

NORTH DAVIS SEWER DISTRICT

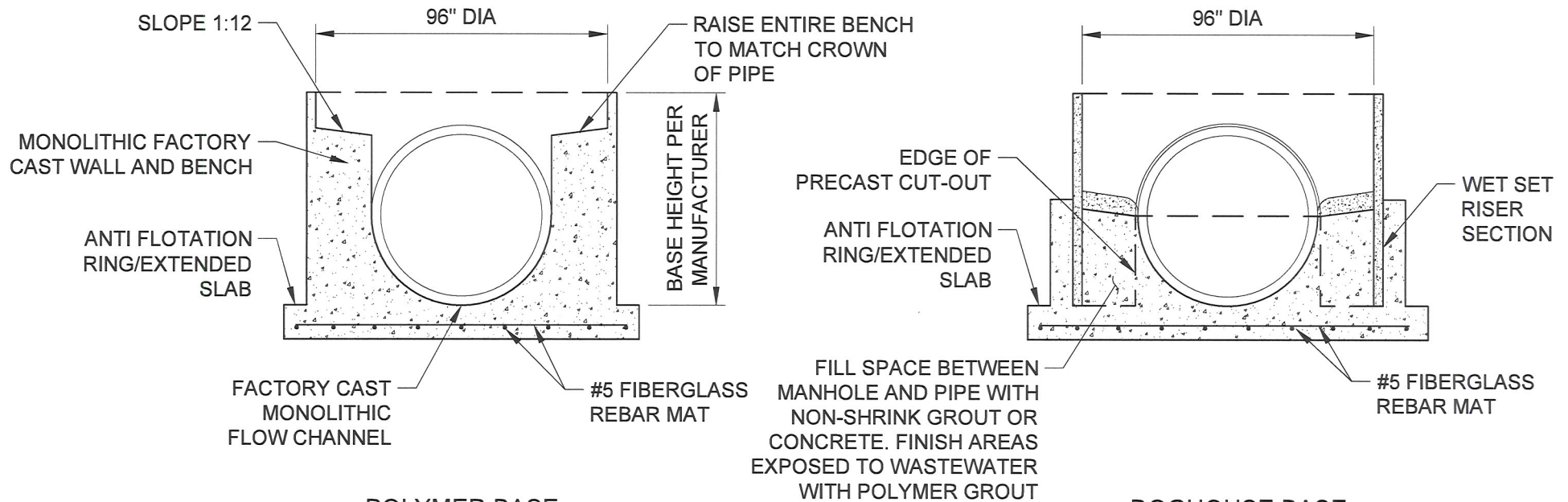
**ND-14 Standard Polymer Manhole Detail for 48" DIA  
Sewer or Larger 1 of 3**

Adopted 6/13/2024

**NOTES:**

1. CONTRACTOR MUST NOTIFY THE DISTRICT 48 HOURS BEFORE WORK BEGINS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF EXISTING SEWER AND OTHER UTILITIES, PROPER BACKFILLING, COMPACTING, AND SURFACE RESTORATION.
3. MINIMUM MANHOLE DIAMETER SHALL BE PER ND-03. MANHOLES AND THEIR BASES SHALL BE PRECAST CIRCULAR POLYMER CONCRETE DESIGNED, FABRICATED, AND TESTED TO MEET OR EXCEED THE REQUIREMENTS OF ASTM D6783. POLYMER COMPONENTS SHALL BE A MIXTURE OF UNSATURATED ISOPHTHALIC POLYESTER RESIN, SAND, AND AGGREGATE. ARMOROCK OR APPROVED EQUAL.
4. JOINTS SHALL BE WATER-TIGHT. ALL FLUSH MANHOLE JOINTS SHALL BE SEALED WITH RUBBER GASKETS WITH EXTERIOR WRAP. RUBBER GASKETS SHALL BE HK TYLOX SOC PROFILE GASKETS OR APPROVED EQUAL WRAP SHALL CONFORM TO ASTM C877 TYPE II OR TYPE III, PRESS-SEAL EZ-WRAP, CRETEX WRAP, CONWRAP 212, OR APPROVED EQUAL.
5. THE CONTRACTOR SHALL BE A LICENSED OR CERTIFIED INSTALLER BY THE MANUFACTURER OF THE MANHOLE PROVIDED. CONTRACTOR MUST SUBMIT TO THE DISTRICT A LETTER PREPARED BY THE MANUFACTURER ATTESTING THAT THE INSTALLER IS QUALIFIED AND APPROVED TO INSTALL THEIR PRODUCT.
6. INVERTS OF CONNECTING PIPE SHALL MATCH THE CROWN OF EXISTING DISTRICT PIPE. PRECAST BENCH AND CHANNEL SHALL BE SHAPED TO FORM A SMOOTH FLOW SURFACE.
7. MANHOLE/PIPE CONCECTIONS MUST BE WATER-TIGHT. PROVIDE FLEXIBLE, BOOTED PIPE CONNECTIONS PER ASTM C923.
8. SEE ND-06 FOR ACCEPTANCE TESTING, FINAL COMPLETION, AND WARRANTY REQUIREMENTS.





**POLYMER BASE**

**DOGHOUSE BASE**

**NOTES:**

1. MANHOLE BASE SHALL BE PRECAST POLYMER. PRECAST CONCRETE SHALL NOT BE ALLOWED.
2. CONCRETE SHALL BE TYPE I/II PORTLAND CEMENT PER ASTM C150 WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI PER ASTM C39. NO ADDITIVES SHALL BE PERMITTED WITHOUT PRIOR APPROVAL BY THE DISTRICT. ENCASEMENT SHALL BE CAST IN A SINGLE POUR.
3. IN AREAS WHERE FLOATATION OR BUOYANT CONDITIONS EXIST, PROVIDE ANTI-FLOATATION RINGS FULLY ENCASED IN A CONCRETE PAD OF SUFFICIENT SIZE AND THICKNESS TO PREVENT FLOATATION. SIZE SHALL BE BASED ON GROUNDWATER TO GRADE.
4. GROUT SHALL BE FULL STRENGTH, NON-METALLIC, NON-SHRINK TYPE V GROUT (MASTERFLOW 713, FIVESTAR GROUT, OR APPROVED EQUAL) WITH ADDITIVES FOR PROTECTION AGAINST HYDROGEN SULFIDE ATTACK.



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**ND-14 Standard Polymer Manhole Detail for 48" DIA  
Sewer or Larger 3 of 3**

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