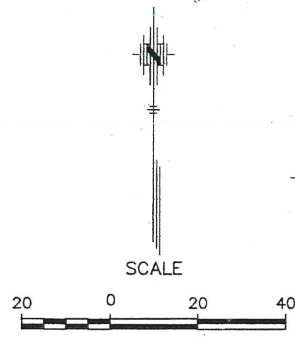


Gary  
312-1392

**LEGEND**

- P = Plotted
- M = Measured
- C = Calculated
- D = Dimension
- 1/2" IP = 1/2" IRON PIPE (FOUND)
- 3/4" IP = 3/4" IRON PIPE (FOUND)
- PEC = 1/2" REBAR W/PEC CAP (FOUND)
- BO = 4" BRASS DISC IN CONCRETE (FOUND)
- BLS = 1/2" REBAR W/BENCHMARK SUEYEING (FOUND)
- G = GAS MAIN
- W = WATER MAIN
- SS = SANITARY SEWER
- OHE = OVERHEAD ELECTRIC
- SWS = STORM WATER SEWER
- UGE = UNDER GROUND ELECTRIC
- UGT = UNDER GROUND TELEPHONE
- E.B. = ELECTRIC BOX
- GUY ANCHOR
- G.P. = GUARD POST
- L.P. = LIGHT POLE
- P.P. = POWER POLE
- SIGN
- T.F.C. = TANK FILLER CAP
- SS M.H. = SANITARY SEWER MANHOLE



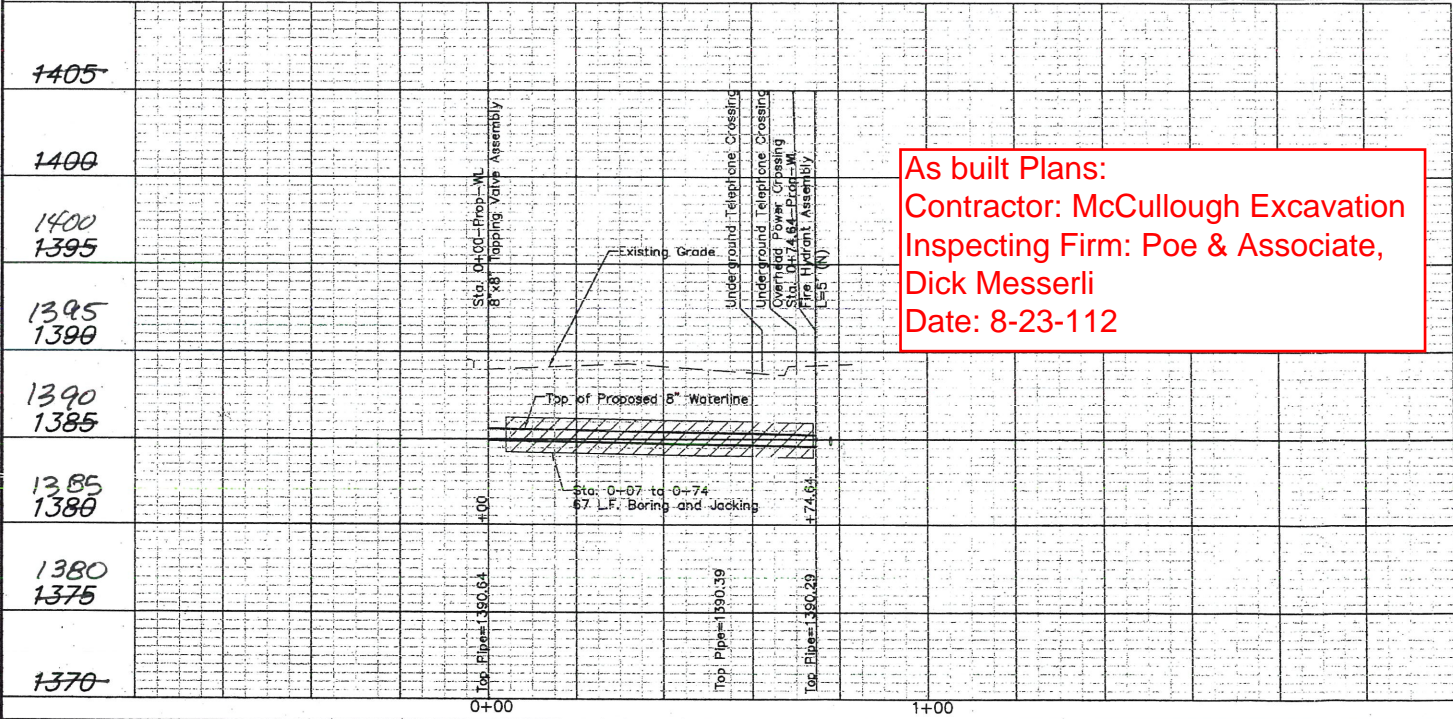
**SITE BENCHMARKS**

**SITE BENCHMARK #1**  
Square Cut Top Curb 33.5' W. of the NW. Corner of Property.  
Elevation = 1394.74 NAVD 88

**SITE BENCHMARK #2**  
Square Cut Top Curb 4.5' S. of the SE. Corner of Property.  
Elevation = 1392.99 NAVD 88

NOTE: Unless Otherwise Noted Elevations are Shown to Top of Pipe

**LINE NO. 1**



As built Plans:  
Contractor: McCullough Excavation  
Inspecting Firm: Poe & Associate,  
Dick Messerli  
Date: 8-23-12

Claw's  
5-foot off

Point #	Northing	Easting	Description
500	20152.74	20014.99	Prop. Cor.
501	20152.98	20194.93	Prop. Cor.
502	20000.71	20195.16	Prop. Cor.
503	20000.00	20000.00	Prop. Cor.
504	20007.69	19999.95	Prop. Cor.
505	20107.74	20015.01	Prop. Cor.

**PRIVATE PROJECT WATER LINE  
& HYDRANT TO SERVE  
1830 N. Oliver  
Private Project Number  
1668 PPW (607853)  
CITY OF WICHITA, KANSAS**

**GENERAL NOTES:**

- Existing utilities, both above and below ground, and their locations as shown on the plans, represent the best information available for design. The locations of utilities as shown on the plans are not guaranteed and the Contractor shall verify all utilities and their locations before beginning construction. Additional utilities, including relocated utilities, which are not shown on the plans may be encountered. In this event, the Contractor shall adjust his schedule and cooperate with the utility companies to ensure that their facilities be adjusted as required to clear construction. The Contractor shall exercise extreme caution while working near utilities.
- All water mains and appurtenances shall be installed in accordance with the City of Wichita, Kansas Standard Specifications for Water Main Construction.
- The Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the responsibility of the Contractor to preserve such field locations during the construction process. Water valves, water valve boxes, or fire hydrants damaged during construction shall be repaired at the Contractor's expense. Contact Greg Lolley with the Wichita Water Department for water service information at 268-4555.
- Opening and closing water valves shall be done slowly to prevent damage to the distribution system by a water hammer. All valves that are closed by the Contractor must be reopened as new construction permits.
- The Contractor shall not start work on the project until the licensed inspector is present or authorizes the work. Any work done without inspection will be required to be uncovered for inspection.
- Power Poles within close proximity to the new water line may require temporary bracing to facilitate construction. Contractor shall contact Shane Price at Westar Energy at 261-8315 prior to construction to coordinate pole bracing.
- Temporary Blow-off Valves necessary to flush lines at existing water line tie-ins shall not be paid directly, but shall be considered INCIDENTAL to other items bid.
- All open cut pipe trench under new pavement shall be back-filled with sand, flushed with water and vibrated.
- All water pipe trench in pavement or driveways which will be required to carry traffic until permanent replacement shall be topped with a minimum of 6" crushed rock (Compacted) to be INCIDENTAL to the project. Contractor shall be required to maintain temporary crushed rock until permanent pavement is installed.
- Contractor shall give all Property Owners and/or Tenants of developed property directly abutting the construction of the project a minimum of ten (10) days notice prior to the start of construction and a 24 hour notice prior to any planned water shut down.
- Each Bidder shall visit the site of the project before submitting a proposal in order to become better informed of the existing field condition and obstacles which might be encountered during construction. Each Bidder should understand that no additional compensation will be awarded for extra work that should have been evaluated prior to bidding.
- The Contractor shall provide all construction staking.
- The Owner shall provide all construction inspection, testing and shop drawing review.
- Waste material will be disposed of off-site by the Contractor. The site will have to be approved by the Engineer.
- The Contractor shall use Best Management Practices (BMP's) to prevent eroded soil from entering ditches, culverts, and drainage areas. Standard details for erosion BMP's are available from the Engineer. The Contractor shall follow the intent of the BMP's, which act as a guideline.
- The Contractor will be required to provide a minimum of Seventy-Two (72) hours advanced notice to Kansas One Call (1-800-344-7233) and all utility owners within the project prior to the beginning of construction and request that any existing lines be flagged.

APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA,  
BY WICHITA WATER & SEWER DEPARTMENT,  
& BY WICHITA FIRE DEPARTMENT

Public Works: *John Fagan* 5-25-12  
Water & Sewer: *Greg Lolley* 5-25-12  
Fire: *Dick Messerli* 5-30-12

NOTE TO CONTRACTORS  
Public Property:  
Inspection and testing for the waterline is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Professional Engineer Licensed in the state of Kansas. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

Private Property:  
Installation and testing for the fire protection line is to be performed by a City of Wichita licensed fire protection contractor in accordance with the fire codes as adopted by the City of Wichita. All material and construction practices for the fire protection line shall comply with the fire codes as adopted by the City of Wichita (available from the City of Wichita Fire Department). The Contractor shall not commence work without notification and approval of the Wichita Fire Department. Inspection of the fire protection line is to be provided by a licensed Engineering Firm under contract with the Owner/Developer and the Fire Department. The contractor shall not start work until the project inspector is assigned to the project and present on the site. Any work done without inspection will be required to be uncovered for inspection.

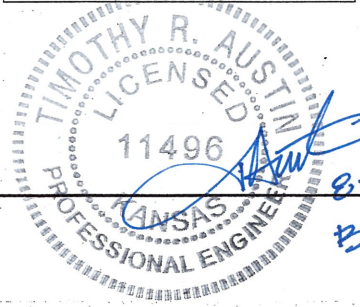
John Fagan  
AT & T Distribution  
154 N. Broadway  
Wichita, Ks 67202 316-268-2245

Marc Henderson  
Cox Communications  
701 East Douglas  
Wichita, Ks 67202  
316-262-4270 / 263-2061

James Coe  
Kansas Gas Service  
1021 East 26th Street North  
Wichita, Ks 67219  
316-832-3126

Greg Lolley  
Wichita Water Department  
455 North Main, 8th Floor  
Wichita, Ks 67202  
316-268-4555

Kansas One Call  
1-800-344-7233



8-23-12  
Built per plan.

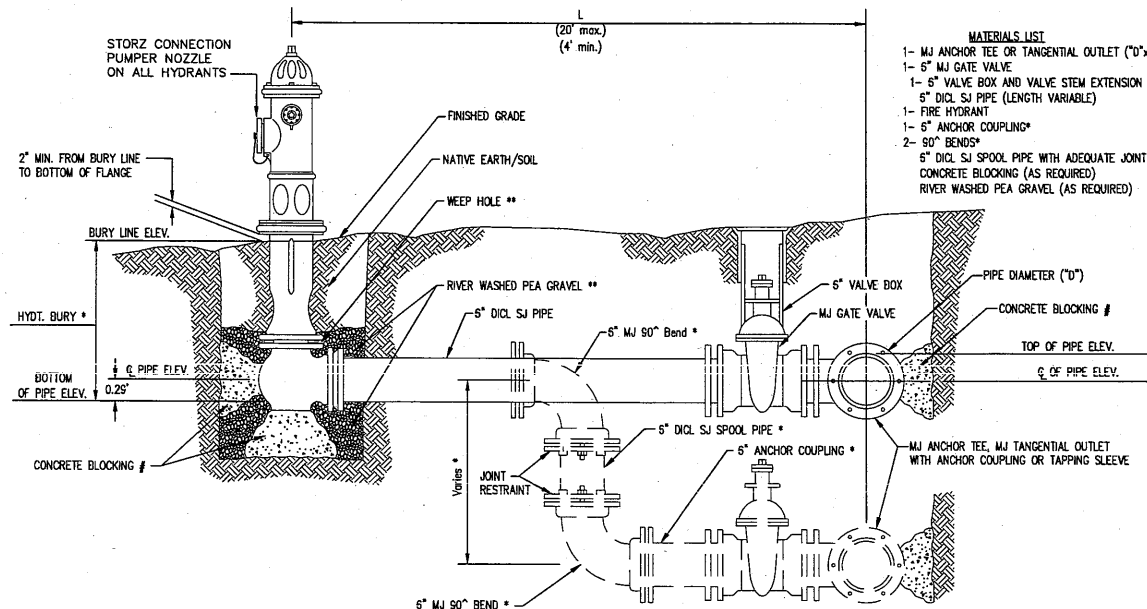
1330 N. OLIVER  
WATER DISTRIBUTION SYSTEM IMPROVEMENTS  
PRIVATE PROJECT FIRE HYDRANT  
CITY OF WICHITA, KANSAS  
GARY JANZEN, P.E. - INTERIM CITY ENGINEER  
PROJECT NO. 1668 PPW (607853)

POE & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
5940 E. Central, Suite 200 D, Wichita, KS 67208-4242  
Phone 316/685-4114, FAX 316/685-4444

**FINAL**  
 Engineer: S. SERVIS  
 Designer: S. SCHMIDT  
 P.O. Job No.: 1829  
 Date: MAY 2012

Sheet  
 01 of 2

# Hyd CLOW 2012 Valve CLOW 2638



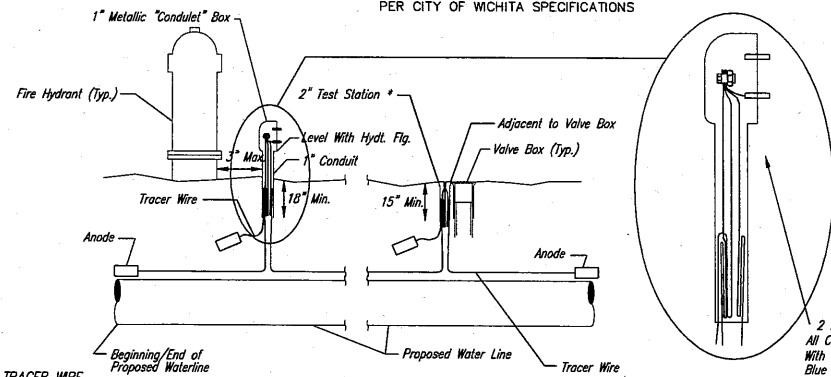
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET (10" x 6")
  - 1- 5" GATE VALVE
  - 1- 5" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED \*
  - 5" D.I.C.L. S.J. PIPE (LENGTH VARIABLE)
  - 1- FIRE HYDRANT
  - 1- 5" ANCHOR COUPLING\*
  - 2- 90° BENDS\*
  - 5" D.I.C.L. S.J. SPOOL PIPE WITH ADEQUATE JOINT RESTRAINT \*
  - CONCRETE BLOCKING (AS REQUIRED)
  - RIVER WASHED PEA GRAVEL (AS REQUIRED)

\* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5" HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5" HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" D.I.C.L. SPOOL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, ROD AND LUG OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

\*\* CAUTION WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

# CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

## FIRE HYDRANT ASSEMBLY PER CITY OF WICHITA SPECIFICATIONS



**TRACER WIRE**  
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire 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 3 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.

**WIRE**  
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation or Blue No. 12 AWG CCS with 30 mil HDPE 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 at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

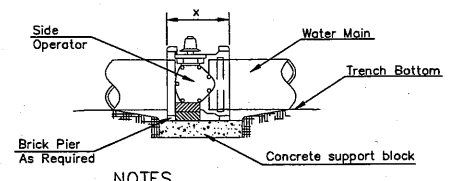
**TEST STATIONS**  
The test station for fire hydrant applications shall be a 1 inch galvanized "condulet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS30 as manufactured by HANDLEY Industries or approved equal. The "condulet" style test station shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

**ANODES**  
The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

## TRACER WIRE DETAIL

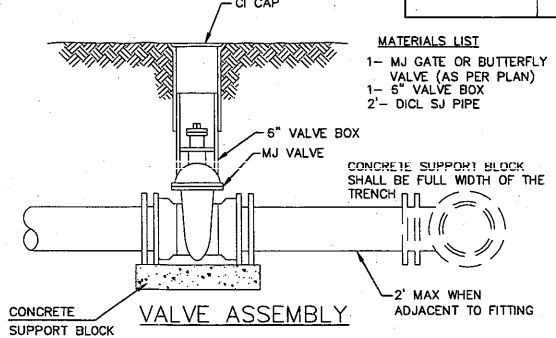
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
0+74.64	1394.43	1390.29	5'	0'

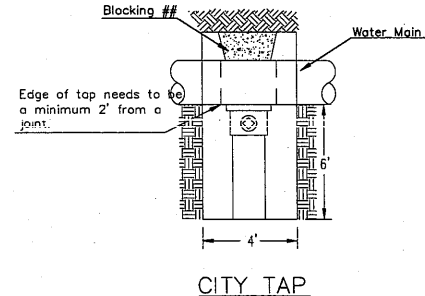


- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
  - 5" Valve Box and Cover required per City of Wichita Std. Specifications.
  - Conc. Support Block to be full width of trench.

## CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

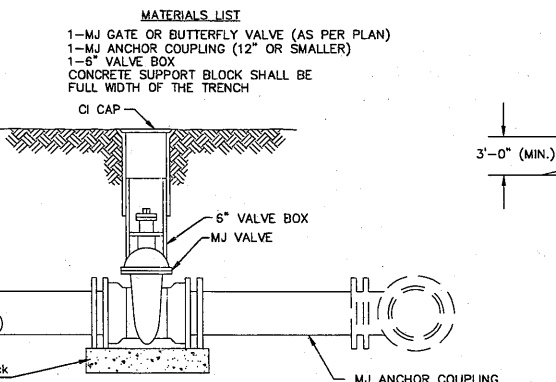


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1- 5" VALVE BOX
  - 2- D.I.C.L. S.J. PIPE



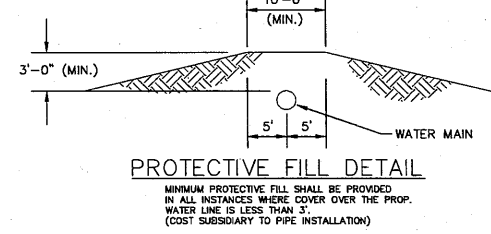
## CITY TAP

## When the City of Wichita makes tap, blocking is to be done by Contractor

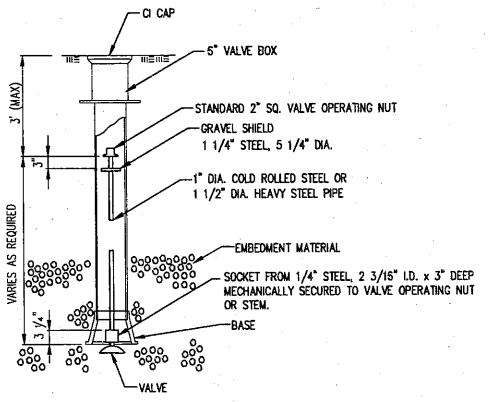


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1- MJ ANCHOR COUPLING (12" OR SMALLER)
  - 1- 5" VALVE BOX
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

## ANCHORED VALVE ASSEMBLY

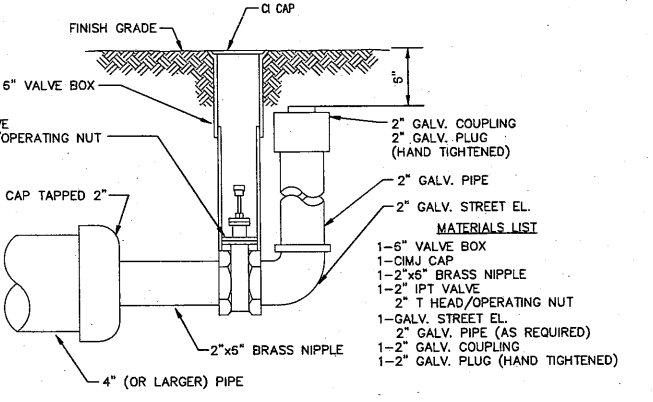


## PROTECTIVE FILL DETAIL

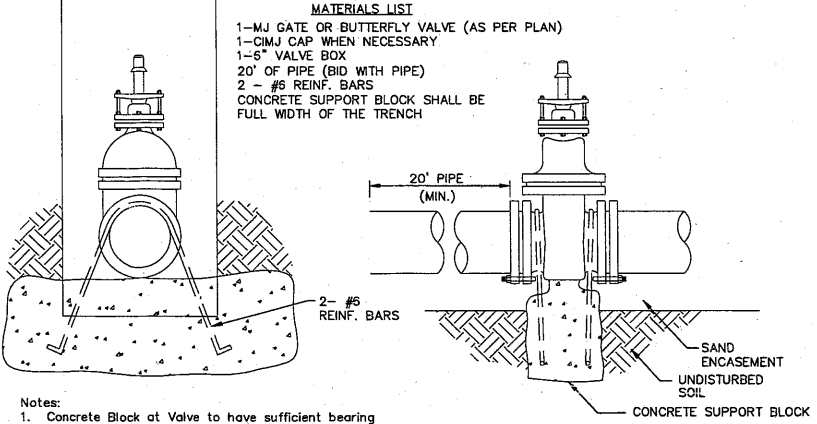


## VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



## 2" BLOWOFF ASSEMBLY



- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1- CI MJ CAP WHEN NECESSARY
  - 1- 5" VALVE BOX
  - 20' OF PIPE (BID WITH PIPE)
  - 2- #6 REINF. BARS
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

- Notes:**
- 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.
  - 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. ft.
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

## ANCHORED VALVE ASSEMBLY, SPECIAL

**CITY OF WICHITA**  
PUBLIC WORKS & UTILITIES  
ENGINEERING DIVISION

**STANDARD WATER ASSEMBLY DETAIL**

INTERIM CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER: OCA NUMBER: DATE: 12/2011

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

1330 N. OLIVER  
WATER DISTRIBUTION SYSTEM IMPROVEMENTS  
STANDARD WATER DETAILS  
CITY OF WICHITA, KANSAS  
GARY JANZEN, P.E. - INTERIM CITY ENGINEER  
PROJECT NO. 1663 PPW (607853)

POE & ASSOCIATES, INC.  
5940 E. Central Suite 200 - Wichita, KS 67208-4242  
Phone 316/685-4114 - FAX 316/685-4444

DESIGNED BY: S. SCHMIDT  
DATE: MAY 2012

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