

Design Assumptions for
Nebraska Base Drawing NE200-10-003
Livestock Pipeline in Dam

Revised: 1/18/18 Replaces: NEO-71 (Livestock Pipeline Watering Facility)

Livestock Pipeline in Dam

The top of the inlet should be placed a minimum of 4 ft. below the permanent pool elevation.

A DNR (NE Department of Natural Resources) permit must be obtained due to consumptive use.

The applicable construction specifications should be supplied with this drawing such as specifications for PVC pipelines and water control valves.

Instructions for Nebraska Base Drawing NE200-10-003 Livestock Pipeline in Dam

Fill in the following data fields to automatically fill in the necessary data fields on the drawing.

Title block

Title line(s)

Subtitle line

County, State

Sheet number of

Who / When

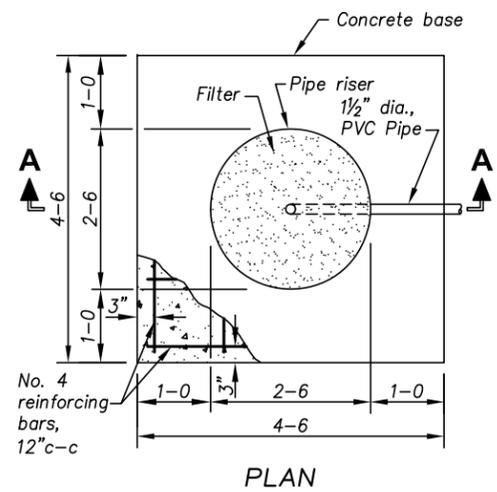
Designed

Drawn

Checked

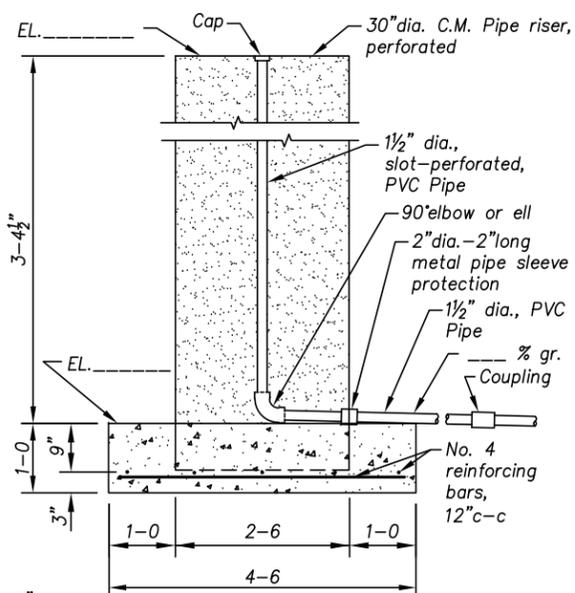
Enter directly on drawing

Left click on yellow boxes on drawing to mark with X as required.
Left click blue data fields to enter required information.



- NOTES:
- For the 30" dia. C.M. Pipe, 5/8" dia. perforations @ 2" c-c in the corrugation valleys.
 - For the 1 1/2" dia. PVC Pipe in filter, field slot perforate with handsaw, 1/3 pipe dia. in depth @ 1" c-c rotated around pipe.
 - Pipe may be installed in through the concrete from the bottom of the riser.
 - Top of riser shall be installed 4 ft. (min.) below permanent pool elevation.

INLET WORKS - DETAIL A



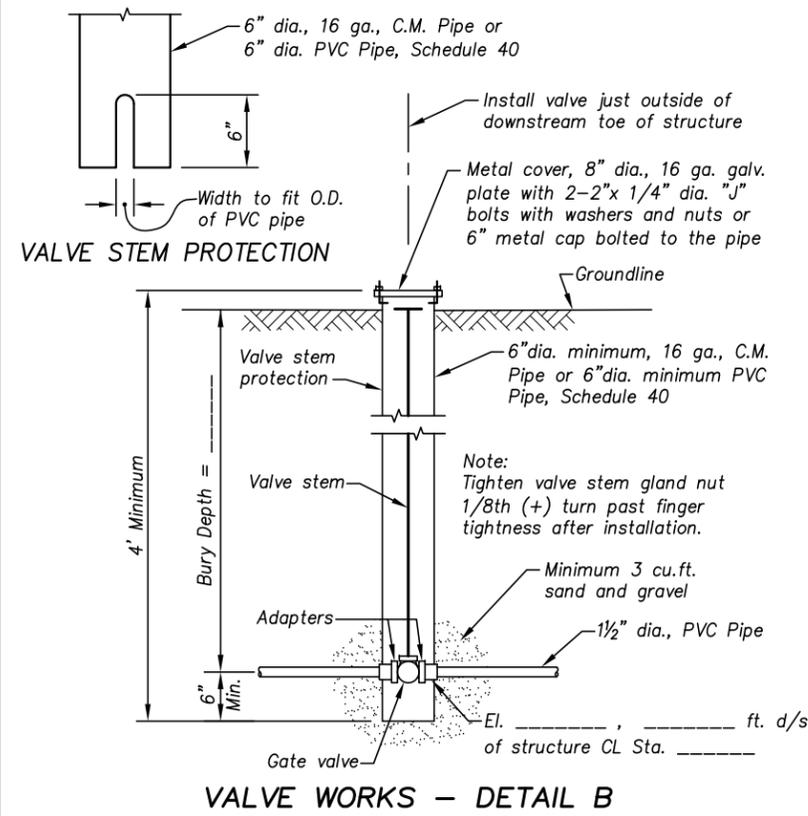
SECTIONAL ELEVATION A-A

Inlet located _____ ft. u/s of CL Sta. _____

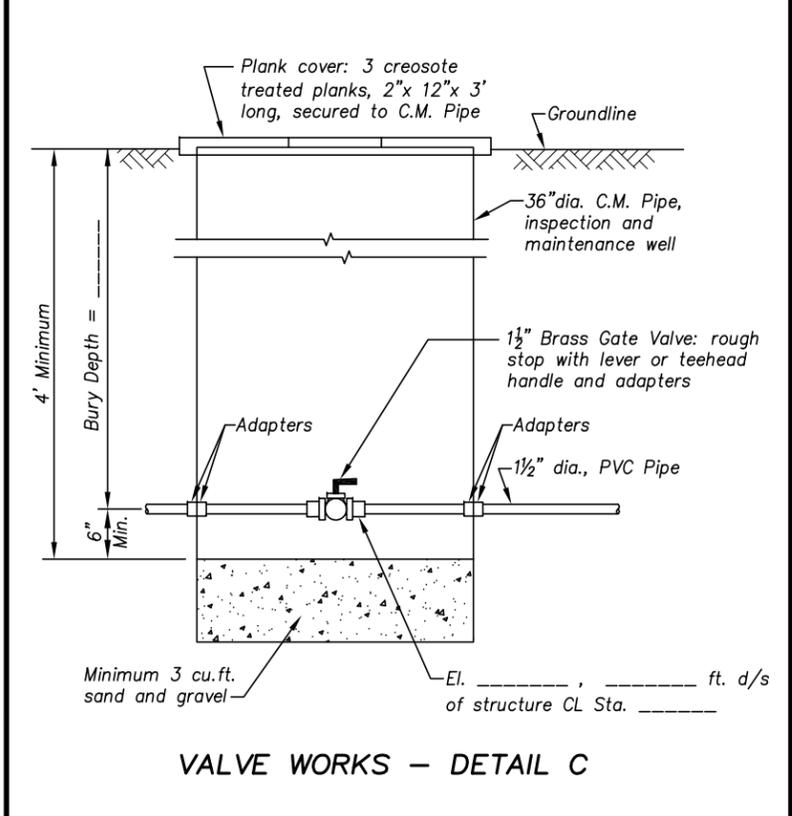
FILTER GRADATION

U.S. STANDARD SIEVE SIZE	PERCENT PASSING OR PERCENT FINER THAN
1"	95-100
1/2"	85-98
3/8"	74-95
#4	46-74
#10	6-38
#20	0-12
#40	0-4

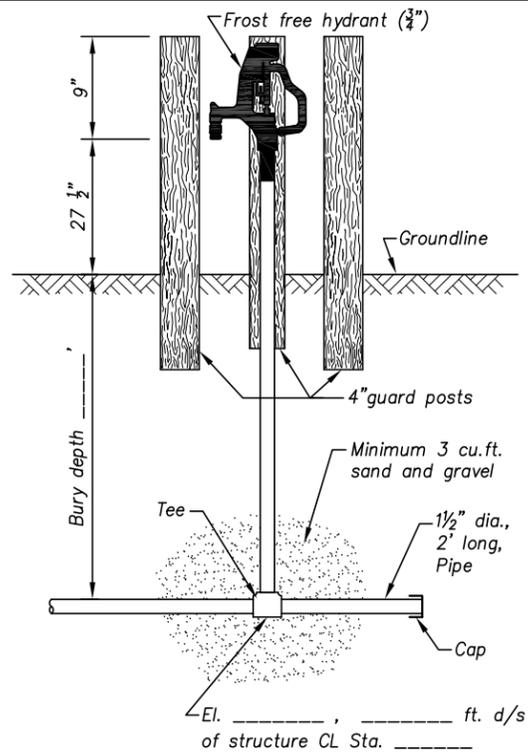
Note:
NE D.O.R Class "A" Road Gravel meets gradation requirements.



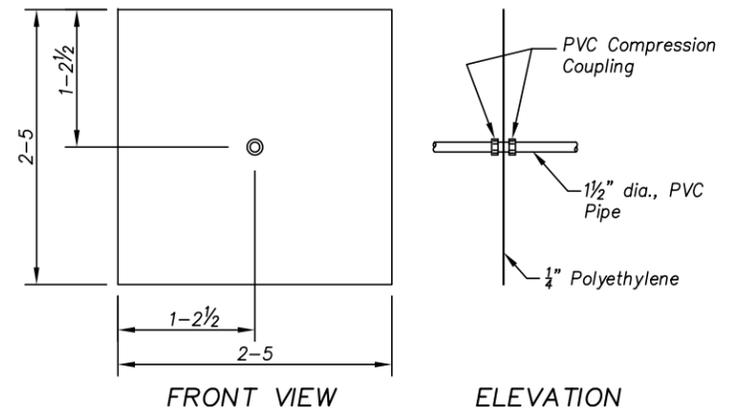
VALVE WORKS - DETAIL B



VALVE WORKS - DETAIL C



HYDRANT WORKS - DETAIL D



POLYETHYLENE SHEET ANTI-SEEP COLLAR**

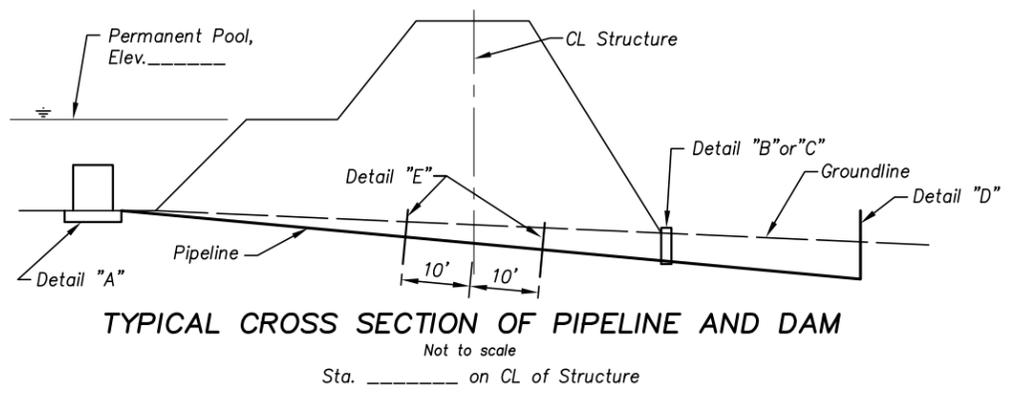
** Collar shall be of quality equal to or exceeding the collars manufactured by Scheib Drainage Products, Oregon, MO 64473

- FABRICATION NOTES:
- Pipe to be clean and dry before attaching anti-seep collar.
 - Care must be exercised when backfilling and tamping so that the anti-seep collar is not damaged.
 - Place anti-seep collars 10 ft. u/s of CL, and 10 ft. d/s of CL.

DETAIL E

X in box indicates detail which applies to structure

ITEM		UNIT	QUANTITY
INLET WORKS DETAIL A <input type="checkbox"/>	CONCRETE CLASS 3000	CU.YD.	0.8
	REINFORCING STEEL (NO. 4 BARS - 40 LIN.FT.)	LB.	27
	CORRUGATED METAL PIPE RISER, 30" DIA., 16 GA., PERFORATED, FULL CIRCULAR CROSS SECTION, FABRICATED WITH: <input type="checkbox"/> ANNULAR CORRUGATIONS, CLOSE RIVETED OR <input type="checkbox"/> HELICAL CORRUGATIONS CORRUGATION NOMINAL SIZE 2 2/3" x 1/2", ZINC COATED STEEL	LIN.FT.	4
	FILTER (SAND AND GRAVEL)	CU.YD.	0.6
VALVE WORKS DETAIL B <input type="checkbox"/>	6" DIA., 16 GA., C.M. PIPE, INCLUDING GATE VALVE, VALVE STEM, METAL COVER AND ADAPTERS, 3 CU.FT. SAND AND GRAVEL	LIN.FT.	
	6" DIA., PVC PIPE, SCHEDULE 40, INCLUDING GATE VALVE, VALVE STEM, METAL COVER AND ADAPTERS, 3 CU.FT. SAND AND GRAVEL	LIN.FT.	
VALVE WORKS DETAIL C <input type="checkbox"/>	INSPECTION AND MAINTENANCE WELL, ZINC COATED C.M. PIPE, 36" DIA., 14 GA., INCLUDING GATE VALVE, PLANK COVER, ADAPTERS, 3 CU.FT. SAND AND GRAVEL PIPE CORRUGATIONS: <input type="checkbox"/> ANNULAR CORRUGATIONS, CLOSE RIVETED OR <input type="checkbox"/> HELICAL CORRUGATIONS	LIN.FT.	
HYDRANT WORKS DETAIL D <input type="checkbox"/>	FROST FREE HYDRANT, INCLUDING 3-4"x 6" POSTS, TEE AND 3 CU.FT. SAND AND GRAVEL	EACH	
DETAIL E <input type="checkbox"/>	POLYETHYLENE SHEET ANTI-SEEP COLLAR, COMPRESSION COUPLING	EACH	2
	1 1/2" DIA. PVC PIPE, SCHEDULE 40, INCLUDING ALL APPURTENANCES	LIN.FT.	



TYPICAL CROSS SECTION OF PIPELINE AND DAM

Not to scale
Sta. _____ on CL of Structure

LIVESTOCK PIPELINE IN DAM

Nebraska Standard Drawing
NE200-10-003 Revised 5/10

Date _____
Designed _____
Drawn _____
Checked _____
Approved _____



CAD file:
NE200-10-003.dwg
Drawing No. _____
Sheet _____ of _____