTERFLY VALVE (AS PER PLAN)  
CAP WHEN NECESSARY  
PIPE BOX  
PIPE (BID WITH PIPE)  
REINF. BARS  
CONCRETE SUPPORT BLOCK SHALL BE  
BOTH OF THE TRENCH

The diagram is a cross-sectional view of a pipe installation. A horizontal pipe is shown with a vertical section cut through its center. The pipe is labeled '20" PIPE (MIN.)'. The pipe is supported by a 'CONCRETE BLOCK' at the bottom. The block is embedded in 'UNDISTURBED SOIL'. The pipe is surrounded by 'SAND ENCASEMENT'. The diagram also shows 'REINF. BARS' (reinforcing bars) within the concrete block. The top of the pipe is capped with a 'CAST IRON OR BUTTERFLY VALVE' and a 'CAP WHEN NECESSARY'. The entire assembly is shown within a 'TRENCH'.

| THRUST AT VALVES |                                 |
|------------------|---------------------------------|
| VALVE            | THRUST AT 150 #/in <sup>2</sup> |
| 4"               | 1809 lbs.                       |
| 6"               | 4245 lbs.                       |
| 8"               | 7540 lbs.                       |
| 12"              | 16965 lbs.                      |

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

PROTECTIVE FILL DETAIL

2" GALV. COUPLING  
2" GALV. PLUG  
(HAND TIGHTENED)

FINISH GRADE

2" VALVE BOX

2" IPT MUELLER VALVE A-2395-8-OL  
2" HEAD OR APPROVED EQUAL

MJ CAP TAPPED 2"

2"x6" BRASS NIPPLE

4" (OR LARGER) PIPE

2" GALV. PIPE

2" GALV. STREET EL.

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED  
IN ALL INSTANCES WHERE COVER OVER THE PROP.  
WATER LINE IS LESS THAN (2) FEET.  
(COST SUBSIDIARY TO PIPE INSTALLATION)

MATERIALS LIST

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

|                                                                                                                                                                                                                                                               |                                                |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------|
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|                                                                                                                                                                                                                                                               | M. E. LINDEBAK P.E. - CITY ENGINEER            |                    |
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