WATER:

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W-2  FIRE HYDRANT WITH GATE VALVE IN UNPAVED AREA
W-3  POST HYDRANT
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5" STORZ PUMPER CONNECTION
FACE TO CENTER LINE OF STREET

"WATER" STAMPED ON COVER
FINISH ROAD GRADE
MATCH EXISTING ASPHALT
MATCH EXISTING COMPACTED BASE

C.I. VALVE BOX
(SEE DETAIL W-26)
GATE VALVE MIN. SIZE 6"
OPEN LEFT
CONCRETE BRICK

HYDRANT TEE BOLTED DIRECTLY TO VALVE
SUPPORT VALVE IN POOR SOILS

PLACE HYDRANT ON CONCRETE BLOCK

GRADE LINE
GRAVEL POCKET OR DRY WELL OF #5 OR #57 STONE TO 6" ABOVE DRAIN HOLE

HYDRANT DRAIN, DO NOT BLOCK OR PLUG WEEP HOLES

NOTES:
1. HYDRANTS SHALL BE MUELLER SUPER CENTURION A423, WITH 5 1/4" MAIN VALVE AND 6" BOTTOM OPENING.
2. ALL JOINTS INCLUDING HYDRANT ASSEMBLY SHALL UTILIZE MECHANICAL RESTRAINED JOINTS, (INCLUDES MEGA LUGS OR APPROVED EQUAL).
3. ALL UNDERGROUND BOLTS & FASTENERS TO BE 304 STAINLESS STEEL OR COR-TEN IRON.
4. MIN. OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND LOWER SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. HYDRANT DRAIN MUST NOT BE CONNECTED TO OR LOCATED WITHIN 10' OF SEWER SYSTEMS.

*ALL HYDRANTS SHOULD BE PAINTED YELLOW, PAINT SHALL BE APPLIED AT FACTORY.
FIRE HYDRANT WITH GATE VALVE IN UNPAVED AREA

1. HYDRANTS SHALL BE MUELLER SUPER CENTURION A423, WITH 5 1/4" MAIN VALVE AND 6" BOTTOM OPENING.
2. ALL JOINTS INCLUDING HYDRANT ASSEMBLY SHALL UTILIZE MECHANICAL RESTRAINED JOINTS, (INCLUDES MEGA LUGS OR APPROVED EQUAL).
3. ALL UNDERGROUND BOLTS & FASTENERS TO BE 304 STAINLESS STEEL OR COR-TEN IRON.
4. MIN. OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND LOWER SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. HYDRANT DRAIN MUST NOT BE CONNECTED TO OR LOCATED WITHIN 10' OF SEWER SYSTEMS.

*ALL HYDRANTS SHOULD BE PAINTED YELLOW. PAINT SHALL BE APPLIED AT FACTORY.*
POST HYDRANT

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

DATE: 7/30/07

APPROVED BY: KDB
DRAWN BY: KJG

NOTE:
POST HYDRANTS SHALL ONLY BE INSTALLED AT THE END OF 3" OR 4" WATER LINES AND SHALL BE UTILIZED FOR BLOW-OFF PURPOSES.
GIL INDUSTRIES MODEL NO. EH101
SAMPLING STATION WITH HEAVY
DUTY LOCKABLE BOX

3'MIN.
MUELLER 3/4"
INLET FITTING
IPS PE PIPE
H-14229

12"-#5 OR #57 STONE

WATER MAIN

SMITH-BLAIR #315 W/ CCTAPER SERVICE SADDLE,
FLEXI-BLUE EPOXY SINGLE STRAP STAINLESS STEEL
FOR TAPS ON C-900 MAINS USE FORD BRASS SADDLE
STYLE S90.
# Blow Off Sizing

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**Diagram Notes:**

- Provide threaded pipe extension to assure discharge 6" above grade.

- 1" Drain Hole

- Oversize plastic meter box Brooks Jumbo Box Model #2012 or similar

- 1" to 3" clearance with 45° elbow turned at slight angle toward ditch away from roads.

- 4" PVC threaded cap

- 4" PVC pipe

- #5 or #57 stone

- 2" Main

- 4" – #57 stone

- Curb stop

- Febco dual check valve assembly model #810 or approved equal

---

**All fittings and pipe (curb stop & beyond) to be threaded brass**

**Note:**

Direct water away from roads, creeks and streams.

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**Water Blow Off**

City of North Myrtle Beach
Engineering Division

Approved by: KDB
Drawn by: KJG

Date: 7/30/07
Sheet No.: W-5
"WATER" STAMPED ON COVER

CAST IRON COVER

1" MAX.

CONC. VALVE PROTECTOR RING IN UNPAVED AREAS NATURAL CONCRETE (NOT PAINTED)

ADJUSTABLE VALVE BOX (SEE DETAIL W-26)

NRS VALVE STEM WITH 2" OPERATING NUT (OPEN LEFT)

PLACE CONCRETE BRICK UNDER VALVE BOX

CRUSHED STONE BASE #57 STONE

USE CONCRETE BLOCK SUPPORTS IN POOR SOILS

MIN. 2" CLEARANCE BETWEEN VALVE BOX COVER AND LOWER SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY
"WATER" STAMPED ON COVER

CONC. VALVE PROTECTOR RING IN UNPAVED AREAS
NATURAL CONCRETE (NOT PAINTED)

CAST IRON COVER

1" MAX.

ADJUSTABLE VALVE BOX
(SEE DETAIL W-26)

NRS MJ VALVE WITH 2" OPERATING NUT (OPEN LEFT)

PLACE 2 BRICKS UNDER VALVE BOX 2" MIN. CLEARANCE

CRUSHED STONE BASE
#57 STONE

USE CONCRETE BLOCK SUPPORTS IN POOR SOILS

GATE VALVE AND BOX
MAIN VALVE MARKER POST

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

DATE: 10/23/03

APPROVED BY: KDB
DRAWN BY: KJG

SHEET NO. W-8

5" SQUARE

BLANK BRASS MARKING DISC TO BE STAMPED WITH A DISTANCE AND DIRECTION ARROW TO VALVE LOCATION.

SQUARE MARKER WITH BEVELLED CORNERS (NOT PAINTED)

5" HIGH LETTERS CAST IN CONCRETE (NOT PAINTED)

4-NO. 3 REINF. BAR W/ 1" CONC. COVER (1 EA. CORNER)

FINISH GRADE

4'-6"
AIR RELEASE VALVE MARKER POST

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

DATE: 10/23/03
APPROVED BY: KDB
DRAWN BY: KJC

SHEET NO. W-9
NOTE
DISCHARGE DRAIN SHALL NOT BE DIRECTLY CONNECTED TO STORM DRAIN OR SANITARY SEWER.

NOTE
DO NOT INSTALL AT LOCATIONS WHERE VALVE MAY BE SUBJECT TO GROUND WATER RISE OR WHERE MANHOLE MAY BECOME FLOODED.

CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION

DATE: 7/30/07

APPROVED BY: KDB
DRAWN BY: KJG

W-10.DWG
BACKFILL COMPACTED TO MATCH EXISTING GRADE

NATIVE SAND BACKFILL FREE OF ALL ORGANICS, COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS.

DIP OR PVC WATERMAIN

NOTE: IN PAVEMENT AREAS, COMPACTION WILL BE INCREASED TO 98% STANDARD PROCTOR
BACKFILL COMPACTED TO MATCH EXISTING GRADE

BACKFILL SELECT MATERIAL FREE OF ALL ORGANICS COMPACTED TO 95% STANDARD PROCTOR IN 6" LIFTS

DIP OR PVC WATERMAIN

1/2 PIPE DIA.

NOTE: CLASS 4 BEDDING WILL BE USED IN THOSE AREAS DEEMED NECESSARY BY THE ENGINEER BASED ON SUBSURFACE CONDITIONS.

NOTE: IN PAVEMENT AREAS COMPACTION WILL BE INCREASED TO 98% STANDARD PROCTOR

6" MIN.
#57 STONE
OR #5 STONE

CLASS 4 PIPE BEDDING

CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION

DATE: 10/23/03

APPROVED BY: KDB
DRAWN BY: KJG

W-12.DWG
1" WATER SERVICE CONNECTIONS TO BE PE SDR 7, 200 PSI SERVICE BY YARDLEY, 2" TO BE PVC SCH. 40 OR APPROVED EQUAL WITH A TAPPING SADDLE, A CORPORATION STOP, AND ALL OTHER FITTINGS REQUIRED TO MAKE THE WATER SERVICE CONNECTION.

NOTE: METER VAULT TO BE QUAZITE–SIZE PER PLANS.

NOTE: METERS TO BE INSTALLED AT THE PROPERTY LINE BEHIND THE SIDEWALK OR CURB.

TYPICAL 2”–3” WATER SERVICE WITH FIRE LINE
NOTE:
DO NOT LOCATE GATE VALVES IN PAVEMENT.

FIRE HYDRANT ASSEMBLY

EDGE OF PAVEMENT

GATE VALVE (TYP.)
NOTE
BACKFLOW PREVENTER DEVICE (BFD) SHALL BE INSTALLED ON
THE CUSTOMER SIDE OF THE
METER, BEYOND THE METER
BY-PASS.

FIRE SERVICE
ASSEMBLY BY
SENSUS WITH
RADIO READ

GATE VALVE
(TYPICAL)
OUTSIDE STEM & YOKE
W/ RESILIENT WEDGE
(OS&Y-RW)

3/4" DRAIN LINE
PROPOSED GRADE

1" PVC PIPE
STRAPS 3' O.C.

NOTE: MEGA LUG ALL JOINTS WITHIN 60'
NOTE: METER VAULT TO BE QUAZITE-
SIZE PER PLANS.

TYP. 4" & LARGER METER VAULT

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: KJG

DATE: 7/30/07
SHEET NO. W-15
NOTE:
1" SERVICE LINE TO EACH METER. MUELLER/McCULLOUGH EZ SETTER RIGID SINGLE / DOUBLE METER BOX REQUIRED. APPROVED DCVA BY SCDHEC REQUIRED ON IRRIGATION SIDE. RADIO READ SENSUS METERS REQUIRED WITH ALL NECESSARY APPURTEANCES. DEVELOPER MAY PROVIDE METERS AND EQUIPMENT TO CITY.

METER BOX SET TO GRADE AT PROPERTY LINE

CONNECTION TO METER BOX TO BE 1X3/4"
INSTA–TITE ADAPTOR MUELLER H-15456N

1" 200 PSI IPS PE (SDR7) WATER SERVICE PIPE BY YARDLEY OR APPROVED EQUAL (BLUE)
(NO JOINTS ALLOWED)

1" MUELLER CORPORATION STOP WITH TAPPING SADDLE
CORP. STOP: MUELLER H15005N

SADDLE:
(PVC) FORD BRASS SADDLE STYLE S90 WITH CC TAPER OR APPROVED EQUAL

(DIP) FORD STAINLESS STEEL SADDLE STYLE FS202 WITH CC TAPER OR APPROVED EQUAL

EDGE OF PAVEMENT

NOTE:
SERVICE LINE TO BE WITHIN 30" (24" TO 36") OF FINISHED GRADE. METER WILL ONLY BE SET AFTER FINISHED GRADE IS ACHIEVED.
NOTE: 1" SERVICE LINE TO EACH METER.
MUELLER/McCULLOUGH EZ SETTER RIGID DOUBLE METER
BOX REQUIRED, APPROVED DCAA BY SCDHEC REQUIRED
ON IRRIGATION SIDE. RADIO READ SENSUS METERS
REQUIRED WITH ALL NECESSARY APPURTEINANCES.
DEVELOPER MAY PROVIDE METERS AND EQUIPMENT TO
CITY.

METER BOX SET TO GRADE AT PROPERTY LINE

CONNECTION TO METER BOX TO BE 1X3/4"
INSTA-TITE ADAPTOR MUELLER H-15 456

1" 200 PSI IPS PE (SDR7) WATER SERVICE
TUBING BY YARDLEY OR APPROVED EQUAL (BLUE)
(NO JOINTS ALLOWED)

1" MUELLER CORPORATION STOP WITH
TAPPING SADDLE

CORP. STOP:
MUELLER H15005N

SADDLE:
(PVC) FORD BRASS SADDLE STYLE
S90 OR APPROVED EQUAL.

(DIP) FORD STAINLESS STEEL
SADDLE STYLE FS202 WITH CC
TAPER OR APPROVED EQUAL.

EDGE OF PAVEMENT

NOTE:
SERVICE LINE TO BE WITHIN .30" (24" TO 36") OF FINISHED GRADE.
METER WILL ONLY BE SET AFTER FINISHED GRADE IS ACHIEVED.
TYPICAL 1" WATER SERVICE

SINGLE METER—MUELLER CO. 203RS1518FSANN
DOUBLE METER—MUELLER CO. 203RD181FSAN0000055N

CITY SIDE ↔ CUSTOMER SIDE
(PLUMBER)

MUeller/McCULLOUGH
EZ SETTER RIGID
SINGLE/ DOUBLE
METER BOX AS
REQUIRED.

SENSUS IPERL METER,
EQUIPPED WITH SENSUS
RADIO READ MXU MOUNTED
IN PIT

MUeller INLET FITTING
IPS PE PIPE (BLUE)
1"=CAT. NO. H-15426N

24"MIN.-36"MAX.

1" IPS PE SERVICE LINE (BLUE)
BY YARDLEY OR APPROVED EQUAL
(200 PSI) SDR7

WATTS #700 OR EQUIVALENT
DOUBLE CHECK VALVE FOR
IRRIGATION (SCDHEC APPROVED)

WATER MAIN

MUeller CORP. STOP
H-15005N

SADDLE:
(PVC) FORD BRASS SADDLE STYLE S90
WITH CC TAPER OR APPROVED EQUAL.

(DIP) FORD STAINLESS STEEL SADDLE
STYLE FS202 WITH CC TAPER OR
APPROVED EQUAL.
TYPICAL 3/4" RESIDENTIAL WATER SERVICE

MUeller Corps. Stop H-15005N

1" IPS PE SERVICE LINE (BLUE) BY YARDLEY OR APPROVED EQUAL (200 PSI) SDR7

SUlLER INLET FITTING IPS PE PIPE (BLUE) 1"=CAT. NO. H-15426N

SADDLE: (PVC) FORD BRASS SADDLE STYLE S90 WITH CC TAPER OR APPROVED EQUAL.
(DIP) FORD STAINLESS STEEL SADDLE STYLE FS202 WITH CC TAPER OR APPROVED EQUAL.

SUller/McCullough EZ SETTER RIGID SINGLE/DOUBLE METER BOX AS REQUIRED.

SUlers IPERL METER, EQUIPPED WITH SENSUS RADIO READ MXU MOUNTED IN PIt

WATTS #700 OR EQUIVALENT DOUBLE CHECK VALVE FOR IRRIGATION (SCDHEC APPROVED)

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: HRT

DATE: 8/1/19
SHEET NO. W-18A
STORM DRAINAGE PIPE
OR SANITARY SEWER PIPE
CROSSING WATER MAIN

DRAINAGE PIPE OR 18LF OF
DIP SANITARY SEWER PIPE

9'

BEDDING MATERIAL TO
SPRINGLINE

18'' MIN.

WATER MAIN

USE #57 STONE
FOR BEDDING MATERIAL

18 LF, D.I.P.
NOTE: ALL FITTINGS SHALL BE DUCTILE IRON, RESTRAINED MECHANICAL JOINTS.

NOTE: SEE DETAIL W-19 FOR BEDDING REQUIREMENTS
TRENCH WIDTH
MIN. 12" + PIPE DIAMETER

MATCH EX. GRADE

BLUE TRACER TAPE, 6" WIDE
1' BELOW GRADE

12 GAUGE TRACER WIRE

PROPOSED PVC UTILITY PIPE

EXISTING GRADE

3' MIN.

TRACER TAPE

TRACER WIRE

PROPOSED PVC UTILITY PIPE

SECURE TRACER WIRE
TO PVC WATERLINE
W/ DUCT TAPE
10' O.C.

TYPICAL PVC PIPE
WITH TRACER WIRE
NOTE:
D.I.P. is required for both water and sewer mains where minimum separation is not maintained.
RIGHT OF WAY
ROADWAY STRUCTURE
ROADWAY
PAVEMENT
BASE
SUBBASE

STD. PIPE JOINT
CONCRETE SEAL
WOOD SUPPORTS 9' O.C.
STAINLESS STEEL BANDS
OR SPIDERS
CARRIER PIPE
STAINLESS STEEL BANDS
0.020" THICK, 304 SS.
BANDS OR EQUAL
AWPA C-19
TREATED SUPPORTS

HOT CEMENT SEAL

JOINTS NOT TO BEAR ON CASING

18"

3"x4" TREATED WOOD SUPPORTS

NOTCH FOR BANDS

CITY OF NORTH MYRTLE BEACH
ENGINEERING DIVISION
APPROVED BY: KDB
DRAWN BY: KJG

HIGHWAY BORE CASING

DATE:
1/27/09

SHEET NO.
W-23
NOTE: THIS DETAIL SHALL BE USED ONLY WHEN MINIMUM FLUSHING CANNOT BE ACHIEVED WITH FIRE HYDRANTS.

NOTE: ALL JOINTS TO BE FULLY RESTRAINED, MEGA LUGS ON ALL MJ FITTINGS.

NOTE: BLOW-OFF TO BE SIZED TO FLUSH A MINIMUM OF 2.5 FPS THROUGH WATER MAIN.

CITY OF N. MYRTLE BEACH
ENGINEERING DIVISION

APPROVED BY: KB
DRAWN BY: KJG

DATE: 8/22/02
SHEET NO. W-25
ADJUSTABLE VALVE BOX

NOTES:
1. COVER MARKED "WATER".
2. 18" TO 24" ADJUSTMENT.
3. PENETRATING PICKHOLE.
4. MINIMUM OF 2" CLEARANCE BETWEEN VALVE BOX COVER AND BOTTOM SECTION OF VALVE BOX, CUT LOWER SECTION IF NECESSARY.
5. CAST IRON BOX SHALL HAVE A HEAVY COAT OF BITUMINOUS PAINT.
MUELLER/ McCULLOUGH
EZ SETTER
RIGID
DOUBLE METER BOX

TOP VIEW

SIDE VIEW

1" X 3/4" UBRANCH (502728)
1" MIP INLET
PVC STABILIZING BRACKETS
3/4" LOCKING ANGLE VALVE (H 14265)
3/4" ANGLE DUAL CHECK VALVE (H 14244)
3/4" MIP OUTLET

1" COPPER RISER
1" MIP INLET
1" HEX NUT RETAINER
3/4" MIP OUTLET

3/4" LOCKING ANGLE VALVE (H 14265)
3/4" ANGLE DUAL CHECK VALVE (H 14244)

3/4" COPPER RISER
3/4" HEX NUT RETAINER
CAPPLUG
3/4" MIP OUTLET

Ø18" PVC SHELL SDR-51
366 WALL THICKNESS

CITY OF NORTH MYRTLE BEACH ENGINEERING DIVISION

APPROVED BY: KDB
DRAWN BY: HRT

W-27.DWG