

NOTE:

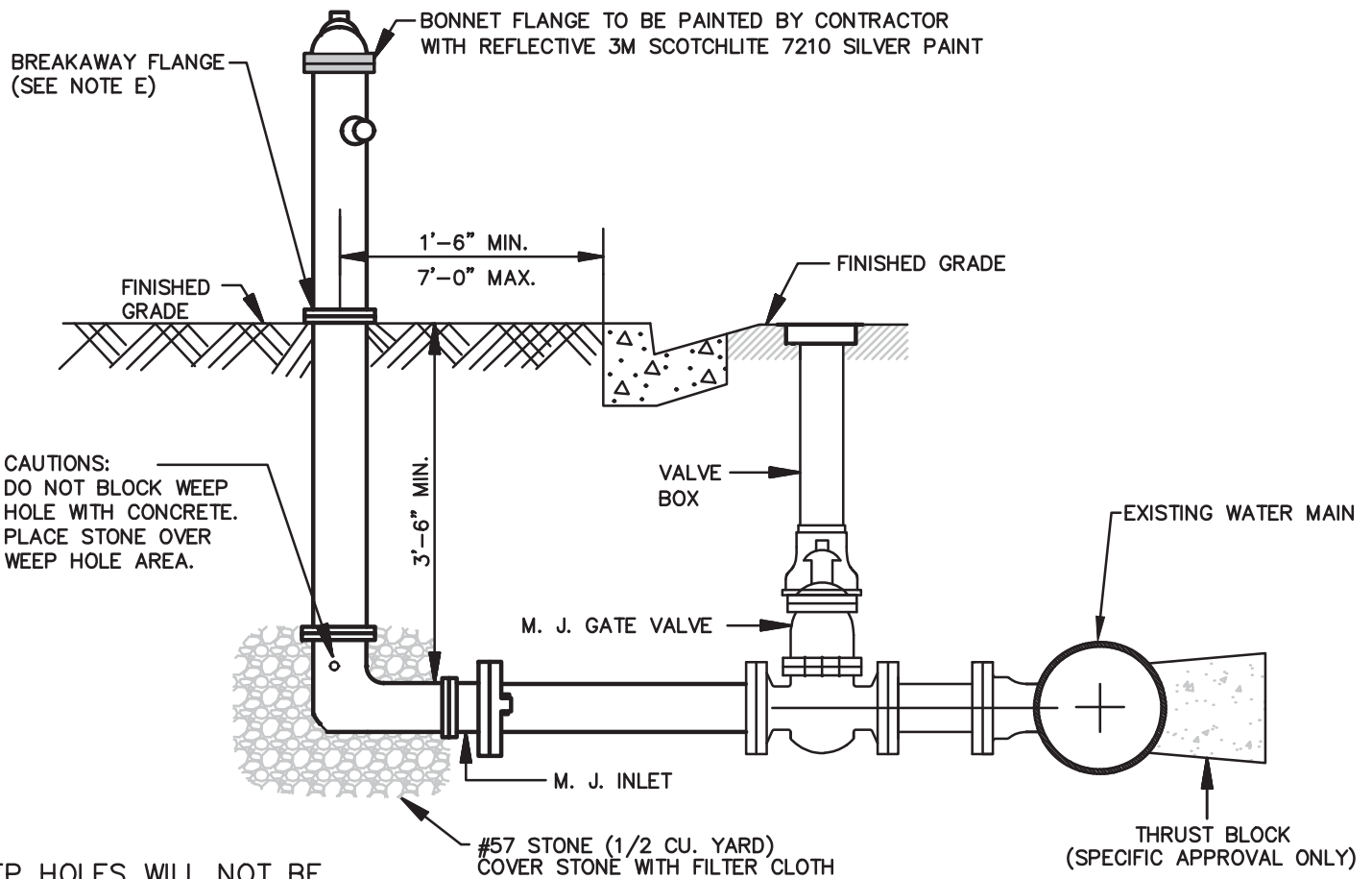
1. IT IS THE RESPONSIBILITY OF THE DESIGN ENGINEER TO DESIGN THE PUBLIC WATER SYSTEM TO MINIMIZE THE NUMBER OF AIR RELEASE VALVES BY ELIMINATING HIGH POINTS WHERE REASONABLY FEASIBLE AND TO PROPERLY SIZE THE AIR RELEASE VALVE TAKING INTO CONSIDERATION ALL THE DESIGN FACTORS.
2. ORIFICE SIZE SHALL BE NOTED ON PLANS.
3. ALL COPPER FITTINGS WILL BE FLARE OR COMPRESSION TYPE.
4. SADDLE MUST BE USED IF TAP IS MADE IN ASBESTOS CEMENT MAIN.
5. WHERE THE AIR RELEASE VALVE IS REMOTE FROM THE WATER LINE THERE MUST BE CONTINUOUS RISE IN THE COPPER SUPPLY LINE TO THE AIR RELEASE VALVE AND NO TRAP SHALL BE PERMITTED.
6. AIR RELEASE VALVE TO BE PLACED WHERE NOT SUBJECT TO FLOODING.

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	1" Water Air Release Valve	DRWG. NO. W1
REVISIONS March 2017			

NOTES:

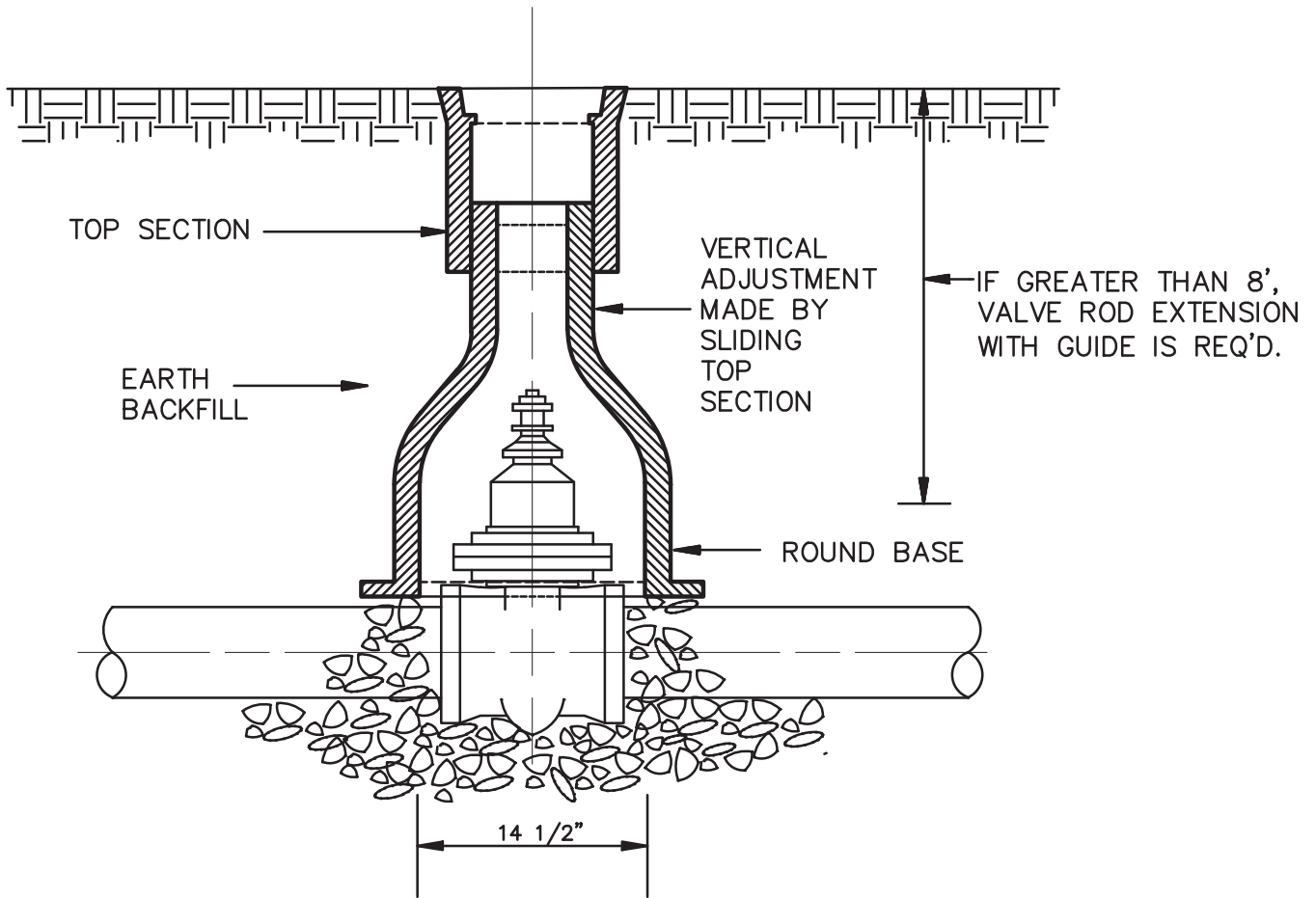
- (A) ON ROADWAYS WITHOUT CURB AND GUTTER, VALVE SHOULD BE IN SHOULDER OF ROAD OR BETWEEN PAVEMENT AND DITCH. MINIMUM COVER AT DITCH MUST BE 3'6" OR GREATER.
- (B) ALL PIPE SHALL BE DI & RESTRAINED. PROVIDE THRUST BLOCK BEHIND EXISTING MAIN TEE IF EXISTING MAIN CANNOT BE RESTRAINED USING RESTRAINED JOINT PIPE.
- (C) IF NO HEIGHT ADJUSTMENT IS NEEDED, THE CONNECTOR PIPE MAY BE STRAIGHT PIPE. OTHERWISE, THE CONNECTOR PIPE SHALL BE OF THE OFFSET DESIGN SO THAT THE FIRE HYDRANT CAN BE ADJUSTED TO ENSURE PLACEMENT AT THE PROPER GRADE.
- (D) THE CONNECTOR PIPE SHALL BE CEMENT LINED IN ACCORDANCE WITH AWWA C110-ANSI 214.
- (E) THE CONNECTOR PIPE SHALL BE DUCTILE IRON AWWA C153-ANSO A21.53 AND POSITIONED BETWEEN THE FIRE HYDRANT AND GATE VALVE.
- (F) HYDRANT BREAKAWAY FLANGE SHOULD BE LOCATED NO MORE THAN 6" ABOVE FINISHED GRADE AND NOT BELOW FINISHED GRADE.
- (G) 12" X 12" X 6" DEEP COLLAR AROUND VALVE BOX. PAINT, REFLECTOR BAND, REMOVE SAFETY CHAINS, GREASE NOZZLES WITH "AWWA" APPROVED MATERIAL.



WEEP HOLES WILL NOT BE USED IN AREAS SUBJECT TO HIGH GROUNDWATER; WEEP HOLES TO BE HARD PLUGGED IN THESE AREAS.

Not to Scale

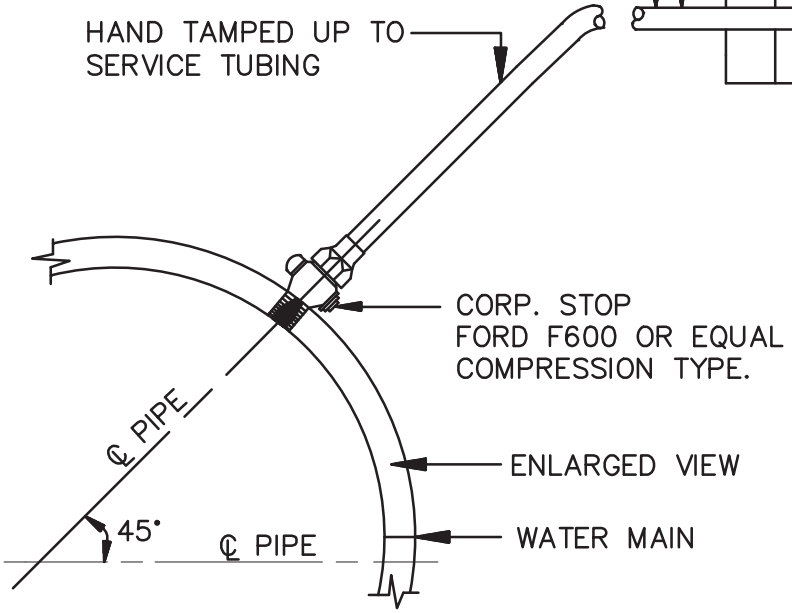
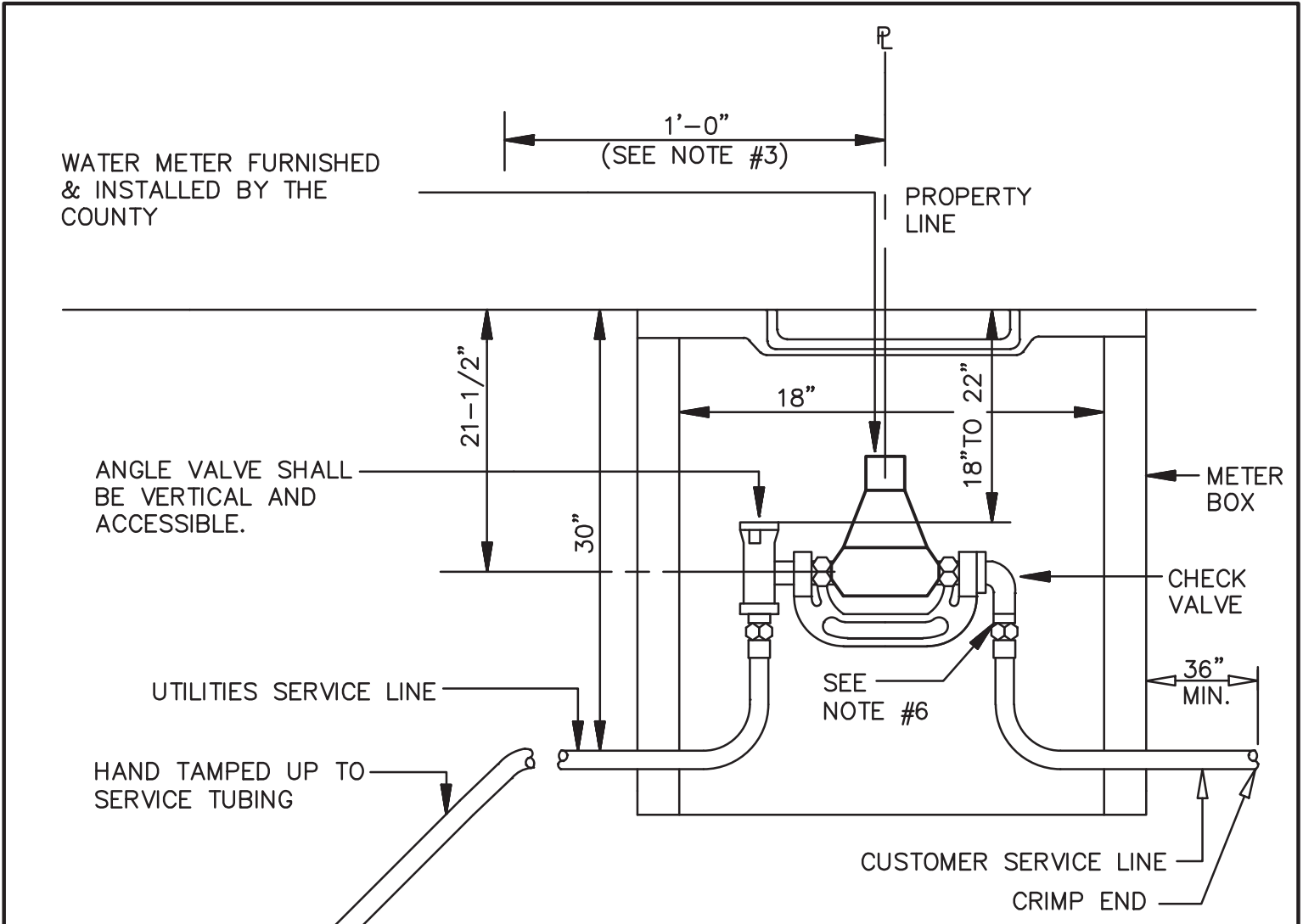
DATE April 2013	Spotsylvania County Department of Utilities	Fire Hydrant	DRWG. NO.
REVISIONS August 2018			W2



USE TWO PIECE CAST IRON VALVE BOX OF THE APPROPRIATE LENGTH (HEIGHT)

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Valve Box	DRWG. NO.
REVISIONS August 2018			W3



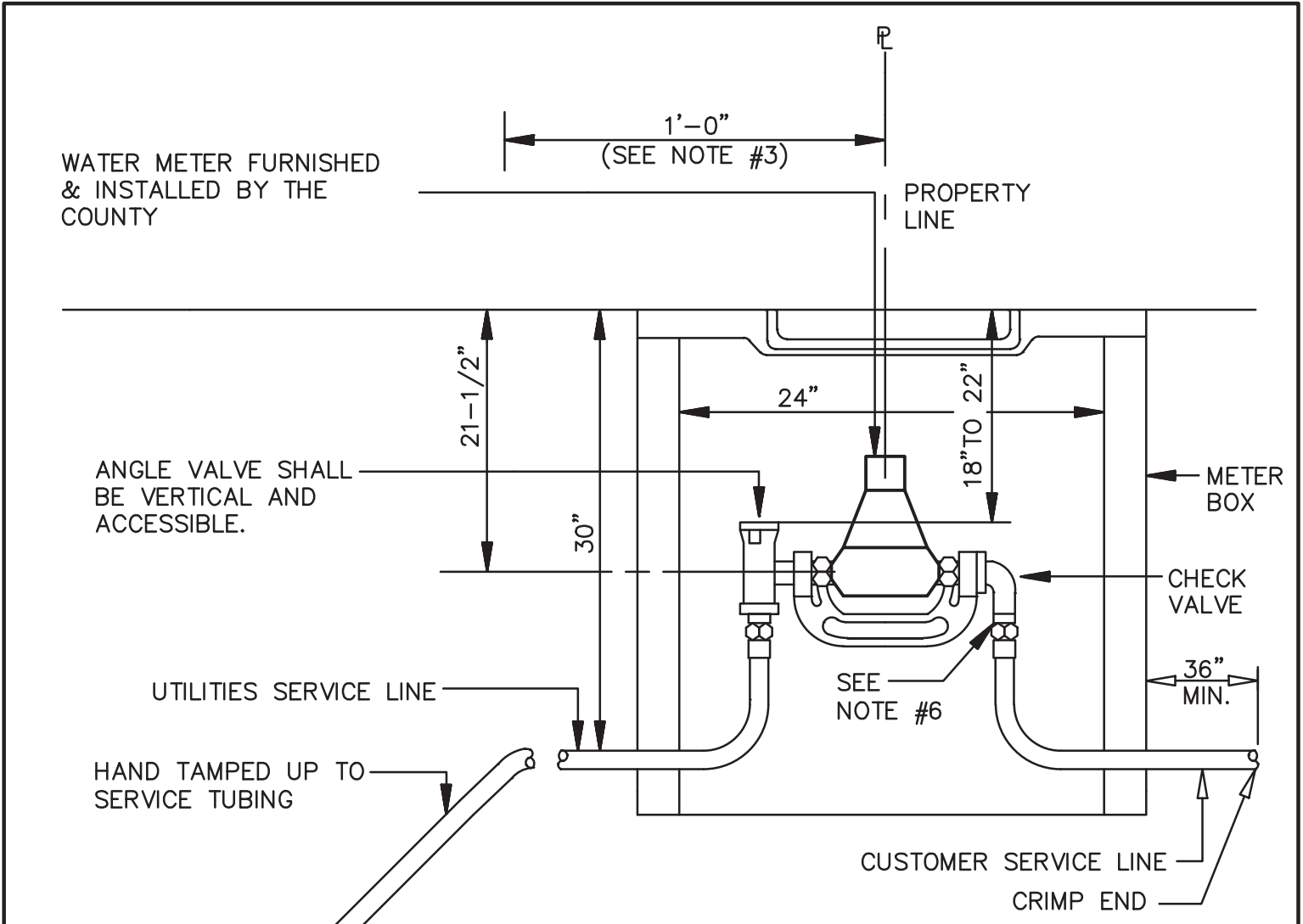
SADDLE MUST BE USED IF TAP IS MADE IN ASBESTOS CEMENT PIPE.

NOTES:

1. METER SETTER SHALL BE CENTERED IN METER BOX.
2. COPPER TUBING TO THE CORPORATION STOP MUST BE COMPRESSION.
3. METER BOX SHOULD BE LOCATED AT PROPERTY LINE.
4. SERVICES SHALL BE INSTALLED PRIOR TO TESTING.
5. BYPASS SHALL NOT BE ALLOWED FOR 1" RESIDENTIAL AND IRRIGATION METERS.
6. CUSTOMER LINE TO BE INSTALLED AT TIME OF BUILDING CONSTRUCTION.

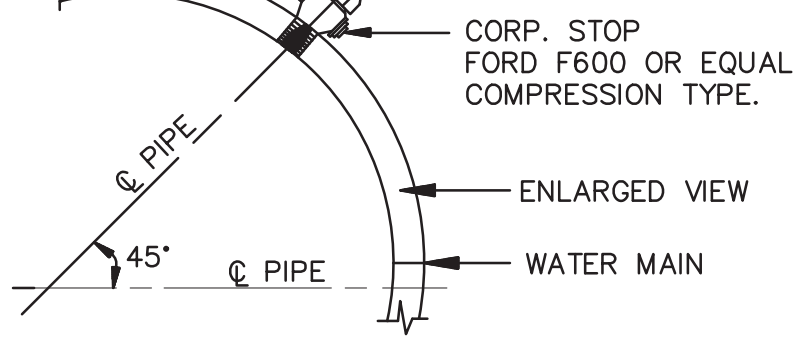
Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Water Meter Setting 5/8" & 3/4"	DRWG. NO. W4
REVISIONS March 2017			



NOTES:

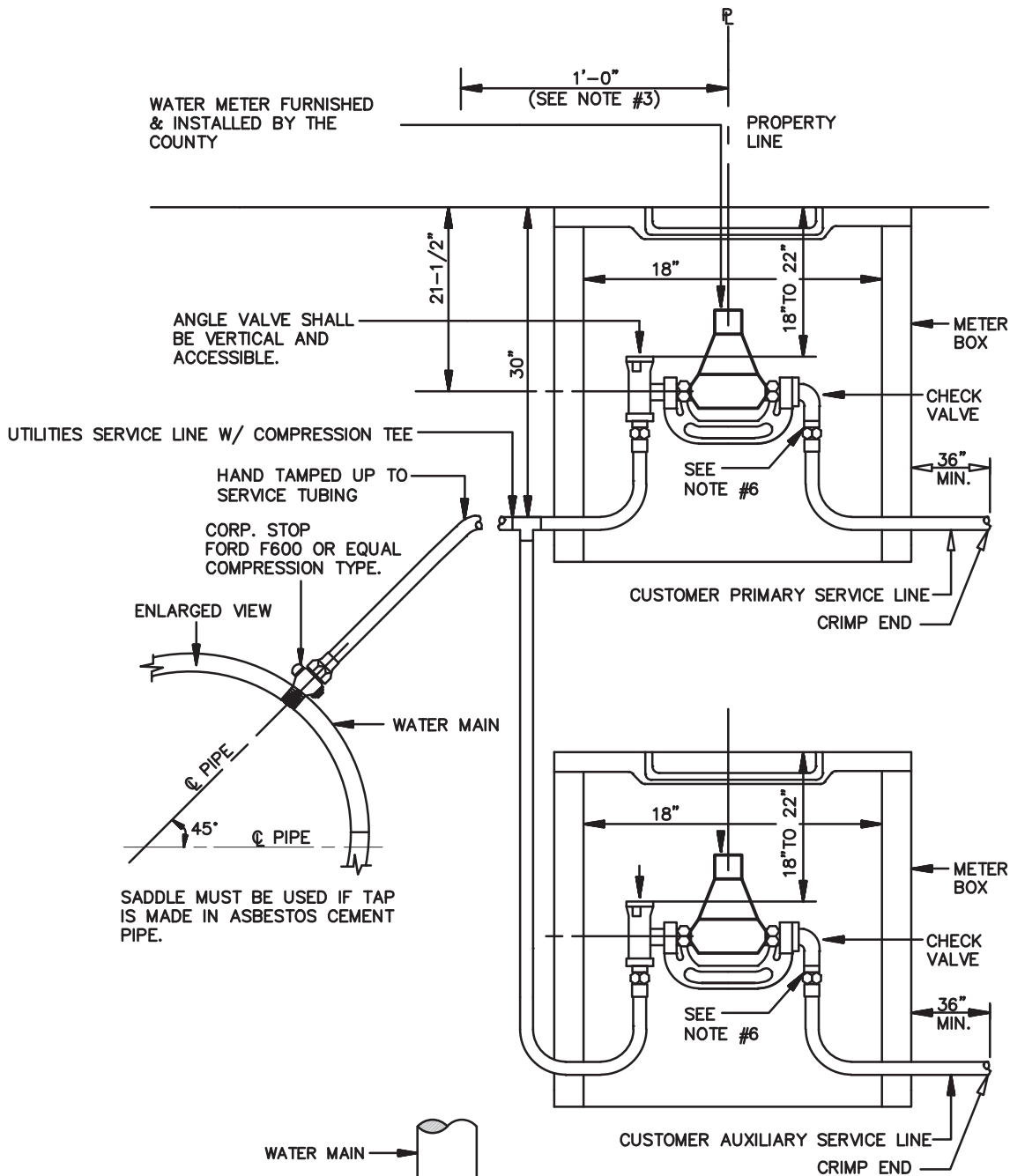
1. METER SETTER SHALL BE CENTERED IN METER BOX.
2. COPPER TUBING TO THE CORPORATION STOP MUST BE COMPRESSION.
3. METER BOX SHOULD BE LOCATED AT PROPERTY LINE.
4. SERVICES SHALL BE INSTALLED PRIOR TO TESTING.
5. BYPASS SHALL NOT BE ALLOWED FOR 1" RESIDENTIAL AND IRRIGATION METERS.
6. CUSTOMER LINE TO BE INSTALLED AT TIME OF BUILDING CONSTRUCTION.



SADDLE MUST BE USED IF TAP IS MADE IN ASBESTOS CEMENT PIPE.

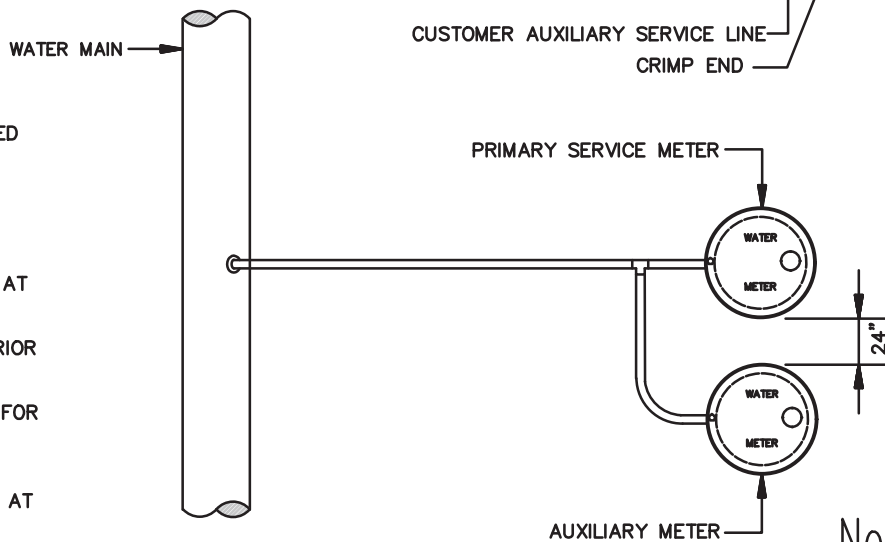
Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	<h1>Water Meter Setting</h1> <h2>1"</h2>	DRWG. NO. W4-A
REVISIONS March 2017			



NOTES:

1. METER SETTER SHALL BE CENTERED IN METER BOX.
2. COPPER TUBING TO THE CORPORATION STOP MUST BE COMPRESSION.
3. METER BOX SHOULD BE LOCATED AT PROPERTY LINE.
4. SERVICES SHALL BE INSTALLED PRIOR TO TESTING.
5. BYPASS SHALL NOT BE ALLOWED FOR 1" RESIDENTIAL AND AUXILIARY METERS.
6. CUSTOMER LINE TO BE INSTALLED AT TIME OF BUILDING CONSTRUCTION.

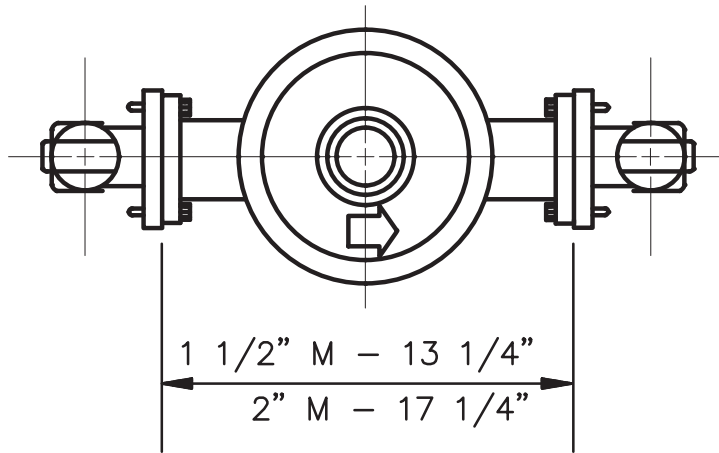


Not to Scale

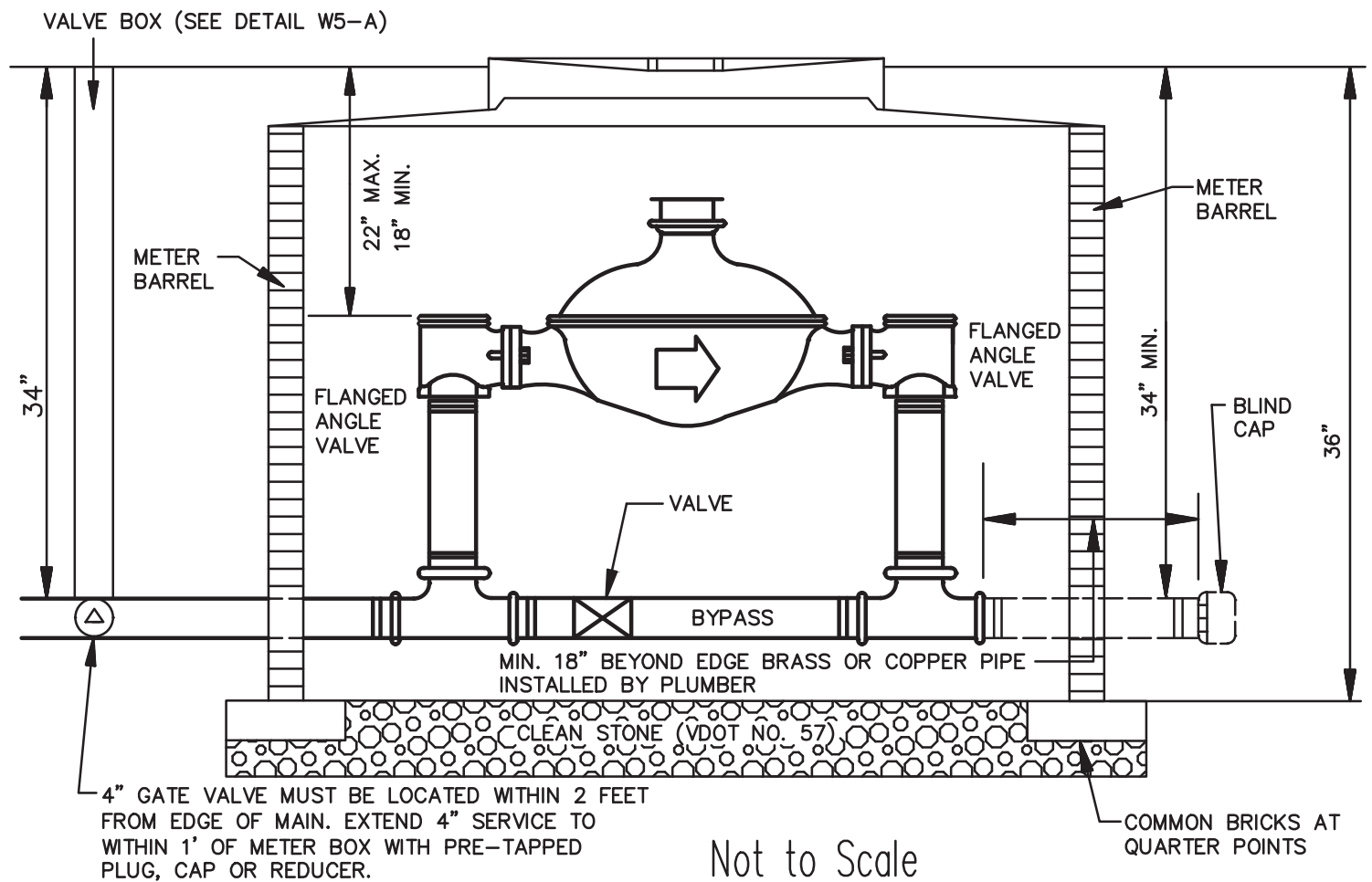
DATE January 2018	Spotsylvania County Department of Utilities	Auxiliary Meter Setting 5/8", 3/4" & 1"	DRWG. NO. W4-B
REVISIONS January 2018			

NOTES:

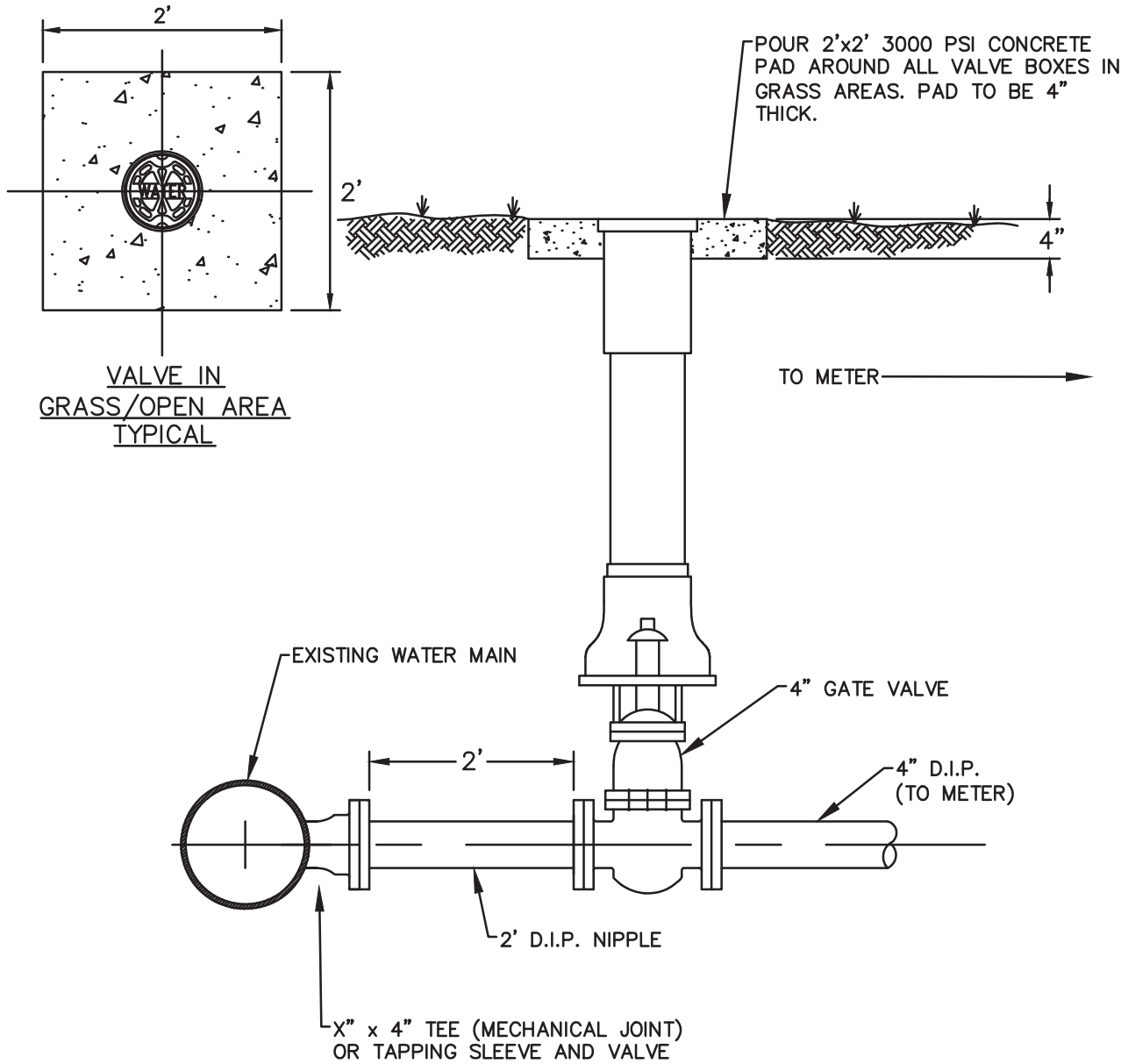
1. CONNECTION AT MAIN SHALL BE 4" TEE AND VALVE OR TAPPING SLEEVE AND VALVE.
2. WATER SERVICE LATERALS FOR 1-1/2" AND 2" SERVICES WILL BE TYPE-K SOFT/HARD COPPER.
3. TAPPING SLEEVE AND VALVE SHALL BE PLACED AT THE SPRING LINE OF THE WATER MAIN.
4. VAULT : ONE PIECE BARREL, 36" DIAMETER HIGH DENSITY POLYETHYLENE
5. CUSTOM SETTER MUST BE INSTALLED BY CONTRACTOR. THE SPACER WILL BE REMOVED BY THE UTILITIES DEPARTMENT WHEN THE METER IS SET. OPTION TO OBTAIN METER FROM UTILITIES AT TIME OF INSTALLATION.



NOTE: BYPASS SHALL BE LOCATED ABOVE OR AT FLOOR LEVEL OF METER BARREL.



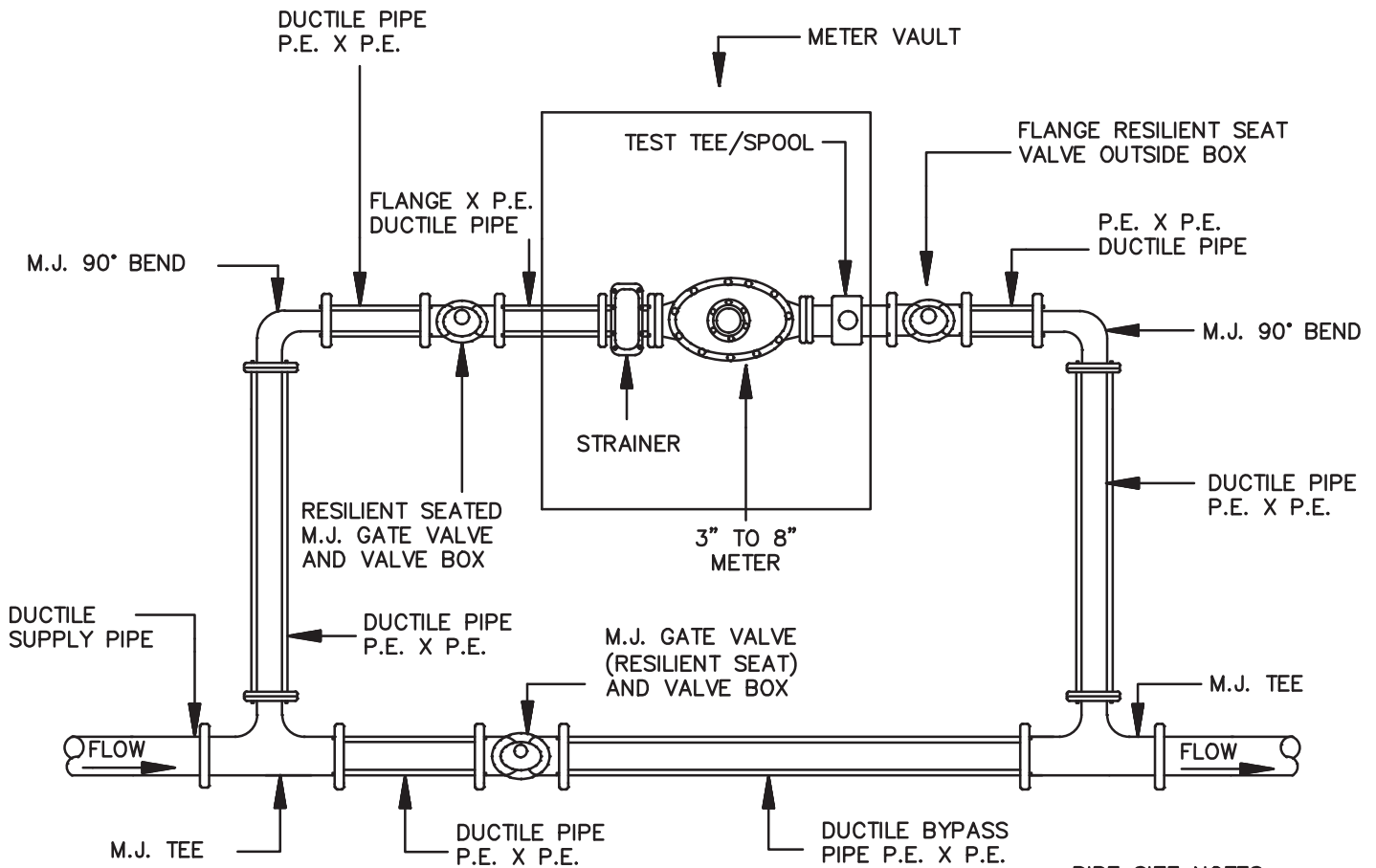
DATE April 2013	Spotsylvania County Department of Utilities	<h2 style="margin: 0;">Water Meter Setting</h2> <h3 style="margin: 0;">1-1/2" & 2"</h3>	DRWG. NO. W5
REVISIONS May 2018			



NOTE:
ALL JOINTS FROM THE MAIN TO THE METER SHALL BE RESTRAINED

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	4" D.I.P. Service Connection	DRWG. NO. W5-A
REVISIONS March 2017			



PLAN VIEW

PIPE SIZE NOTES:
PIPES AND ALL FITTINGS
TO BE SAME SIZE AS
METER.

P.E. = PIPE END SIZE

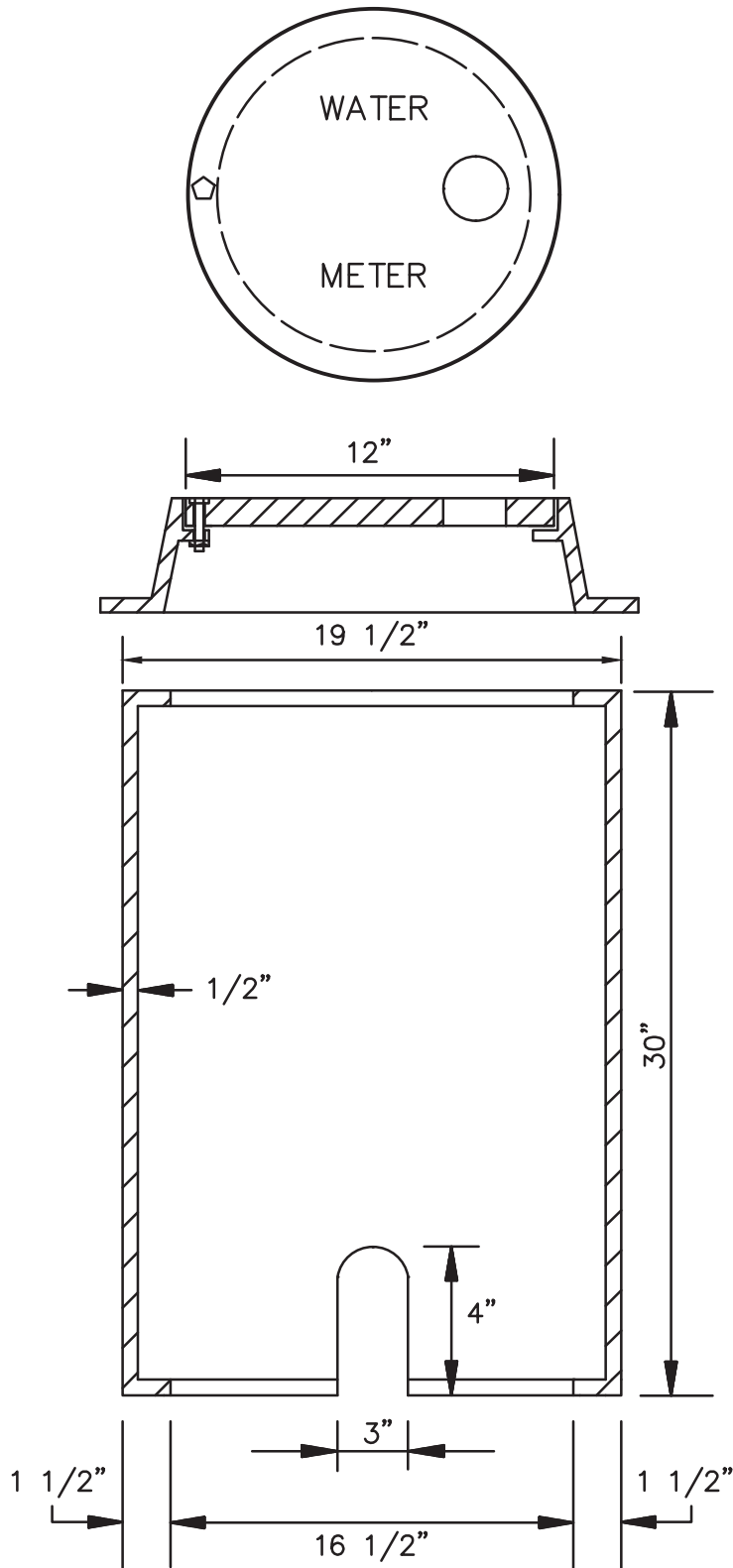
NOTES:

1. THE CONTRACTOR SHALL NOT INSTALL THE PIPING UNTIL THE METER HAS BEEN PURCHASED FROM THE UTILITIES DEPARTMENT AND ARE ON THE PROJECT, SO THAT THE CORRECT LENGTH OF PIPE IS INSTALLED ACCORDING TO THIS DETAILED CONFIGURATION. STRAINER, METER AND TEST TEE OR SPOOL PROVIDED BY COUNTY.
2. APPROVED JOINT RESTRAINT DEVICES ARE REQUIRED ON ALL MECHANICAL JOINT (M.J.) CONNECTIONS. ALL FITTINGS SHALL BE MECHANICAL JOINT.
3. FOR DETAILS OF VAULT, SEE DRWG. NO. W9.
4. NO CHECK VALVE OR PRV IS ALLOWED ON THE INLET SIDE OF THE METER.
5. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE UTILITY DEPARTMENT OPERATION CENTER, THE PURCHASE AND PICK UP OF A COUNTY APPROVED METER. ALL CONNECTION FEES AND/OR OTHER APPLICABLE CHARGES OR FEES MUST BE PAID TO PICK UP THE WATER METER, TEST TEE AND STRAINER FROM THE UTILITIES DEPARTMENT.

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Water Meter Setting Over 2 Inches	DRWG. NO. W6
REVISIONS March 2017			

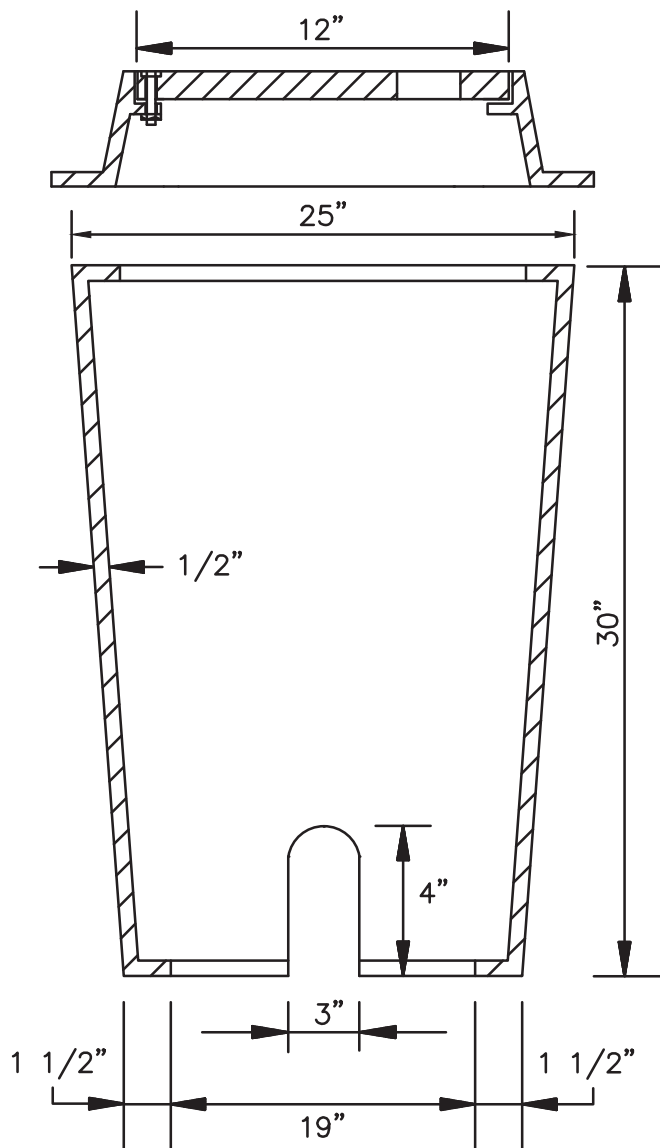
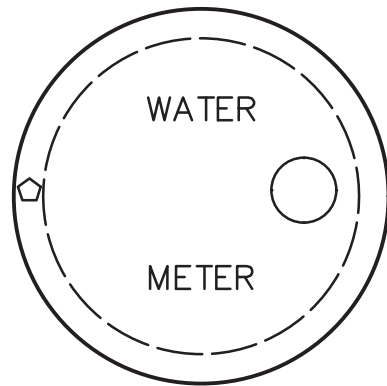
NOTE: PROVIDE A 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM



Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Meter Box 5/8" & 3/4"	DRWG. NO.
REVISIONS March 2017			W7

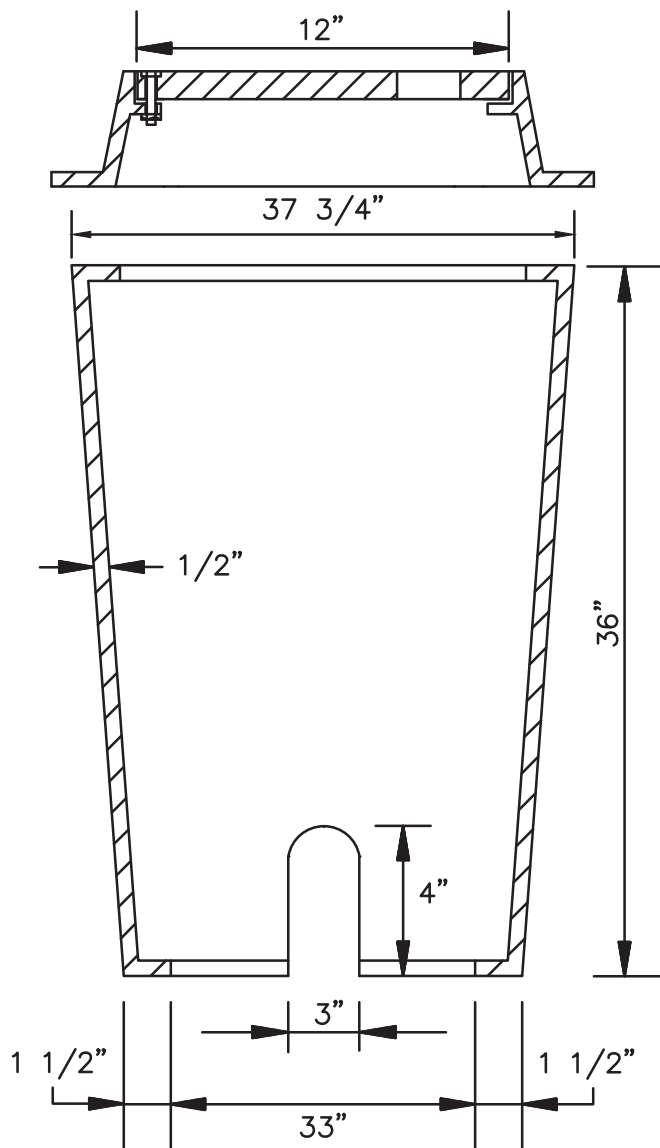
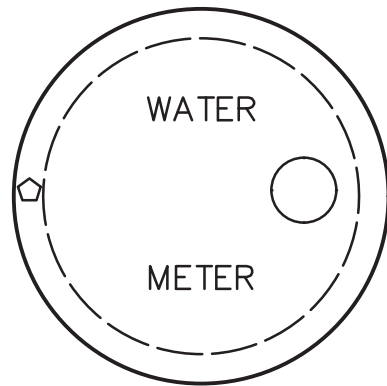
NOTE: PROVIDE A 1-3/4" DIA. HOLE IN
METER BOX LID FOR INSTALLATION OF
COUNTY'S METER READING SYSTEM



Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Meter Box 1"	DRWG. NO.
REVISIONS March 2017			W7-A

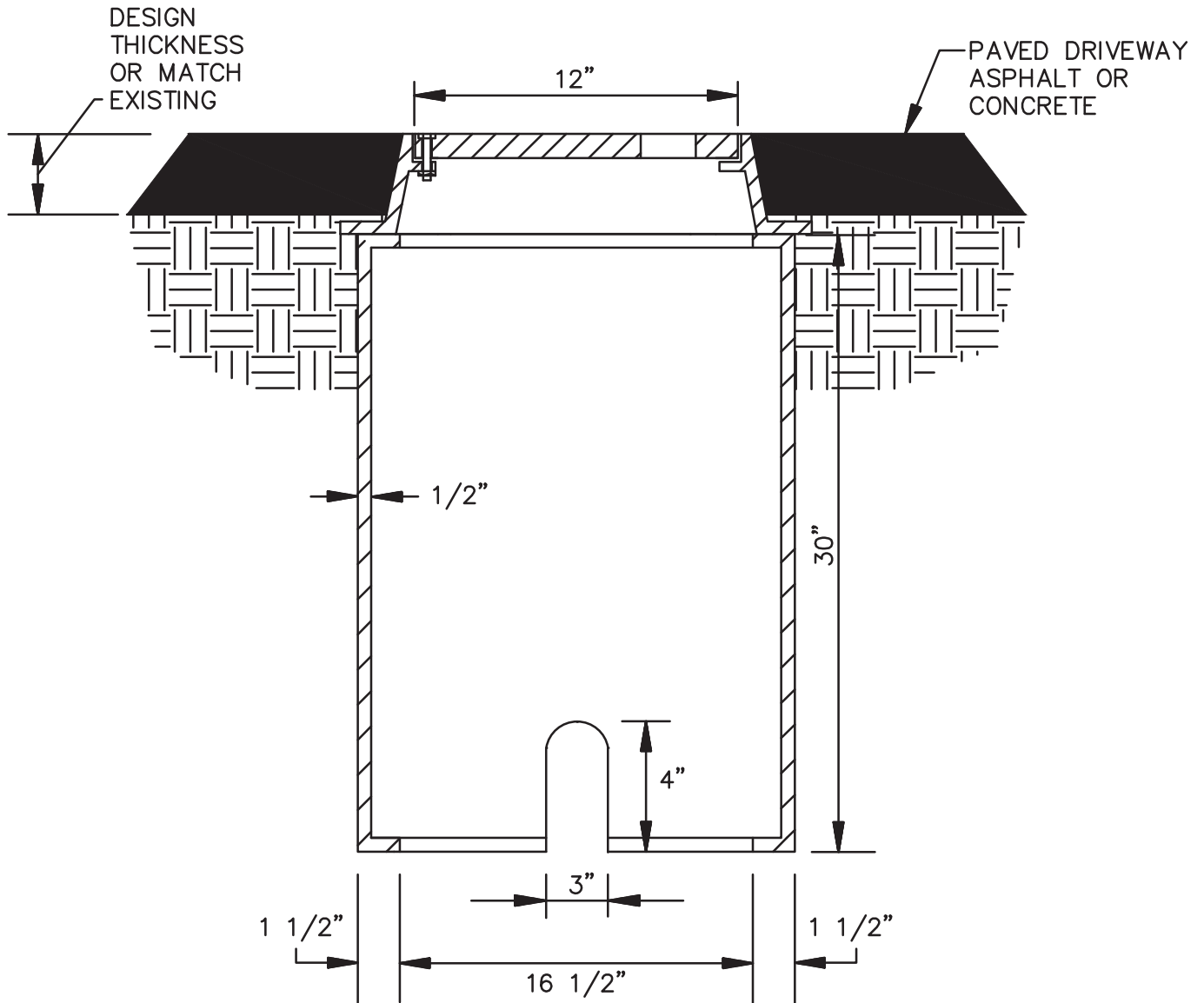
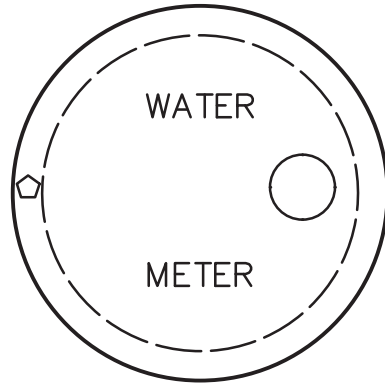
NOTE: PROVIDE A 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM



Not to Scale

<p>DATE April 2013</p>	<p>Spotsylvania County Department of Utilities</p>	<p>Meter Box 1 1/2" & 2"</p>	<p>DRWG. NO. W7-B</p>
<p>REVISIONS March 2017</p>			

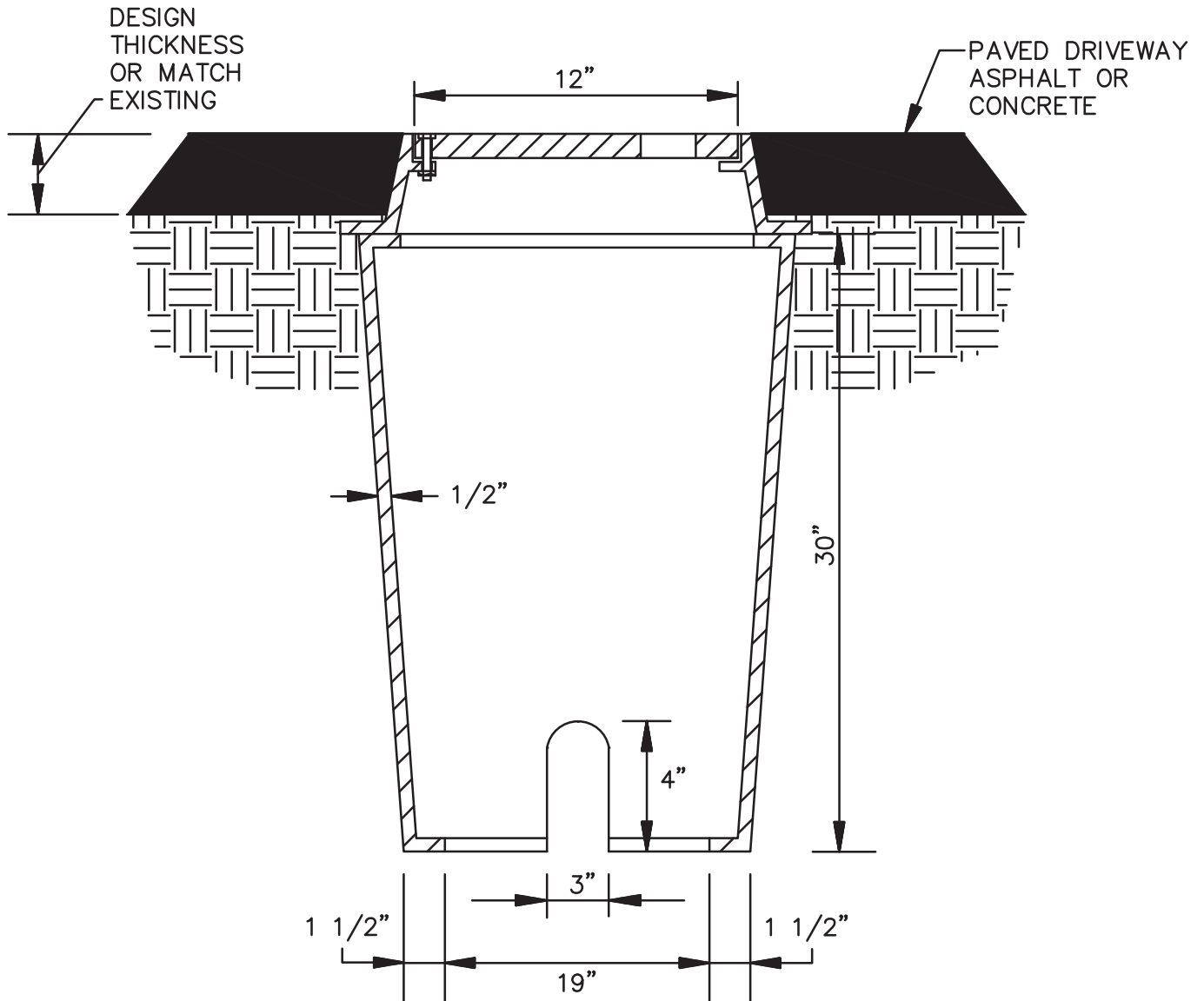
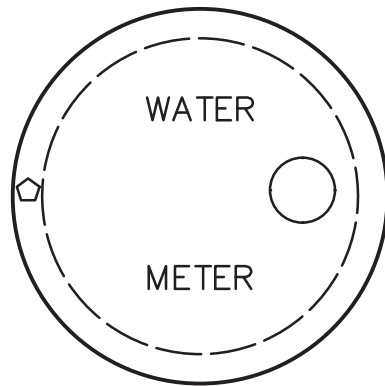
NOTE: PROVIDE A 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM



Not to Scale

<p>DATE April 2013</p>	<p>Spotsylvania County Department of Utilities</p>	<p>Traffic/Driveway Meter Box 5/8" & 3/4"</p>	<p>DRWG. NO. W7-C</p>
<p>REVISIONS March 2017</p>			

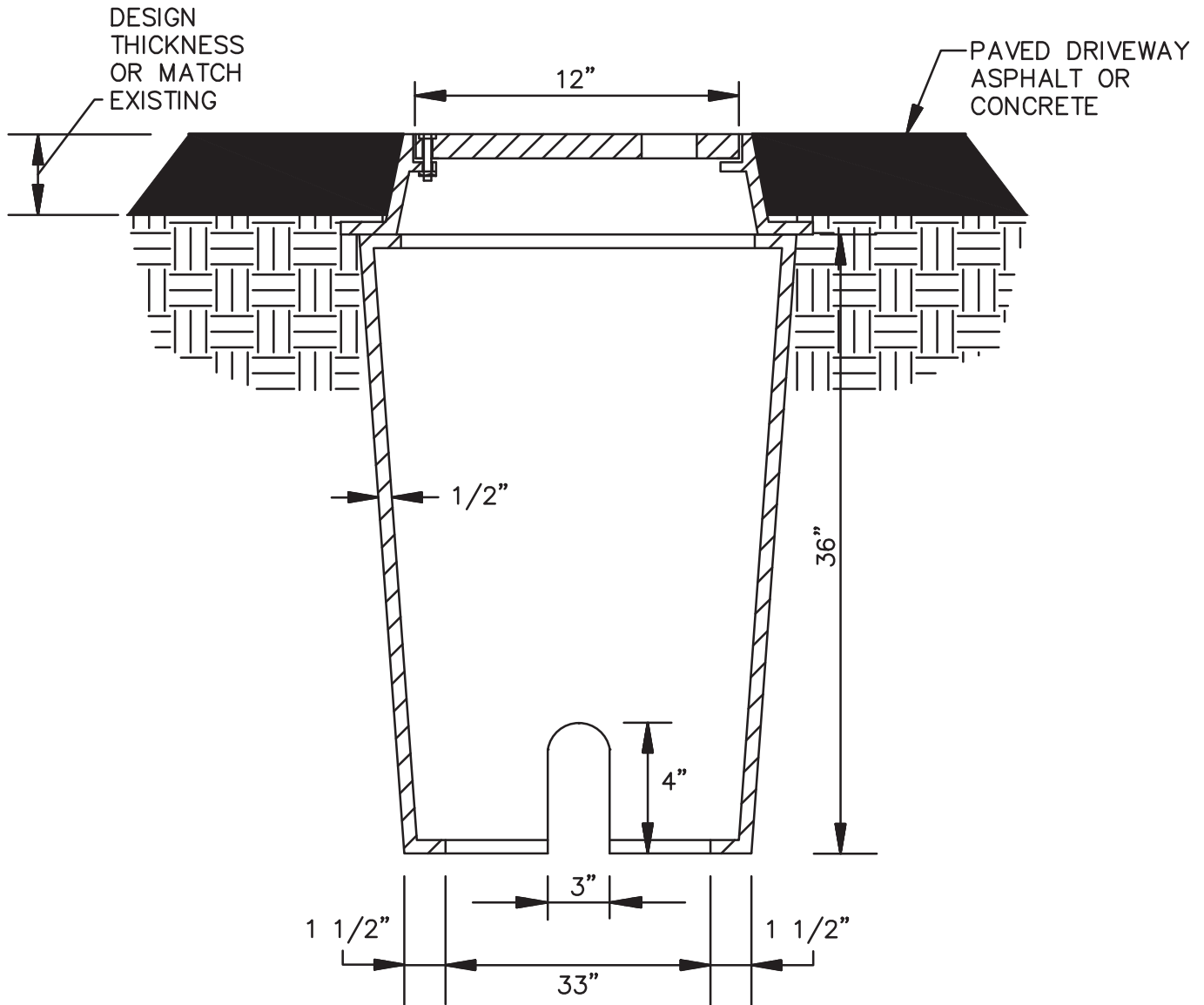
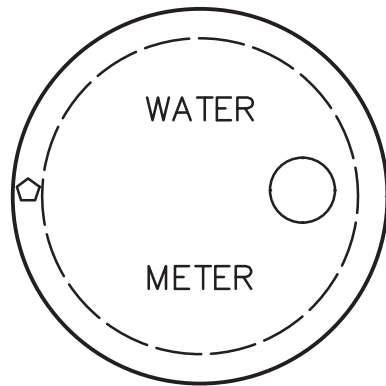
NOTE: PROVIDE A 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM



Not to Scale

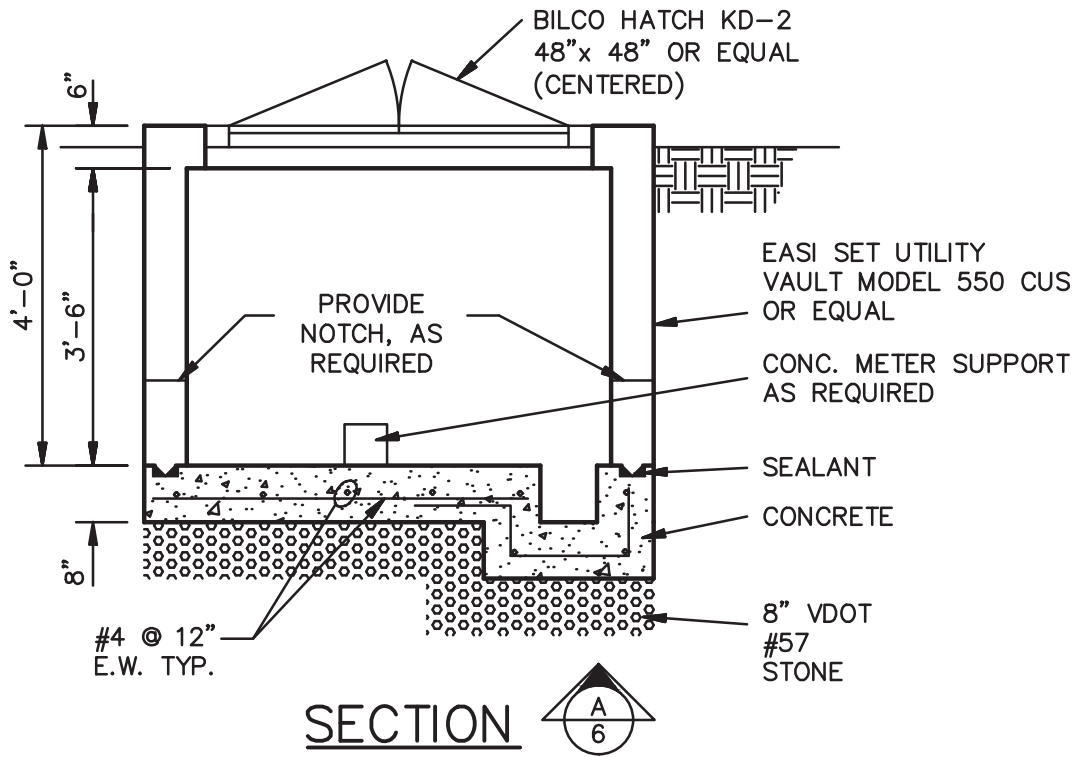
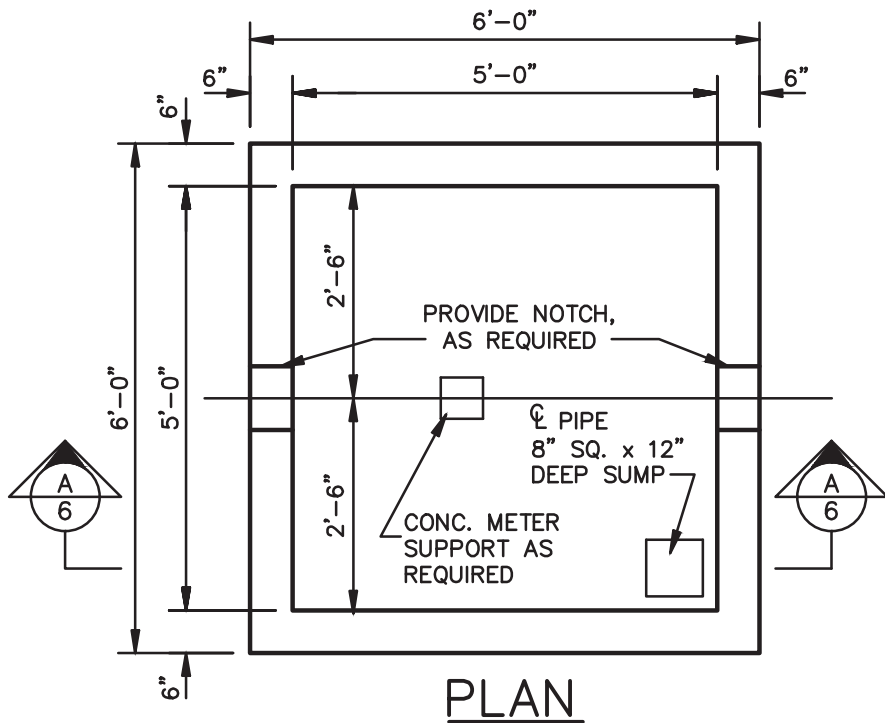
DATE April 2013	Spotsylvania County Department of Utilities	Traffic/Driveway Meter Box 1"	DRWG. NO.
REVISIONS March 2017			W7-D

NOTE: PROVIDE A 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM



Not to Scale

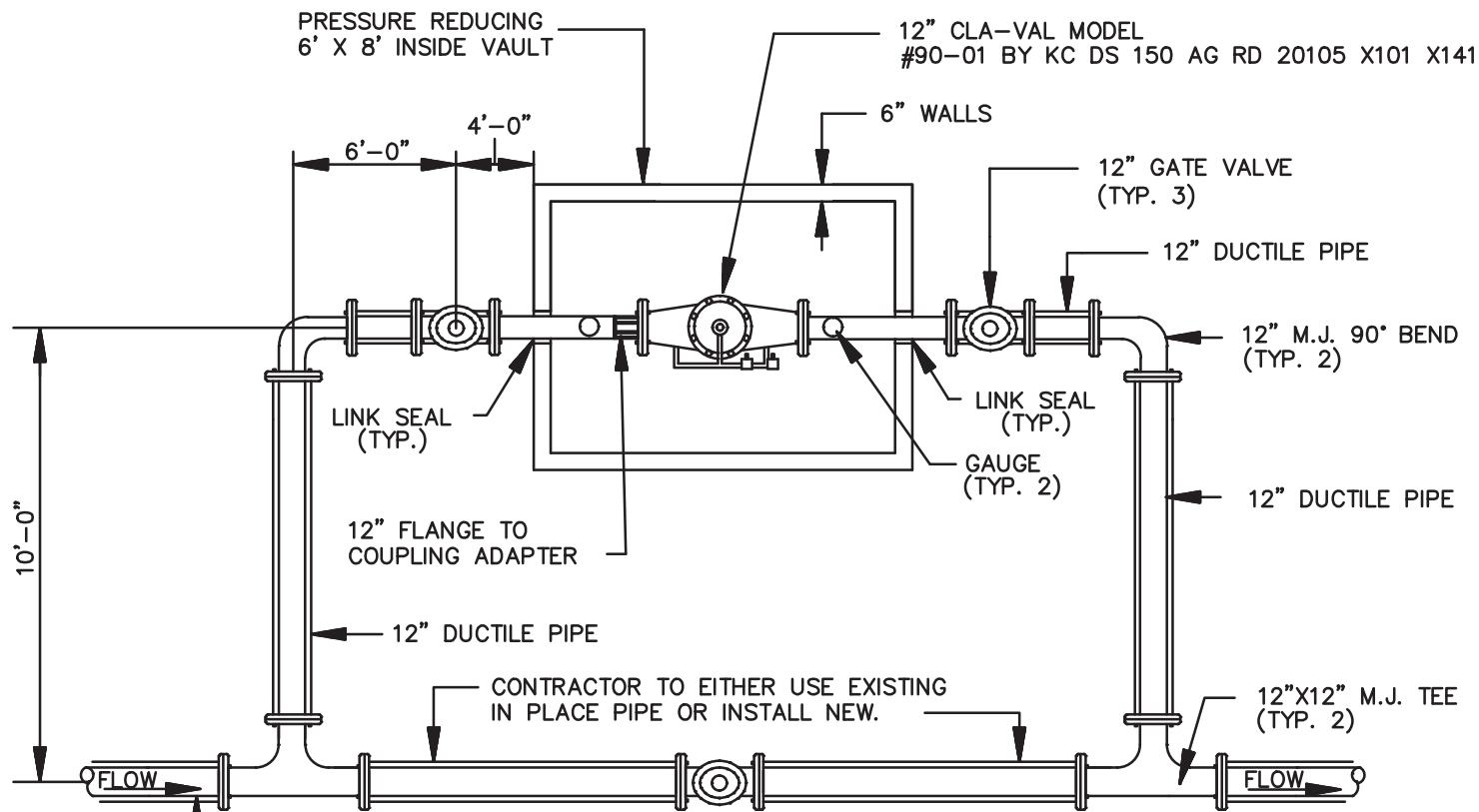
<p>DATE April 2013</p>	<p>Spotsylvania County Department of Utilities</p>	<p>Traffic/Driveway Meter Box 1 1/2" & 2"</p>	<p>DRWG. NO. W7-E</p>
<p>REVISIONS March 2017</p>			



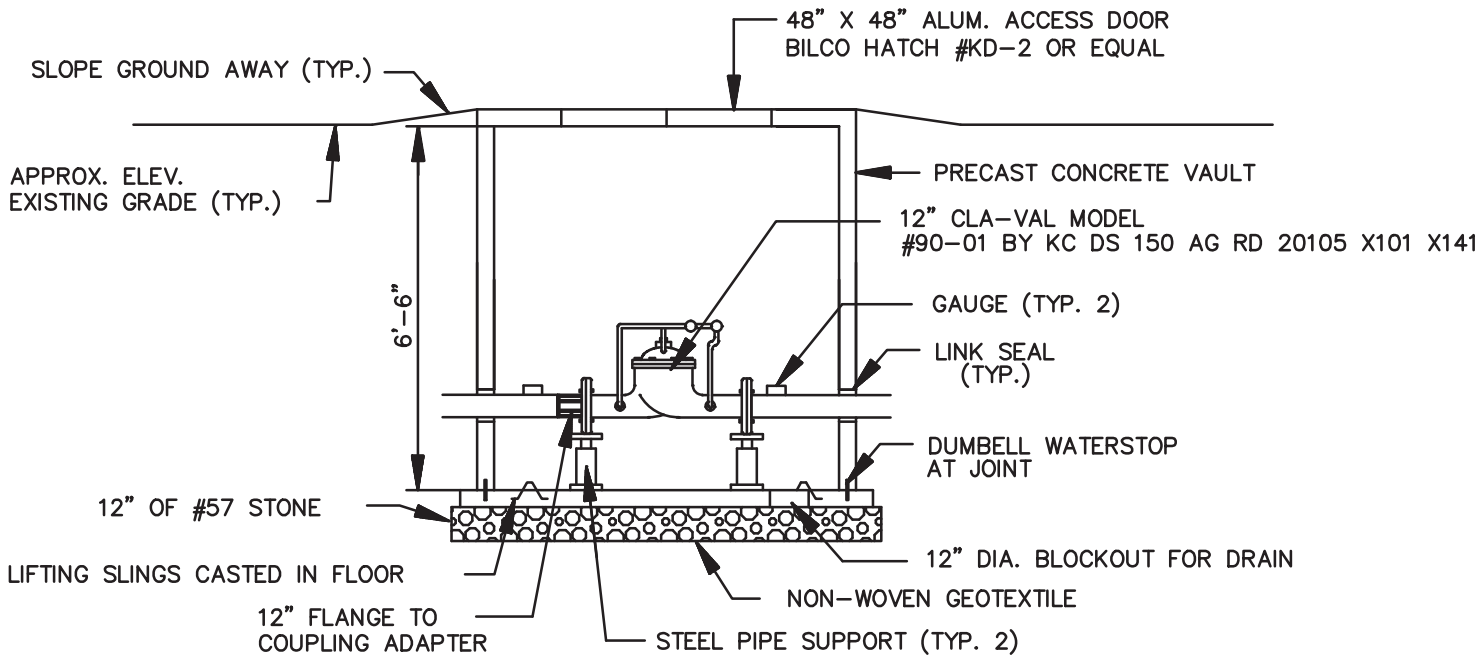
NOTE: PROVIDE 1-3/4" DIA. HOLE IN METER BOX LID FOR INSTALLATION OF COUNTY'S METER READING SYSTEM

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Water Meter Box Over 2 Inches	DRWG. NO.
REVISIONS			W9



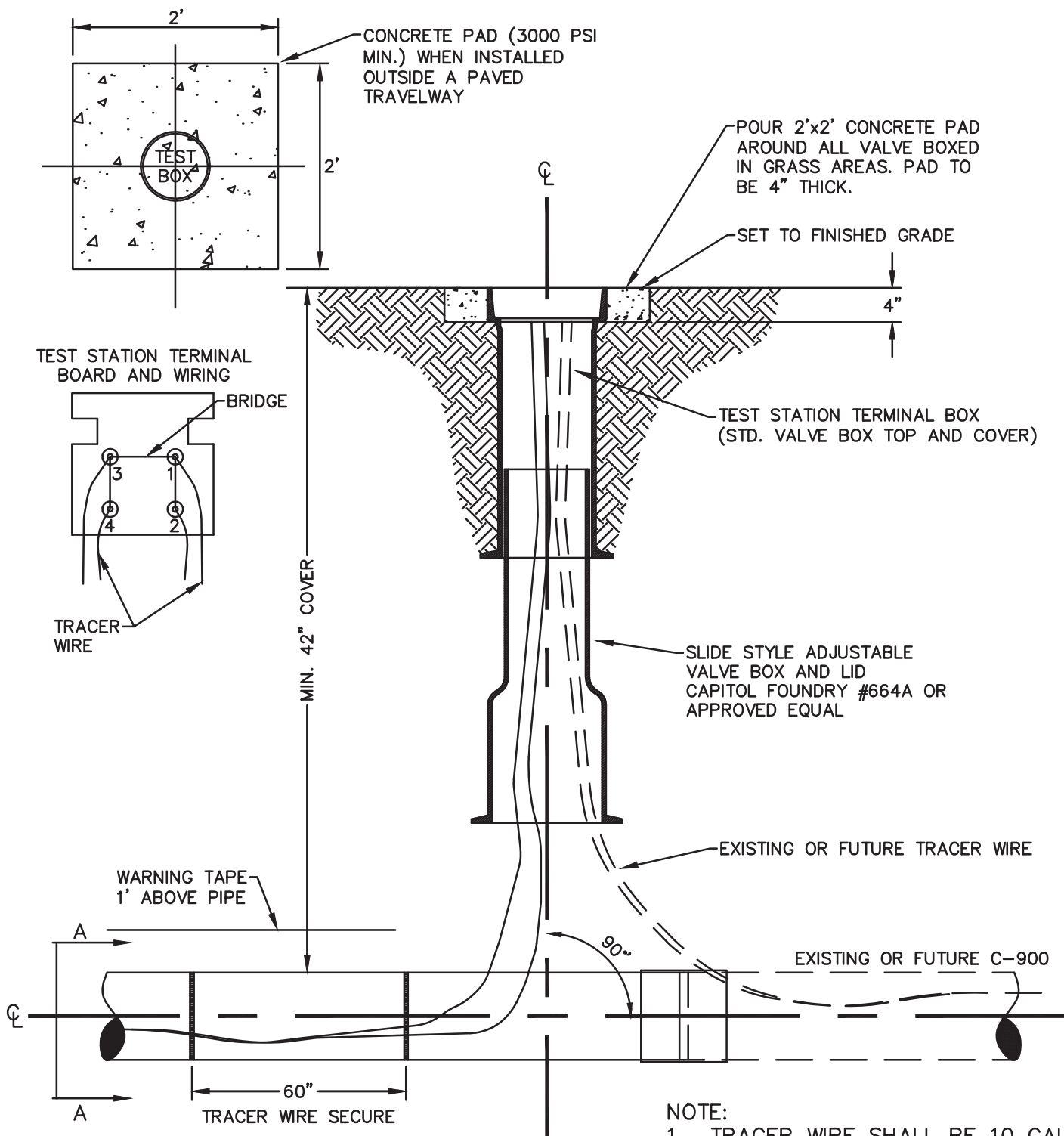
PLAN VIEW



PROFILE VIEW

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Pressure Reducing Valve Vault	DRWG. NO. W10
REVISIONS			



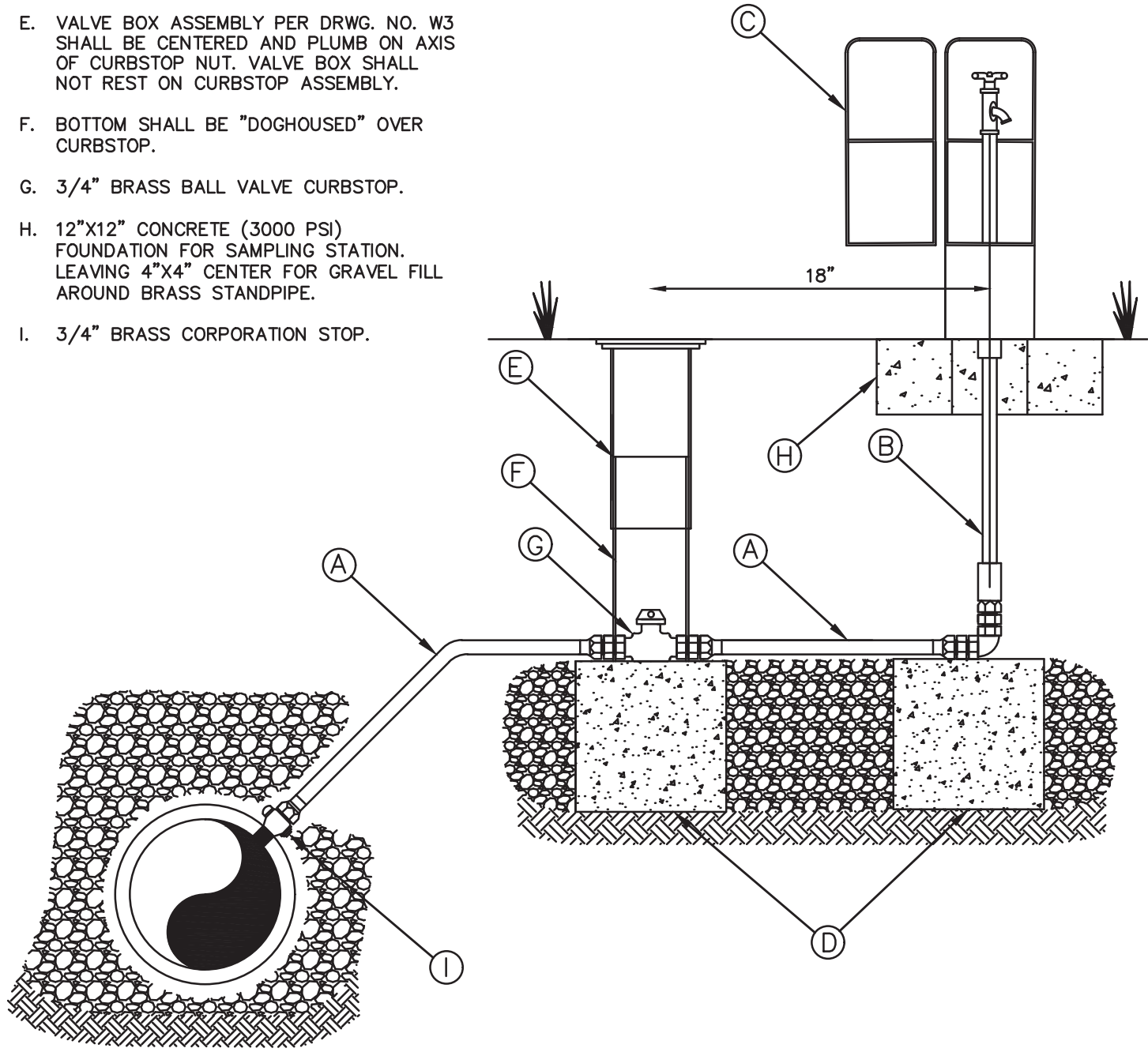
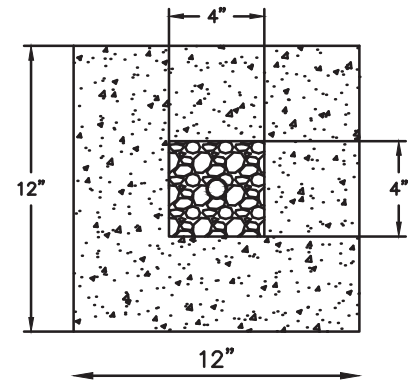
- NOTE:
1. TRACER WIRE SHALL BE 10 GAUGE SOLID COPPER, SECURED ALONG THE LENGTH OF THE PIPE WITH CABLE TIES, 60" O.C.
 2. TRACER WIRES VERTICALLY CENTERED ON PIPE.

Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Tracer Wire Test Station for Lawns and Pavement Areas	DRWG. NO. W11
REVISIONS March 2017			

KEYNOTES:

- A. 3/4" DOMESTIC TYPE K SOFT COPPER.
- B. 3/4" BRASS STANDPIPE.
- C. SAMPLING STATION. THE KUPFERLE FOUNDRY CO. ECLIPSE NO. 88 WITH 1/4" BALL VALVE ON VENT PIPE. MAINTAIN 24" CLEAR SPACE ON ALL SIDES.
- D. 8"X"8 CONCRETE PIER BLOCK ON UNDISTURBED NATIVE SOIL.
- E. VALVE BOX ASSEMBLY PER DRWG. NO. W3 SHALL BE CENTERED AND PLUMB ON AXIS OF CURBSTOP NUT. VALVE BOX SHALL NOT REST ON CURBSTOP ASSEMBLY.
- F. BOTTOM SHALL BE "DOGHOUSED" OVER CURBSTOP.
- G. 3/4" BRASS BALL VALVE CURBSTOP.
- H. 12"X12" CONCRETE (3000 PSI) FOUNDATION FOR SAMPLING STATION. LEAVING 4"X4" CENTER FOR GRAVEL FILL AROUND BRASS STANDPIPE.
- I. 3/4" BRASS CORPORATION STOP.

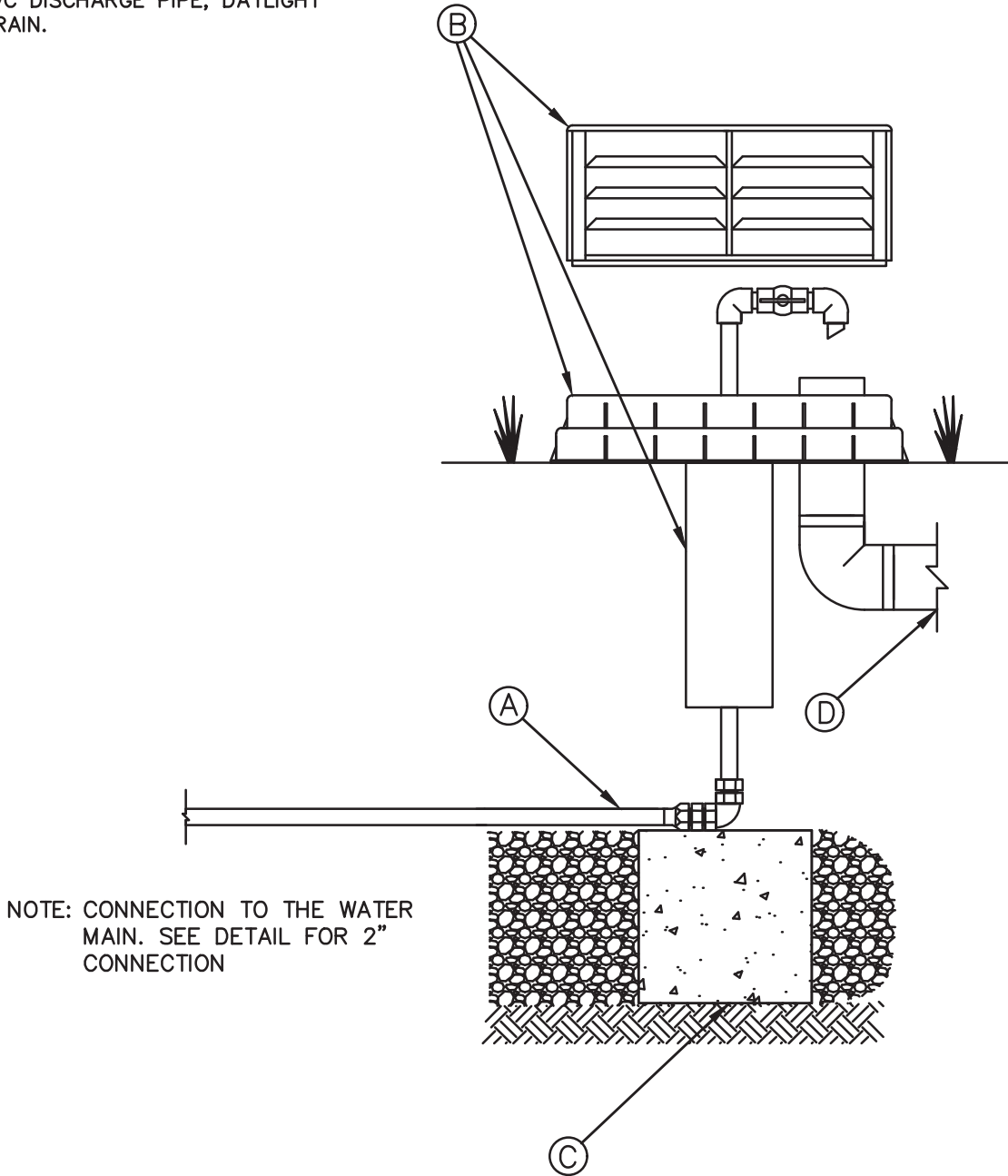


Not to Scale

<p>DATE April 2013</p>	<p>Spotsylvania County Department of Utilities</p>	<p>Sample Station Installation</p>	<p>DRWG. NO. W12</p>
<p>REVISIONS March 2017</p>			

KEYNOTES:

- A. 2" DOMESTIC TYPE K SOFT COPPER.
- B. #9800 AUTOMATIC FLUSHING DEVICE. THE KUPFERLE FOUNDRY CO.
- C. 8"X"8 CONCRETE PIER BLOCK ON UNDISTURBED NATIVE SOIL.
- D. 6" PVC DISCHARGE PIPE, DAYLIGHT TO DRAIN.



Not to Scale

DATE April 2013	Spotsylvania County Department of Utilities	Automatic Flushing Device Installation	DRWG. NO. W13
REVISIONS March 2017			