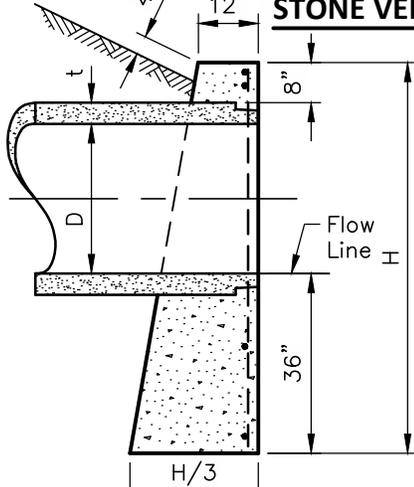
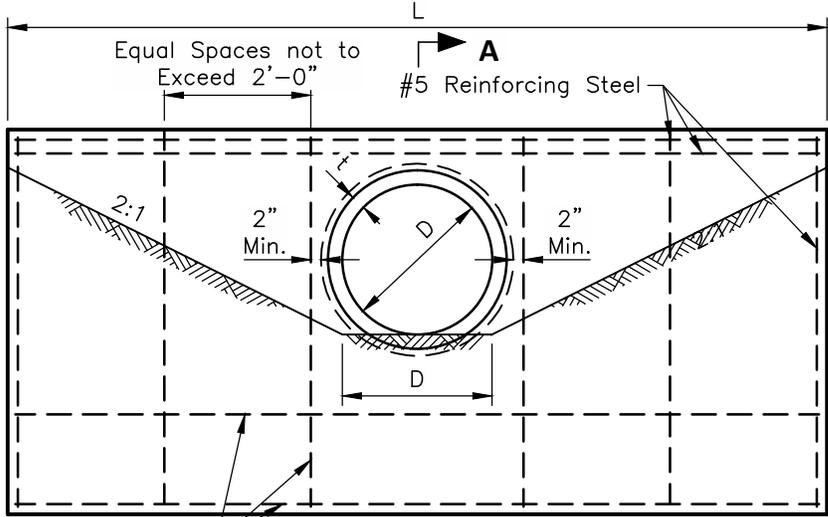


PIPE HEADWALL

**WITHOUT
STONE VENEER**



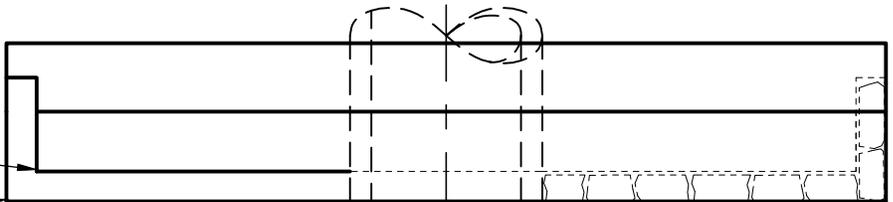
SECTION A-A



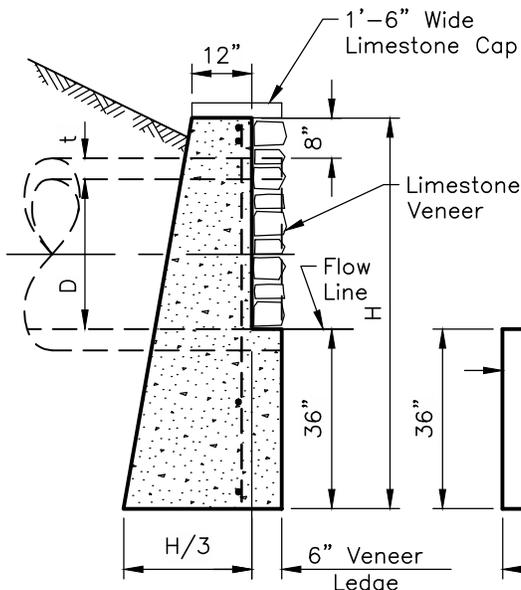
ELEVATION

**PIPE HEADWALL
WITH STONE
VENEER**

Concrete Endwall
Extend 6" Beyond Edge of
Endwall to Provide Ledge
for Limestone Veneer

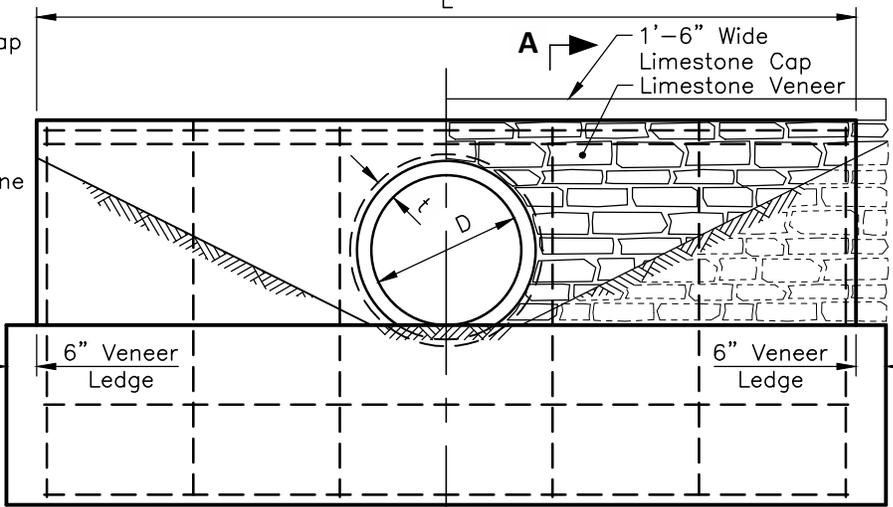


PLAN VIEW
(Symmetrical)



SECTION A-A

(SEE NOTES 9&10)



ELEVATION
(Symmetrical about C/L)

Approved By:
[Signature]
City Engineer, EMH&T Inc
[Signature]
Cindi Fitzpatrick
City Service Director

STANDARD DIMENSIONS
FOR
PIPE HEADWALL

**CITY OF
GROVE CITY, OHIO**

STANDARD
CONSTRUCTION DRAWING

Revised	Sheet	Drawing No.
Rev February 2016	1/2	C-GC-24

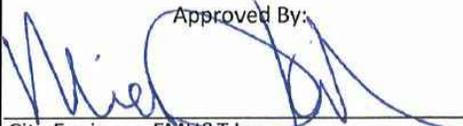
DETAIL NOTES

1. Headwall where required will be provided for nonskewed culverts having a diameter or rise of 36" or less.
2. Concrete shall be Columbus Class "C".
3. Reinforcing Steel Bars shall be No. 5 round bars.
4. Dimensions and Quantities are shown for circular pipe sections only. It will be necessary to determine dimensions for the headwall required for reinforced elliptical concrete pipe or corrugated metal pipe arches in accordance with the equations listed on this drawing.
5. Stone Facing shall be on all exposed surfaces of the outlet structures, unless an exception is granted by the City.
6. Stone is to be North Shore Bluff Limestone. Alternate selections must be approved by the City Service Director.
7. 1/2" Max dry laid look joints hold mortar back 3" Min.
8. Vary thickness of adjacent horizontal stone courses. Whenever possible lay large chunks and fill in around with thinner stones.
9. Pipe end shall be flush with 6" Veneer Ledge.
10. Concrete quantities presented in the table are for the headwall only.
11. See Sheet 1/2 for additional information.

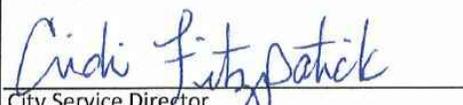
L = Circular Sections	= 5D + 4t	D = Diameter of Pipe
L = Elliptical or Pipe-Arch	= 4R + 4t + S	R = Rise of Pipe
H = Circular Sections	= D + t + 44"	S = Span of Pipe
		t = Thickness of Barrel
		L = Length of Headwall
		H = Height of Headwall

DIMENSIONS			QUANTITIES			
D	H	L	WITHOUT STONE VENEER		WITH STONE VENEER	
			Concrete (Cu. Yds.)	Reinforcing Steel (Lbs.)	Concrete (Cu. Yds.)	Reinforcing Steel (Lbs.)
12"	4'-9"	5'-8"	1.3	32	1.7	32
15"	5'-2"	7'-0"	1.7	41	2.1	41
18"	5'-5"	8'-4"	2.2	57	2.7	57
21"	5'-8"	9'-8"	2.8	62	3.4	62
24"	5'-11"	11'-0"	3.3	69	4.0	69
30"	6'-5"	13'-8"	4.7	92	5.5	92
36"	7'-0"	16'-4"	6.5	105	7.5	105

Approved By:



City Engineer, EMH&T Inc



City Service Director

STANDARD DIMENSIONS
FOR
PIPE HEADWALL

CITY OF GROVE CITY, OHIO

STANDARD CONSTRUCTION DRAWING

Revised	Sheet	Drawing No.
February 2016	2/2	C-GC-24