

MANHOLE NOTES

1. Reinforcing area of 0.20 sq. in./ft. for wall section, minimum to meet or exceed A.S.T.M. A-185.
2. All cement mortar to be Type I or Type II.
3. All cement for precast manholes to be minimum 3,000 p.s.i. to meet or exceed A.S.T.M. C-478.
4. Bottoms and channels of all manholes to be a minimum of 2,500 p.s.i. Fill concrete shall be finished smooth with steel trowel.
5. Concrete manholes to have a minimum wall thickness of 8".
6. Inside and outside of manhole shall be coated with two coats of EW-1 water based epoxy. (1) coat red, one coat black, for a total of two coats.
7. Channels to be formed in all manholes to accept t.v.camera.
8. Orient eccentric cone as required by engineer in field.
9. Bottom section to be monolithic pour except where drop connection required.
10. Connections to existing manhole and lift station wet well structures shall be by means of boring a penetration in the structure, rather than punching. the contractor shall take positive measures to prevent any concrete or construction debris from entering the wastewater system.
11. Buoyancy calculations shall be required for all manholes.
12. No. 4Ø bars, 9" O.C. required each way in slab (top and bottom).
13. 2 courses brick minimum, 6 courses maximum required between all precast manhole tops and casings.
14. 3 /4" crushed stone foundation for a minimum depth of 12" shall be provided as required by IRCUDUS.
15. Manhole lid shall be traffic bearing (H-20 loading).
16. Sewer pipe inverts at bottom of manholes shall have as invert elevation differential of 0.1 feet for a change in direction and 0.05 feet for a straight run.
17. A watertight rain guard boot, to be per IRCUDUS Approved Manufacturer's Product List, shall be provided for all manhole frame/covers.
18. Materials for lining manholes, where required, to be per IRCUDUS, Approved Manufacturer's Product List. Manhole liners shall be installed on all manholes receiving pumped sewage, plus 5 manholes in each direction. (As directed by IRCUDUS.)
19. Pump out manhole shall be located within 20' of lift station and constructed out of right-of-way.
20. All existing manholes, lift station wet wells, valve vaults, joints and courses of brick shall be sealed.
21. Slopes on all channel bottoms to be equal to slopes of pipe entering and exiting manhole.
22. Diameters of manholes shall be:

DEPTH OF MANHOLE	LESS THAN 6'	6' – 10'	GREATER THAN 10'
DIAMETER	4'	5'	6'

-ART-

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITY SERVICES



MANHOLE
NOTES

DRAWING
NO.

S-5

MARCH 2018