

**NOTES:**

1. ALL 2" PIPE AND FITTINGS SHALL BE THREADED (NPT) BRASS JOINTS.
2. SCHEDULE 40 PVC PIPE AND FITTINGS MAY BE SUBSTITUTED FOR THE BRASS PIPE AND FITTINGS.

**BLOW OFF VALVE  
STANDARD**

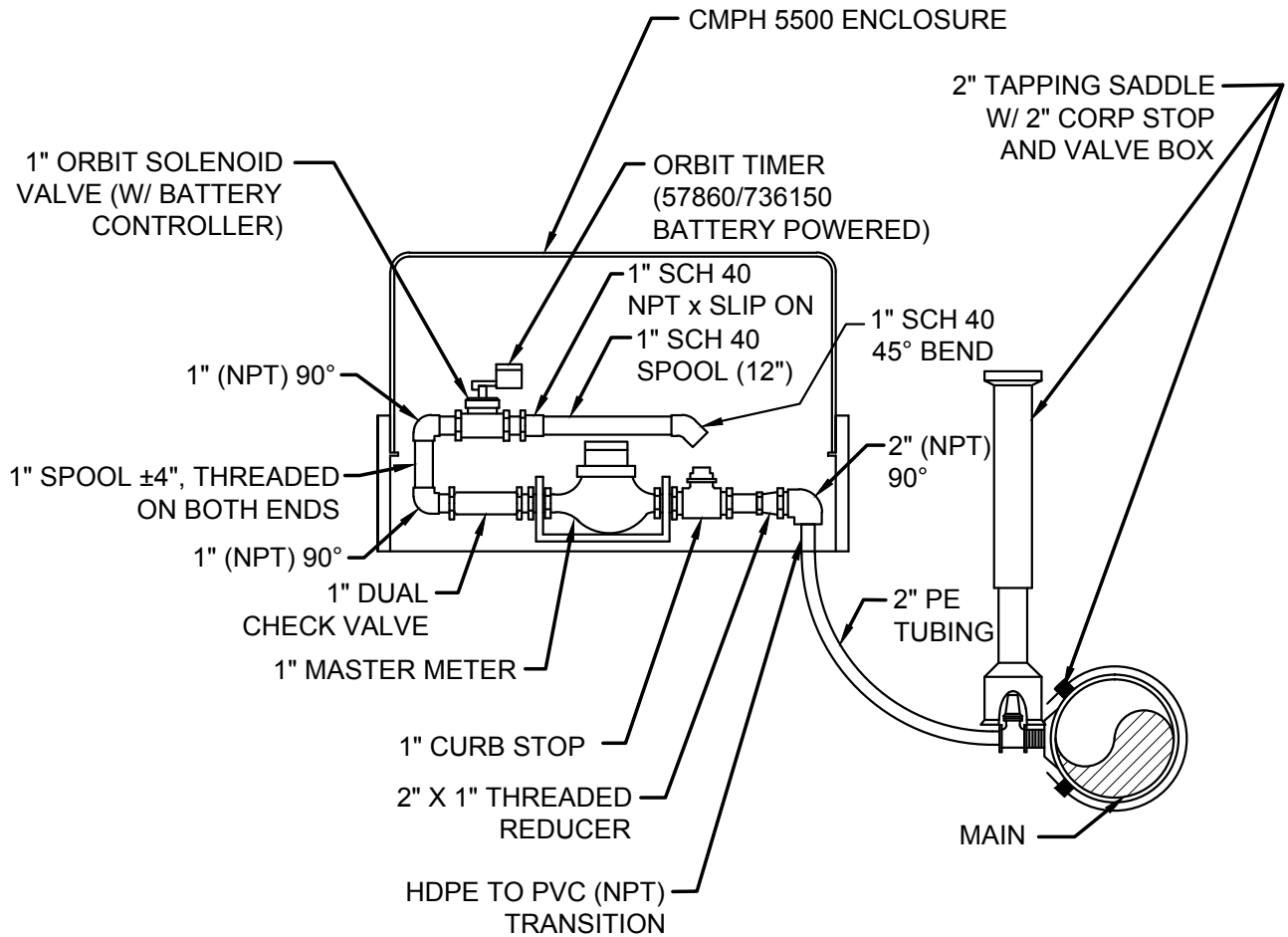
POLK COUNTY UTILITIES, FLORIDA

**FIGURE  
WA-01-1**

JUNE, 2021

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**FIGURE  
WA-01-2**

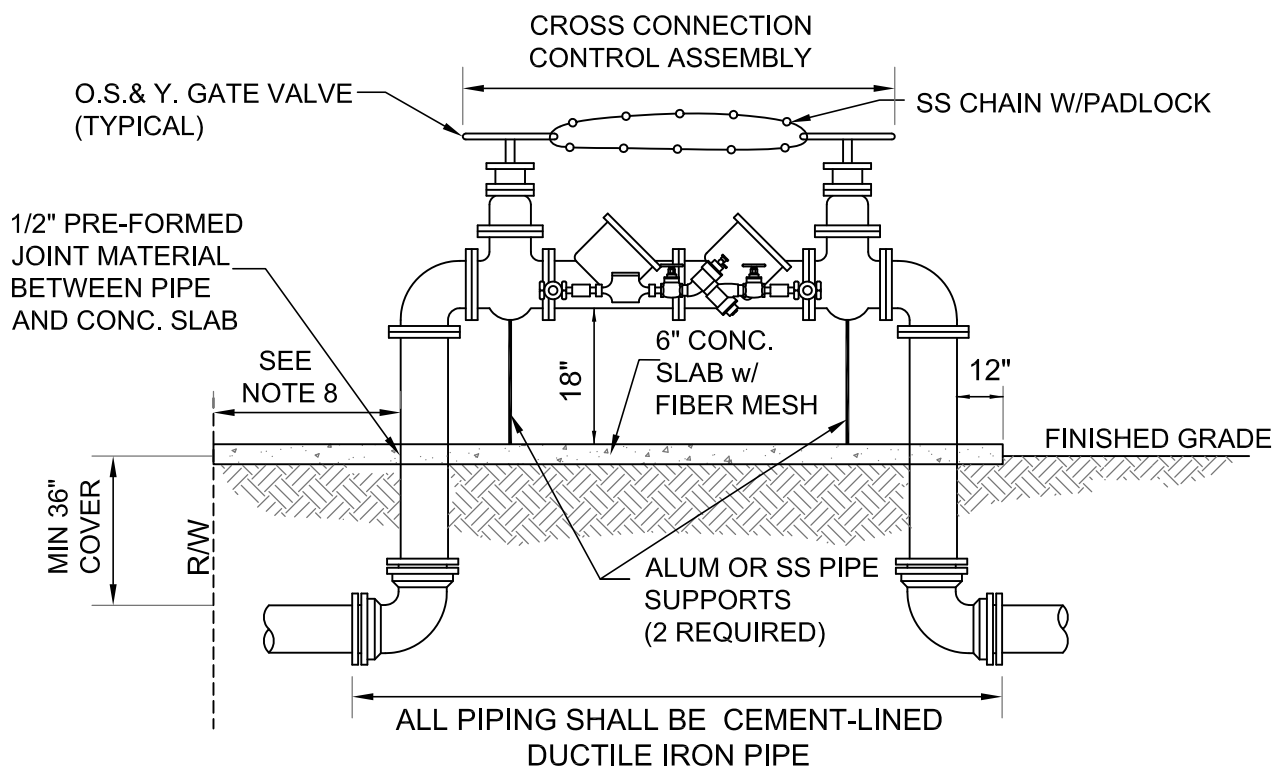
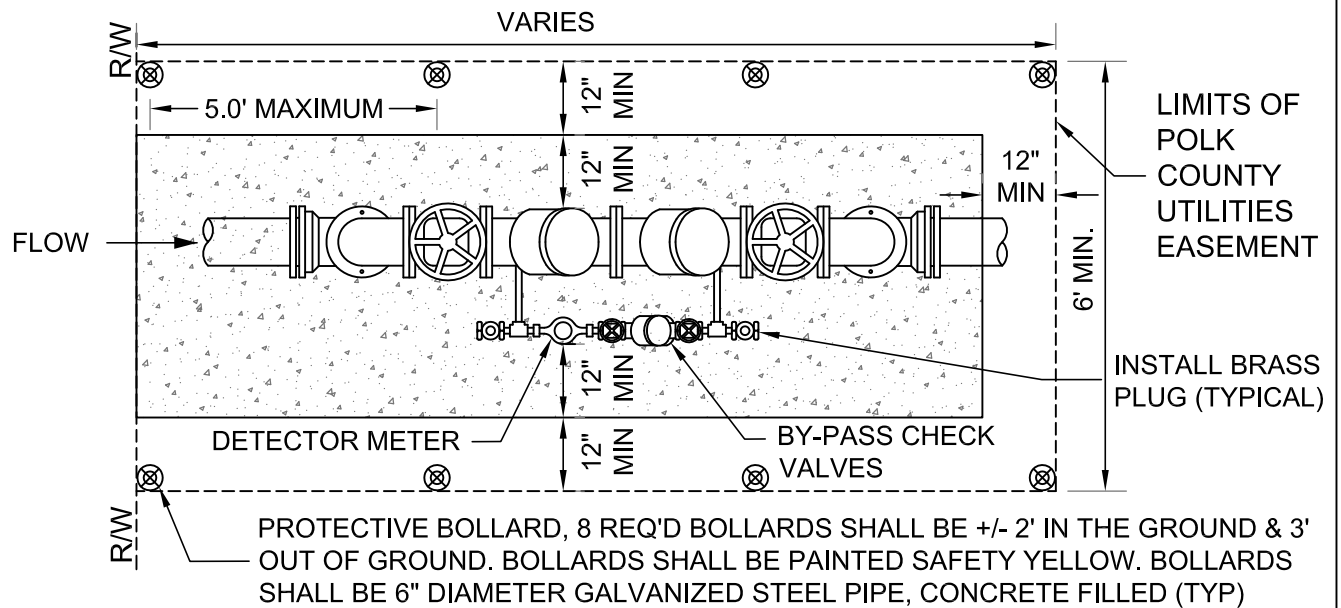


**NOTES:**

1. ENCLOSURE AND BASE SHALL BE CMPH 5500 DIMENSIONS: 31.51"L X 18.86"W X 29.83"H
2. NO AUTOMATIC BLOW OFF VALVE WILL BE INSTALLED ON RECLAIMED WATER SYSTEMS.

**BLOW OFF VALVE (ABOVE GROUND)  
AUTOMATIC**

**FIGURE  
WA-01-3**



**NOTES:**

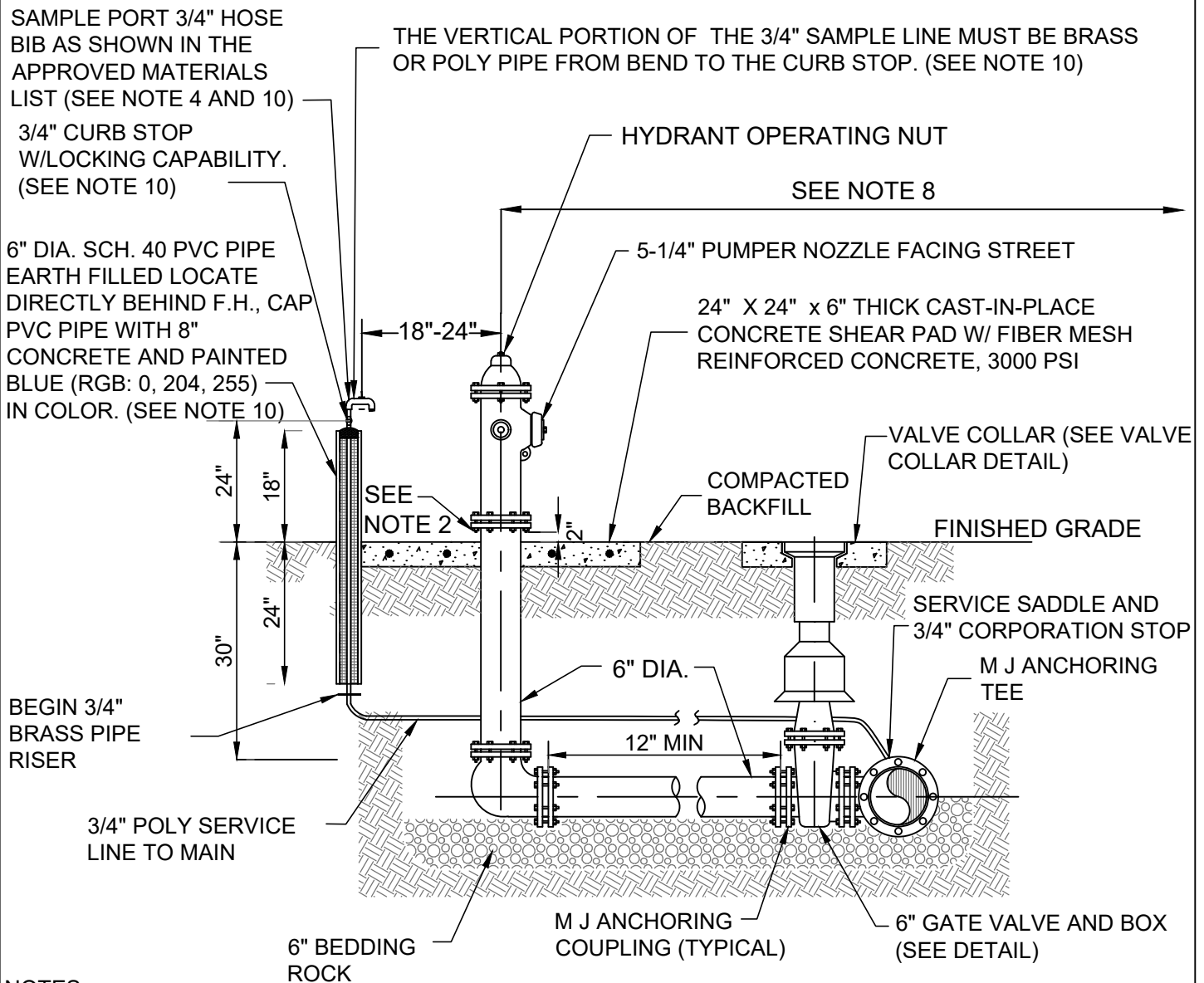
1. RESTRAINED JOINT FITTINGS SHALL BE REQUIRED FOR UNDERGROUND USE.
2. FLANGED FITTINGS SHALL BE REQUIRED.
3. PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, AFTER MANUFACTURER'S RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE OR BRASS FITTINGS. PAINT COLOR SHALL BE "INTERNATIONAL ORANGE"
4. PROVIDE PROTECTIVE CONCRETE FILLED 6" PIPE BOLLARDS.
5. AN APPROVED DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE SELECTED IN ACCORDANCE WITH PCU'S "APPROVED CROSS CONNECTION CONTROL ASSEMBLY LIST".
6. SPECIAL FIRE PROTECTION SYSTEMS USING INTERNAL PUMPS, TANKS, ETC. SHALL BE REQUIRED TO USE AN APPROVED REDUCED PRESSURE DETECTOR ASSEMBLY.
7. ALL PIPE, FITTINGS AND APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ASSEMBLY SHALL BE A MINIMUM 10' FROM EDGE OF PAVEMENT OR BUILDING, AND 4' FROM SIDEWALK OR HEDGE.
9. FULL FACED NEOPRENE GASKETS SHALL BE USED ON ALL FLANGED FITTINGS.

**FIRE LINE DOUBLE CHECK DETECTOR ASSEMBLY  
(4 INCHES TO 12 INCHES)**

POLK COUNTY UTILITIES, FLORIDA

**FIGURE  
WA-02**

AUGUST, 2018



**NOTES:**

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE (DRY BARREL TYPE) UNLESS OTHERWISE APPROVED BY PCU.
2. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE 2".
3. RESTRAINED JOINTS OR ALL-THREAD ROD REQUIRED TO SECURE PIPE, RISER AND VALVE IN THE FIRE HYDRANT ASSEMBLY TO THE MAIN.
4. TOP OF SAMPLE PORT TO BE LOWER THAN FLANGE ON FIRE HYDRANT BONNET.
5. HYDRANT SHALL BE PAINTED 1 COAT THEMEC 69-HIBUILD EPOXOLINE II (4-6DFT) AND ONE COAT 73-COLOR ENDURA SHIELD (3-5DFT); COLOR INTERNATIONAL ORANGE. PRIVATE HYDRANTS SHALL BE COLORED A COLOR OTHER THAN INTERNATIONAL ORANGE.
6. VALVE COLLAR AND HYDRANT SHEAR PAD MAY BE INCORPORATED INTO ONE 6" THICK PAD.
7. THRUST BLOCKS MAY ONLY BE USED WHEN CONNECTION IS TO AN EXISTING WATER MAIN AND IT IS NOT KNOWN IF THERE ARE RESTRAINED JOINTS BOTH WAYS FROM THE CONNECTION.
8. HYDRANT SHALL BE MIN OF 2' FROM EDGE OF SIDEWALK, 5' MIN FROM BACK OF MIAMI CURB AND 10' MIN FROM EDGE OF DRIVEWAY OR TURNOUT.
9. A BLUE REFLECTIVE PAVEMENT MARKER (RPM) SHALL BE INSTALLED 6 INCHES TO THE SIDE OF THE LANE STRIPE WHICH IS CLOSEST TO THE HYDRANT AND IN LINE WITH THE LARGEST PORT.
10. A PRE-MANUFACTURED ONE PIECE SAMPLE STATION MAY BE SUBSTITUTED FOR THE FIELD CONSTRUCTED SAMPLING STATION IN ACCORDANCE WITH THE APPROVED MATERIAL CHECKLIST.

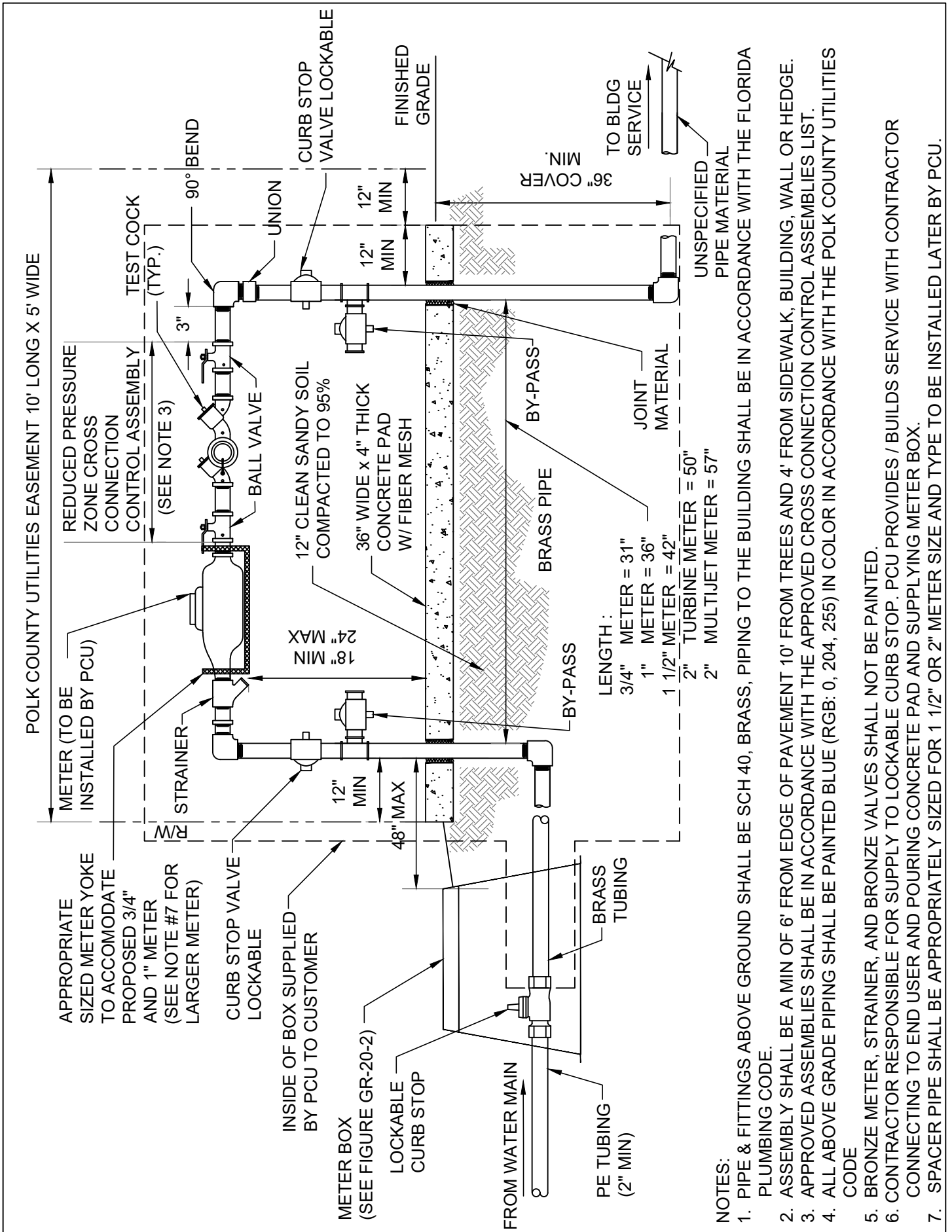
<b>FIRE HYDRANT ASSEMBLY</b>	<b>FIGURE WA-03</b>
POLK COUNTY UTILITIES, FLORIDA	MAY, 2024

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**FIGURE  
WA-04-1**

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**FIGURE  
WA-04-2**



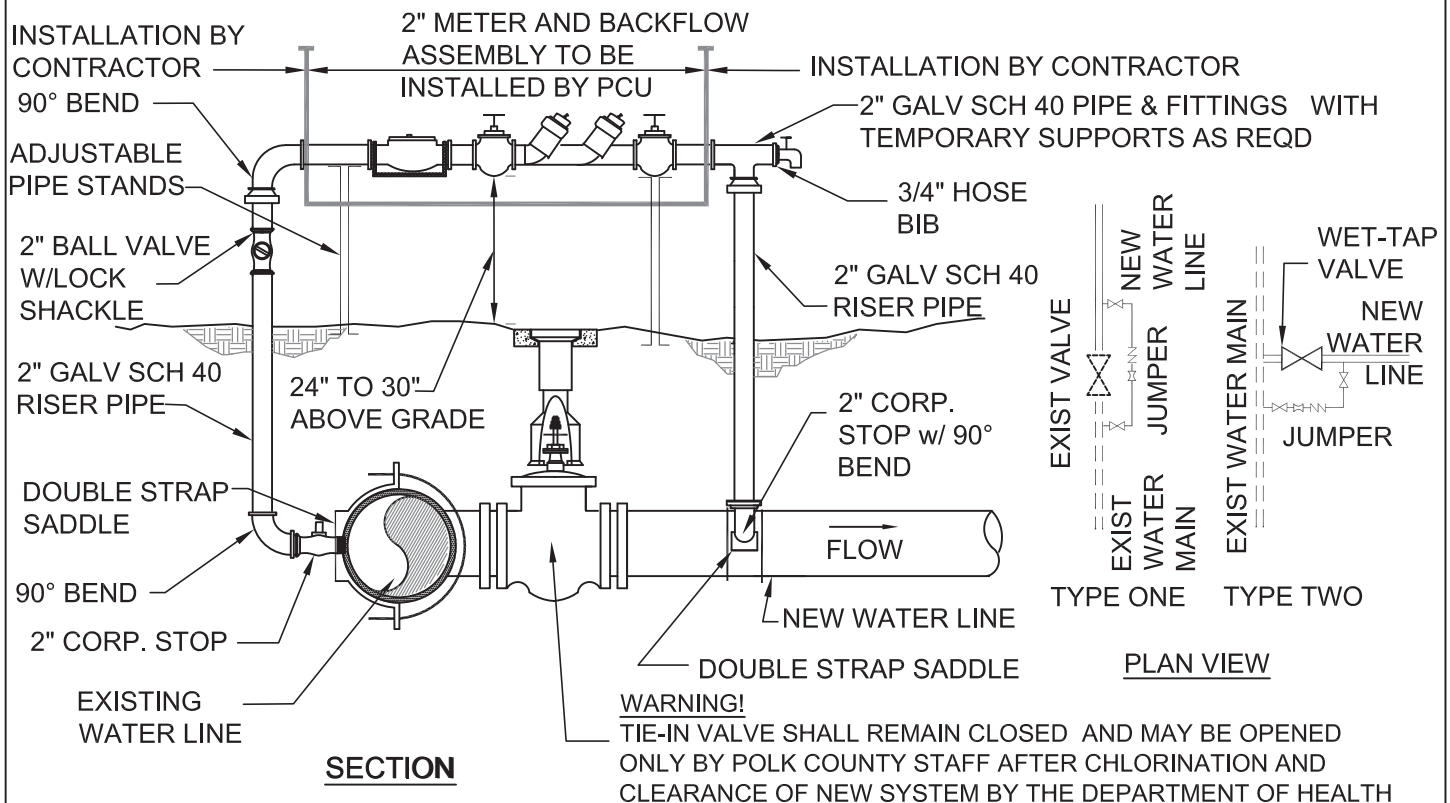
**METER & REDUCED PRESSURE ZONE CROSS CONNECTION CONTROL ASSEMBLY (UP TO 2 INCHES)**

POLK COUNTY UTILITIES, FLORIDA

**FIGURE WA-05**

JULY, 2022

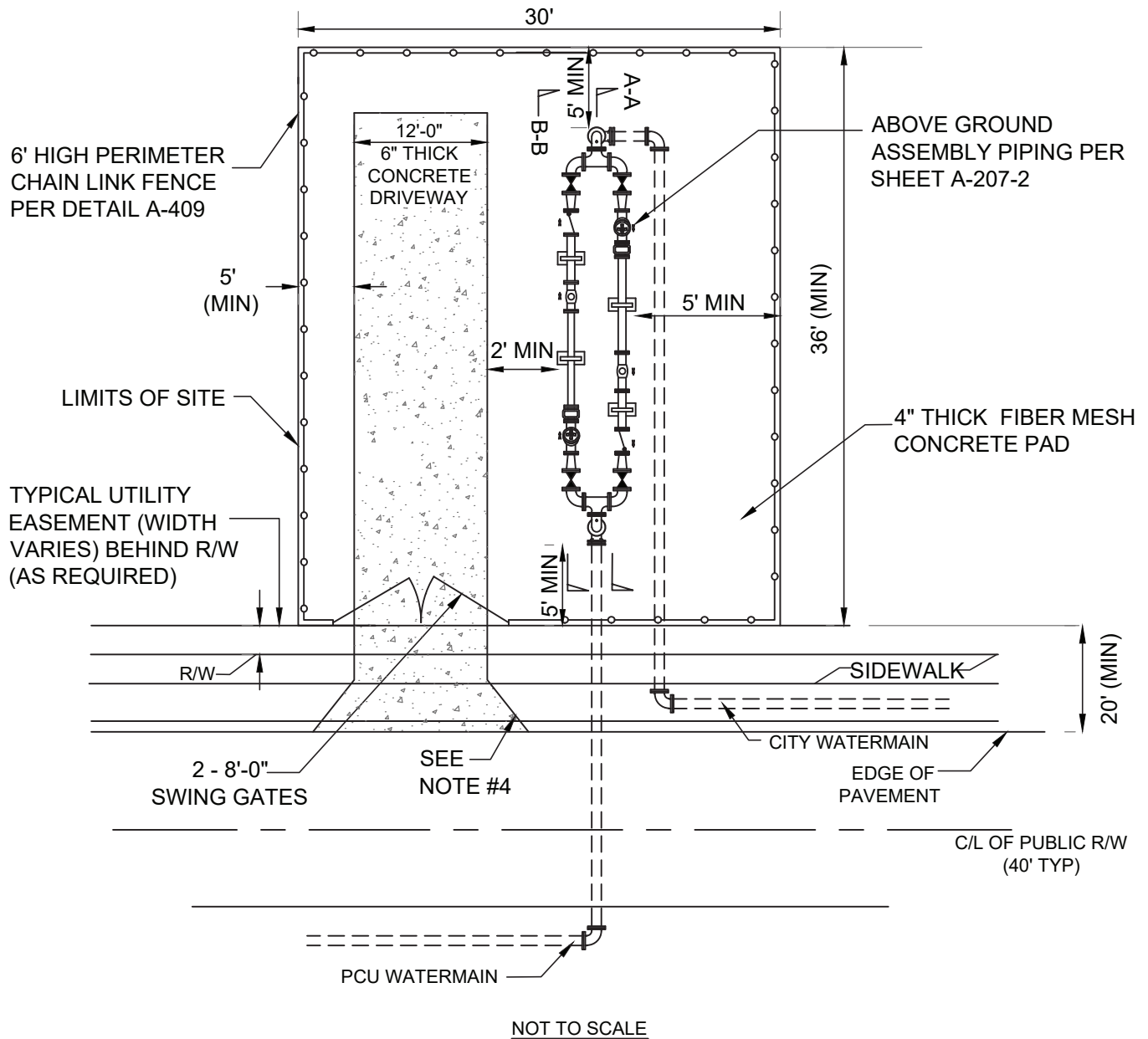




1. THE ENTIRE JUMPER ASSEMBLY EXCEPT AS NOTED ABOVE SHALL BE **INSTALLED BY THE CONTRACTOR.**
2. THIS JUMPER CONNECTION IS REQUIRED AT THE **PRIMARY POINT OF CONNECTION TO ACTIVE POTABLE WATER MAINS.** THE METER, **BACKFLOW PREVENTER** AND ALL PIPE AND FITTINGS USED FOR THE JUMPER CONNECTION SHALL BE **DISINFECTED** PRIOR TO **INSTALLATION** IN ACCORDANCE WITH **AWWA C651, LATEST EDITION.**
3. THE JUMPER CONNECTION SHALL BE USED TO **FILL AND FLUSH** THE NEW WATER MAIN AND TO **PROVIDE WATER FOR TESTING AND BACTERIOLOGICAL SAMPLING** OF THE NEW MAIN AS REQUIRED.
4. **FLUSHING OF NEW WATER MAINS** MAY BE DONE VIA THE **TIE-IN VALVE** ONLY UNDER THE FOLLOWING CONTROLLED CONDITIONS.
  - A. THE **TIE-IN VALVES** SHALL BE OPERATED AND **PRESSURE TESTED** IN THE PRESENCE OF **PCU STAFF** IN ORDER TO **VERIFY WATER TIGHTNESS** PRIOR TO **TIE-IN.** VALVES WHICH ARE NOT **WATERTIGHT** SHALL BE **REPLACED** OR A **NEW VALVE** **INSTALLED IMMEDIATELY** ADJACENT TO THE **LEAKING VALVE.**
  - B. THE **TIE-IN VALVE** SHALL BE **OPENED ONLY FOR FLUSHING AND CLEANING** OF NEW MAINS. - THE **FLUSHING** SHALL BE DONE IN THE PRESENCE OF **PCU STAFF.** -
5. THE JUMPER CONNECTION SHALL **REMAIN OPEN** TO **MAINTAIN MINIMUM PRESSURE (20psi)** IN NEW MAINS AFTER **DISINFECTION** BUT PRIOR TO **HEALTH DEPT CLEARANCE LETTER** BEING ISSUED.
6. THE JUMPER CONNECTION **MAY NOT BE REMOVED** UNTIL **FLUSHING, TESTING, AND DISINFECTION** OF **NEW WATER MAINS** IS COMPLETED AND THE **SYSTEM CLEARANCE LETTER** IS OBTAINED FROM THE **POLK COUNTY HEALTH DEPARTMENT.**
7. **ADEQUATE SUPPORTS, BRACING AND/OR RESTRAINTS** SHALL BE PROVIDED AS NEEDED TO **RESIST PRESSURE FORCES** AND **SUPPORT THE ASSEMBLY.**
8. THE JUMPER CONNECTION SHALL BE **PROTECTED FROM DAMAGE** BY **INSTALLATION OF A PROTECTIVE WARNING FENCE** OR **SIMILAR BARRICADE,** WHICH SHALL BE **ERECTED AND MAINTAINED** BY THE **CONTRACTOR.**
9. UPON RECEIPT OF **CLEARANCE FOR USE** FROM THE **HEALTH DEPARTMENT** AND A **REQUEST TO TERMINATE CONSTRUCTION SERVICE,** **PCU** WILL REMOVE THE **METER** AND THE **CONTRACTOR** SHALL REMOVE THE **TEMPORARY JUMPER CONNECTION.**
10. **CORPORATION STOPS** SHALL BE **CLOSED AND PLUGGED** WITH **2" BRASS PLUGS** BY THE **CONTRACTOR.**

**JUMPER CONNECTION (TYPICAL)**

**FIGURE  
WA-06**



**NOTES:**

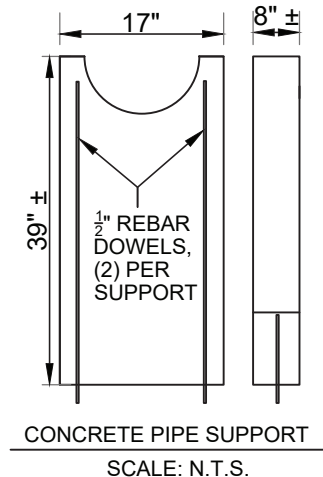
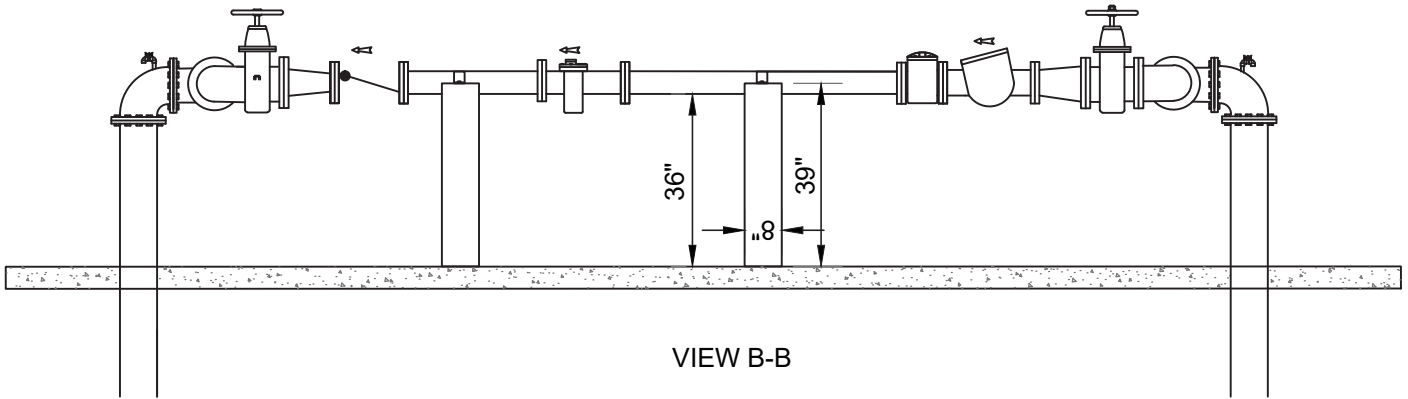
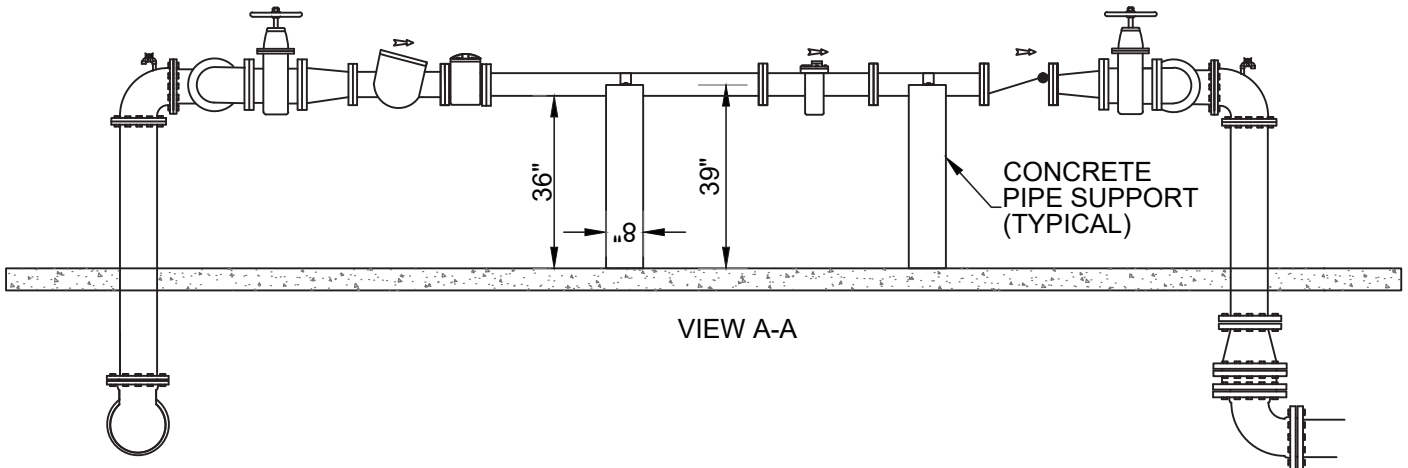
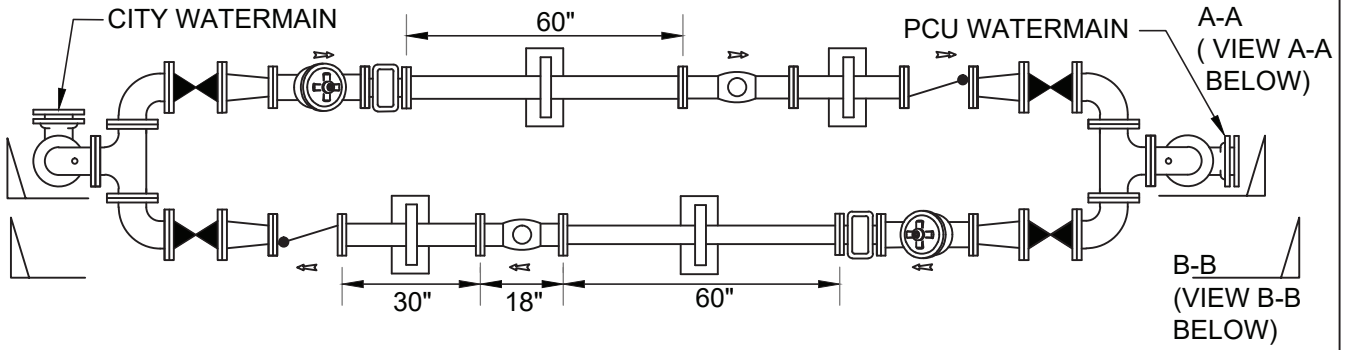
1. FENCING MAY BE REPLACED WITH OPTIONAL CONCRETE MASONRY WALL (SEE FIGURE A410-1 TO 2)
2. SLOPE OF PAD AND DRIVEWAY SHALL BE 1/8" PER 1' DOWN SLOPE (1.0%).  
FROM CENTER OF ASSEMBLY TO PERIMETER OF PAD .
3. MINIMUM DISTANCE BETWEEN FENCE AND ALL INSTALLED EQUIPMENT SHALL BE 5'.
4. USE OF 20' RADIUS OR 5' FLARE OF DRIVEWAY AT ROADWAY SHALL BE DETERMINED BY THE SURROUNDING DRIVEWAY GEOMETRY.
5. ENGINEER SHALL PROVIDE A SCALED (1" = 20' MIN) SITE DETAIL.

**WATER SYSTEM INTERCONNECT  
SITE PLAN**

POLK COUNTY UTILITIES, FLORIDA

**FIGURE  
WA-07-1**

DECEMBER, 2010

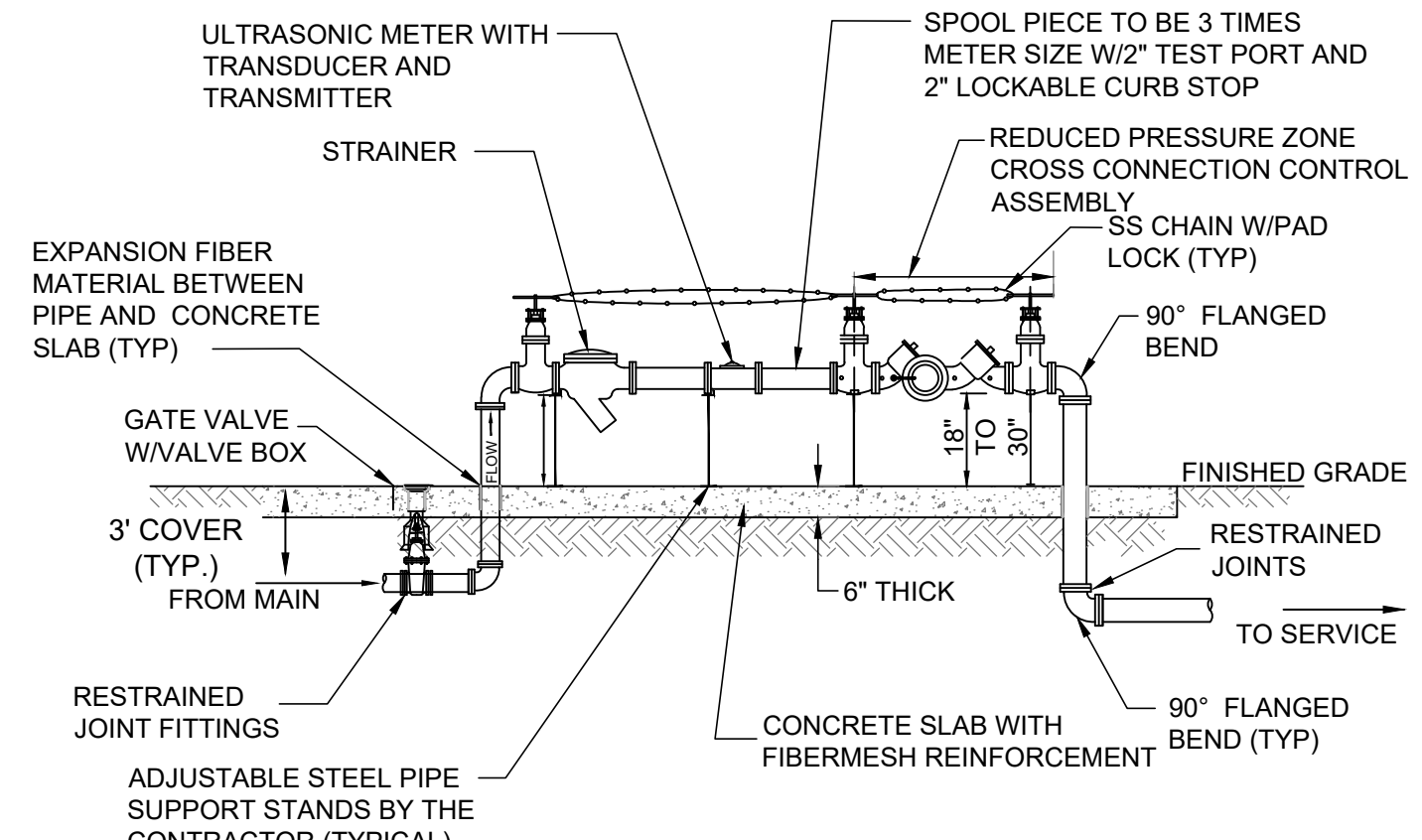
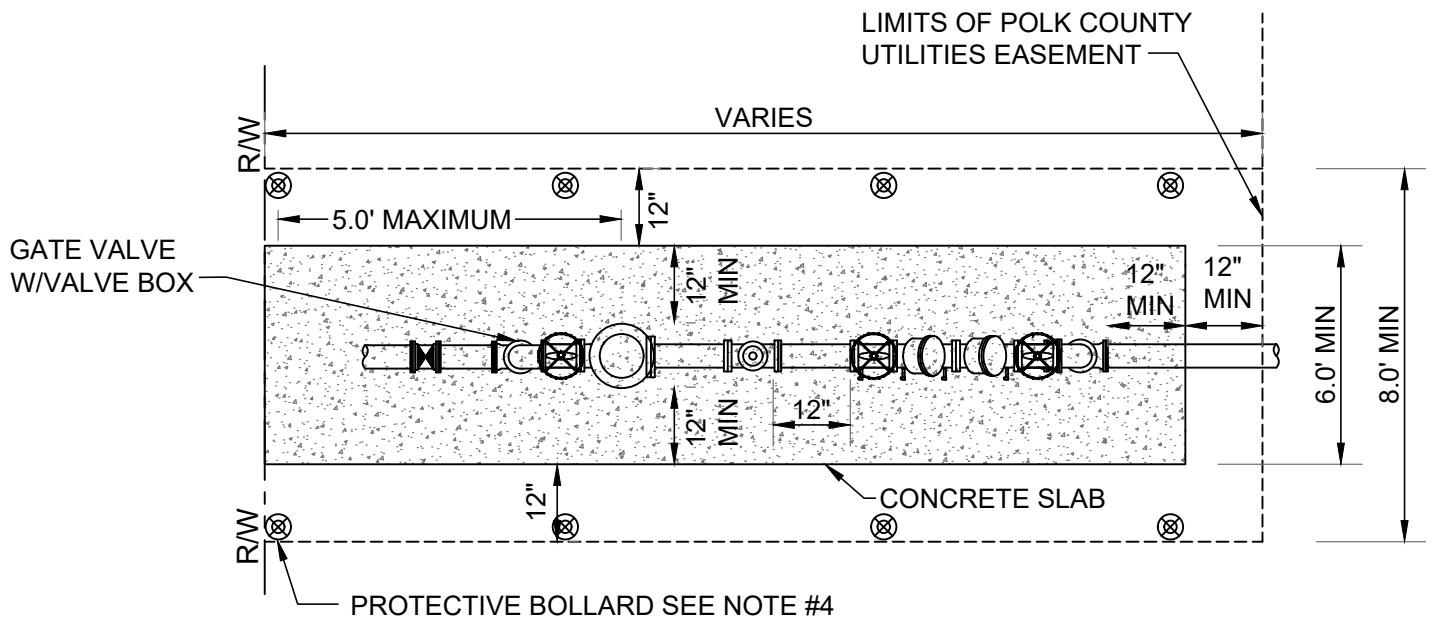


**WATER SYSTEM INTERCONNECT  
PLAN AND SECTION VIEWS**

POLK COUNTY UTILITIES, FLORIDA

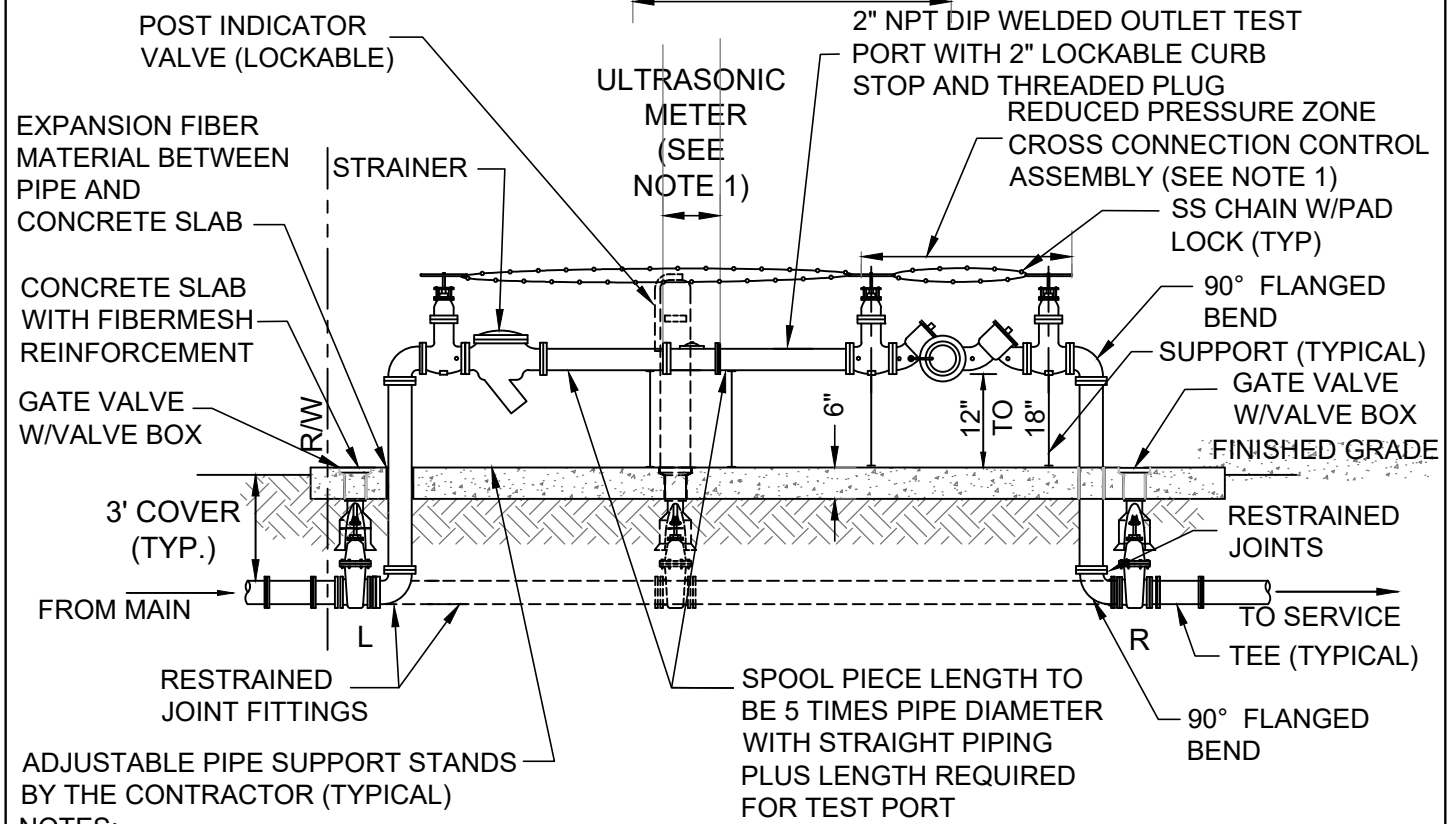
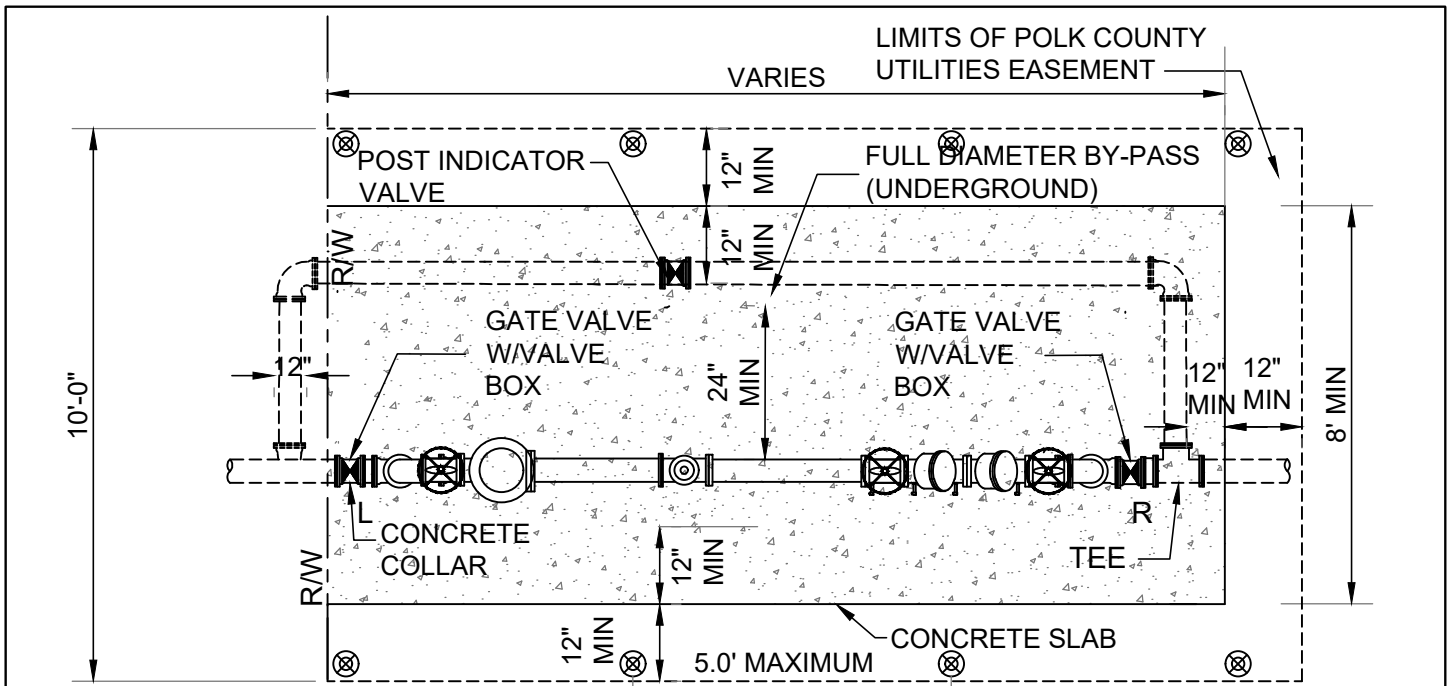
**FIGURE  
WA-07-2**

DECEMBER, 2010



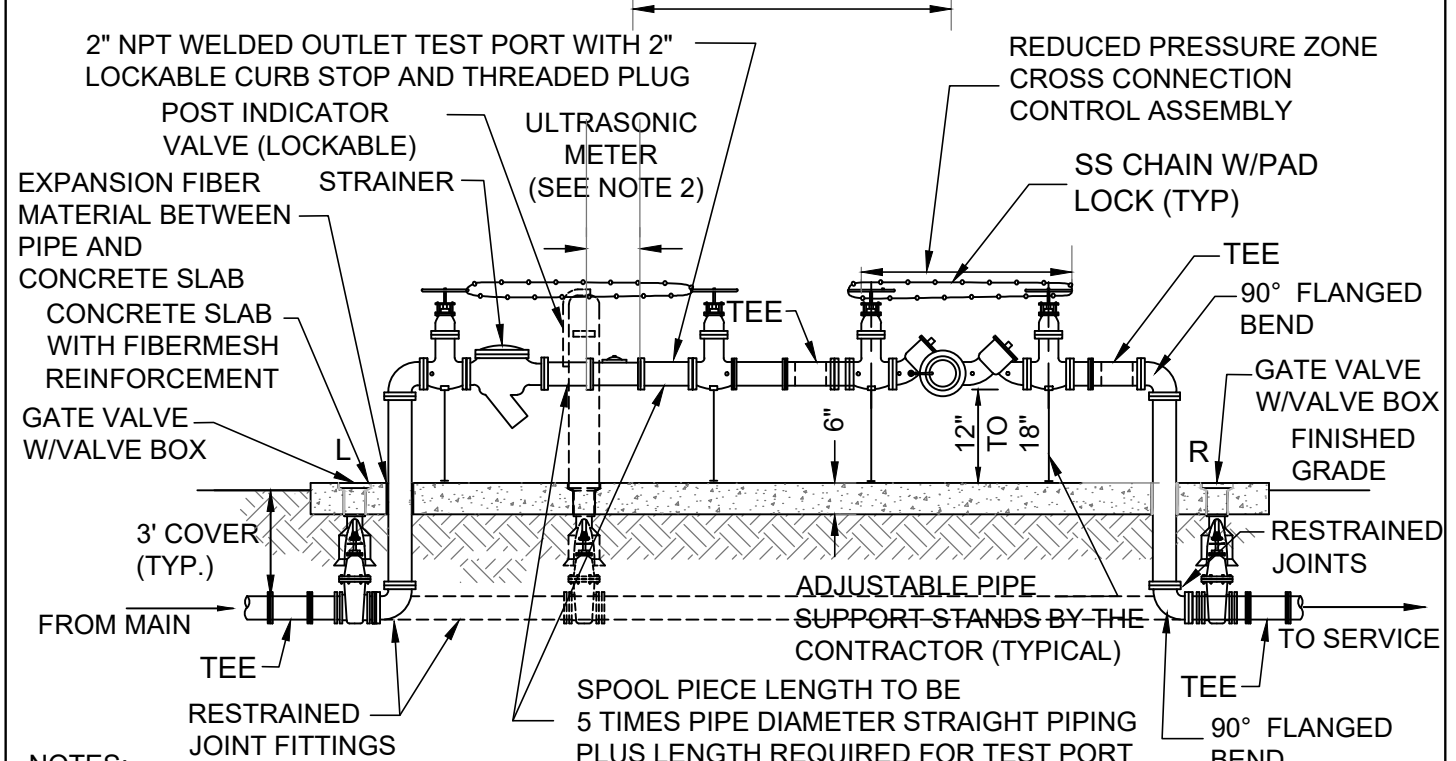
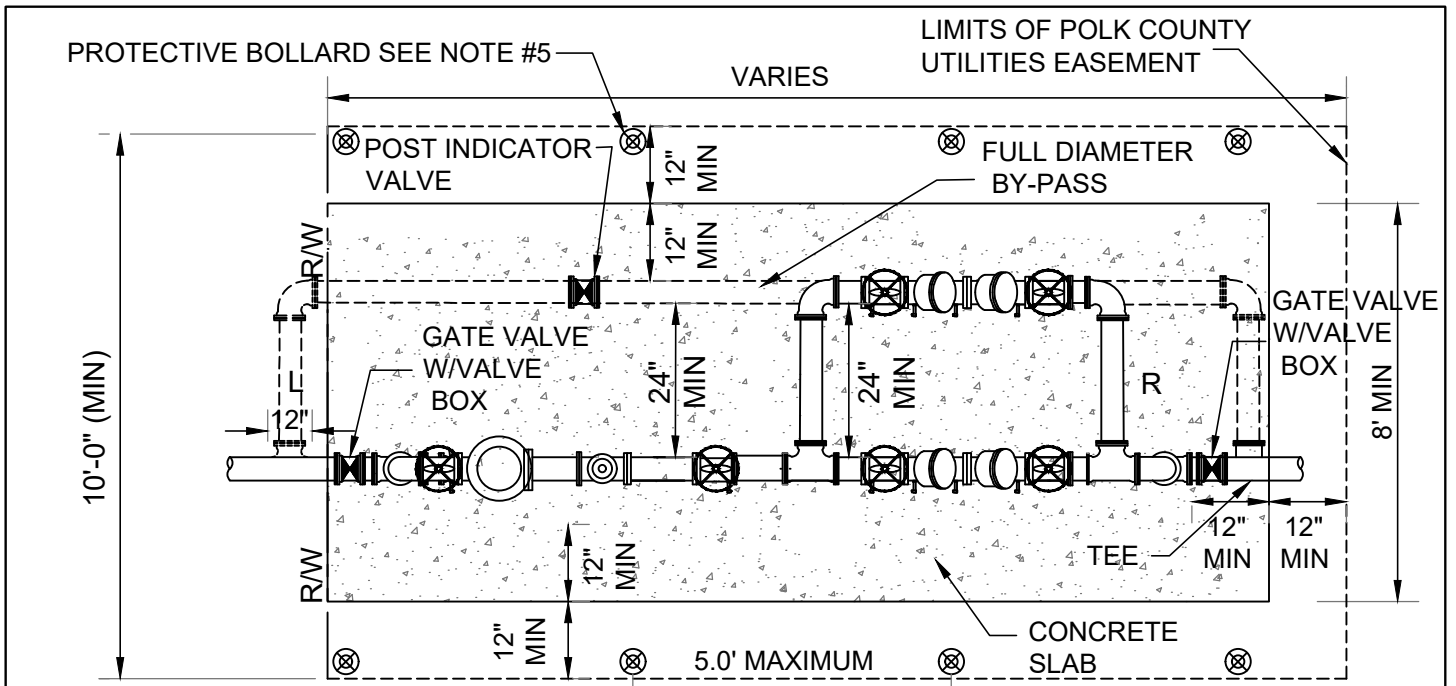
- NOTES:
1. THE CONTRACTOR SHALL PROVIDE AND INSTALL POTABLE WATER IRRIGATION MASTER CONTROL ASSEMBLY, ALL PIPE FITTINGS, STAINLESS STEEL (CHAINS) AND APPURTENANCES.
  2. ALL THE ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.
  3. PAINTING SHALL BE IN ACCORDANCE WITH FDOH REQUIREMENTS AND THE UTILITIES STANDARDS AND SPECIFICATIONS MANUAL.
  4. PROTECTIVE BOLLARD, 8 REQ'D BOLLARDS SHALL BE +/- 2' IN THE GROUND & 3' OUT OF GROUND. BOLLARDS SHALL BE PAINTED SAFETY YELLOW. BOLLARDS SHALL BE 6" DIAMETER GALVANIZED STEEL PIPE, CONCRETE FILLED (TYP).
  5. ABOVE GROUND VALVES SHALL BE O.S. & Y TYPE.
  6. METER SHALL BE CAPABLE OF ACCURATELY MEASURING THE ENTIRE RANGE OF EXPECTED FLOWS AND THE TYPE AND MANUFACTURE SHALL BE APPROVED BY PCU.

<b>POTABLE WATER IRRIGATION MASTER CONTROL ASSEMBLY (THREE INCHES AND LARGER)</b>	<b>FIGURE WA-08</b>
POLK COUNTY UTILITIES, FLORIDA	JUNE, 2021



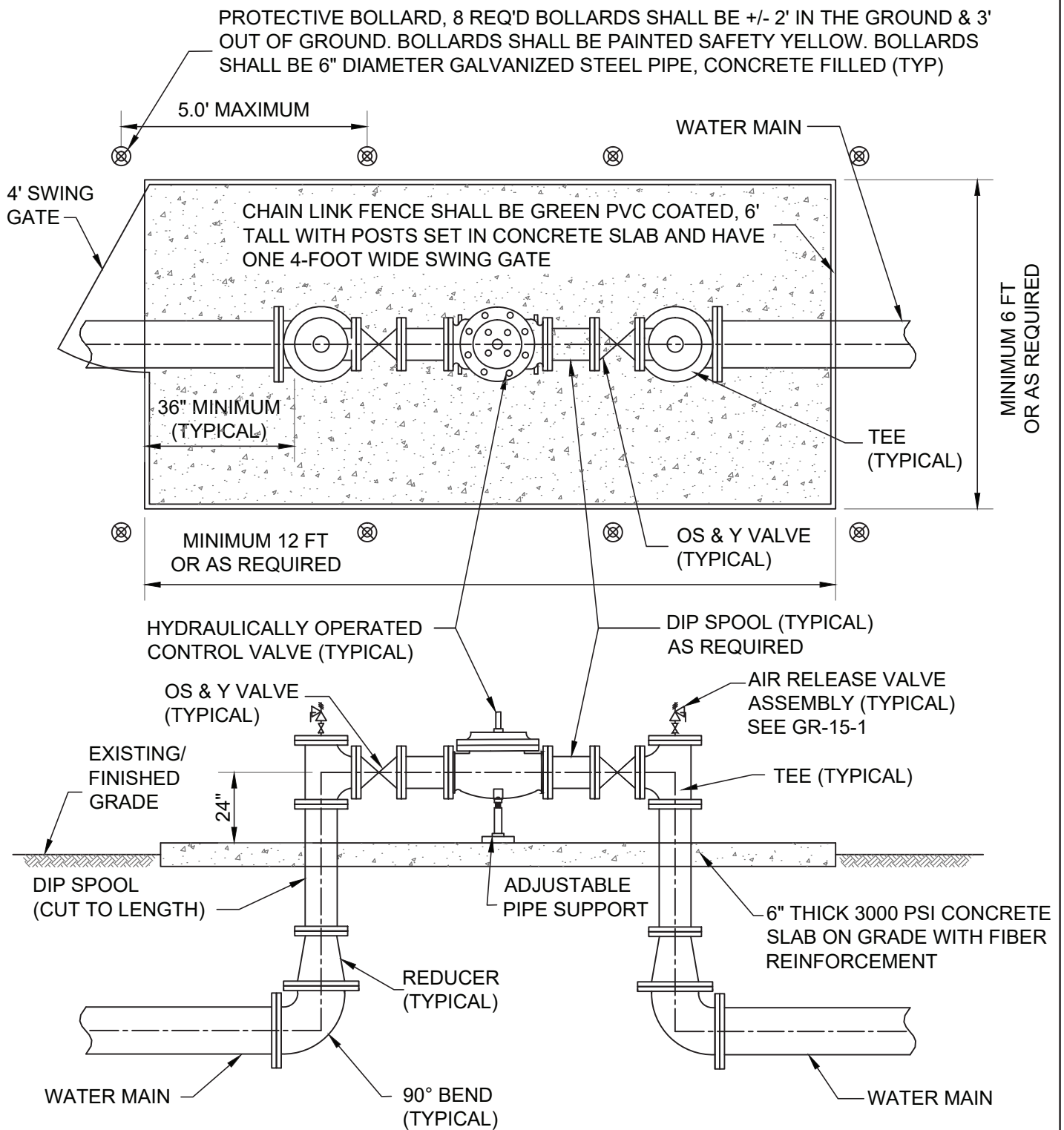
- NOTES:
1. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE MASTER METER INCLUDING THE METER, CROSS CONNECTION CONTROL ASSEMBLY, ALL PIPE FITTINGS, STAINLESS STEEL (CHAINS) AND APPURTENANCES.
  2. ALL THE ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.
  3. PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, AFTER MANUFACTURER'S RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE OR BRASS FITTINGS. PAINT COLOR SHALL BE BLUE (RGB: 0, 204, 255).
  4. PROTECTIVE BOLLARD, 8 REQ'D BOLLARDS SHALL BE +/- 2' IN THE GROUND & 3' OUT OF GROUND. BOLLARDS SHALL BE PAINTED SAFETY YELLOW. BOLLARDS SHALL BE 6" DIAMETER GALVANIZED STEEL PIPE, CONCRETE FILLED (TYP).
  5. ABOVE GROUND VALVES SHALL BE O.S. & Y TYPE.

<p align="center"><b>MASTER METER ASSEMBLY ( 3" AND LARGER ) ( SINGLE CROSS CONNECTION CONTROL ASSEMBLY )</b></p>	<p align="center"><b>FIGURE WA-09-1</b></p>
<p align="center">POLK COUNTY UTILITIES, FLORIDA</p>	<p align="center">JULY, 2022</p>



- NOTES:
1. DOUBLE CROSS CONNECTION CONTROL ASSEMBLIES SHALL BE UTILIZED WHERE THE WATER SUPPLY CAN NOT BE INTERRUPTED.
  2. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE MASTER METER INCLUDING THE METER, CROSS CONNECTION CONTROL ASSEMBLY, ALL PIPE FITTINGS, AND APPURTENANCE.
  3. ALL THE ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.
  4. PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, AFTER MANUFACTURER'S RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE OR BRASS FITTINGS. PAINT COLOR SHALL BE BLUE (RGB: 0, 204, 255).
  5. PROTECTIVE BOLLARD, 8 REQ'D BOLLARDS SHALL BE +/- 2' IN THE GROUND & 3' OUT OF GROUND. BOLLARDS SHALL BE PAINTED SAFETY YELLOW. BOLLARDS SHALL BE 6" DIAMETER GALVANIZED STEEL PIPE, CONCRETE FILLED (TYP).
  6. ABOVE GROUND VALVES SHALL BE O.S. & Y TYPE.

<p align="center"><b>MASTER METER ASSEMBLY (3" AND LARGER)</b>  <b>(DOUBLE CROSS CONNECTION CONTROL ASSEMBLIES)</b></p>	<p align="center"><b>FIGURE</b>  <b>WA-09-2</b></p>
<p align="center">POLK COUNTY UTILITIES, FLORIDA</p>	<p align="center">JULY, 2022</p>



**NOTES:**

- 1 THE CONTRACTOR SHALL PROVIDE AND INSTALL AIR RELEASE VALVE PER APPROVAL BY POLK COUNTY.
- 2 ALL THE ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.
- 3 ABOVE GROUND ASSEMBLY SHALL BE PAINTED IN ACCORDANCE WITH PCU REQUIREMENTS.
- 4 BOLLARDS SHALL BE REQUIRED BY PCU ON CORNERS AND ALONG THE LENGTH OF THE CONCRETE PAD TO PROVIDE PROTECTION ADJACENT TO VEHICULAR USE AREAS.
- 5 ABOVE GROUND VALVES SHALL BE O.S. & Y TYPE.

**HYDRAULICALLY OPERATED CONTROL VALVE**

**FIGURE  
WA-10**