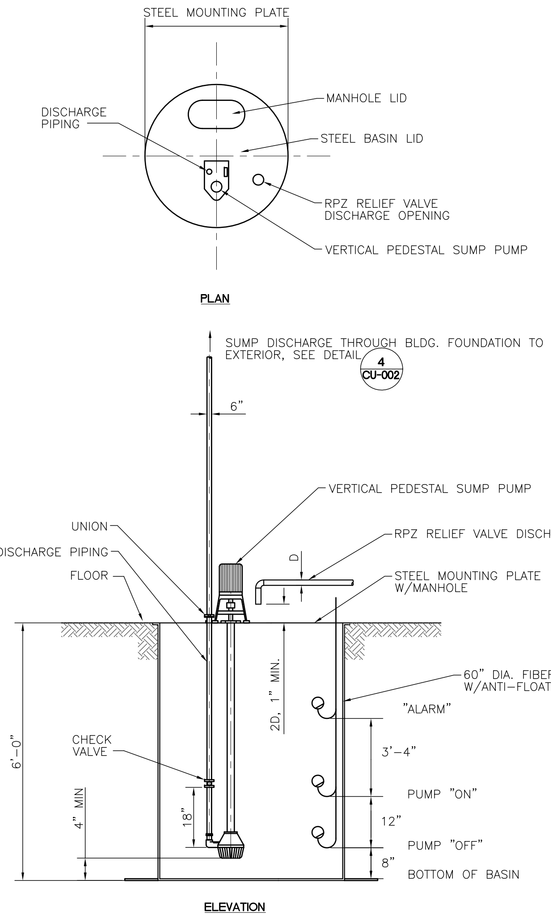


1 CU-002 **SUMP PUMP/BASIN DETAIL**
NOT TO SCALE

PUMP INFORMATION:

SUMP PUMP DATA TABLE				
BLDG. NO.	PUMP Q	PUMP TDH	PUMP HP	DISCHARGE PIPE SIZE
17	700 GPM	16 FT.	5	6 IN.
24	700 GPM	16 FT.	5	6 IN.
34	700 GPM	16 FT.	5	6 IN.
76	700 GPM	20 FT.	7 1/2	6 IN.
78 N	700 GPM	16 FT.	5	6 IN.
78 W	700 GPM	16 FT.	5	6 IN.

NOTES:

1. COORDINATE SUMP LOCATION, PUMP POWER SOURCE, AND DISCHARGE LOCATION WITH COR.
2. SUMP DISCHARGE SHALL BE THROUGH FOUNDATION TO BUILDING EXTERIOR. PROVIDE CONCRETE DISCHARGE PAD AT UNPAVED DISCHARGE LOCATIONS.

FIBERGLASS BASIN:

THE RESINS USED SHALL BE A COMMERCIAL GRADE POLYESTER AND SHALL BE EVALUATED AS A LAMINATE BY TEST OR DETERMINED BY PREVIOUS SERVICE TO BE ACCEPTABLE FOR THE INTENDED ENVIRONMENT.

THE REINFORCING MATERIAL SHALL BE A COMMERCIAL GRADE OF GLASS FIBER (CONTINUOUS STRAND, CHOPPED-STRAND, CONTINUOUS MAT AND/OR NON- CONTINUOUS MAT) HAVING A COUPLING AGENT WHICH WILL PROVIDE A SUITABLE BOND BETWEEN THE GLASS REINFORCEMENT MATERIAL AND RESIN.

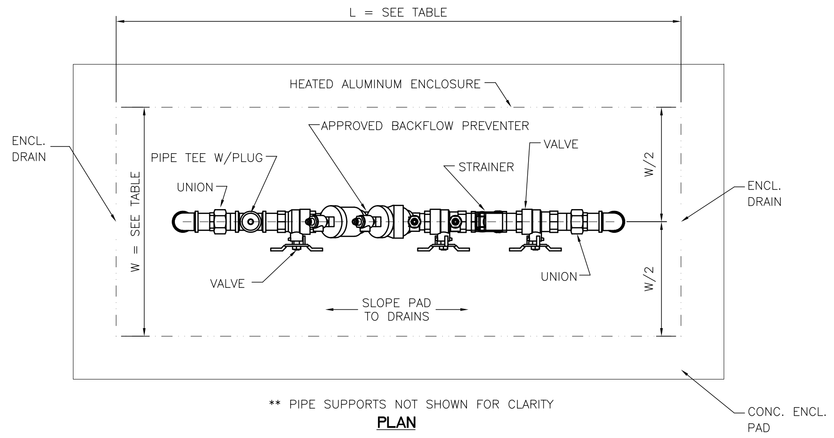
THE FRP LAMINATE WALL THICKNESS SHALL PROVIDE THE AGGREGATE STRENGTH NECESSARY TO MEET THE TENSILE AND FLEXURAL PHYSICAL PROPERTIES AND REQUIREMENTS. THE WET WELL FRP WALL LAMINATE MUST BE DESIGNED TO WITHSTAND WALL COLLAPSE OR BUCKLING BASED ON A HYDROSTATIC LOADING OF 62.4 LBS. PER CU. FT.; A SATURATED SOIL WEIGHT OF 120 LBS. PER CU. FT.; A SOIL MODULUS OF 700 LBS. PER SQ. FT.; AND THE PIPE STIFFNESS VALUES AS SPECIFIED IN ASTM D3753. THE WET WELL FRP LAMINATE MUST BE CONSTRUCTED TO WITHSTAND OR EXCEED TWO TIMES THE ASSUMED LOADING ON ANY DEPTH OF THE WET WELL.

THE FINISHED FRP LAMINATE WILL HAVE A BARCOL HARDNESS OF AT LEAST 90% OF THE RESIN MANUFACTURER'S SPECIFIED HARDNESS FOR FULLY CURED RESIN. THE BARCOL HARDNESS SHALL BE THE SAME FOR BOTH INTERIOR AND EXTERIOR SURFACES.

THE WET WELL TOP FLANGE SHALL HAVE AN OUTSIDE DIAMETER AT LEAST 4.0 INCHES GREATER THAN THE INSIDE DIAMETER OF THE WET WELL. A FOUR OR SIX HOLE PATTERN SHALL ACCOMMODATE THE MOUNTING OF A COVER OF WITH AT LEAST 0.25 INCHES IN DIAMETER 300 SERIES STAINLESS STEEL FASTENERS. NON-CORRODING STAINLESS STEEL THREADED INSERTS SHALL BE FULLY ENCAPSULATED WITH NON-CONTINUOUS MAT OR CHOPPED-STRAND GLASS FIBER REINFORCEMENT. THE INSERTS SHALL HAVE AN OFFSET TAB TO PREVENT STRIPPING OR SPINNING OUT WHEN REMOVING OR REINSERTING COVER FASTENERS. FLOOR DRAIN PIPE INVERTS SHALL BE FIELD MEASURED AND LOCATED. CONNECTION SHALL BE AS RECOMMENDED BY MANUFACTURER.

DISCHARGE PIPE SHALL INCLUDE ALL PIPE AND FITTINGS NECESSARY FOR A COMPLETE SYSTEM.

CONTRACTOR SHALL VERIFY THAT SUMP PUMP AND BASIN ASSEMBLIES CAN BE MANEUVERED INTO PLACE.

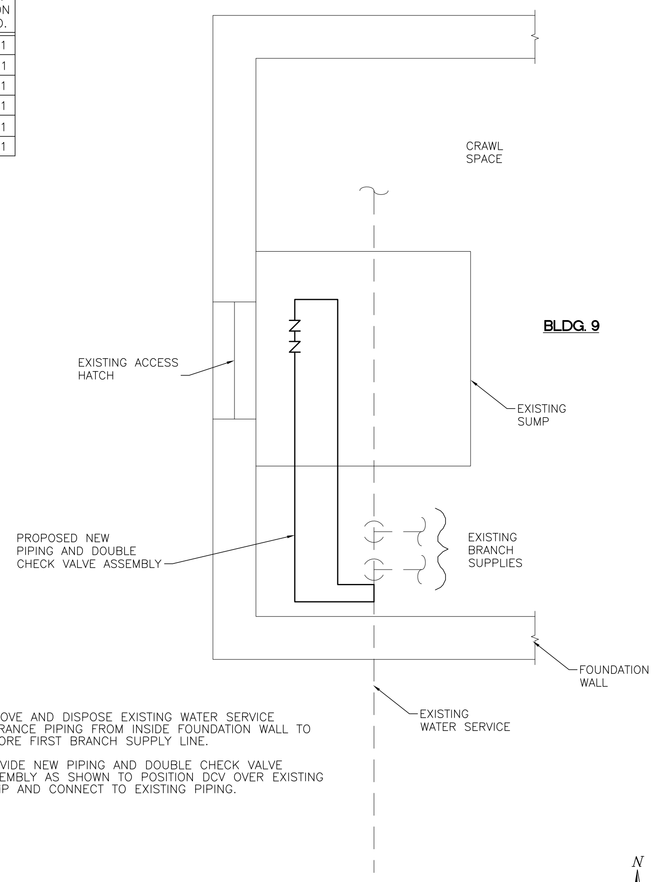


2 CU-002 **OUTDOOR PROTECTIVE ENCLOSURE DETAIL**
NOT TO SCALE

OUTDOOR PROTECTIVE ENCLOSURE TABLE					
BLDG. NO.	WATER SERVICE SIZE	MIN. ENCLOSURE SIZE L	W	H	BACKFLOW PREVENTION DETAIL NO.
18	1 IN.	48 IN.	24 IN.	48 IN.	1/CU-001
30	4 IN.	102 IN.	32 IN.	58 IN.	2/CU-001
39	1 IN.	48 IN.	24 IN.	48 IN.	1/CU-001
42	1 IN.	48 IN.	24 IN.	48 IN.	1/CU-001
97	3/4 IN.	48 IN.	24 IN.	48 IN.	1/CU-001
98	1 IN.	48 IN.	24 IN.	48 IN.	1/CU-001

OUTDOOR PROTECTIVE ENCLOSURE NOTES:

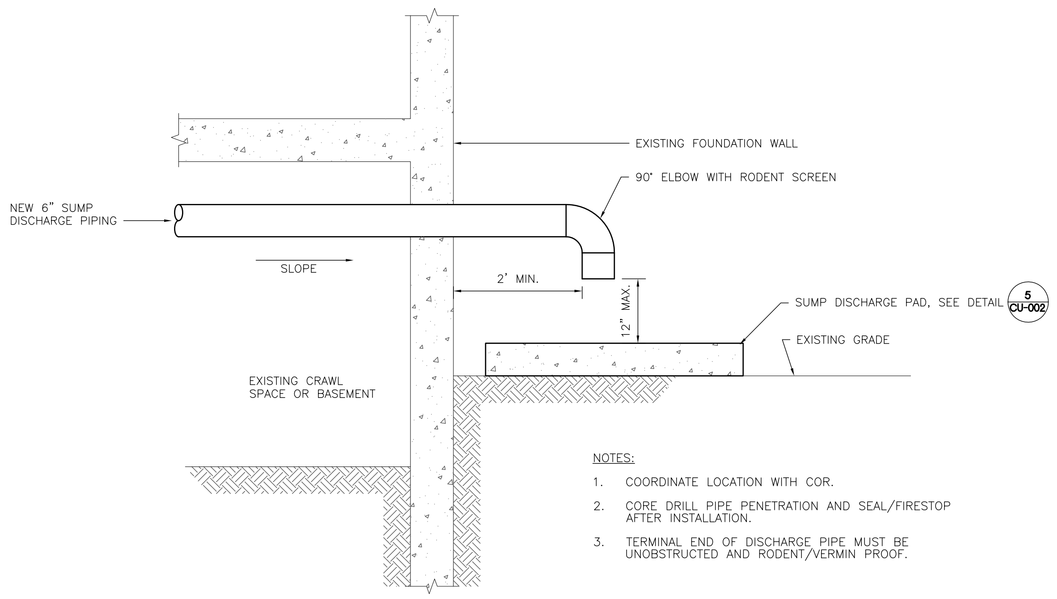
1. ENCLOSURES SHALL HAVE A FLOOR ELEVATION AT LEAST 6 INCHES ABOVE FINISH GRADE.
2. ENCLOSURES SHALL PROVIDE ADEQUATE CLEARANCES AROUND THE DEVICE TO ACCESS THE TEST COCKS, SHUTOFF VALVES, CHECK VALVES, AND RELIEF VALVE.
3. ENCLOSURES SHALL HAVE ELECTRIC HEATERS.
4. ENCLOSURES SHALL HAVE PROVISIONS FOR NATURAL LIGHT.
5. ENCLOSURES SHALL BE PROVIDED WITH FULL FLOW GRAVITY DRAINS.
6. ENCLOSURES SHALL BE PROVIDED WITH LOCKING DOORS OR PANELS.
7. CONCRETE ENCLOSURE PADS SHALL EXTEND 6" BEYOND OUTSIDE OF ENCLOSURE ON ALL SIDES.
8. COORDINATE ENCLOSURE LOCATION AND ELECTRIC POWER SOURCE WITH COR. CONTRACTOR SHALL PROVIDE NEW ELECTRICAL POWER FOR ENCLOSURE.
9. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



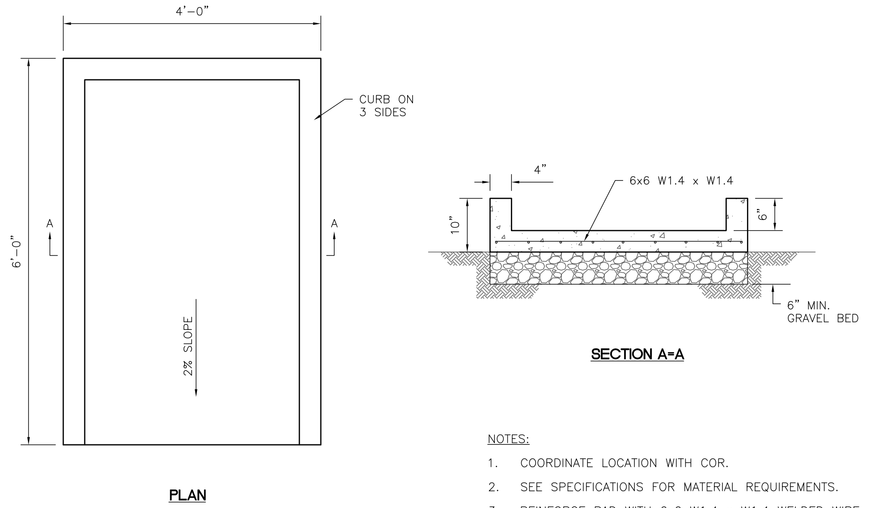
NOTES:

1. REMOVE AND DISPOSE EXISTING WATER SERVICE ENTRANCE PIPING FROM INSIDE FOUNDATION WALL TO BEFORE FIRST BRANCH SUPPLY LINE.
2. PROVIDE NEW PIPING AND DOUBLE CHECK VALVE ASSEMBLY AS SHOWN TO POSITION DCV OVER EXISTING SUMP AND CONNECT TO EXISTING PIPING.

3 CU-002 **BUILDING 9 BACKFLOW PIPING DETAIL**
NOT TO SCALE



4 CU-002 **SUMP PUMP DISCHARGE PIPING DETAIL**
NOT TO SCALE



5 CU-002 **SUMP PUMP DISCHARGE PAD DETAIL**
NOT TO SCALE

Revisions	Date

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Drawing Title: CROSS CONNECTION CONTROL DETAILS

Project Title: INSTALL CROSS CONNECTION CONTROLS

Approved: Eng. Project Supervisor — Date:

Approved: Medical Center Director — Date:

Building No.: N/A | Checked: BRP | Drawn: EHA/JLE

Location: BATH, NEW YORK

Date: 01/12/2015

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CU-002 Dwg. 5 of 10

Office of Construction and Facilities Management

Department of Veterans Affairs