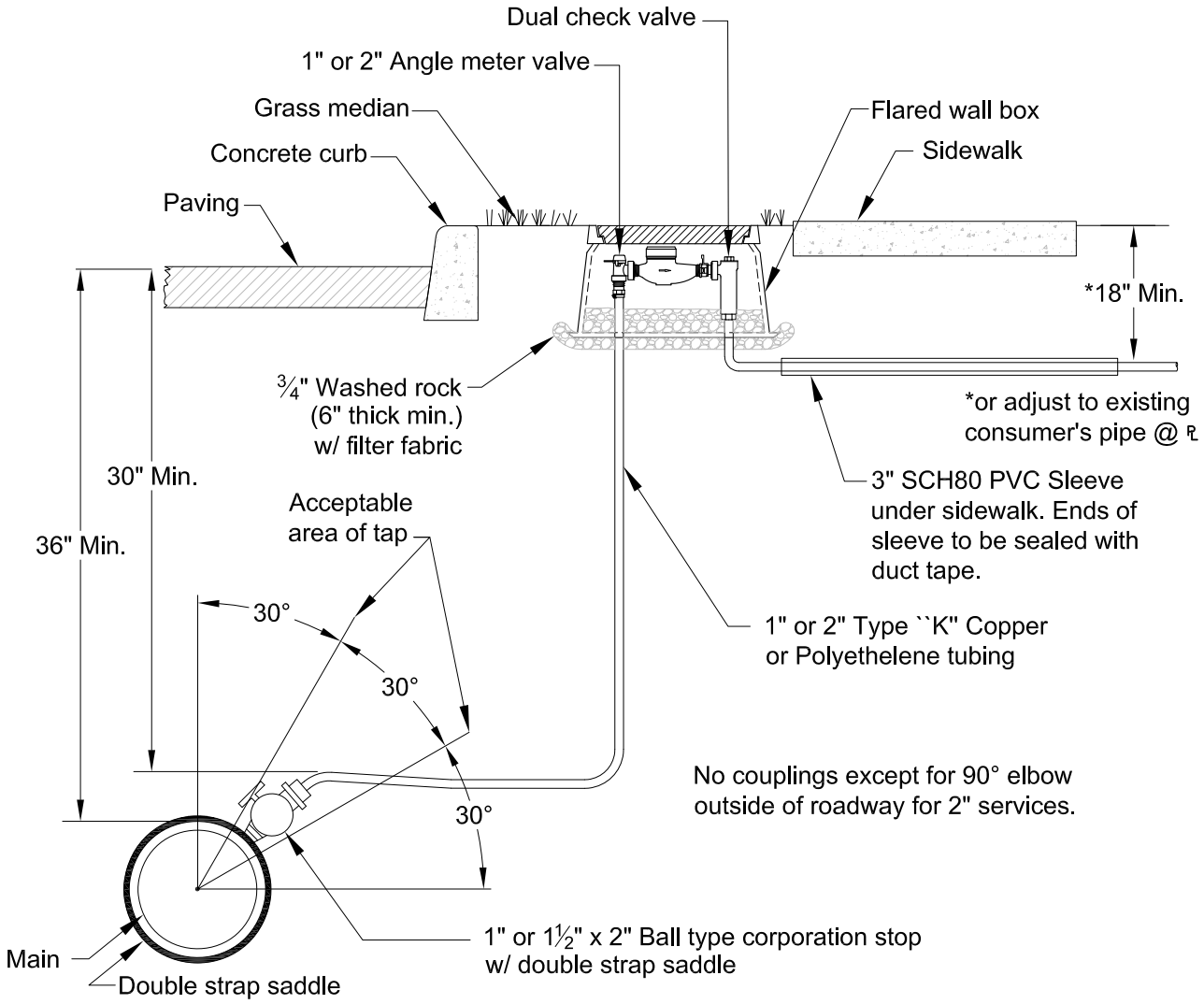
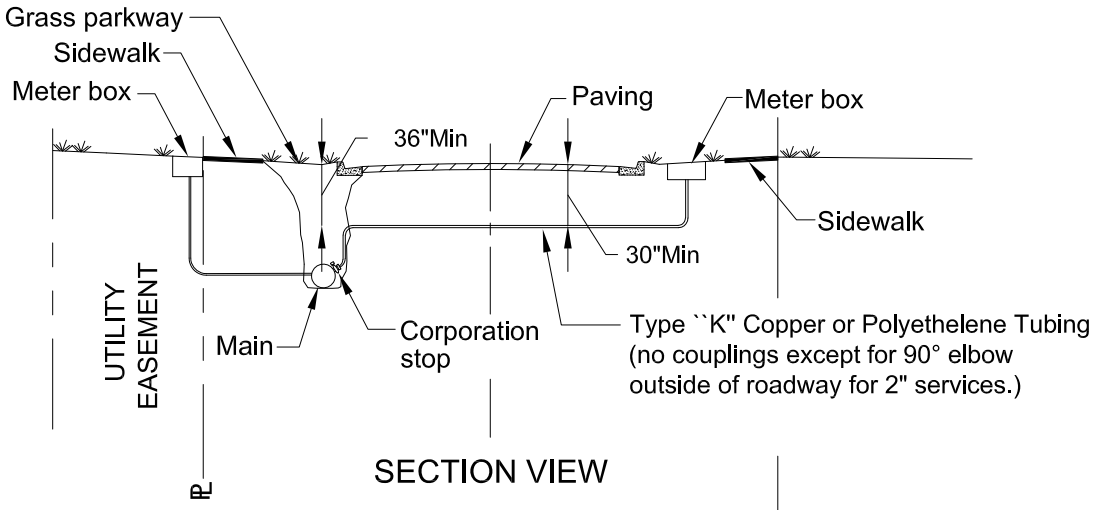
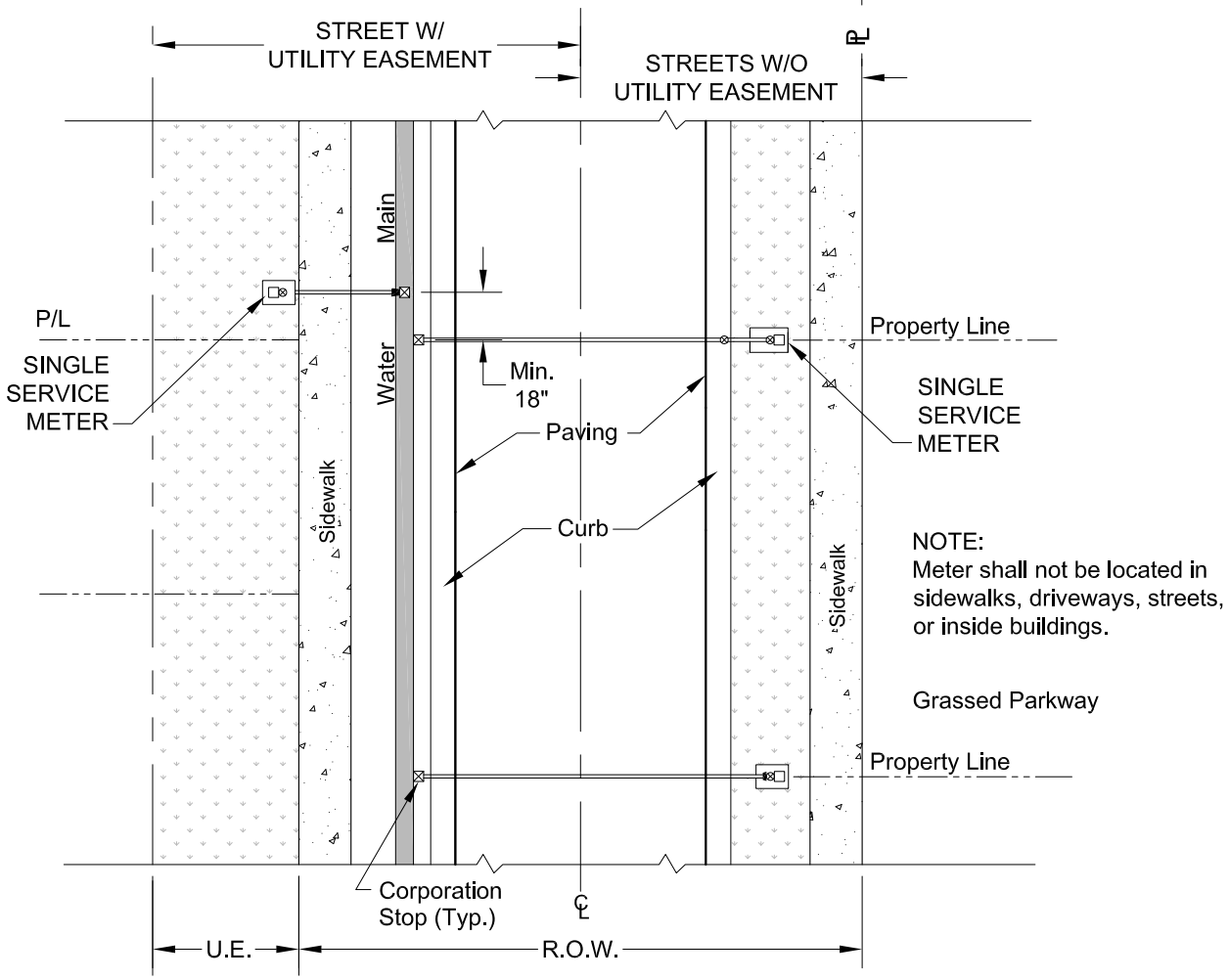


1. 1" service line for up to 1" meters.
   2" service line for 2" meters.
2. Preferred location of meters to be set in grass parkway or at back of utility easements. See domestic service location Detail WS-5.
3. Traffic rated meter box and lid supplied and installed by contractor. Size to be compatible with service size (see City's AML).
4. Min. 12 inches separation along main between service taps or fittings.
5. All irrigation systems for non-residential applications shall install
   a City approved RPZ backflow preventor. Refer to Standard Detail WS-11.
6. Residential dual check valves are required as a minimum for all new residential potable water meters 1" and smaller.
7. All brass or copper in contact with potable water shall be "LEAD FREE".
8. 1" and 2" single water service shall not feed fire sprinklers.
9. Meter box should be located minimum 3 ft away from objects such as poles and trees.

REVISED: SEPT-2019	WATER SERVICES - 1" & 2" SINGLE SERVICE INSTALLATION	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-1

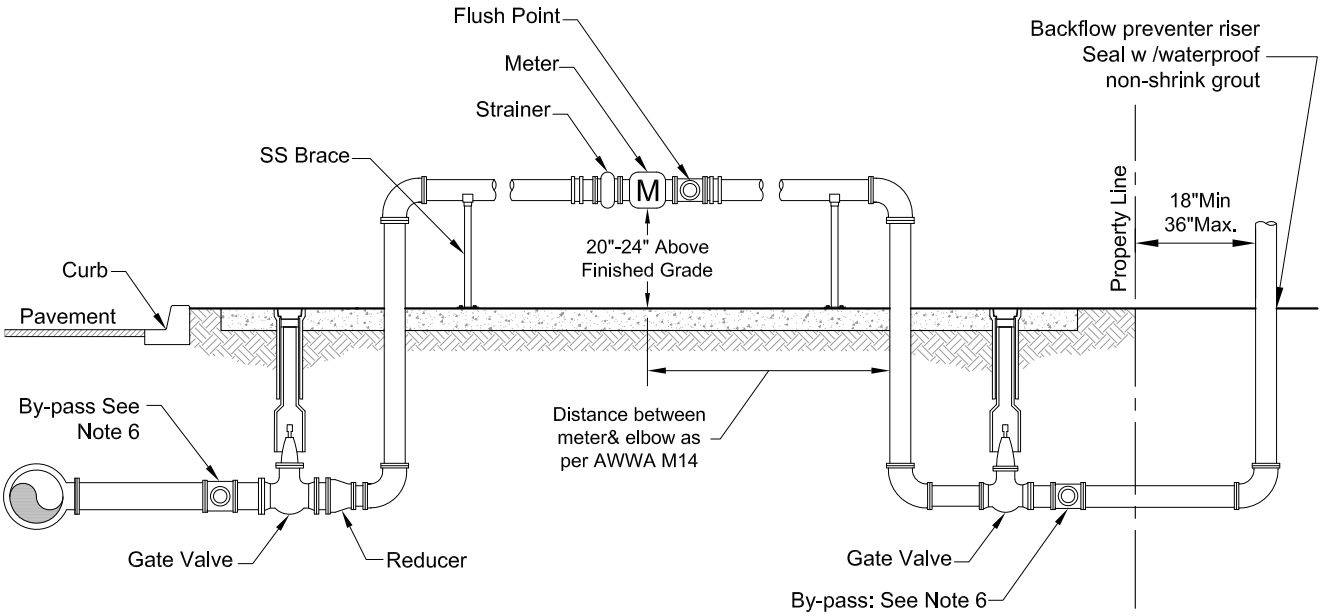


SECTION VIEW



PLAN VIEW

REVISED: SEPT-2019	WATER SERVICES - DOMESTIC SERVICE LOCATION	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-2



1. All pipe shall be Class 52, Cement Lined Ductile Iron Pipe. Flanged ends shall be required for above ground assembly.
2. Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida Licensed Engineer.
3. Reducer needs to be underground
4. Engineer shall detail meter service assembly on plans.
5. Install by-pass piping around meter to allow meter to be tested, repaired. By-pass piping shall be the same size as the meter size.
6. By-pass piping not shown for clarity.
7. All above ground assemblies shall be painted.
8. See Water Service Standard WS-4 for below ground meter option.

REVISED: SEPT-2019	WATER SERVICES - 3" & 4" DOMESTIC ABOVE GROUND METER	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-3

LISTING OF COMPONENTS:

A. Two 4" Resilient Wedge (RW) valves, with locking valve boxes & lids each side of the meter. Valves to be installed in line with or as close as possible to the meter.

B. Two Series 2100 3" Megalug, locking style flange adapters, one on each side of the meter, strainer and test tee.

C. One 3" flanged meter to be paid for by contractor and supplied by the City of West Palm Beach. Call for length of meter.

C.1 A length of straight pipe equal to 5 times the diameter shall be installed installed before the meter & after the strainer.

C.2 A length of straight pipe equal to 3 times the diameter shall be installed after the meter.

D. One strainer, same size as meter, flanged, bronze case with strainer to be supplied by the contractor. Ccall for dimensions.

E. 4" x 3" Mechanical Joint reducers before and after the meter. These may not be used in lieu of the straight pipe (see c.1 & c.2).

F. 4' x 6' vault with a lock down heavy duty aluminum traffic lid with spring loaded hinges. Vault & lid are to be positioned so meter dial is centered under meter reader's lid.

G. Service is to be offset to the proper height using one grouping of the following:

G.1 - One 4" mechanical joint offset

G.2 -Two 4" mechanical joint 90° bends w/ straight pipe as required.

G.3 -Two 4" mechanical joint 45° bends w/ straight pipe as required.

H. Install bypass piping around meter to allow meter to be tested, repaired or replaced. Bypass piping shall be the same size as the meter size.

H.1- Two F.J. Resilient Wedge valves w/ wheel handles & megalug flange adapters series 2100.

H.2 - Two Mechanical Joint tees

H.3 - One flanged tee, one flange plate tapped for 2" N.P.T., one 2" brass nipple, one locking style 2" curb stop w/ 2" brass plug

H.4 - Two Mechanical Joint 90° elbows.

I. Flush point to test meters and to flush system.

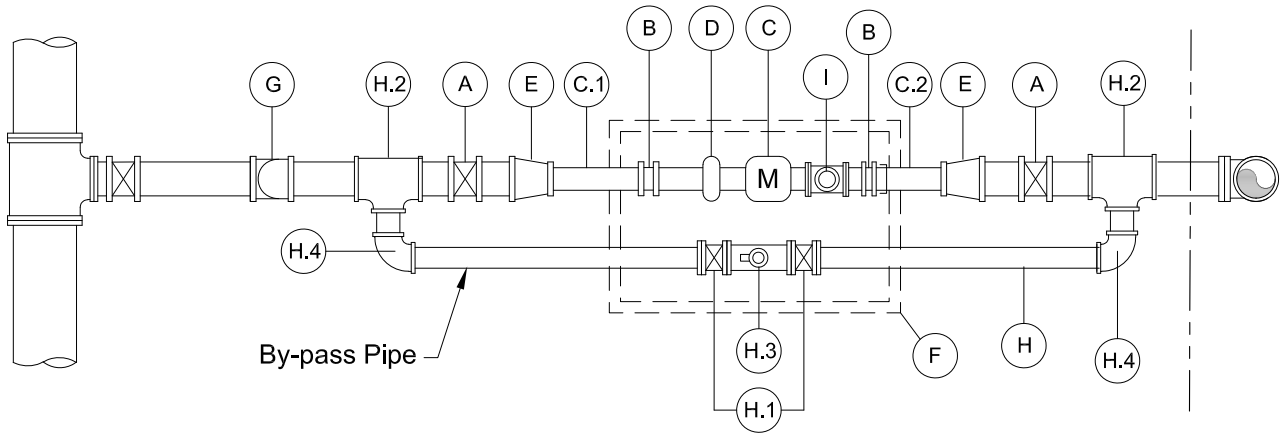
I.1- 3" flanged tee tapped for 2", attached to meter.

I.2 - 2"x 3" brass nipple

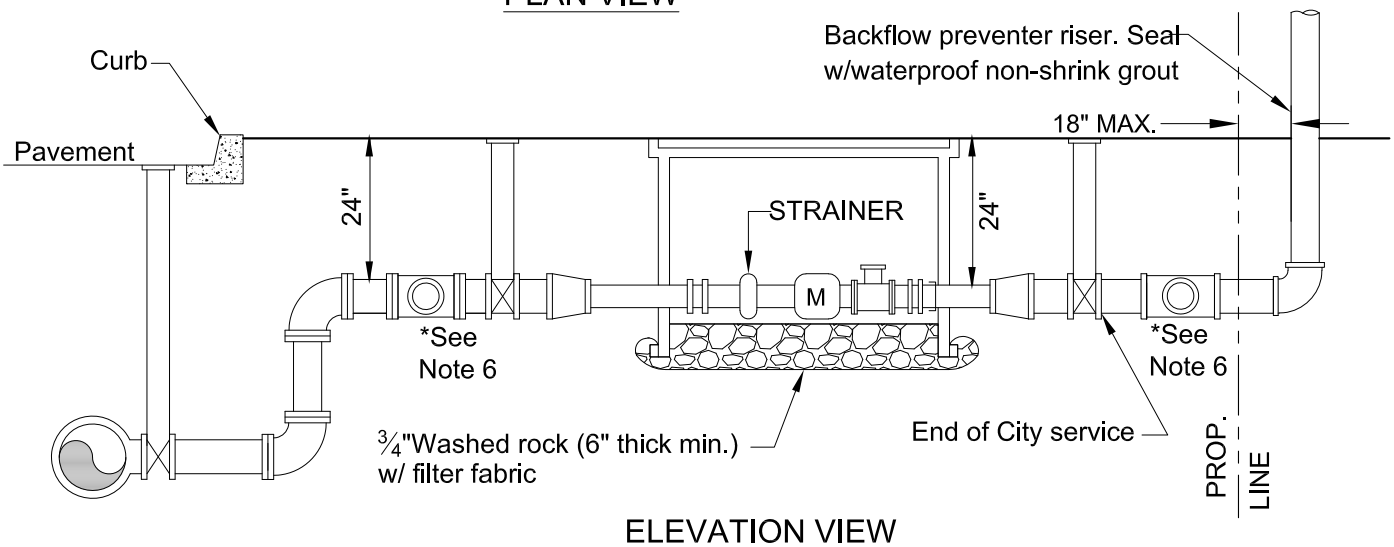
I.3 - 2" locking style curb stop

I.4 - 2" brass plug

REVISED: SEPT-2019	WATER SERVICES - 3" & LARGER DOMESTIC METER LEGEND	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-4.1



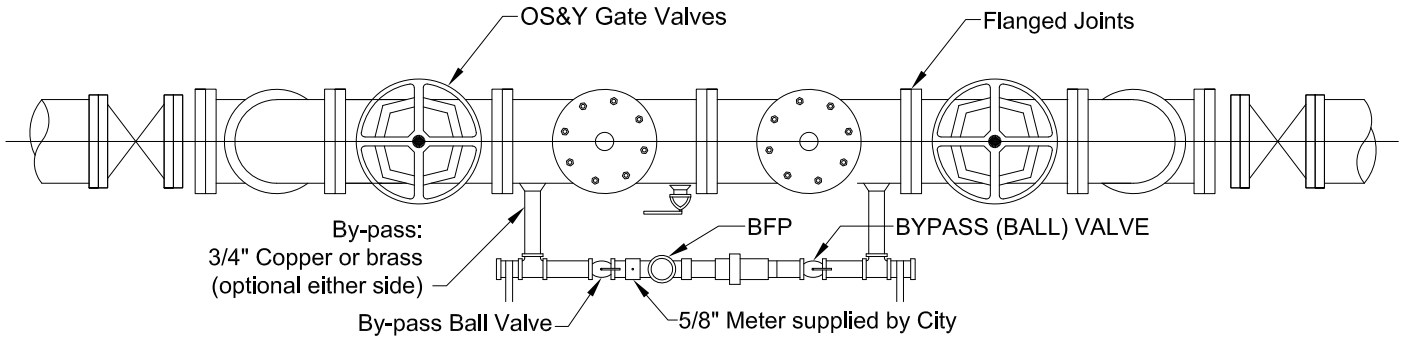
PLAN VIEW

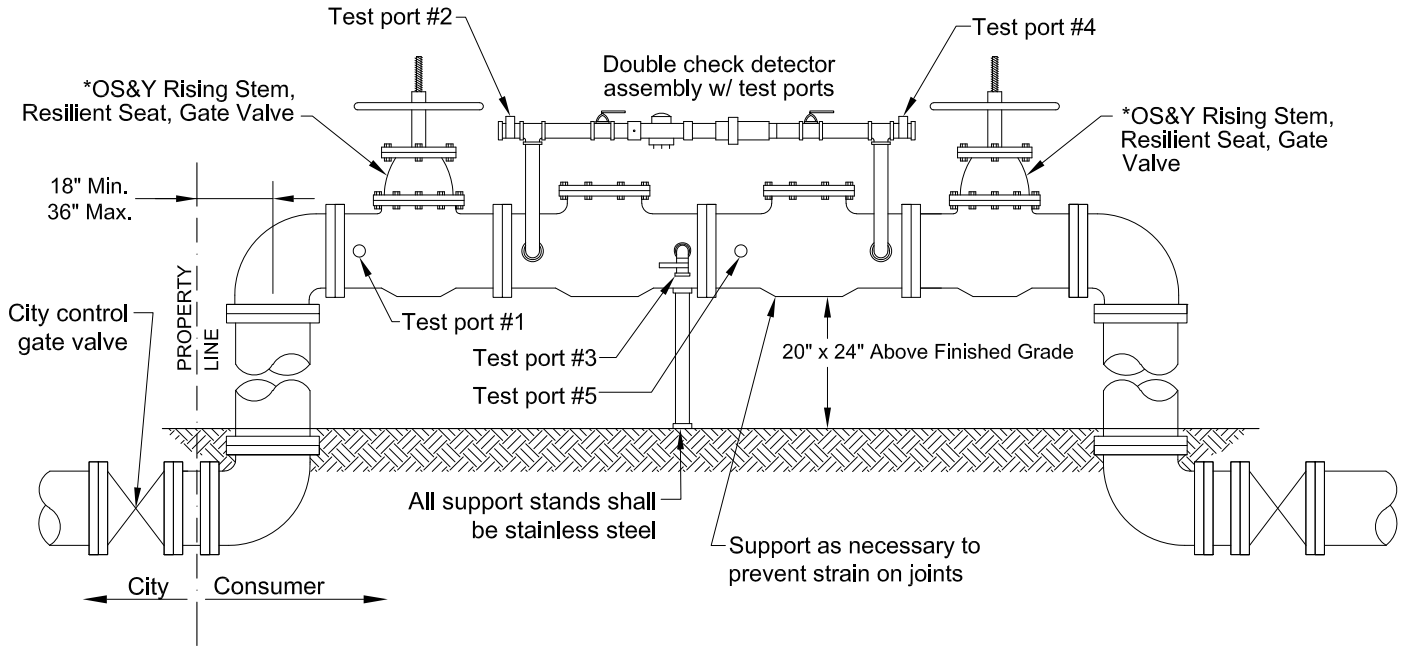


ELEVATION VIEW

1. For letter denotations, see Water Service Standard WS-4.1, 3" and larger domestic meter legend.
2. The following is an itemization of materials specifically detailed for a 3" meter. For a 4" or 6" meter, eliminate item "E" and change the remaining items to correspond with the meter size.
3. All mechanical joint fittings to use Megalug Series 1100 Restrained Joint adapters.
4. Location of meter may be rotated to fit available parkway/easement width.
5. All pipe shall be Class 52, Cement lLned Ductile Iron Pipe.
6. Bypass piping not shown for clarity.
7. Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida Licensed Engineer.
8. Below ground 3" and larger domestic meter is for project specific, if required, only with City of West Palm Beach Public Utilities Department approval.
9. 3" water service shall not feed fire sprinklers or hydrants.

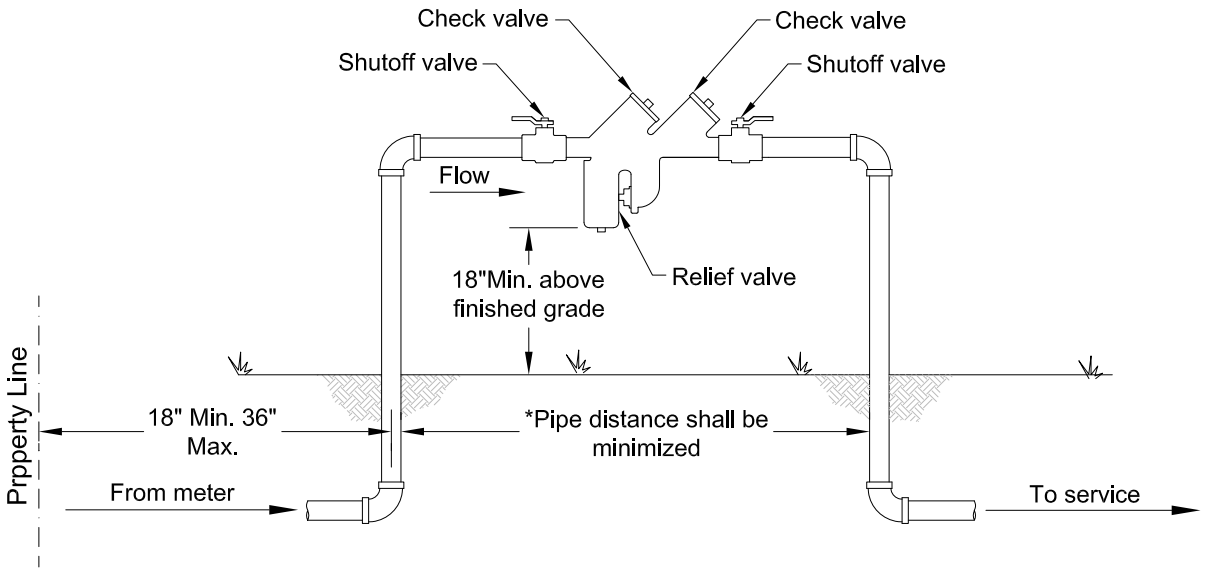
REVISED: SEPT-2019	WATER SERVICES - 3" & LARGER DOMESTIC METER	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-4





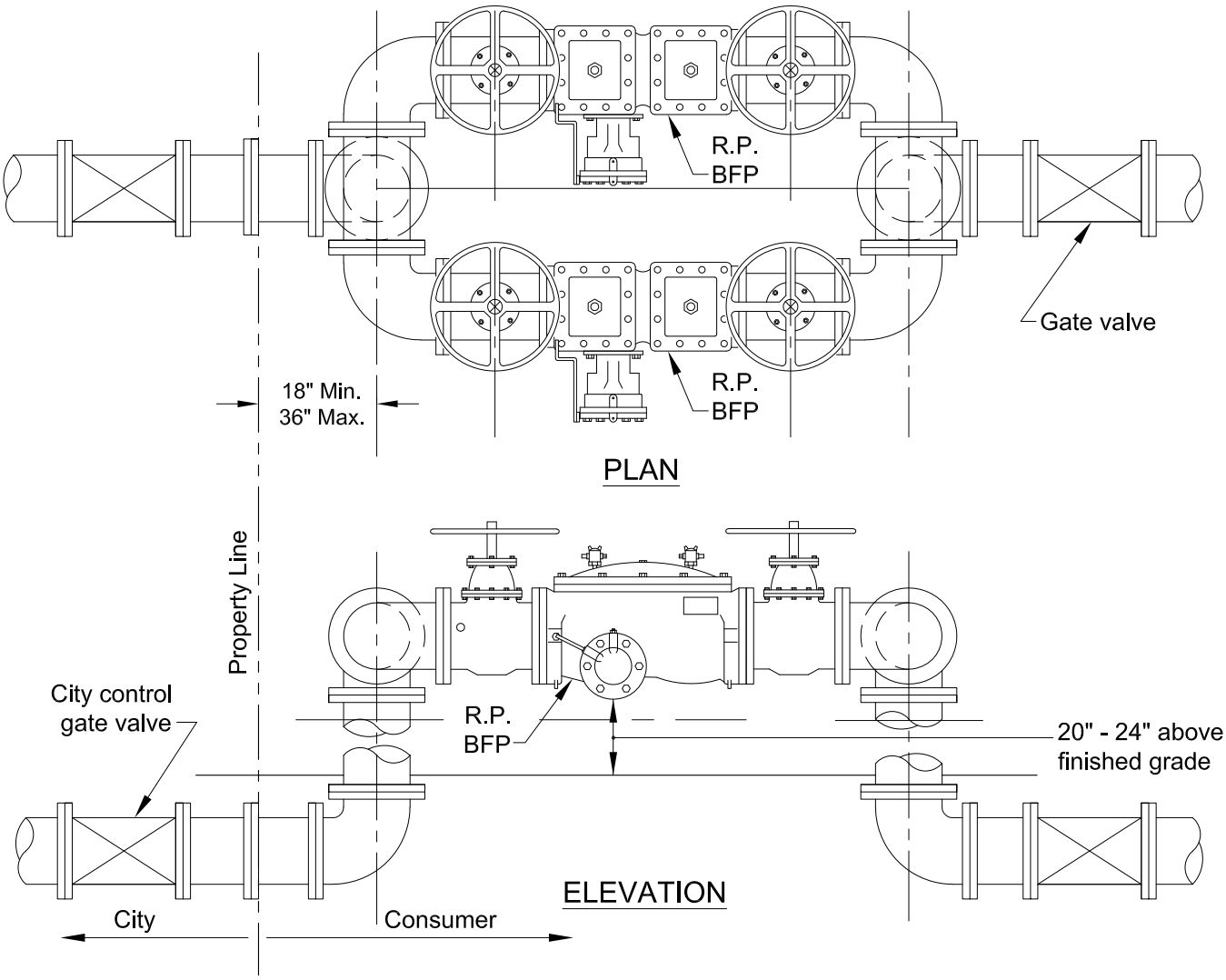
1. Installation of 3/4" to 2" assemblies require ball valves with test ports. 3" and larger require Resilient Wedge (RW) valves.
2. All piping prior to & after backflow prevention assemblies shall be either Cement Lined Ductile Iron Pipe, Copper or Brass for the smaller assemblies. this includes all assemblies.
3. All piping after the assembly shall meet the latest edition of plumbing, fire line & mechanical codes of the municipality.
4. Electronic switches may be required on the O.S.&Y. valves. Check with local fire marshal and/or municipal building department.
5. All back flow prevention devices must be approved by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California.
6. Device shall be installed directly after the property line outside of utility easements. Installation must be pre-approved by Public Utilities Customer Service Representative.
7. Refer to City of West Palm Beach Cross Connection Ordinance for further information.
9. Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida Licensed Engineer.
10. All brass or copper in contact with potable water shall be "LEAD FREE".

REVISED: SEPT-2019	FIRE LINE - DOUBLE DETECTOR ASSEMBLY and METER INSTALLATION	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-5



1. All backflow prevention assemblies and orientation must be approved by the Foundation for Cross Connection Control and Hydraulic Research, University of California.
2. Assemblies shall have test cocks and have enough clearance for test kits.
3. Piping from meter to backflow assembly shall be type "K" or "L" copper, brass or stainless steel.
4. Assemblies are to be installed directly after the meter on private property, outside of utility easement and Right of Way.
5. Refer to City of West Palm Beach Backflow Cross Connection Control Ordinances for further information.
6. Installation of 3/4" to 2" assemblies require ball valves with test ports.
7. All brass or copper in contact with potable water shall be "LEAD FREE".
8. Backflow assembly shall not be located on sidewalks, roads, or inside buildings and shall not be installed below ground, in vault or in boxes.

REVISED: SEPT-2019	WATER SERVICES - SMALL REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY (3/4" THROUGH 2")	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-6



1. Installation of 3/4" to 2" assemblies require ball valves with test ports. 3" and larger require Resilient Wedge (RW) valves.
2. All piping before & after backflow prevention assemblies shall be either cement lined ductile iron pipe, copper or brass for the smaller assemblies. This includes all assemblies, irrigation & fire line devices. All piping after the assembly shall meet the local Plumbing/Mechanical Codes (latest edition) of the municipality.
3. All backflow prevention devices must be approved by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California.
4. Refer to City of West Palm Beach Cross Connection Ordinance for further information.
5. Assembly shall be installed directly after the meter on private property outside of utility easements.
6. Installation must be pre-approved by City of West Palm Beach customer service representative.
7. Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida Licensed Engineer.
8. Only one RP backflow preventor required, second backflow preventor shown for redundancy.
9. All brass or copper in contact with potable water shall be "LEAD FREE".

REVISED: SEPT 2019	WATER SERVICES - 3" & LARGER REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY	STANDARD DETAIL
	CITY OF WEST PALM BEACH	WS-7