SECTION VI

CORROSION DETAILS
# SECTION VI- CORROSION DETAILS

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TWO WIREs, MAXIMUM WIRE LENGTH = 24".
TWO WIREs, MINIMUM WIRE LENGTH = 18".
SEE SIZES BELOW

THERMITE WELD (TYPICAL),
SEE DETAIL C/2.0

PUSH-ON JOINT

TWO WIREs, MAXIMUM WIRE LENGTH = 24".
TWO WIREs, MINIMUM WIRE LENGTH = 18".
SEE SIZES BELOW

THERMITE WELD (TYPICAL),
SEE DETAIL C/2.0

MECHANICAL JOINT

NOTE:
1. THE BOND WIRE SHALL BE STRANDED COPPER WIRE WITH HMWPE INSULATION.

<table>
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<tr>
<th>PIPE DIAMETER</th>
<th>WIRE SIZE</th>
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<tr>
<td>3&quot; THRU 18&quot;</td>
<td># 4 AWG HMWPE</td>
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<tr>
<td>OVER 18&quot;</td>
<td># 2 AWG HMWPE</td>
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STANDARD DETAIL

DUCTILE IRON PIPE JOINT BOND

C 1.0
MECHANICAL JOINT BEND

MECHANICAL JOINT TEE

NOTES:
1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.
2. SEE DETAIL C/1.0 FOR JOINT BONDING OF PUSH-ON JOINT.
IN LINE VALVE BONDING

TEE OR TAPPING SLEEVE AND VALVE BONDING

NOTES:
1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.
2. CLEAN VALVE TO BRIGHT METAL AT POINT OF BOLTED CONNECTION.
3. ENSURE BOLT AND WIRE CRIMP ARE FREE OF DIRT AND SCALE TO CREATE PROPER METAL TO METAL CONTACT FOR BONDING.
4. AFTER CONNECTIONS ARE MADE, COAT EXPOSED METAL WITH SCOTCHKOTE OR APPROVED EQUAL.
5. SEE DETAIL C/1.0 FOR JOINT BONDING OF PUSH-ON JOINTS.
6. CRIMPED RING TERMINAL ON BOLTED CONNECTION DEPENDENT ON SIZE OF WIRE.
WIRE ATTACHMENT SHALL BE A MINIMUM OF ONE FOOT FROM VAULT WALL. SPACING BETWEEN ATTACHMENTS SHALL BE A MINIMUM OF ONE FOOT. ATTACHMENTS SHALL BE ON BOTH SIDES OF VAULT.

THERMITE WELD (TYP.), SEE DETAIL C/2.0

TWO BOND WIRES, LENGTH ADJUSTED AS REQUIRED WITHIN 1" PVC SCH 40 CONDUIT WITH 2-20 GA BY 1" SS STRAPS AND 2" 1/4" SS ANCHORS, WASHERS AND NUTS.

PLAN VIEW
NO SCALE

NOTES:
1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.
2. PROVIDE SLACK IN WIRES AND FASTEN TO VAULT TO PROTECT WIRES FROM DAMAGE.
NOTE:

1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.
BOND GLANDS WITH
# 4 AWG HMWPE
COPPER WIRE (TYP.)

BOLTED CONNECTION,
SEE DETAIL C/1.2

WATERMAIN

TEE

MECHANICAL JOINT
ANCHORING COUPLING

BOND WIRE
(TYPICAL)

THERMITE WELD (TYPICAL),
SEE DETAIL C/2.0

6" PIPE

6" VALVE

BOND ALL JOINTS BETWEEN
VALVE AND HYDRANT

BOND GLANDS WITH
# 4 AWG HMWPE COPPER WIRE (TYP.)

BOLTED CONNECTION,
SEE DETAIL C/1.2

WATERMAIN

TEE

GLAND

6" VALVE

THERMITE WELD (TYPICAL),
SEE DETAIL C/2.0

OPTIONAL ANCHORING TEE

NOTES:

1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.
2. SEE DETAIL C/1.0 FOR JOINT BONDING OF PUSH-ON JOINTS.

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Chief Engineer

STANDARD DETAIL
FIRE HYDRANT
BONDING

C 1.6
NOTES:
1. USE ONLY WHEN PIPES ARE LESS THAN 12" APART.
2. PROVIDE SAND CUSHION BETWEEN PIPES, SEE SPECIFICATIONS.
NOTES:

1. FOR DUCTILE IRON, CAST IRON, OR STEEL PIPE, USE CHARGE AND PIPE SIZE AS REQUIRED.
2. SECURE WIRE TO PIPE WITH TAPE OR OTHER APPROVED METHOD WITHOUT DAMAGING PIPE COATING.
3. COVER THERMITE WELD WITH APPROVED CAP PER SPECIFICATIONS
4. COAT ANY EXPOSED BARE WELD AREA PER SPECIFICATIONS.
5. FOR PREPARATION OF PIPE SURFACE AND WELD ATTACHMENT, SEE DETAIL C/2.1.
6. FOR WIRE TYPE AND SIZES SEE DETAIL C/2.2, C/2.5, C/3.0, C/3.0b, C/3.0c, C/3.1, C/3.2, C/3.4, C/4.5, C/4.6 AND C/4.7.
**STEP 1**

Ductile iron or steel pipe or fitting

Clean surface to bright metal at weld location by mechanical grinder.

**STEP 2**

Adapter sleeve (as recommended by thermite weld mold manufacturer for small wire diameters).

Stranded copper wire (with thwn or hmwpe insulation).

Strip insulation from wire and install copper adapter sleeve as required for wire size, see note 2.

**STEP 3**

Graphite mold

Opening

Hold graphite mold firmly over adapter sleeve with opening away from operator - ignite starting powder.

**STEP 4**

Remove slag from connection. Thoroughly clean weld area.

**STEP 5**

Coat all exposed metal at weld area.

Thermite weld

Ductile iron pipe or fitting

NOTE:

1. Thermite welds shall be coated with a prefabricated one piece plastic cap per specifications.
2. A copper sleeve is required for thermite weld wire connections using #10 awg wire or smaller.
NOTES:

1. DO NOT SET TEST STATION IN ROADWAY. PLACE TEST BOX IN NON-PAVED AREA NEXT TO ROADWAY.
2. MAINTAIN SUFFICIENT SLACK IN THE TEST WIRES SO THAT THE WIRES CAN EXTEND A MINIMUM OF 18 INCHES FROM THE TEST BOX.
3. TERMINATE WIRES IN TEST BOX WITH RING TERMINALS, SEE STD. DETAIL C/4.0 FOR TERMINAL BOARD CONFIGURATION.
4. INSTALL 0.01 OHM SHUNT BETWEEN TERMINALS #1 AND #4.
5. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
6. PREPACKAGED ANODES FOR DIP AND STEEL WATER MAINS
   PREPACKAGED MAGNESIUM ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.

FOR CONNECTION NEAR EXIST. PCCP WATER MAINS
PREPACKAGED ZINC ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>WIRE</th>
<th>TEST STATION TERMINAL</th>
<th>AWG WIRE SIZE</th>
<th>TYPE OF INSULATION</th>
<th>COLOR OF INSULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPE</td>
<td>A</td>
<td>1</td>
<td>#8 #10</td>
<td>THWN</td>
<td>BLUE BLUE</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>3</td>
<td>#8 #10</td>
<td>THWN</td>
<td>BLUE BLUE</td>
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<tr>
<td>PERMANENT</td>
<td>C</td>
<td>6</td>
<td>#14</td>
<td>HMWPE</td>
<td>MANUFACTURER</td>
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<tr>
<td>REFERENCE</td>
<td></td>
<td></td>
<td></td>
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<td>ELECTRODE</td>
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<td></td>
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<tr>
<td>ANODE</td>
<td>D1</td>
<td>4</td>
<td>#8 #8</td>
<td>HMWPE</td>
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<td>HEADER</td>
<td>D2</td>
<td>7</td>
<td>#8 #8</td>
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<td>2</td>
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<td>F</td>
<td>5</td>
<td>#8 #8</td>
<td>THWN</td>
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SACRIFICIAL ANODE INSTALLATION AND TEST STATION PLACEMENT

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C 2.2

Chief Engineer
NOTES:

1. PREPACKAGED ANODES
   FOR DIP AND STEEL WATER MAINS
   PREPACKAGED MAGNESIUM ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.
   FOR CONNECTION NEAR EXIT, PCPP WATER MAINS
   PREPACKAGED ZINC ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.

2. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT, FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF THE TEST STATION ASSEMBLY.

3. FOR PLAN AND ELEVATION, SEE DETAILS C/2.2 AND C/2.2b.
FINISHED GRADE

TEST STATION BOX WIRES TO BE TERMINATED PER TEST STATION BLOCK DETAIL C/4.0 AND C/4.0a.

2" PVC CONDUIT, SEE NOTE 1

2"-90° PVC ELBOW

PIPE TRENCH

TEST LEAD WIRES, SEE DETAIL C/2.2

CONNECT LEAD WIRES TO PIPE WITH TERMITE WELD. SEE SPECIFICATION AND STANDARD DETAIL C/2.0. WIRES SHALL BE OF SUFFICIENT LENGTH TO EXTEND FROM WELD POINT TO TEST STATION WITHOUT SPLICING.

ANODE SPLICE HEADER CABLE, SEE DETAIL C/2.2.

PREPACKAGED Cu/CuSO4 REFERENCE CELL

PREPACKAGED MAGNESIUM ANODE, SEE DETAIL C/2.2

SECTION

NOTES:
1. DO NOT SET TEST STATION IN ROADWAY. PLACE TEST BOX IN NON-PAVED AREA NEXT TO ROADWAY.
2. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
3. FOR WIRE TYPE AND SIZES, SEE DETAIL C/2.2.
4. FOR PLAN AND ELEVATION VIEWS, SEE DETAIL C/2.0 AND C/2.2a.
5. FOR WIRE TYPE AND SIZES SEE DETAIL C/2.2, C/2.5, C/3.0, C/3.0b, C/3.0c, C/3.1, C/3.2, C/3.4, C/4.5, C/4.6 AND C/4.7.

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STANDARD DETAIL

TYPICAL TEST STATION INSTALLATION

C 2.2b
SPLICE TAPPING NOTES:

1. CUT ANODE LEAD WIRE TO PROPER LENGTH PRIOR TO REMOVING INSULATION.
2. REMOVE INSULATION IN ACCORDANCE WITH SPLICE DETAIL. ON WIRES HAVING A JACKET OVER INSULATION, REMOVE JACKET FOR 1/2 INCH FROM END OF INSULATION.
3. MAINTAIN CLEANLINESS OF STRIPPED WIRE AND ATTACH PRESSURE CONNECTOR, USING EQUIPMENT AS SPECIFIED BY THE CONNECTOR'S MANUFACTURER.
4. COAT CONNECTOR AND BARE WIRE SURFACES, INCLUDING ONE INCH OF ADJACENT INSULATION ON EACH WIRE, WITH SCOTCHKOTE FAST DRYING SEALANT AND ALLOW TO DRY UNTIL TACKY.
5. SPIRAL WRAP THREE HALF-LAPPED LAYERS OF 3/4-INCH WIDE SCOTCH LINERLESS RUBBER SPLICING TAPE 130C OR APPROVED EQUAL.
6. SPIRAL WRAP THREE HALF-LAPPED LAYERS OF 3/4-INCH WIDE SCOTCH VINYL ELECTRICAL TAPE SUPER 88 OR APPROVED EQUAL.
INSTALL PREPACKAGED MAGNESIUM ANODES (TYPICAL), size and number per contract drawings. See detail C/2.2 for placement of anodes.

WIRING SCHEDULE

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<tr>
<th>DESCRIPTION</th>
<th>WIRE</th>
<th>TEST STATION TERMINAL</th>
<th>AWG WIRE SIZE</th>
<th>TYPE OF INSULATION</th>
<th>COLOR OF INSULATION</th>
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<tbody>
<tr>
<td>NEW WATER MAIN</td>
<td>A</td>
<td>1</td>
<td>#12</td>
<td>THWN</td>
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<tr>
<td></td>
<td>B</td>
<td>3</td>
<td>#6</td>
<td>THWN</td>
<td>BLACK</td>
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<tr>
<td>PERMANENT REFERENCE ELECTRODE</td>
<td>C</td>
<td>6</td>
<td>PER MANUFACTURER</td>
<td>PER MANUFACTURER</td>
<td>PER MANUFACTURER</td>
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<td>PREPACKAGED MAGNESIUM ANODE LEAD</td>
<td>D1</td>
<td>N/A</td>
<td>#12</td>
<td>THW, THWN</td>
<td>WHITE</td>
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<td></td>
<td>D2</td>
<td></td>
<td>#12</td>
<td>OR THHN</td>
<td></td>
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<tr>
<td>MAGNESIUM ANODE HEADER CABLE</td>
<td>D3</td>
<td>4</td>
<td>#8</td>
<td>HMWPE</td>
<td>BLACK</td>
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NOTES:
1. INSTALL 0.01 OHM SHUNT BETWEEN TERMINALS #1 AND #4.
2. MAINTAIN SUFFICIENT SLACK IN THE TEST WIRES SO THAT THE WIRES CAN EXTEND A MINIMUM OF 18 INCHES FROM THE TEST BOX.
3. BOND ALL DUCTILE IRON COMPONENTS TOGETHER WITH AWG NO. 6 HMWPE WIRES.
4. INSTALL BOND WIRES ON TOP OF PIPE OR FITTING WHERE POSSIBLE.
5. INSTALL A MINIMUM OF TWO BOND CABLES ACROSS EACH PIPE JOINT.
6. SEE WSSC STANDARD DETAIL C/1.2 FOR BONDING OF VALVE.
7. INSTALL BOND CABLES ON HYDRANT RISER PIPE AND ELBOW BEFORE INSTALLING FIRE HYDRANT.
8. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

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STANDARD DETAIL

HYDRANT TEST STATION (TYPE C)

C 2.5
NOTES:

1. THE TEST LEAD WIRES SHALL BE STRANDED COPPER AWG WIRE WITH TW, THW, OR THWN INSULATION. WIRE SIZE AND COLOR SHALL BE AS SHOWN.
2. RUN ALL WIRES IN 2" PVC SCH. 40 FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
NOTES:
1. TEST LEADS SHALL BE STRANDED COPPER WIRE WITH TW, THW OR THWN.
2. AFTER INSTALLATION AND ASSEMBLY, TEST INSULATING JOINT
3. FOR COATING OF INSULATING JOINT, SEE DETAIL C/3.0c.
NOTE:
SEE SPECIFICATIONS FOR THE PUTTY, OUTER AND INNER WRAP.
**CONCRETE TEST STATION PAD, SEE WSSC STANDARD DETAIL C/4.0.**

**TEST BOX, SEE WSSC STANDARD DETAIL C/4.0 AND DETAIL C/4.0.**

**FINISHED GRADE**

**COATING, SEE DETAIL C/3.0a.**

**THERMITE WELD (TYPICAL), SEE WSSC STANDARD DETAIL C/2.0.**

**INSULATING FLANGE, SEE WSSC STANDARD DETAIL C/3.0.**

**NEW COATED DUCTILE IRON PIPE**

**BONDED JOINT PER DETAIL C/1.0.**

**FUTURE WATER MAIN**

**Cu/CuSO₄ REFERENCE ELECTRODE, SEE DETAIL C/4.5 FOR PLACEMENT OF REFERENCE ELECTRODE.**

### PROFILE

### WIRING SCHEDULE

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<thead>
<tr>
<th>DESCRIPTION</th>
<th>WIRE</th>
<th>TEST STATION TERMINAL</th>
<th>AWG WIRE SIZE</th>
<th>TYPE OF INSULATION</th>
<th>COLOR OF INSULATION</th>
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<tbody>
<tr>
<td>NEW WATER MAIN</td>
<td>A</td>
<td>1</td>
<td>#12</td>
<td>THWN</td>
<td>BLACK</td>
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<tr>
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<td>F</td>
<td>5</td>
<td>#6</td>
<td>THWN</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

### NOTES:

1. DO NOT SET TEST STATION IN ROADWAY. PLACE TEST BOX IN NON-PAVED AREA NEXT TO ROADWAY. TWO FEET BEHIND THE CURB IF POSSIBLE. ROUTE ALL WIRES TO FINAL TEST BOX LOCATION.

2. MAINTAIN SUFFICIENT SLACK IN THE TEST WIRES SO THAT THE WIRES CAN EXTEND A MINIMUM OF 18 INCHES FROM THE TEST BOX.

3. RUN ALL WIRES IN 2" PVC SCH40 CONDUIT FROM THE CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

### WASHINGTON SUBURBAN SANITARY COMMISSION

**APPROVED:**

[Signature]

8/13/16

**Chief Engineer**

### STANDARD DETAIL

**INSULATING FLANGE TEST STATION (IJ)**

C 3.0b
CONCRETE TEST STATION PAD, SEE WSSC STANDARD DETAIL C/4.0.

TEST BOX, SEE WSSC STANDARD DETAIL C/4.0.

FINISHED GRADE

COATING, SEE DETAIL C/3.0a.

THERMITE WELD (TYPICAL), SEE WSSC STANDARD DETAIL C/2.0.

INSULATING FLANGE, SEE WSSC STANDARD DETAIL C/3.0.

NEW COATED DUCTILE IRON PIPE

BONDED JOINT PER DETAIL C/1.0.

FUTURE WATER MAIN

Cu/CuSO₄ REFERENCE ELECTRODE, SEE DETAIL C/4.5 FOR PLACEMENT OF REFERENCE ELECTRODE.

INSTALL PREPACKAGED MAGNESIUM ANODES (TYPICAL), SEE DETAIL C/2.2 FOR PLACEMENT OF ANODES, SIZE AND NUMBER PER CONTRACT DRAWINGS.

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**WIRING SCHEDULE**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>WIRE</th>
<th>TEST STATION TERMINAL</th>
<th>AWG WIRE SIZE</th>
<th>TYPE OF INSULATION</th>
<th>COLOR OF INSULATION</th>
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<tbody>
<tr>
<td>NEW WATER MAIN</td>
<td>A</td>
<td>1</td>
<td>#12</td>
<td>THWN</td>
<td>BLACK</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>3</td>
<td>#6</td>
<td>THWN</td>
<td>BLACK</td>
</tr>
<tr>
<td>PERMANENT REFERENCE ELECTRODE</td>
<td>C</td>
<td>6</td>
<td>PER MANUFACTURER</td>
<td>PER MANUFACTURER</td>
<td>PER MANUFACTURER</td>
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<tr>
<td>PREPACKAGED MAGNESIUM ANODE LEAD</td>
<td>D1</td>
<td>N/A</td>
<td>#12</td>
<td>THW, THWN OR THHN</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td>D2</td>
<td></td>
<td>#12</td>
<td>THW, THWN OR THHN</td>
<td>WHITE</td>
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<tr>
<td>EXISTING PIPE</td>
<td>E</td>
<td>2</td>
<td>#12</td>
<td>THWN</td>
<td>WHITE</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>5</td>
<td>#6</td>
<td>THWN</td>
<td>WHITE</td>
</tr>
<tr>
<td>MAGNESIUM ANODE HEADER CABLE</td>
<td>D3</td>
<td>4</td>
<td>#8</td>
<td>HMWPE</td>
<td>BLACK</td>
</tr>
</tbody>
</table>

**NOTES**

1. INSTALL 0.01 OHM SHUNT BETWEEN TERMINALS #1 AND #4.
2. RUN ALL WIRES ABOVE, TEST LEAD WIRES SHALL MEET REQUIREMENTS OF DETAIL C/3.0.
3. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF THE TEST STATION ASSEMBLY.

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**WASHINGTON SUBURBAN SANITARY COMMISSION**

APPROVED: 8/12/16  

Chief Engineer

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**STANDARD DETAIL**

INSULATING FLANGE TEST STATION WITH ANODES (IJ)

C 3.0c
NOTES:

1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION REQUIREMENTS.
2. FOR TEST LEAD WIRE REQUIREMENTS, SEE DETAIL C/3.0 AND NOTE 1.
3. RUN ALL WIRE IN 2" PVC SCH40 CONDUIT FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
NOTES:

1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION.

2. RESTRAIN VALVE TO MAINLINE TEE. SEE BLOCKING NOTES ON DRAWINGS FOR OTHER BLOCKING OR RESTRAINED JOINT REQUIREMENTS.
NOTES:

1. CONTRACTOR SHALL VERIFY ELECTRICAL ISOLATION OF INSULATING JOINT BEFORE COATING AND BURIAL.
2. DO NOT INSTALL TEST LEAD WIRES AND REFERENCE CELL.
3. APPLICABLE MANUFACTURERS’ RECOMMENDATIONS SHALL BE FOLLOWED FOR INSTALLATION OF ADAPTER AND INSULATING FLANGE ASSEMBLIES.
NOTES:
1. THE TEST LEAD WIRES SHALL BE STRANDED COPPER AWG WIRE WITH TW, THW, OR THWN.
2. RUN ALL WIRES IN 2" PVC SCH. 40 FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
3. FOR PCCP x DIP TIE-IN FITTINGS AND ASSEMBLY, SEE DETAIL C/3.3.
4. AFTER INSTALLATION AND ASSEMBLY, TEST INSTALLING JOINT.
NOTES:

1. USE INSULATORS ON 1", 1 1/2", AND 2" COPPER PIPE HOUSE CONNECTIONS.
2. USE INSULATOR ON COPPER PIPE TAPPED ON CAST IRON OR DUCTILE IRON PIPES,
INSULATED FLANGED JOINT DETAIL

NOTES:
1. SEE DETAIL B/3.1b FOR THRUST BLOCK AND HARNESSED JOINT DETAIL.
2. SEE DETAIL C/3.0 FOR INSULATING JOINT DETAILS.
3. FOR ANODE AND TEST LEAD WIRES, SEE DETAILS C/3.3 OR C/3.4 AS APPROPRIATE.
4. ALL NUTS AND BOLTS SHALL BE TORQUED IN ACCORDANCE WITH SPECIFICATIONS.
5. AFTER INSTALLATION AND ASSEMBLY, TEST INSULATING JOINT TO VERIFY ISOLATION OF JOINT.
NOTES:

1. WHEN THE TEST STATION IS NOT DIRECTLY OVER THE PIPELINE, USE DETECTABLE WARNING TAPE 12" ABOVE THE LEAD WIRES.

2. LOCATE TEST STATION OUTSIDE OF PROPOSED OR EXISTING PAVED AREAS OR SIDEWALKS. (2' BACK IF POSSIBLE).

3. SEE DETAIL C/4.0a FOR WIRE TERMINATIONS.

18"x18"x4" - 3000 psi CONCRETE PAD, TYPICAL FOR ALL FLUSH MOUNTED TEST STATIONS

CATHODIC PROTECTION TEST STATION, SEE SPECIFICATIONS.

COILED TEST LEAD WIRES WITH MINIMUM 18" OF SLACK

6" DIAMETER PVC OR PE PIPE

4-4"x8" BRICKS (TYPICAL)
POLYCARBONATE TERMINAL BLOCK/BOARD SUPPLIED WITH TEST STATION, SEE SPECIFICATIONS.

0.01 OHM SHUNT (WHEN REQUIRED), PER SPECIFICATIONS.

TERMINAL #1 - NEW WATER MAIN
TERMINAL #2 - EXISTING PIPE
TERMINAL #3 - NEW WATER MAIN
TERMINAL #4 - PREPACKAGED MAGNESIUM ANODE LEAD WIRES
TERMINAL #5 - EXISTING PIPE
TERMINAL #6 - PERMANENT REFERENCE ELECTRODE
TERMINAL #7 - EMPTY
TERMINAL #8 - EMPTY
1. WHERE TEST STATION IS NOT DIRECTLY OVER PIPELINE, USE DETECTABLE WARNING TAPE (YELLOW) OVER TEST WIRES, SEE SPECIFICATIONS.
2. LOCATE TEST STATION OUTSIDE OF PROPOSED OR EXISTING PAVED AREAS
3. RUN ALLS WIRES IN 2" PVC SCH. 40 FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF THE TEST STATION ASSEMBLY.
NOTES:
1. EXCEPT AS NOTED ABOVE, TEST LEAD WIRES SHALL MEET THE REQUIREMENTS OF DETAIL C/3.0
2. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF THE TEST STATION ASSEMBLY.
NOTES:
1. TEST LEAD WIRES SHALL MEET REQUIREMENTS OF DETAIL C/3.0, NOTE 1.
2. NOTIFY FOREIGN PIPELINE COMPANY IN ADVANCE FOR PERMISSION TO ATTACH WIRES TO THEIR PIPE, OR FOR THE FOREIGN PIPELINE COMPANY TO ATTACH WIRES TO THEIR PIPELINE.
3. RUN ALL WIRES IN 2” PVC SCH40 CONDUIT FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
OVERLAP POLYETHYLENE ENCASMENT MINIMUM 2'-0" ONTO FIELD APPLIED COATING

MINIMUM 5'-0"

FIELD APPLIED COATING

MINIMUM 5'-0"

FIELD APPLIED COATING

NEW DIP WATER MAIN

NEW TAPPING SLEEVE AND VALVE

NEW DIP FITTING, AS REQUIRED

EXISTING CIP OR DIP WATER MAIN

POLYETHYLENE ENCASMENT

MINIMUM 5'-0"

FIELD APPLIED COATING

POLYETHYLENE ENCASMENT

MINIMUM 5'-0"

FIELD APPLIED COATING

OVERLAP POLYETHYLENE ENCASMENT MINIMUM 2'-0" ONTO FIELD APPLIED COATING

NEW DIP WATER MAIN

NOTE:

FOR FIELD APPLIED COATING, SEE SPECIFICATIONS.
NOTE:

FOR FIELD APPLIED COATING, SEE SPECIFICATIONS.

NEW PCCP X DIP ADAPTER

MINIMUM 5'-0"
FIELD APPLIED COATING

OVERLAP POLYETHYLENE ENCASEMENT
MINIMUM 2'-0" ONTO FIELD APPLIED
COATING

EXISTING PCCP WATER MAIN

POLYETHYLENE ENCASEMENT

NEW DIP WATER MAIN
NOTES:

1. For installation of WHC, see standard detail W/5.12
NOTES:
1. CLEAN JOINT OF ALL FOREIGN MATERIAL BY WIRE BRUSHING.
2. APPLY COATING PRIMER TO JOINT.
3. INSTALL FILLER TAPE AS SHOWN, AND FILL ALL VOIDS BETWEEN FLANGES AND BOLTS.
4. APPLY TWO LAYERS OF JOINT WRAP TAPE.
5. COAT PIPE FITTINGS IN A SIMILAR MANNER.
6. HEAT SHRINKS SLEEVES WITH FILLER MATERIAL AS RECOMMENDED BY HEAT SHRINK SLEEVE MANUFACTURER MAY ALSO BE USED.
NOTES:
1. ANODE PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM
   OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM
   OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.
2. DO NOT THERMITE WELD TO PVC PIPE.
INSTALL TWO 17 POUND PREPACKAGED MAGNESIUM ANODE.

CONNECT ANODE TO TAPPING SLEEVE WITH BOLTED CONNECTION, SEE DETAIL C/1.2

CAST IRON, PVC AWWA C-900 PIPE, OR DUCTILE IRON PIPE

INSTALL TWO 17 POUND PREPACKAGED MAGNESIUM ANODE.

CONNECT ANODE TO VALVE WITH BOLTED CONNECTION, SEE DETAIL C/1.2

PVC PIPE

NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.

2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM
   OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. Anodes placed at same depth as the bottom of pipe and at a minimum of 12" from edge of pipe, see detail C/7.12.
2. Do not thermite weld to PVC pipe.
NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM
   OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.

THERMITE WELD ANODE LEAD WIRE DIRECTLY TO DUCTILE IRON CAP, SEE DETAIL C/1.2.

INSTALL ONE 17 POUND PREPACKAGED MAGNESIUM ANODE.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM
   OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.
2. DO NOT THERMITE WELD TO PVC PIPE.
3. BOND ALL JOINTS ON DIP, SEE DETAILS C/1.0 AND C/1.6.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.
2. DO NOT THERMITE WELD TO PVC PIPE.
3. BOND ALL JOINTS ON DIP, SEE DETAILS C/1.0 AND C/1.1.
NOTES:
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:

1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. BACKFILL ANODES WITH NATIVE SOIL FOR A MINIMUM OF 12 INCHES ON ALL SIDES.
   DO NOT BACKFILL ANODES WITH SAND OR STONE.
2. DO NOT THERMITE WELD TO PVC PIPE.
NOTES:
1. BACKFILL ANODES WITH NATIVE SOIL FOR A MINIMUM OF 12 INCHES ON ALL SIDES.
   DO NOT BACKFILL ANODES WITH SAND OR STONE.
2. DO NOT THERMITE WELD TO PVC PIPE.