NOTES:
1. MATERIAL, CAST IRON, GRADE TO BE SPECIFIED ON PURCHASE ORDER.
2. ALL RADIUS SHALL BE 1/16" MINIMUM.
3. ESTIMATED WEIGHT 37#:

NOTES:
1. ALL INTERNAL EDGES SHALL HAVE A 1/16" RADIUS.
2. ALL EXTERNAL RADIUS 1/16" TO 5/8" AS NEEDED FOR CASTING RELIEF.
3. MATERIAL, CAST IRON, GRADE TO BE SPECIFIED ON PURCHASE ORDER.
4. ESTIMATED WEIGHT 12#.
5. RISER TO BE FILLED WITH PEA GRAVEL.

NOT TO SCALE

STANDARD DESIGN DETAIL

CATHODIC PROTECTION TEST STATION
NOTES:

1. Locality to own all piping, fittings, valves, and cathodic protection systems upstream of HRSD valve.
2. Isolation piece shall be approximately 24" long.

NOT TO SCALE
NOTES:

1. WHEN TEST STATION IS OUT OF THE ROAD, USE A GREEN RISER PROTECTED BY BOLLARDS.

NOT TO SCALE
NOTES:

1. WHEN TEST STATION IS OUT OF THE ROAD, USE A GREEN RISER PROTECTED BY BOLLARDS.
NOTES:
1. WHEN TEST STATION IS OUT OF THE ROAD, USE A GREEN RISER PROTECTED BY BOLLARDS.
NOTES:
1. WHEN TEST STATION IS OUT OF THE ROAD, USE A GREEN RISER PROTECTED BY BOLLARDS.
3 – LAYERS OF HALF LAPPED RUBBER TAPE (SCOTCH 23)

3 – LAYERS OF HALF LAPPED VINYL TAPE (SCOTCH 33)

COAT ENTIRE SPLICE WITH ELECTRICAL COATING COMPOUND (SCOTCHKOTE)

COPPER CRIMP CONNECTOR (BURNDY YC8C8)

ANODE LEAD WIRE

AWG #8 HMWPE ANODE HEADER CABLE

AWG #8 HMWPE ANODE HEADER CABLE

3" MIN 3" MIN

NOT TO SCALE

STANDARD DESIGN DETAIL

ANODE HEADER CABLE SPLICE

DRAWING NO.

507

SHEET

1 OF 1

DATE

1/2020
EXOTHERMIC WELDING INSTRUCTIONS

1. REMOVE PIPE COATING APPROXIMATELY 4” DIAMETER SPOT FROM STRUCTURE.

2. CLEAN AREA APPROXIMATELY 2” DIAMETER TO BRIGHT METAL.

3. REMOVE 1–1/4” OF INSULATION FROM END OF WIRE.

4. WELD CONDUCTOR TO PIPE, USE APPROPRIATE GRAPHITE MOLD AND CARTRIDGE CHARGE SIZE.

5. TEST THE EXOTHERMIC WELD CONNECTION BY STRIKING THE CONNECTION SEVERAL BLOWS ON THE SIDE USING A ONE POUND HAMMER. TOP OF WELD MAY BE HAMMERED FLAT IF REQUIRED.

6. REFER TO MANUFACTURER FOR RECOMMENDED CARTRIDGE SIZE.
NOTES:

1. AFTER ASSEMBLY, TEST TO VERIFY THAT ISOLATION IS EFFECTIVE. IF ISOLATION IS NOT EFFECTIVE, REPAIR AS NECESSARY AND RETEST. THIS PROCESS SHALL CONTINUE UNTIL ISOLATION IS VERIFIED AS EFFECTIVE.

2. AFTER VERIFYING EFFECTIVE ISOLATION, COAT THE ENTIRE FLANGE AND ALL EXPOSED METAL INCLUDING BOLTS, NUTS, AND WASHERS WITH FOUR COMPONENTS OF DENSO OR TRENTON WAX TAPE COATING SYSTEM. COATING SYSTEM SHALL EXTEND A MINIMUM OF 12 INCHES ON EITHER SIDE OF FLANGE.

3. ALL INSULATING FLANGES TO BE PROVIDED WITH TEST STATIONS.
1. Test stations located along paved roadways shall generally be located 3 feet outside of the edge of pavement in a non-paved area. Route all test wires at a minimum depth of 24 inches to the final test station location. Test station locations shall be field adjusted.
2. Route wires in 1 inch PVC conduit to test box. Install cable warning tape 18 inches above PVC conduit.
3. Maintain sufficient slack in the test wires so that the wires can extend a minimum of 18 inches from the test box.
4. Install 0.1 ohm shunt (yellow) between terminals #1 and #4.
5. At fire hydrants, vaults, and other appurtenances, zinc ribbon anode shall be coiled around fire hydrant, vault, or appurtenance.

NOT TO SCALE

STANDARD DESIGN DETAIL
DUCTILE IRON PIPE GALVANIC SYSTEM
AC GROUND MAT

1/7/2020
NOTES:

1. AFTER ASSEMBLY, TEST TO VERIFY THAT ISOLATION IS EFFECTIVE. IF ISOLATION IS NOT EFFECTIVE, REPAIR AS NECESSARY AND RETEST. THIS PROCESS SHALL CONTINUE UNTIL ISOLATION IS VERIFIED AS EFFECTIVE.

2. AFTER VERIFYING EFFECTIVE ISOLATION, COAT THE ENTIRE CORPORATION AND ALL EXPOSED METAL WITH FOUR COMPONENTS OF DENSO OR TRENTON WAX TAPE COATING SYSTEM. COATING SYSTEM SHALL EXTEND A MINIMUM ON EITHER SIDE OF CORPORATION.
BOND WIRE (TYP.), SEE NOTE #2

SEE THERMITE WELD DETAIL (TYP.)

TYPICAL MAIN JOINT BOND

BOND WIRE (TYP.), SEE NOTE #2

SEE THERMITE WELD DETAIL (TYP.)

VALVE

BOND WIRE (TYP.), SEE NOTE #2

SEE THERMITE WELD DETAIL (TYP.)

MECHANICAL COUPLING

BOND WIRE (TYP.), SEE NOTE #2

SEE THERMITE WELD DETAIL (TYP.)

BEND, REDUCER, SOLID SLEEVE

NOTES:
1. THERMITE WELD BONDING WIRES TO TOP OF MAIN FITTINGS.
2. WIRE SIZE FOR BONDING JOINTS SHALL BE AS FOLLOWS:

<table>
<thead>
<tr>
<th>MAIN SIZE</th>
<th>WIRE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LARGER THAN 36 INCHES</td>
<td>AWG #2 HMWPE</td>
</tr>
<tr>
<td>16 INCHES TO 36 INCHES</td>
<td>AWG #4 HMWPE</td>
</tr>
<tr>
<td>12 INCHES AND SMALLER</td>
<td>AWG #6 HMWPE</td>
</tr>
</tbody>
</table>