



PIPE DIAMETER	DIMENSION			
	A	B	C	D
8" THRU 18"	48"	5"	2"-3"	UP TO 1 1/2"
21" & 24"	48"	5"	2"-3"	"
	60"	6"	2"-3"	"
27" - 42"	60"	6"	2"-3"	UP TO 1 1/2"

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

120354 - Manhole on Storm Conduit 42" and Under

Approved *Eric Taylor*
City Stormwater Management Engineer



A Division of Greater Cincinnati Water Works

C I N C I N N A T I

STORM WATER

MANAGEMENT UTILITY

Revision Date: 02/01/2025

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General SMU Notes

1. Inlet chambers shall be precast or made from concrete blocks in accordance with latest ODOT CMS, City Supplement specifications, and SMU drawings.
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. Precast box shall be set on a bed of 6" compacted #57 stones with the floor poured to match flow lines.
8. Concrete floors shall be a minimum of 6" thick.
9. Precast walls shall be a minimum 6" thick.
10. Pipes shall **NOT** enter within 8" of an inside corner.
11. Outlet pipe shall be flush with wall or protrude no more than 1".
12. For incoming conduits with diameter of 8" and smaller see Acc. # 120340.
13. No more than two inlet connections spaced 2'+/- apart horizontally shall be permitted in a 3' or 4' manhole section without approval by SMU.
14. Drop manholes, hubs, or benching shall be done only with the approval from SMU.
15. All reinforcing bars shall clear interior face of wall by 2".
16. For installation of risers, a 1" tolerance in either direction is permitted.
17. Protrusions for inlet pipes shall be a minimum of 1" and a maximum of 2".
18. All pipes shall be set in a bed of mortar; dry fitting is **NOT** permitted.
19. Pipe edges shall be smooth. Jagged edges are **NOT** permitted.
20. Shop drawings for precast structures shall be approved prior to work commencing.
21. All penetrations shall be manufactured or cored and shall **NOT** exceed 4" greater than the conduit's outside diameter.
22. The following are **NOT** permitted for SMU structures
 - a. Shims
 - b. Block floors
 - c. Steps or Ladders
 - d. Knockouts
 - e. Inlet connections in cone sections

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1. 5' diameter manhole shall be constructed of 60" precast concrete manhole sections.
2. A 5' to 4' reducer may be used above the base section.
3. 3' eccentric cone may be used only where permission is granted by the engineer.
4. Precast concrete barrels and cones shall meet the requirements of ODOT specifications.
5. Joints on manhole sections shall be made with a rubber gasket meeting the requirement of ASTM C-443, except that only "O" ring and profile gaskets are acceptable.
6. Lift holes in manholes to be sealed with hydraulic cement. Manhole frame and cover castings shall be in accordance with Std. Acc. NO. 120282.
7. Steps must be removed and the holes properly grouted. pipes must protrude a minimum of 0" and a maximum of 2" into the manhole.
8. A flow line must be established in the floor of the manhole.
9. Precast manhole base may be used on 8" to 42" conduit unless otherwise noted on the plans.
10. 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.
11. All material shall be in accordance with section 706.13 of the state of Ohio specifications except as other-wise noted herein.
12. All concrete shall be QCC1.
13. 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.
14. The precast base shall have the floor and side wall cast as one unit; 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.
15. Precast manhole bases shall be installed on a 6" minimum gravel base (#57 clean washed).
16. Slab top manhole lids are **NOT** permitted in the Right-of-Way

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