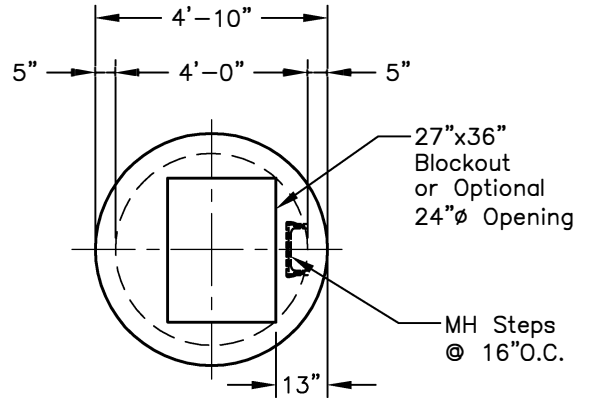
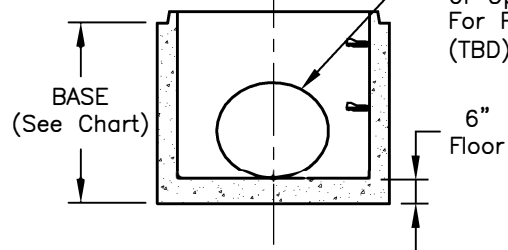
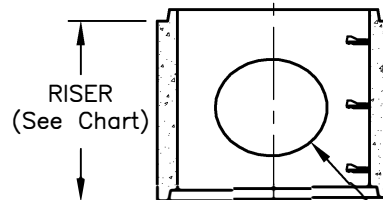
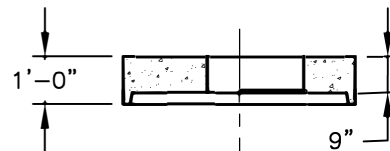


**NOTES:**

1. Precast Manholes are Fabricated to meet or Exceed the Following Specifications:
  - Manhole: ASTM C-478 Latest AASHTO M-199,
  - Wall: ASTM A-185,
  - Base: ASTM 615, Grade 60.
2. Concrete Compressive Strength = 4,000psi.
3. Precast Meets ASTM C913.
4. All Manhole Sections are Designed for HS20 Loading (NCDOT #840.52).
5. Limit Depth of Fill to 30'-0" from Finish Grade to Top of Inside Floor.
6. All Joints Conform to ASTM C990.
7. Joint Sealant: By Others.
8. Co-Polymer Polypropylene Steel Reinforced Steps meet ASTM-C478 Latest.
9. Flat Top Reinforcing #4@8"O.C. Both Ways (1" Cover). Reinforcing: ASTM A-615, Grade 60.
10. Wall Reinforcing Minimum of 0.12 SQ IN. per Linear Foot each Way.
11. Manhole Base Reinforced Both Ways with a Minimum Area of 0.12 SQ IN. per Linear Foot each Way.
12. All Cast Holes are Additionally Reinforced with #4 Rebar Grade 60.
13. All Pipe Openings to be no Greater than 3" Larger that Outside Diameter of Pipe and Additionally Reinforced with a Minimum of 0.20 SQ IN. of Steel at 90 Degrees. Additional Reinforcing not Required for Cored Openings.



**PLAN VIEW**



**SECTION VIEW**

ITEM	HEIGHT	WT (LBS)
FLAT TOP		2,000
RISER	12"	880
	16"	1,180
	32"	2,340
	48"	3,520
BASE	64"	4,690
	24"	2,900
	28"	3,190
	32"	3,480
	36"	3,780
	40"	4,080
	44"	4,370
	48"	4,660
54"	4,940	

**4' DIA STORM MANHOLE (FLAT TOP)**