NOTES:

1. BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN ABOVE.
2. COPPER PIPE TYPE "L" (OR "K") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
3. PIPES PASSING THROUGH CONCRETE SLAB SHALL BE PROPERLY PROTECTED; POLYETHYLENE WRAPPED OR PVC SLEEVED. COPPER SHALL NOT COME IN CONTACT WITH THE CONCRETE.
4. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2–31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
6. BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION.
7. PRESSURE REDUCING VALVE IS REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
8. 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
9. PRESSURE RELIEF VALVE IS REQUIRED ON ALL 3/4" & 1" BACKFLOW PREVENTION ASSEMBLIES. IN ADDITION, THE BUILDING DEPARTMENT, MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL DOWNSTREAM OF THE ASSEMBLY.
10. FITTINGS AND CONNECTIONS FOR ABOVE–GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR ROTATION OF BACKFLOW PREVENTION ASSEMBLY.
11. REFER TO DETAIL US–21 OR US–22 WATER METER & BACKFLOW PREVENTER FOR LIFT STATIONS FOR WATER SERVICE AT SEWAGE PUMPING STATION.
12. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g–6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
NOTES:
1. BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF METER, AS CLOSE TO METER AS POSSIBLE.
2. COPPER PIPE TYPE "L" (OR "K") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 36" BELOW GRADE.
3. PIPES THROUGH SLAB AND ALL BELOW-GROUND D.I. PIPE AND FITTINGS SHALL BE POLYETHYLENE WRAPPED.
4. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
5. METER, LOCK PACKS AND BRASS NIPPLES WILL BE PROVIDED BY MANATEE COUNTY. INSERT NIPPLES INTO LOCK PACKS HALF WAY.
6. DO NOT PAINT METER OR LOCK PACKS. ALL ABOVE GROUND PIPING SHALL BE PAINTED SAFETY BLUE BY SCOTT PAINT (POTABLE WATER) OR PANTONE PURPLE 522C (RECLAIMED WATER).
7. PRESSURE REDUCING VALVE IS REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
8. 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
9. THE BUILDING DEPT. MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL DOWNSTREAM OF THE ASSEMBLY.
10. BACKFLOW PREVENTION ASSEMBLY IS ONLY REQUIRED ON RECLAIMED WATER LINE WHEN IRRIGATION SYSTEM INCLUDES CHEMICAL OR FERTILIZER INJECTION METHODS. WHEN BACKFLOW PREVENTION ASSEMBLY IS NOT REQUIRED, A 12" MINIMUM DIAMETER AND A BALL VALVE SHALL BE INSTALLED.
11. ALL ABOVE-GROUND ANCILLARY BOLTS, NUTS, WASHERS, & FASTENERS SHALL BE 316 STAINLESS STEEL. ALL BURIED SHALL BE MIN. 304 STAINLESS STEEL.
12. FITTINGS AND CONNECTION FOR ABOVE-GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR ROTATION OF THE BACKFLOW PREVENTION ASSEMBLIES.
13. SEE UW-2 GATE VALVE, BOX, Lid AND TAG DETAIL, CENTERING COLLAR NOT REQUIRED ON 2" OR SMALLER VALVES.
14. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
15. FOR USE WHERE BACKFLOW PREVENTION ASSEMBLY IS REQUIRED WITH METER.
16. WHERE MULTIPLE METER AND BACKFLOW PREVENTION ASSEMBLIES ARE INSTALLED, A BELOW GRADE ISOLATION VALVE SHALL BE PROVIDED FOR EACH ASSEMBLY.
NOTES:

1. THIS DETAIL FOR FIRE PROTECTION ONLY.
2. WHEN PRESSURE TESTING FIRE LINE, TEST AGAINST DOWNSTREAM GATE VALVE.
3. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION), CHAPTER 2—31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES, AND THE MANATEE COUNTY FIRE MARSHAL REQUIREMENTS.
4. ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON CLASSES 63.
5. PIPE THROUGH SLAB AND ALL BELOW-GROUND D.I. PIPE AND FITTINGS SHALL BE POLYETHYLENE WRAPPED.
6. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.
7. THE EDGE OF THE CONCRETE SLAB SHALL BE 6 FEET MIN. FROM LANDSCAPE VEGETATION AND ABOVEGROUND OBJECTS; AND 10 FEET FROM TREES. STREET SIDE OF ASSEMBLY SHALL REMAIN OPEN.

**MANATEE COUNTY**
PUBLIC WORKS DEPARTMENT

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>SLAB THICKNESS</th>
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<tbody>
<tr>
<td>2&quot; TO 10&quot;</td>
<td>4&quot;</td>
<td>6x6 W1.4 WIRE MESH*</td>
</tr>
<tr>
<td>12&quot; TO 18&quot;</td>
<td>4&quot;</td>
<td>6x6 W3 WIRE MESH*</td>
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* REBAR MAY BE USED.

8. ALL ABOVE-GROUND ANCHOR BOLTS, NUTS, WASHERS, & FASTENERS SHALL BE 316 STAINLESS STEEL. FLAT WASHERS SHALL BE INSTALLED ON BOTH SIDES OF THE FLANGE. ALL BURIED SHALL BE MIN. 304 STAINLESS STEEL.
9. SEE UW—2 GATE VALVE, BOX, LID AND TAG DETAIL.
10. PIPE STANDS SHALL BE BOLTED TO SLAB.
11. ABOVE GROUND PIPING SHALL BE PAINTED SAFETY RED.
12. REFER TO 1.1.1.10 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.
13. WHERE MULTIPLE AND BACKFLOW PREVENTION ASSEMBLIES ARE INSTALLED, A BELOW GRADE ISOLATION VALVE SHALL BE PROVIDED FOR EACH ASSEMBLY.

2" AND ABOVE FIRE LINE BACKFLOW PREVENTION ASSEMBLY

**UW—15**
1. Above ground piping shall be flanged ductile iron Class 53, painted safety blue by Scott Paint for portable water or Panton 522C for reclaimed water.
2. Meter assembly shall be installed level and pressure tested against upstream gate valve.
3. Pipe through slab and all below ground D.I. pipe and fittings shall be polyethylene wrapped.
4. Tee & 2” ball valve (pointing up) right after meter is required on all meters.
5. Fire service meter to be used only when portable water and fire protection are supplied through a single portable water line. See UW-16A 6”-10” fire/potable combination meter.
6. All exposed edges of concrete shall have 1/2” chamfer.
7. The edge of the concrete slab shall be 6 feet min. from landscape vegetation and aboveground objects; and 10 feet from trees. Street side of assembly shall remain open.
8. A backflow prevention assembly is not required on reclaimed water master meter assembly, except where fertilizer or chemical injection methods will be in use. Backflow prevention assembly shall meet requirements of Chapter 2-31, Article X of the Manatee County Code of Ordinances.
9. All Above—ground auxiliary bolts, nuts, washers, & fasteners shall be 316 stainless steel. Flat washers shall be installed on both sides of the flange. All buried shall be min. 304 stainless steel.
10. Ball valves shall be full port with locking tabs.
11. County will provide meter. All other valves, pipe, fittings and backflow preventer to be provided by site contractor.
12. Backflow prevention assembly used for portable applications shall be lead free as defined in the reduction of lead in drinking water act, section 1417 of the Safe Drinking Water Act, 42 U.S.C. 300g-6, as may be amended, and in compliance with all applicable regulations.
13. Refer to 1.1.1.c in the Public Works Utility Standards manual for further details.
14. Where multiple meter and backflow prevention assemblies are installed, a below grade isolation valve shall be provided for each assembly.
15. Should there be insufficient room to install the meter assembly, 90° bends and tees may be used as shown in UW-18 replacement for 3” and above master meter.
Pipe Diameter | Slab Thickness | Reinforcement
---|---|---
6” to 10” | 4” | 6x6 W1.4 Wire Mesh*

*Rebar may be used.

**Slab Specifications**

**Plan**

- Outside Screw & Yoke Gate Valves
- 3,000 PSI (Min.) Concrete Slab
- Tee with 2” Ball Valve, Nipple, Cap & Elbow (Pointing up)

**Elevation**

- Water Meter
- 3-Adj. Pipe Stands Required (Typ.)
- 45° Flanged Bend Above Ground (Typical), See Note 6

**Notes:**
1. Above ground piping shall be flanged ductile iron Class 53, painted safety blue by Scott paint for potable water or Pantone 522C for reclaimed water.
2. Meter assembly shall be installed level and pressure tested against upstream gate valve.
3. Pipe through slab and all below ground d.i. pipe and fittings shall be polyethylene wrapped.
4. All exposed edges of concrete shall have 1/2” chamfer.
5. The edge of the concrete slab shall be 6 feet min. from landscape vegetation and aboveground objects; and 10 feet from trees. Street side of assembly shall remain open.
6. A backflow prevention assembly is not required on reclaimed water master meter assembly, except where fertilizer or chemical injection methods will be in use. Backflow prevention assembly shall meet requirements of Chapter 2-31, Article X of the Manatee County Code of Ordinances.
7. All above-ground ancillary bolts, nuts, washers, & fasteners shall be 316 stainless steel. Flat washers shall be installed on both sides of the flange. All buried shall be Min. 304 stainless steel.
8. Ball valves shall be full port with locking tabs.
9. County will provide meter. All other valves, pipe, fittings and backflow preventer to be provided by site contractor.
10. Backflow prevention assembly used for potable applications shall be lead free as defined in the reduction of lead in drinking water act, section 1417 of the Safe Drinking Water Act, 42 U.S.C. 300g-6, as may be amended, and in compliance with all applicable regulations.
12. Where multiple meter and backflow prevention assemblies are installed, a below grade isolation valve shall be provided for each assembly.
13. Should there be insufficient room to install the meter assembly, 90° bends and tees may be used as shown in UW-19 Replacement for 3” and Above Master Meter.
**SLAB SPECIFICATIONS**

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*REBAR MAY BE USED.

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**NOTES:**

1. ABOVE GROUND PIPING SHALL BE FLANGED DUCTILE IRON CLASS 53, PAINTED SAFETY BLUE BY SCOTT PAINT FOR POTABLE WATER OR PANTONE 522C PURPLE FOR RECLAIMED WATER.
2. METER ASSEMBLY SHALL BE INSTALLED LEVEL AND PRESSURE TESTED AGAINST UPSTREAM GATE VALVE.
3. PIPE THROUGH SLAB AND ALL BELOW GROUND D.I. PIPE AND FITTINGS SHALL BE POLYETHYLENE WRAPPED.
4. TEE & 2" BALL VALVE (POINTING UP) RIGHT AFTER METER IS REQUIRED ON ALL METERS.
5. FIRE SERVICE METER TO BE USED ONLY WHEN POTABLE WATER AND FIRE PROTECTION ARE SUPPLIED THROUGH A SINGLE POTABLE WATER LINE. SEE UW-19 REPLACEMENT FOR 6"-10" FIRE/POTABLE COMBINATION METER.
6. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER.
7. THE EDGE OF THE CONCRETE SLAB SHALL BE 8 FEET MIN. FROM LANDSCAPE VEGETATION AND ABOVEGROUND OBJECTS; AND 10 FEET FROM TREES. STREET SIDE OF ASSEMBLY SHALL REMAIN OPEN.
8. BACKFLOW PREVENTER IS NOT REQUIRED ON RECLAIMED WATER MASTER METER ASSEMBLY, EXCEPT WHERE FERTILIZER OR CHEMICAL INJECTION METHODS WILL BE IN USE. WHEN BACKFLOW PREVENTION ASSEMBLY IS NOT REQUIRED, A SPOOL PIECE OF SAME LAY LENGTH AND AN OS&Y VALVE SHALL BE INSTALLED. BACKFLOW PREVENTION ASSEMBLIES SHALL MEET REQUIREMENTS OF CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
9. ALL ABOVE-GROUND ANCILLARY BOLTS, NUTS, WASHERS, & FASTENERS SHALL BE 316 STAINLESS STEEL. FLAT WASHERS SHALL BE INSTALLED ON BOTH SIDES OF THE FLANGE. ALL BURIED SHALL BE MIN. 304 STAINLESS STEEL.
10. BALL VALVES SHALL BE FULL PORT WITH LOCKING TABS.
11. COUNTY WILL PROVIDE METER. ALL OTHER VALVES, PIPE, FITTINGS AND BACKFLOW PREVENTER TO BE PROVIDED BY SITE CONTRACTOR.
12. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.
13. REFER TO 1.1.1.C IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.
14. WHERE MULTIPLE METER AND BACKFLOW PREVENTION ASSEMBLIES ARE INSTALLED, A BELOW GRADE ISOLATION VALVE SHALL BE PROVIDED FOR EACH ASSEMBLY.
15. TRACER WIRE TEST STATION BOX NOT REQUIRED FOR REPLACEMENT MASTER METER IF THE EXISTING PIPING TO THE EXISTING METER ASSEMBLY DID NOT HAVE A TRACER WIRE.