

PLAN

CASTINGS A & B
(UNLESS NOTED OTHERWISE)
STD. PLATES 2201E & 2202D

ADJUST TO GRADE
AS PER STANDARD
PLATE 2321B

ECCENTRIC CONE

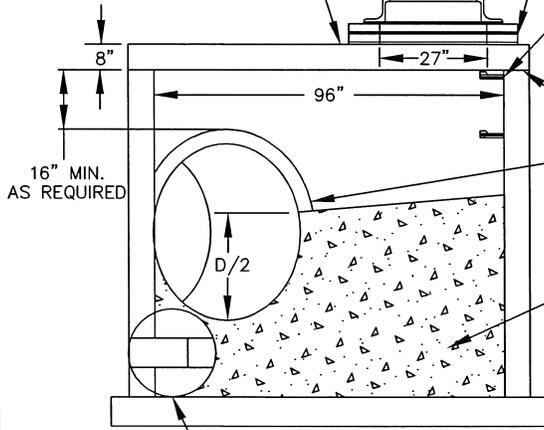
POLYPROPYLENE (ASTM 2146)
ENCASED MANHOLE STEPS
CONFORMING TO ASTM C-478,
(M.A. INDUSTRIES PS-I-PF
OR EQUAL)

48" DIA. PRECAST
RISER SECTIONS
AS REQUIRED

PRECAST SLAB
WITH ECCENTRIC
48" OPENING DESIGN
HS-25 PLUS EARTH
LOAD

MORTAR
FILLET

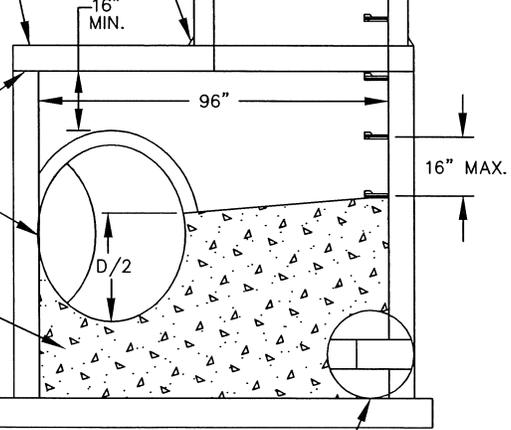
PRECAST COVER SLAB
MN/DOT STANDARD PLATE
4020J OR CURRENT



16" MIN.
AS REQUIRED

SEE NOTE 1
TYPE V

FOR USE WHEN MANHOLE DEPTH IS 12' OR LESS



16" MAX.

SEE NOTE 1
TYPE V-S

FOR USE WHEN MANHOLE DEPTH EXCEEDS 12 FEET

NOTES:

1. THIS PORTION OF MANHOLE MAY BE CONSTRUCTED OF 8" X 8" X 16" OR 6" X 8" X 16" SOLID CONCRETE BLOCKS (SEE SPECIFICATIONS) ALL JOINTS TO BE COMPLETELY FILLED WITH MORTAR 3/8" THICK
2. PRECAST RISER TO MEET ASTM C-478
3. TONGUE AND GROVE PRECAST RISER SECTION JOINTS TO USE O-RING RUBBER GASKET CONFORMING TO ASTM C-443
4. SAW CUT PIPES FLUSH WITH INTERIOR WALL OF MANHOLE
5. EACH JOINT SHALL BE SEALED WITH AN EXTERNAL RUBBER SLEEVE SIMILAR TO THE INFI-SHIELD GATOR WRAP OR APPROVED EQUAL.
6. NO BELLS OR SPIGOTS SHALL PROTRUDE INTO ROUND STRUCTURES. SAWCUT PROTRUSIONS TO BE LESS THAN 3". IN RECTANGULAR STRUCTURES PIPES MUST BE CUT FLUSH TO THE INSIDE WALL. PIPE PROTRUSIONS SHALL NOT RESTRICT ENTRY TO MANHOLE.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Aaron D. Hass
AARON D. HASS

Date 01-21-2026 Lic. No. 26424

APPROVED *2-19-2026*
Nick...
CITY ENGINEER

CITY OF ST. PAUL
DEPARTMENT OF PUBLIC WORKS
MANHOLE, TYPE V & V-S

Date of Revision
JAN 2026

Standard Plate No.
2105G