

Chagrin Falls Village Storm Sewer Specifications

Last Updated: 09/24/2010

1. Sewer and Lateral Pipe:

a. Reinforced concrete pipe w/ water-tight, flexible gasket joints.

or

b. PVC, SDR 26 – ASTM 3034 with ASTM D3212, F477 water-tight, flexible gasket joints. Deflection testing shall be performed no sooner than 30 days after installation and deflection shall not exceed 5%. SDR 35 may be used with permission of Village Engineer.

Bedding is # 57 limestone to 1' above crown of pipe per Village trench and bedding details.

2. Laterals:

Provide lateral cleanouts at the Right-Of-Way Line.

Tees in drives or walk shall have a brass body fitting with bronze plug and square counter-sunk socket.

Minimum pipe size; 6-inch pipe at 1.0% minimum grade.

1. Manholes:

Manholes shall be precast concrete reinforced in accordance with ASTM C478.

Manhole castings: EJIW 1710 with grate type lid (or vented if not inlet type).

Manhole section joints shall meet ASTM C-443.

The pipe manhole connection shall be Z-Lock meeting ASTM C923.

Steps shall be M.A Ind. PS1-PF steel reinforced polypropylene.

2. Drive Culverts (driveway pipes):

Design year storm: Varies 2 – 10 Year per Village Engineer.

Materials:

Corrugated Metal Pipe,

Smooth-lined High Density Polyethylene (HDPE),

Reinforced Concrete,

PVC-SDR 26.

Bedding is suitable crushed granular material such as #57 limestone.

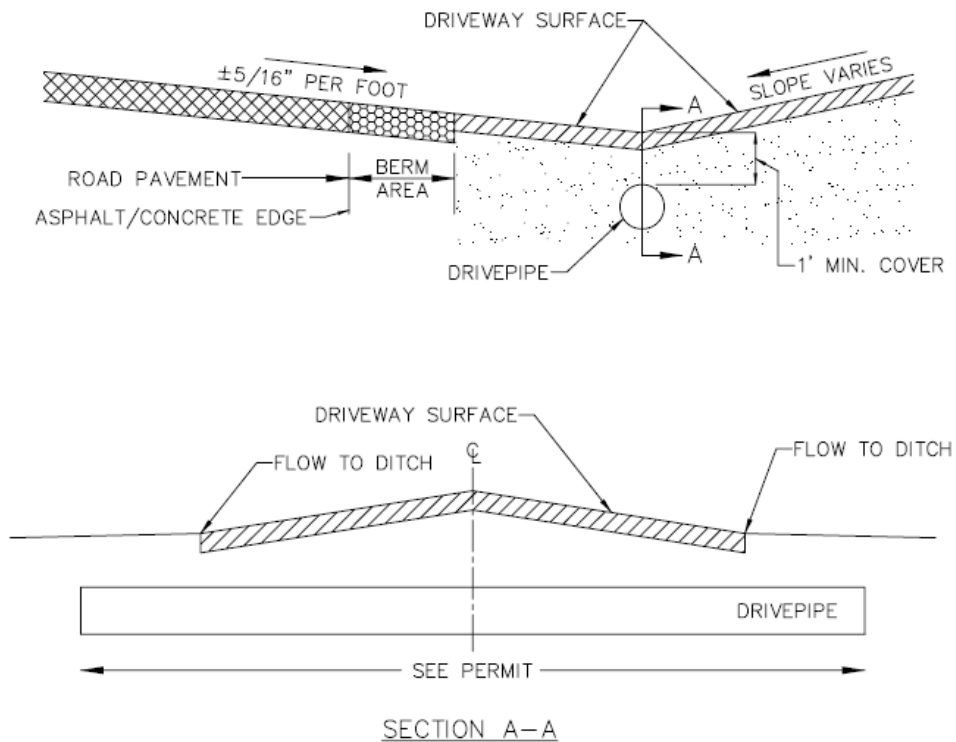
Provide headwalls for design flows over 10 cfs.

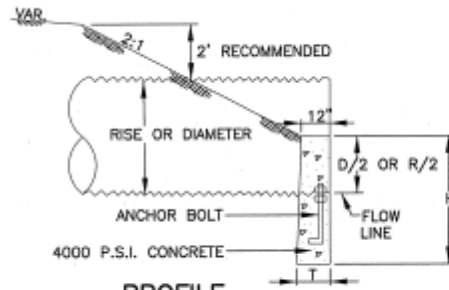
Install per attached guidelines (drain surface water away from road - slope drive towards pipe, 1' min cover).

DRIVEWAY PIPE INSTALLATION GUIDELINES

THE FOLLOWING SPECIFICATIONS APPLY:

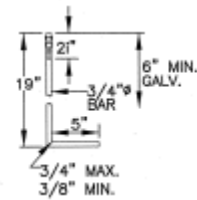
- MINIMUM LENGTH = See Permit
- DRIVEWAY SURFACE SHALL BE CROWNED A MINIMUM OF 1/4" PER FOOT
- LOW POINT OF DRIVEWAY SHALL BE AT DRIVEPIPE
- ALL SURFACE WATER SHALL DRAIN INTO DITCH NOT INTO ROADWAY
- A TRENCH DRAIN MAY BE REQUIRED ACROSS THE ENTRANCE OF DRIVEWAYS WITH EXTREME SLOPES WHERE WATER CANNOT BE PREVENTED FROM DRAINING ONTO THE ROADWAY





PROFILE

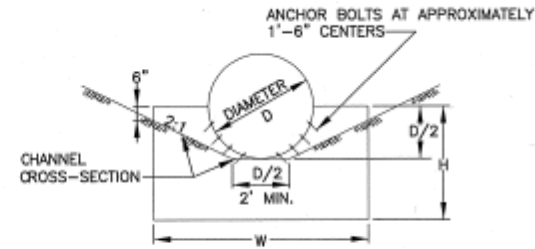
NOTE: CHAMFER ALL EXPOSED CORNERS 3/4 OF AN INCH



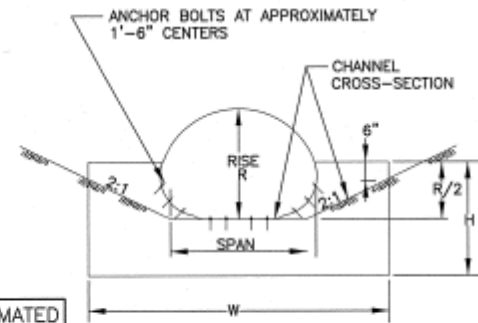
ANCHOR BOLT



NUT
(ASTM A325 AND A153)



CIRCULAR



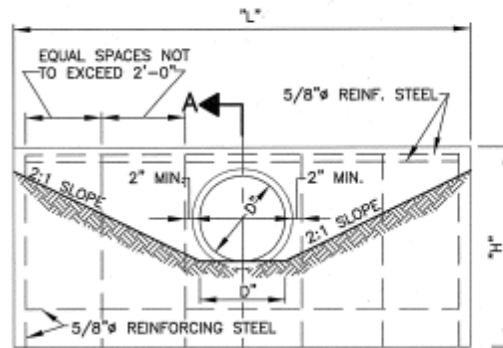
PIPE-ARCH

PIPE-ARCH		CIRCULAR PIPE	DIMENSIONS			ESTIMATED QUANTITY
SPAN	RISE	D	W	H	T	CONC CU.YDS.

HW-4A HEADWALL DETAIL

2/89

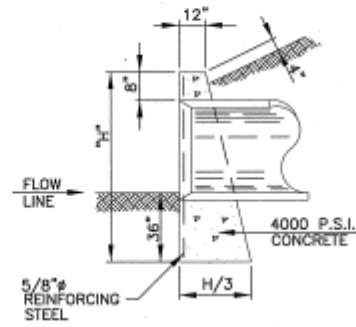
SD-2-3



ELEVATION

CHAMFER ALL EXPOSED CORNERS 3/4" OF AN INCH.

NOTE: WHERE SOIL BEARING CAPACITY IS LESS THAN 2600 P.S.F., INCREASE WIDTH OF BASE.



SECTION A-A

DIMENSIONS			QUANTITIES ONE HEADWALL	
DIAMETER	"H"	"L"	CONCRETE CU.YDS.	REINFORCING STEEL LBS.
12"	4'-11"	5'-8"	1.2	30
15"	5'-2"	7'-0"	1.7	41
18"	5'-5"	8'-4"	2.2	57
21"	5'-8"	9'-8"	2.8	62
24"	5'-11"	11'-0"	3.3	69
30"	6'-5"	13'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

HW-1 HEADWALL DETAIL

1/89

SD-2-1