

The diagram shows a circular plate with a central hole of radius R_1 and an outer radius R_0 . Three radial slots are cut into the plate, each with a width $2\alpha_i$ for $i=1, 2, 3$. The slots are positioned at angles α_1 , α_2 , and α_3 relative to a reference line. The plate is subjected to a uniform temperature load T_0 and a central point load P .

STANDARD LARGE DIAMETER
MANHOLE FRAME AND COVER
TO BE CAST IN TOP SECTION

4'-0" I.D.
4'-0" MAX.
LENGTH
OF RISER
I.D.
4'-0"

1'-8" TO 5'-0"
MAX. LENGTH
OF RISER
I.D.
1'-8" TO 7'-0"
MAX. LENGTH
OF BASE SECTION (8' I.D.)
7' MAX. LENGTH OF BASE SECTION (8' I.D.)
5' MAX. LENGTH OF BASE SECTION (16' I.D.)

12"

4'-0"

8'-6" I.D.
10'-8" I.D.

#6 BAR, 6" C/C EACH WAY
TOP AND BOTTOM

CONC./ASPHALT

W4.5 WELDED STEEL MESH
0.18 IN² PER FOOT SQUARE (6' I.D.)

2'-1" CLEAR

Ø-RING

3/4" E-Z STIX

O-RING GASKET
JOINT (TYP)
NOT TO SCALE

6'-8" I.D.
8'-0" I.D.

7' = 6' I.D.
9' = 8' I.D.

W6.0 WELDED STEEL MESH
0.24 IN² PER FOOT SQUARE (8' I.D.)

5'-3/4"

GROUT

4"

#4 BARS @ 6" C/C

8" + THICKNESS
OF PIPEWALL

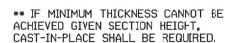
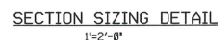
MINIMUM OF 18" OF 1" TO No. 4 CRUSHED STONE,
COMPACTED (GRAV #5)

COMPACT NATIVE SOIL TO 95% STANDARD DENSITY

NOTE:

1. ELEVATION AND ARRANGEMENT OF MANHOLE TOPS SHALL BE IN ACCORDANCE WITH TOP DETAILS.
2. SMOOTH WALLS AT TRANSITION FROM CHIMNEY TO FULL SECTION IS REQUIRED. MAX. OFFSET 2".
3. CONCRETE SHALL BE 4000 PSI (MIN).
4. SEAL TONGUE AND GROOVE JOINTS OF PRECAST MANHOLE SECTIONS WITH RUBBER "O"-RING GASKETS THAT CONFORM TO ASTM C443.
5. OPENINGS FOR INLETS AND OUTLETS SHALL BE MADE TO THE OUTSIDE DIAMETER OF THE INLETS AND OUTLET PIPES. LOCATION OF INLETS AND OUTLETS SHALL BE SHOWN BY THE PLANS. FLEXIBLE GASKETS SHALL BE MAINTAINED IN ACCORDANCE WITH RUBBER JOINT SPECIFICATIONS ASTM C443 AND SHALL MEET THE REQUIREMENTS OF ASTM C425 FOR COMPRESSION JOINTS. THE CONNECTION OF THE PIPE TO THE MANHOLE WALL SHALL BE SEALED WITH APPROVED GROUT OR EQUAL.
6. PRECAST SECTIONS SHALL MEET OR EXCEED REQUIREMENTS OF ASTM C-478 STANDARD SPECIFICATIONS FOR PRECAST CONCRETE MANHOLES.
7. MANHOLE FRAME AND LID MUST BE FLUSH WITH TOP OF THE SURROUNDING CONCRETE SLAB.
8. IF COVER IS 2" FROM TOP OF RIM TO TOP OF PIPE (O.D.) OR LESS, CAST IN PLACE MUST BE UTILIZED.

I.D. = INSIDE DIAMETER
O.D. = OUTSIDE DIAMETER



- THESE DIMENSIONS REFLECT 1/2" MORTAR JOINTS BETWEEN CONCRETE RING COURSES. MORTAR JOINTS MAY BE SLIGHTLY REDUCED OR INCREASED TO BRING MANHOLE RIM TO EXACT GRADE.

MANHOLE RIM AND SPACER DETAIL
3/4"=1'-0"

 CITY ENGINEER  DESIGN MANAGER	CITY OF TULSA, OKLAHOMA
	STANDARD PRECAST CONCRETE STORMWATER MANHOLE
DATE: JUNE 2026	STD. 775