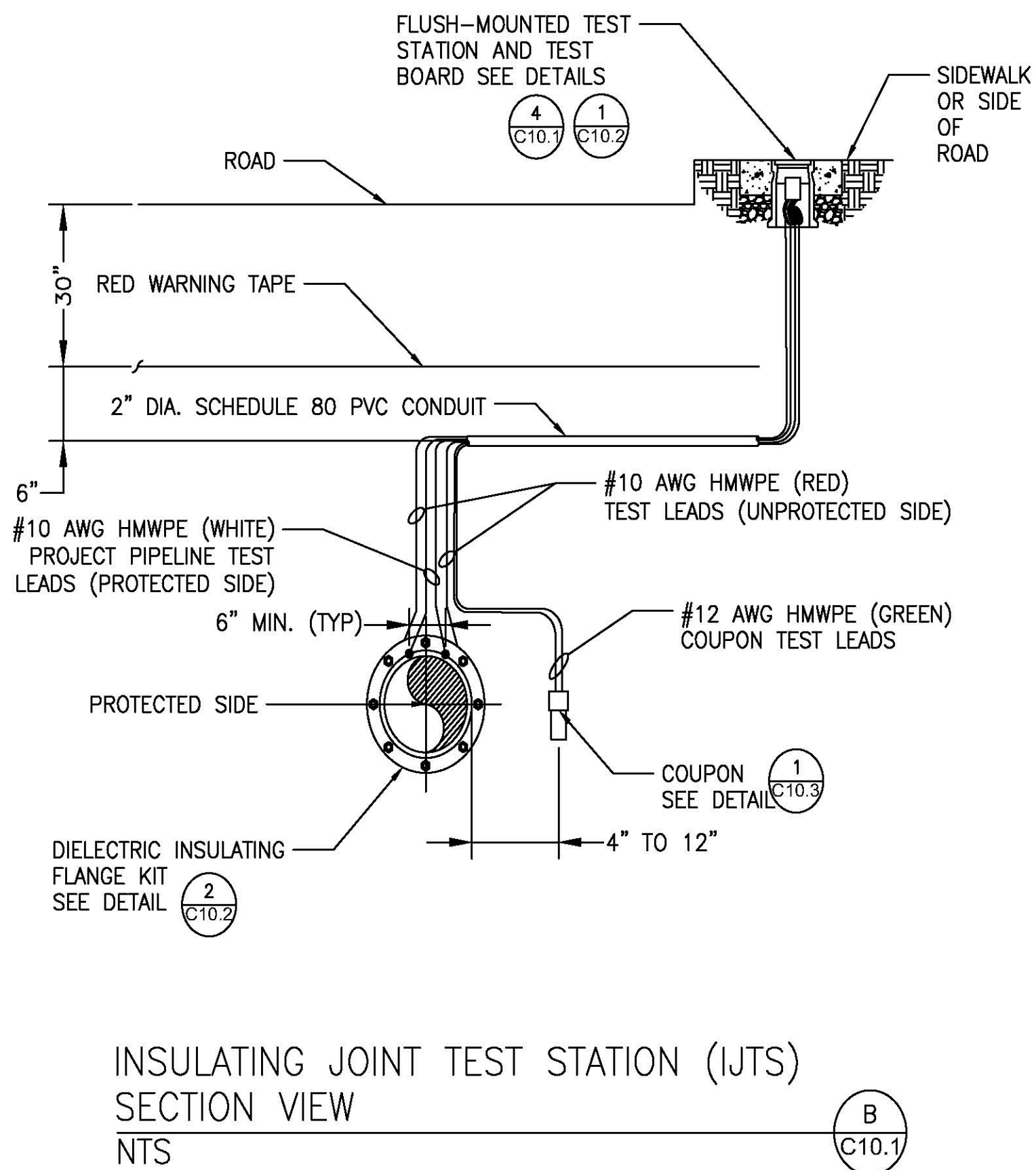
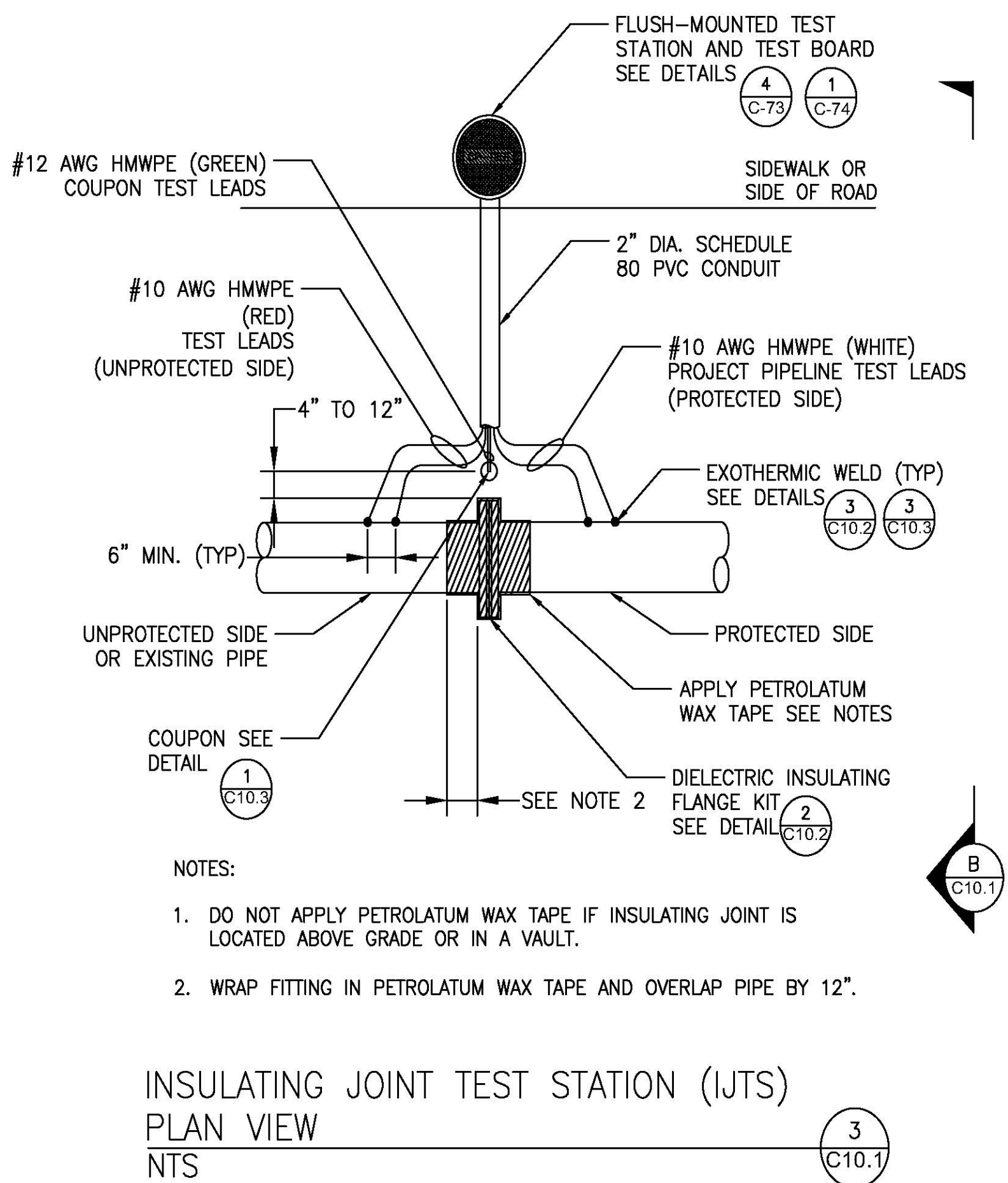
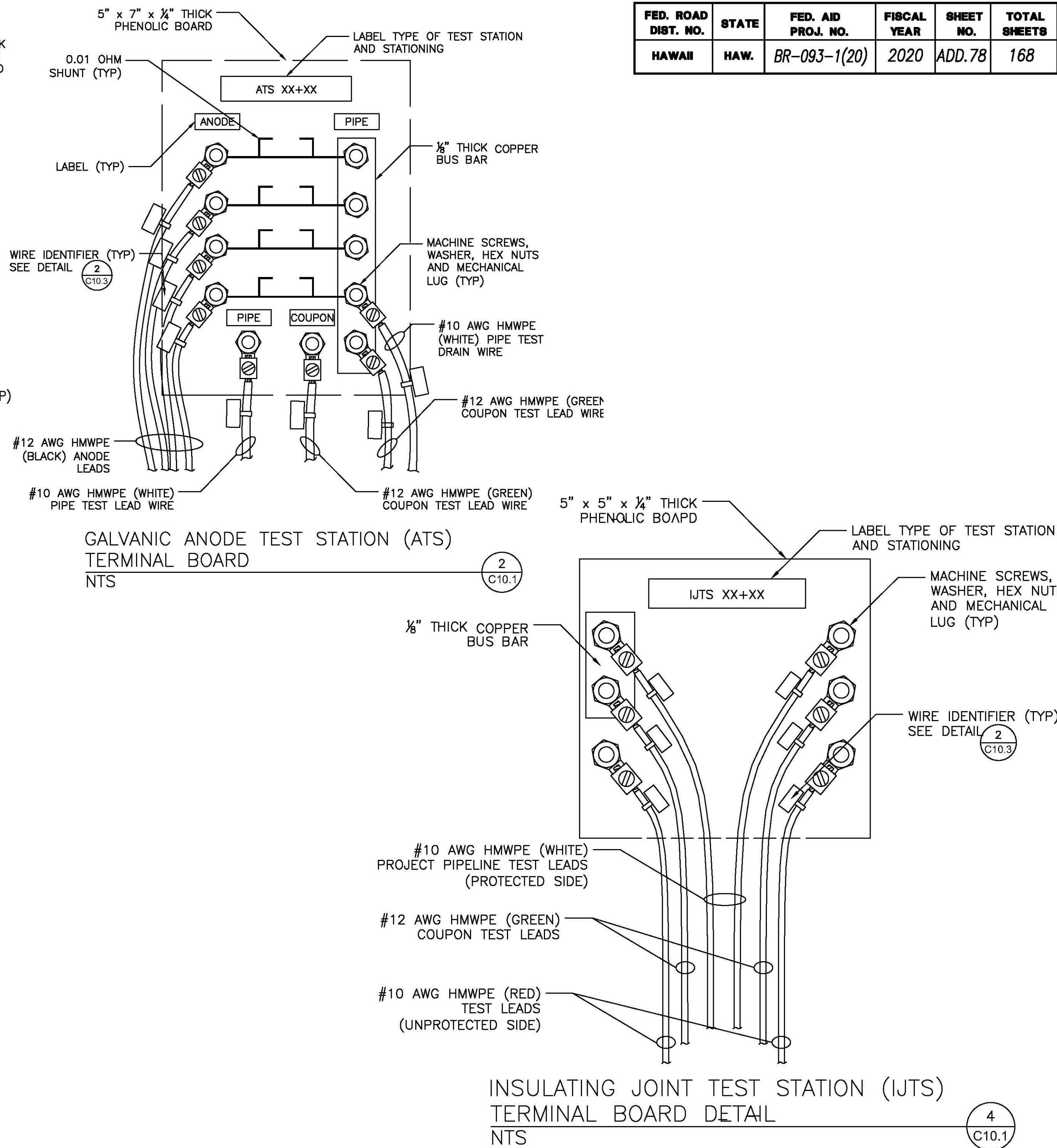
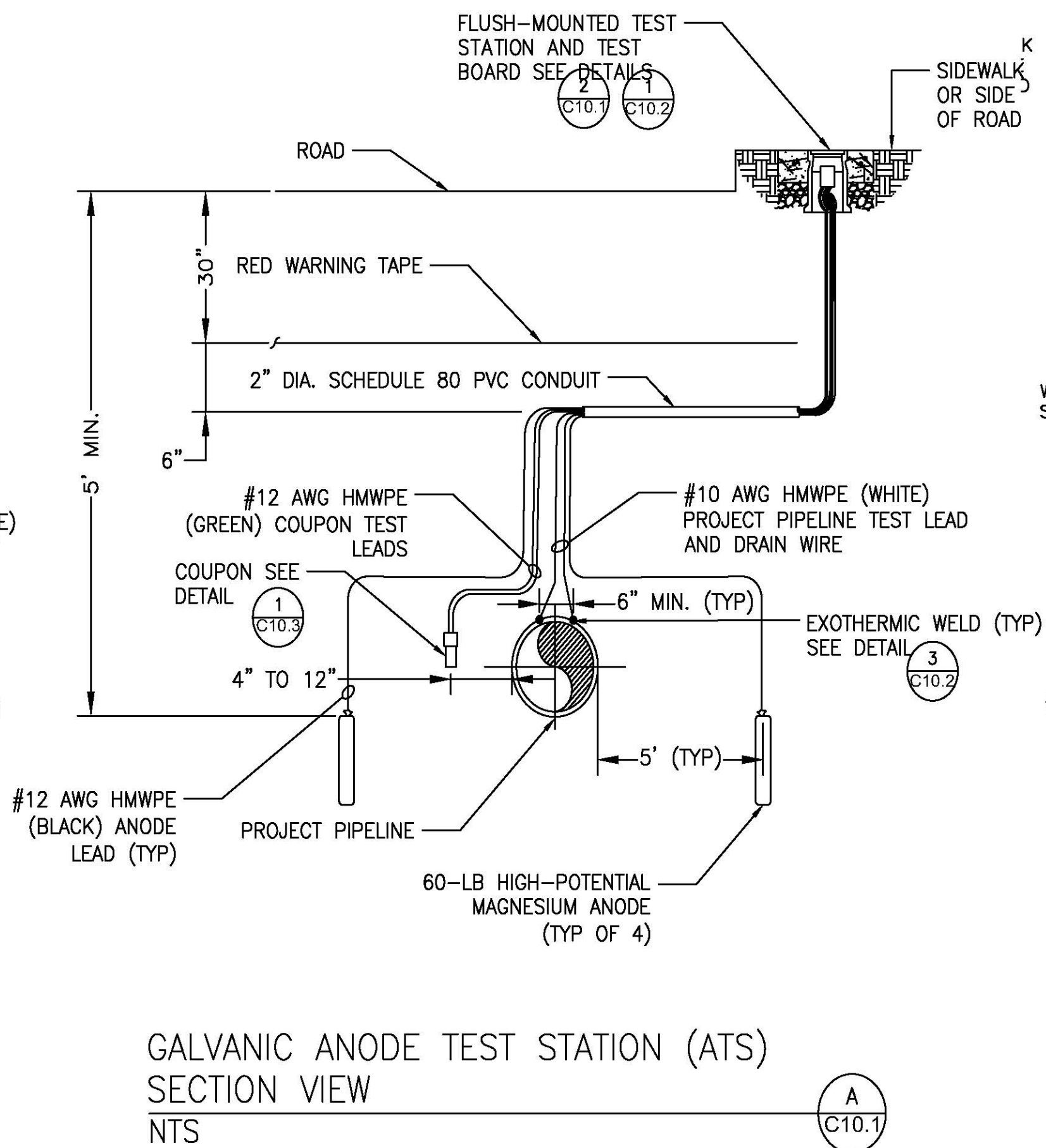
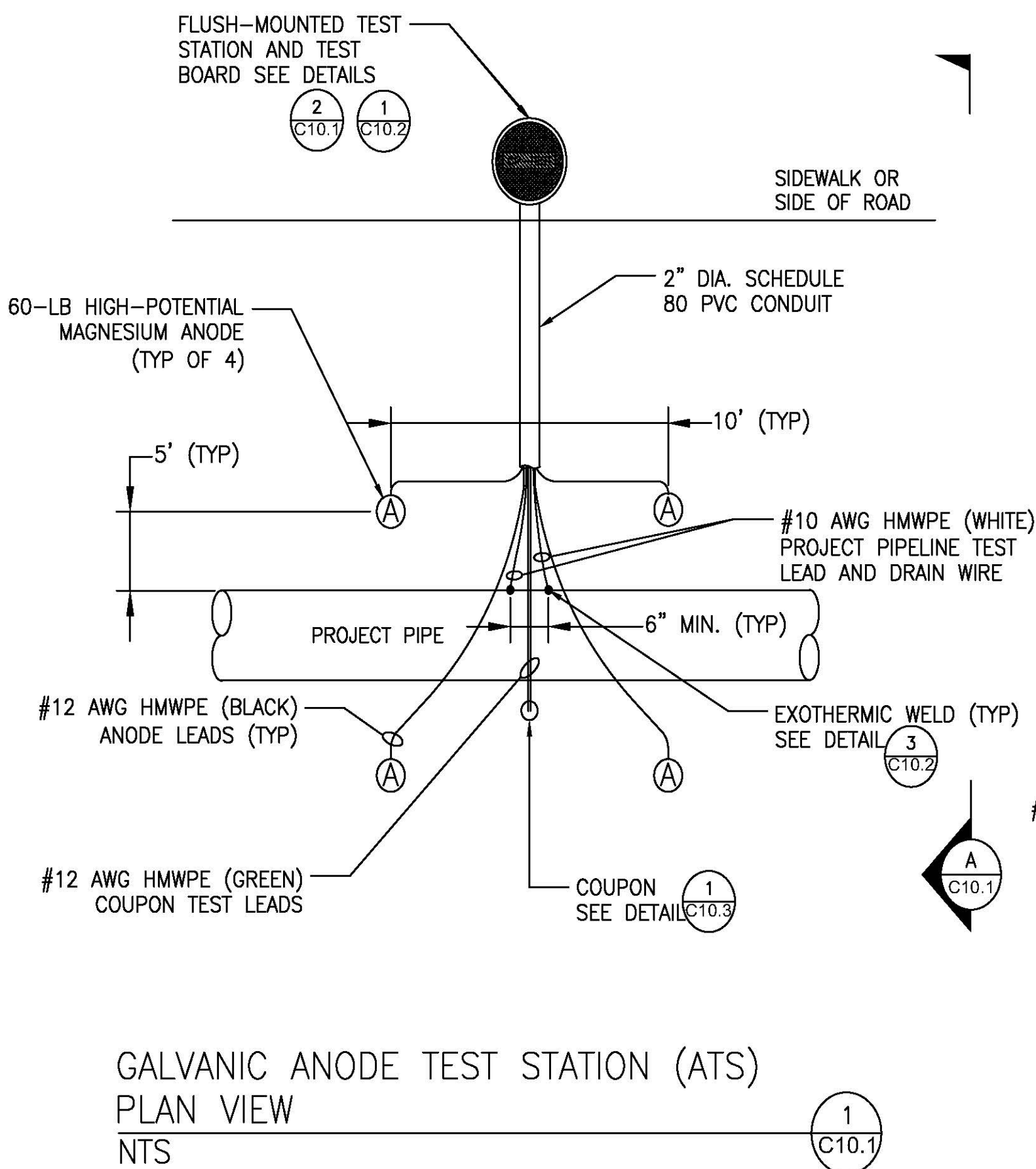


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-093-1(20)	2020	ADD.78	168



APPROVED:

Manager and Chief Engineer, Board of Water Supply  
(For work affecting BWS facilities in City/State R/W and easements only)

Date



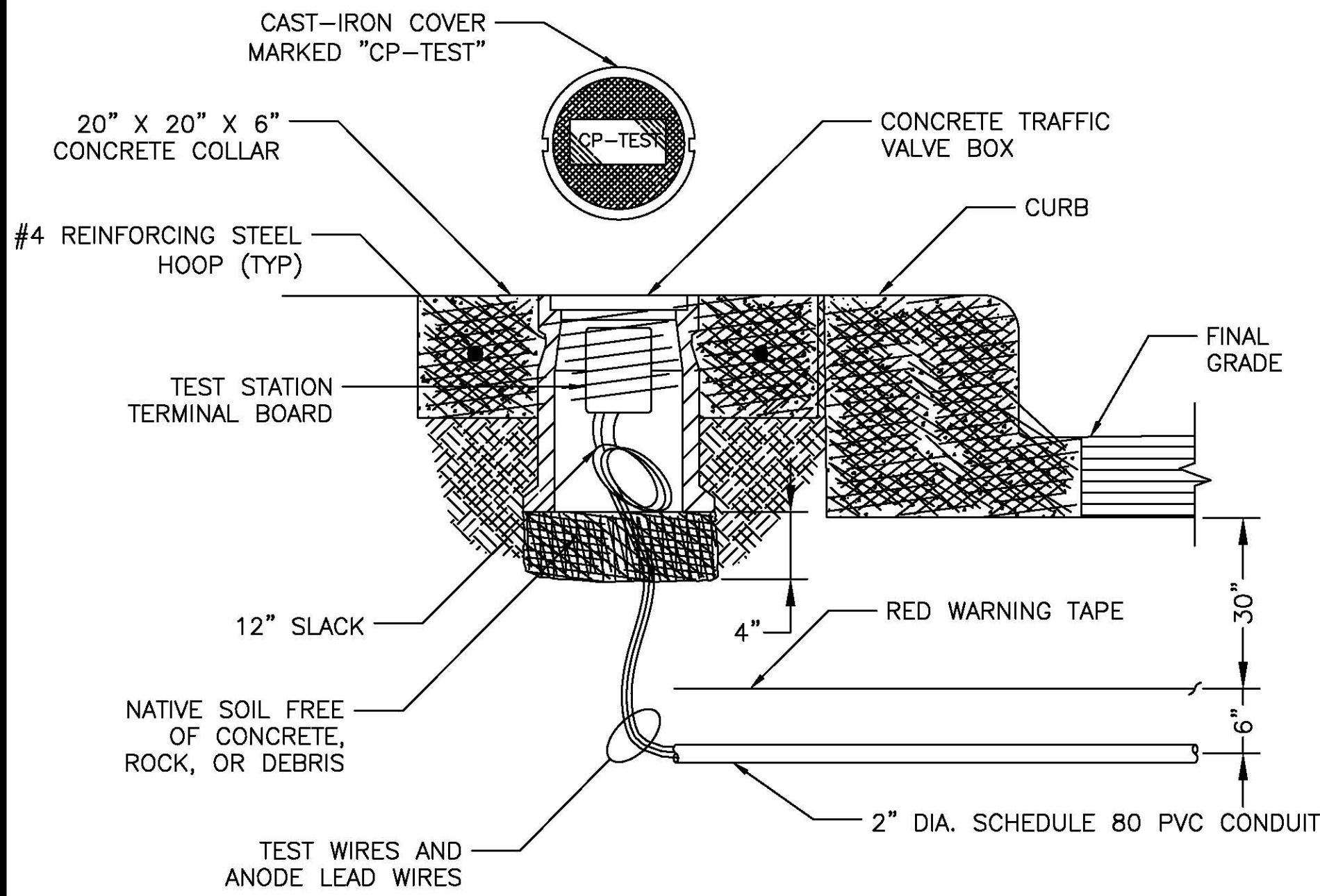
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Michael H. Okamoto April 30, 2022  
SIGNATURE EXPIRATION DATE OF THE LICENSE

11/18/20	Added Approval Block
Date	Description
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>CATHODIC PROTECTION DETAILS - 1</b> FARRINGTON HIGHWAY Replacement of Makaha Bridge No. 3 and Makaha Bridge 3A F. A. Project No. BR-093-1(20) Scale: As Shown Date: July 2020	
SHEET No. C10.1 OF 168 SHEETS	

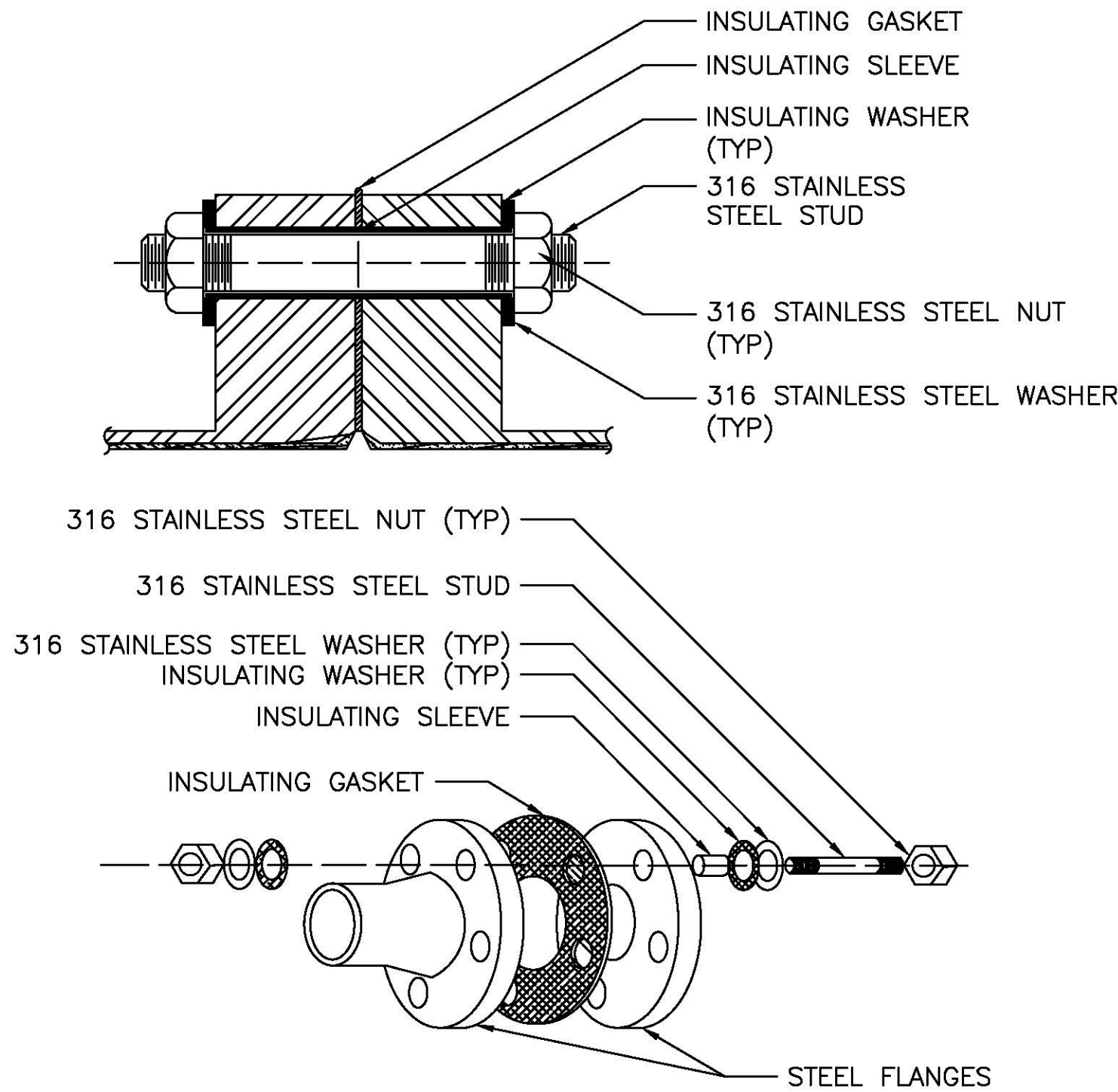


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-093-1(20)	2020	ADD.79	168



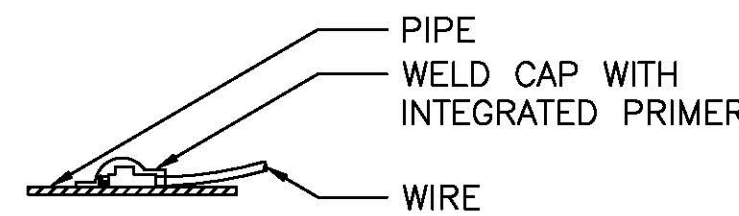
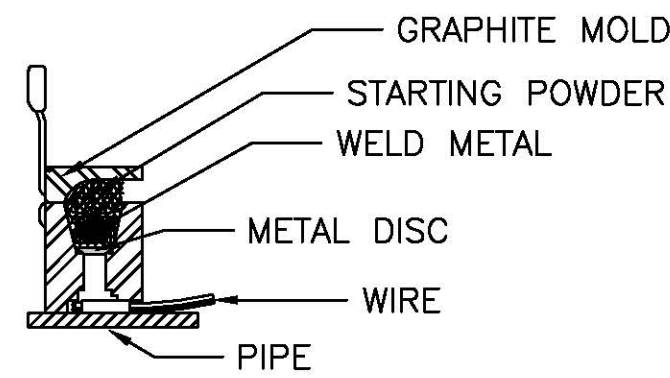
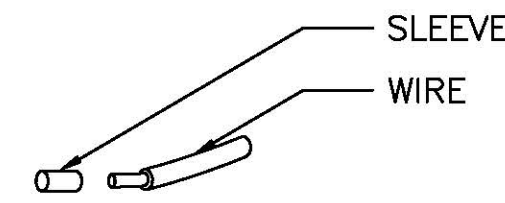
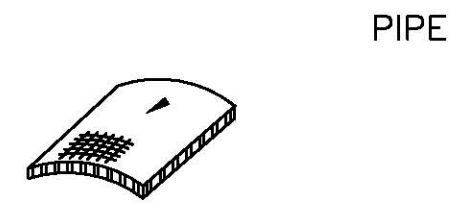
FLUSH-MOUNTED TEST STATION  
DETAIL  
NTS

1  
C10.2



DIELECTRIC INSULATING FLANGE KIT  
DETAIL WITH SECTION VIEW  
NTS

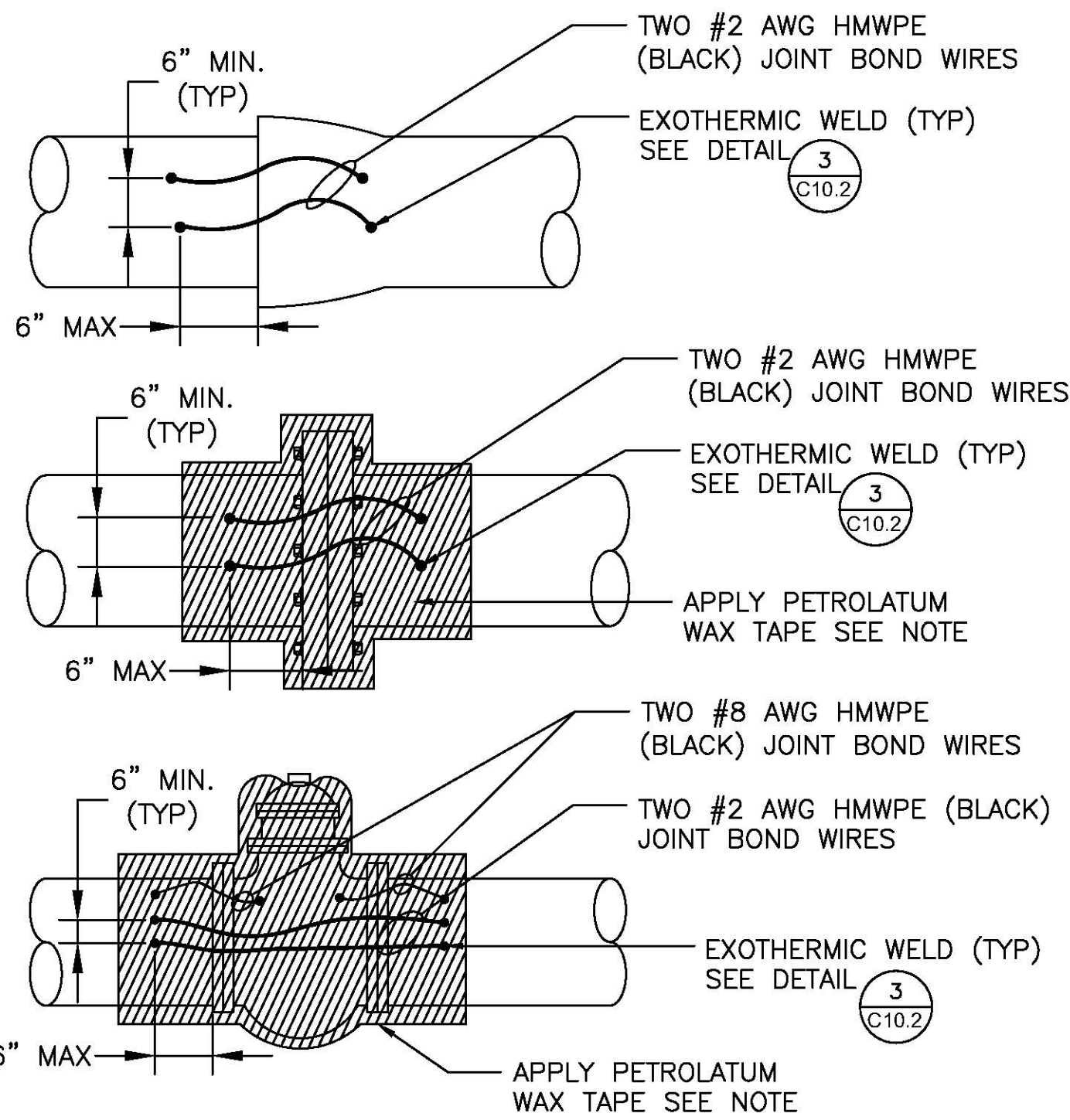
2  
C10.2



EXOTHERMIC WELD DETAIL FOR  
DUCTILE IRON PIPE  
NTS

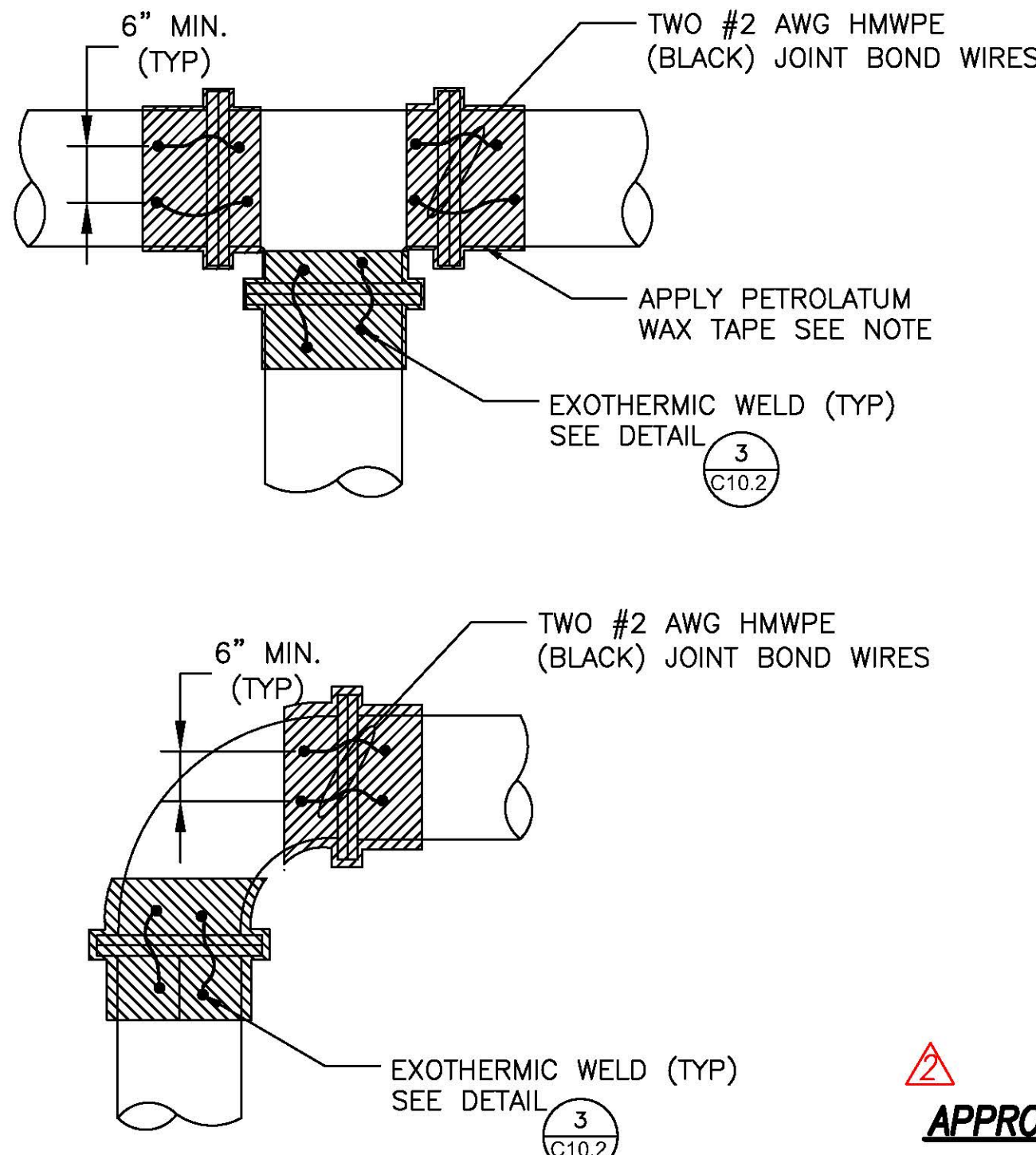
3  
C10.2

- ALL WELDS SHALL BE 6" APART AT MINIMUM.
- GRIND PIPE TO BARE METAL AND CLEAN SURFACE. GROUND AREA SHALL BE LARGE ENOUGH FOR EXOTHERMIC WELD AND SMALL ENOUGH TO BE COMPLETELY COVERED BY WELD CAP.
- STRIP INSULATION FROM WIRE AND ATTACH SLEEVE.
- HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR. IGNITE WITH FLINT GUN. REMOVE SLAG FROM CONNECTION WITH CHIPPING HAMMER. TEST WELD WITH 22 OZ HAMMER.
- COVER CONNECTION WITH WELD CAP WITH INTEGRATED PRIMER. REPAIR ALL DAMAGE TO COATING AND LINING IN ACCORDANCE WITH COATING AND LINING MFG RECOMMENDATIONS.



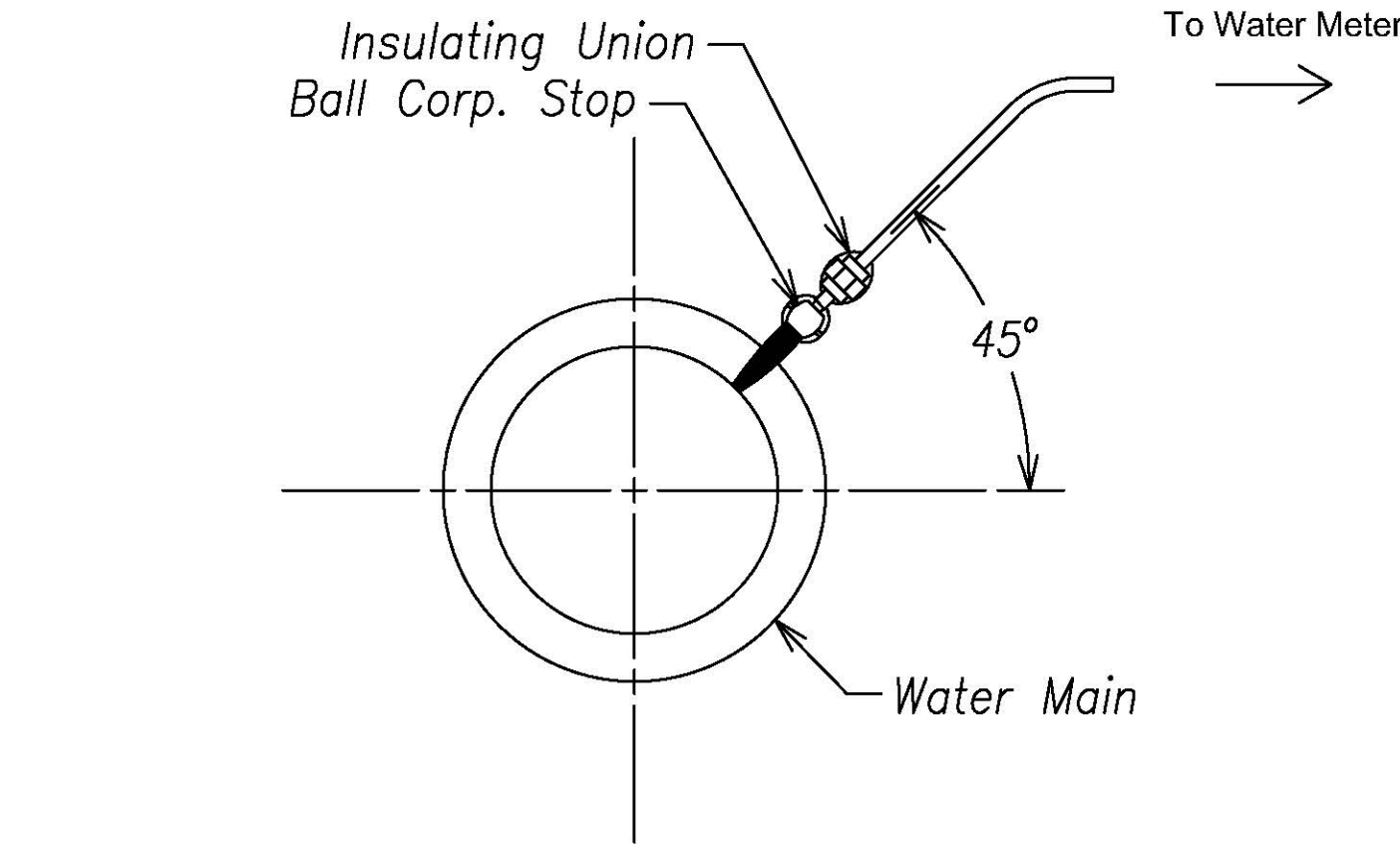
PIPE JOINT BONDING DETAILS FOR  
NON-INSULATED JOINTS  
NTS

4  
C10.2



PIPE JOINT BONDING DETAILS FOR  
NON-INSULATED JOINTS  
NTS

5  
C10.2



LATERAL CONNECTION DETAIL  
NTS

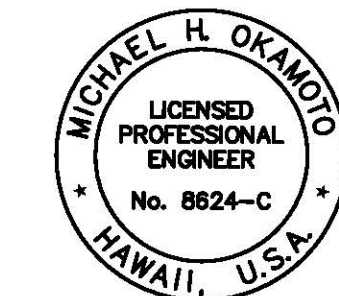
6  
C10.2

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

APPROVED:

Manager and Chief Engineer,  
Board of Water Supply  
(For work affecting BWS facilities in  
City/State R/W and easements only)

Date



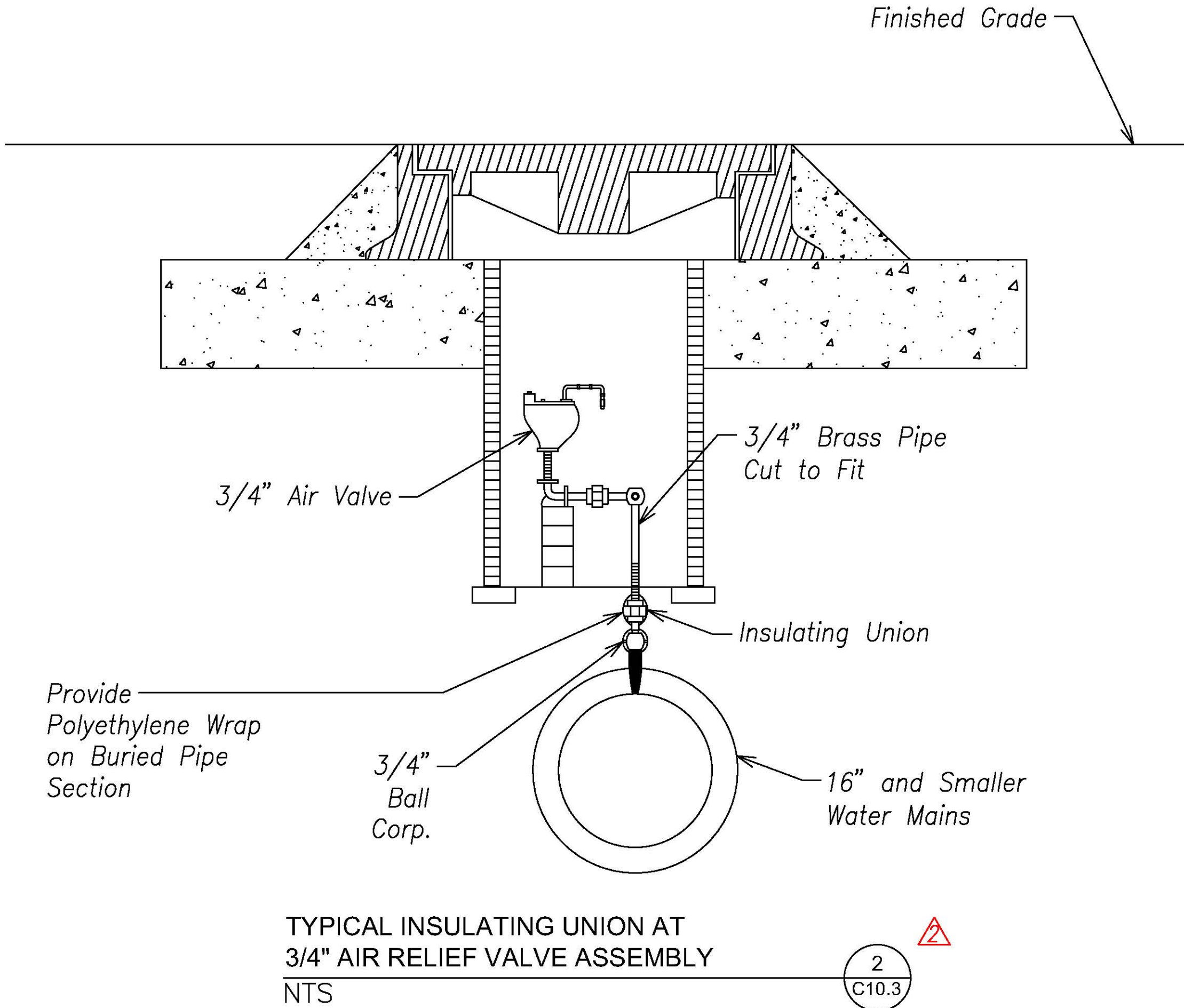
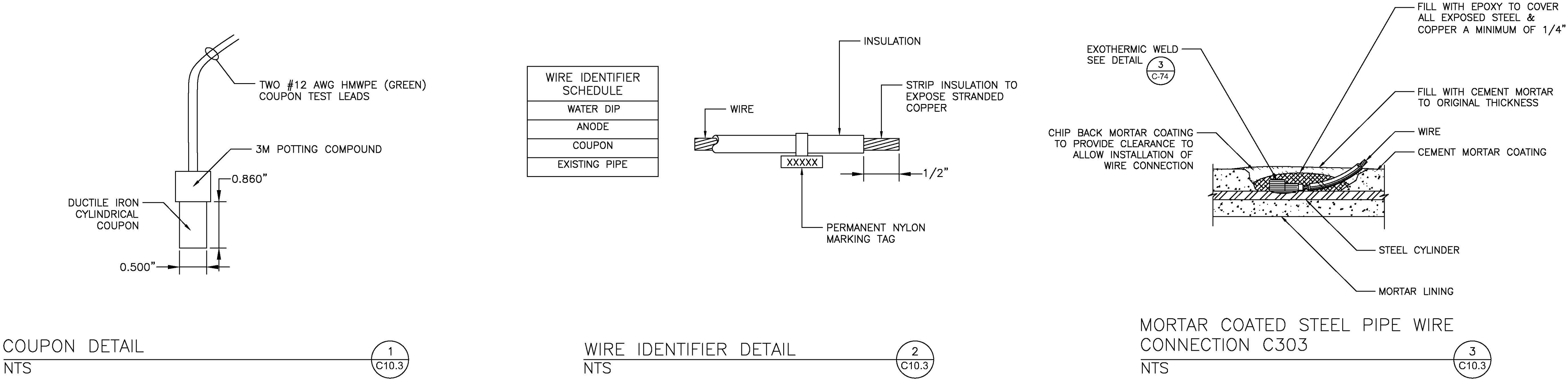
THIS WORK WAS PREPARED BY ME  
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WILL BE UNDER MY OBSERVATION.

Michael H. Okamoto April 30, 2022  
SIGNATURE EXPIRATION DATE  
OF THE LICENSE

11/18/20	Added Approval Block & ARV Detail
Date	Description
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>CATHODIC PROTECTION DETAILS - 2</b> FARRINGTON HIGHWAY Replacement of Makaha Bridge No. 3 and Makaha Bridge 3A F. A. Project No. BR-093-1(20) Scale: As Shown Date: July 2020	
SHEET No. C10.2 OF 168 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-093-1(20)	2020	ADD.80	168

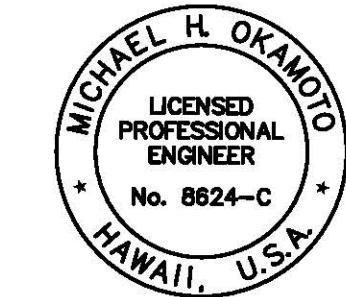


SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
REVIEWED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

**APPROVED:**

Manager and Chief Engineer,  
Board of Water Supply  
(For work affecting BWS facilities in  
City/State R/W and easements only)

Date



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Michael H. Okamoto April 30, 2022  
SIGNATURE EXPIRATION DATE  
OF THE LICENSE

11/18/20	Added Approval Block & ARV Detail
Date	Description
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>CATHODIC PROTECTION DETAILS - 3</b> FARRINGTON HIGHWAY Replacement of Makaha Bridge No. 3 and Makaha Bridge 3A F. A. Project No. BR-093-1(20)	
Scale:	Date: July 2020
SHEET No. C10.30F 168 SHEETS	