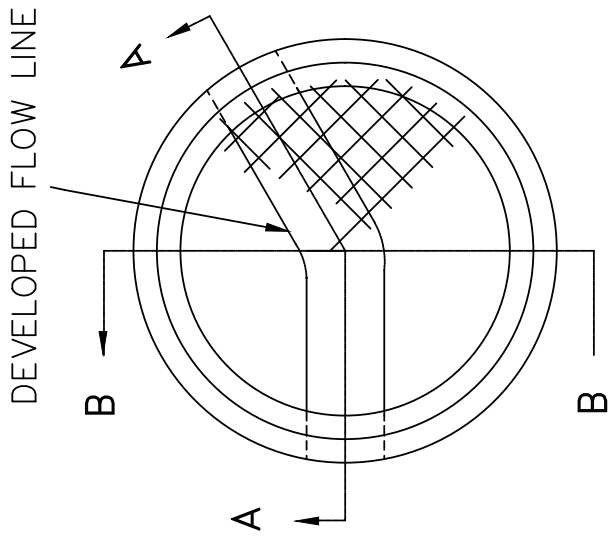


Revision
Date:
4/13/2021

CINCINNATI
STORMWATER
MANAGEMENT UTILITY



City Stormwater Management Engineer
Approved: *Eric Sawyer*
Manhole Base - 49055
Standard Pre-Cast Concrete



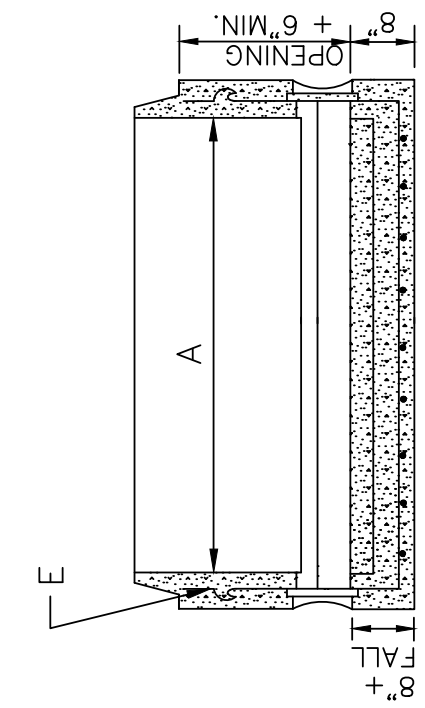
PLAN
MANHOLE BASE

PIPE DIAMETER	DIMENSION			UP TO
	A	B	C	
8" THRU 18"	48"	5"	2" - 3"	1 1/2"
21" & 24"	48"	5"*	2" - 3"	"
	60"	6"*	2" - 3"	"
27" - 36"	60"	6"	2" - 3"	1 1/2"

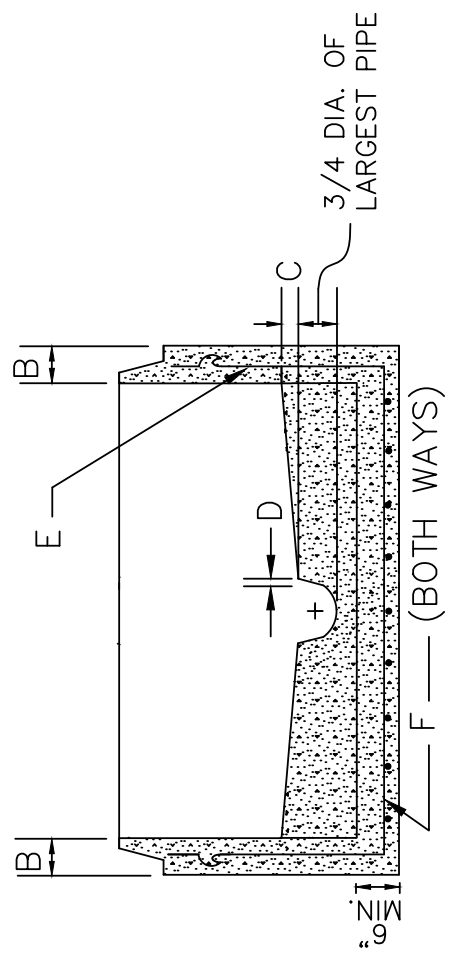
* MOVEABLE PANEL CONSTRUCTION MAY BE USED PROVIDING 5" MIN. THICKNESS PROVIDED.

REINFORCEMENT STEEL
PER A.S.T.M. C478

DIAMETER	REINFORCING ITEM	
	E	F
48"	A _s = 0.12 SQ. IN./FT. (CIRCUMFERENTIAL)	A _s = 0.12 SQ. IN./FT. (BOTH WAYS)
60"	A _s = 0.15 SQ. IN./FT. (CIRCUMFERENTIAL)	A _s = 0.12 SQ. IN./FT. (BOTH WAYS)



SECTION A-A



SECTION B-B

General SMU Notes

1. Inlet chambers shall be precast or made from concrete block in accordance with latest ODOT CMS and City Supplement specifications.
2. All structures must meet standard inside dimensions.
3. Block chambers shall be made from solid slab blocks.
4. Mortar joints shall be a minimum of 3/8".
5. Block walls shall be skim coated with a minimum 1/8" mortar.
6. Casting shall be set in a bed of mortar.
7. Block floors are not permitted.
8. Precast box shall be set on a bed of 6" compacted #57 stones with the floor poured to match flow lines.
9. Concrete floors shall be a minimum of 6" thick.
10. Precast walls shall be a minimum 6" thick.
11. All risers shall be sealed with 2 rows of Con-seal. One interior and one exterior.
12. Pipes shall not enter within 8" of an inside corner.
13. Outlet pipe shall be flush with wall or protrude no more than 1".
14. For incoming conduits with diameter of 8" and smaller see Acc. # 120340.
15. For standard casting, see Acc. # 49017.
16. For standard reinforcing steel notes see Acc. # 49010.
17. Inlet connections in a cone section are not permitted.
18. No more than 2 inlet connections spaced 2'+/- apart horizontally in a 3' or 4' manhole section.
19. Hubs inside of any structure are not permitted.
20. All reinforcing bars shall clear interior face of wall by 2".
21. For installation of risers, a 1" tolerance in either direction is permitted.
22. Protrusions for inlet pipes shall be a minimum of 1" and a maximum of 2".

23. All pipes shall be set in a bed of mortar, dry fitting is not permitted.
24. Pipe edges shall be smooth. No jagged edges are permitted.
25. Shop drawings for precast structures must be approved prior to work commencing.
26. No knockouts are permitted.
27. No steps are permitted.
28. All penetrations shall be manufactured or cored and shall not exceed 4" greater than the conduit's outside diameter.
29. Shims are not permitted.

Standard Pre-Cast Concrete Manhole Base

1. PRECAST MANHOLE BASE MAY BE USED ON 8" TO 36" CONDUIT UNLESS OTHERWISE NOTED ON THE PLANS.
2. PRECAST MANHOLE BASE SHALL NOT BE USED IF THE GRADE OF THE INFLUENT OR EFFLUENT CONDUIT EXCEEDS 10%, UNLESS THE SEAL BETWEEN THE PRECAST MANHOLE BASE AND INFLUENT AND/OR EFFLUENT LINES IS CAST IN A SKEW TO ACCEPT LARGER GRADES.
3. ALL MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 706.13 OF THE STATE OF OHIO SPECIFICATIONS EXCEPT AS OTHER-WISE NOTED HEREIN.
4. ALL CONCRETE SHALL BE QC1.
5. THE GASKET BETWEEN THE PRECAST MANHOLE BASE AND THE MANHOLE RISERS SHALL MEET THE REQUIREMENTS OF A.S.T.M. C-443, EXCEPT THAT ONLY "O" RING AND PROFILE GASKETS ARE ACCEPTABLE.
6. THE SEAL BETWEEN PRECAST MANHOLE BASE AND INFLUENT AND/OR EFFLUENT CONDUIT SHALL BE A RUBBER GASKET, "A-LOK", "KOR-N-SEAL", "DURA-SEAL" OR AN APPROVED EQUAL.
7. OPENINGS FOR INFLUENT AND EFFLUENT CONDUIT SHALL BE PROVIDED TO MEET THE PROJECT REQUIREMENTS.
8. THE PRECAST BASE SHALL HAVE THE FLOOR AND SIDE WALL CAST AS ONE UNIT;
9. IF THE FLOW LINE (CHANNEL) AND BENCHES ARE NOT CAST AS A PART OF FLOOR AND SIDE WALL, THEY SHALL BE CAST OF CONCRETE AT THE PLACE OF MANUFACTURE.
10. LIFT HOLES IN PRECAST MANHOLE BASE TO BE SEALED WITH HYDRAULIC CEMENT AND THE EXTERIOR COATED WITH A BITUMINOUS PAINT.
11. ALL CHARACTERISTICS NOT SHOWN HERE IN SHALL BE SIMILAR TO STANDARD MANHOLE ACC. NO. 49038 & 120354.
12. PRECAST MANHOLE BASES SHALL BE INSTALLED ON A 6" MINIMUM GRAVEL BASE (#57 CLEAN WASHED).

