



NORTH DAVIS SEWER DISTRICT

ND-11 Standard Manhole Detail FRP 1 of 2

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 FIBERGLASS REINFORCED POLYESTER DESIGNED, FABRICATED, AND TESTED TO MEET OR EXCEED THE REQUIREMENTS OF ASTM D3753. NO CEMENTITIOUS OR CALCIUM CARBONATE MATERIALS SHALL BE ALLOWED. HOBAS, LFM MANUFACTURING, OR APPROVED EQUAL.
4. JOINTS, WHERE ALLOWED, SHALL BE SHOP FABRICATED ADJUSTMENT RINGS OR COUPLINGS PER MANHOLE MANUFACTURER.
5. THE CONTRACTOR SHALL BE A LICENSED OR CERTIFIED INSTALLER BY THE MANUFACTURER OF THE MANHOLE PROVIDED. CONTRACTOR MUST SUBMIT 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. 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.
9. WHERE USED, 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. CONCRETE SHALL BE PROVIDED IN A SINGLE MONOLITHIC POUR.
10. WHERE FLOWABLE FILL IS PROVIDED, FILL SHALL BE TYPE 1L BETWEEN 50 - 150 PSI AT 28 DAYS. DEPTH OF FLOWABLE FILL BELOW GRADE SHALL BE EQUAL OR GREATER THAN THE HEIGHT ABOVE GRADE AND INCLUDE AT A MINIMUM ONE JOINT BELOW GRADE. SEE ALSO ND-04.
11. SEE ND-06 FOR ACCEPTANCE TESTING, FINAL COMPLETION, AND WARRANTY REQUIREMENTS.

