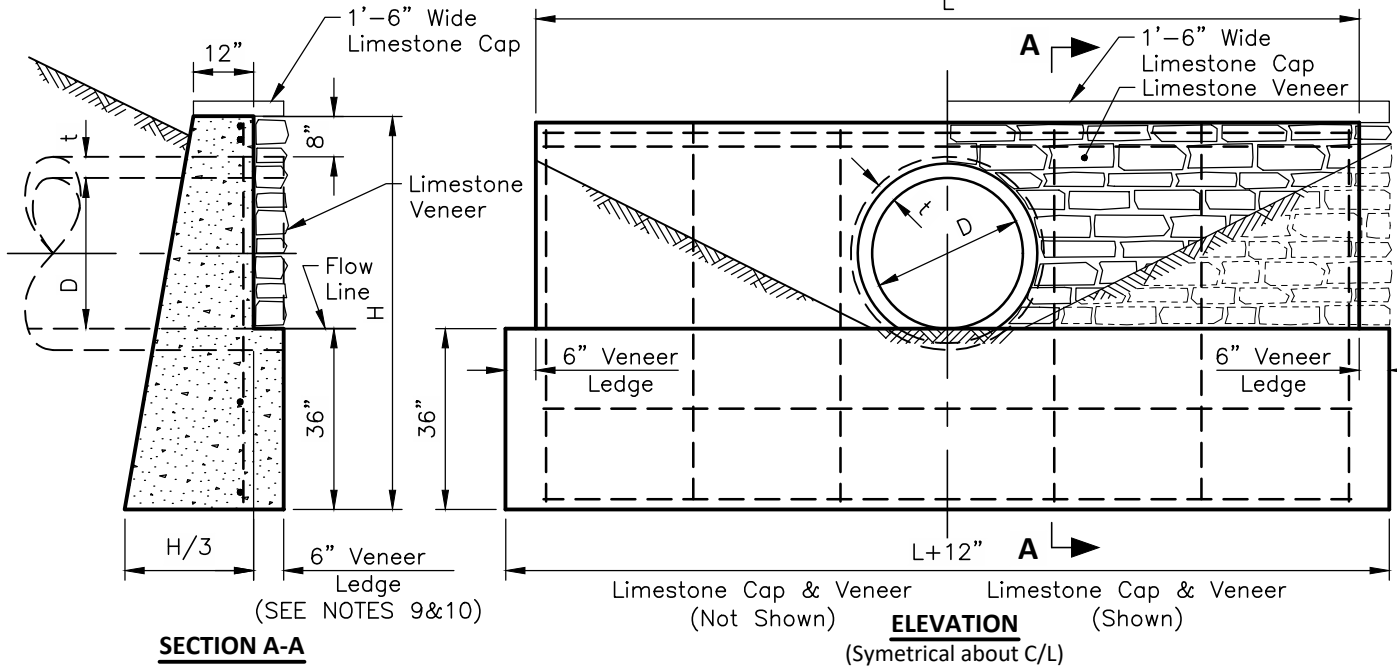
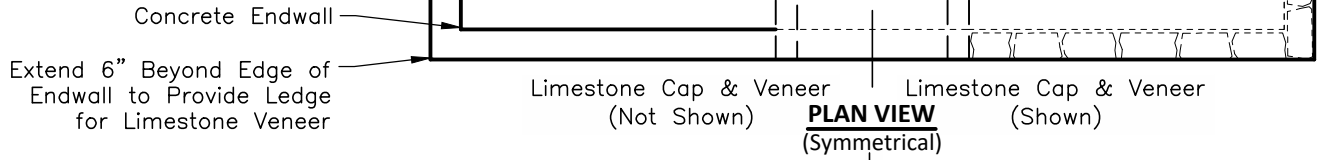


**PIPE HEADWALL  
WITH STONE  
VENEER**



Note: All pipes terminating at a headwall or endwall must be concrete pipe from the headwall or endwall to the next upstream structure.

Approved By:  
  
 City Engineer, EMH&T Inc  
  
 City Service Director

STANDARD DIMENSIONS  
 FOR  
**PIPE HEADWALL**

**CITY OF  
 GROVE CITY, OHIO**

STANDARD  
 CONSTRUCTION DRAWING


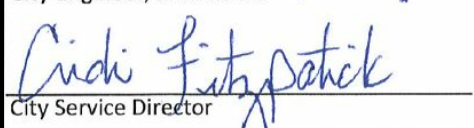
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## DETAIL NOTES

1. Headwall where required will be provided for nonskewed culverts having a diameter or rise of 36-in or less.
2. Concrete shall be Columbus Class COC 6.
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-in Max dry laid look joints hold mortar back 3-in 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-in 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

<p>Approved By:</p>  <p>City Engineer, EMH&amp;T Inc</p>  <p>City Service Director</p>	<p>STANDARD DIMENSIONS FOR <b>PIPE HEADWALL</b></p>	<p><b>CITY OF GROVE CITY, OHIO</b></p> <p>STANDARD CONSTRUCTION DRAWING</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Revised</td> <td style="width: 33%;">Sheet</td> <td style="width: 33%;">Drawing No.</td> </tr> <tr> <td>February 2019</td> <td style="text-align: center; font-size: 1.2em;">2/2</td> <td style="text-align: center;">C-GC-24</td> </tr> </table>	Revised	Sheet	Drawing No.	February 2019	2/2	C-GC-24
Revised	Sheet	Drawing No.						
February 2019	2/2	C-GC-24						