

AS BUILT PLANS

Contractor: Mies
 Inspector: Don Eddingfield, Baughman Co.
 pdf's by: KEK, 10/9/12

Clow Valves & Hydrants

WATER LINE SYSTEM TO SERVE Part of USD 259 North High School

EVEN LOTS 2 TO 102 ON ROCHESTER ST & ODD & EVEN LOTS 2 TO 103 ON SHERWOOD ST. EXC S 20 FT DED. FOR ST. SHERWOOD'S SUB & SHERWOOD'S SUB OF SHERWOOD'S ADDITION

Private Project: 1626 PPW (607853)

CITY OF WICHITA, KANSAS

James Armour, P.E. City Engineer

November 2011

Benchmarks

Benchmarks:
 #1 Square cut on the end of north end of the curb approximately 1.5' northeast of the west pole of the gate across Rochester Street just south of 14th Street. Elevation=1307.93
 #2 Square cut on the intersections of the sidewalks approximately 5' north of the northeast corner of the school building entrance and 32.5' south and 9' east of the southeast corner fence around the track. Elevation=1309.96
 #3 Square cut on the top of curb on the south side of the curb inlet at the west curb approximately 36' west and 13.5' south of the southwest corner of the fence for the canoe area. Elevation=1307.11
 #4 Square cut on the southeast corner of the concrete at the east side of the track where the bleachers are located. Elevation=1308.36
 #5 Square cut at the northeast corner of the sidewalk intersections on the west side of Rochester approximately 31' east and 17' south of the memorial plaque by the tree. And approximately 320' south of the centerline of 14th street. Elevation=1307.81
 Elevations are NGVD 29

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

Public Works: [Signature] 11-18-11
 Water & Sewer: [Signature] 11-18-11
 Fire: [Signature] 11-21-2011

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 or 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.

Legal Description

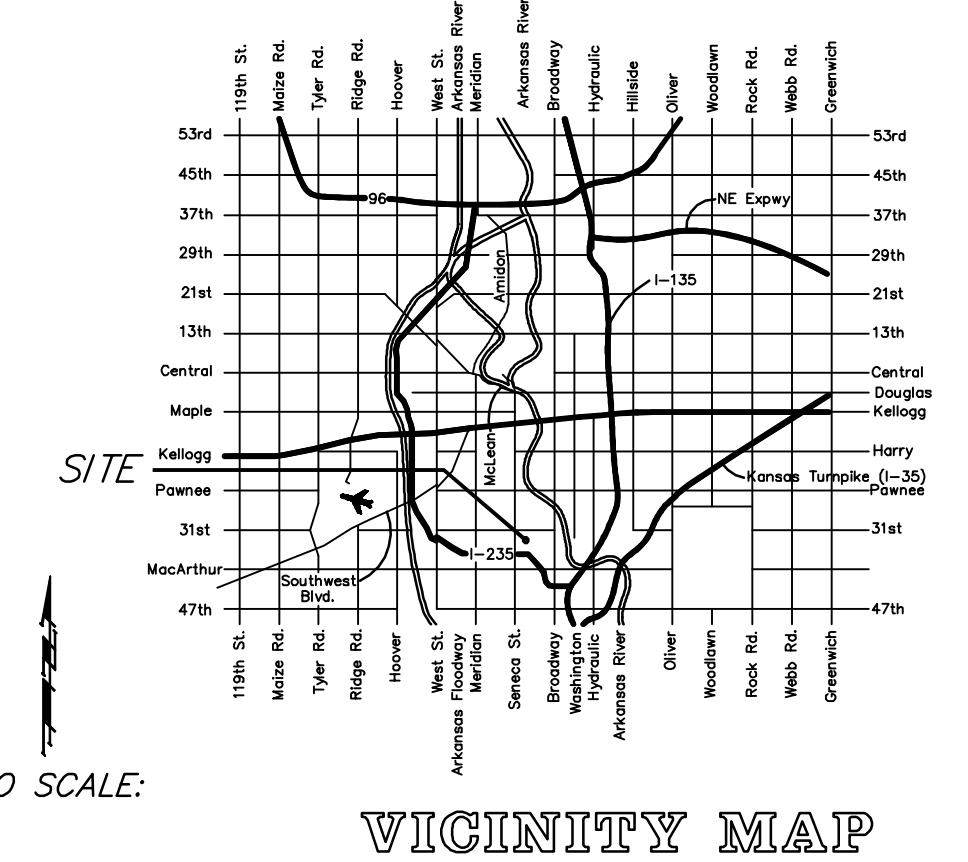
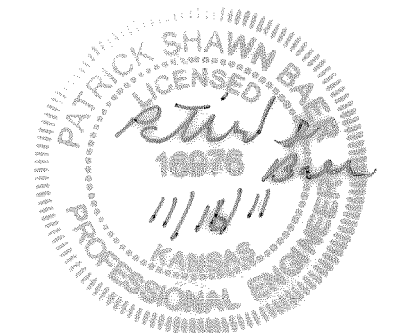
EVEN LOTS 2 TO 102 ON ROCHESTER ST & ODD & EVEN LOTS 2 TO 103 ON SHERWOOD ST. EXC S 20 FT DED. FOR ST. SHERWOOD'S SUB & SHERWOOD'S SUB OF SHERWOOD'S ADDITION EXEMPT 6076-0

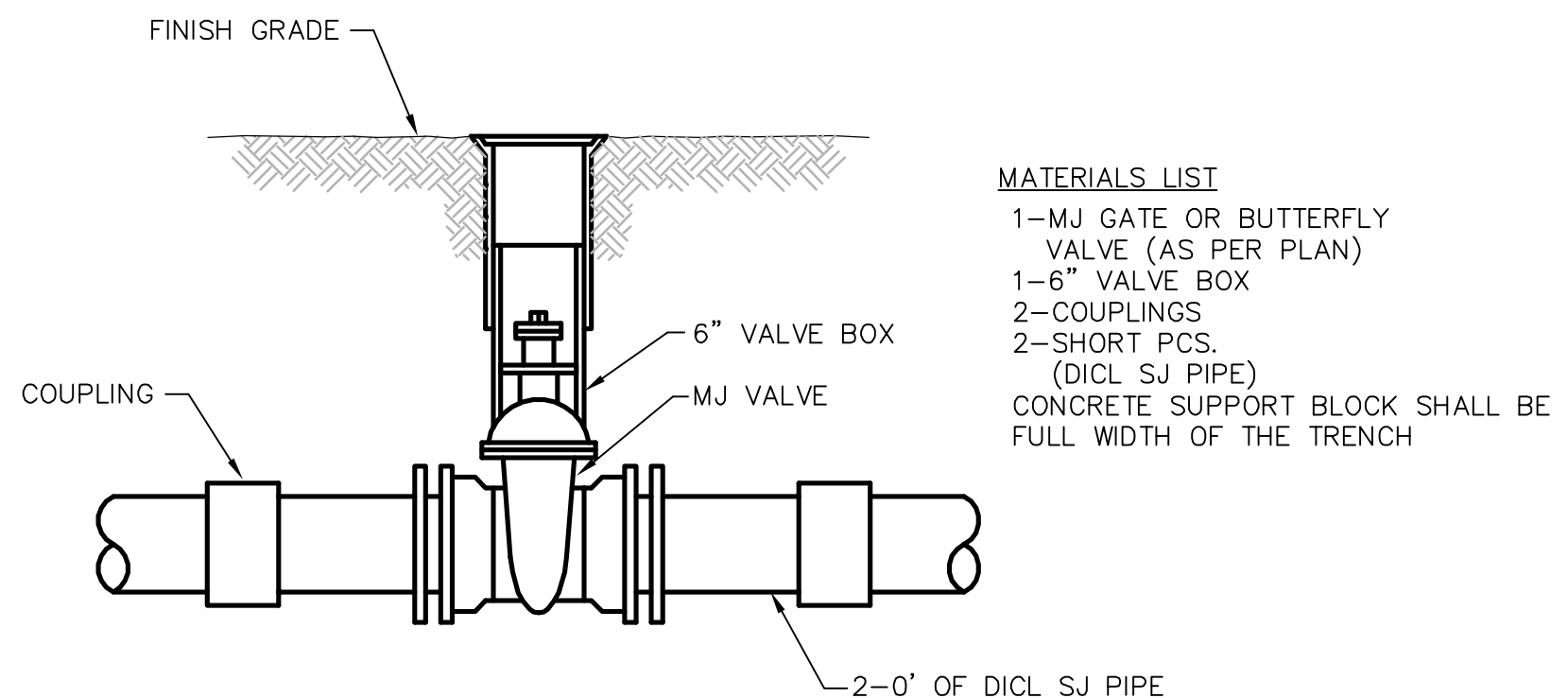
Index

Title Sheet	1
Water Details	2
Line 1 & 2	3
BMP Erosion Details	Available On Request

General Notes

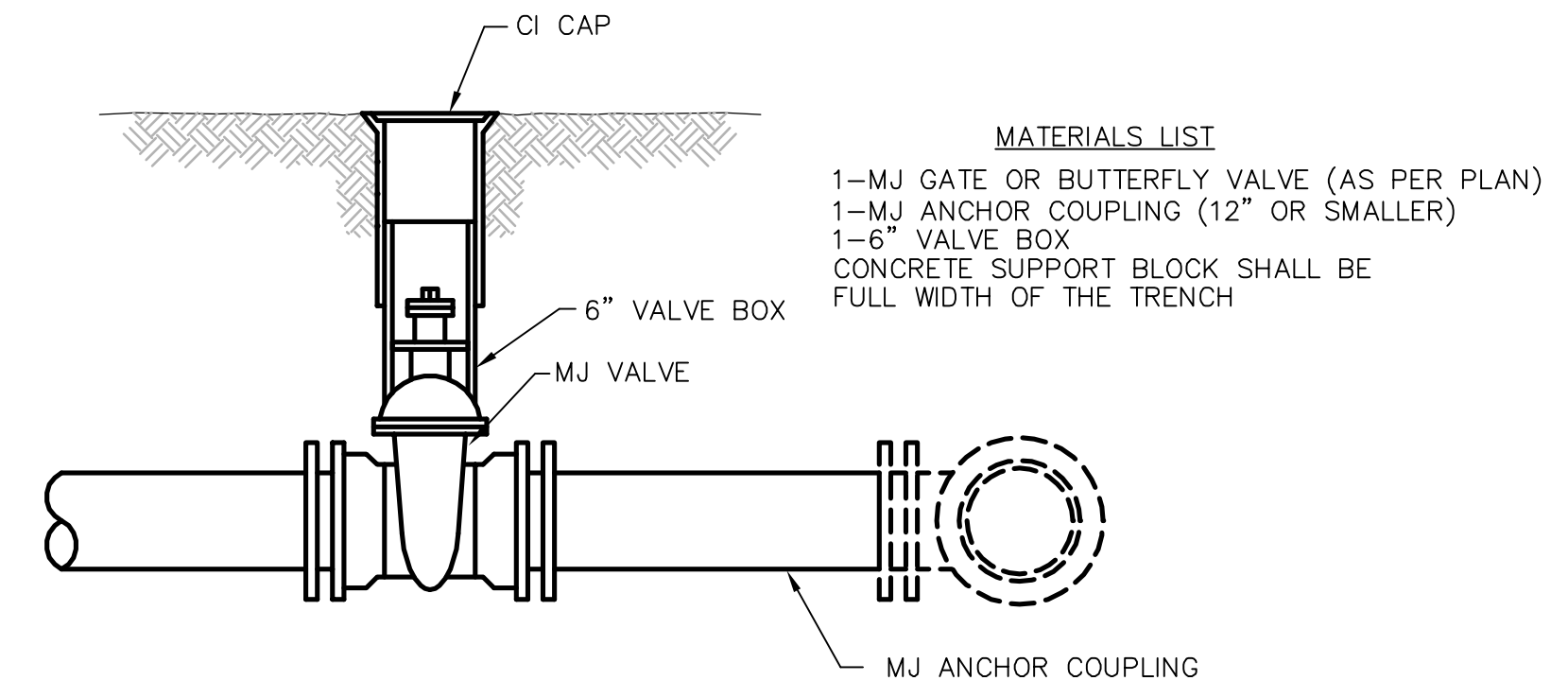
- Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
 Kansas One-Call 687-2470
 The Contractor must notify the following in case of an emergency:
 Cox Communications 262-4270
 Kansas Gas Service Company 1-888-482-4950
 Westar Energy (Electric) 383-8650
 Black Hills Energy (Gas) 1-800-303-0357
 Southwestern Bell Telephone Co. 1-800-286-8313
 City of Wichita Water Dept. (Water) 262-6000
 City of Wichita Sewer Maint. (SS) 268-4090
 City of Wichita Storm Sewer Maint. 268-4034
 City of Wichita Traffic Maint. 268-4034
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
- Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans represent the best information obtainable for design and shall be field verified. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Contractor shall furnish the inspector with a copy of the manufacturer's certification for any pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
- All water lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance Any work done without inspection will be required to be uncovered for inspection.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.





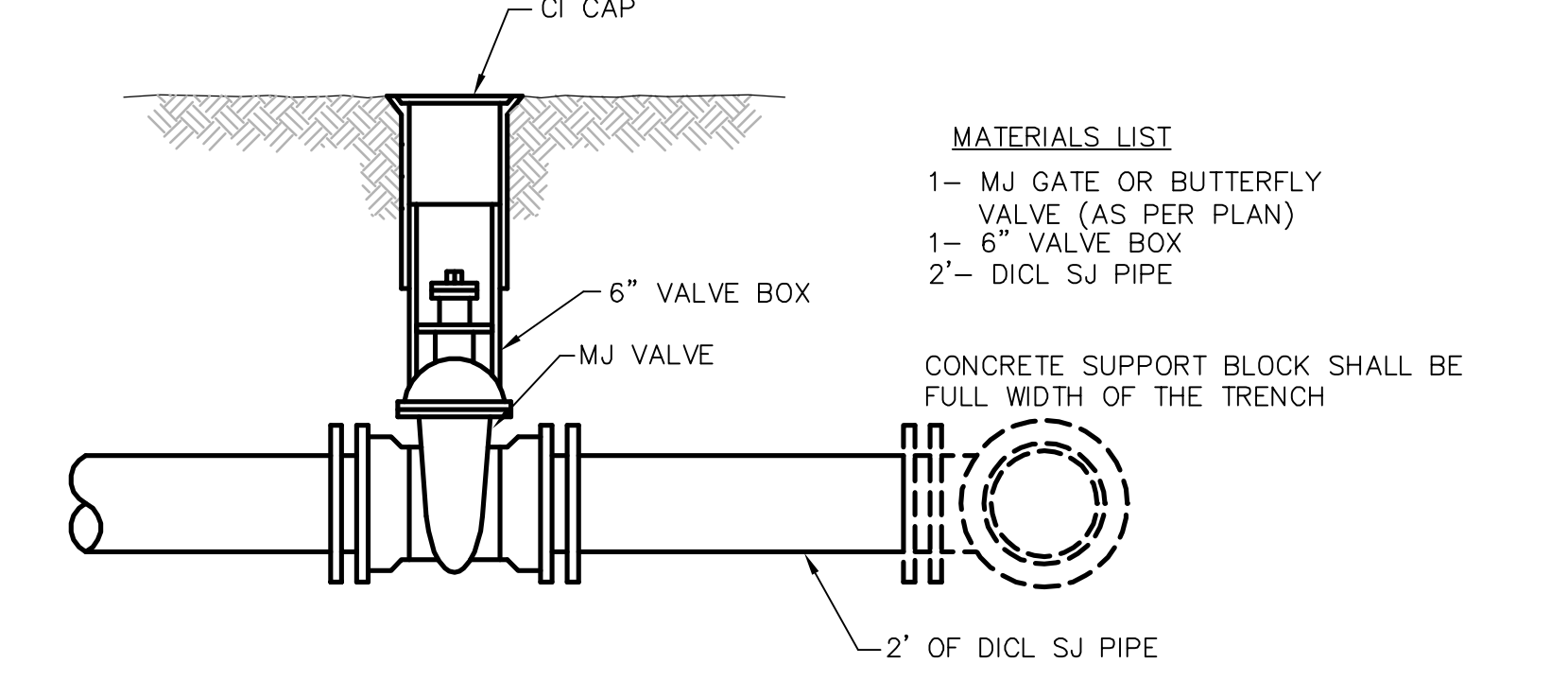
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-6" VALVE BOX
 - 2-COUPPLINGS
 - 2-SHORT PCS. (DICL SJ PIPE)
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH.

LINE VALVE ASSEMBLY



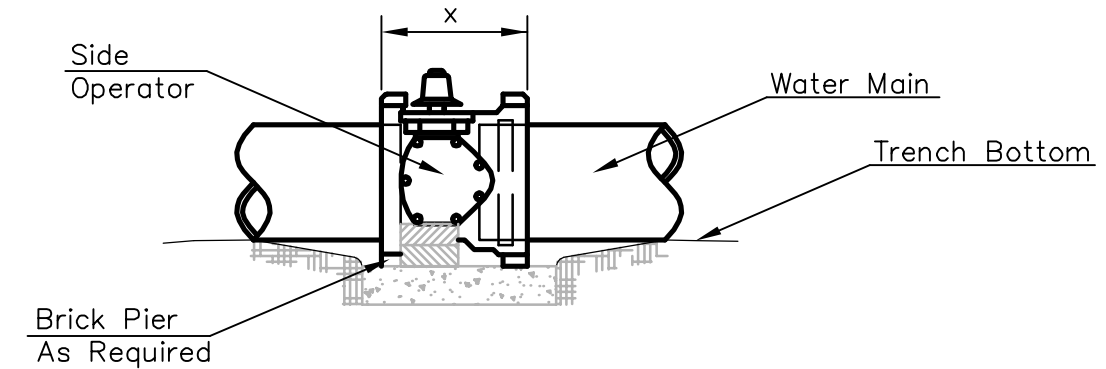
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-MJ ANCHOR COUPLING (12" OR SMALLER)
 - 1-6" VALVE BOX
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



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

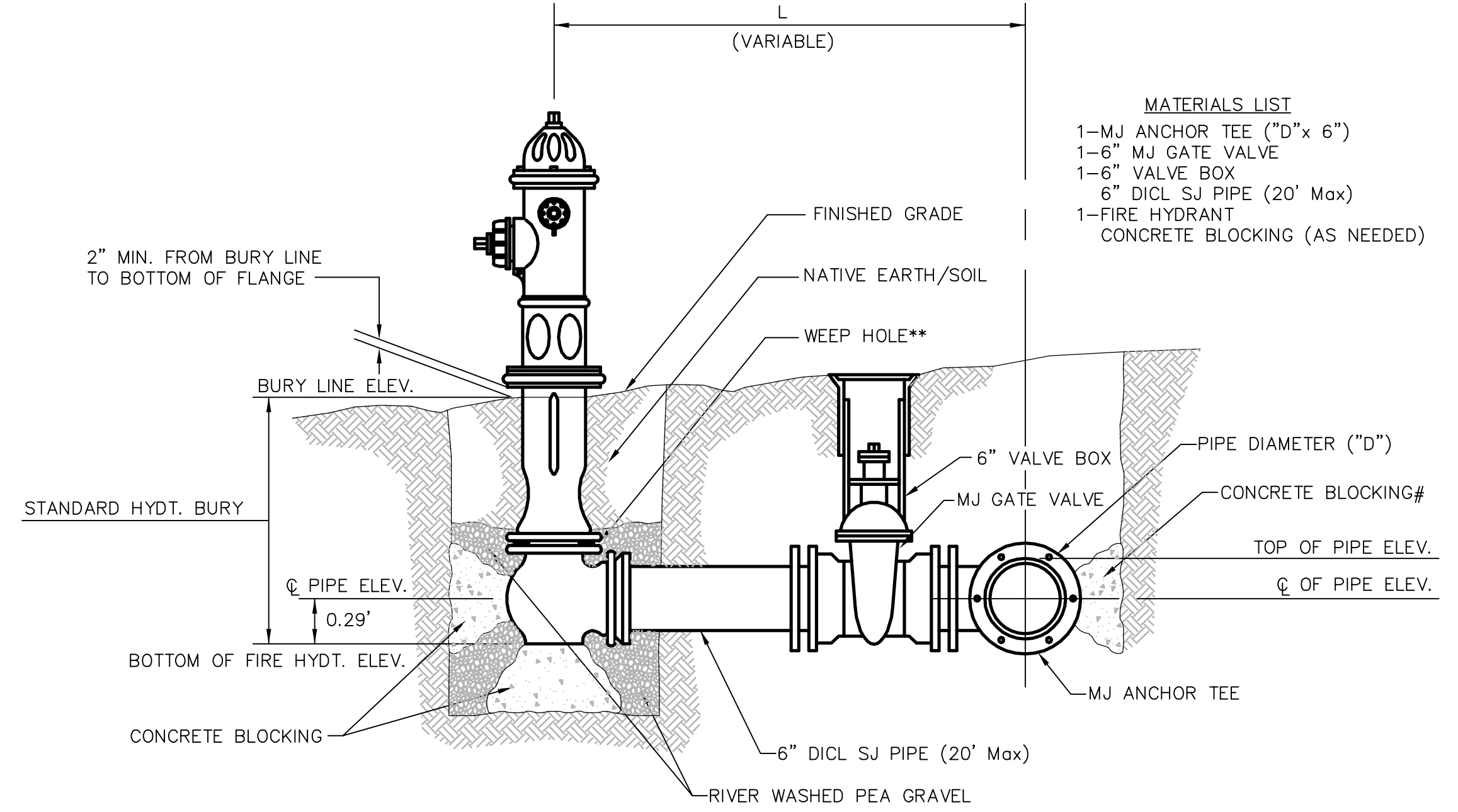
VALVE ASSEMBLY



NOTES

- This detail covers Butterfly Valve installation, inclusive, regardless 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



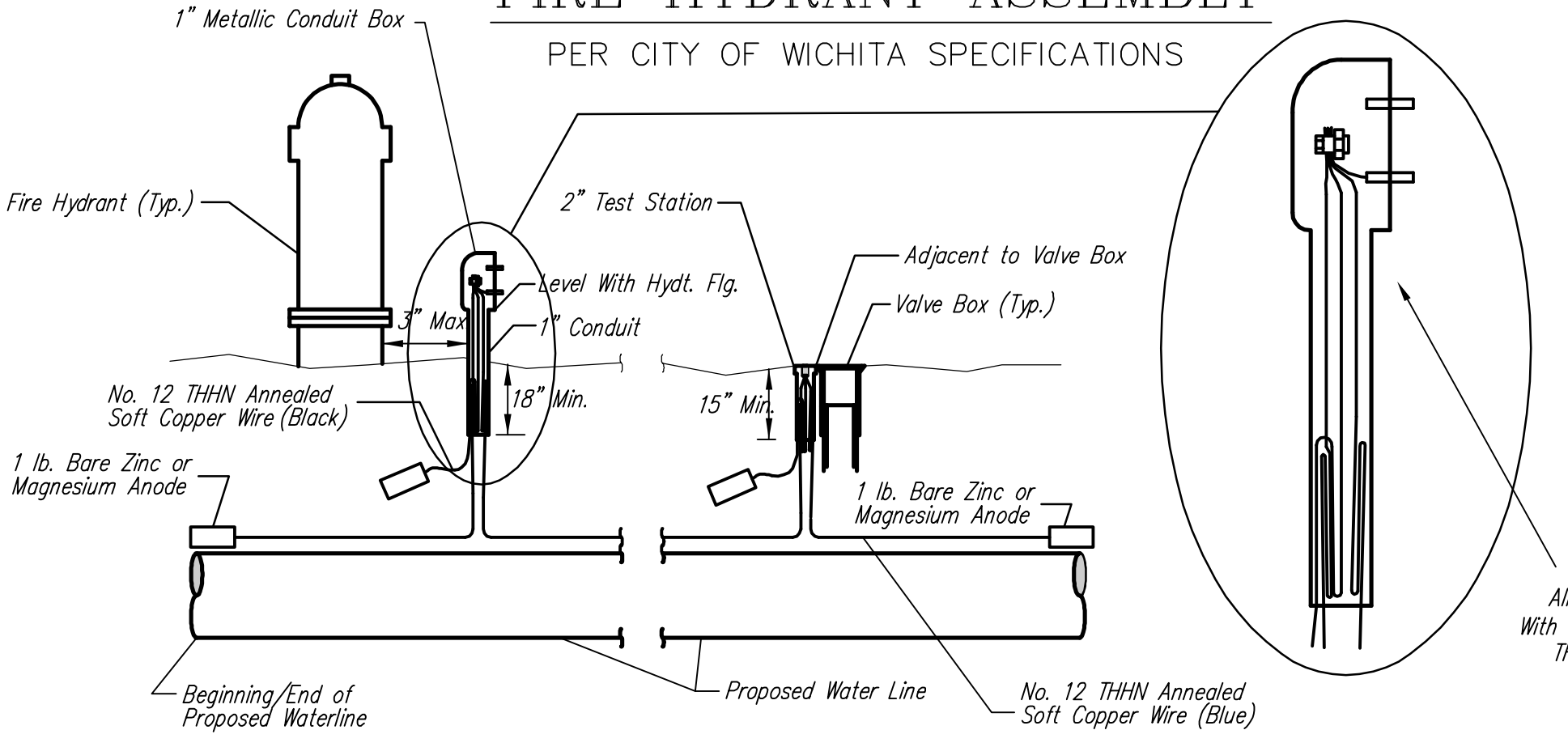
- MATERIALS LIST**
- 1-MJ ANCHOR TEE ("D"x 6")
 - 1-6" MJ GATE VALVE
 - 1-6" VALVE BOX
 - 6" DICL SJ PIPE (20' Max)
 - 1-FIRE HYDRANT
 - CONCRETE BLOCKING (AS NEEDED)

- ** 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				
LINE	STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
1	1+63.39	1308.40	1304.55	4.5'

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 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.

WIRE

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.

TEST STATIONS

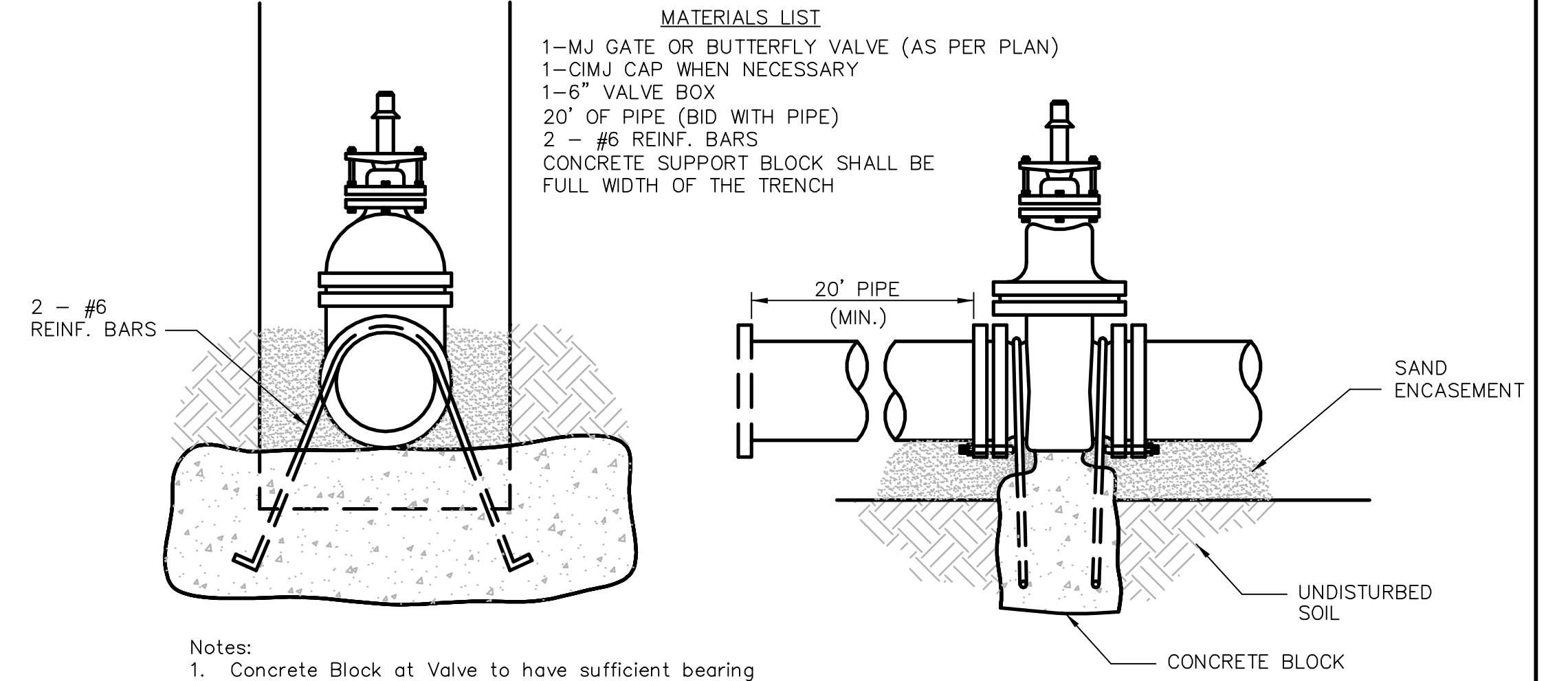
The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The conduit style 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 1 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

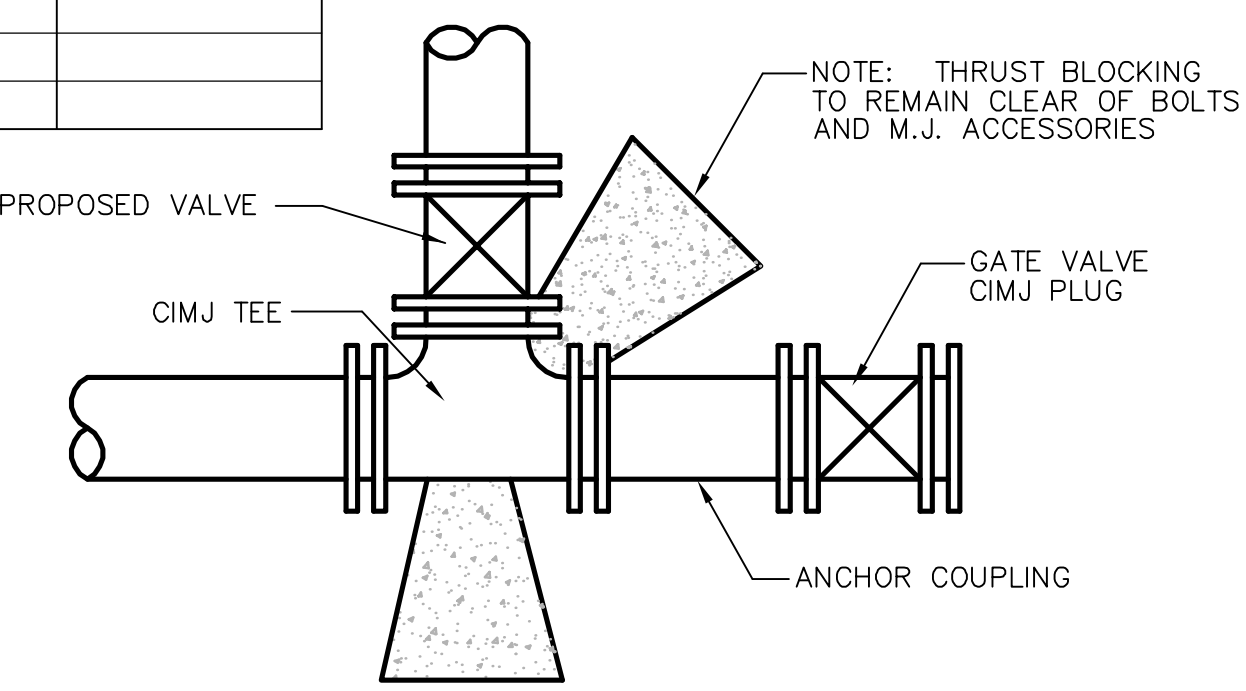


- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-CIMJ CAP WHEN NECESSARY
 - 1-6" VALVE BOX
 - 20' OF PIPE (BID WITH PIPE)
 - 2 - #6 REINF. BARS
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

- 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.

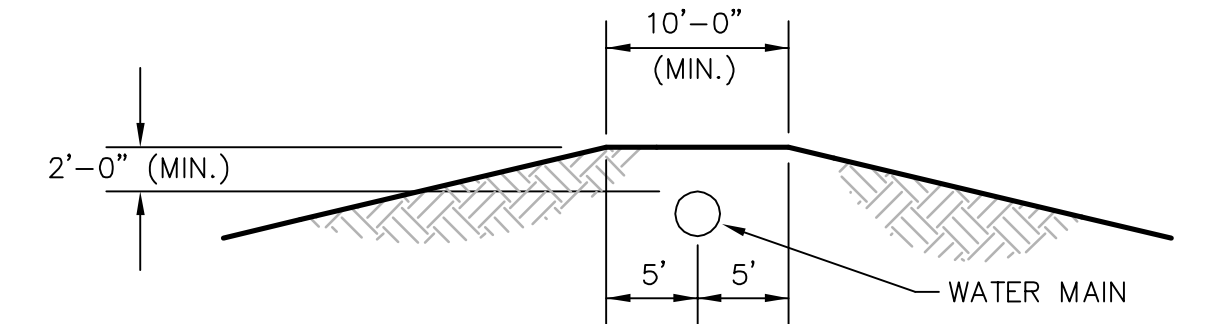
THRUST AT VALVES	
VALVE	THRUST AT 150 #/sq.2
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



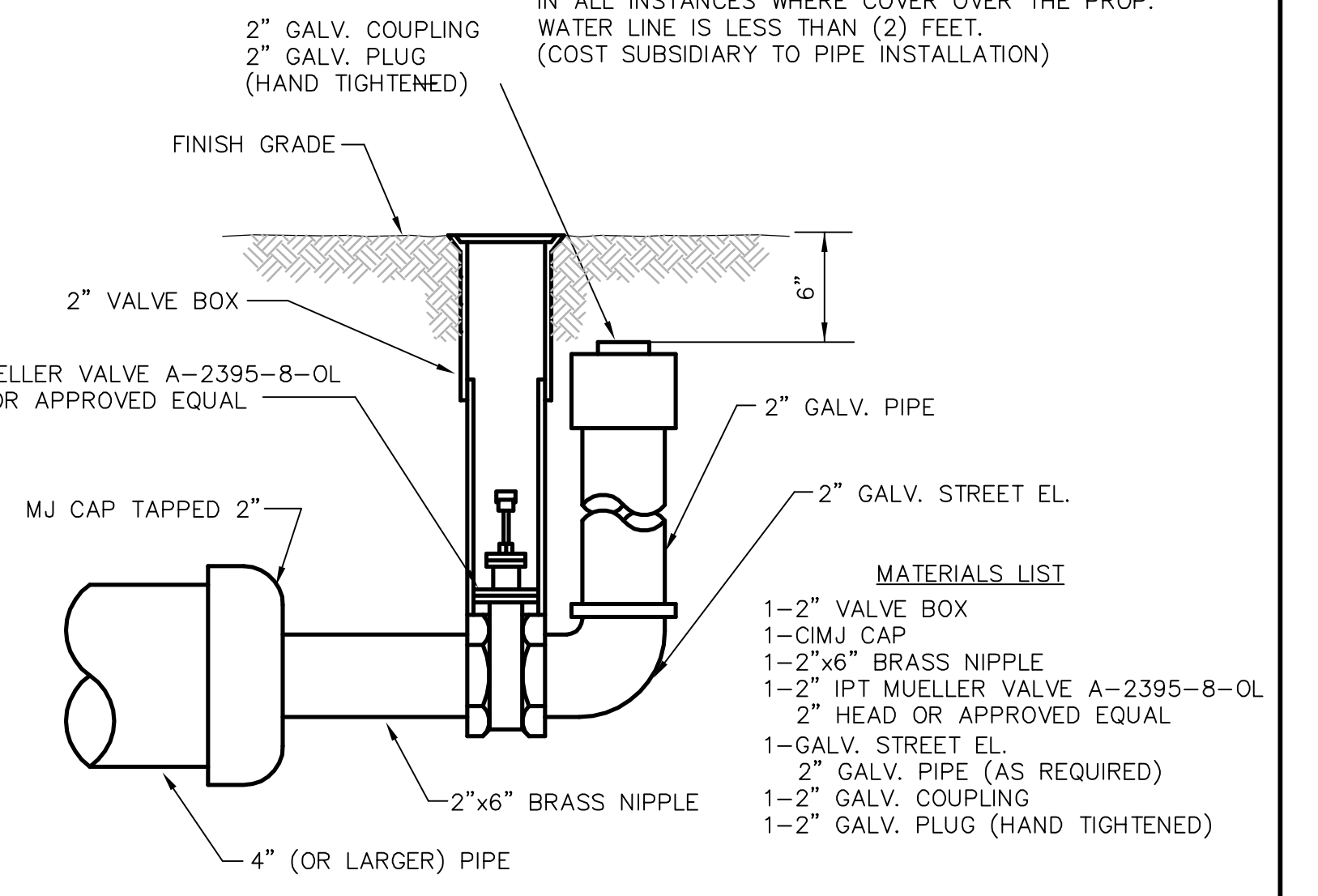
NOTE: THRUST BLOCKING TO REMAIN CLEAR OF BOLTS AND M.J. ACCESSORIES

KEY BLOCK DETAIL



PROTECTIVE FILL DETAIL

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)

2" BLOWOFF ASSEMBLY

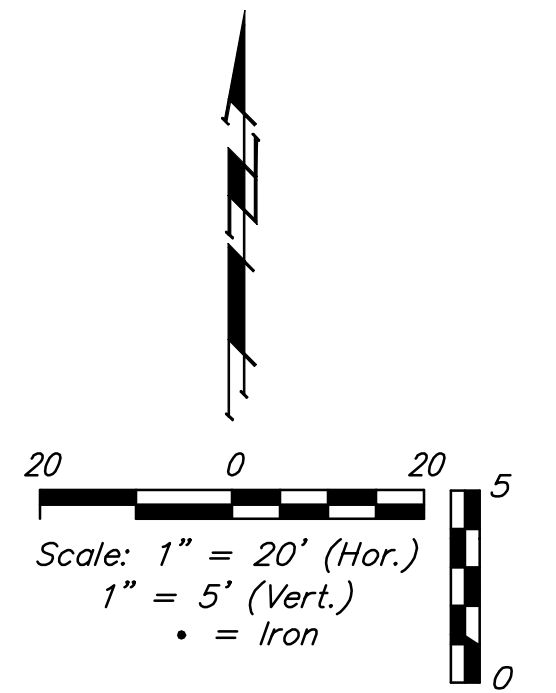
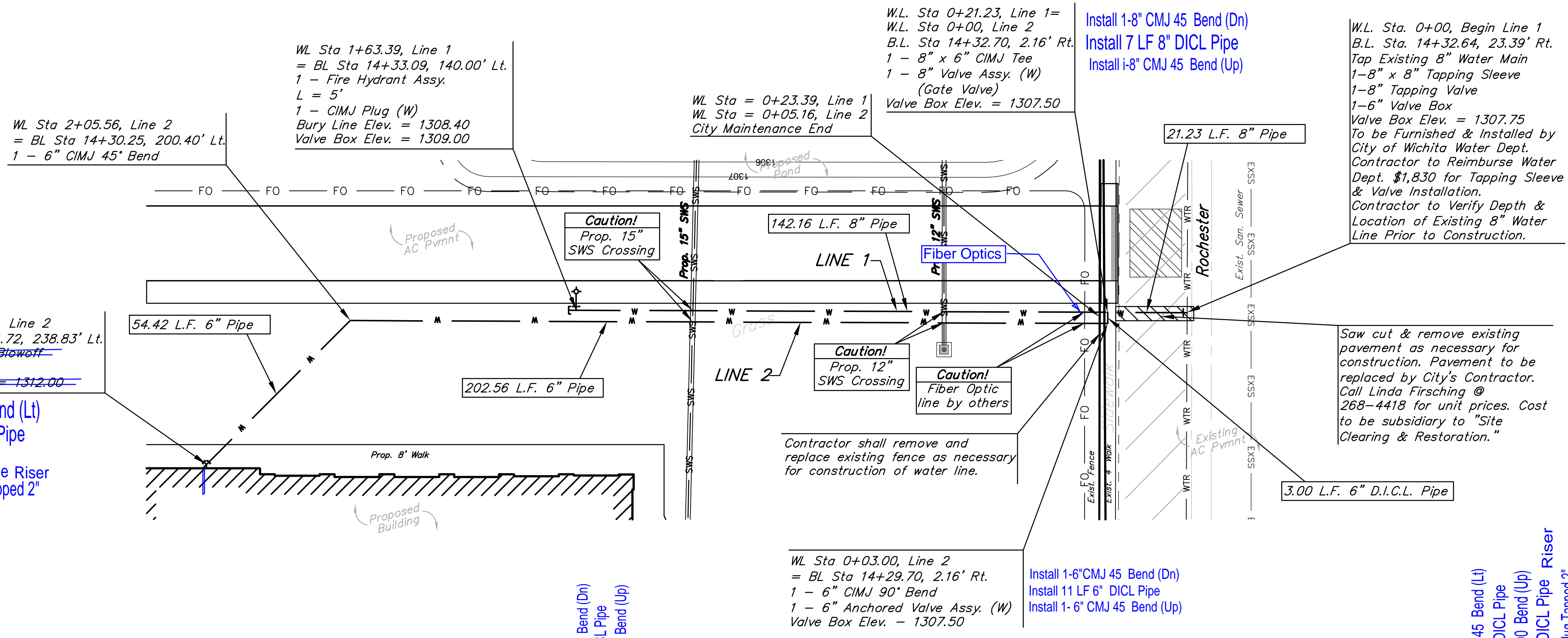
<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX</p>	STANDARD WATER ASSEMBLY DETAILS	
	JAMES L. ARMOUR, P.E. - CITY ENGINEER	
	PROJECT NUMBER 1626 PFW(607861)	INDEX CODE -
DATE OCT 2011	SHEET 2 OF 3	

Revised: 6-7-00, MCG

Benchmarks:
 #1 Square cut on the end of north end of the curb approximately 1.5' northeast of the west pole of the gate across Rochester Street just south of 14th Street.
 Elevation=1307.93
 #2 Square cut on the intersections of the sidewalks approximately 5' north of the northeast corner of the school building entrance and 32.5' south and 9' east of the southeast corner fence around the track.
 Elevation=1309.96
 Elevations are NGVD 29
 See Cover Sheet for More Benchmarks.

See Cover Sheet for Baseline Information

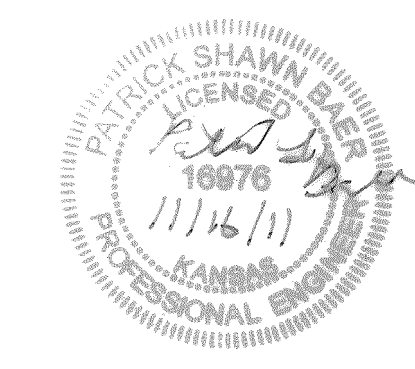
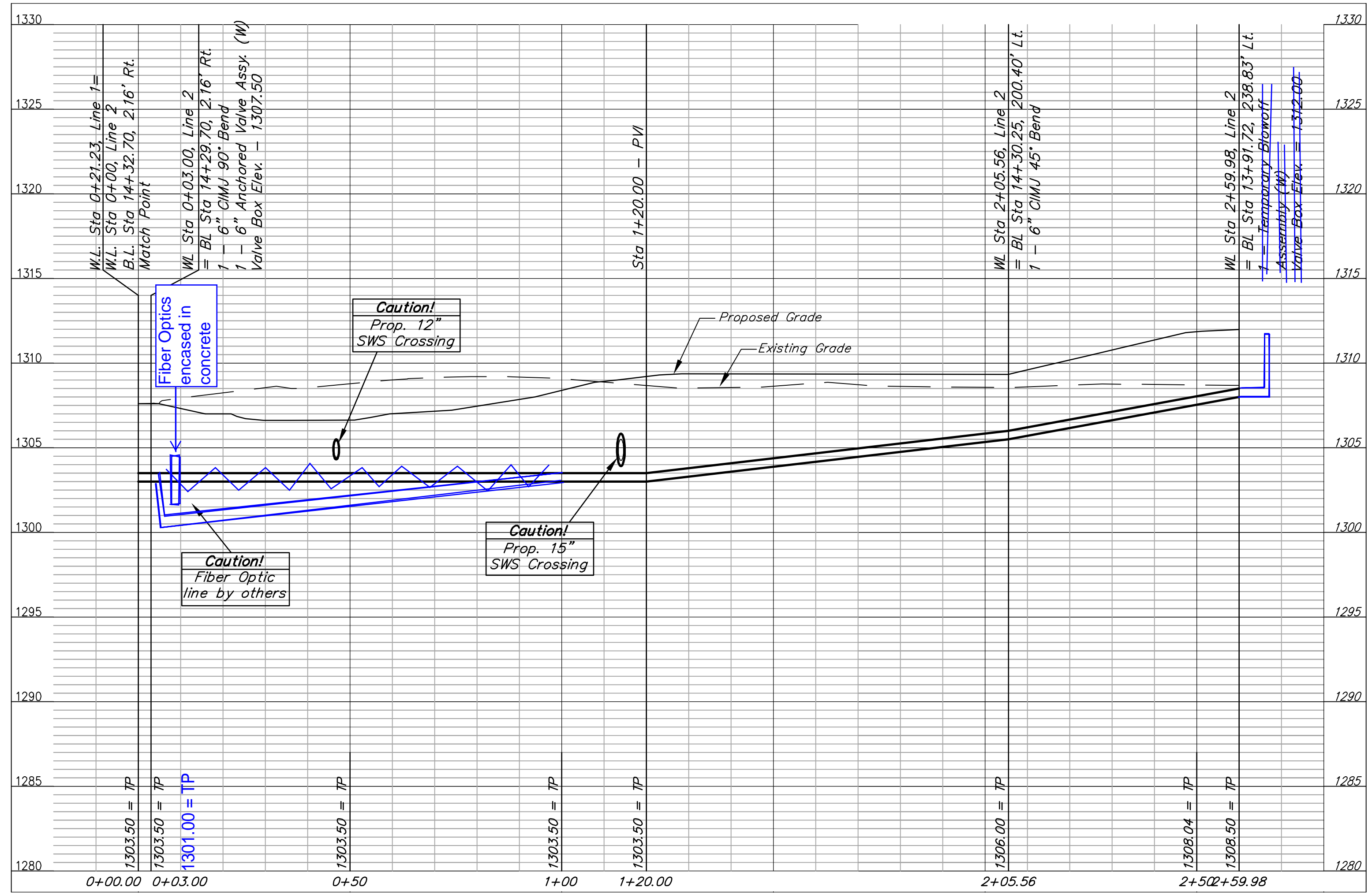
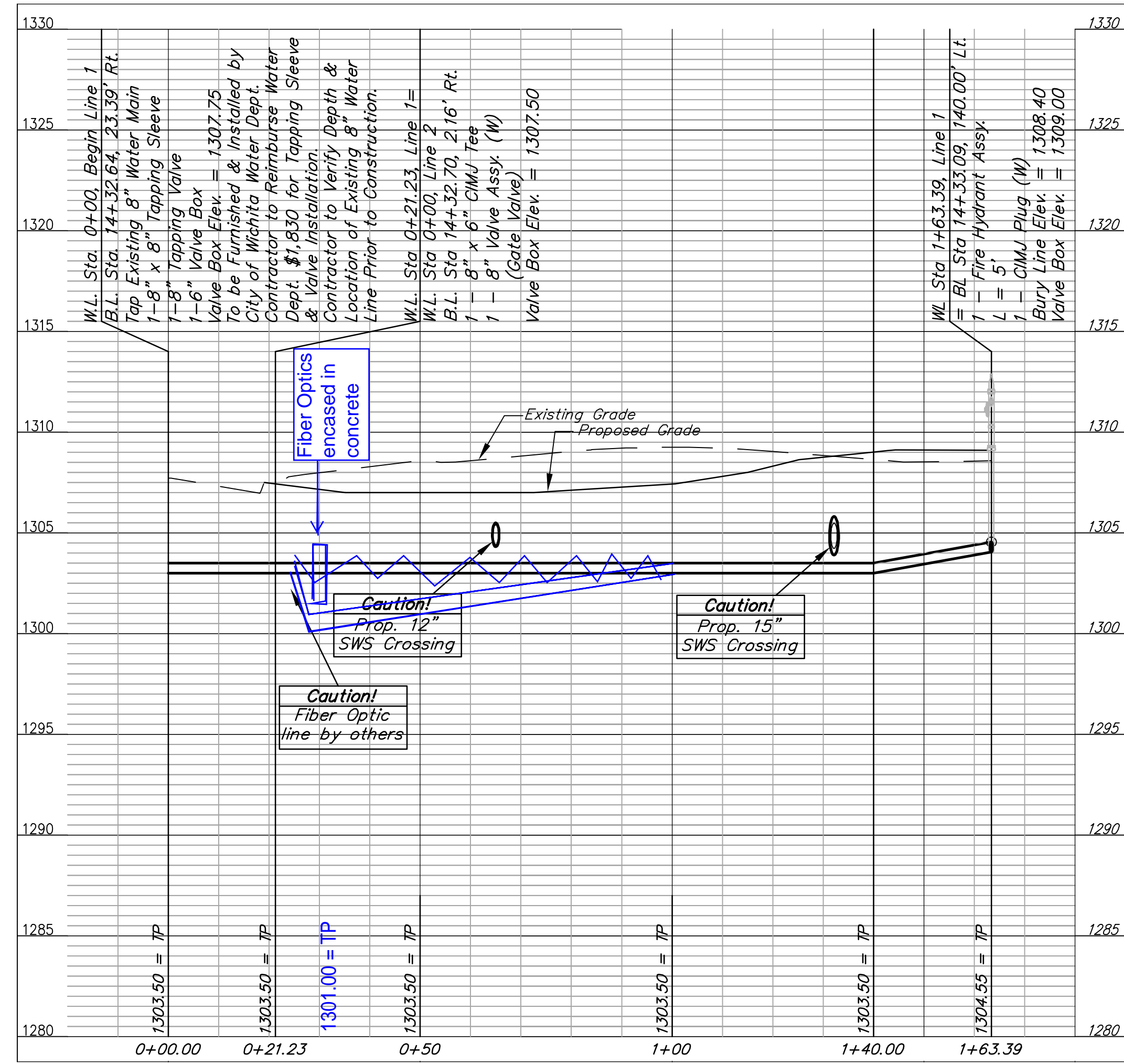
Note: Protective Fill to be Placed and Compacted per City Specs Prior to Water Line Installation.



Profile View of WTR Line 1
 Install 1-8" CMJ 45 Bend (Dn)
 Install 7 LF 8" DI CL Pipe
 Install 1-8" CMJ 45 Bend (Up)

Profile View of WTR Line 2
 Install 1-6" CMJ 45 Bend (Dn)
 Install 11 LF 6" DI CL Pipe
 Install 1-6" CMJ 45 Bend (Up)

Profile View of WTR Line 2
 Install 1-6" CMJ 45 Bend (Lt)
 Install 12 LF 6" DI CL Pipe
 Install 1-6" CMJ 90 Bend (Up)
 Install 4 LF 6" DI CL Pipe Riser
 Install 1-6" CMJ Plug Tapped 2"



		USD 259 North High School Line 1 Wichita, Kansas	
PROJECT NUMBER 1626 PPW (607853)		DESIGN PSB	
APPROVED PSB		DRAWN TNT	
REVISIONS:		DATE 11/16/2011	
SCALE varies		SHEET 3 OF 3	