



SECTION VI

CORROSION DETAILS

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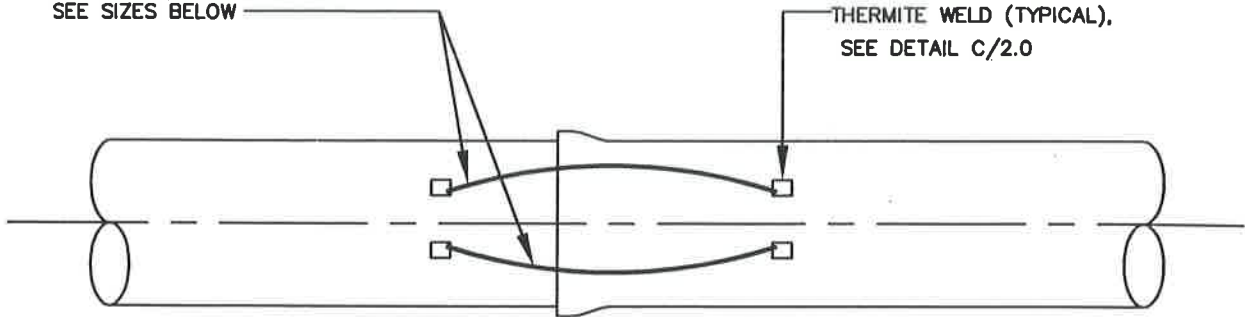
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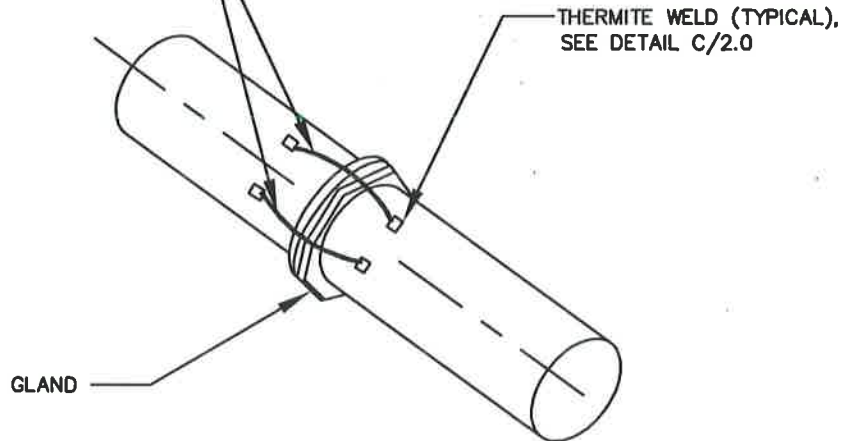


TWO WIRES, MAXIMUM WIRE LENGTH = 24",
 TWO WIRES, MINIMUM WIRE LENGTH = 18",
 SEE SIZES BELOW



PUSH-ON JOINT

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



MECHANICAL JOINT

BOND WIRE SIZE	
PIPE DIAMETER	WIRE SIZE
3" THRU 18"	# 4 AWG HMWPE
OVER 18"	# 2 AWG HMWPE

NOTE:

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

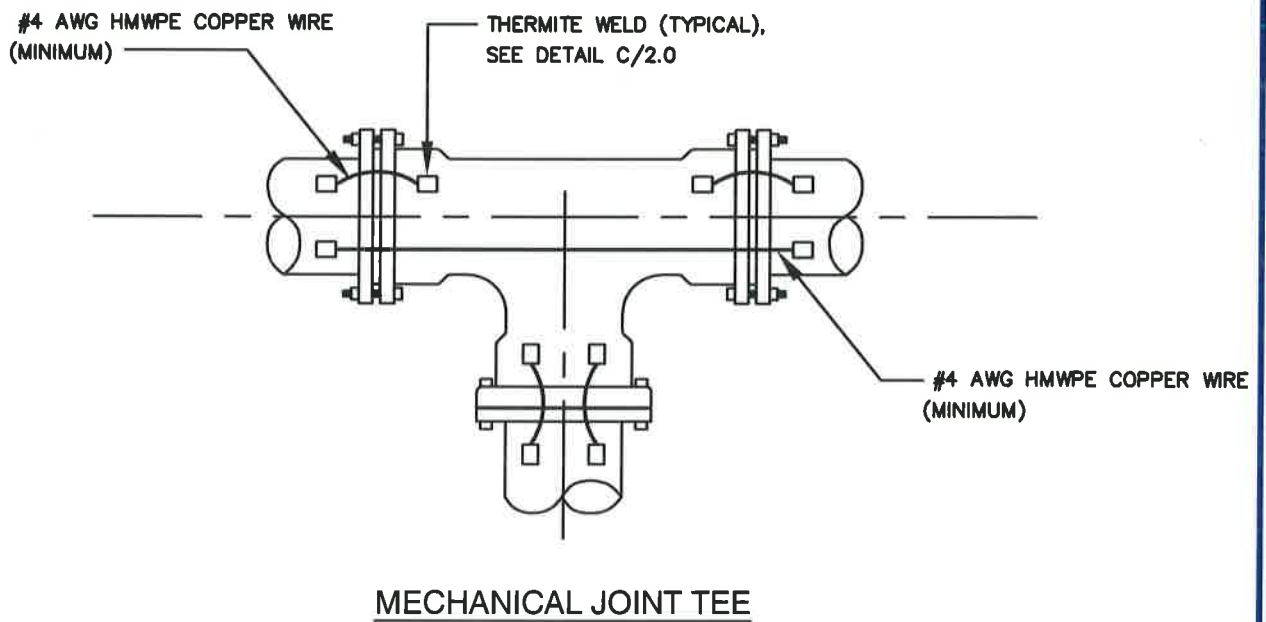
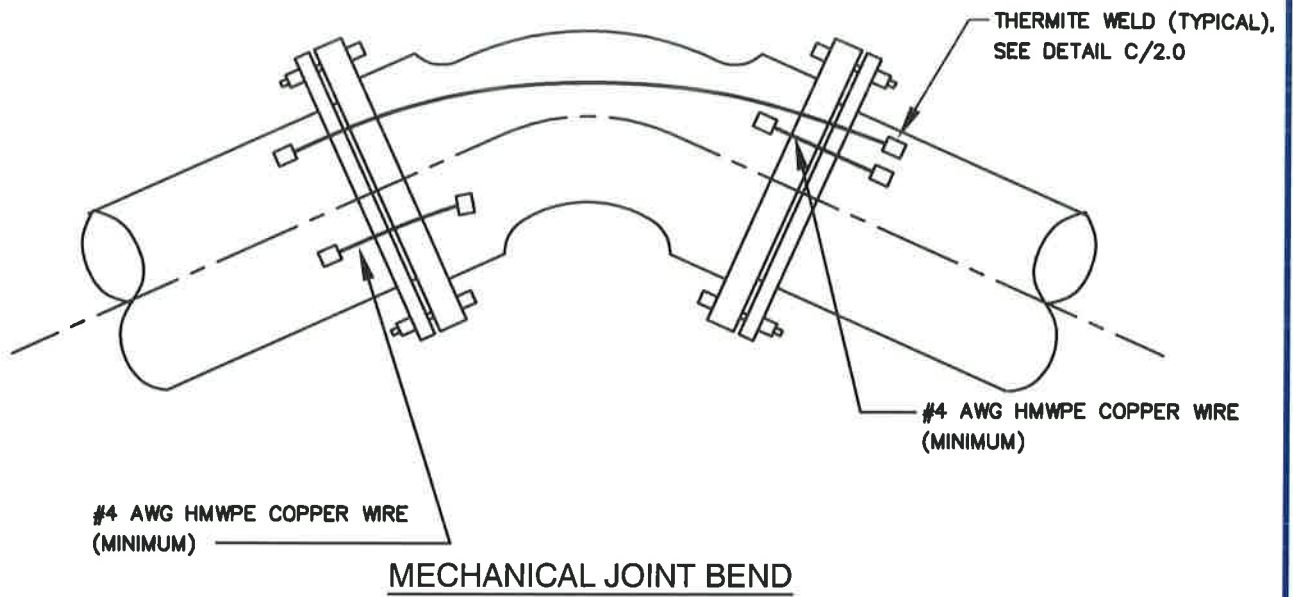
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 COMMISSION

APPROVED: 8/12/16

 Chief Engineer

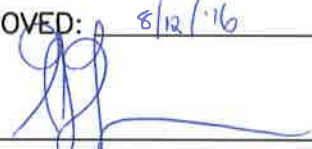
STANDARD DETAIL
 DUCTILE IRON
 PIPE JOINT BOND

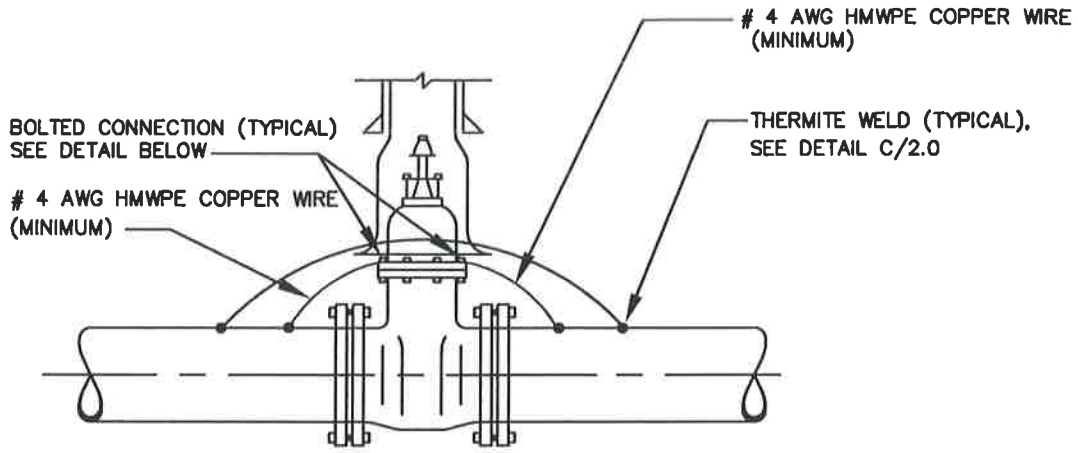
C
 1.0



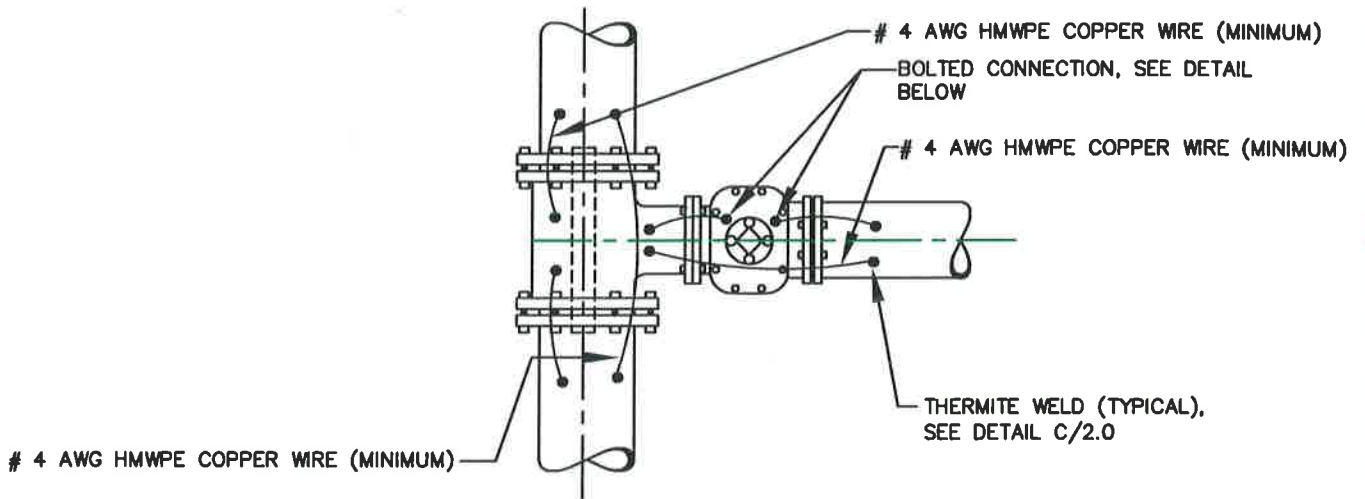
NOTES:

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.

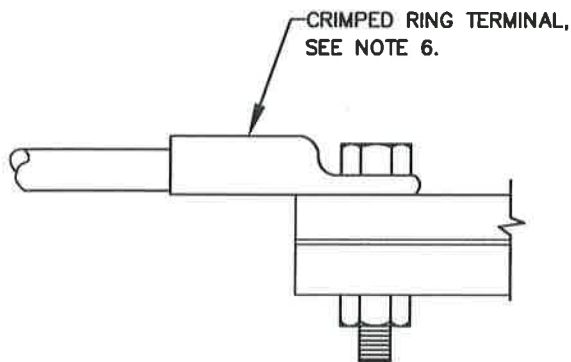
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL DUCTILE IRON PIPE BONDING OF FITTING JOINTS	$\frac{C}{1.1}$
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IN LINE VALVE BONDING




TEE OR TAPPING SLEEVE AND VALVE BONDING

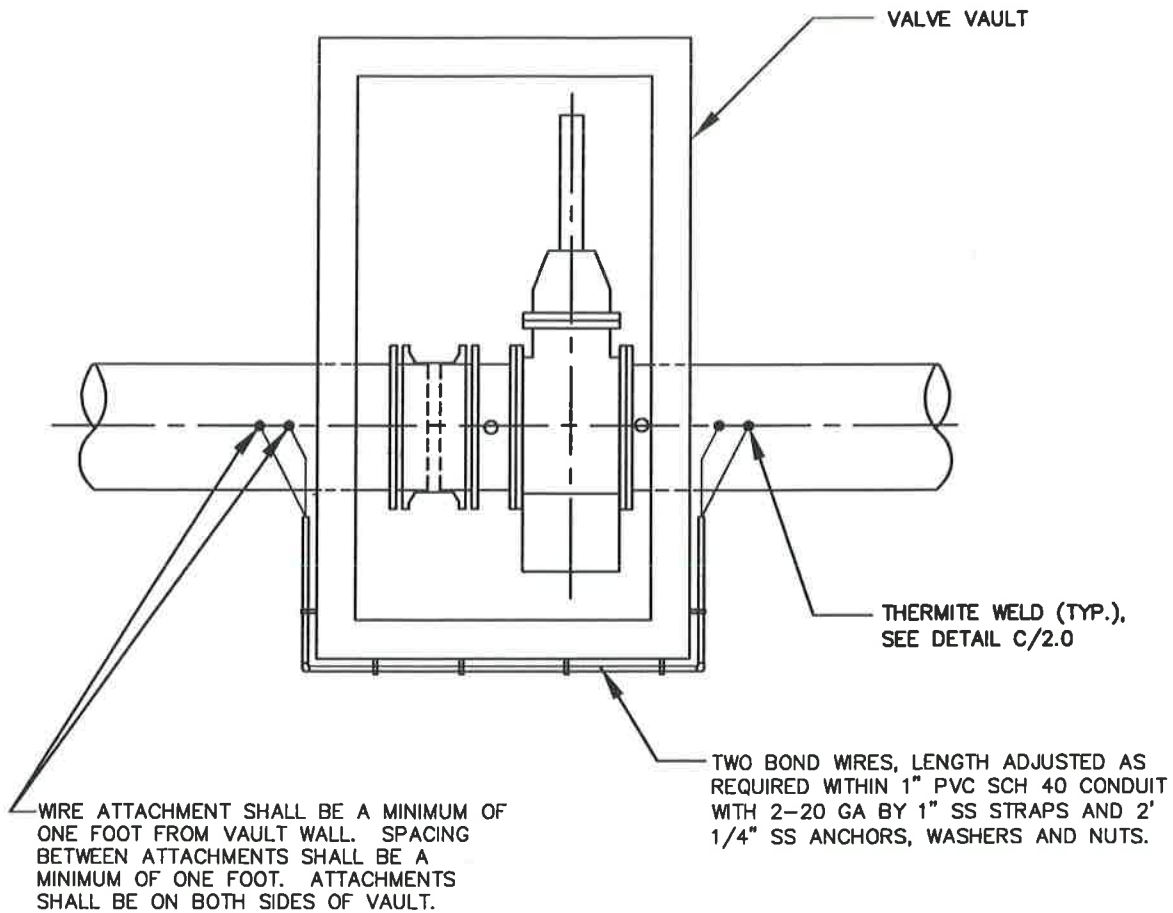


BOLTED CONNECTION

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.

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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.

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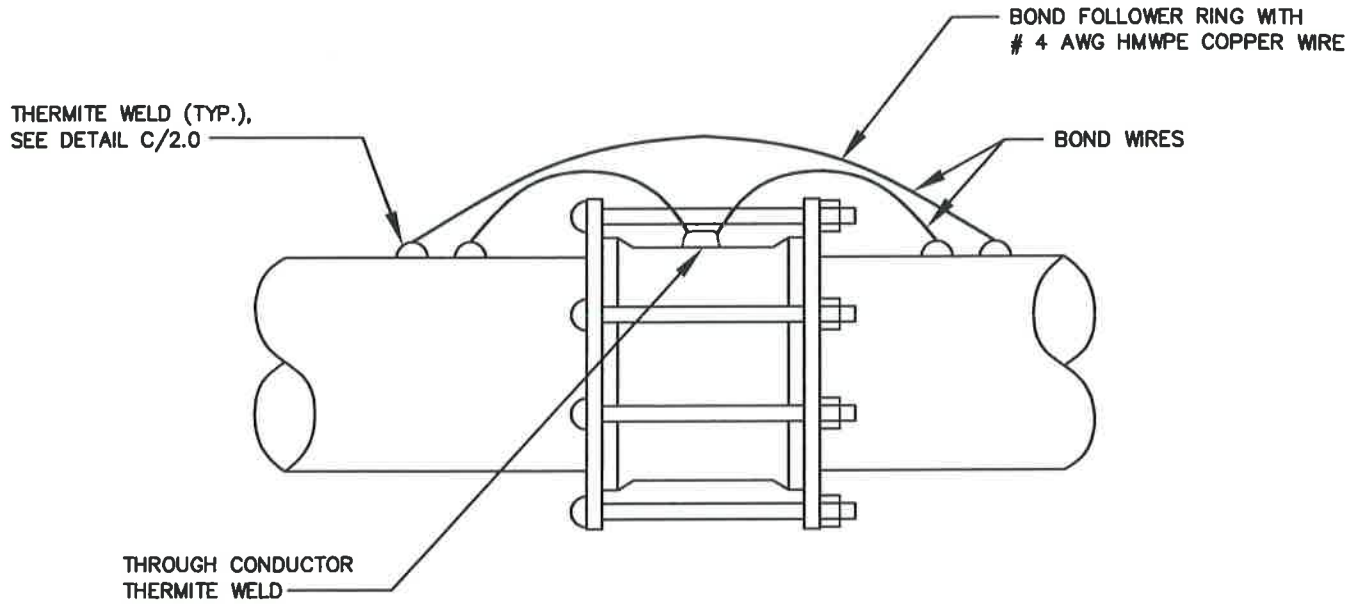
APPROVED: _____

8/12/16
[Signature]
Chief Engineer

STANDARD DETAIL


DUCTILE IRON PIPE
BONDING AROUND
VALVE VAULT

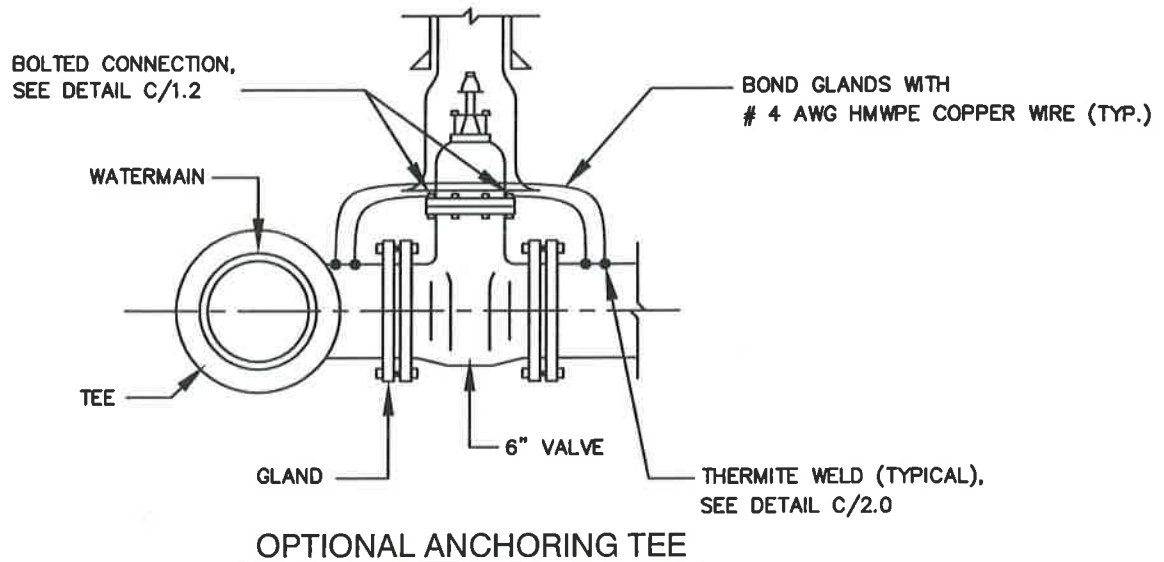
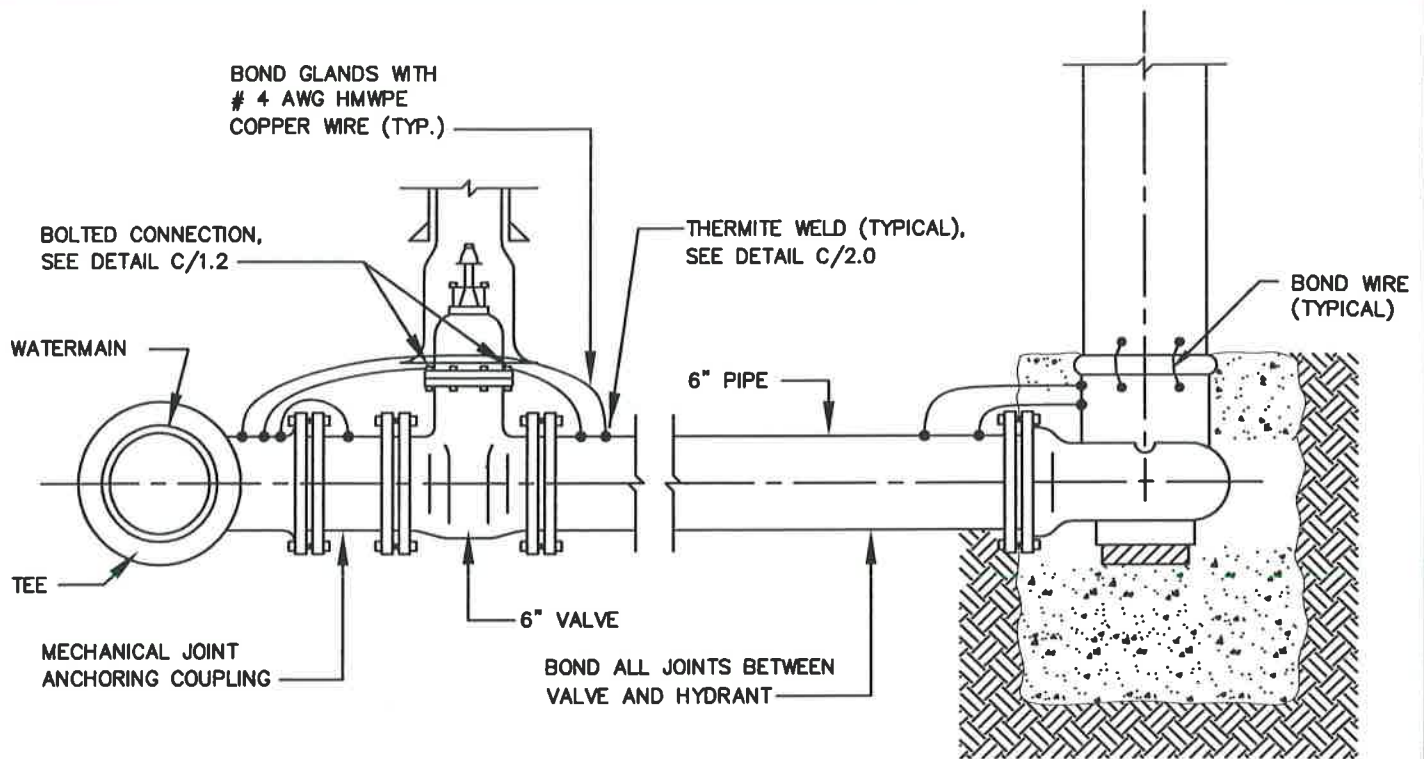
C
1.3



NOTE:

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


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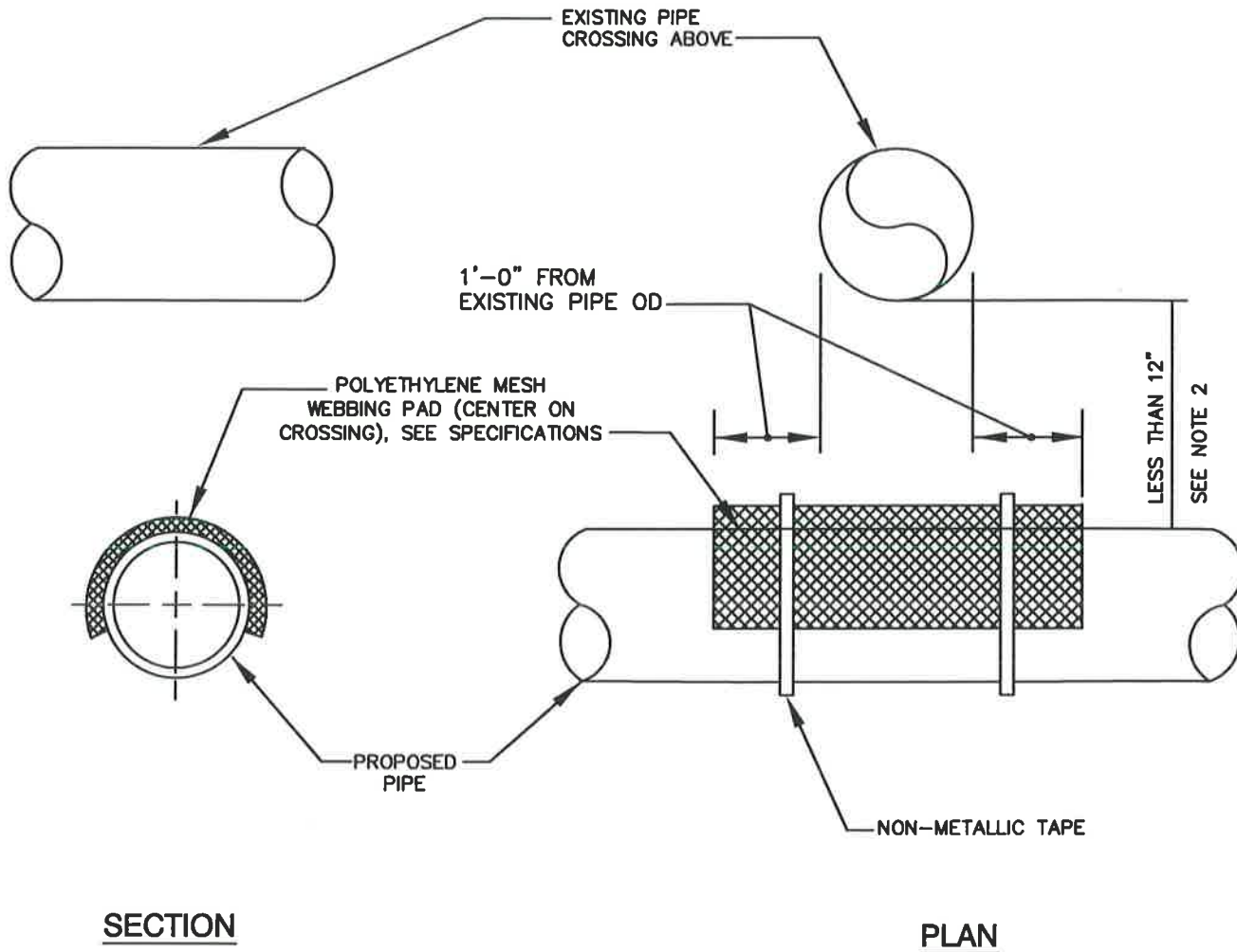


OPTIONAL ANCHORING TEE

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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SECTION

PLAN

NOTES:

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

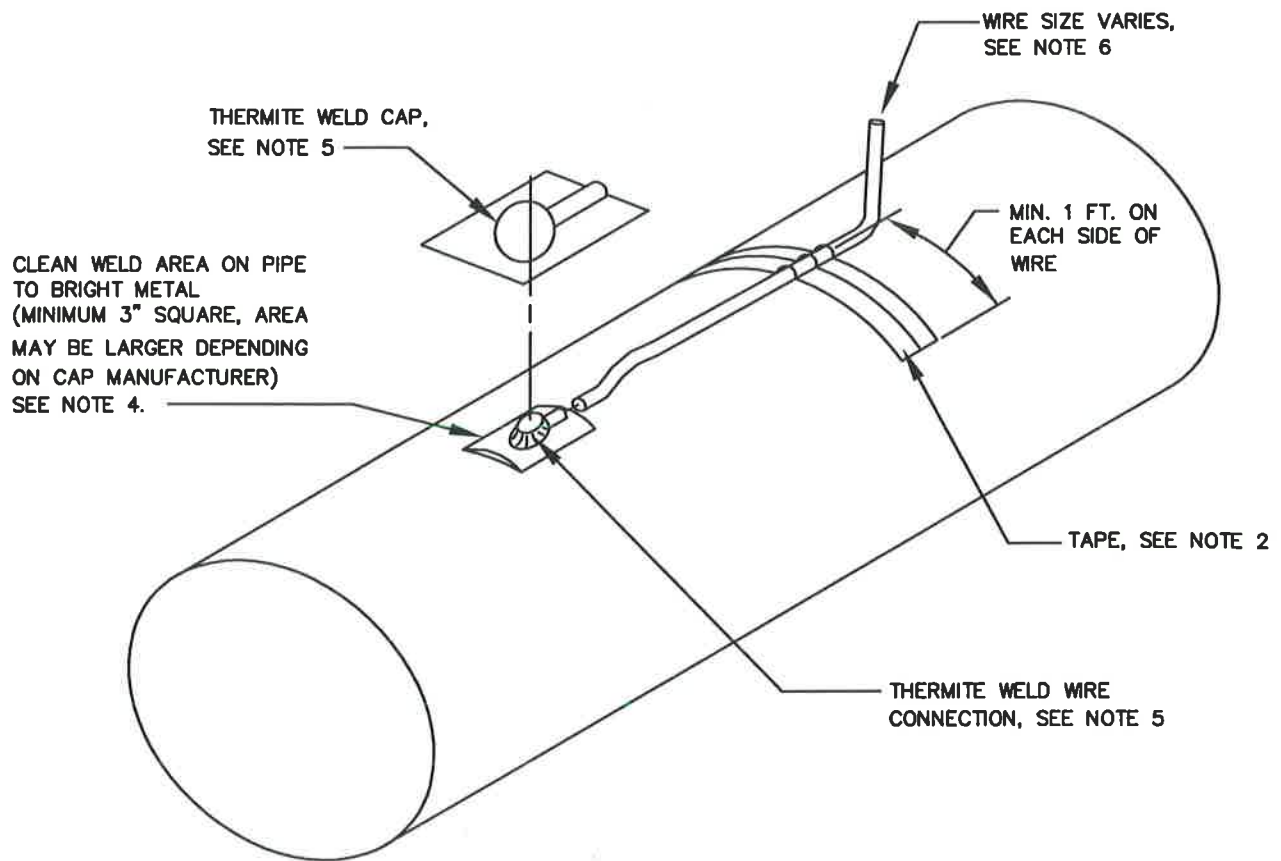
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STANDARD DETAIL


SEPARATOR TO AVOID METALLIC
CONTACT ON CROSSING PIPES

C
1.9



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.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL THERMITE WELD WIRE CONNECTION	$\frac{C}{2.0}$
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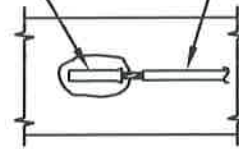
DUCTILE IRON OR
STEEL PIPE OR
FITTING



CLEAN SURFACE TO
BRIGHT METAL AT WELD
LOCATION BY
MECHANICAL GRINDER.

STEP 1

ADAPTER SLEEVE (AS RECOMMENDED BY
THERMITE WELD MOLD MANUFACTURER
FOR SMALL WIRE DIAMETERS).

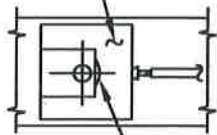


STRANDED COPPER
WIRE (WITH THWN
OR HMWPE
INSULATION).

STRIP INSULATION FROM WIRE AND
INSTALL COPPER ADAPTER SLEEVE AS
REQUIRED FOR WIRE SIZE, SEE NOTE 2.

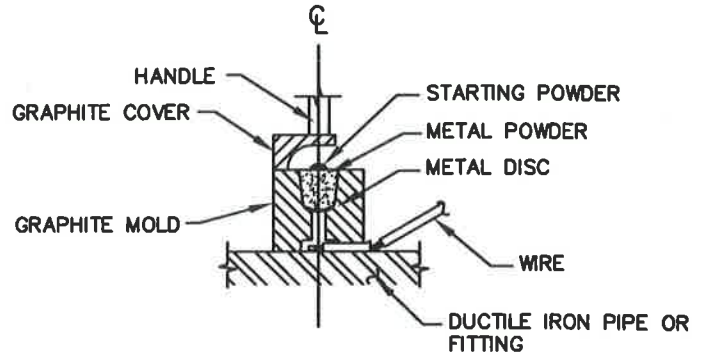
STEP 2

GRAPHITE MOLD



OPENING

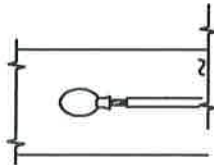
TOP



SIDE

HOLD GRAPHITE MOLD FIRMLY OVER ADAPTER SLEEVE WITH OPENING AWAY FROM OPERATOR
- IGNITE STARTING POWDER.

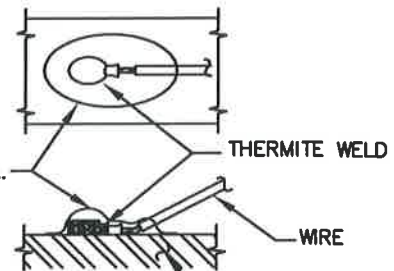
STEP 3



REMOVE SLAG FROM CONNECTION. THOROUGHLY
CLEAN WELD AREA.

STEP 4

COAT ALL EXPOSED
METAL AT WELD AREA.



THERMITE WELD

WIRE

DUCTILE IRON PIPE
OR FITTING

STEP 5

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.

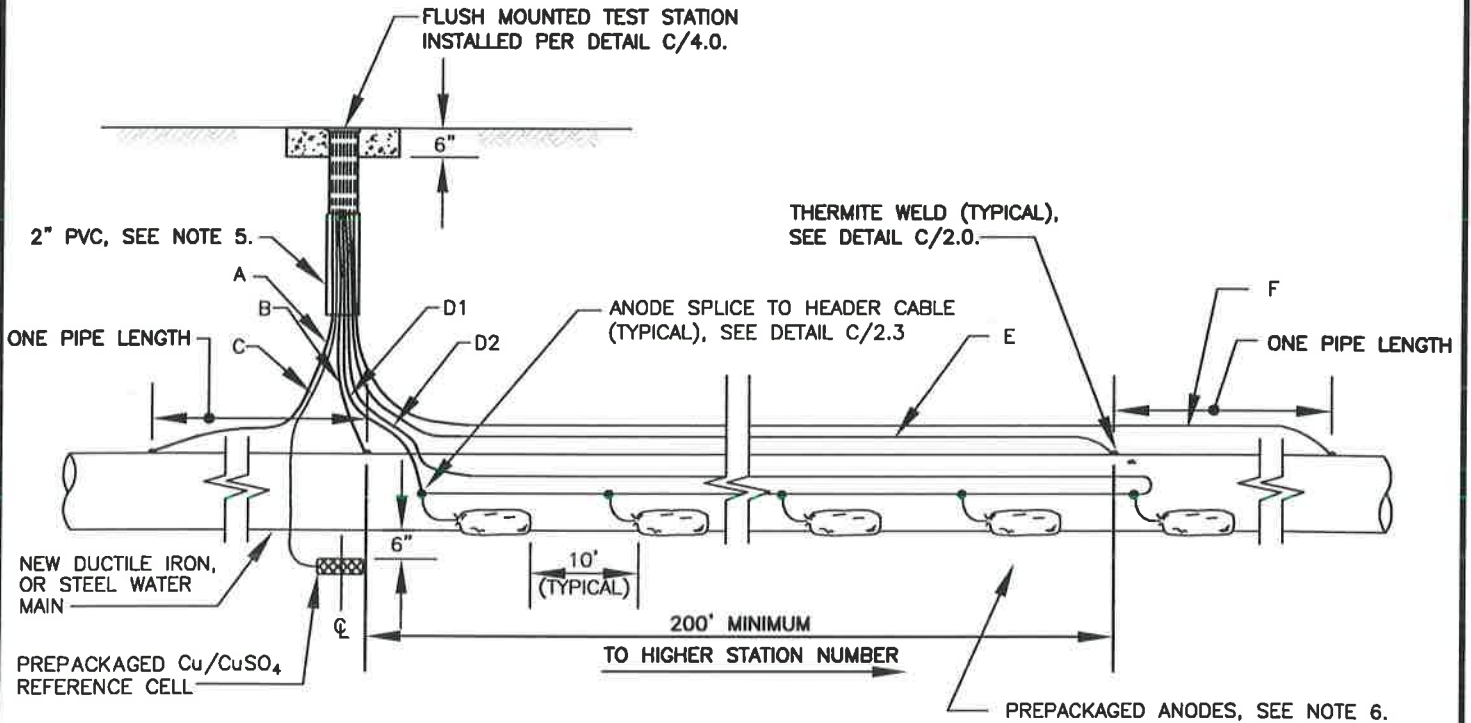
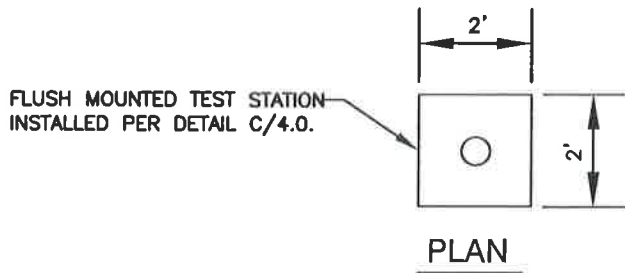
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APPROVED: 8/2/16

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STANDARD DETAIL
**THERMITE WELD
DETAIL**

C
2.1



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.

WIRING SCHEDULE					
DESCRIPTION	WIRE	TEST STATION TERMINAL	AWG WIRE SIZE	TYPE OF INSULATION	COLOR OF INSULATION
PIPE	A	1	#8	THWN	BLUE
	B	3	#10	THWN	BLUE
PERMANENT REFERENCE ELECTRODE	C	6	#14	HMWPE	PER MANUFACTURER
ANODE HEADER CABLE	D1	4	#8	HMWPE	BLACK
	D2	7	#8	HMWPE	BLACK
PIPE	E	2	#10	THWN	WHITE
	F	5	#8	THWN	WHITE

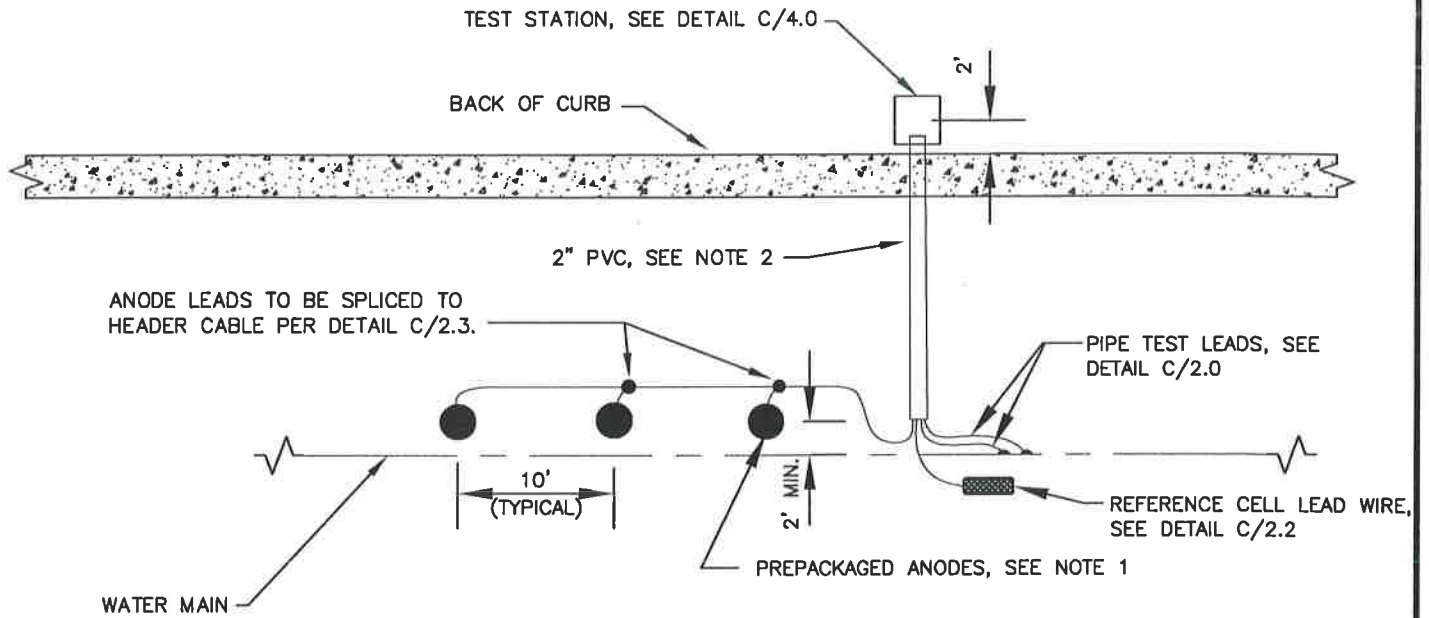
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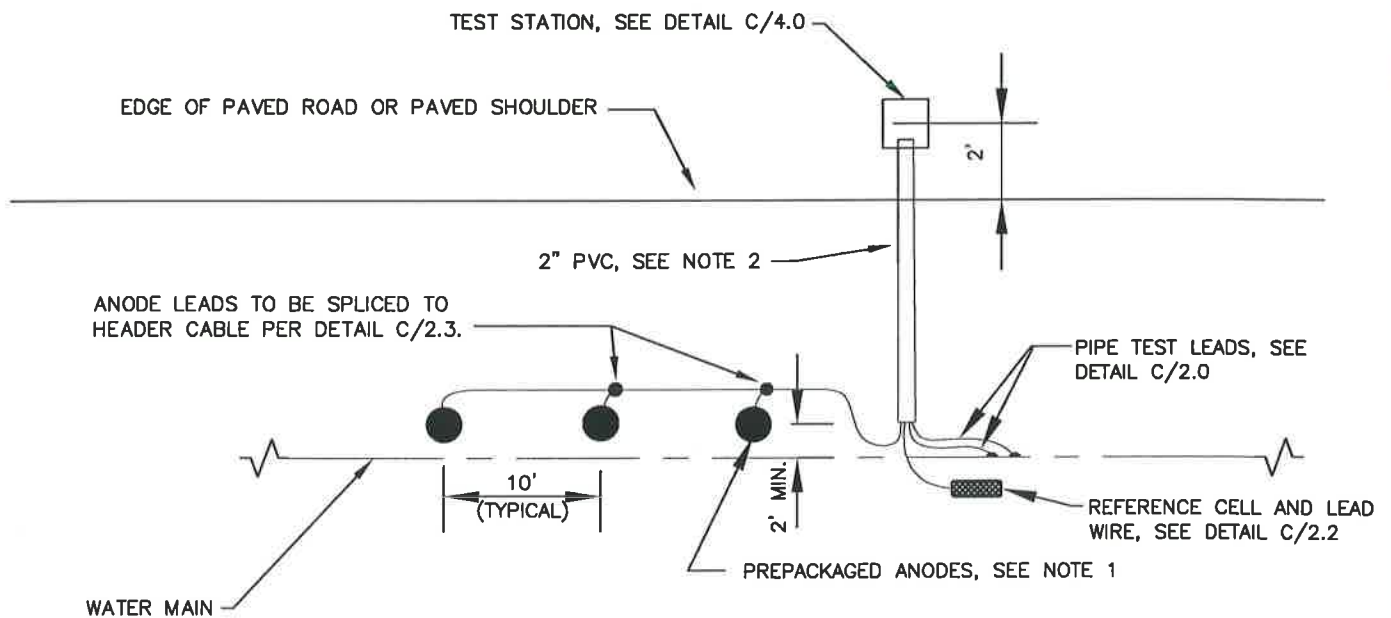
Chief Engineer

STANDARD DETAIL
SACRIFICIAL ANODE
INSTALLATION
AND TEST STATION PLACEMENT

C
2.2



PLAN VIEW - ROADS WITH CURB LINES




PLAN VIEW - ROADS WITHOUT CURB LINES

NOTES:

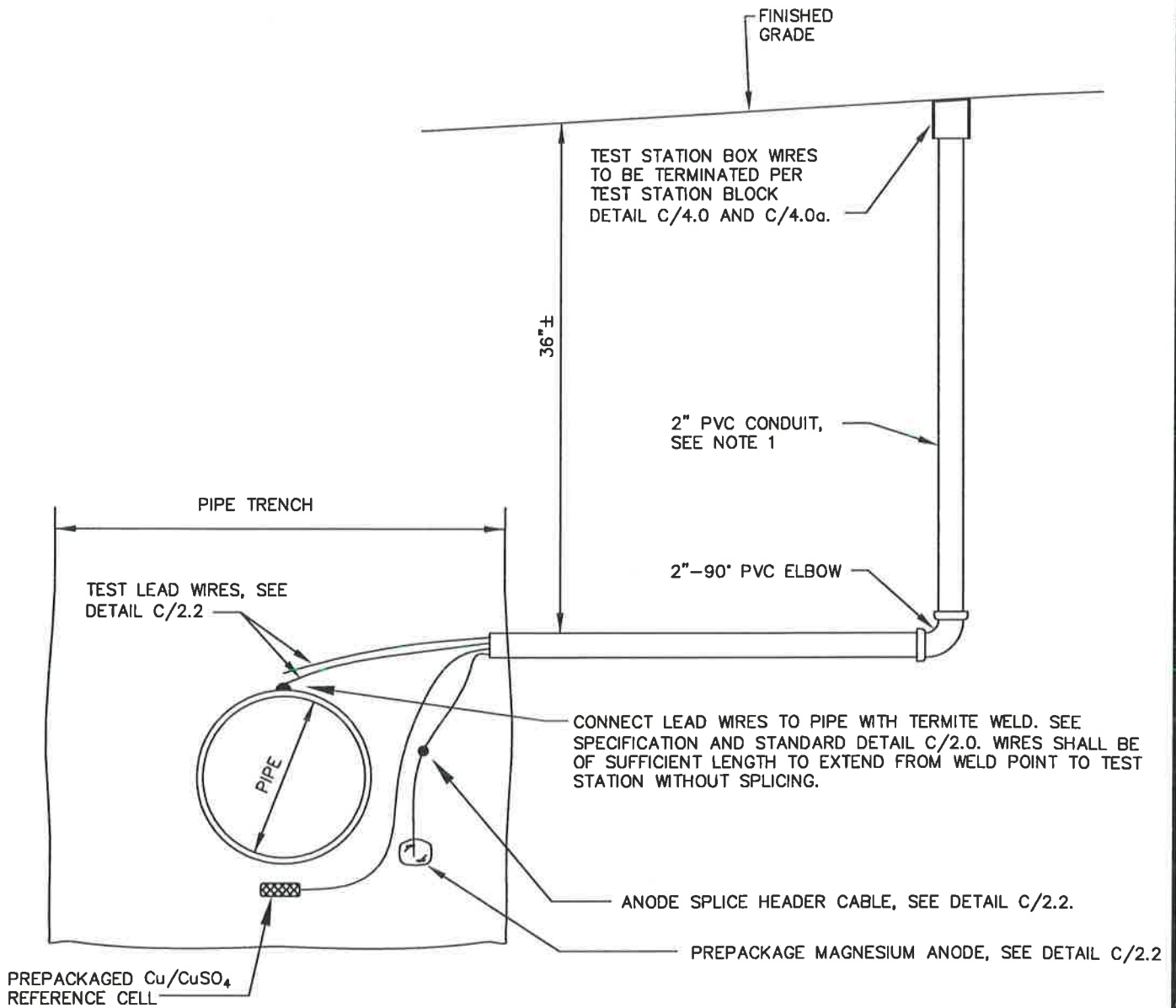
1. PREPACKAGED ANODES
FOR DIP AND STEEL WATER MAINS
 PREPACKAGED MAGNESIUM ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.
FOR CONNECTION NEAR EXIST. PCWP WATER MAINS
 PREPACKAGED ZINC ANODE (TYPICAL), NUMBER AND SIZE AS REQUIRED IN SPECIFICATIONS AND CONTRACT DOCUMENTS.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

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STANDARD DETAIL
**PLAN VIEW OF
 SACRIFICIAL ANODE INSTALLATION
 AND TEST STATION PLACEMENT**

C
2.2a




SECTION

NOTES:

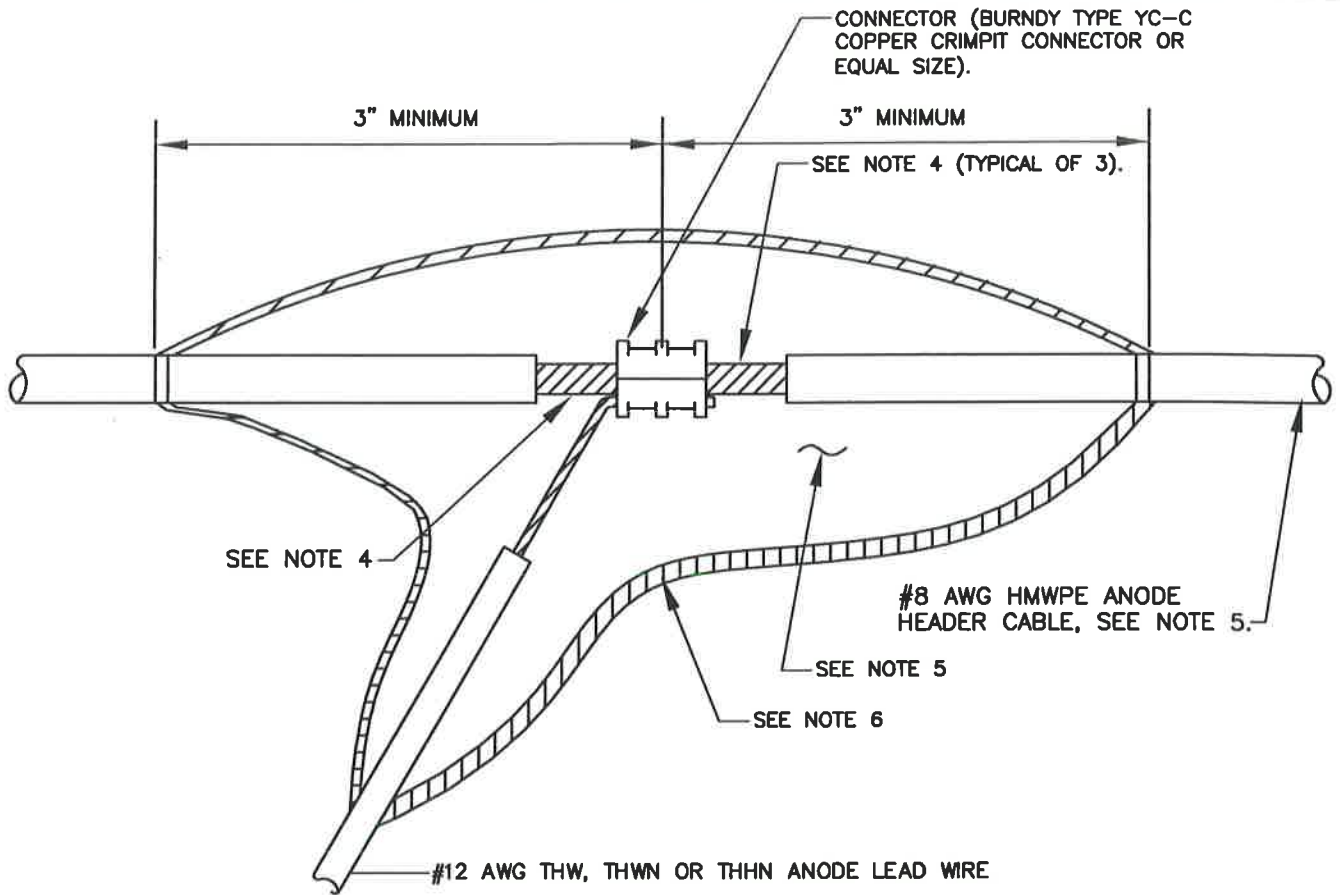
1. DO NOT SET TEST STATION IN ROADWAY. PLACE TEST BOX IN NON-PAVED AREA NEXT TO ROADWAY.
2. RUN ALL WIRES IN 2" PVC SCH. 40 CONDUIT FROM CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.
3. FOR WIRE TYPE AND SIZES, SEE DETAIL C/2.2.
4. FOR PLAN AND ELEVATION VIEWS, SEE DETAIL C/2.0 AND C/2.0a.
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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APPROVED: 8/12/16

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STANDARD DETAIL
TYPICAL
TEST STATION INSTALLATION

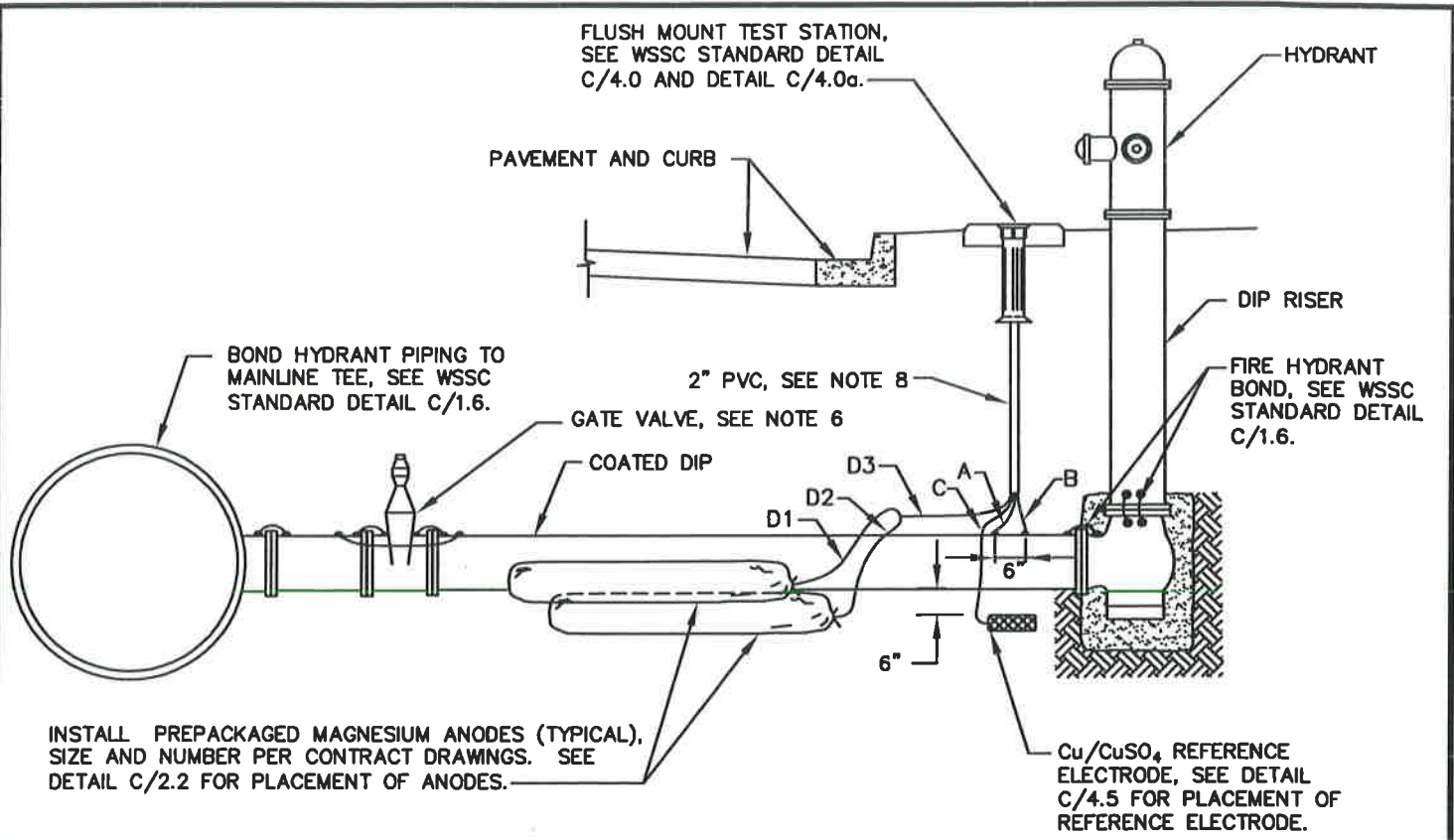
C
2.2b



SPLICE TAPING 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.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL SPLICE DETAIL ANODE LEADER TO HEADER CABLE	$\frac{C}{2.3}$
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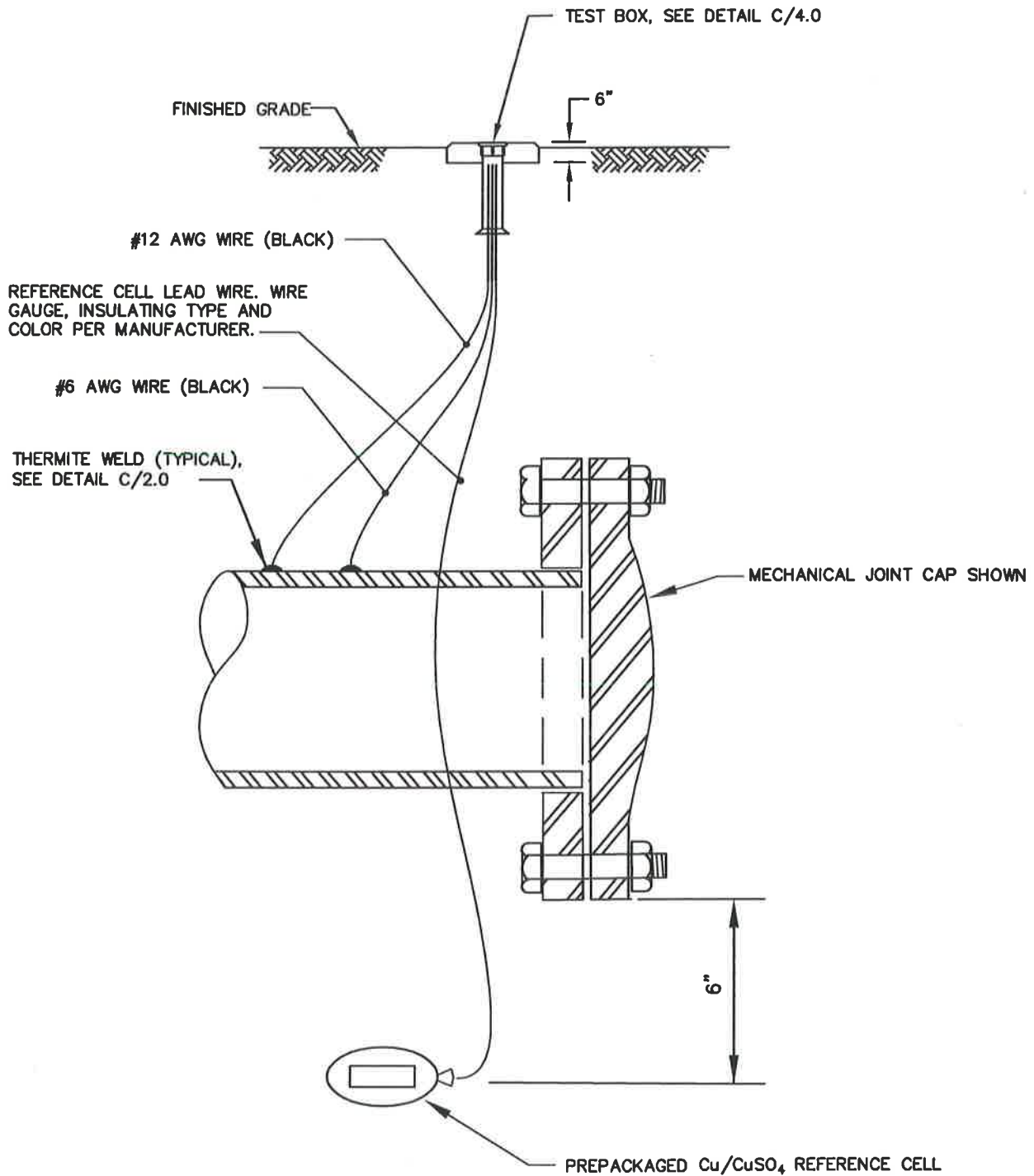


WIRING SCHEDULE					
DESCRIPTION	WIRE	TEST STATION TERMINAL	AWG WIRE SIZE	TYPE OF INSULATION	COLOR OF INSULATION
NEW WATER MAIN	A	1	#12	THWN	BLACK
	B	3	#6	THWN	BLACK
PERMANENT REFERENCE ELECTRODE	C	6	PER MANUFACTURER	PER MANUFACTURER	PER MANUFACTURER
PREPACKAGED MAGNESIUM ANODE LEAD	D1	N/A	#12	THW, THWN OR THHN	WHITE
	D2		#12		
MAGNESIUM ANODE HEADER CABLE	D3	4	#8	HMWPE	BLACK

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.

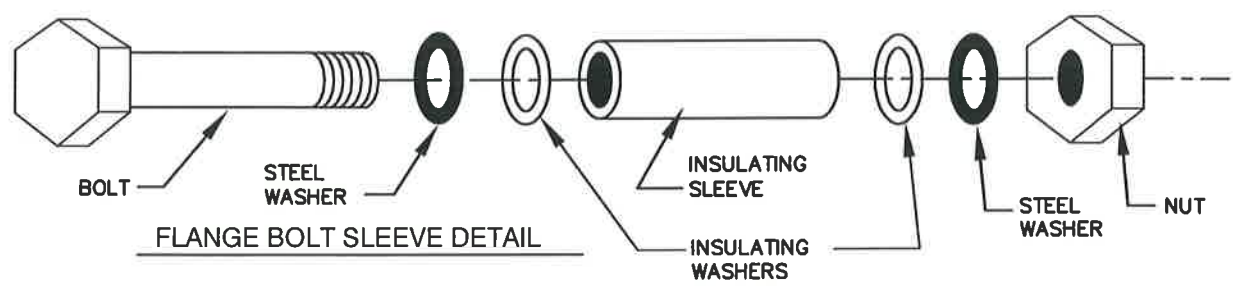
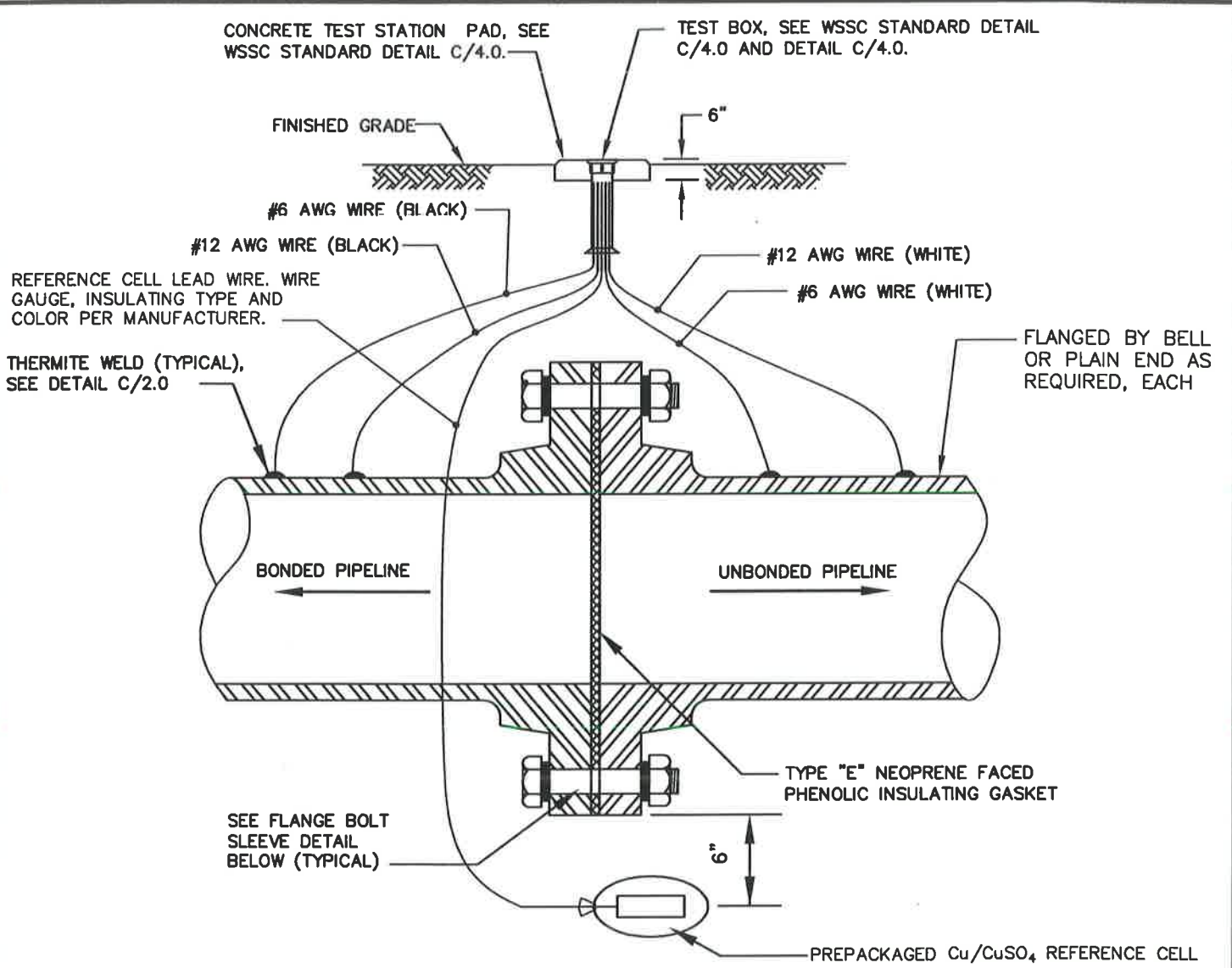
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>	STANDARD DETAIL HYDRANT TEST STATION (TYPE C)	<u>C</u> 2.5
	 Chief Engineer		



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.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL TEST STATION AT MECHANICAL JOINT / PUSH-ON CAP / PLUG	<table border="1"> <tr> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">2.6</td> </tr> </table>	C	2.6
C					
2.6					

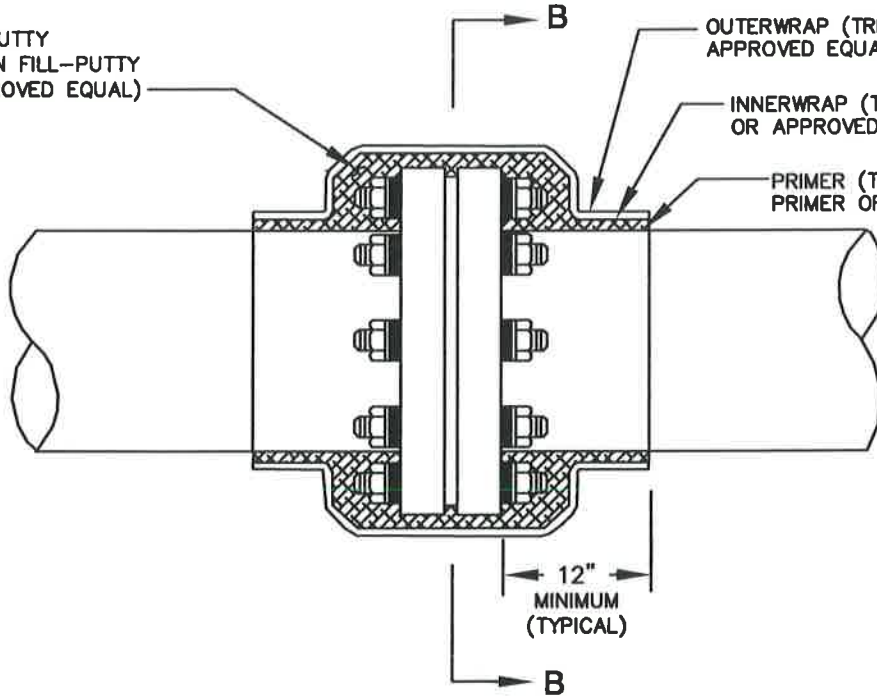


NOTES:

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/3.0a.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u> Chief Engineer	STANDARD DETAIL INSULATED FLANGE JOINT DETAIL	<table style="margin: auto; border: none;"> <tr> <td style="text-align: center;">C</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">3.0</td> </tr> </table>	C	3.0
C					
3.0					

FILLER PUTTY
(TRENTON FILL-PUTTY
OR APPROVED EQUAL)



OUTERWRAP (TRENTON GLASS-WRAP OR
APPROVED EQUAL)

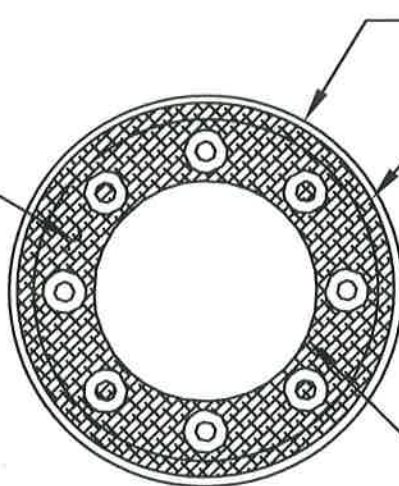
INNERWRAP (TRENTON #1 WAX TAPE
OR APPROVED EQUAL)

PRIMER (TRENTON WAX-TAPE
PRIMER OR APPROVED EQUAL)

12"
MINIMUM
(TYPICAL)

SIDE VIEW

FILLER PUTTY (TRENTON
FILL-PUTTY OR
APPROVED EQUAL)



OUTERWRAP (TRENTON GLASS-TAPE
OR APPROVED EQUAL)

INNERWRAP (TRENTON #1
WAX-TAPE OR APPROVED EQUAL)

PRIMER (TRENTON WAX-TAPE
PRIMER OR APPROVED EQUAL)

SECTION VIEW "B-B"

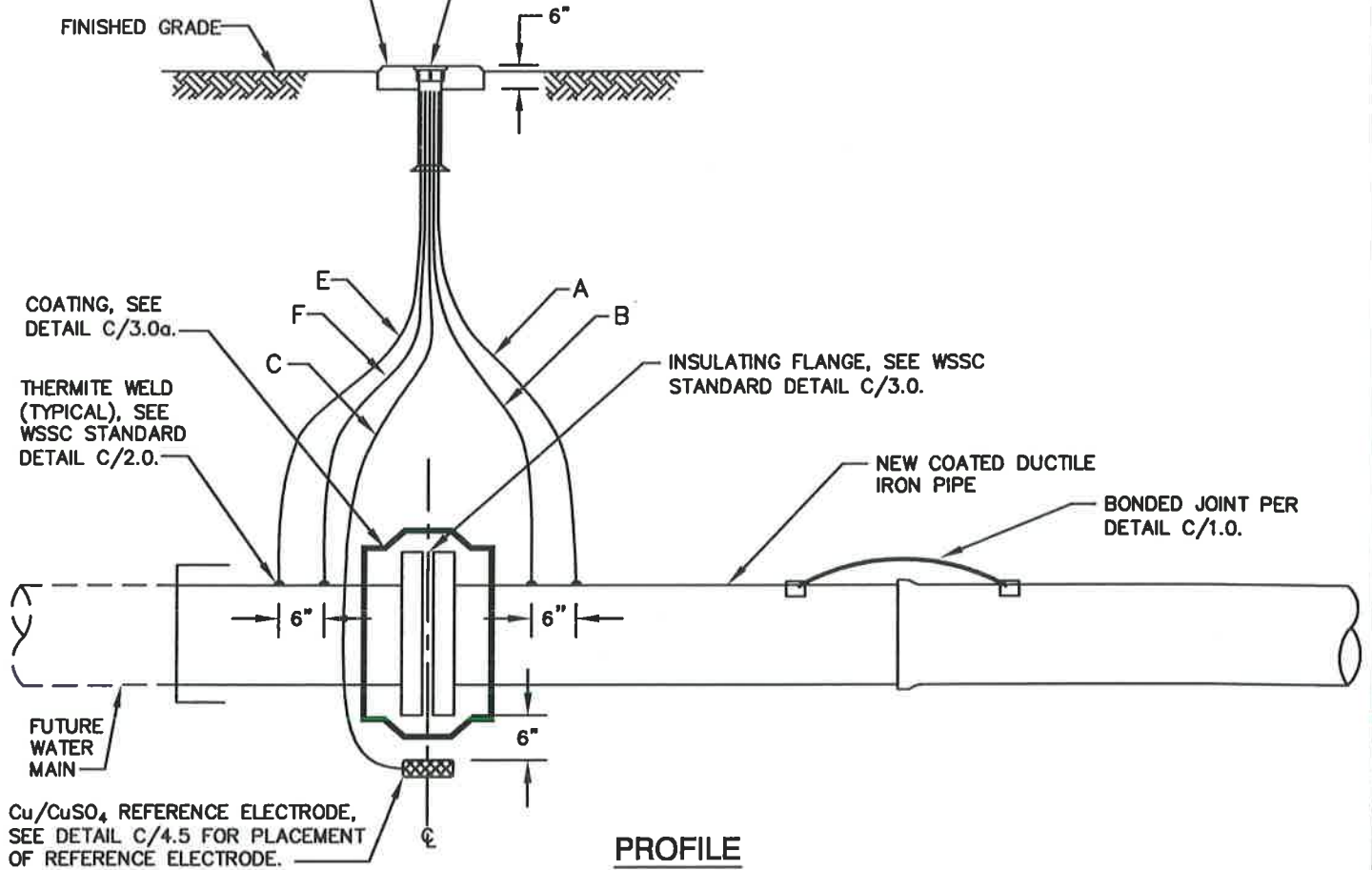
NOTE:

SEE SPECIFICATIONS FOR THE PUTTY, OUTER AND INNER WRAP.

<p>WASHINGTON SUBURBAN SANITARY COMMISSION</p>	<p>APPROVED: <u>8/12/16</u>  Chief Engineer</p>	<p>STANDARD DETAIL COATING OF INSULATING FLANGE DETAIL</p>	<p><u>C</u> 3.0a</p>
--	--	---	--------------------------

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.



PROFILE

WIRING SCHEDULE

DESCRIPTION	WIRE	TEST STATION TERMINAL	AWG WIRE SIZE	TYPE OF INSULATION	COLOR OF INSULATION
NEW WATER MAIN	A B	1 3	#12 #6	THWN THWN	BLACK BLACK
PERMANENT REFERENCE ELECTRODE	C	6	PER MANUFACTURER	PER MANUFACTURER	PER MANUFACTURER
EXISTING PIPE	E F	2 5	#12 #6	THWN THWN	WHITE WHITE

NOTES:

- 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.
- MAINTAIN SUFFICIENT SLACK IN THE TEST WIRES SO THAT THE WIRES CAN EXTEND A MINIMUM OF 18 INCHES FROM THE TEST BOX.
- RUN ALL WIRES IN 2" PVC SCH40 CONDUIT FROM THE CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

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8/12/16

Chief Engineer

STANDARD DETAIL

**INSULATING FLANGE
TEST STATION (IJ)**

**C
3.0b**

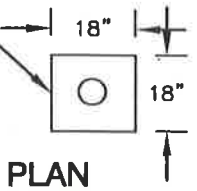
CONCRETE TEST STATION PAD, SEE WSSC STANDARD DETAIL C/4.0.

TEST BOX, SEE WSSC STANDARD DETAIL C/4.0.

FINISHED GRADE

6"

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

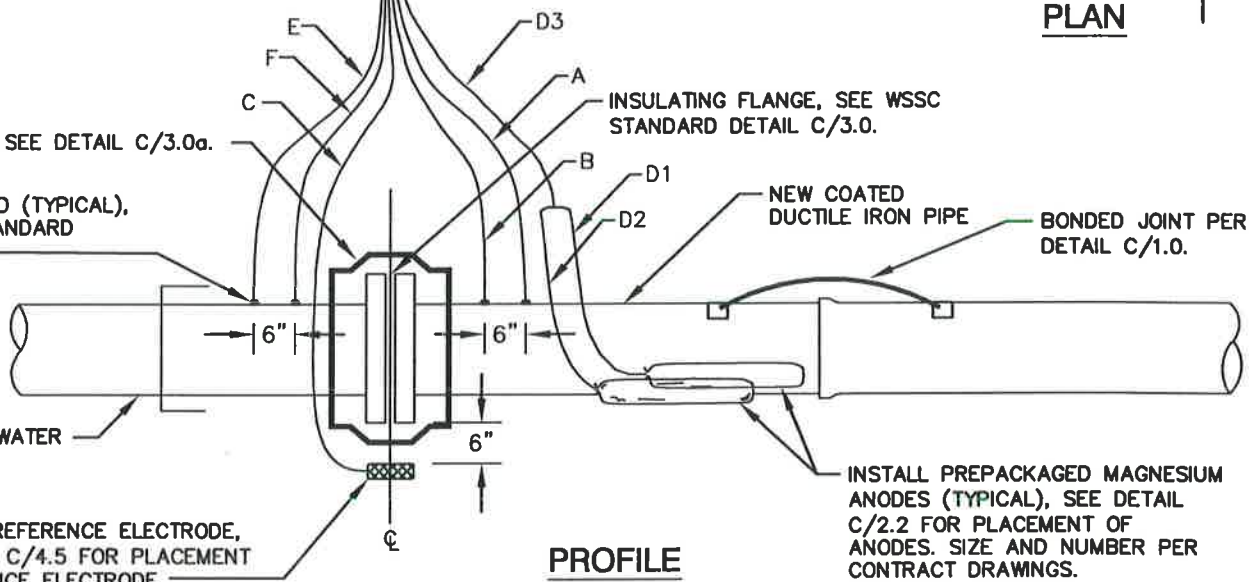


PLAN

COATING, SEE DETAIL C/3.0a.

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

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



PROFILE

WIRING SCHEDULE

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

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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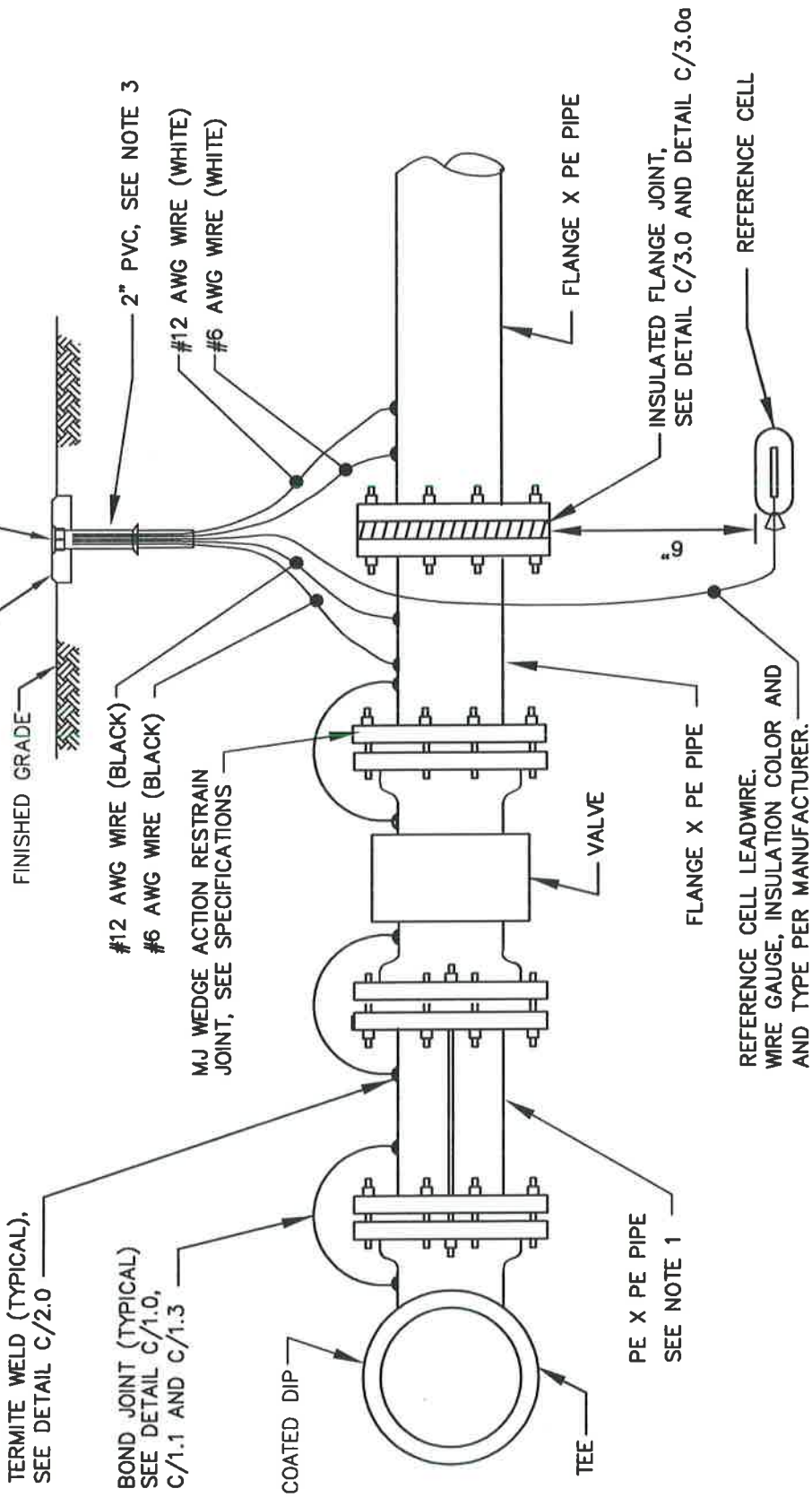
Chief Engineer

STANDARD DETAIL

INSULATING FLANGE TEST STATION WITH ANODES (IJ)

C
3.0c


CONCRETE TEST STATION
PAD, SEE DETAIL C/4.0.



NOTES:

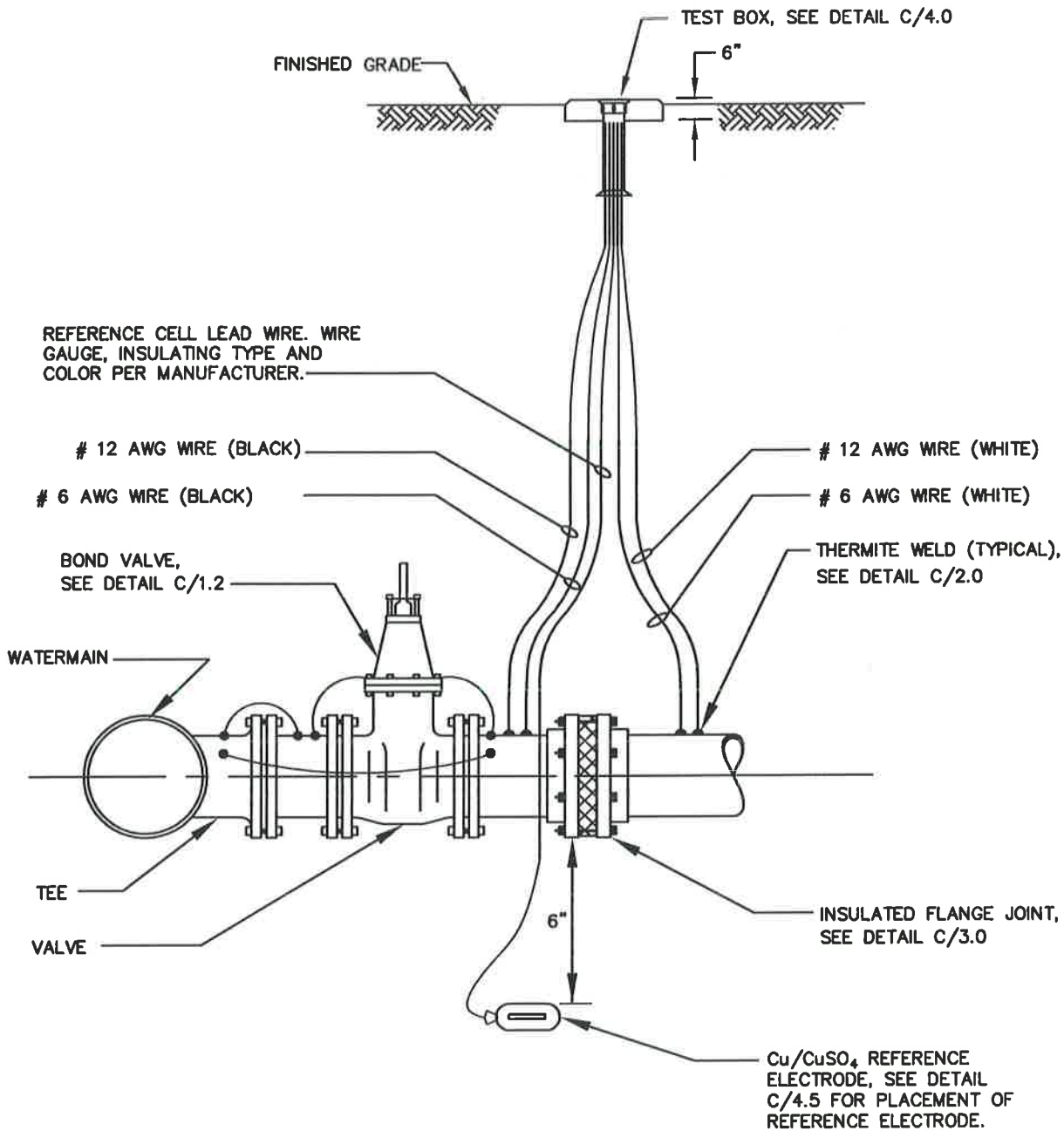
1. SEE DETAIL B/2.0 FOR DETAILS ON STRAPPING JOINTS.
2. FOR TEST LEAD WIRE REQUIREMENTS, SEE DETAIL C/3.0 AND NOTE 1.
3. RUN ALL WIRES IN 2" PVC SCH 40 CONDUIT FROM CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

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STANDARD DETAIL
VALVE TO MAIN
INSULATED FLANGE
JOINT (RESTRAINED)


C
3.1



NOTES:

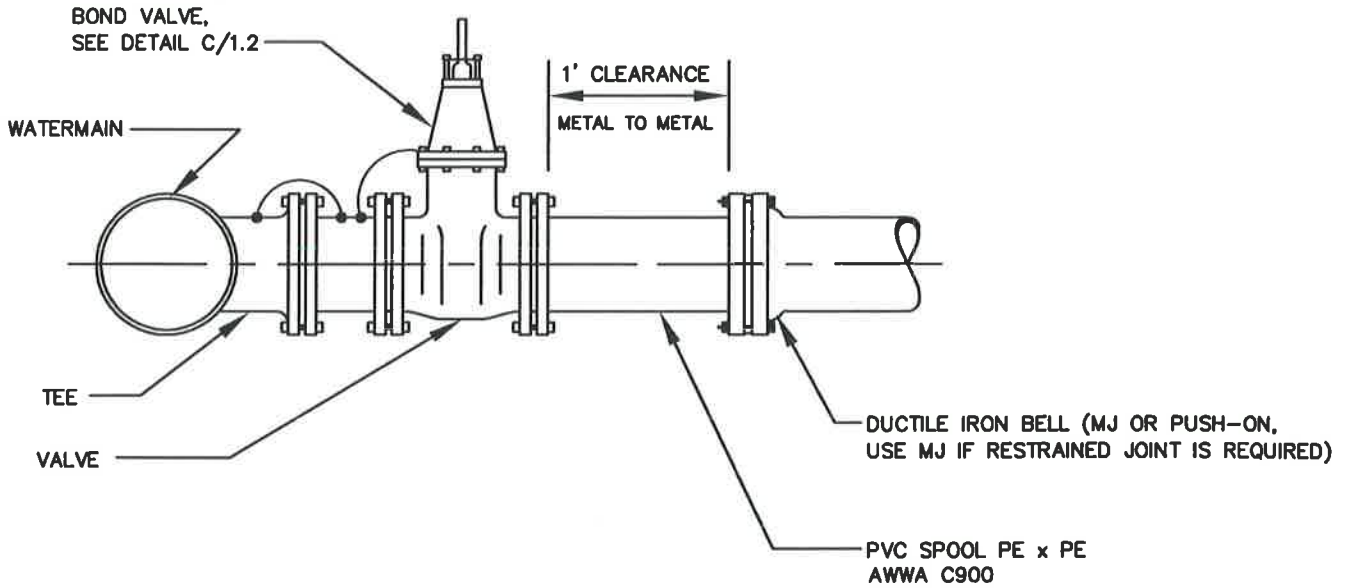
1. SEE DETAIL C/1.0 FOR BOND WIRE SIZE AND INSULATION REQUIREMENTS.
2. FOR TEST LEAD WIRE REQUIREMENTS, SEE DETAIL C/3.0 AND NOTE 1.
3. RUN ALL WIRES IN 2" PVC SCH40 CONDUIT FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

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Chief Engineer

STANDARD DETAIL
VALVE TO MAIN
INSULATED FLANGE
JOINT (UNRESTRAINED)

C
3.2



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.

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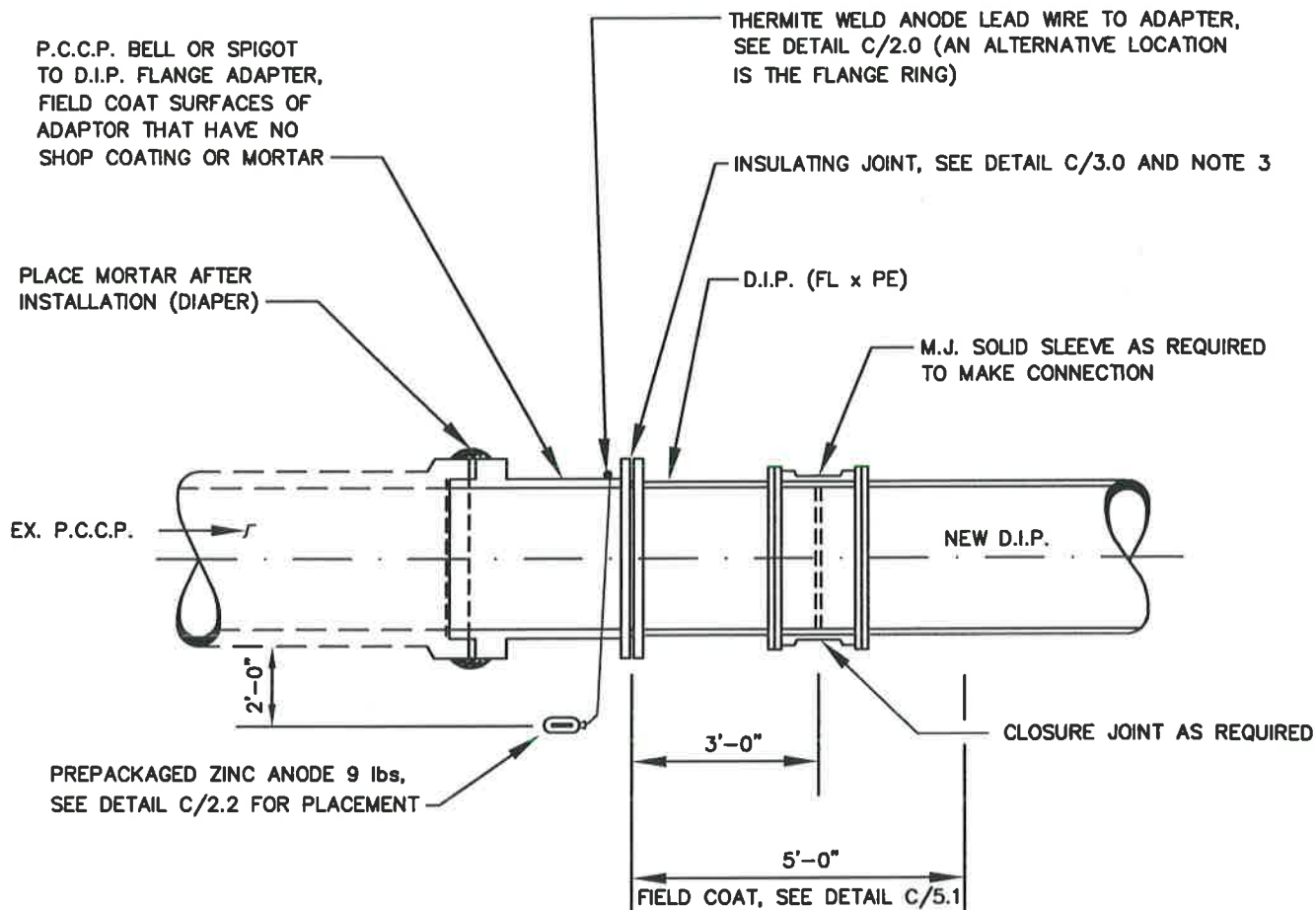
8/12/16

[Handwritten Signature]
Chief Engineer

STANDARD DETAIL

PVC INSULATING
SPOOL FOR BRANCH
LINES 12-INCH AND SMALLER

C
3.2a



PCCP x DIP TIE-IN DETAIL

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.

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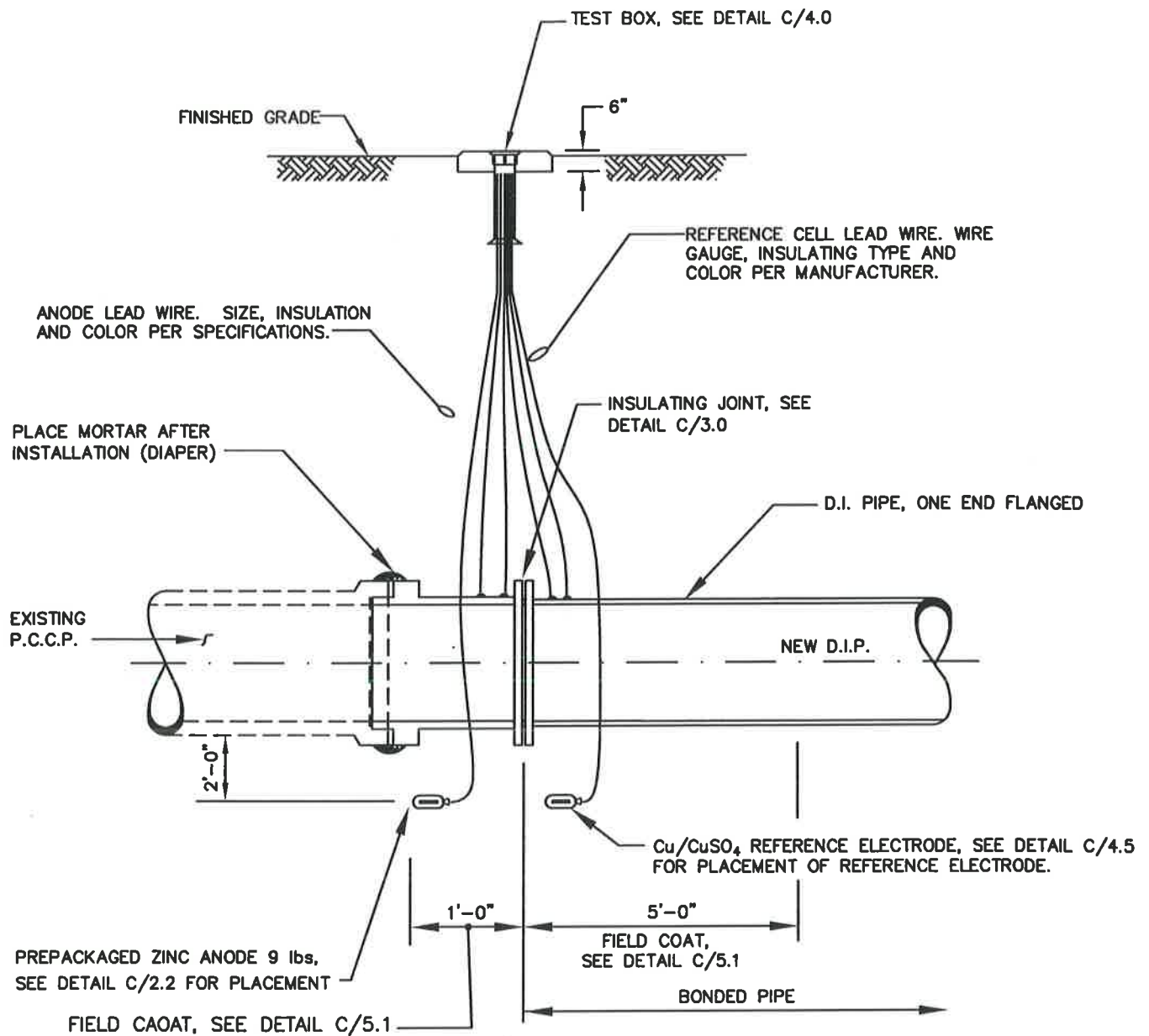
APPROVED:

8/12/16
[Signature]
Chief Engineer

STANDARD DETAIL

PCCP x DIP
TIE - IN DETAIL
WITH INSULATING JOINT

C
3.3



PCCP x DIP TIE-IN DETAIL

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.

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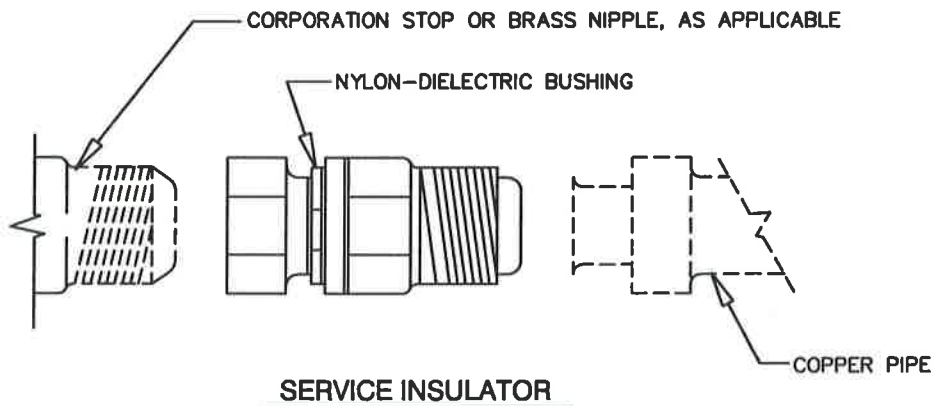
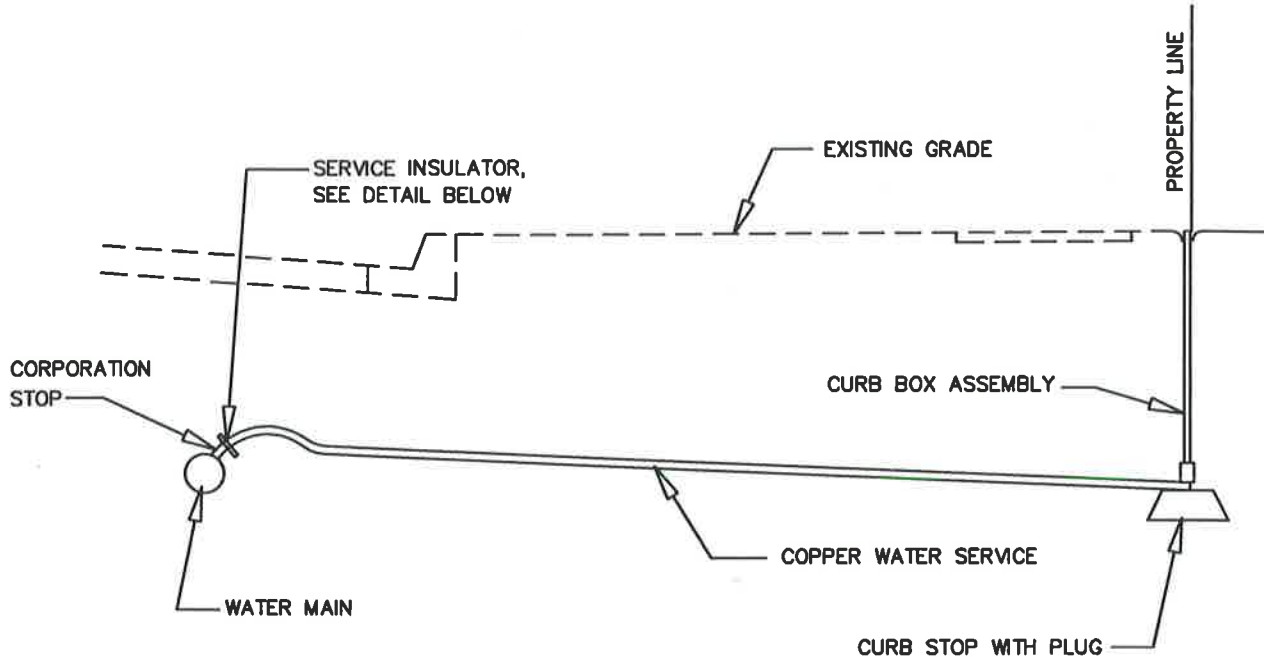
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STANDARD DETAIL
PCCP x DIP
TIE - IN DETAIL
WITH INSULATING JOINT
AND TEST LEAD WIRES

C
3.4



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,

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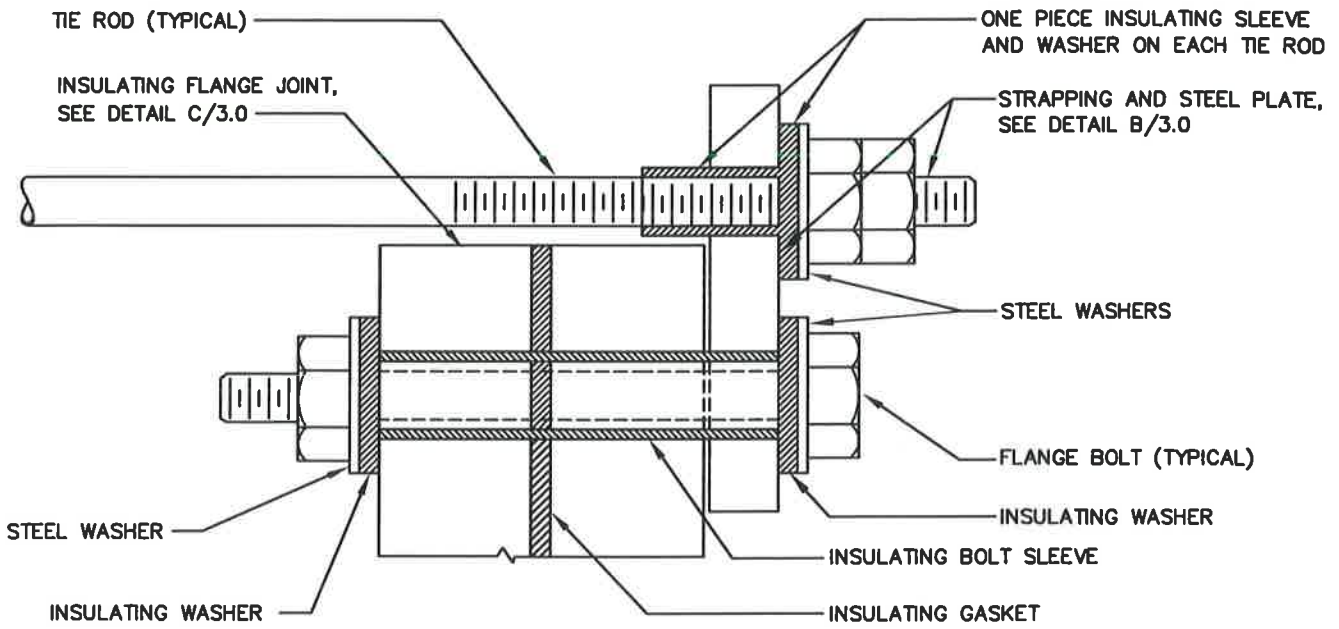
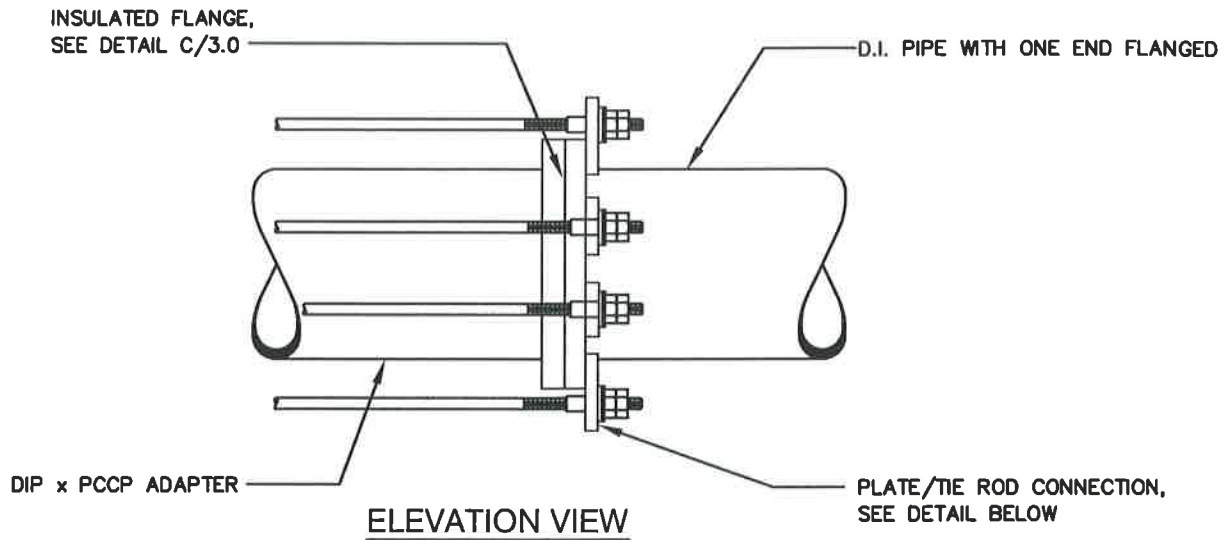
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STANDARD DETAIL

INSULATED JOINT
FOR COPPER PIPE SERVICE
CONNECTIONS (2" OR LESS)

C
3.5



NOTES:

1. SEE DETAIL B/3.1b FOR THRUST BLOCK AND HARNESSSED 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.

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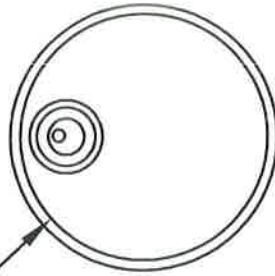
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STANDARD DETAIL
INSULATED TIE RODS
ON INSULATED
FLANGE JOINT

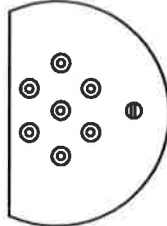
C
3.6

COVER



COVER, PER SPECIFICATIONS

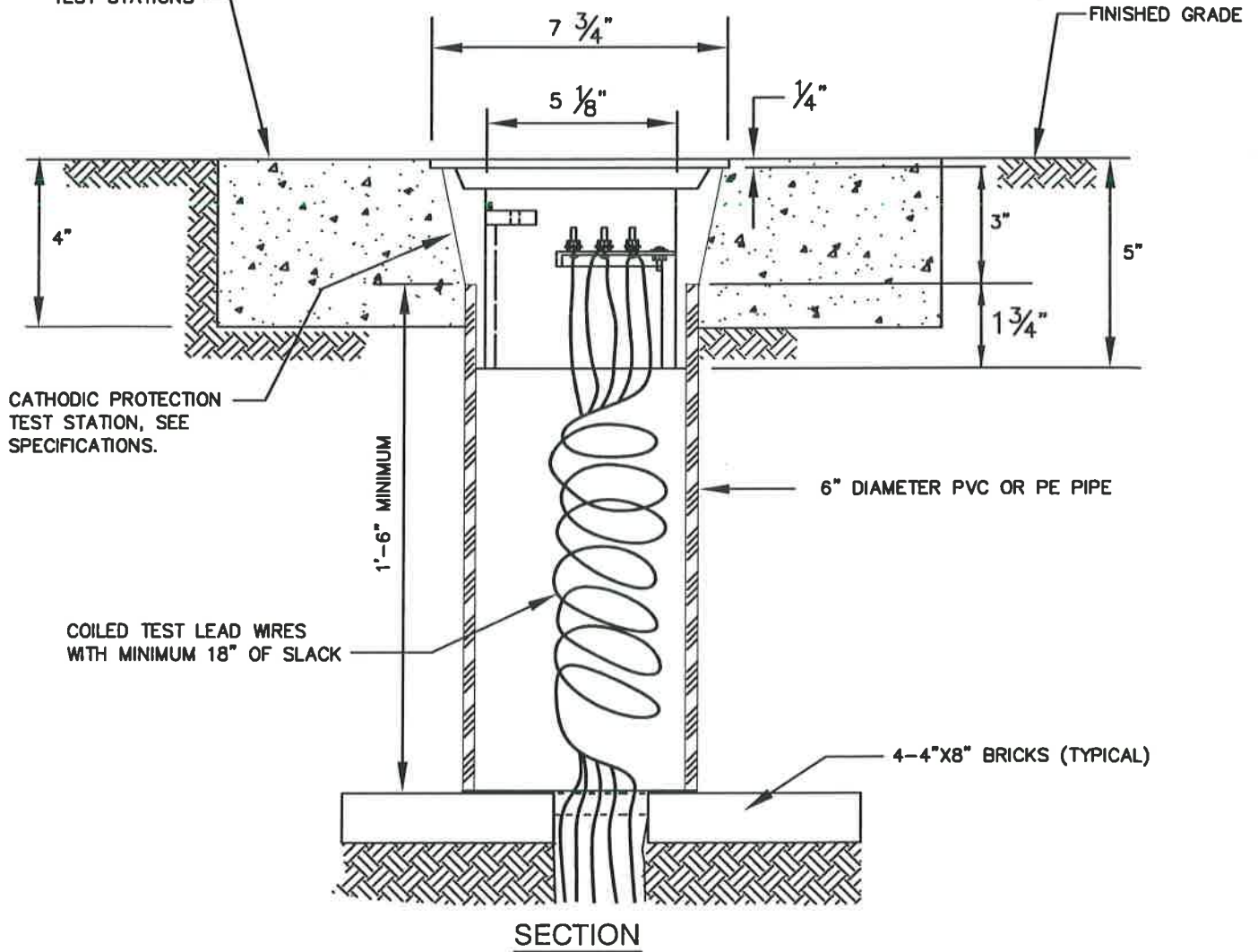
TERMINAL BLOCK




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

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.



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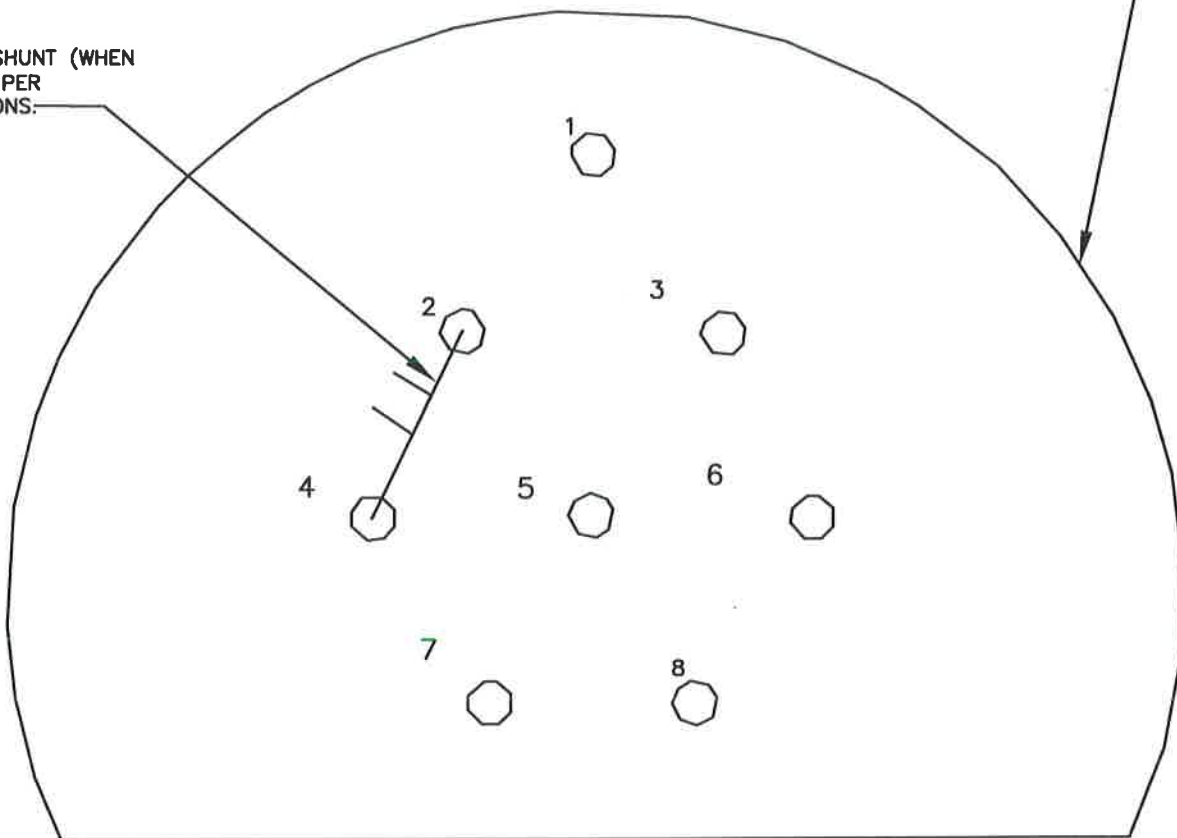
APPROVED: 8/12/16

Chief Engineer

STANDARD DETAIL
FLUSH - MOUNTED
TEST STATION

C
4.0

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

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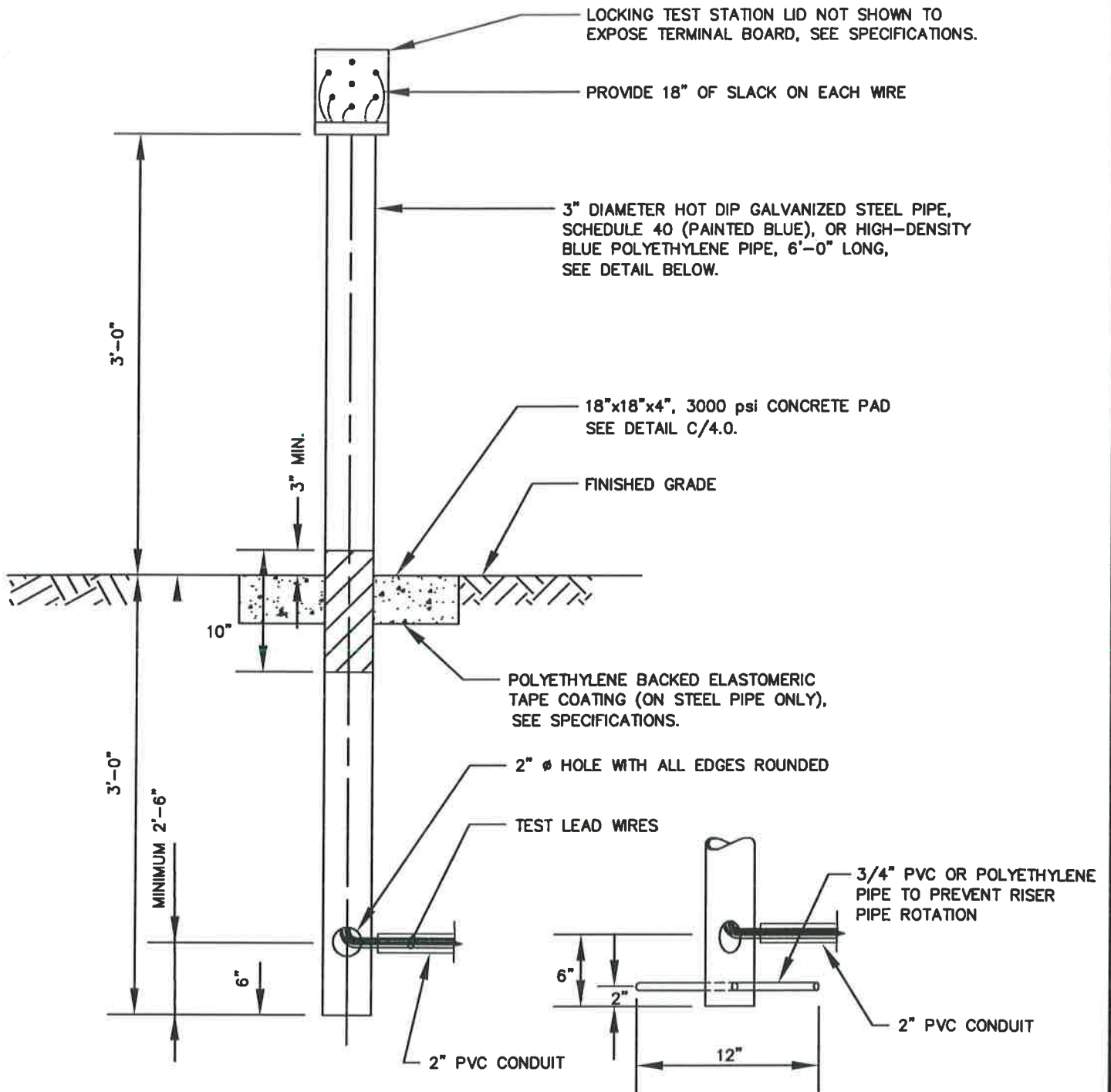
8/12/16

Chief Engineer

STANDARD DETAIL

FLUSH MOUNTED TEST
STATION TERMINAL BLOCK

C
4.0a




POLYETHYLENE PIPE INSTALLATION ONLY

NOTES:

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.

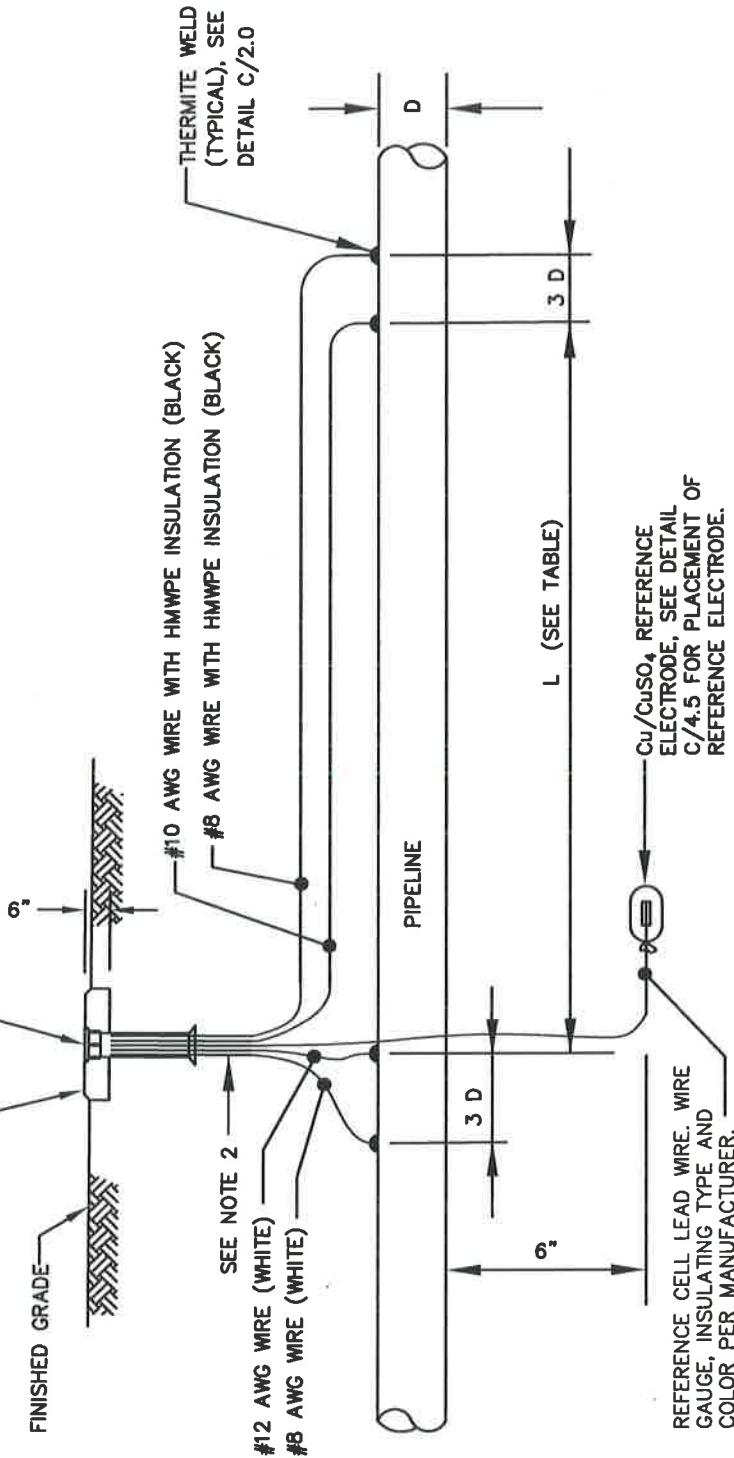
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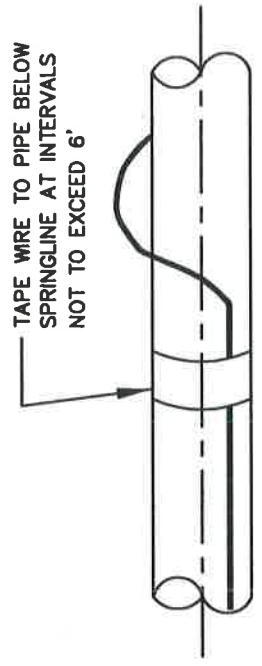
STANDARD DETAIL
PIPE MOUNTED ABOVE
GROUND
TEST STATION

C
4.2

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



PIPE DIAMETER (D)	L (FEET)
4" TO 18"	100
20"	120
24"	160
30" TO 36"	200
42" TO 48"	240
54" TO 60"	300



NOTE:
 1. EXCEPT AS SPECIFIED ABOVE, TEST LEAD WIRES SHALL MEET REQUIREMENTS OF DETAIL C/3.0.
 2. RUN ALL WIRES IN 2" PVC SCH40 CONDUIT FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

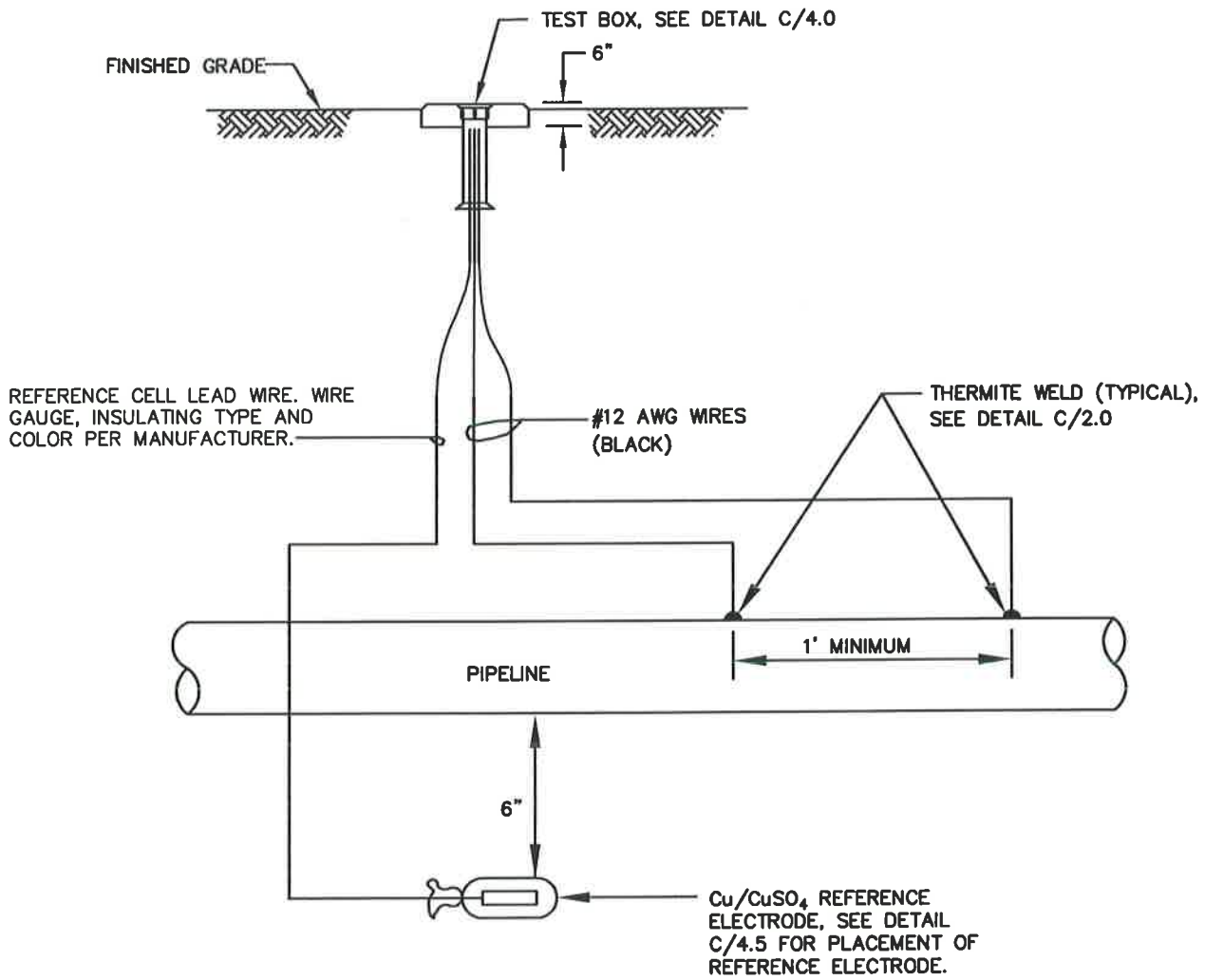
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STANDARD DETAIL
 IR DROP TEST
 STATION FOR
 DUCTILE IRON PIPE

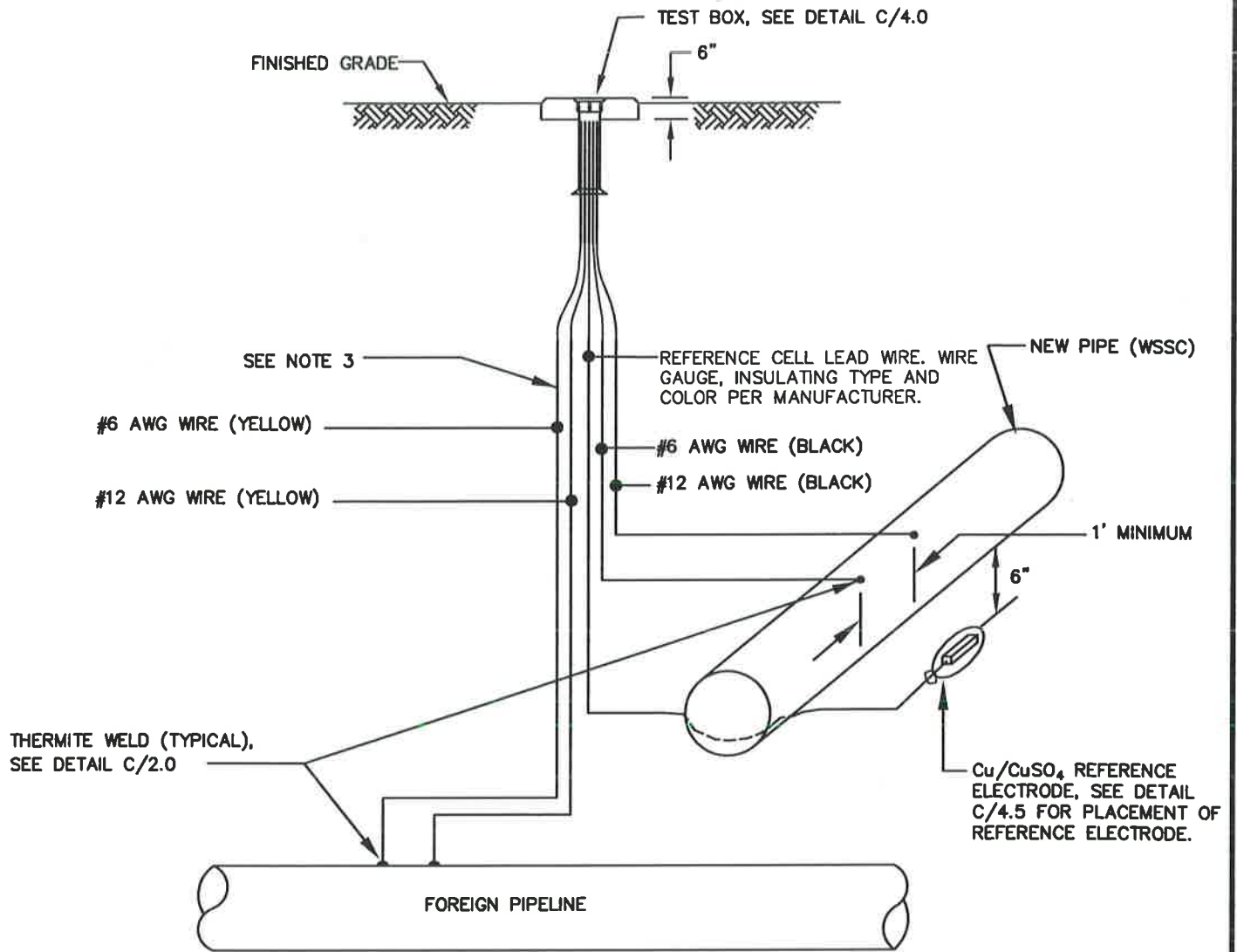
C
 4.6



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 SHC. 40 CONDUIT FROM THE CONNECTION POINT UNTIL THEY REACH THE BOTTOM OF THE TEST STATION ASSEMBLY.

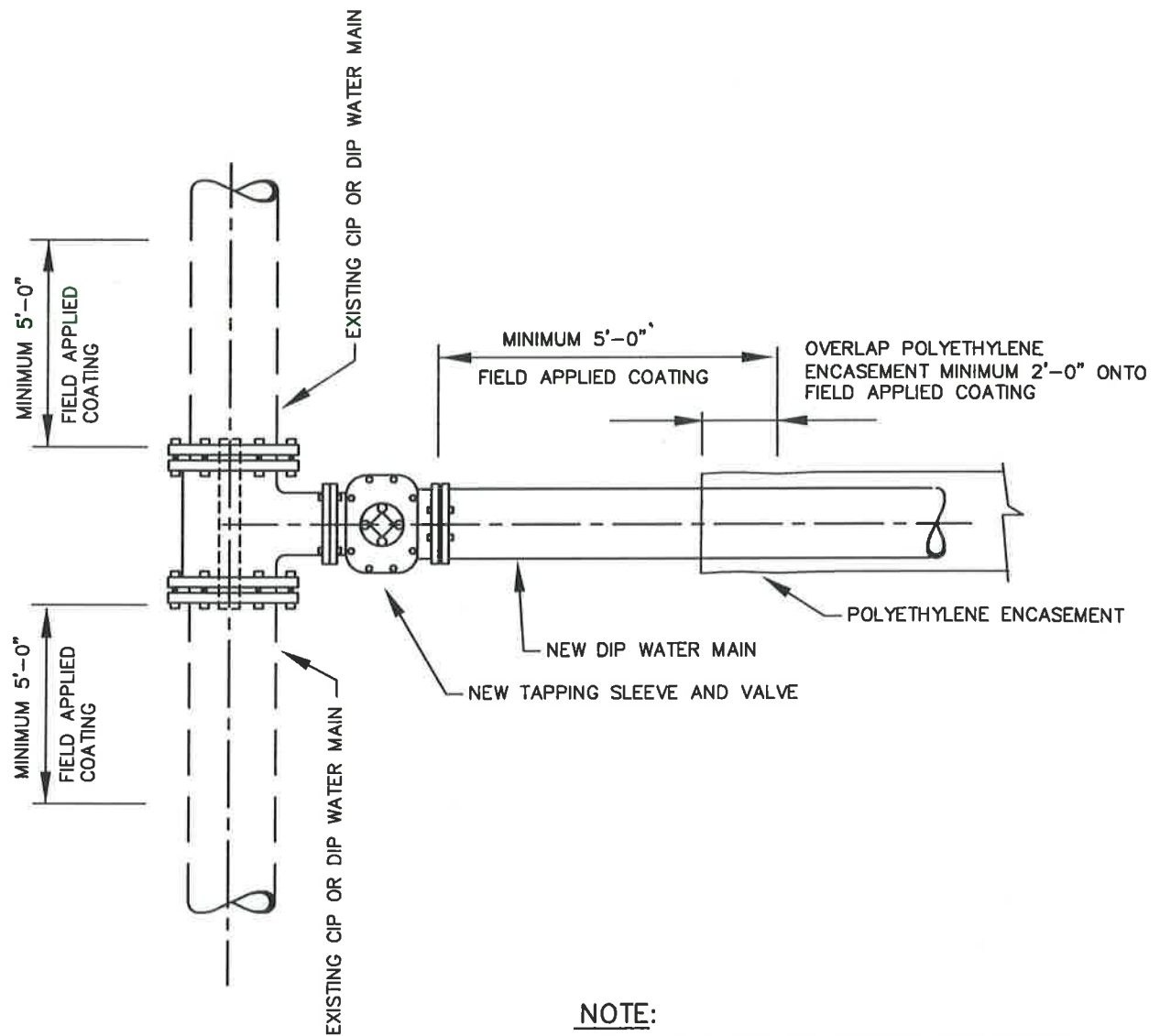
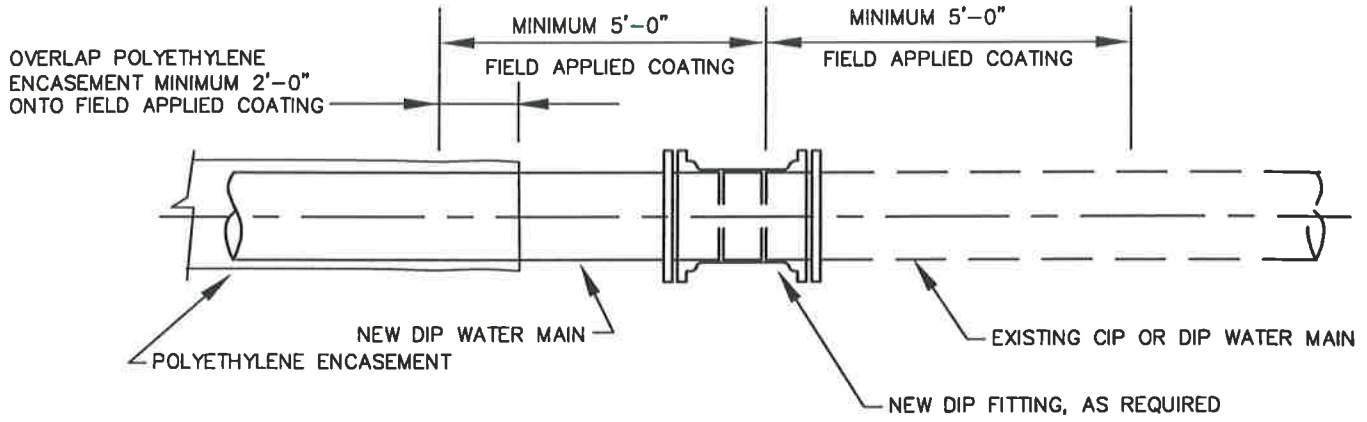
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL TEST STATION WITH REFERENCE CELL	$\frac{C}{4.5}$
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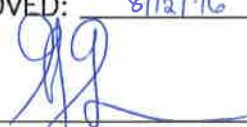
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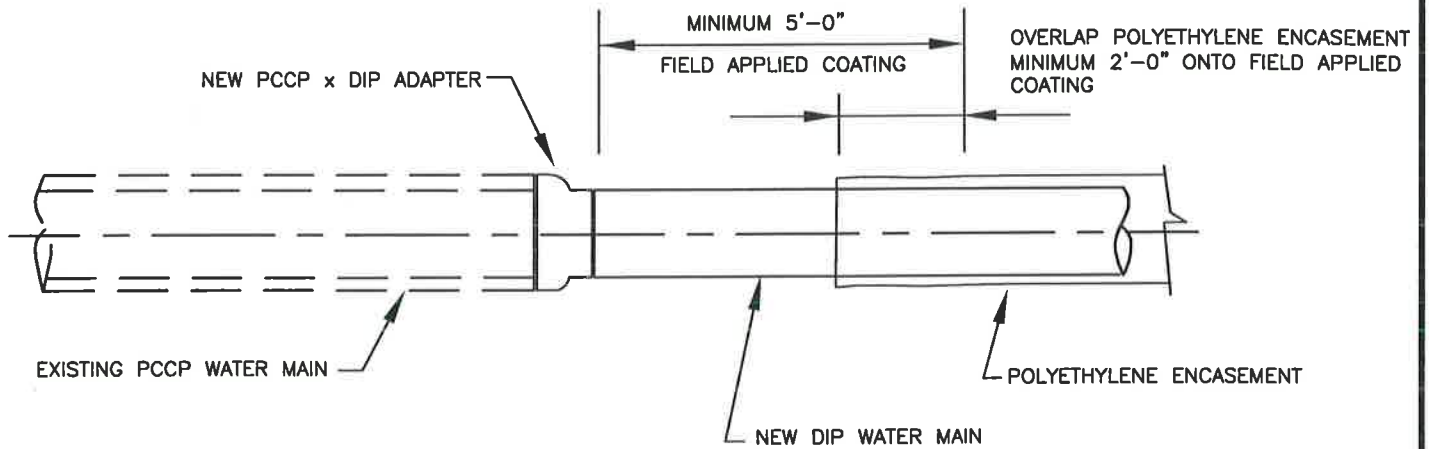
1. TEST LEAD WIRES SHALL MEET REQUIREMENTS OF DETAIL C/3.0, NOTE 1.
2. NOTIFY FOREIGN PIPELINE COMPANY IN ADVANCE FOR PERMISSION TO ATTACH WIRES TO THEIR PIPE, OR FOR THE FOREIGN PIPELINE COMPANY TO ATTACH WIRES TO THEIR PIPELINE.
3. RUN ALL WIRES IN 2" PVC SCH40 CONDUIT FROM CONNECTION POINTS UNTIL THEY REACH THE BOTTOM OF TEST STATION ASSEMBLY.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL TEST STATION AT FOREIGN PIPELINE CROSSING	$\frac{C}{4.7}$
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NOTE:
FOR FIELD APPLIED COATING, SEE SPECIFICATIONS.

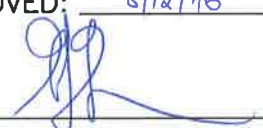
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>8/12/16</u>  Chief Engineer	STANDARD DETAIL FIELD APPLIED COATING WHEN CONNECTING TO EXISTING CIP AND DIP WATER MAINS	C 5.0
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NOTE:

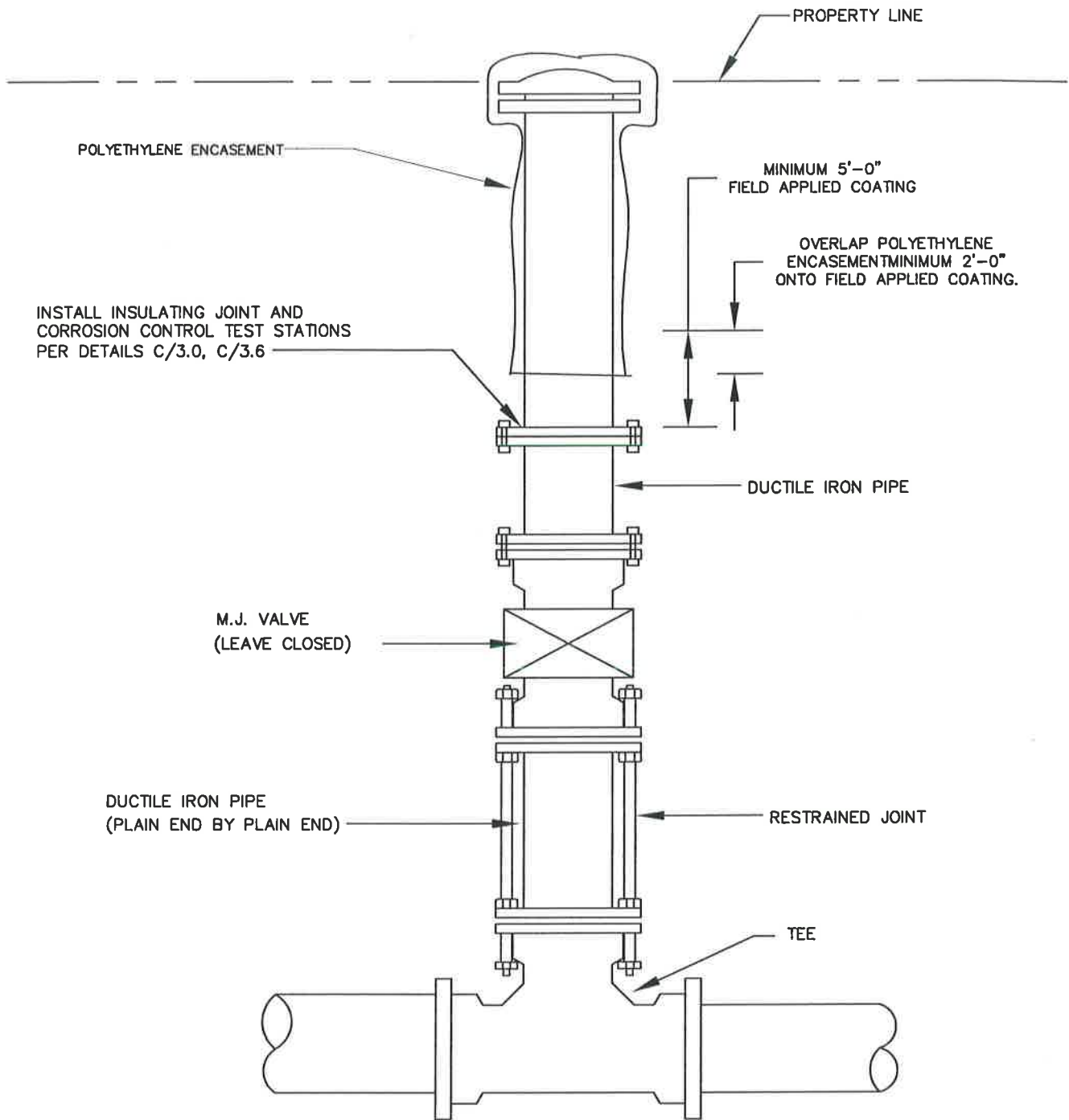
FOR FIELD APPLIED COATING, SEE SPECIFICATIONS.

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APPROVED: 8/12/16

Chief Engineer

STANDARD DETAIL
FIELD APPLIED COATING
WHEN CONNECTING TO EXISTING
PCCP WATER MAINS

C
5.1



NOTES:

1. FOR INSTALLATION OF WHC, SEE STANDARD DETAIL W/5.12

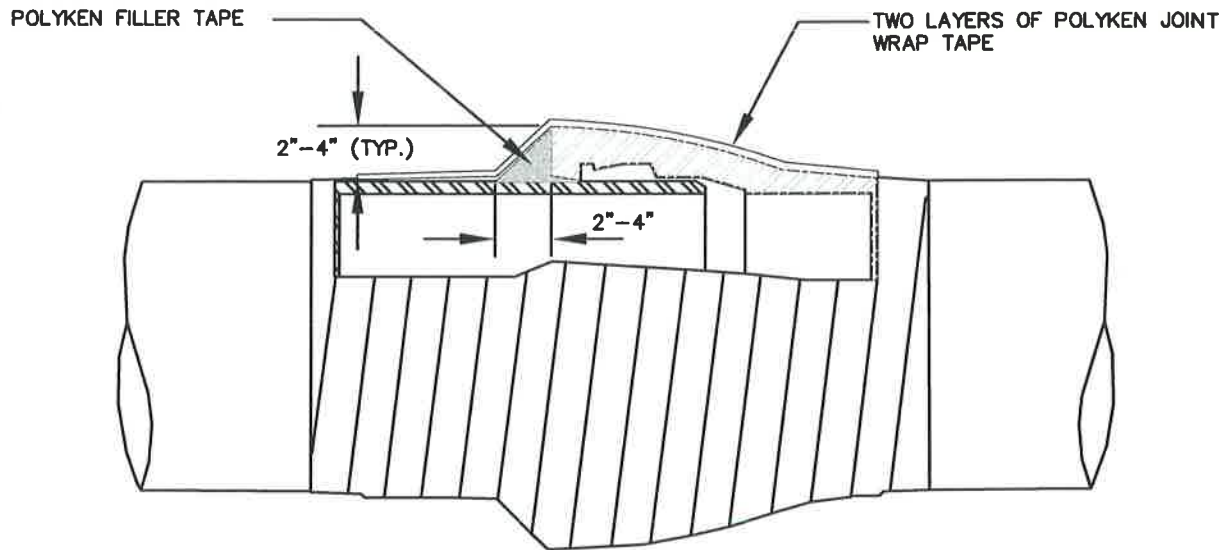
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APPROVED: 8/12/16

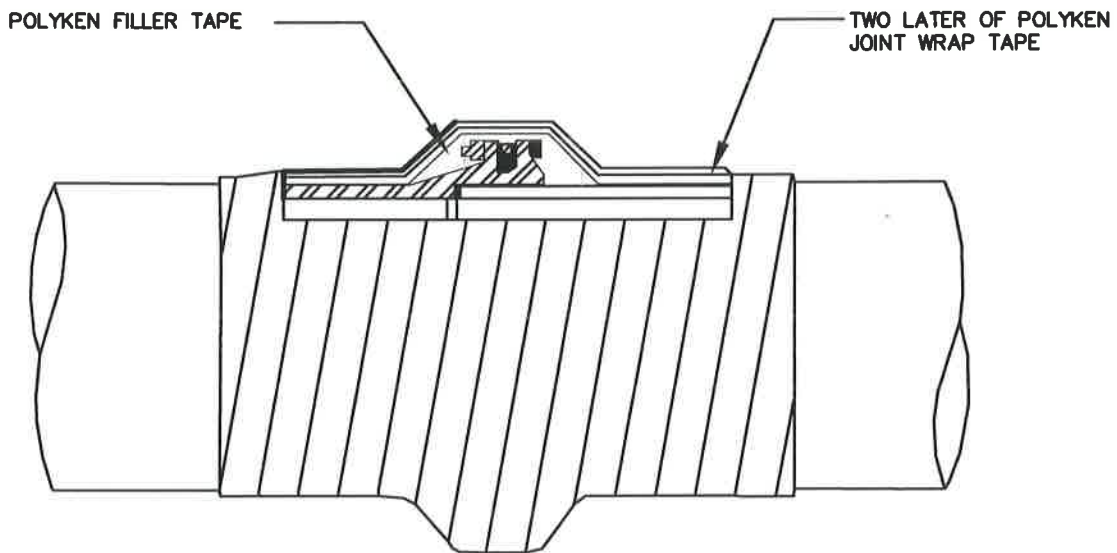
Chief Engineer

STANDARD DETAIL
**3" THRU 12" DUCTILE IRON
WATER HOUSE CONNECTION
INSULATING JOINT**

C
5.2



BELL AND SPIGOT JOINT




MEGALUG JOINT

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.

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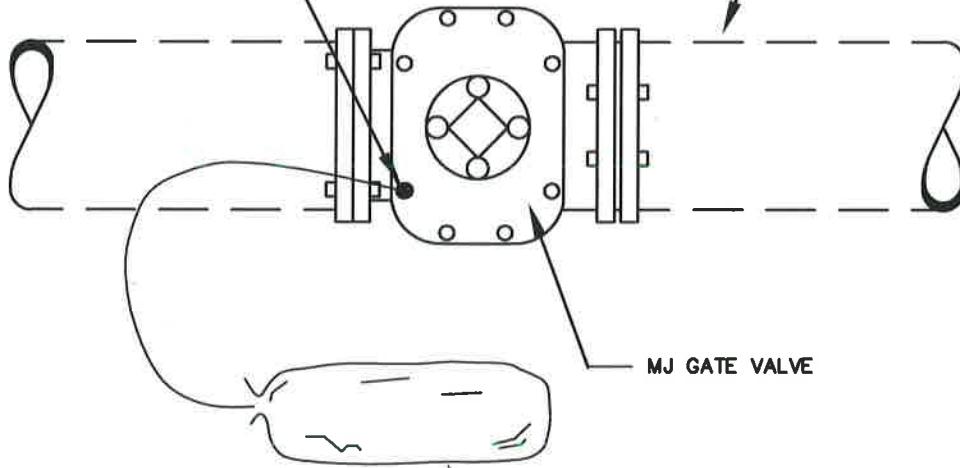
Chief Engineer

STANDARD DETAIL
**JOINT COATING
DETAIL**

C
6.0

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

4", 6", 8", OR 10" PVC PIPE



MJ GATE VALVE

INSTALL ONE 17 POUND PREPACKAGED MAGNESIUM ANODE.

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.

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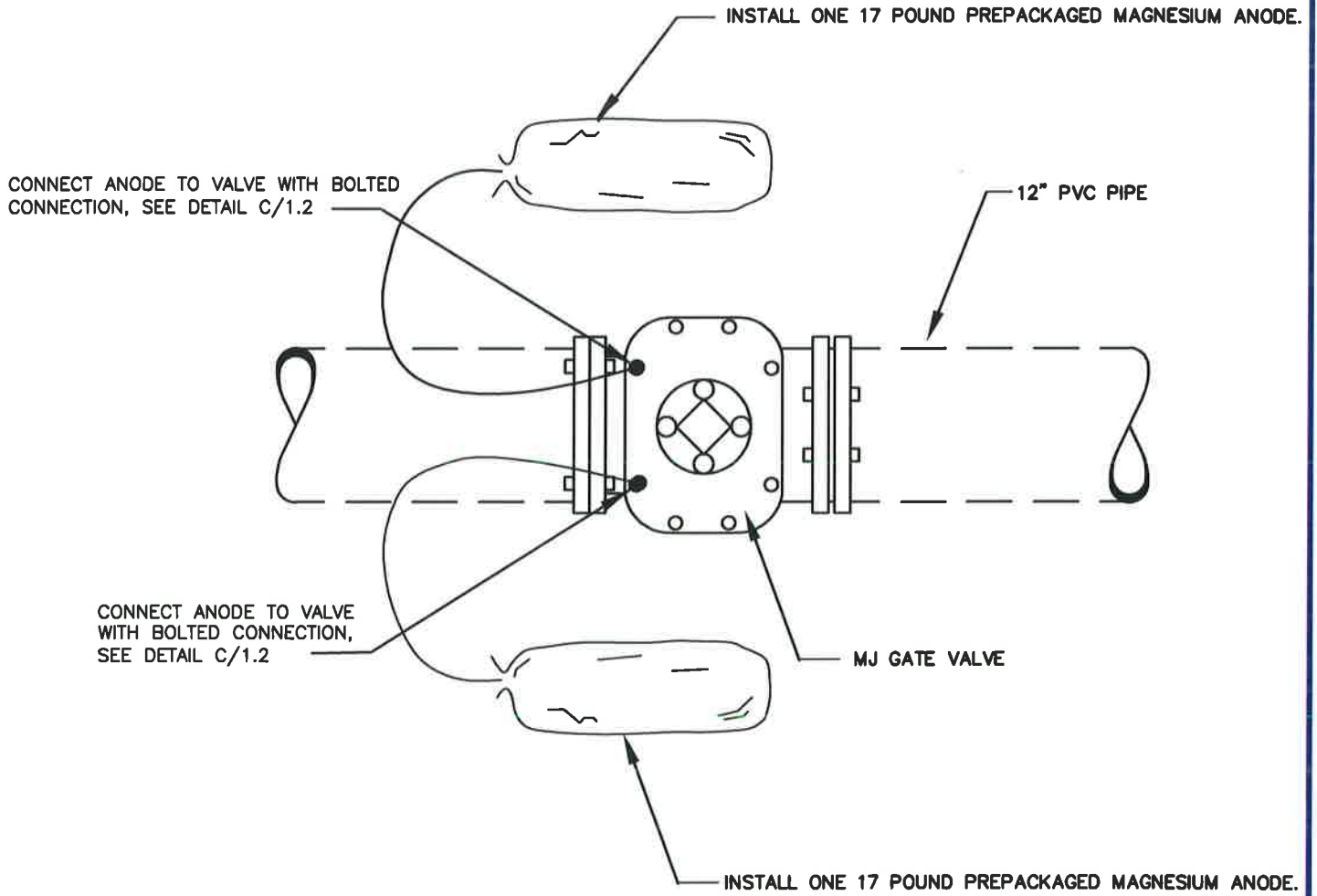
9/29/16

Chief Engineer

STANDARD DETAIL


PVC AWWA C-900 PIPE
4-INCH, 6-INCH, 8-INCH, OR 10-INCH
ANODE PROTECTION VALVE

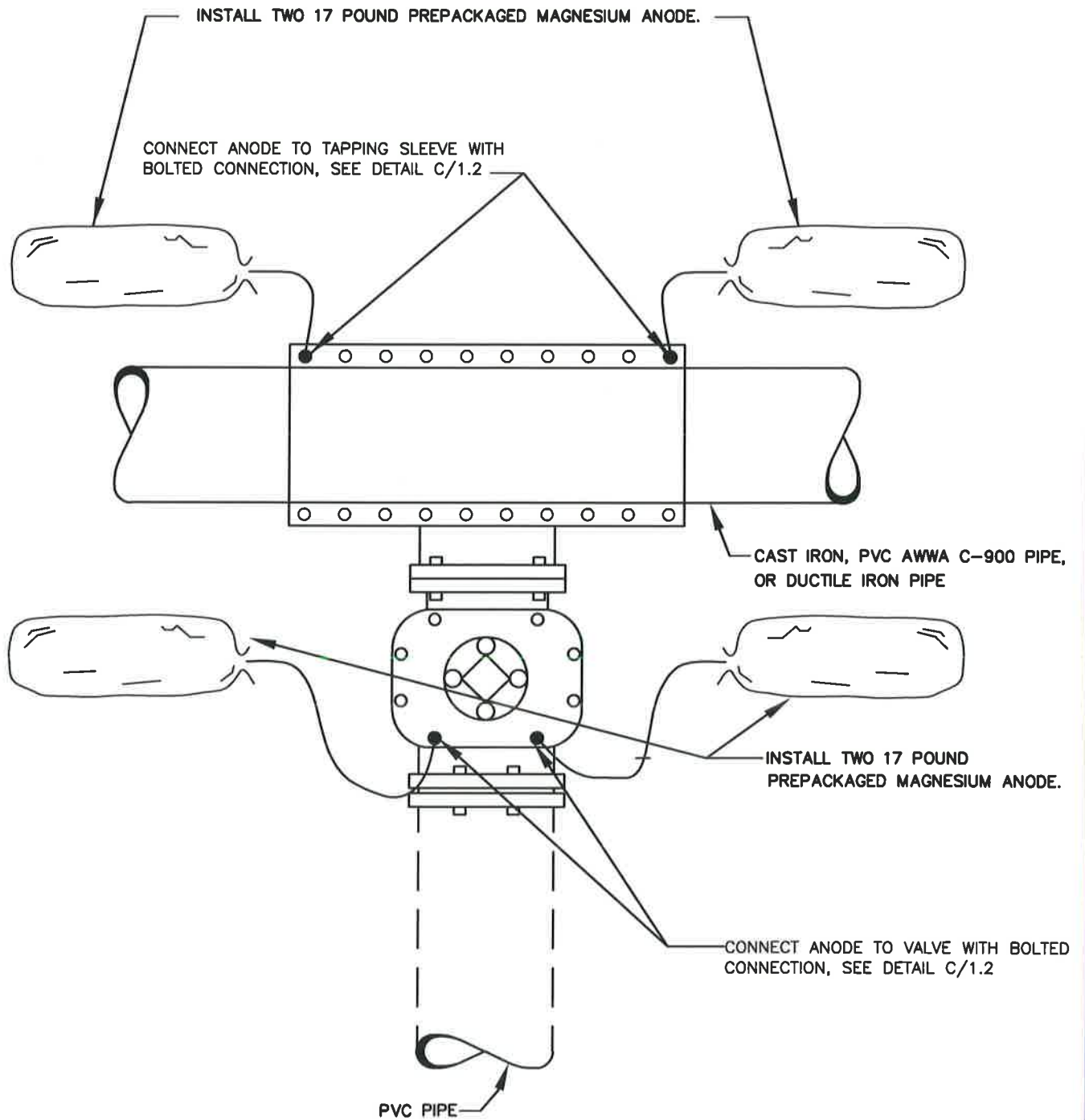
C
7.0



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.


WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/27/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE 12-INCH ANODE PROTECTION VALVE	$\frac{C}{7.1}$
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NOTES:

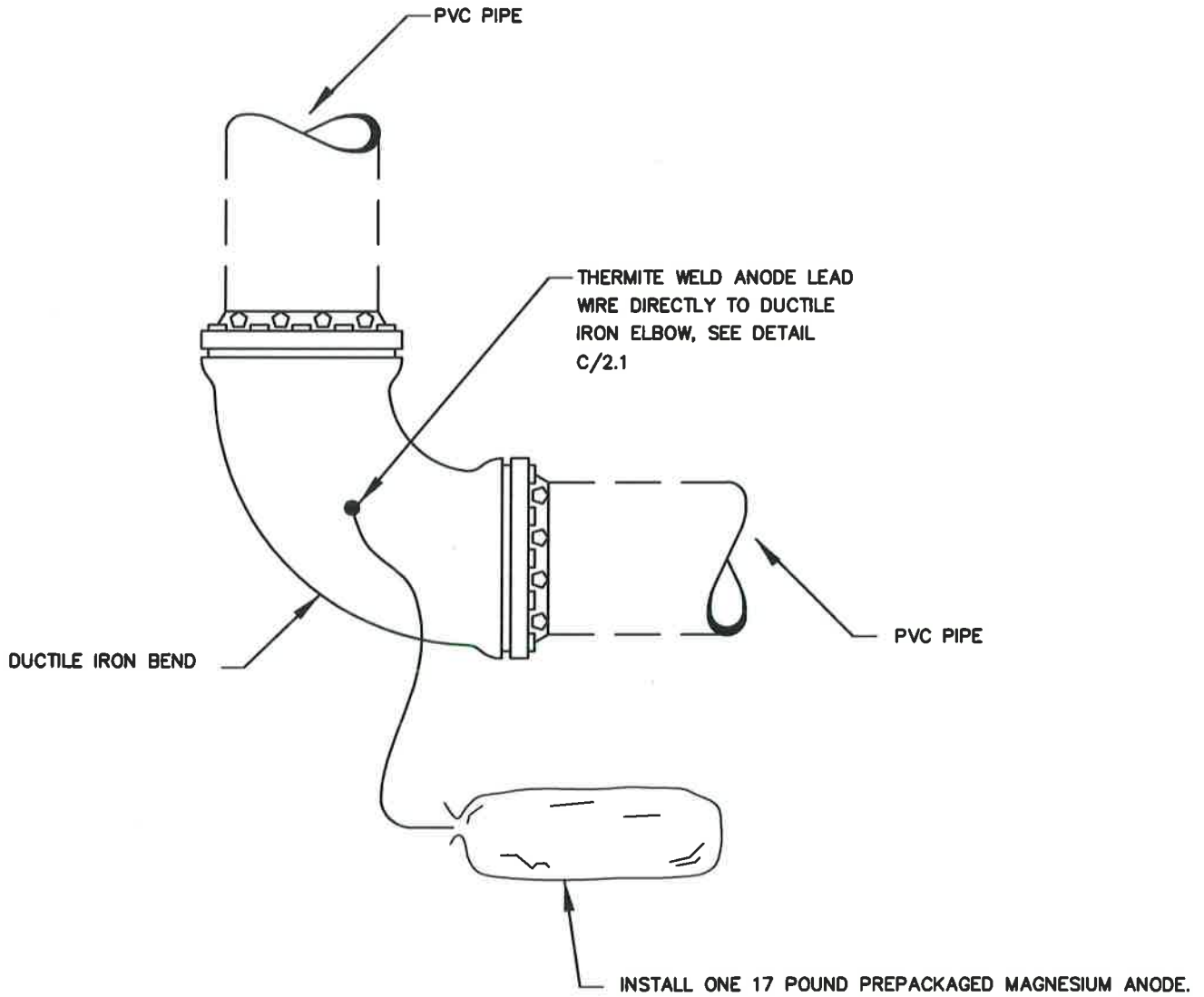
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.13.
2. DO NOT THERMITE WELD TO PVC PIPE.

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APPROVED: 9/29/16

Chief Engineer


STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
TAPPING SLEEVE AND VALVE

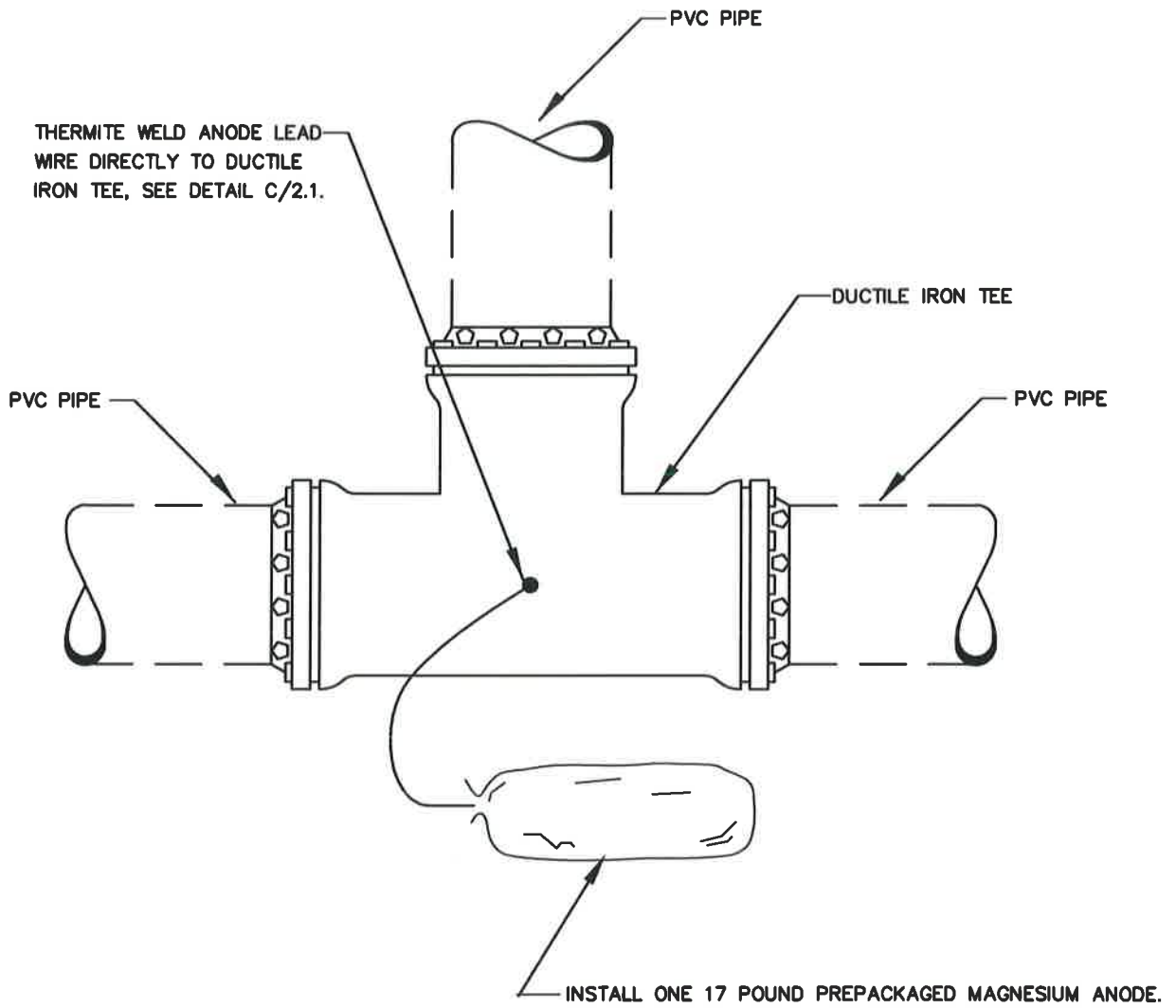
$\frac{C}{7.2}$



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.

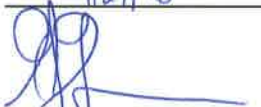
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/29/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE 4-INCH TO 12-INCH ANODE PROTECTION FOR BENDS	$\frac{C}{7.3}$
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NOTES:

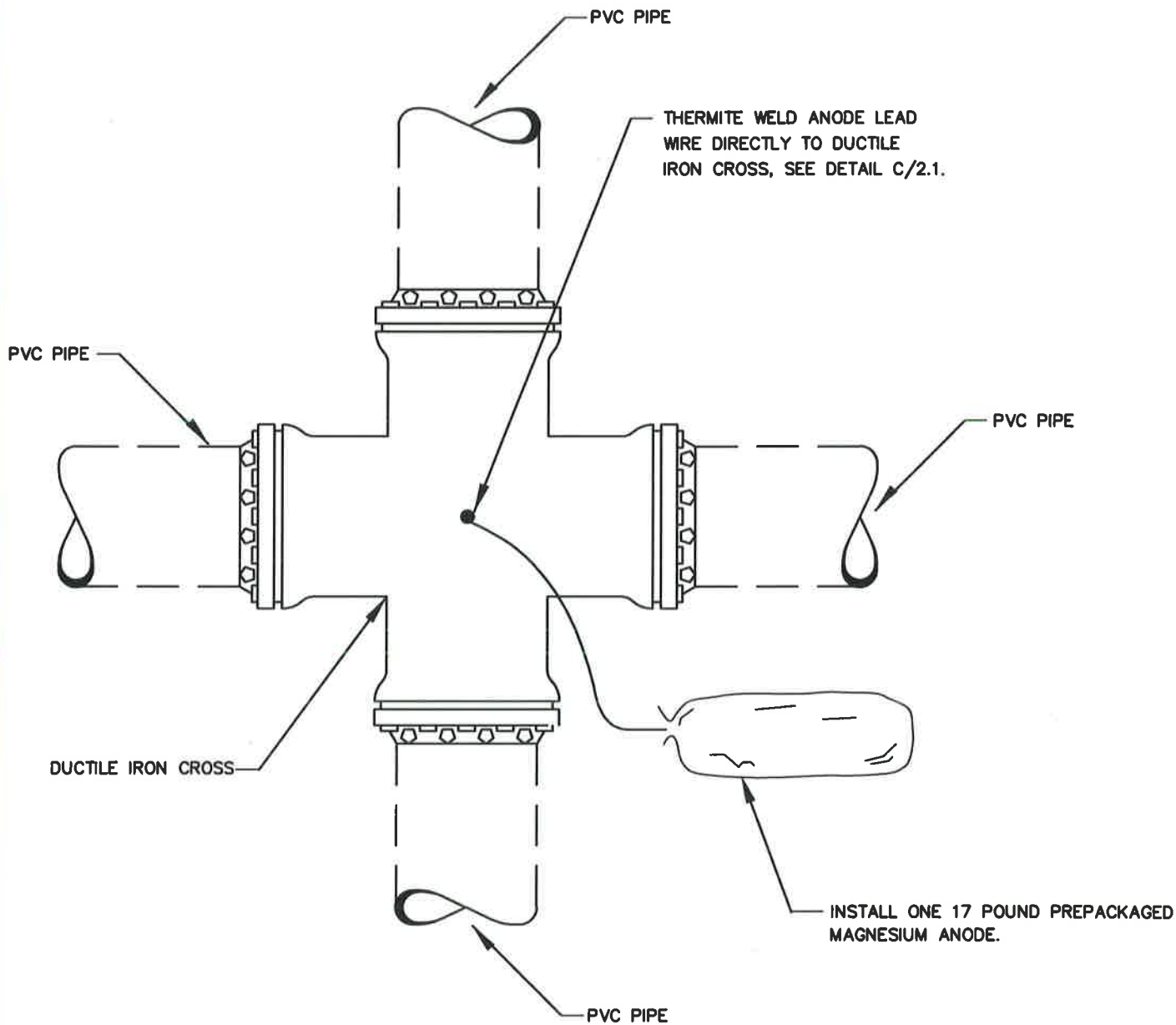
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.

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APPROVED: 9/29/16

Chief Engineer

STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
ANODE PROTECTION FOR TEE

C
7.4



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.

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APPROVED:

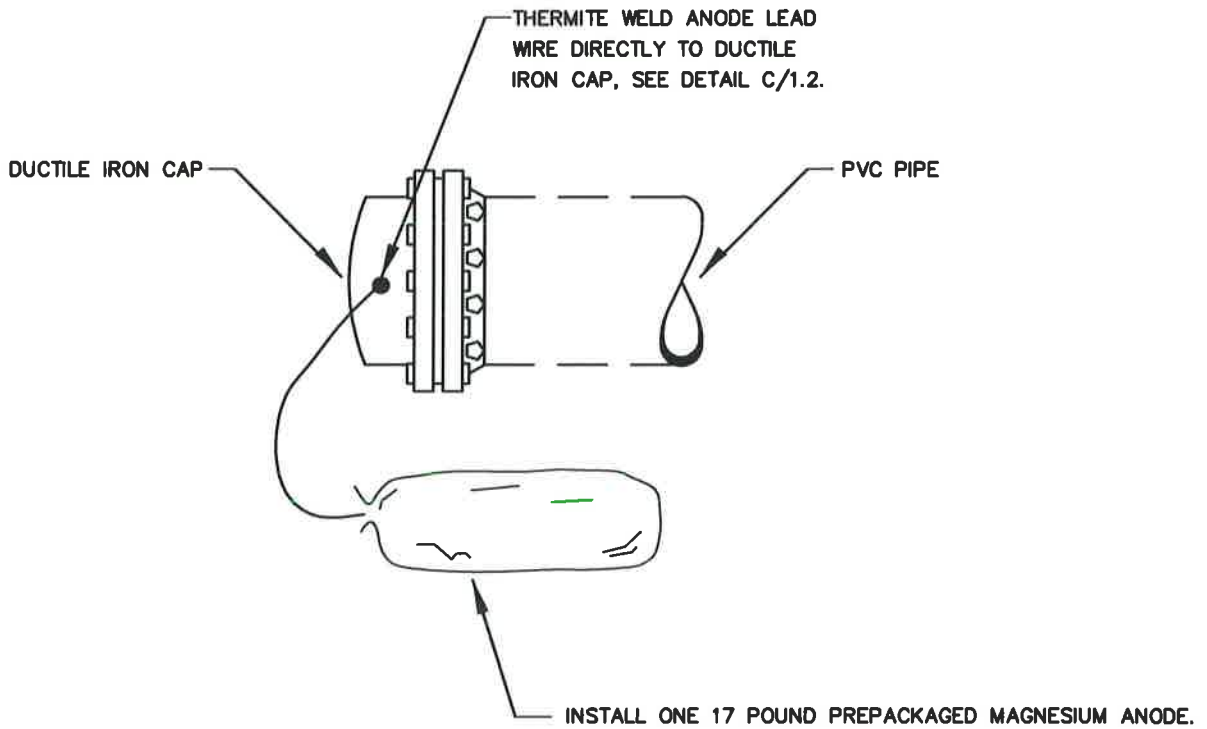
9/29/16

Chief Engineer

STANDARD DETAIL


PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
ANODE PROTECTION FOR CROSS

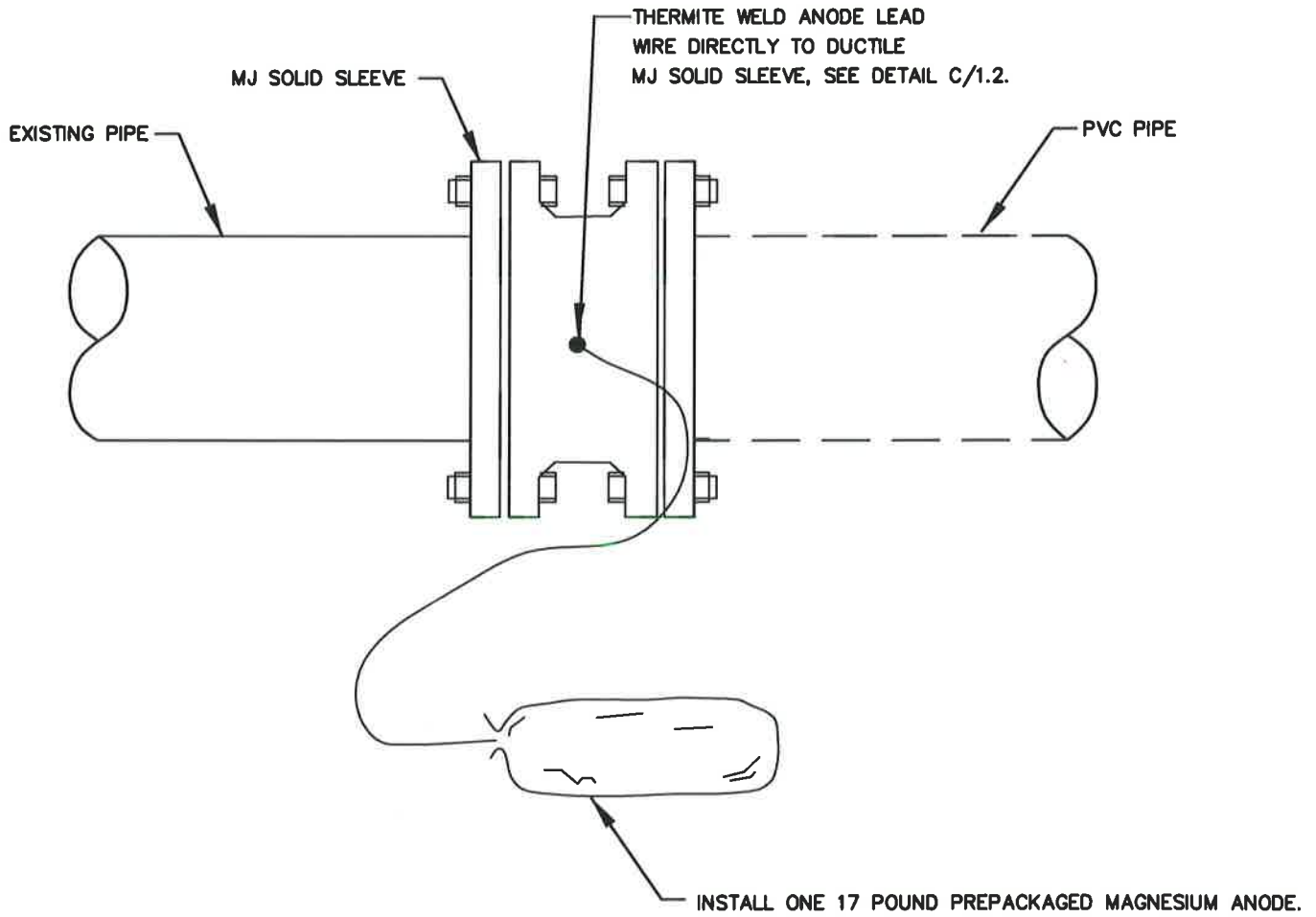
C
7.5



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.

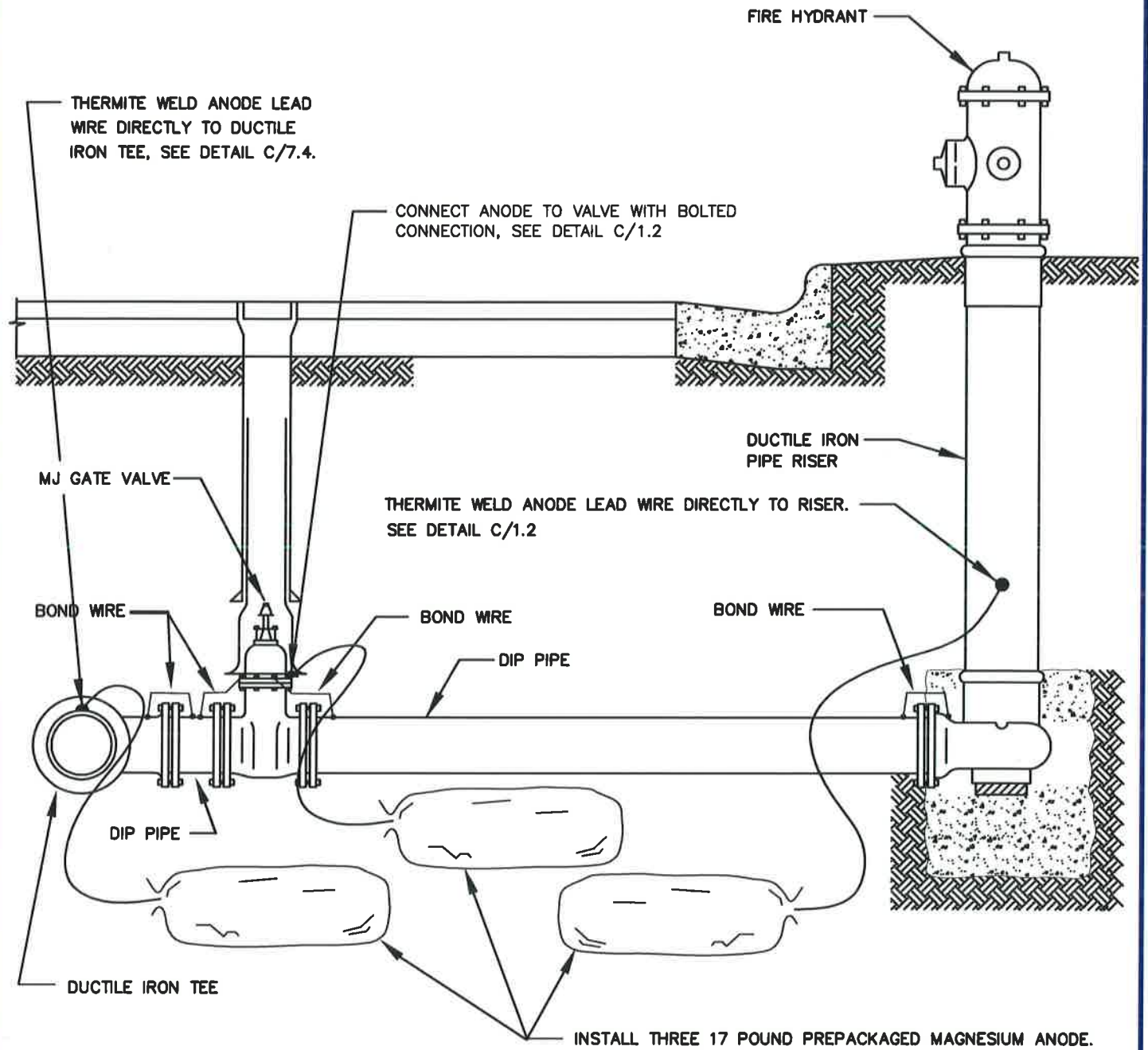
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/29/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE 4-INCH TO 12-INCH ANODE PROTECTION FOR CAP	$\frac{C}{7.6}$
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NOTES:


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.

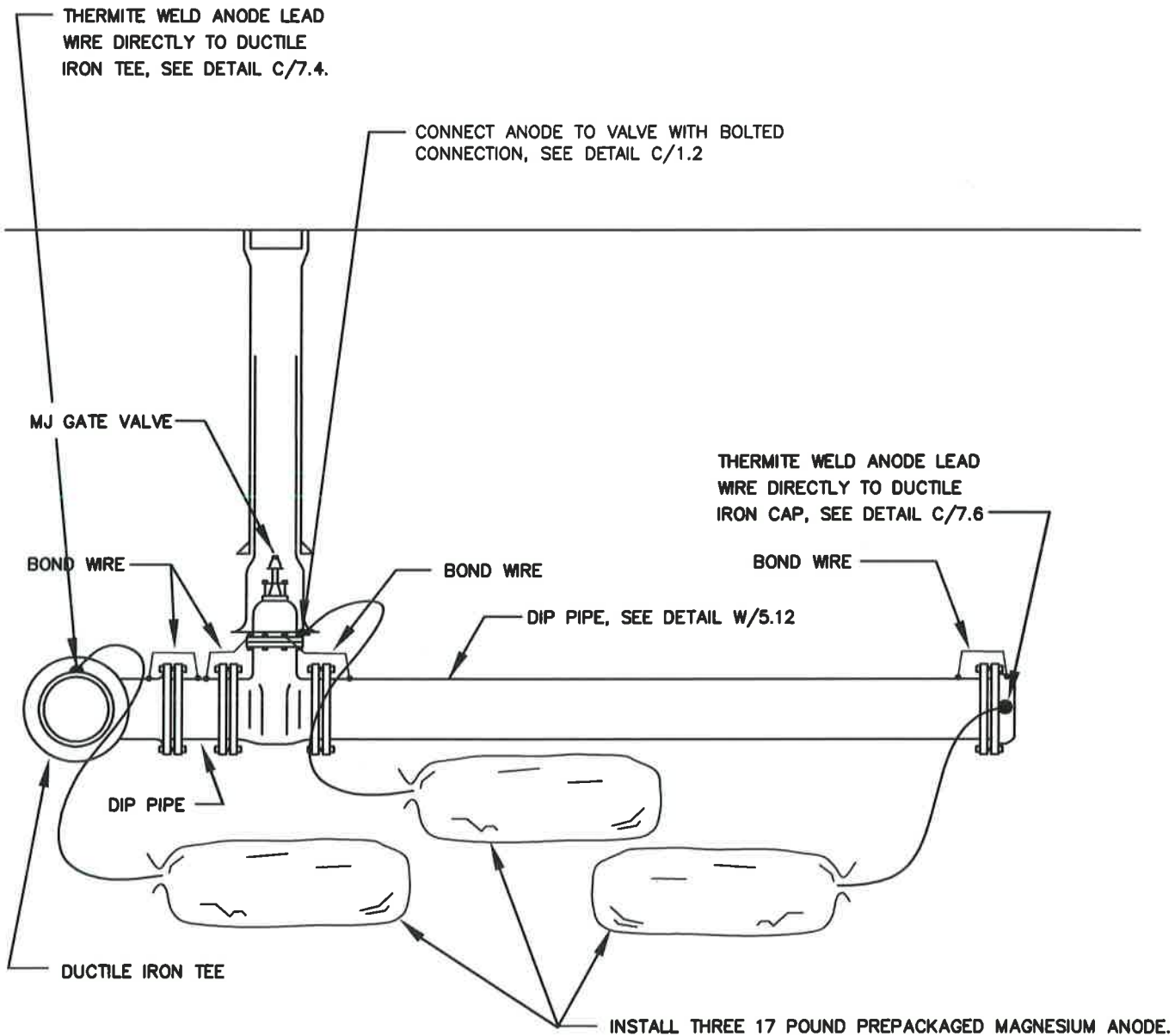
WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/29/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE 4-INCH TO 12-INCH ANODE PROTECTION FOR MJ SOLID SLEEVE	$\frac{C}{7.7}$
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NOTES:

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.


WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/29/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE ANODE PROTECTION FOR FIRE HYDRANT LEAD PIPE	$\frac{C}{7.8}$
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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.

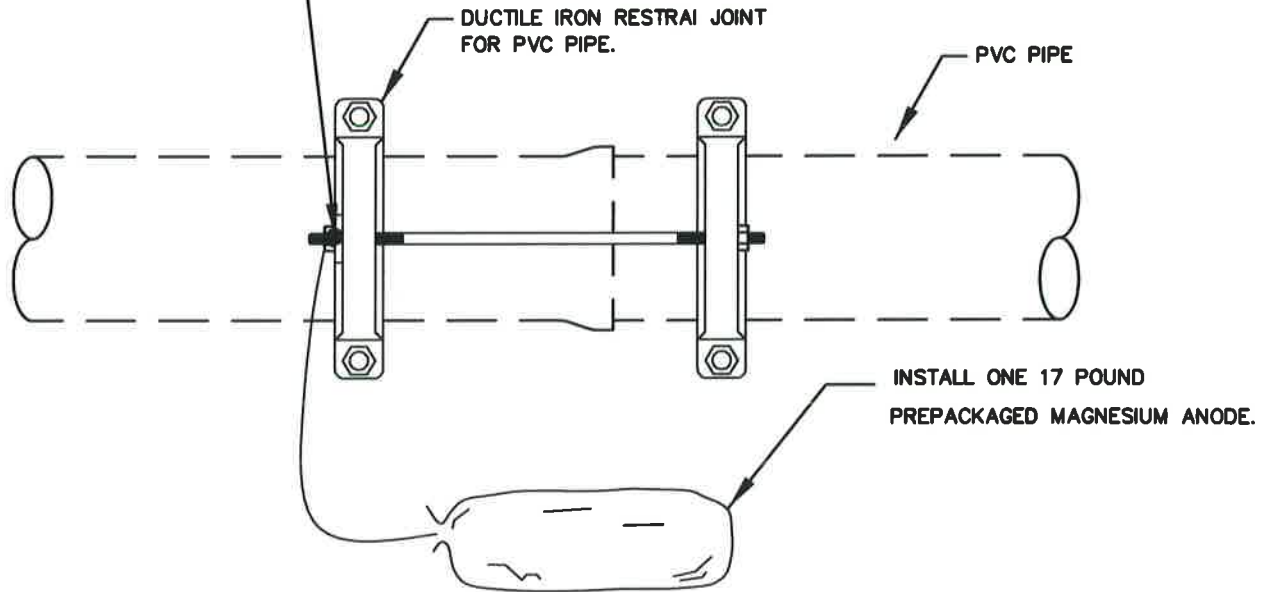
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STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
ANODE PROTECTION FOR
WATER HOUSE CONNECTION

C
7.9

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



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.

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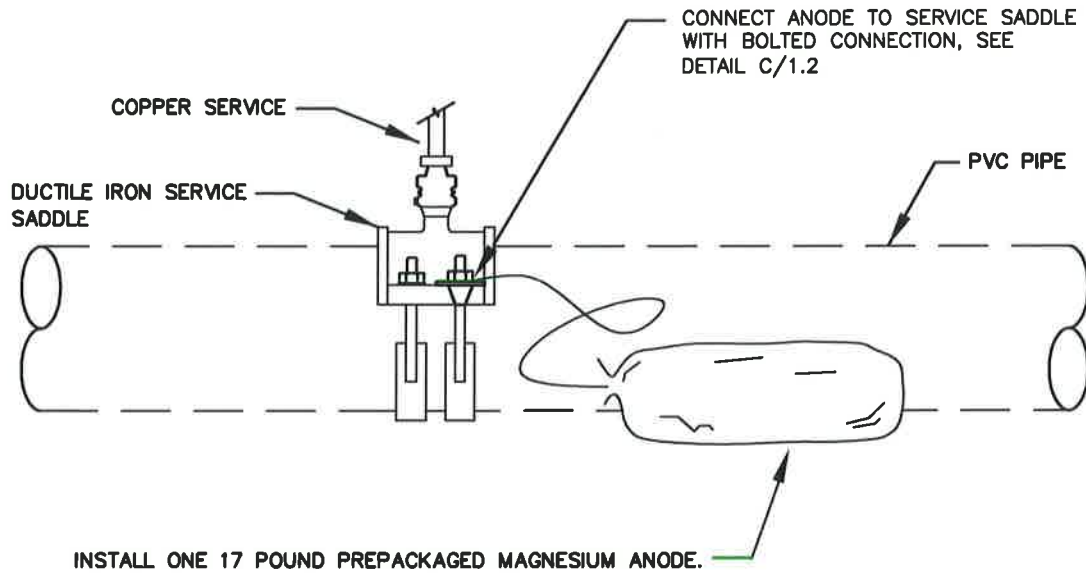
APPROVED: _____

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Chief Engineer

STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
ANODE PROTECTION FOR
RESTRAIN JOINT


C
7.10



NOTES:

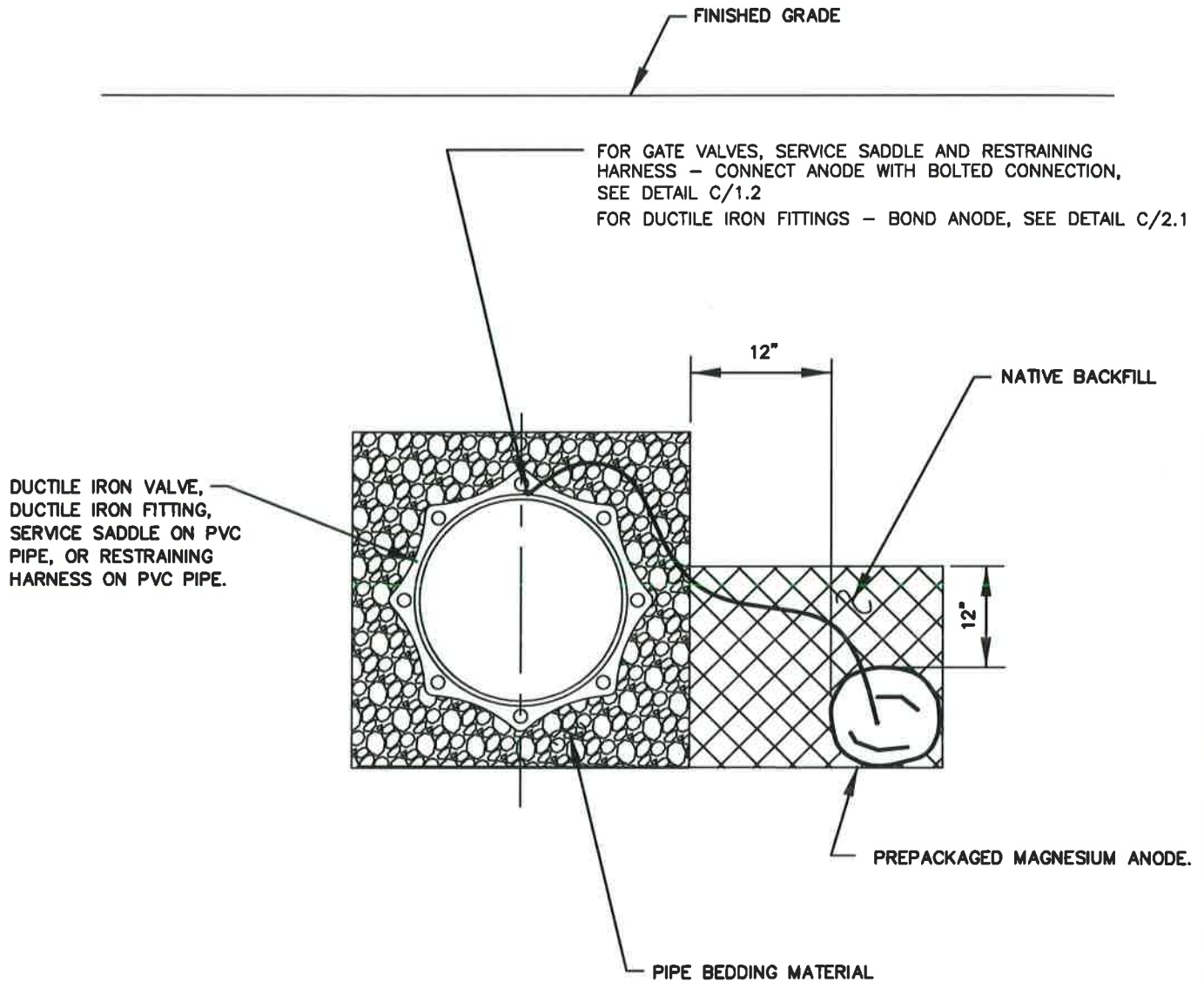
1. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE OF PIPE, SEE DETAIL C/7.12.
2. DO NOT THERMITE WELD TO PVC PIPE.

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STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
ANODE PROTECTION FOR
SERVICE SADDLE


C
7.11



NOTES:

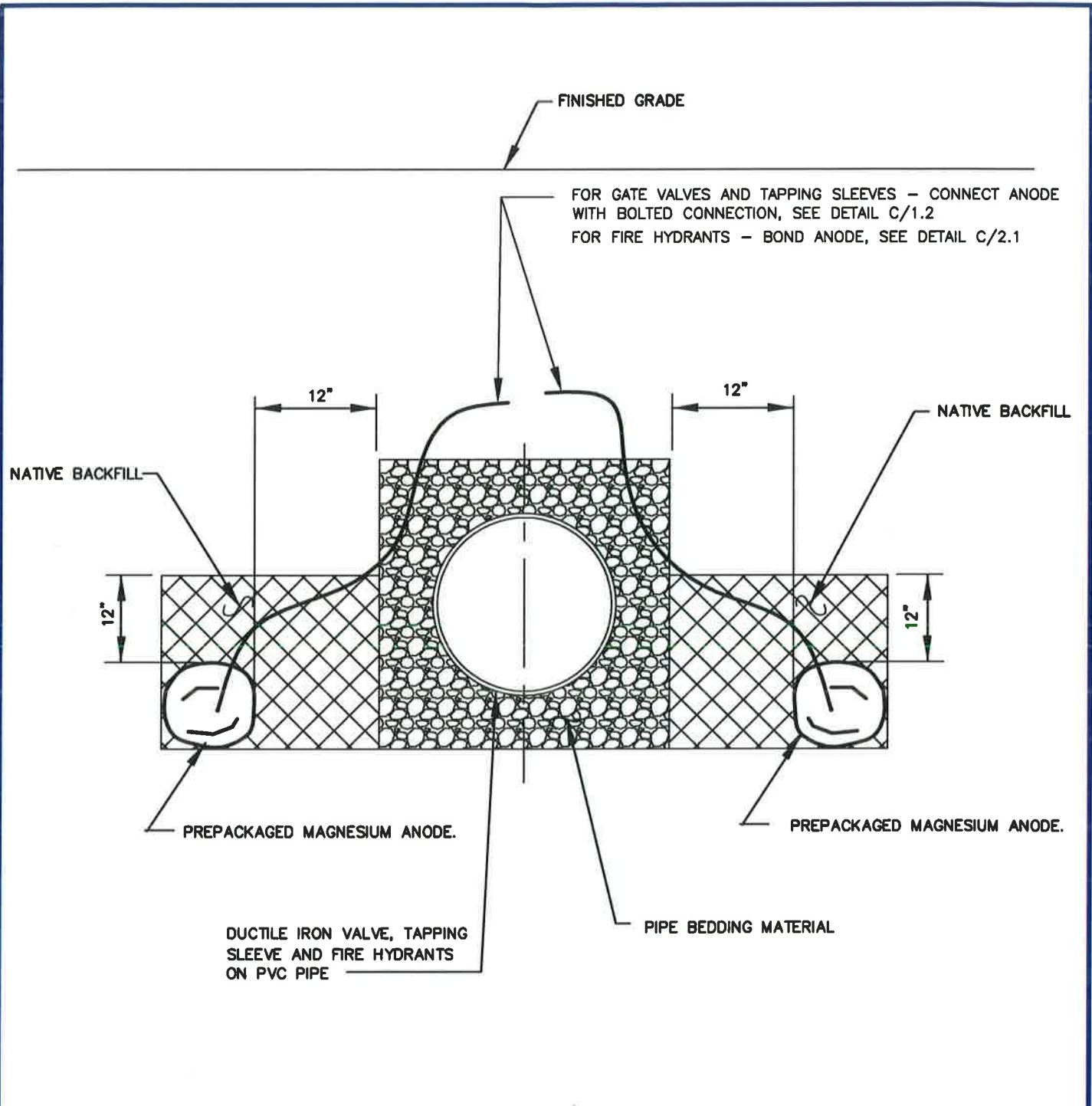
1. BACKFILL ANODES WITH NATIVE SOIL FOR A MINIMUM OF 12 INCHES ON ALL SIDES. DO NOT BACKFILL ANODES WITH SAND OR STONE.
2. DO NOT THERMITE WELD TO PVC PIPE.

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APPROVED: 9/29/16

Chief Engineer


STANDARD DETAIL
PVC AWWA C-900 PIPE
4-INCH TO 12-INCH
SINGLE ANODE PLACEMENT

C
7.12



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.

WASHINGTON SUBURBAN SANITARY COMMISSION	APPROVED: <u>9/29/16</u>  Chief Engineer	STANDARD DETAIL PVC AWWA C-900 PIPE 4-INCH TO 12-INCH MULTIPLE ANODE PLACEMENT	C 7.13
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