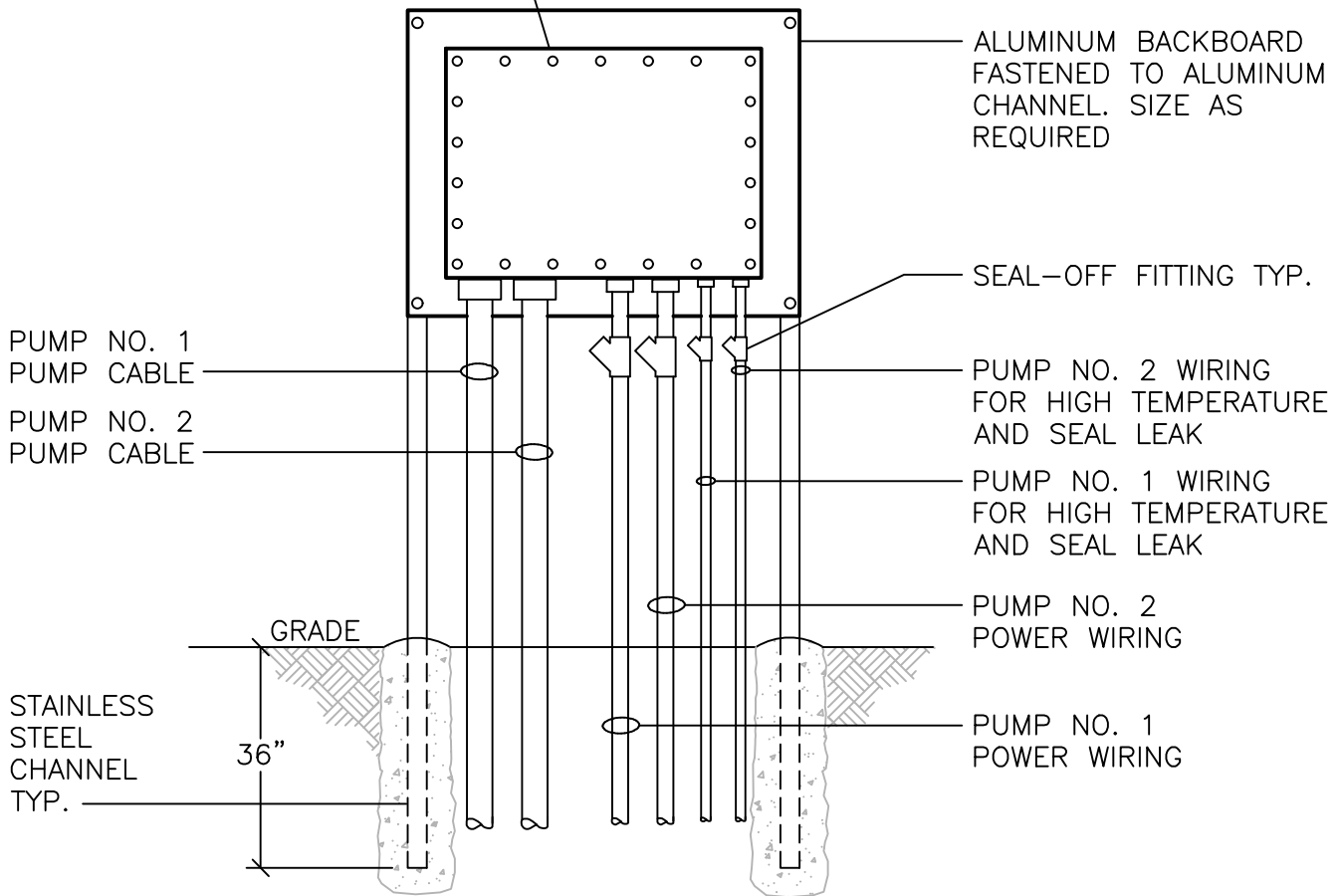



NEMA 7 POWER WIRING  
 JUNCTION BOX.  
 SIZE AS REQUIRED  
 (SEE NOTES 1 AND 2)

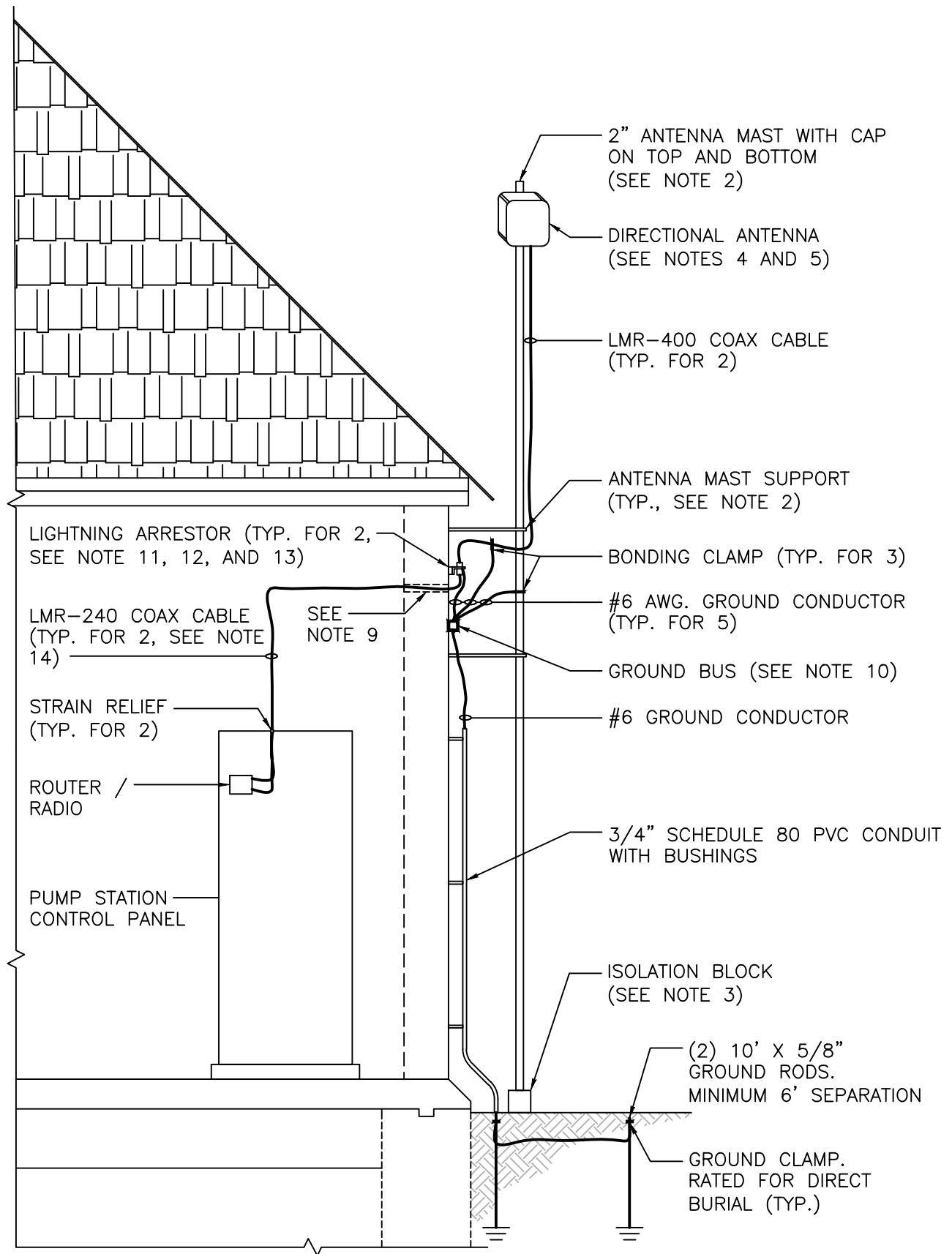


NOTES:

1. PUMP CABLE WIRES SHALL BE SPLICED IN THE POWER WIRING JUNCTION BOX USING INSULATED MECHANICAL LUGS.
2. PROVIDE A MINIMUM OF 2' OF CABLE SLACK IN THE JUNCTION BOX.
3. THE INSTRUMENT VAULT AND VALVE VAULT ARE CLASSIFIED AS A CLASS 1, DIVISION 2, GROUP D AREA IN ACCORDANCE WITH NFPA 820. THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND CONDUIT SHALL BE PERFORMED IN ACCORDANCE WITH THIS CLASSIFICATION.
4. ALL CONDUIT PENETRATIONS THROUGH CONCRETE STRUCTURES SHALL BE INSTALLED THROUGH SLEEVED PENETRATIONS WITH MODULAR SEALS AND 316 STAINLESS STEEL HARDWARE.

NOT TO SCALE

	STANDARD DESIGN DETAIL	DRAWING NO. 700
	WET WELL PUMP WIRING ELECTRICAL BACKBOARD DETAIL	SHEET 1 OF 1
		DATE 12/2022



STANDARD DESIGN DETAIL

ANTENNA INSTALLATION DETAIL


DRAWING NO.  
701A

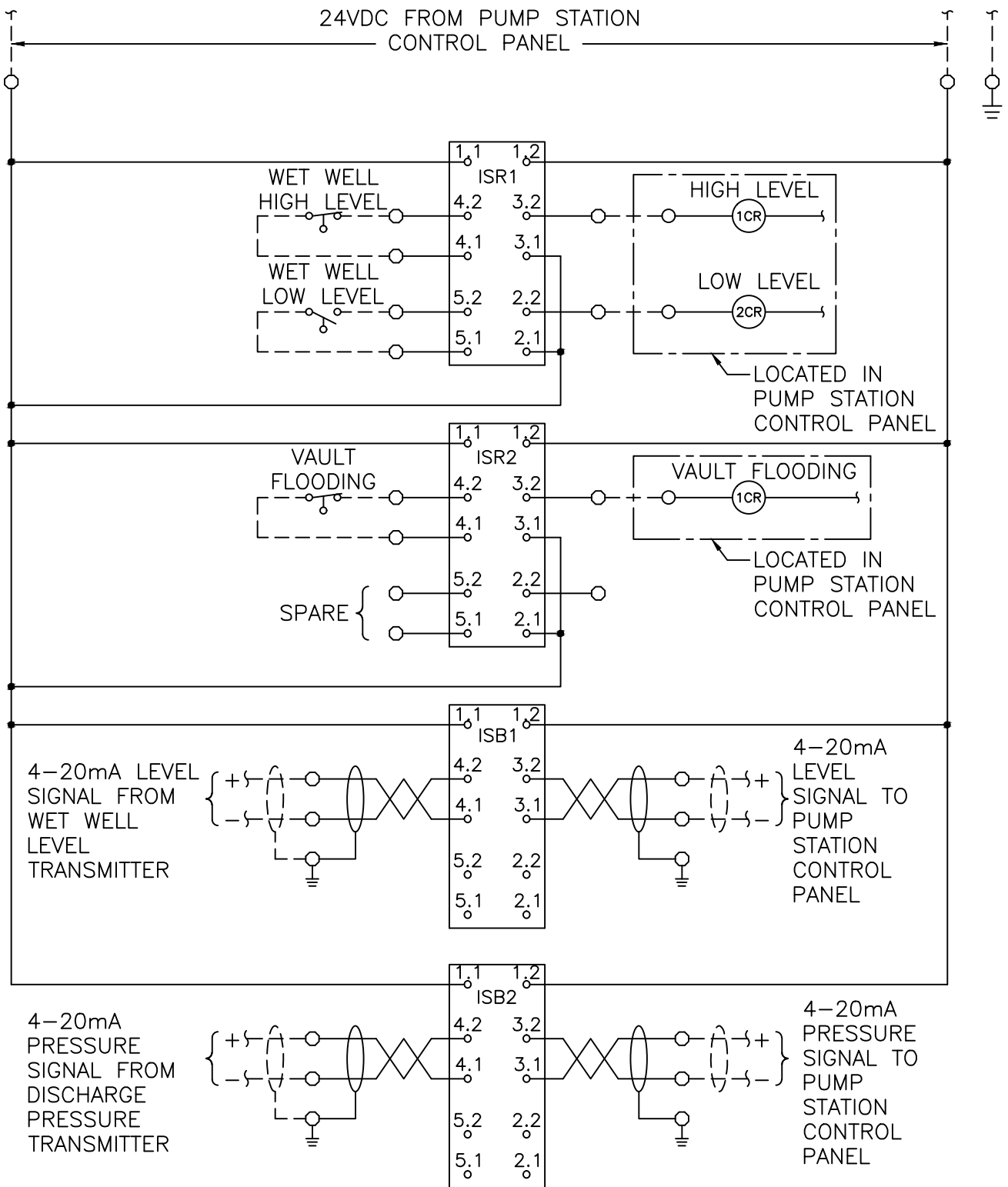
SHEET  
1 OF 2

DATE  
12/2022

NOTES:

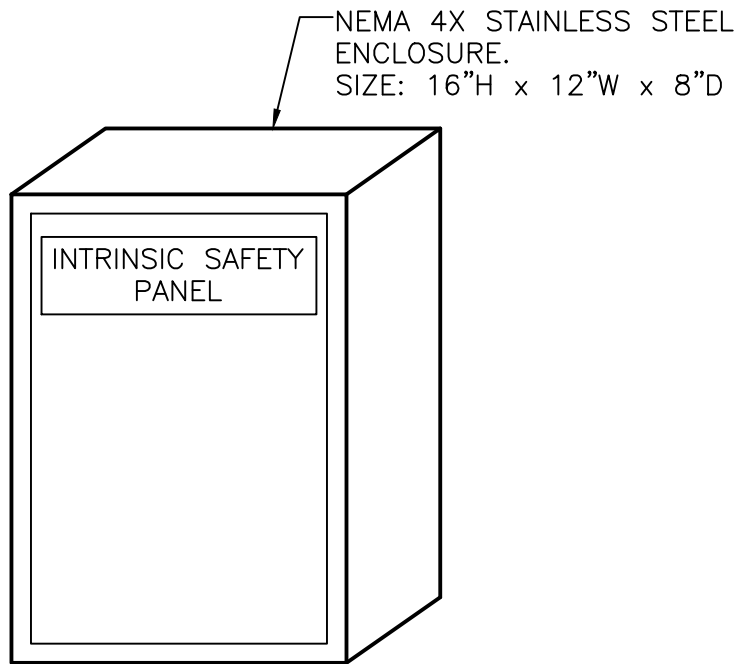
1. ANY DEVIATIONS FROM THIS DETAIL SHALL BE COORDINATED WITH HRSD OR HRSD'S REPRESENTATIVE.
2. ALL FASTENERS AND MOUNTING HARDWARE USED FOR INSTALLATION OF ELECTRICAL ITEMS SHALL BE OF THE SAME MATERIAL, GALVANIZED STEEL OR STAINLESS STEEL.
3. GALVANIZED STEEL ANTENNA MASTS SHALL NOT COME IN DIRECT CONTACT WITH THE GROUND. PROVIDE A BLOCK FOR ISOLATION IF REQUIRED.
4. DIRECTIONAL ANTENNA SHALL BE INSTALLED AT THE PROPER HEIGHT AND AZIMUTH ACCORDING TO THE SITE SURVEY.
5. DIRECTIONAL ANTENNA SHALL BE MOBILE MARK #PND10-700/2700.
6. COAX CABLE CONNECTORS SHALL BE INSTALLED PER MANUFACTURER REQUIREMENTS. SOLDERED CONNECTIONS ARE PREFERRED, CRIMP AND CAPTIVATED CONNECTIONS WILL BE ACCEPTED WHEN NECESSARY.
7. COAX CABLE CONNECTORS SHALL BE WEATHERPROOFED USING HEAT SHRINK OR COLD SHRINK TUBING, ELECTRICAL TAPE IS NOT ACCEPTABLE.
8. SUPPORT CONDUIT, COAX CABLE, AND GROUND CONDUCTORS AS REQUIRED PER THE NEC.
9. THROUGH WALL PENETRATION SHALL INCLUDE A SUITABLE SLEEVE. SEAL BETWEEN WALL AND SLEEVE. SEAL INTERIOR OF SLEEVE AFTER INSTALLATION OF THE COAX CABLES.
10. RUN A #6 GROUND CONDUCTOR FROM THE GROUND BUS TO THE BUILDING GROUNDING ELECTRODE SYSTEM. CONNECTION TO A SUPPLEMENTAL GROUND IS NOT ACCEPTABLE.
11. LIGHTNING ARRESTORS SHALL BE POLYPHASER #TSX-DFF OR #TSX-NFF MOUNTED ON THE OUTSIDE OF THE PUMP STATION NEAREST TO THE COAX CABLE POINT OF ENTRY USING AN APPROVED MOUNTING BRACKET.
12. GROUND CONDUCTORS FROM THE LIGHTNING ARRESTOR TO THE GROUND BUS SHALL NOT EXCEED 36 INCHES.
13. LIGHTNING ARRESTORS TO BE MOUNTED ON OUTSIDE OF BUILDING.
14. LMR-240 CABLE SHALL NOT EXCEED 75 LINEAR FEET.
15. COAX CABLE CONNECTORS AT THE ROUTER / RADIO SHALL BE TNC MALE CONNECTORS.

	STANDARD DESIGN DETAIL	DRAWING NO. 701B
	ANTENNA INSTALLATION DETAIL	SHEET 2 OF 2
		DATE 12/2022



**INTRINSIC SAFETY PANEL  
WIRING DIAGRAM**

	STANDARD DESIGN DETAIL	DRAWING NO. <b>702A</b>
	INTRINSIC SAFETY PANEL	SHEET <b>1 OF 2</b>
		DATE <b>12/2022</b>

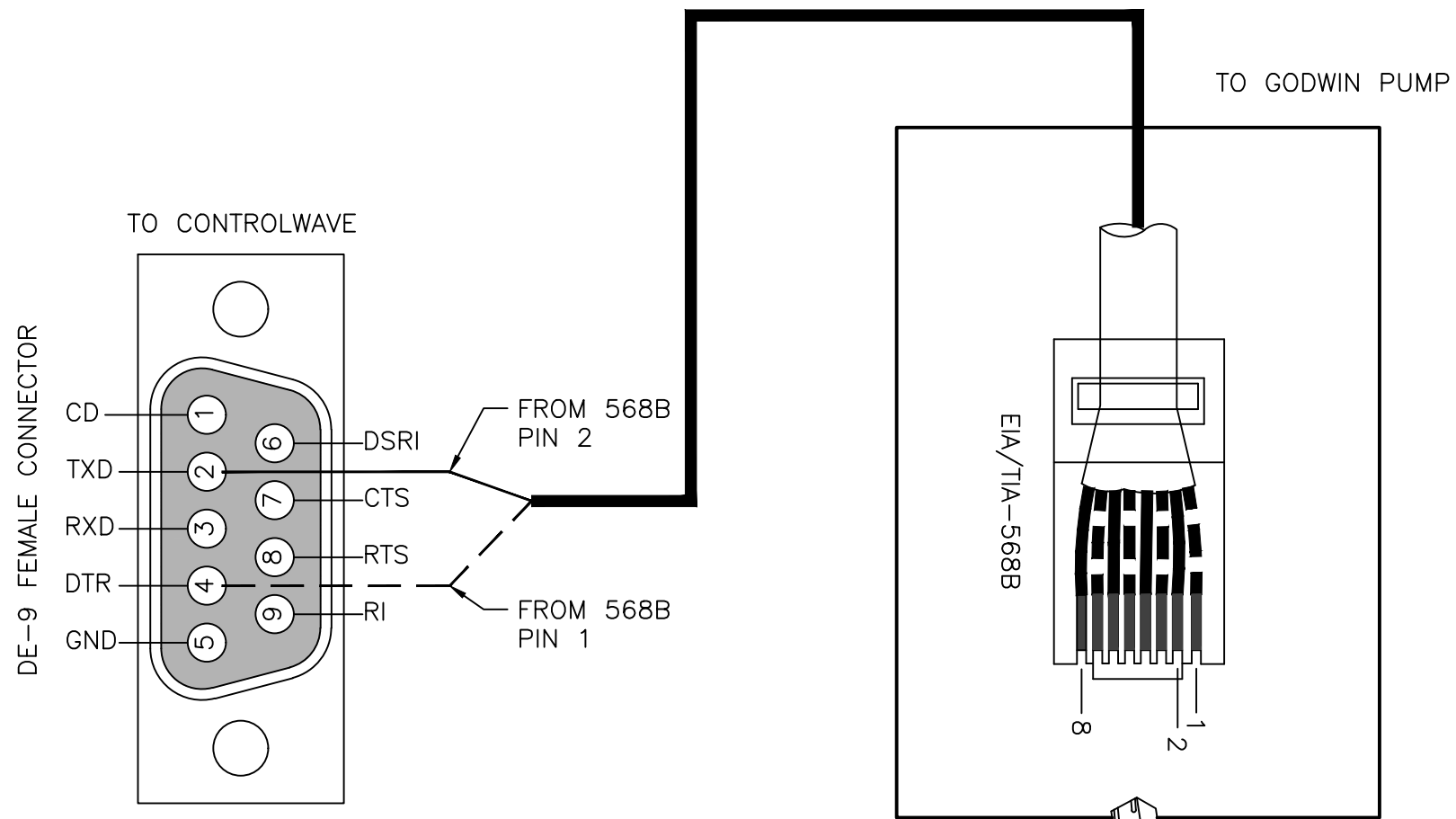


INTRINSIC SAFETY PANEL  
PANEL LAYOUT

NOTES:

1. INTRINSIC SAFETY PANEL SHALL BE MOUNTED ON OUTSIDE OF BUILDING OR EQUIPMENT RACK.
2. CONDUITS FROM TRANSDUCER AND FLOAT SWITCH CABLES ENTERING INTRINSIC SAFETY PANEL REQUIRE NO SEAL OFF FITTINGS.
3. CONDUITS LEAVING INTRINSIC SAFETY PANEL GOING TO PUMP CONTROL PANEL SHALL HAVE SEAL OFF FITTINGS.

	STANDARD DESIGN DETAIL	DRAWING NO. 702B
	INTRINSIC SAFETY PANEL	SHEET 2 OF 2
		DATE 12/2022



10"H X 8"W X 6"D, NEMA 4X  
STAINLESS STEEL ENCLOSURE  
WITH PADLOCK HASP

PRODUCT DETAILS  
APC1004-NDRJF54421CONN MOD  
COUPLER 8P8C TO 8P8C  
APC1000-ND254402BECONN CAP FOR  
RJF 544 SERIES RCPT

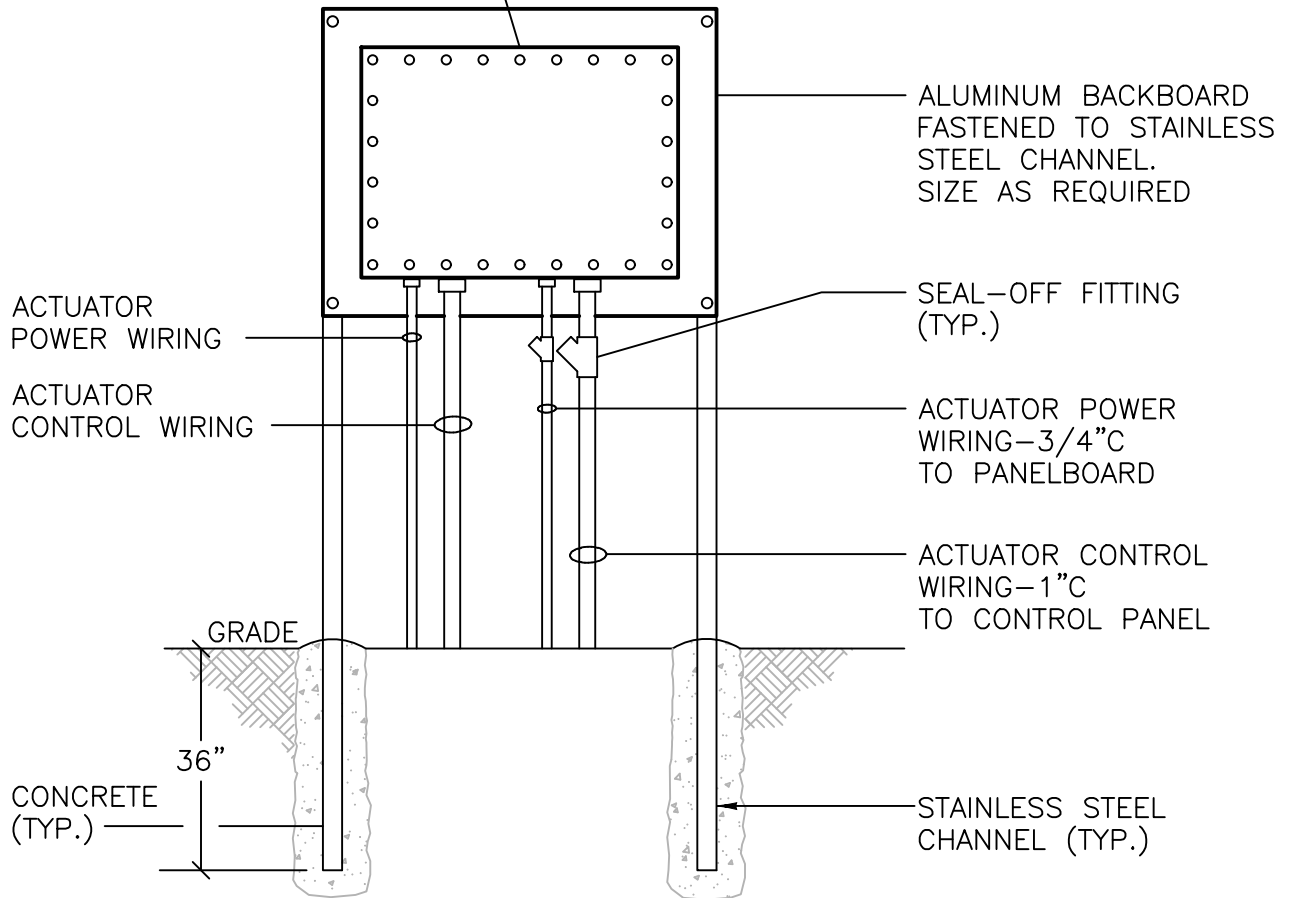


STANDARD DESIGN DETAIL

TEMPORARY PUMP ENCLOSURE DETAIL

DRAWING NO.	703
SHEET	1 OF 1
DATE	12/2022


NEMA 7 ACUTATOR VAULT  
 JUNCTION BOX.  
 SIZE AS REQUIRED  
 (SEE NOTE 3)



**NOTES:**

1. THE INSTRUMENT VAULT AND VALVE VAULT ARE CLASSIFIED AS A CLASS 1, DIVISION 2, GROUP D AREA IN ACCORDANCE WITH NFPA 820. THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND CONDUIT SHALL BE PERFORMED IN ACCORDANCE WITH THIS CLASSIFICATION.
2. ALL CONDUIT PENETRATIONS THROUGH CONCRETE STRUCTURES SHALL BE INSTALLED THROUGH SLEEVED PENETRATIONS WITH MODULAR SEALS AND 316 STAINLESS STEEL HARDWARE.
3. PROVIDE A BARRIER BETWEEN POWER AND CONTROL WIRING.

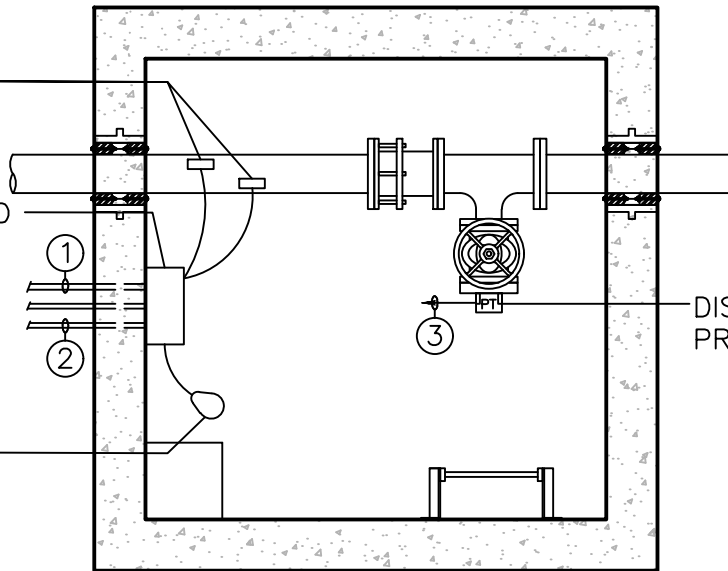
NOT TO SCALE

	STANDARD DESIGN DETAIL	DRAWING NO. 704
	ACTUATOR VAULT ELECTRICAL BACKBOARD DETAIL	SHEET 1 OF 1
		DATE 12/2022

DISCHARGE  
FLOW METER  
TRANSDUCERS

NEMA 4X S.S.  
JUNCTION BOX.  
SIZE AS REQUIRED

FLOODING  
FLOAT SWITCH.  
MOUNT 1" A.F.F.



DISCHARGE  
PRESSURE TRANSMITTER

WIRING LEGEND:

- ① DISCHARGE FLOW METER TRANSDUCER CABLES—1" C TO DISCHARGE FLOW METER TRANSMITTER
- ② 2#14—3/4" C TO INTRINSIC SAFETY PANEL
- ③ 1 PR. #18 SHLD. TO INTRINSIC SAFETY PANEL. RUN IN 3/4" C TO JUNCTION BOX IN INSTRUMENT VAULT AND IN 3/4" TO INTRINSIC SAFETY PANEL

NOTES:

- 1. THE INSTRUMENT VAULT AND VALVE VAULT ARE CLASSIFIED AS A CLASS 1, DIVISION 2, GROUP D AREA IN ACCORDANCE WITH NFPA 820. THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND CONDUIT SHALL BE PERFORMED IN ACCORDANCE WITH THIS CLASSIFICATION.
- 2. ALL CONDUIT PENETRATIONS THROUGH CONCRETE STRUCTURES SHALL BE INSTALLED THROUGH SLEEVED PENETRATIONS WITH MODULAR SEALS AND 316 STAINLESS STEEL HARDWARE.
- 3. PROVIDE A BARRIER BETWEEN POWER AND CONTROL WIRING.

NOT TO SCALE

**HRSD**

STANDARD DESIGN DETAIL

INSTRUMENT VAULT ELECTRICAL PLAN

DRAWING NO.

705

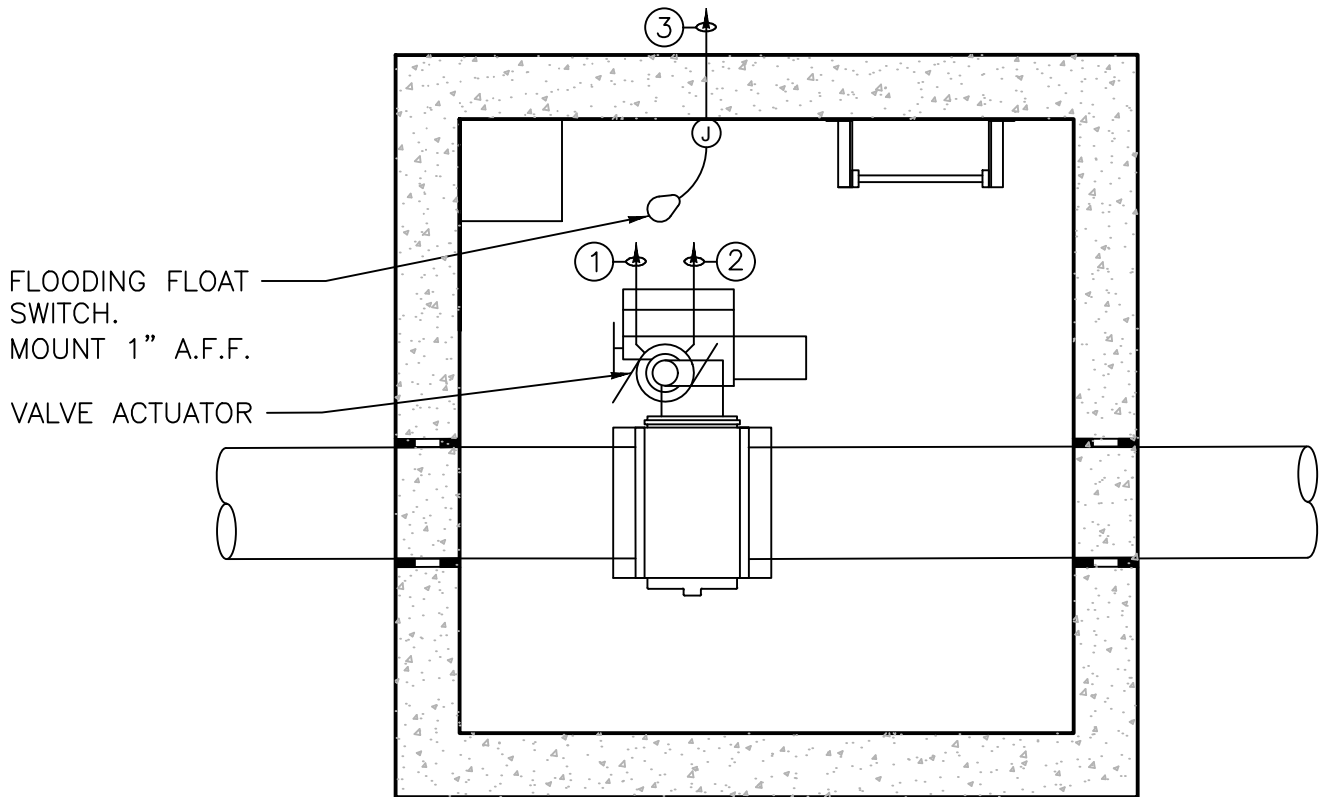
SHEET

1 OF 1

DATE

12/2022





FLOODING FLOAT SWITCH.  
MOUNT 1" A.F.F.  
VALVE ACTUATOR

WIRING LEGEND:

- ① ACTUATOR POWER WIRING—3/4" C TO ACTUATOR VAULT JUNCTION BOX
- ② ACTUATOR CONTROL WIRING—1" C TO ACTUATOR VAULT JUNCTION BOX
- ③ 2#14—3/4" C TO INTRINSIC SAFETY PANEL

NOTES:

1. THE INSTRUMENT VAULT AND VALVE VAULT ARE CLASSIFIED AS A CLASS 1, DIVISION 2, GROUP D AREA IN ACCORDANCE WITH NFPA 820. THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND CONDUIT SHALL BE PERFORMED IN ACCORDANCE WITH THIS CLASSIFICATION.
2. ALL CONDUIT PENETRATIONS THROUGH CONCRETE STRUCTURES SHALL BE INSTALLED THROUGH SLEEVED PENETRATIONS WITH MODULAR SEALS AND 316 STAINLESS STEEL HARDWARE.
3. PROVIDE A BARRIER BETWEEN POWER AND CONTROL WIRING.

NOT TO SCALE

	STANDARD DESIGN DETAIL	DRAWING NO. 706
	ACTUATOR VAULT ELECTRICAL PLAN	SHEET 1 OF 1
		DATE 12/2022

16"H X 14"W X 8"D, NEMA 4X  
STAINLESS STEEL ENCLOSURE  
WITH PADLOCK HASP

3/4" NON-METALLIC  
CORD CONNECTOR.  
TYP. FOR 2

INSTALL 1/8" RUBBER  
GASKET COVERING THE  
ENTIRE BOTTOM OF  
ENCLOSURE

1" PVC CONDUIT.  
TYP. FOR 2

HIGH LEVEL  
FLOAT SWITCH

LOW LEVEL  
FLOAT SWITCH

3/4" NON-METALLIC  
CORD CONNECTOR  
IN TOP OF BLIND  
FLANGE

STAINLESS STEEL  
DRIVE ANCHORS WITH  
THREADED ROD AND  
NUT

BLIND FLANGE  
DRILLED FOR CORD  
CONNECTOR,  
GASKETED TO THE  
PIPE FLANGE

INSTALL FLANGE  
GASKET ON CONCRETE

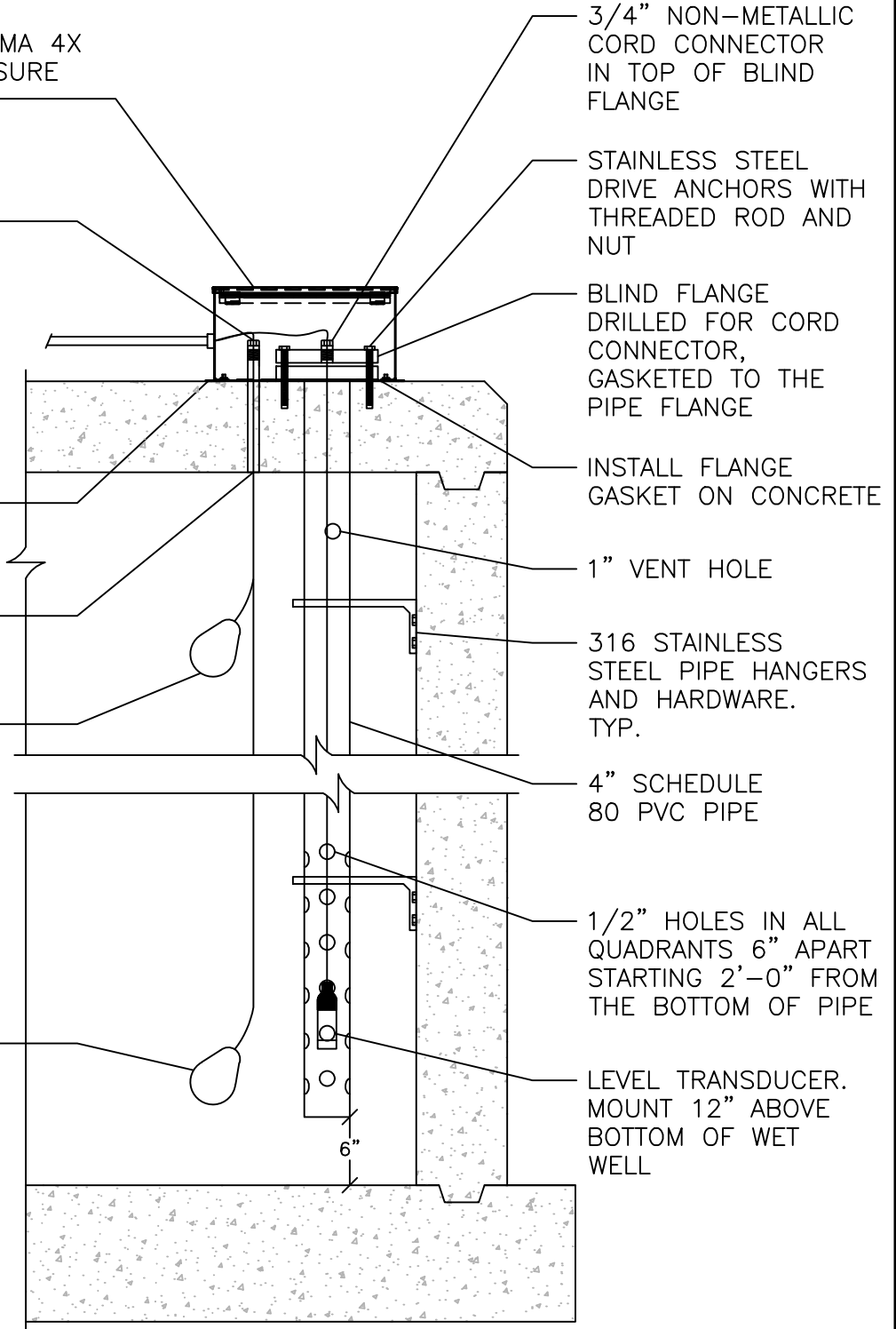
1" VENT HOLE

316 STAINLESS  
STEEL PIPE HANGERS  
AND HARDWARE.  
TYP.

4" SCHEDULE  
80 PVC PIPE

1/2" HOLES IN ALL  
QUADRANTS 6" APART  
STARTING 2'-0" FROM  
THE BOTTOM OF PIPE

LEVEL TRANSDUCER.  
MOUNT 12" ABOVE  
BOTTOM OF WET  
WELL



NOT TO SCALE



STANDARD DESIGN DETAIL

WET WELL INSTRUMENTATION  
INSTALLATION DETAIL

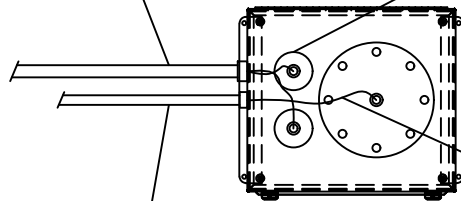
DRAWING NO.  
707A

SHEET  
1 OF 2

DATE  
12/2022

FLOAT SWITCH CABLES  
RUN IN 1" CONDUIT  
TO INTRINSIC SAFETY  
PANEL.

LEVEL TRANSDUCER  
CABLE RUN IN 3/4"  
CONDUIT TO INTRINSIC  
SAFETY PANEL.



PLAN VIEW

SLEEVED  
PENETRATION  
WITH MODULAR  
SEAL AND 316  
STAINLESS STEEL  
HARDWARE. TYP.

PROVIDE 2' OF  
EXTRA CABLE IN  
THE ENCLOSURE.  
TYP.

NOT TO SCALE



STANDARD DESIGN DETAIL

WET WELL INSTRUMENTATION  
INSTALLATION DETAIL

DRAWING NO.  
707B

SHEET  
2 OF 2

DATE  
12/2022