INDEX OF WATER DISTRIBUTION

W-1) VALVE INSTALLATION
W-2) BELOW GROUND AUTOMATIC AIR RELEASE VALVE ASSEMBLY
W-3) TYPICAL WATER SERVICE CONNECTION
W-4) 3/4” TO 2” ABOVEGROUND METER AND BACKFLOW ASSEMBLY
W-5) 3/4” TO 2” BACKFLOW PREVENTION ASSEMBLY
W-6) 3” TO 10” POTABLE WATER METER AND REDUCED PRESSURE BACKFLOW ASSEMBLY
W-7) 4” OR LARGER REDUCED PRESSURE DETECTOR ASSEMBLY FOR FIRE LINES
W-8) FIRE HYDRANT ASSEMBLY
W-9) 3” AND SMALLER BLOW-OFF DETAIL
W-10) TEMPORARY CONNECTION TO EXISTING MAIN
W-11) TEMPORARY WATER SERVICE AT HYDRANT
W-12) MULTIPLE WATER METER SERVICE ASSEMBLY
W-13) TAPPING SLEEVE AND GATE VALVE ASSEMBLY
W-14) BOLLARD DETAIL
W-15) ABOVE GROUND AUTOMATIC AIR RELEASE VALVE ASSEMBLY
VALVE INSTALLATION

24" x 24" X 4" THK. REINFORCED CONCRETE PAD MINIMUM 3,000 PSI.

CAST IRON OR DUCTILE IRON DROP COVER MARKED "WATER"

SET TOP OF BOX FLUSH WITH FINISHED GRADE

HEAVY DUTY TRAFFIC BEARING CAST IRON OR DUCTILE IRON VALVE BOX

EXTENSION ROD W/2" OPERATING NUT AS REQUIRED

RISER NOT TO BEAR ON VALVE OR PIPE

EXISTING MAIN

3/4" GRANULAR MATERIAL GATE VALVE SHALL BE RESILIENT SEAT, CLOCK, MUELLER, KENNEDY OR AMERICAN FLOW CONTROL

EXITING MAIN

COMPACTED SUITABLE EARTH BACKFILL

COMPACTED GRAVEL FOR DRAIN

ALL JOINTS TO BE RESTRAINED

BRASS PLATE

CONCRETE VALVE PAD PLAN VIEW

BRASS PLATE INFO

4" CONCRETE PAD

ANCHOR

24" 24"

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
PUNTA GORDA, FL. 33950
(941) 575-3339 (941) 575-5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

WATER DISTRIBUTION
W-1

VALVE INSTALLATION

REV BY DATE
TIM S 02/29/08
AUTOMATIC AIR RELEASE VALVE
WATER

FABRICATE BOLLARD
6' D.I.P. POURED FULL
OF 2,000 P.S.I. CONCRETE

SCREENED
1' ABOVE FLOOD
ZONE

EXTERIOR OF PIPE BOLLARD TO
BE PAINTED WITH TRAFFIC
YELLOW EPOXY PAINT

1' GALV. PIPE

TRAFFIC BEARING
MANHOLE RING & COVER
U.S. FOUNDRY #105 M
COVER TO BE MARKED "WATER"

1' P.V.C. COMP.
COUPLING

1' P.V.C. PIPE

24" DIA

STAINLESS STEEL
SHORT BODY AUTOMATIC
AIR RELEASE VALVE
SIZED TO MATCH APPLICATION
MANUFACTURED BY VALMATIC.

BOLLARD TO BE SET
IN CONCRETE

R.C.P. ASTM C-76
CLASS 11

2" BRASS CORP. STOP

2" SCHEDULE 80 PVC

NOTE: BOLLARD TO BE PLACED
AS CLOSE TO RIGHT-OF-WAY
AS POSSIBLE.

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
PUNTA GORDA, FL. 33950
(941) 575-3339 (941) 575-5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

WATER DISTRIBUTION
AUTOMATIC AIR RELEASE
VALVE FOR WATER

REV BY DATE
TIM S 02/29/08
WATER METER SHALL BE SET BY THE CITY OF PUNTA GORDA UTILITY DEPT.

NOTES:
1.) POLYETHYLENE SERVICE PIPE MEETING AWWA C-901, SHALL BE POLY-E DRISCOPE PE 5100 ULTRA-LINE OR ENDOPURE BY ENDOT OR APPROVED EQU.
2.) PIPE SHALL BE BLUE AND SIZED 1" MIN. – 2" MAX.
3.) ALL SERVICE TAPS SHALL BE AT STAGGERED INTERVALS WITH 2' MIN. SEPARATION.
4.) ALL SERVICE TAPS SHALL HAVE 2' MIN. SEPARATION FROM BELL AND SPIGOT ENDS.
5.) DUAL IN-LINE CHECK VALVE BACKFLOW PREVENTOR FOR SINGLE FAMILY RESIDENTIAL USE ONLY. SUBSTITUTE REDUCED PRESSURE ZONE (RPZ) BACKFLOW DEVICE FOR ALL OTHER USES, SEE DETAIL W-5
6.) METER BOXES AND COUPLINGS SHALL BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR. METER BOXES SHALL NOT BE SET IN DRAINAGE SWALES, EASEMENTS, OR SWALES.
3/4" THRU 2" ABOVEGROUND METER AND BACKFLOW ASSEMBLY

WATER METER (SUPPLIED BY CITY)

RESILIENT SEAT BALL VALVE

REDUCED PRESSURE BACKFLOW PREVENTION DEVICE

RESILIENT SEAT BALL VALVE

TEST COCK

RESILIENT SEAT BALL VALVE

FLOW

R.P.Z. SHALL BE 18" MIN. 30" MAX. ABOVE GRADE

ADJUSTABLE SUPPORT

CONCRETE PAD

NOTES:
1. WATER METER SHALL BE ASSEMBLED WITH PROPER METER COUPLINGS.
2. WATER METER (READING U.S. GALLONS) TO BE SUPPLIED BY THE CITY OF PUNTA GORDA, CUSTOMER SERVICE DEPT.
4. ALL ABOVEGROUND PIPING AND FITTINGS SHALL BE COPPER OR BRASS.
5. BACKFLOW ASSEMBLY MUST BE CERTIFIED BEFORE BEING PLACED INTO SERVICE.

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
PUNTA GORDA, FL. 33950
(941) 575-3339 (941) 575-5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

WATER DISTRIBUTION
3/4" - 2" METER AND BACKFLOW ASSEMBLY

W-4

REV BY DATE
TIM S 2/25/08
3/4"–2" BACKFLOW ASSEMBLY
CUSTOMER OWNED/MAINTAINED

A CITY OF PUNTA GORDA OWNED AND MAINTAINED SERVICE LINE AND WATER METER.
B CUSTOMER OWNED AND MAINTAINED BACKFLOW DEVICE AND WATER SERVICE LINE.

REDUCED PRESSURE ZONE BACKFLOW PREVENTION DEVICE

TEST COCK
BALL VALVE

STRAINER

ALL PIPING AND FITTINGS ABOVEGROUND SHALL BE BRASS OR COPPER

R.P.Z. SHALL BE 12" MIN. 30" MAX. ABOVE GRADE

NOTES:
1. REDUCED PRESSURE AND BACKFLOW ASSEMBLY MUST BE APPROVED BY:
   B. CITY OF PUNTA GORDA.
2. REDUCED PRESSURE AND BACKFLOW ASSEMBLY MUST BE CERTIFIED AND MEET THE MANUFACTURERS SPECIFICATIONS BEFORE BEING PLACED INTO SERVICE.
3. ALL PIPING AND FITTINGS ABOVE GROUND SHALL BE COPPER OR BRASS.
3' – 10" MASTER WATER METER AND REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS

Reinforced Concrete Pad 4" Thick X 48" Wide Length To Be Determined

PLAN VIEW

DETAIL COMPOUND WATER METER SET

NOTES:

1. REDUCED PRESSURE AND BACKFLOW ASSEMBLY MUST BE APPROVED BY:
   B. CITY OF PUNTA GORDA.
2. SENSUS C2 COMPOUND WATER METER
3. BYPASS SHALL BE THREADED BRASS OR COPPER.
4. ASSEMBLY TO BE PAINTED BLUE.
4" OR LARGER REDUCED PRESSURE DETECTOR ASSY.  
BACKFLOW PREVENTION DEVICE FOR FIRE LINES ONLY

RESILIENT SEAT O.S.&Y GATE VALVE
RESILIENT SEAT O.S.&Y GATE VALVE

ENTIRE ASSEMBLY TO BE PAINTED RED

2 1/2" SIAMESE FIRE DEPT. CONNECTION

90° OR 45° FLANGED DI ELBOW
90° OR 45° FLANGED DI ELBOW

MIN. 12" MAX. 30" ADJUSTABLE PIPE SUPPORTS

FINISH GRADE

MIN. ONE JOINT D.I. PIPE

4" THICK X 48" WIDE REINFORCED CONC. PAD LENGTH TO BE DETERMINED

RESILIENT SEAT FULL FLOW O.S.&Y. UL FM VALVE
RESILIENT SEAT FULL FLOW O.S.&Y. UL FM VALVE

BY-PASS WATER METER
REDUCED PRESSURE Detector ASSY

NOTE:
1. BACKFLOW ASSEMBLY SHALL BE CERTIFIED BEFORE BEING PLACED INTO SERVICE.
2. FIRE LINE IS OWNED AND MAINTAINED BY PROPERTY OWNER FROM MAINLINE TO BUILDING.

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
PUNTA GORDA, FL. 33950
(941) 575-3339 (941) 575-5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

WATER DISTRIBUTION

WATER DISTRIBUTION

4" OR LARGER REDUCED PRESSURE DETECTOR ASSY. FOR FIRE LINES

REV BY DATE
TIM S 03/20/08
3’ – 10” MASTER WATER METER AND REDUCED PRESSURE BACKFLOW ASSEMBLY WITH BYPASS

Reinforced Concrete Pad 4” Thick X 48” Wide
Length To Be Determined

PLAN VIEW

Resilient Seat DS & Y Valve
Sensus C2 Compound Meter
Approved Reduced Pressure Backflow Preventer
Resilient Seat DS & Y Valve
Flanged Tee
Flanged 90°
M.J. 90° Bend

Number Of Supports Determined By Length

DETAIL COMPOUND WATER METER SET

NOTES:
1. REDUCED PRESSURE AND BACKFLOW ASSEMBLY MUST BE APPROVED BY:
   B. CITY OF PUNTA GORDA.
2. SENSUS C2 COMPOUND WATER METER
3. BYPASS SHALL BE THREADED BRASS OR COPPER.
4. ASSEMBLY TO BE PAINTED BLUE.
FIRE HYDRANT ASSEMBLY

FIRE HYDRANT:
MUELLER CENTURION, CLAY MEDALLION,
OR AMERICAN FLOW CONTROL B-84-B

MIN. 3’ CLEARANCE

PUMPER CONNECTION FACING STREET

24”X 24”X 4” CONCRETE SLAB
WITH 2- #4 EACH WAY

COVER MARKED "WATER"
(SEE SEPERATE STANDARD DETAIL)

BRASS PLATE WITH YEAR,
SIZE, AND NO. TURNS

FINISHED GRADE

COMPACTED FILL

VALVE BOX CAST IRON
ADJUSTABLE SCREW TYPE
5 1/4” DIA. SHAFT

ANCHOR TEE OR
STAINLESS STEEL TAPPING
SLEEVE & VALVE

6” # 57 STONE

COLOR TO BE STANDARD A.W.W.A. RED
BLUE REFLECTOR TO BE PLACED IN STREET

ALL PIPE AND JOINTS MUST BE RESTRAINED USING ONLY CITY APPROVED RESTRAINING SYSTEM

CITY OF PUNTA GORDA
UTILITY DEPARTMENT
326 W. MARION AVE.
PUNTA GORDA, FL. 33950
(941) 575–3339 (941) 575–5006 FAX
E-MAIL utility@ci.punta-gorda.fl.us

WATER DISTRIBUTION
FIRE HYDRANT ASSY.

W-8

REV BY DATE
TIM S 5/24/12
TEMPORARY JUMPER CONNECTION TO EXISTING WATERMAIN

All piping and fittings shall be approved for water use.

R.P.Z. Backflow shall be 12" min. / 30" max. above flood zone.

Detail

Test plug

Temporary grade

Stainless steel tapping sleeve
Or M.J. Tee w/ gate valve

Reducing flange or cap

Test plug

New watermain

Plan

New watermain

Existing watermain

Notes
1. Total length shall be determined in field.
2. Contractor to support and make safe from traffic.

City of Punta Gorda
Utility Department
326 W. Marion Ave.
Punta Gorda, FL 33950
(941) 575–3339 (941) 575–5006 FAX
E–Mail utility@ci.punta-gorda.fl.us

Water Distribution
Temporary Connection to Existing Main

W–10

Rev by
Date
Tim S 03/20/08
CITY OF PUNTA GORDA

TYPICAL INSTALLATION DETAIL FOR FIRE HYDRANT
WITH NO LARGER THAN 2 INCH TEMPORARY WATER SERVICE

1. CONTRACTOR/CUSTOMER SHALL APPLY AT CITY OF PUNTA GORDA WATER DEPT. FOR TEMPORARY WATER SERVICE THREE DAYS PRIOR TO REQUIRED SERVICE DATE.

2. METER, LOCKABLE STAINLESS STEEL BALL VALVE AND PIPE SUPPORT WILL BE FURNISHED AND INSTALLED BY CITY OF PUNTA GORDA WATER DEPT.

3. ALL FITTINGS, PIPING, VALVES AND MATERIALS INCLUDING THE APPROVED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE SHALL BE FURNISHED, INSTALLED AND TESTED BY CITY OF PUNTA GORDA WATER DEPT.

4. CONTRACTOR/CUSTOMER SHALL PROVIDE PROTECTION FOR ASSEMBLY FROM DAMAGE.

5. THE CONTRACTOR/CUSTOMER SHALL PROVIDE A LOCK FOR USE WITH BALL VALVE AND SHALL USE ONLY THE BALL VALVE, NOT THE HYDRANT VALVE, FOR CONTROLLING WATER USED FROM THE FIRE HYDRANT.

6. BY APPLYING FOR SERVICE, CONTRACTOR/CUSTOMER AGREES TO TAKE WATER SERVICE FROM CITY OF PUNTA GORDA WATER DEPT. IN ACCORDANCE WITH THE APPROPRIATE RATE SCHEDULE AND IN ACCORDANCE WITH CITY RULES AND REGULATIONS, OR ANY SUPERSEDING RATE SCHEDULE AND/OR RULES AND REGULATIONS.

WARNING

CONTRACTOR/CUSTOMER SHALL NOT OPERATE OR USE HYDRANT VALVE, BUT SHALL USE BALL VALVE ONLY FOR REGULATING FLOW OF WATER WHEN USING.

EXISTING FIRE HYDRANT

GRADE

CUSTOMER SHALL PROVIDE CERTIFIED REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY SUPPORTED AND MADE SAFE FROM TRAFFIC.

2" MALE CAM LOCK (TYPICAL)

ADJUSTABLE SUPPORT

HYDRANT ADAPTER, WATER METER, LOCKABLE BALL VALVE PROVIDED BY THE CITY OF PUNTA GORDA

FURNISHED AND INSTALLED BY CONTRACTOR

FURNISHED AND INSTALLED BY CITY OF PUNTA GORDA CUSTOMER SERVICE DEPT.
NOTE:
1. Maximum number of service branches shall be determined by size of water service provided by the city.
2. All polybutylene tubing and fittings shall meet AWWA C-902 STD.
BRASS VALVE ID DISK
(DATE, SIZE, AND NO. OF TURNS)

24" X 24" X 4" REINFORCED CONCRETE PAD

FINISH GRADE

VALVE BOX
HEAVY DUTY TRAFFIC
BEARING CAST IRON

EXTENSION STEM
W/ 2" SQ. NUT
LENGTH AS REQUIRED

(VARIES)
36" MIN.

GATE VALVE SHALL BE
RESILIENT SEAT, CLOW,
MUELLER, KENNEDY OR AFC

STAINLESS STEEL
SPLIT SLEEVE OR
APPROVED EQUAL WITH
FULL CIRCUMFERENCE
GASKET JCM 432
OR APPROVED EQUAL

BED IN STONE

RESILIENT SEAT
GATE VALVE

TEST PLUG

NOTE.
CONTRACTOR SHALL PRESSURE TEST VALVE AND SLEEVE ASSEMBLY PRIOR TO WET TAP; 150.0 PSI FOR 30 MINUTES WITH 0.0 PSI LOSS
PVC GLUE ON CAP

FILL WITH 3000 PSI CONCRETE

6" DIA. PVC OR DUCTILE IRON PIPE WHERE REQUIRED

FINAL Grade

3000 PSI CONCRETE ENCASEMENT

18"

BOLLARD DETAIL

N.T.S.
ABOVE GROUND
AUTOMATIC AIR RELEASE VALVE
WATER

3/4" PVC BALL VALVE (OPEN) AND PIPING

A.R.I.
MODEL S-010
AUTOMATIC AIR RELEASE VALVE
OR APPROVED EQUAL

1" BRASS CORP. STOP
WITH BRASS NIPPLES

DOUBLE STRAP TAPPING SADDLE

MAIN