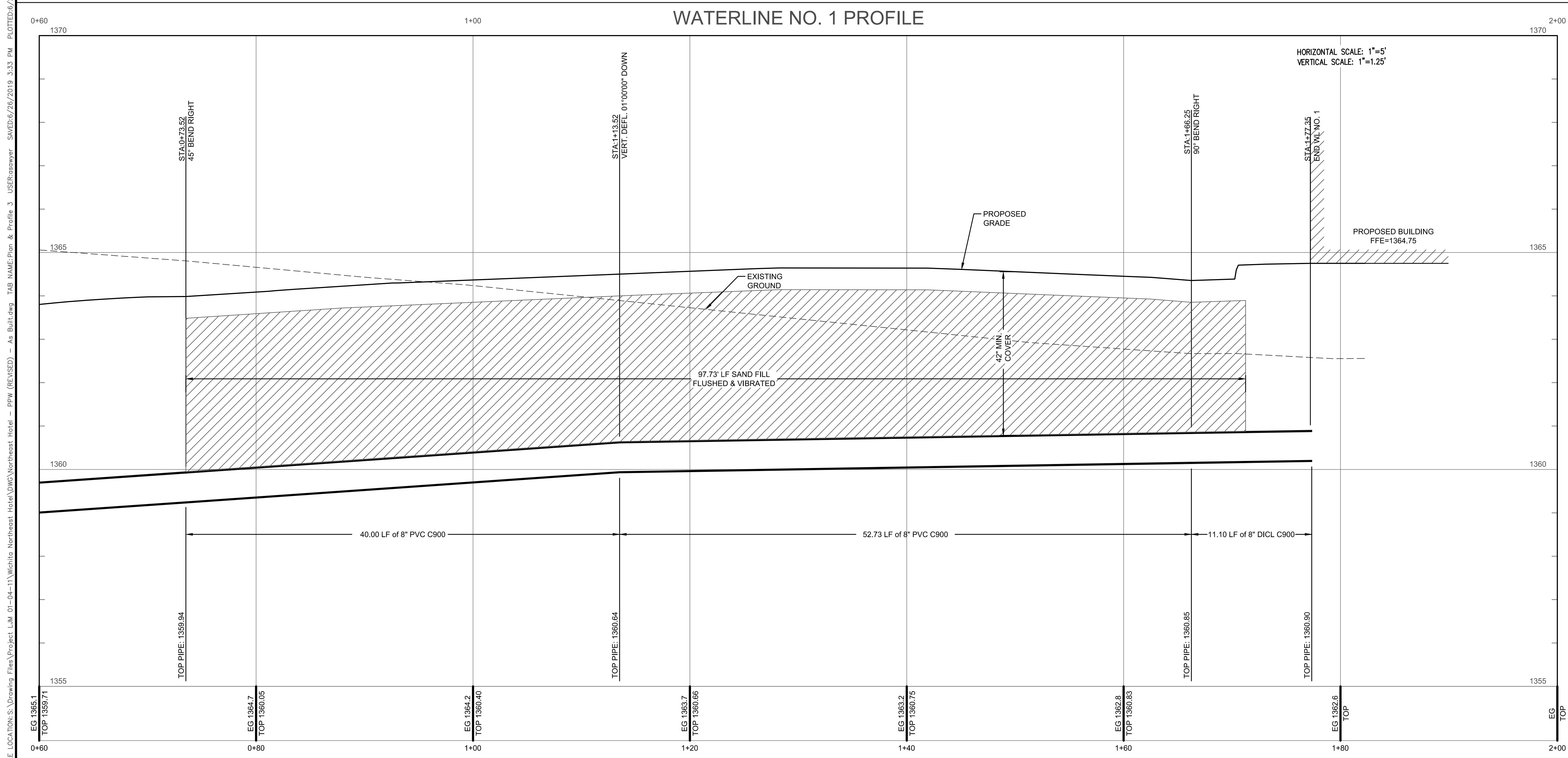
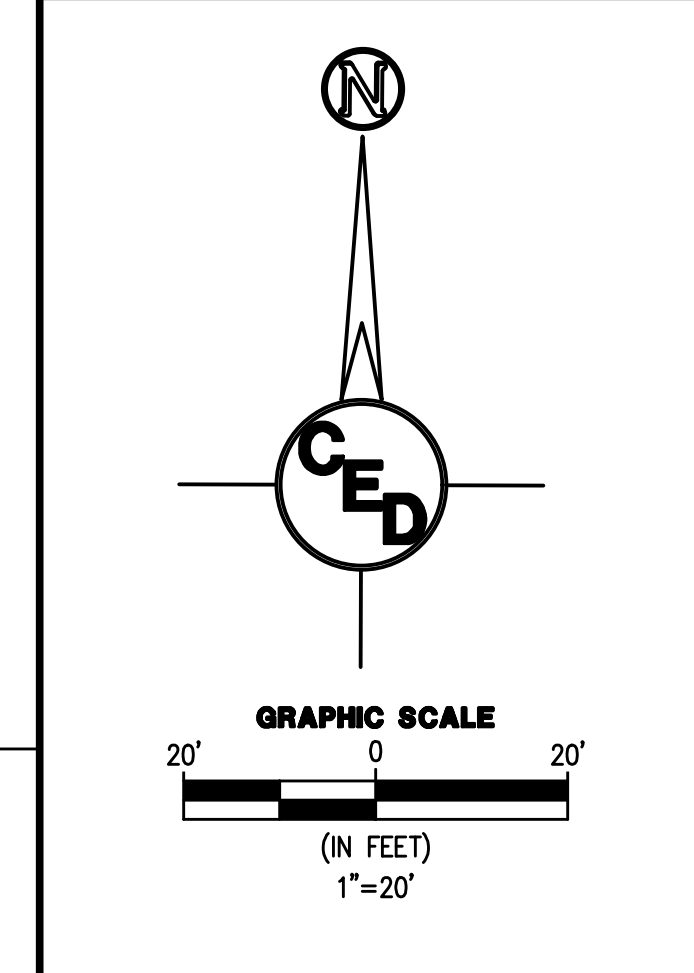


REV.	DESCRIPTION	DATE



**WATER IMPROVEMENTS
HOME2 HOTEL**

CROSS POINTE 2ND ADDITION
WICHITA, SEDGWICK COUNTY, KS

CERTIFIED ENGINEERING DESIGN, P.A.
CIVIL ENGINEERING SERVICES

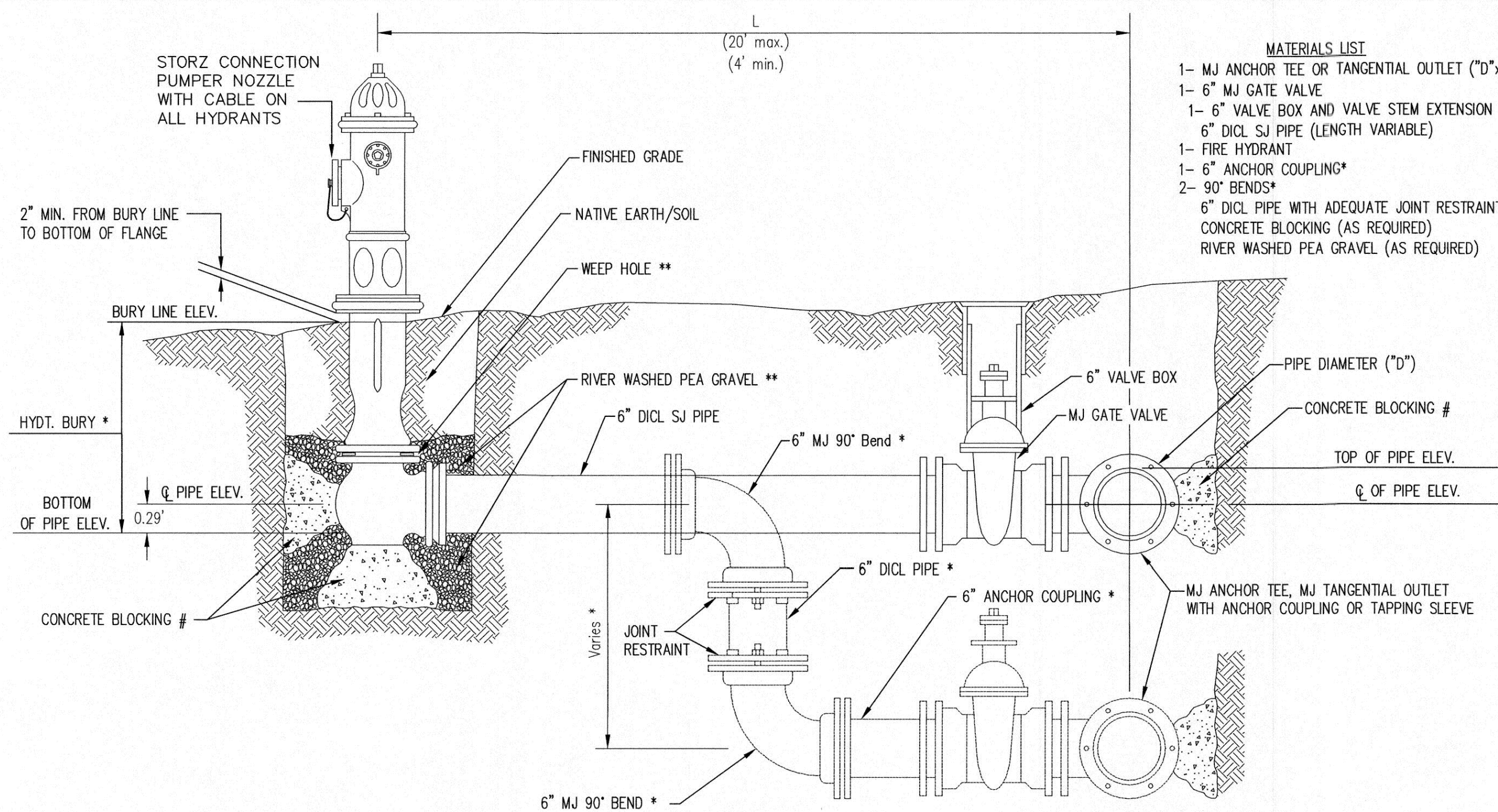


1935 WEST MAPLE STREET
WICHITA, KANSAS 67213
PH.(316)262-8808 FAX.(316)262-1669

PROJECT NO.: 20172412
ISSUE DATE: 02/01/18
CONTACT: L. MILLS / H. FORAKER
CHECKED BY: L. MILLS

**WL NO. 1 PLAN &
PROFILE 3**

FILE LOCATION: S:\Drawing Files\Project LJM 01-04-11\Wichita Northeast Hotel\DWG\Northeast Hotel - PPW (REVISED) - As Built.dwg TAB NAME: Plan & Profile 3 USER: rrossmyer SAVER: 6/26/2019 3:33 PM PLOTTED: 6/26/2019 3:35 PM



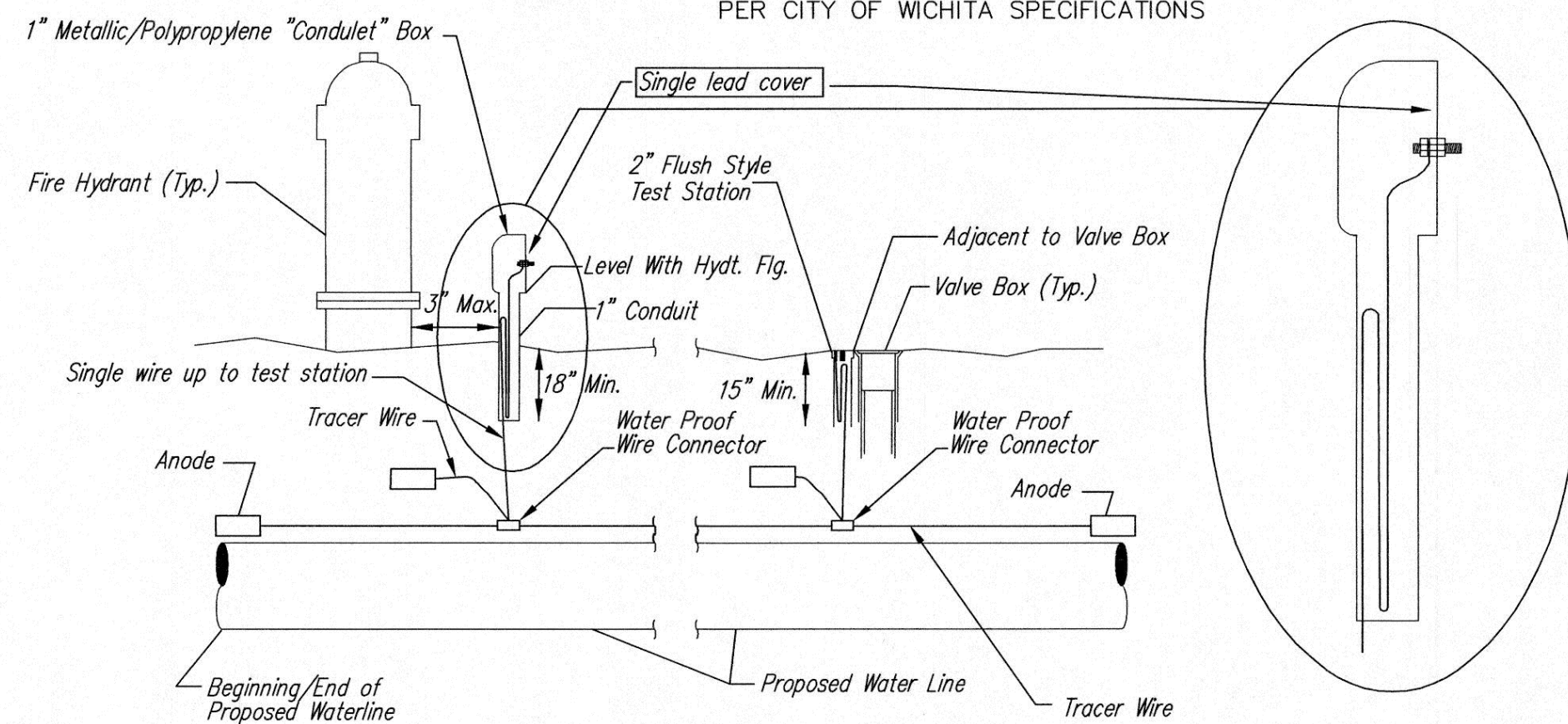
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D" x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DI CL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DI CL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - 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" DI CL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, 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. A waterproof connector shall be used at splice locations. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at www.wichita.gov.

WIRE

The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. 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. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS

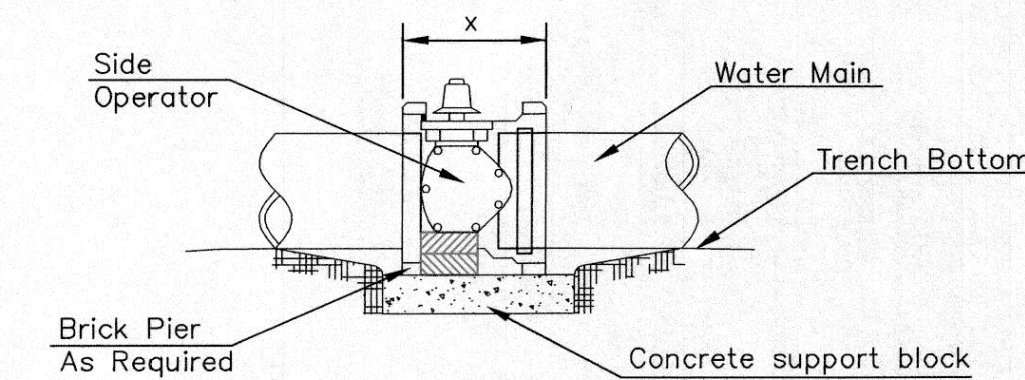
The test station for fire hydrant application shall be a 1" "condulet" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduit" style test station shall be attached to a 1" rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # T2PH7B1LP Handley Industries or CD14*TP SnakePit as manufactured by Copperhead Industries or approved equal. 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 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.

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 12 AWG CCS which shall be extended to the test station.

TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

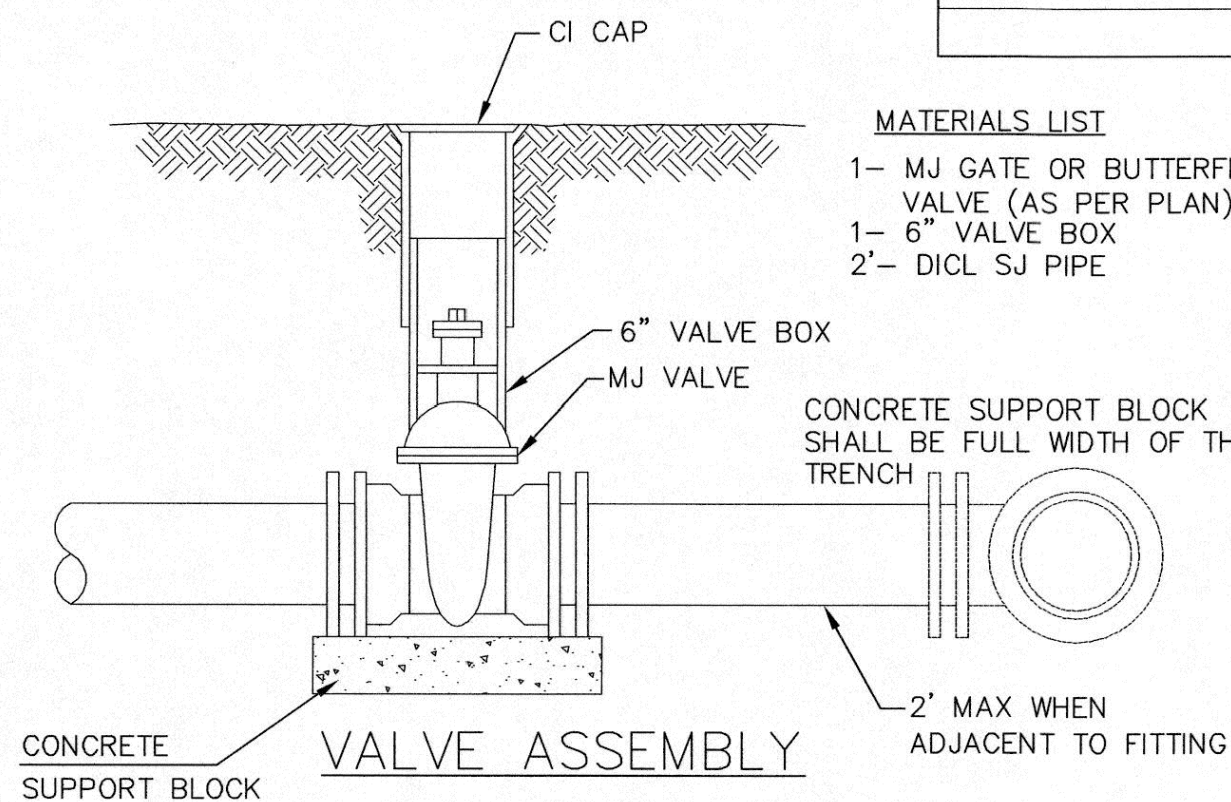
FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
0+13.23	1365.17	1358.23	7.5'	2.5



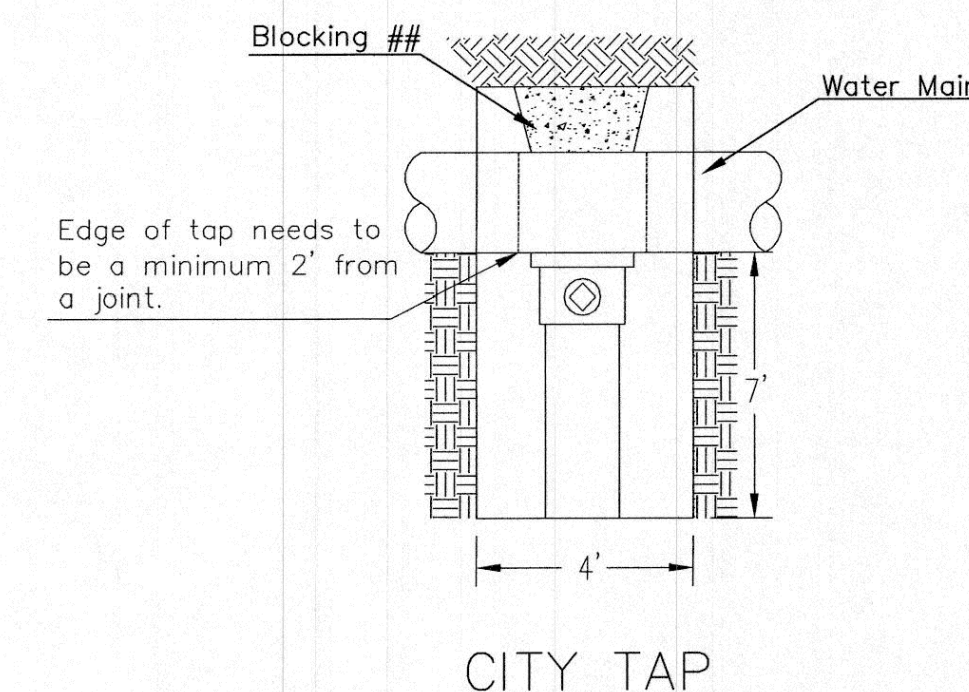
NOTES

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

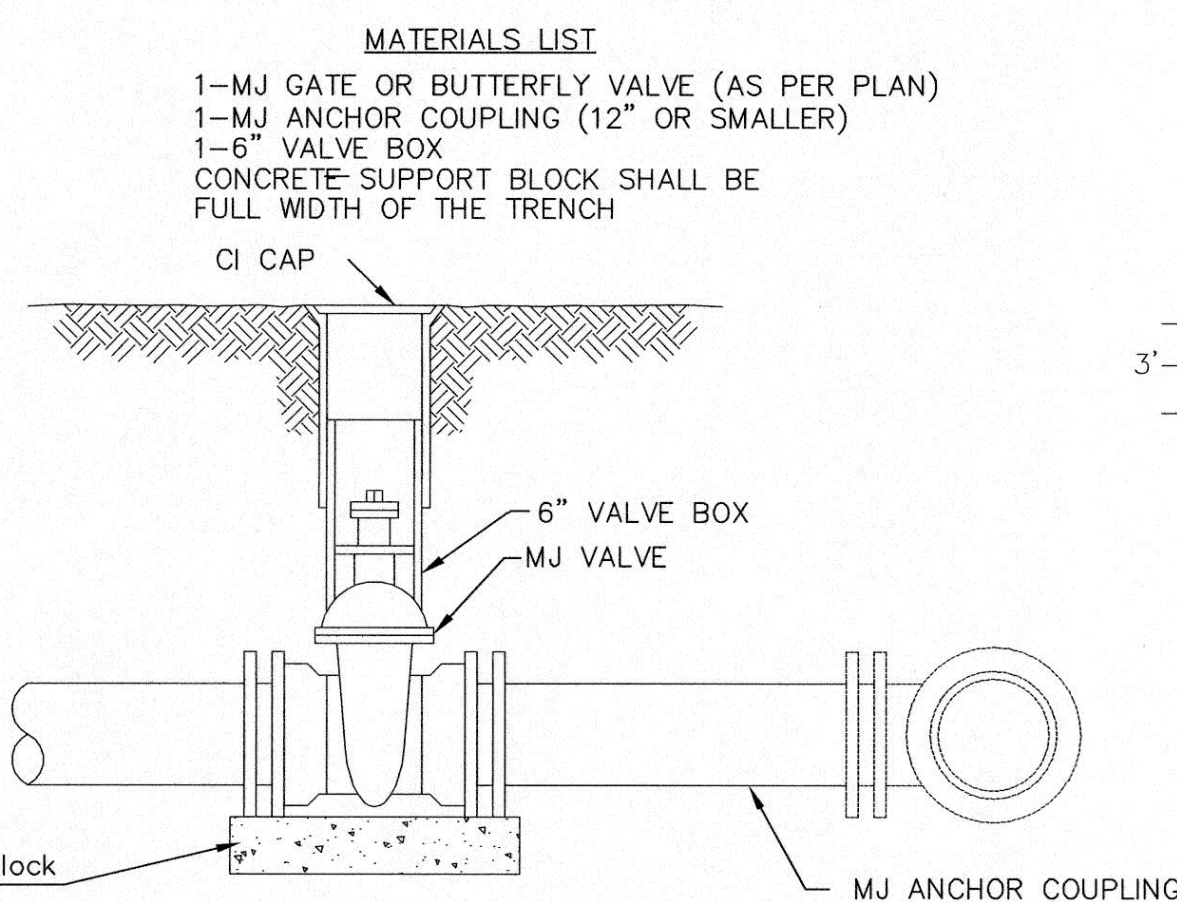
CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



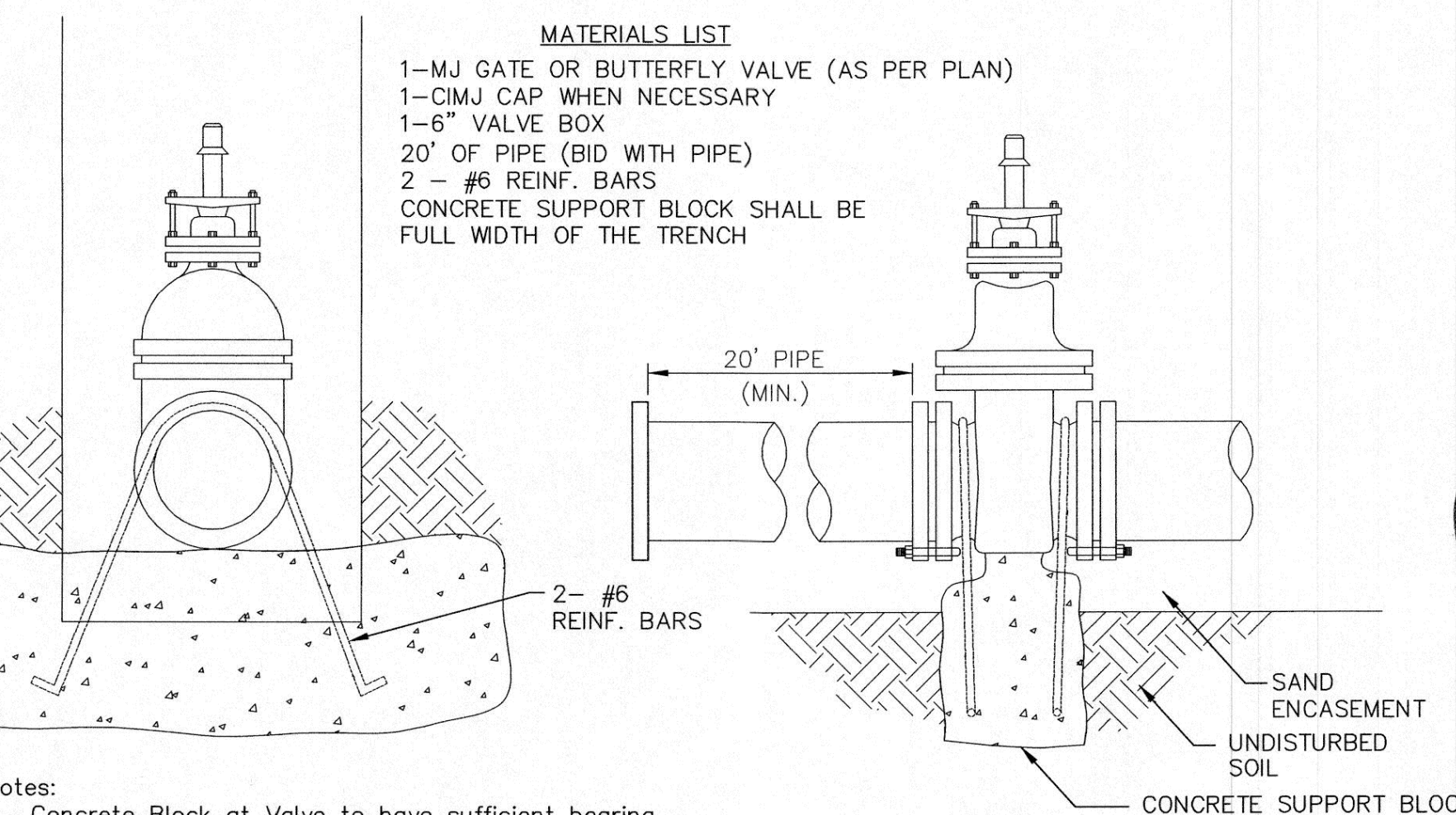
- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- 6" VALVE BOX
 - 2- DI CL SJ PIPE



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



ANCHORED VALVE ASSEMBLY

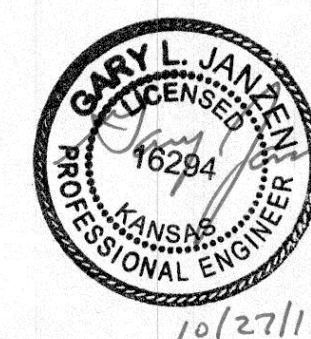


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- CI MJ CAP WHEN NECESSARY
 - 1- 6" VALVE BOX
 - 20' OF PIPE (BID WITH PIPE)
 - 2 - #6 REINF. BARS
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

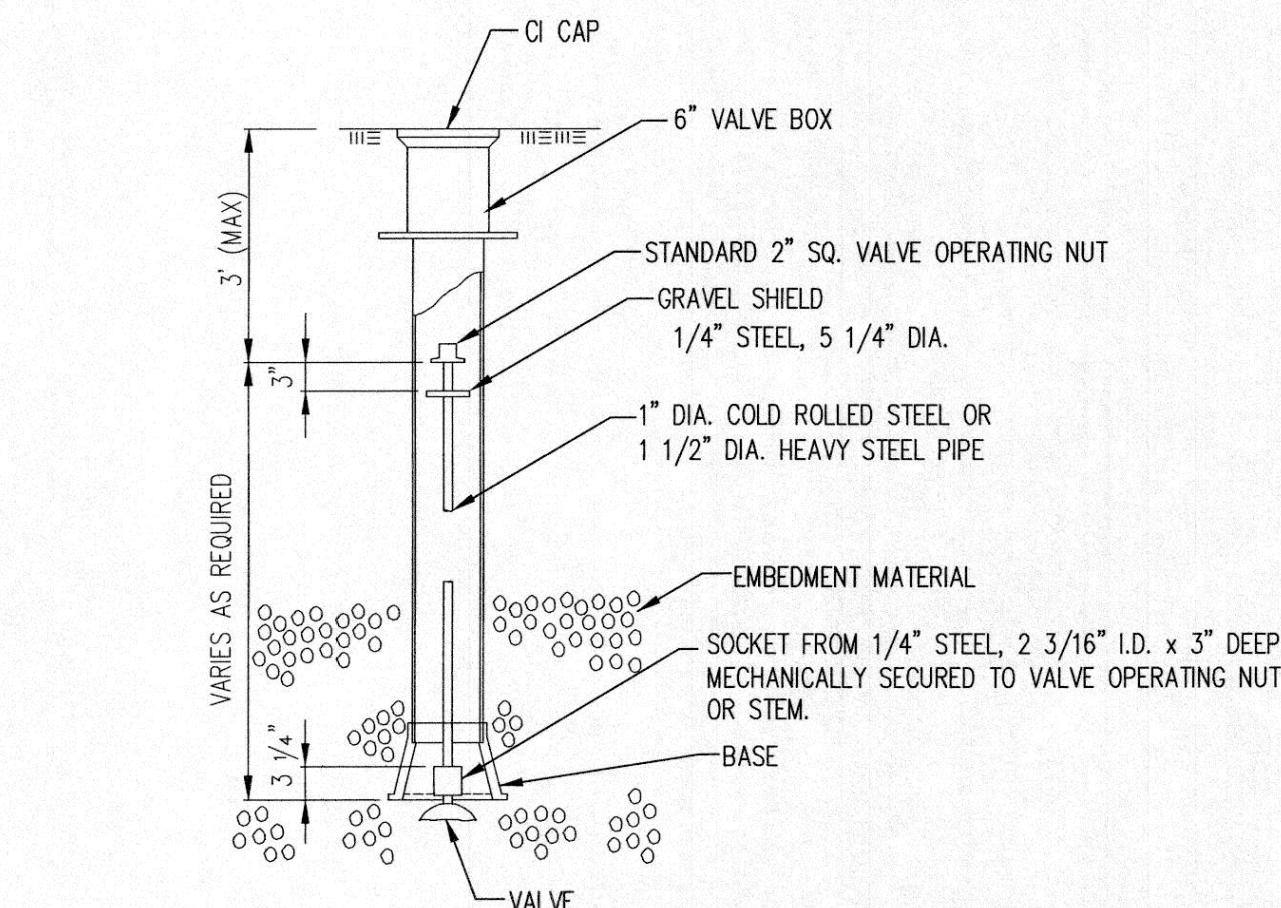
Notes:

- 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
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

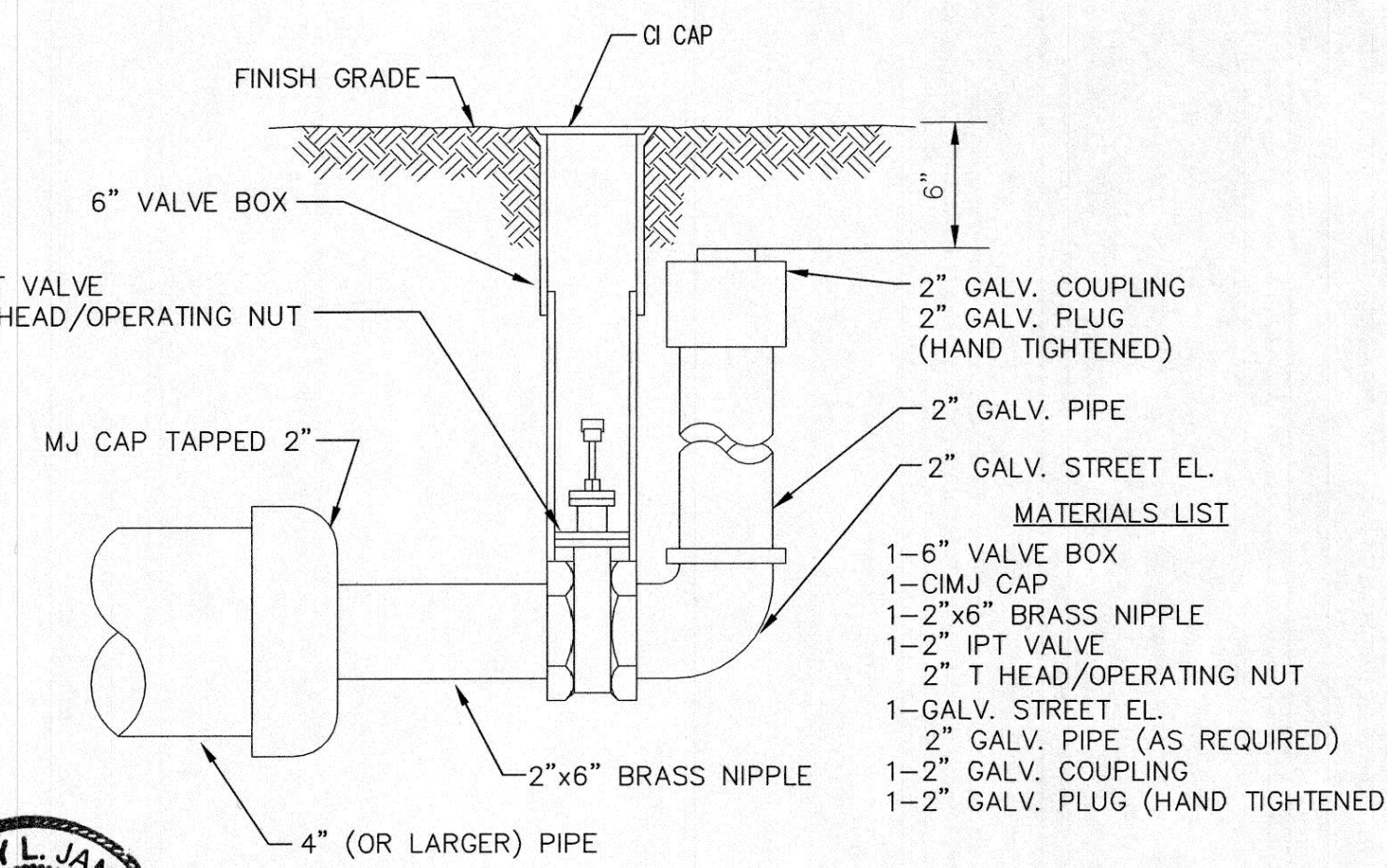


10/27/16



VALVE STEM EXTENSION DETAIL

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



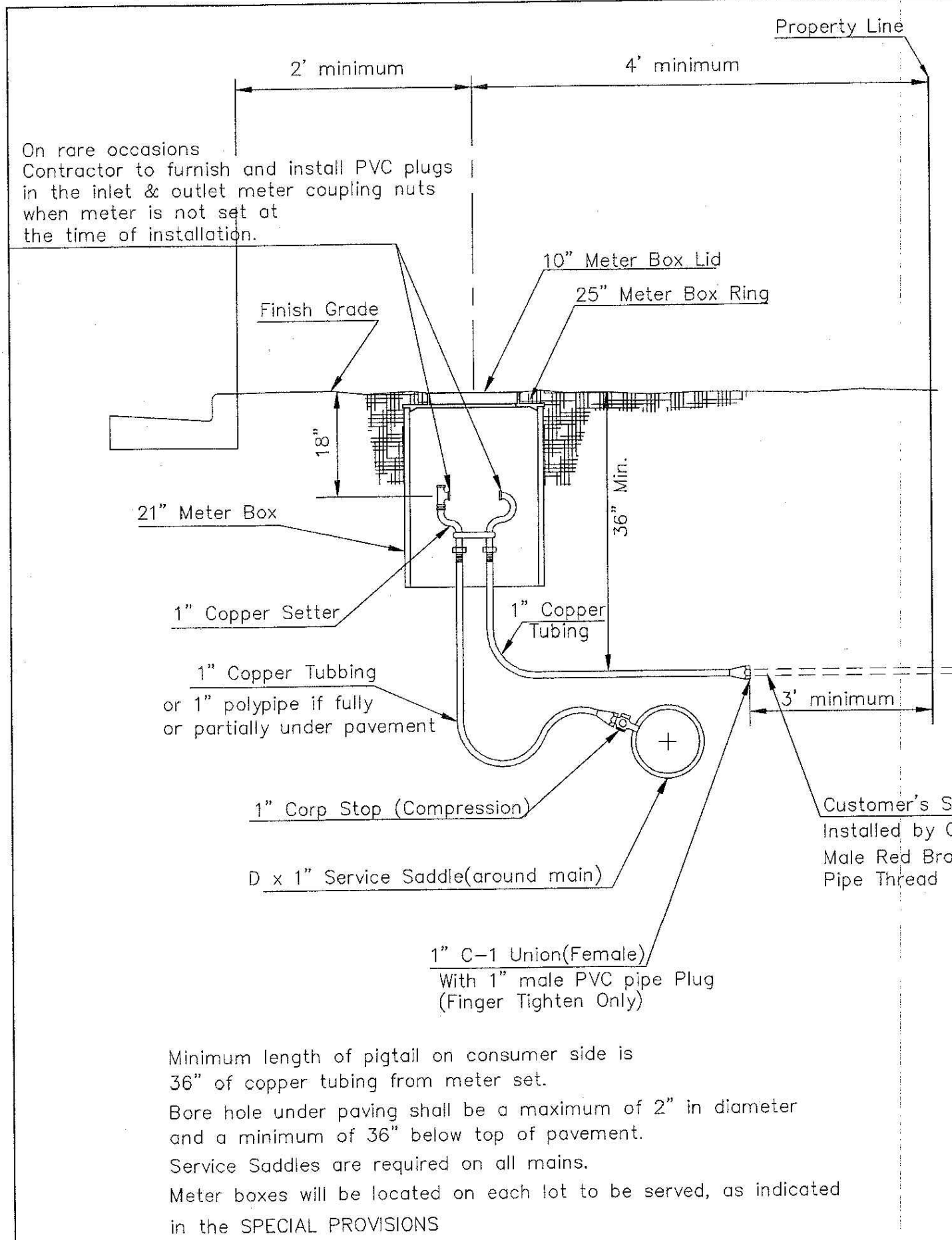
2" BLOWOFF ASSEMBLY

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

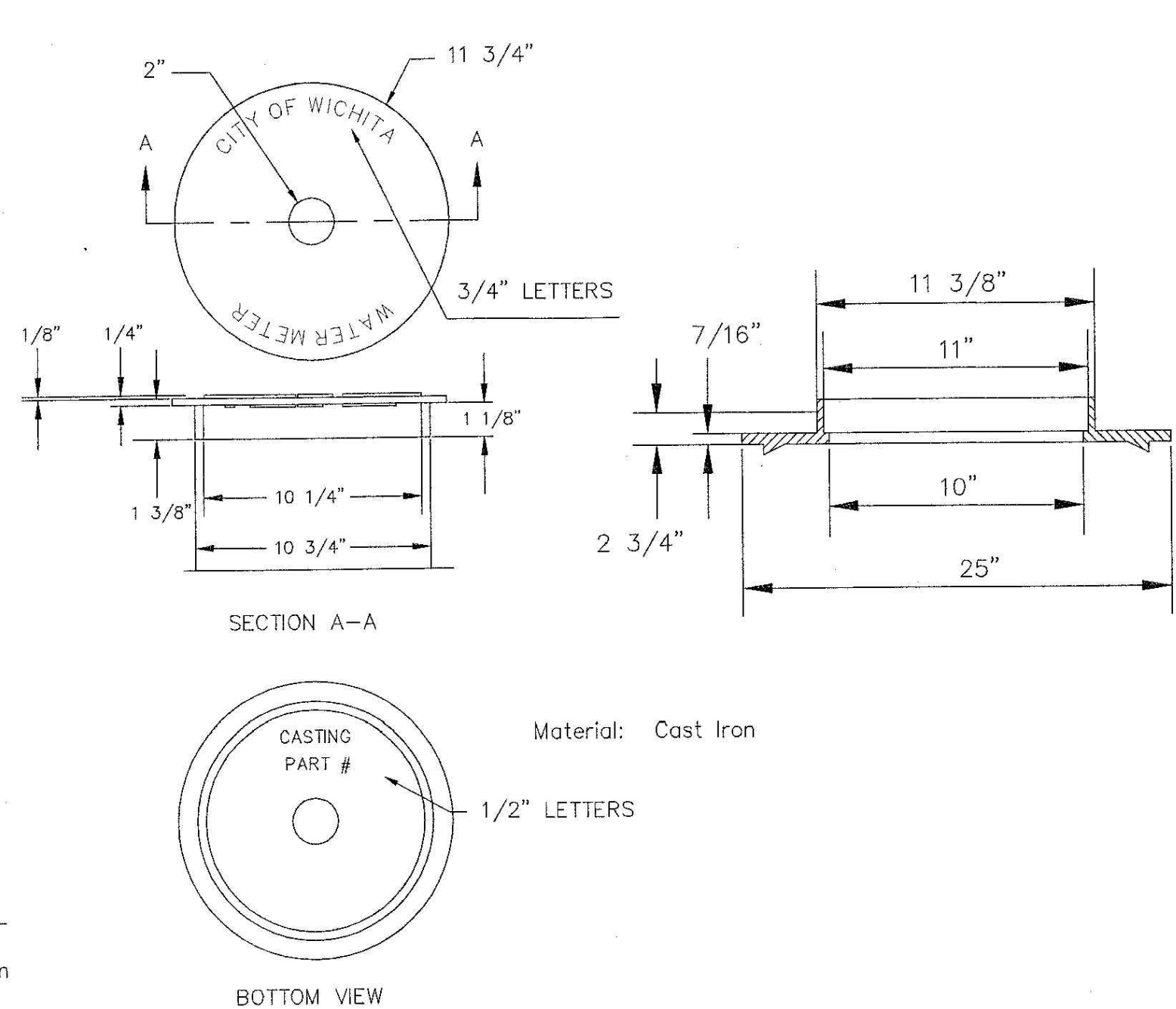
STANDARD WATER ASSEMBLY DETAIL
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 5 of 10

REVISED: OCTOBER 2016

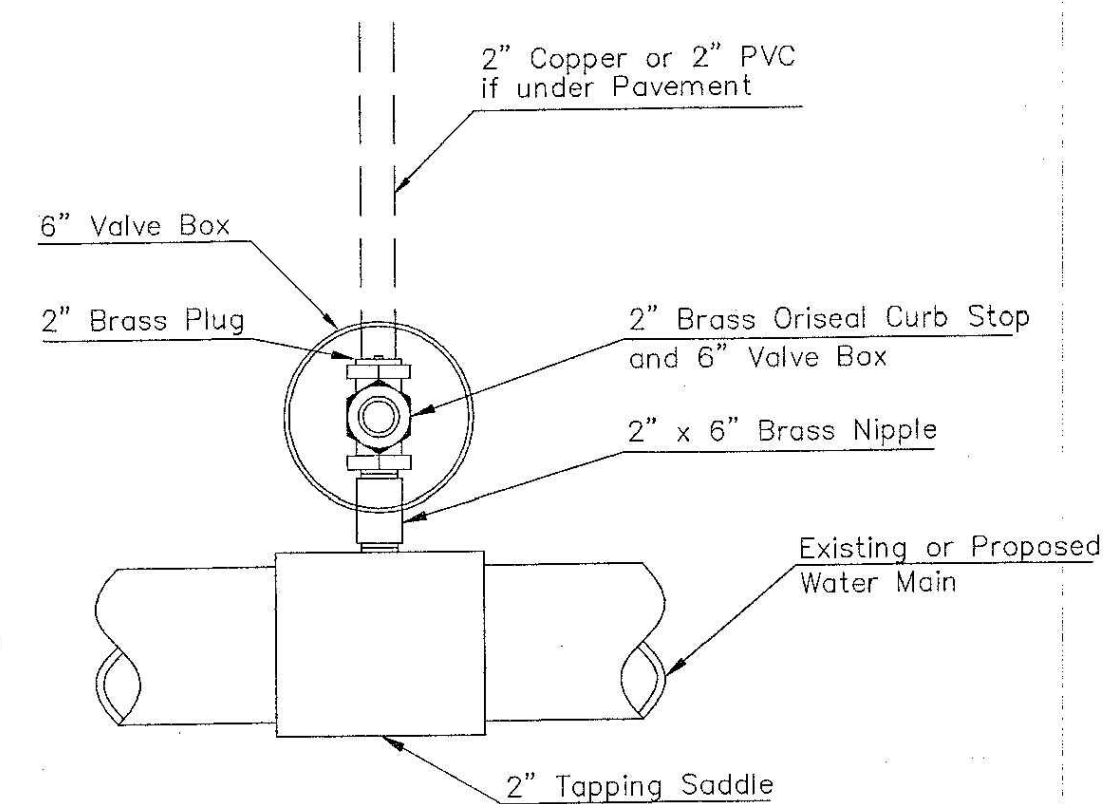


TYPICAL 1" METER SETTING



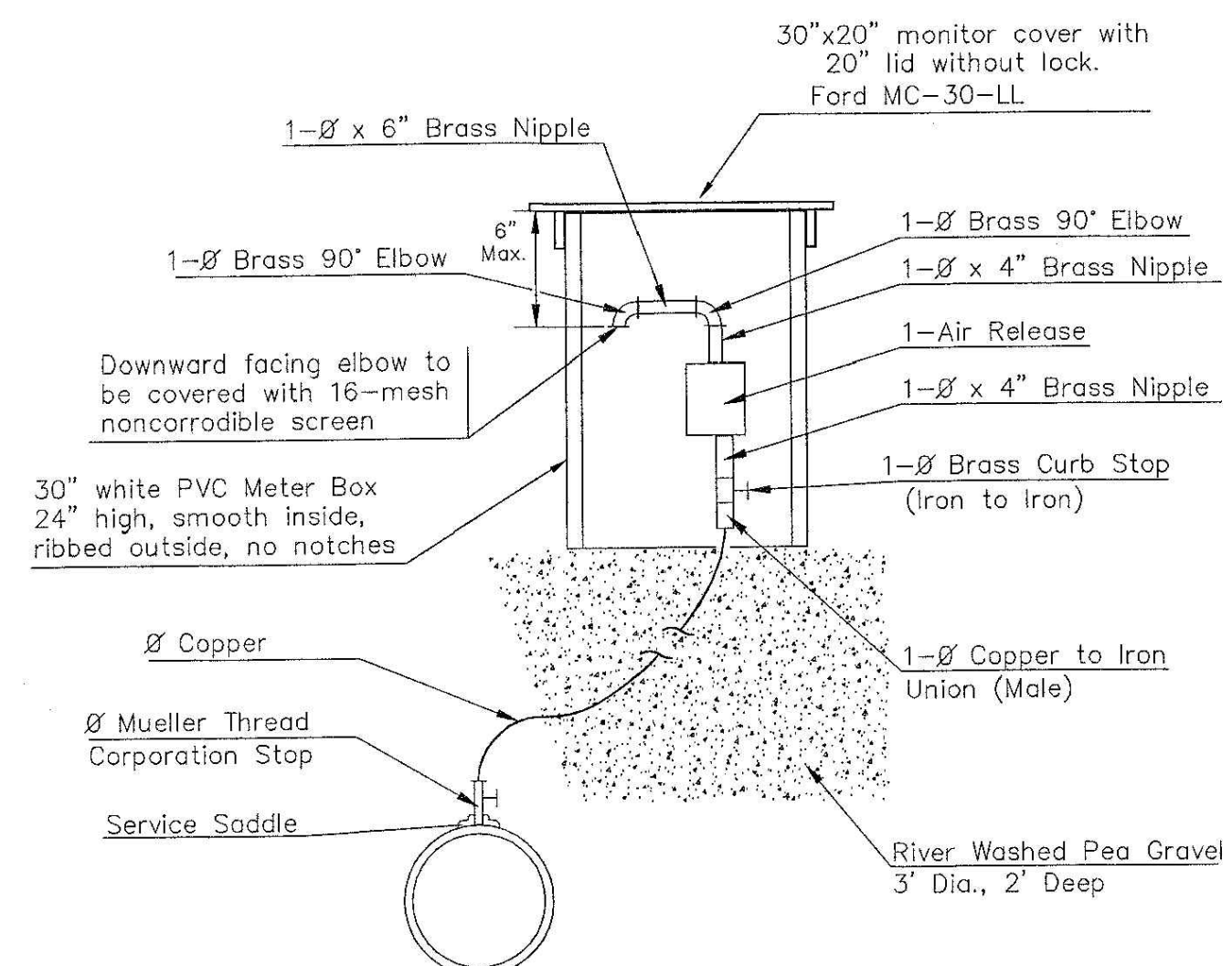
- 1 - Ø Mueller Thread Corporation Stop
- Ø Type "K" Copper Tubing
- 1 - Ø Copper to Iron Union (Male)
- 1 - Ø Brass Curb Stop (Iron to Iron)
- 2 - Øx4" Brass Nipple
- Air Release
- 2 - Ø Brass Elbows (90°)
- 1 - 1"x6" Brass Nipple
- 1 - 30" Monitor Cover
- 1 - 20" Meter Lid

NOTE: THE 1 1/2" AIR RELEASE ASSEMBLY WILL TYPICALLY BE USED ON WATER MAINS 24" AND SMALLER, AS SPECIFICALLY DESIGNATED IN THE PLANS. COMBINATION AIR RELAEASE ASSEMBLIES WILL BE SPECIFICALLY DESIGNED FOR PROJECTS WITH LARGER MAINS, AND WILL BE INCLUDED IN THE PLANS.

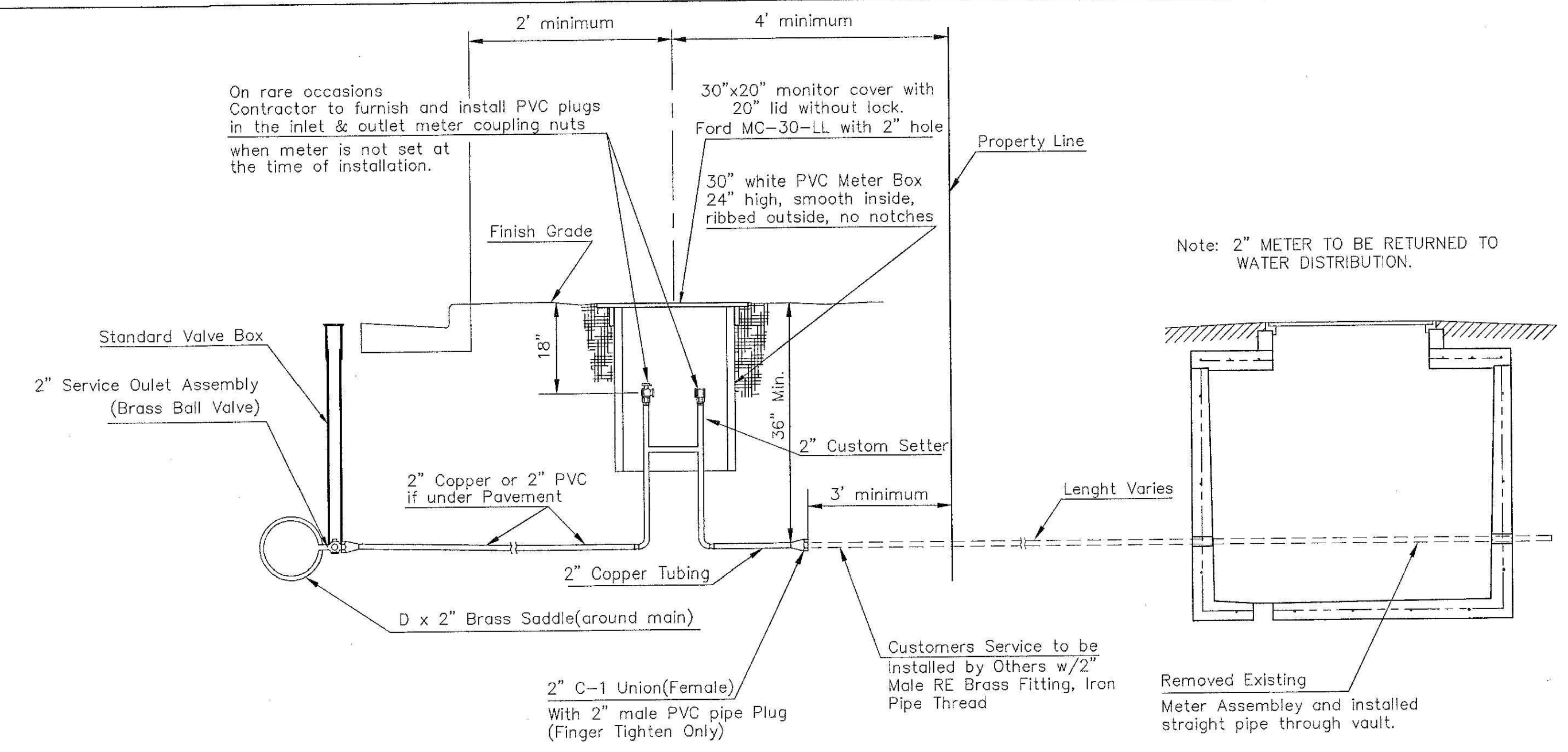


Note: Where the 2" Service Outlet Assembly is to be used to connect a 2" main to another main, the 2" valve shall be a 2" IPT Gate Valve. 2" ball or globe vavies shall not be approved for this use.

2" SERVICE OUTLET ASSEMBLY TOP VIEW



MATERIALS FOR 1" or 2" AIR RELEASE ASSEMBLY Ø = 1" or 2"

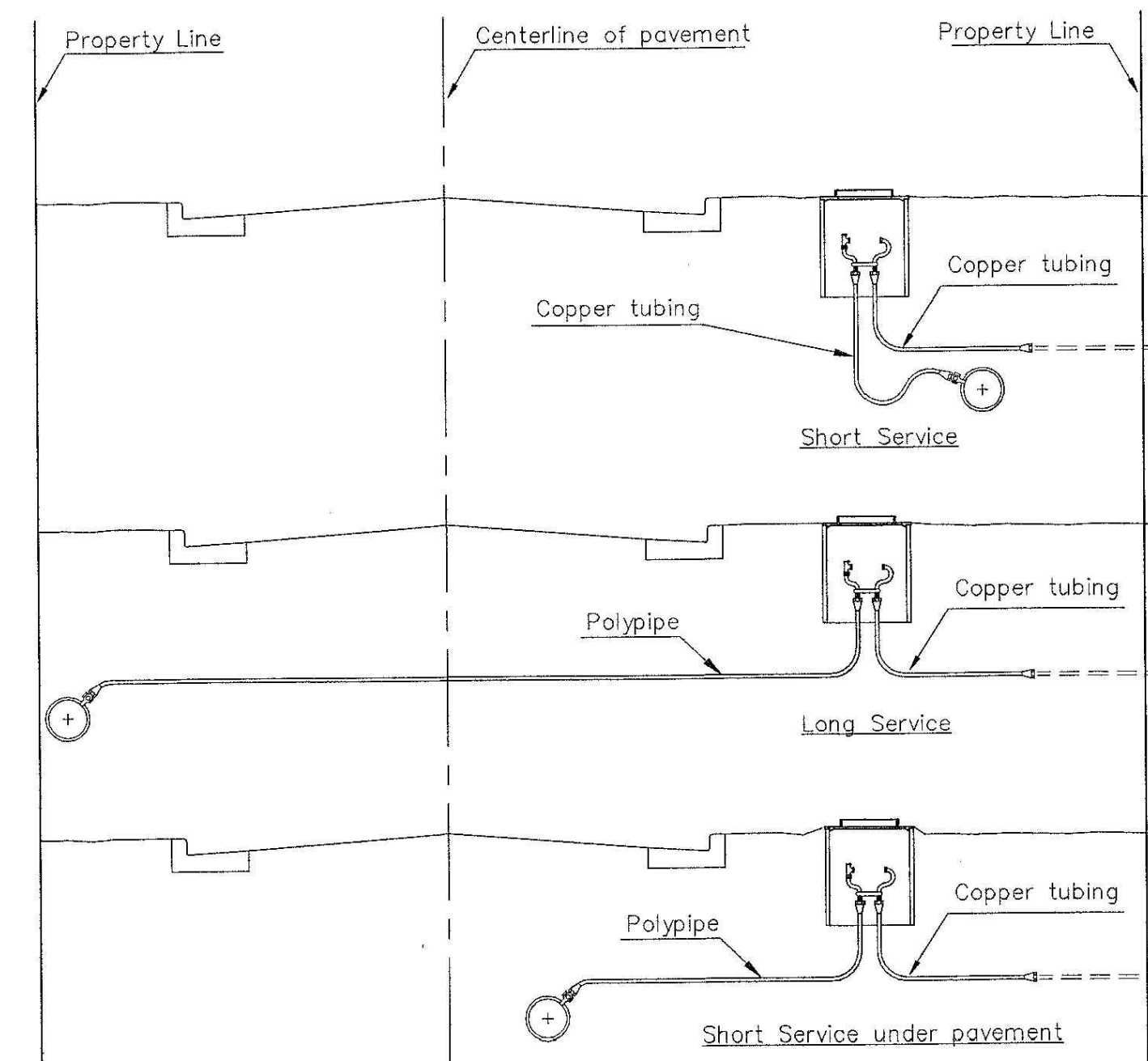


TYPICAL 2" METER SETTING

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

TYPICAL 2" METER SETTING INVOLVING EXISTING 2" METER VAULT

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

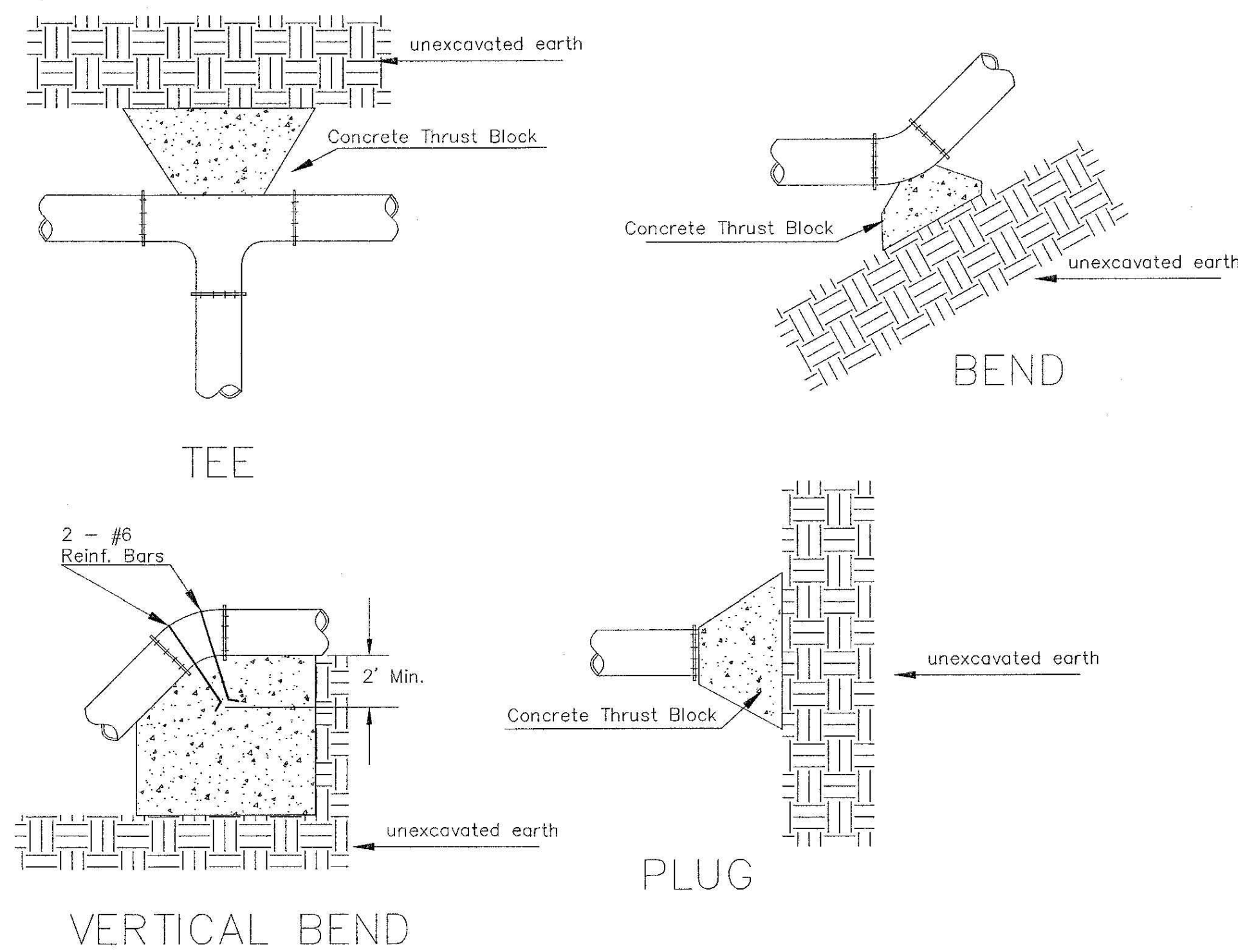


SERVICE TYPES



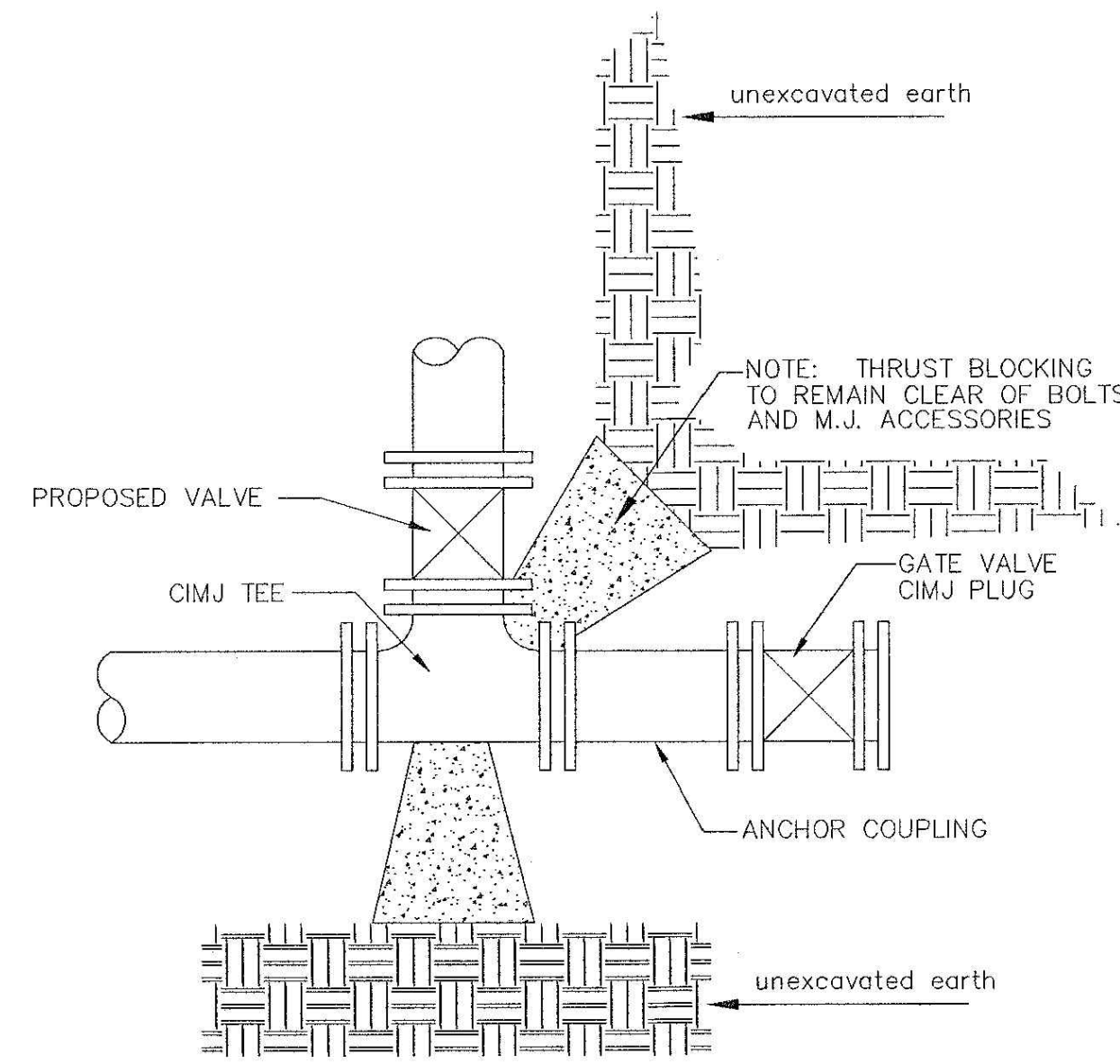
<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>STANDARD WATER SERVICE DETAIL</p> <p>CITY ENGINEER GARY JANZEN, P.E.</p>		
	PROJECT NUMBER	OCA NUMBER	DATE
	<p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 435 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501</p>		
SHEET			6 of 10

REVISED: JANUARY 2015



PIPE SIZE	THRUST AT FITTINGS IN TONS--AT 150#/IN ² P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

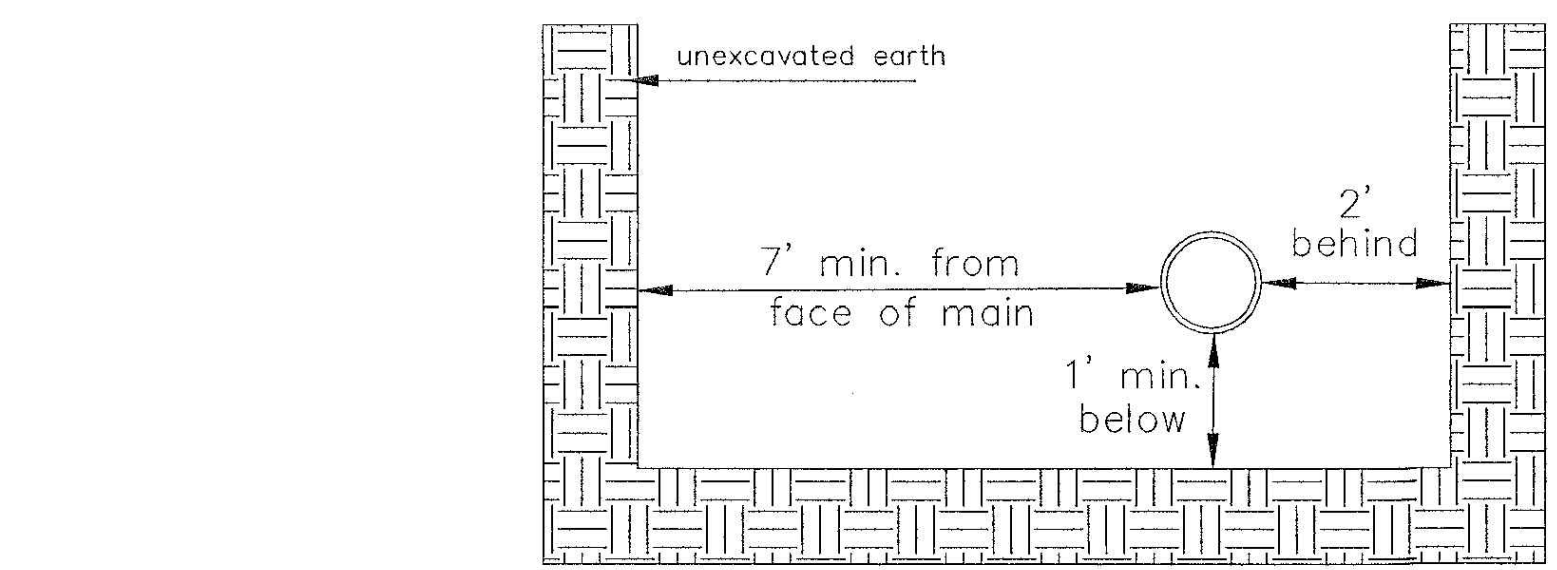
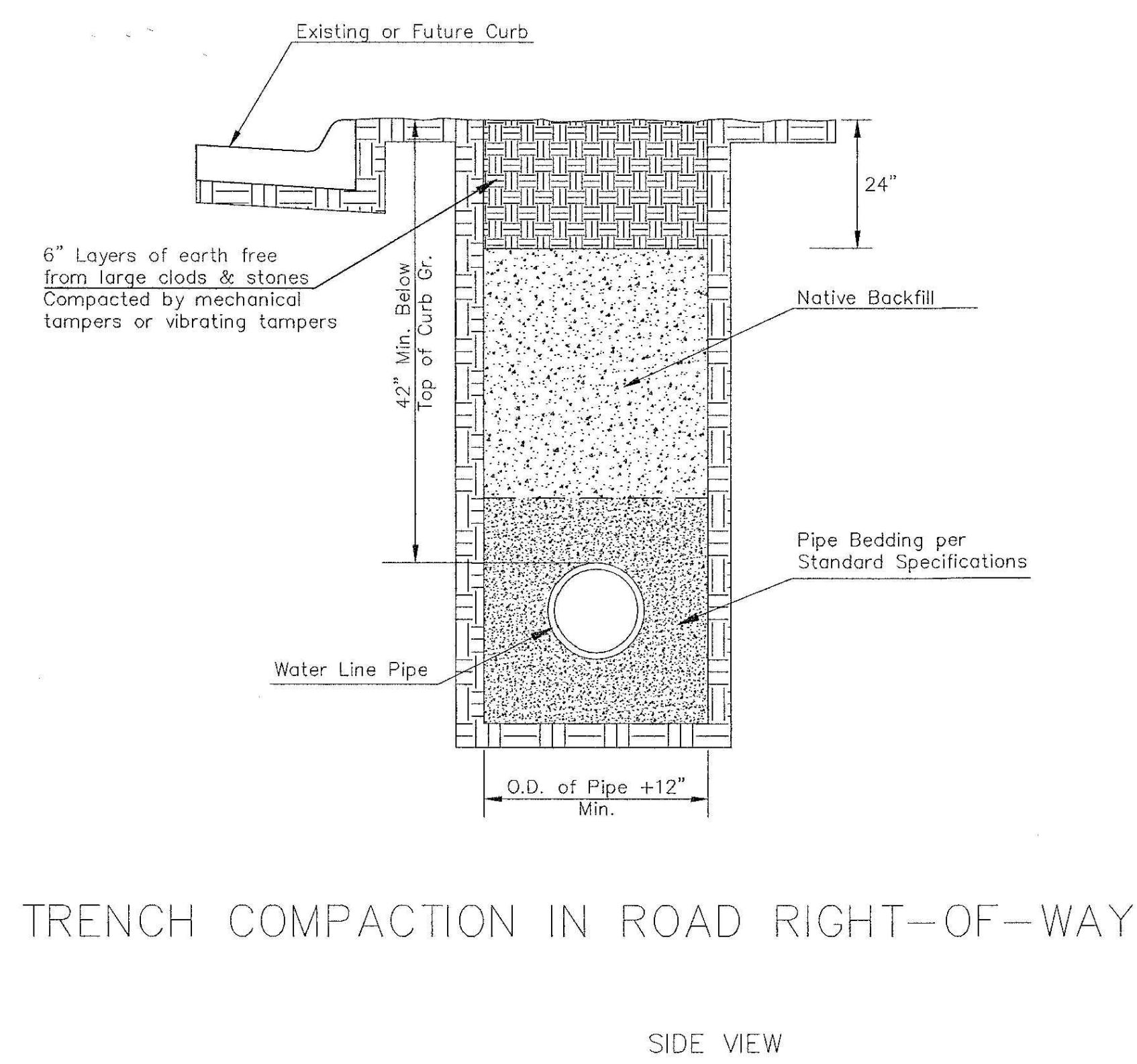
TYPICAL THRUST BLOCKS



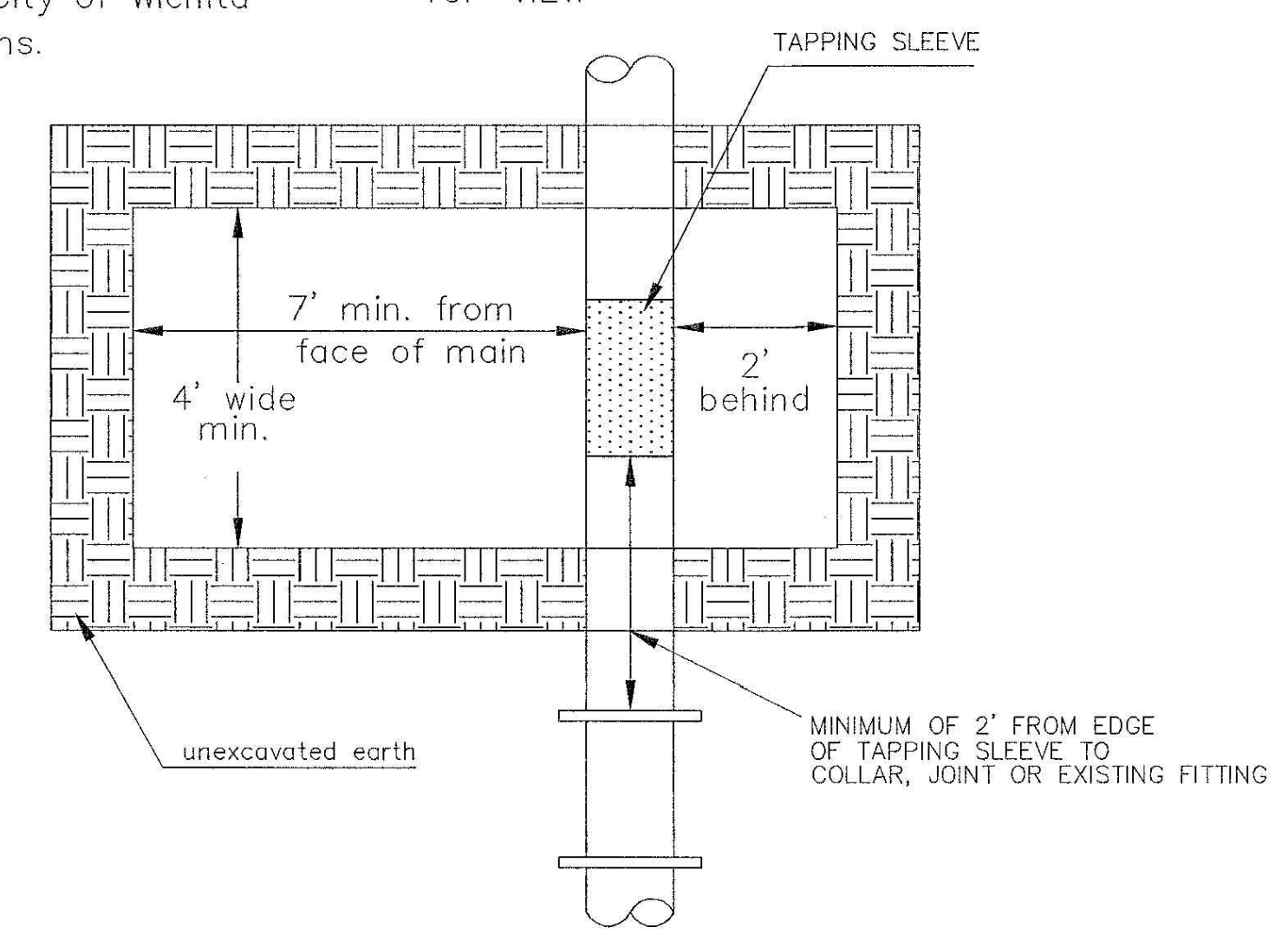
KEY BLOCK DETAIL

COMBINED TRENCH SECTION & COMPACTION ON PRIVATE PROPERTY

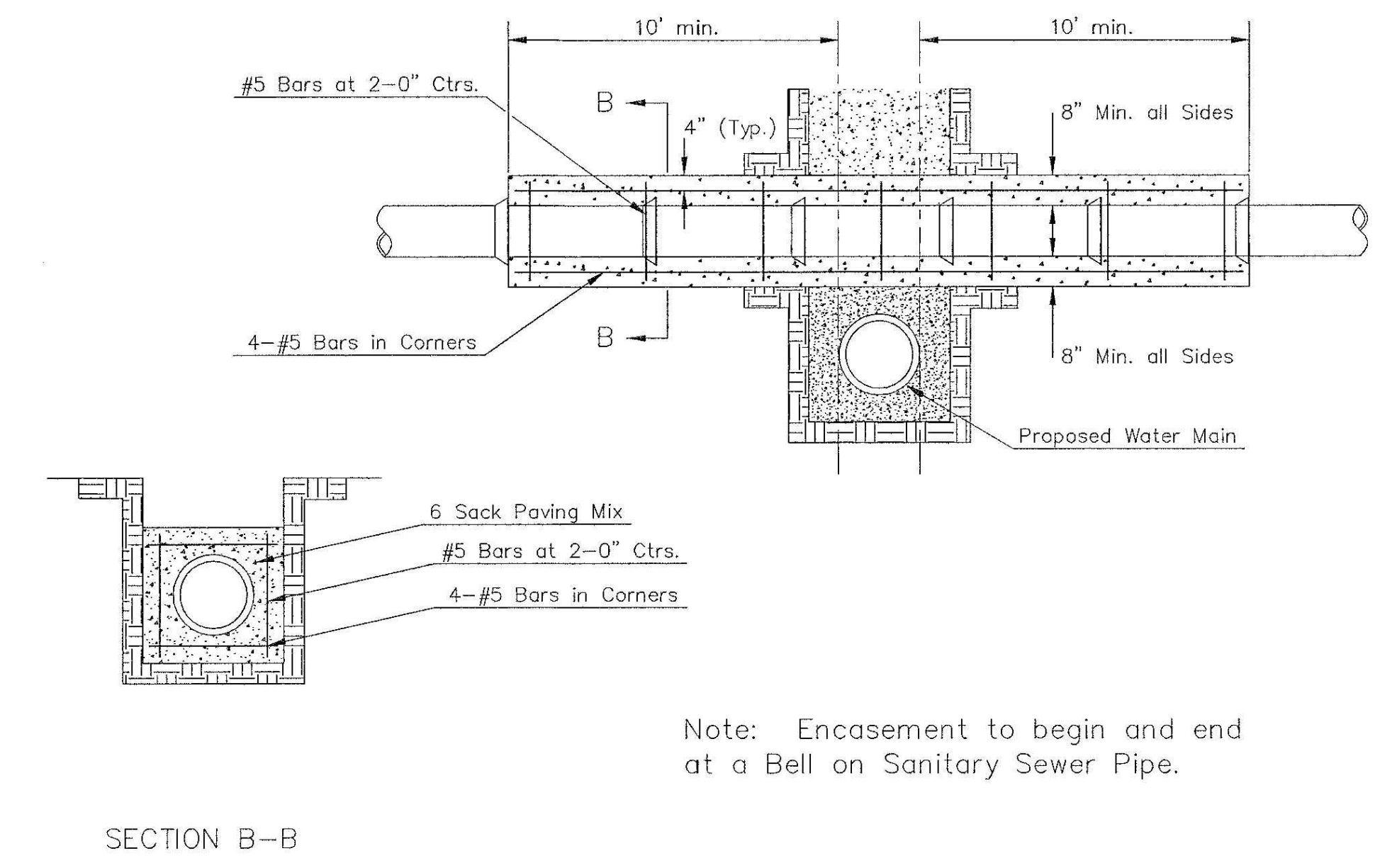
* TRENCH SIZE AND STAIR STEP SHALL BE BASED ON THRUST BLOCK REQUIREMENTS AGAINST VIRGIN SOIL OR CONTRACTOR MAY OPT TO USE RESTRAINED JOINT PIPE MATERIAL. THE SIZE AND DEPT OF THE FIRE & DOMESTIC LINES WILL BE DETERMINED AS SHOWN ON THE PLANS



Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

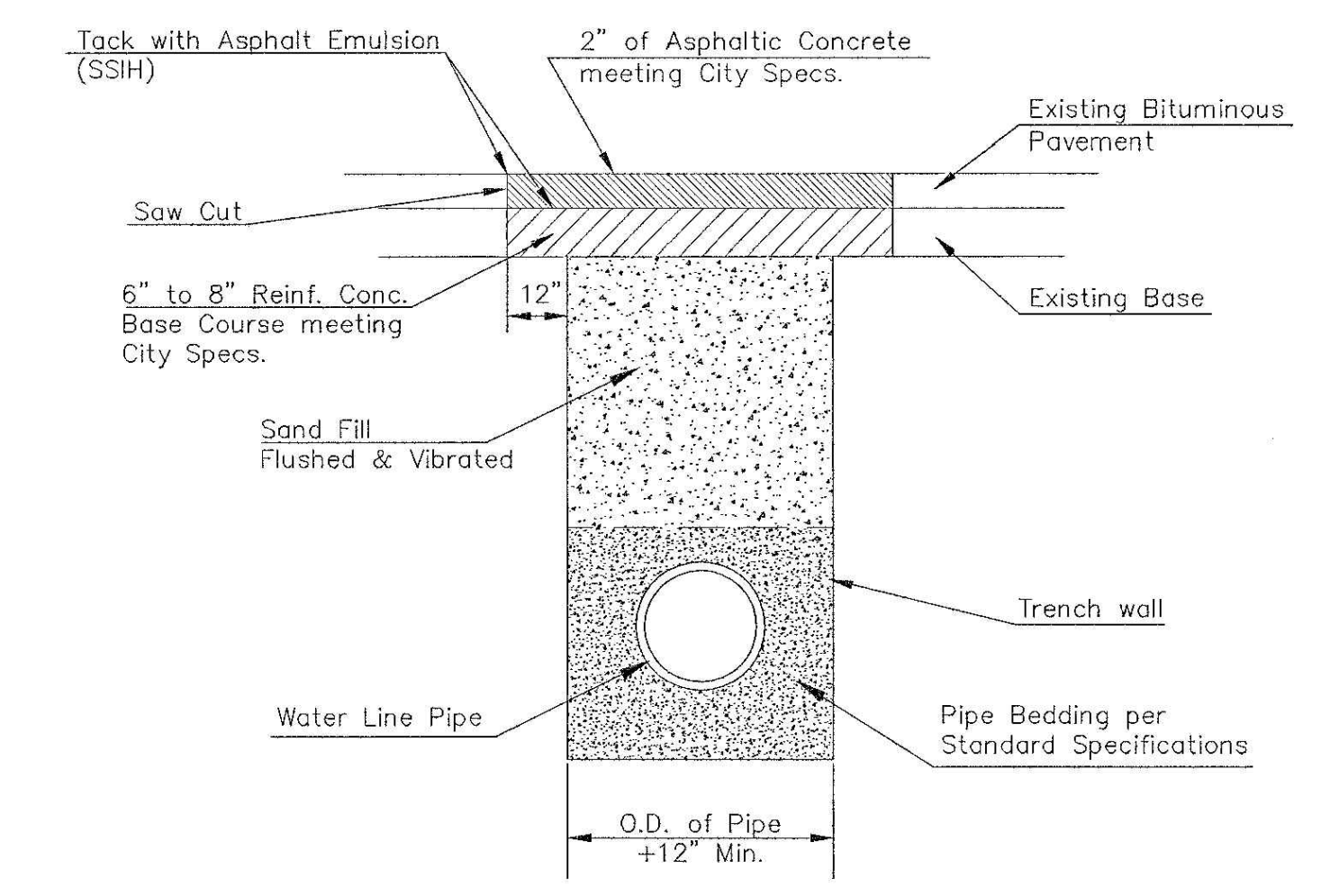


EXCAVATION FOR WET TAP
* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS



Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

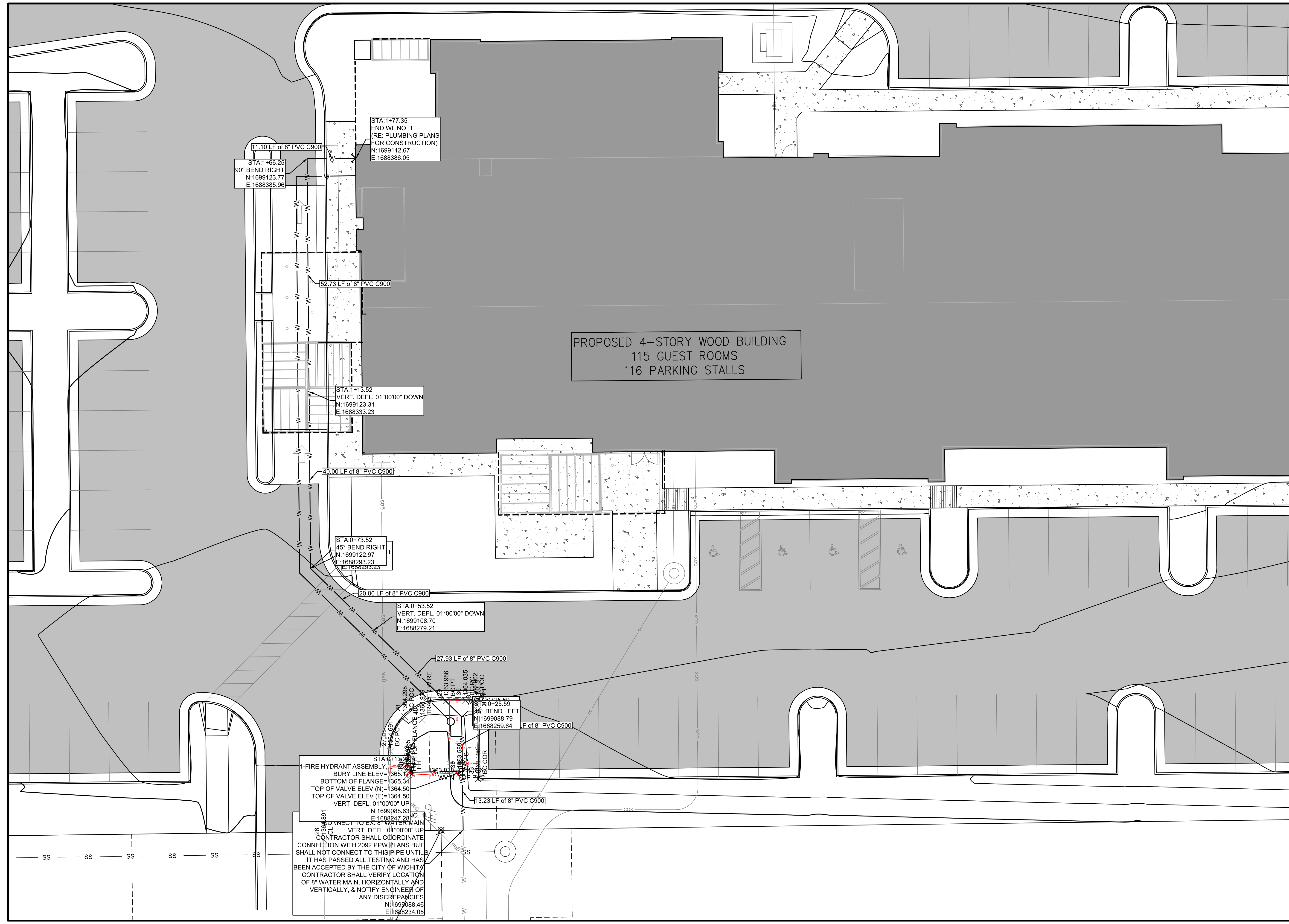
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS



<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>MISCELLANEOUS WATER DETAILS</p> <p>CITY ENGINEER GARY JANZEN, P.E.</p>		
	PROJECT NUMBER	OCA NUMBER	DATE
<p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501</p>		<p>SHEET 7 of 10</p>	



STA:1+77.35
END W/L NO. 1
(RE: PLUMBING PLANS
FOR CONSTRUCTION)
N:1699112.67
E:1688386.05

11.10 LF of 8" PVC C900

STA:1+66.25
90° BEND RIGHT
N:1699123.77
E:1688385.96

52.73 LF of 8" PVC C900

STA:1+13.52
VERT. DEFL. 01°00'00" DOWN
N:1699123.31
E:1688333.23

40.00 LF of 8" PVC C900

STA:0+73.52
45° BEND RIGHT
N:1699122.97
E:1688293.23

20.00 LF of 8" PVC C900

STA:0+53.52
VERT. DEFL. 01°00'00" DOWN
N:1699108.70
E:1688279.21

27.93 LF of 8" PVC C900

STA:0+25.59
46° BEND LEFT
N:1699088.79
E:1688259.64

13.23 LF of 8" PVC C900

1-FIRE HYDRANT ASSEMBLY
BURY LINE ELEV.=1365.51
BOTTOM OF FLANGE=1363.51
TOP OF VALVE ELEV (N)=1364.50
TOP OF VALVE ELEV (E)=1364.50
VERT. DEFL. 01°00'00" UP
N:1699088.63
E:1688247.28

CONNECT TO EX. 8" WATER MAIN
VERT. DEFL. 01°00'00" UP
CONTRACTOR SHALL COORDINATE
CONNECTION WITH 2092 P/W PLANS BUT
SHALL NOT CONNECT TO THIS PIPE UNTIL
IT HAS PASSED ALL TESTING AND HAS
BEEN ACCEPTED BY THE CITY OF WICHITA
CONTRACTOR SHALL VERIFY LOCATION
OF 8" WATER MAIN, HORIZONTALLY AND
VERTICALLY, & NOTIFY ENGINEER OF
ANY DISCREPANCIES
N:1699088.46
E:1688234.05

PROPOSED 4-STORY WOOD BUILDING
115 GUEST ROOMS
116 PARKING STALLS

REV.	DESCRIPTION	DATE

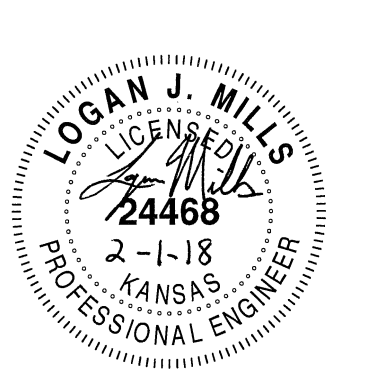
WATER IMPROVEMENTS
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PROJECT NO.: 20172412
ISSUE DATE: 02/01/18
CONTACT: L. MILLS / H. FORAKER
CHECKED BY: L. MILLS