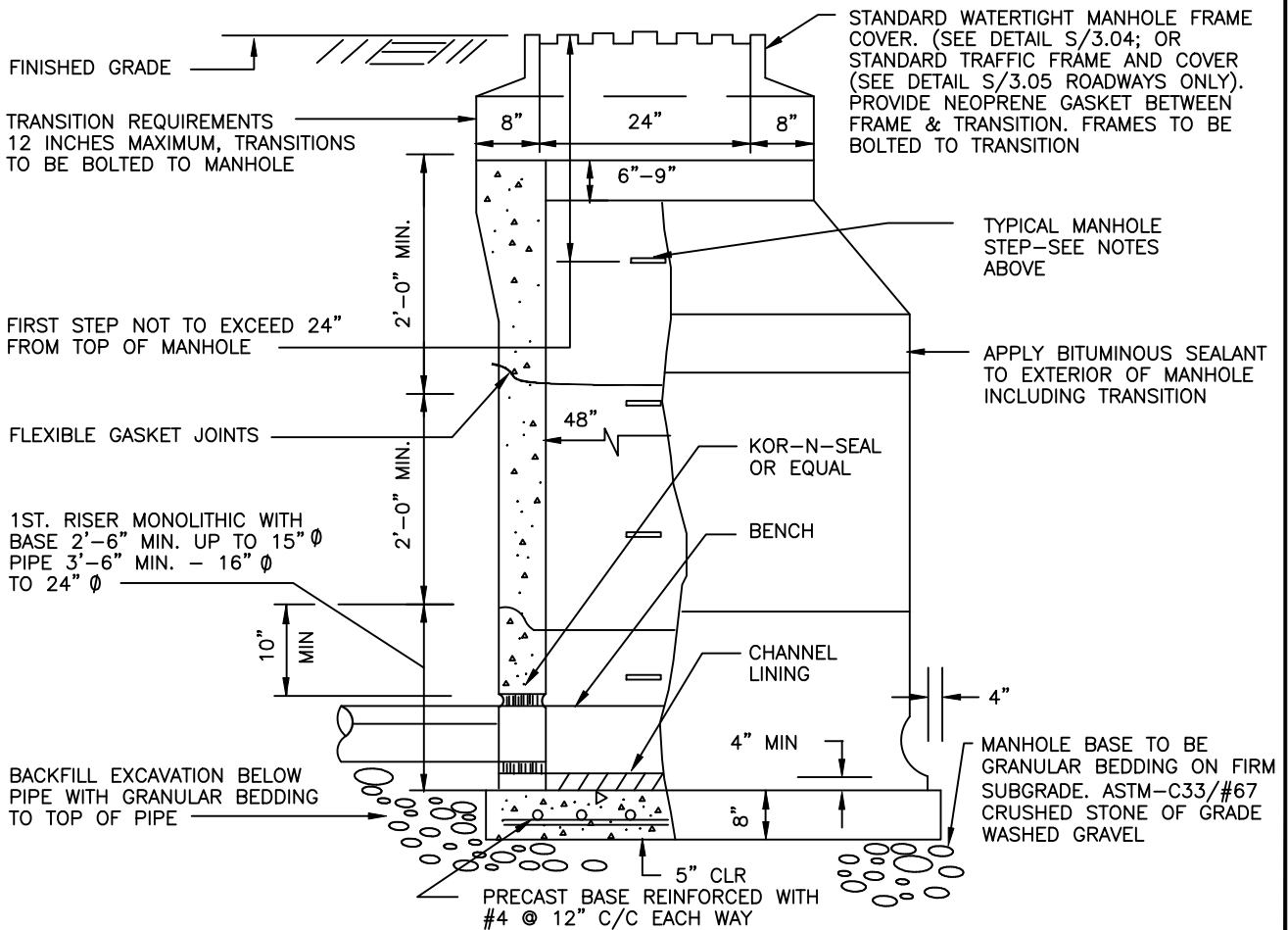


- A. MANHOLE STEPS SHALL BE MINIMUM 10" WIDE AND SPACED 12" WITH + 1" TOLERANCE, CENTER TO CENTER, IN VERTICAL ALIGNMENT AND ALIGN WITH BENCH.
- B. EMBED STEPS MINIMUM 3" WITH A MINIMUM PROJECTION OF 5".
- C. INSTALL BOTTOM STEP MINIMUM 5" AND MAXIMUM 16 1/2" ABOVE BENCH. THIS STEP MAY BE INSTALLED AT POINT OF MANUFACTURE BY DRILLING HOLES OF MINIMUM 1 1/2" DIAMETER AND 3" DEEP ON INSIDE OF MANHOLE, AND FILL VOID WITH NON-SHRINK GROUT. STEPS SHALL BE ALUMIMUM OF REINFORCED PVC.

NOTE: MANHOLE

- 1. PROVIDE LIFTING HOLES OR DEVICES FOR ALL PRECAST SECTIONS. HOLE COMPLETELY THRU WALLS SHALL BE PLUGGED W/NEOPRENE OR RUBBER PLUG INSERTS, MORTARED FLUSH ON EACH SIDE OF WALL WITH NON-SHRINK GROUT. HOLES NOT COMPLETELY THRU WALL SHALL BE FILLED FLUCH WITH WALL WITH NON-SHRINK GROUT. MINIMUM OF 4000 PSI CONCRETE SHALL BE USED FOR PRECAST CONSTRUCTION.
- 2. UNLESS OTHERWISE NOTED, MAXIMUM DEPTH OF MANHOLE SHALL BE 16'-0".
- 3. PROVIDE FLEXIBLE GASKET CONNECTOR BETWEEN PIPE AND MANHOLE.
- 4. GRADE OF PIPE ENTERING OF LEAVING MANHOLE SHALL NOT EXCEED 10%.
- 5. MINIMUM HEIGHT OF RISERS = 1'-0". NO MORE THAN ONE 1'-0" RISERS IS PERMITTED ON EACH MANHOLE.
- 6. MAXIMUM SIZE PIPE TO BE USED WITH 48" DIAMETER MANHOLE IS 24"
- 7. MANHOLES OVER 16' DEEP SHALL BE A MINIMUM 5' MANHOLE



**CHARLES COUNTY GOVERNMENT**

DEPARTMENT OF PLANNING & GROWTH MANAGEMENT

APPROVED: Raymond N. Shumaker, Jr. Aug 8, 2023  
Raymond N. Shumaker, Jr. (Aug 8, 2023 12:00 EDT)

CHIEF OF CODES, PERMITS, & INSPECTION SERVICES DATE

Andy B. Smith  
Andy B. Smith (Aug 8, 2023 14:02 EDT)

Aug 8, 2023 DATE

PROFESSIONAL ENGINEER

DATE

STANDARD DETAIL

PRECAST CONCRETE  
 MANHOLE DETAIL,  
 48" DIAMETER

S

1.00

REVISIONS:

DECEMBER 2022