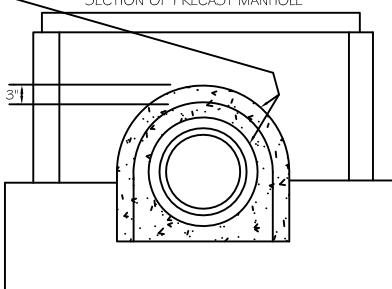
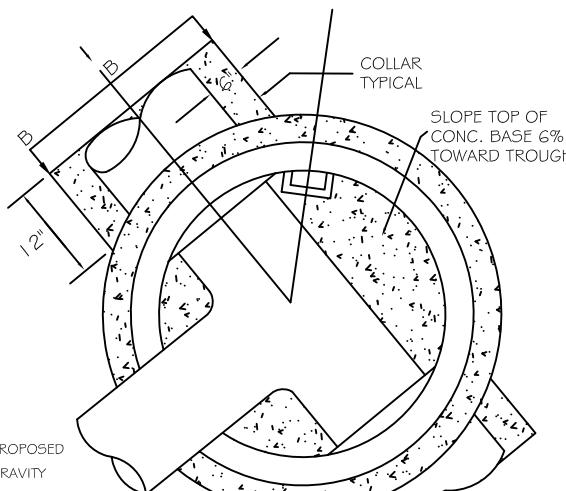


AREA AROUND DOGHOUSE CUTOUT AND PIPE TO BE MADE WATERTIGHT BY INSTALLATION OF AN APPROVED RUBBER WATER STOP SLIPPED OVER THE PIPE AND TIGHTENED ONTO THE PIPE WITH INTEGRAL STAINLESS STEEL TAKE-UP CLAMPS. THE ANNUAL SPACE AROUND THE PIPE AND MANHOLE WALL SHALL BE CLOSED FROM INSIDE FACE TO OUTSIDE FACE OF THE MANHOLE WALL WITH AN APPROVED NON-SHRINK GROUT.

SECTION OF PRECAST MANHOLE



SECTION B-E



SECTION A-A

#	REVISED	DATE:	7/1/04
	1/26/17	SCALE:	NONE
		DRAWN BY:	JPH
		CHECKED BY:	DSW
		APPROVED BY:	DSW

STANDARD DETAIL

DOGHOUSE MANHOLE DETAIL

NOTES

1. MANHOLE TO CONFORM WITH ASTM C478 EXCEPT AS MODIFIED BELOW.
2. WALL REINFORCING TO BE A MINIMUM OF 0.12 SQ. IN. PER LINEAR FOOT., EITHER TONGUE AND GROOVE OR JOINTS SHALL HAVE REINFORCING EQUAL IN AREA TO MINIMUM OF WALL SECTION.
3. ALL JOINTS SHALL CONFORM WITH ASTM C443.
4. STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC WITH 1/2" GRADE 60 STEEL REINFORCEMENT AND RESIST 1000 LB. PULLOUT TEST.
5. ALL PIPE OPENINGS TO BE NO GREATER THAN 3" LARGER THAN O.D. OF PIPE AND ADDITIONALLY REINFORCED WITH A MINIMUM OF 0.20 SQ. IN. OF STEEL AT 90 DEGREES. PIPE TO BE CENTERED IN OPENINGS.
6. ALL SURFACES SHALL BE SMOOTH EVEN TEXTURED WITH A MINIMUM OF HONEYCOMB, FINS AND OTHER IMPERFECTIONS.
7. MANHOLE BASE SHALL BE 3600 P.S.I. CONCRETE PLACED AGAINST SHAPED BANKS IN LIEU OF FORMS.
8. CARE MUST BE TAKEN TO FORM A SMOOTH FINISHED TROUGH FROM ENTRANCE PIPES TO EXIT PIPE, AND IN CURVED MANHOLES THE TROUGH MUST BE A SMOOTH CIRCULAR ARC TANGENT TO THE INSIDE WALLS OF THE PIPES AT THEIR ENDS.
9. ALL MANHOLE RINGS SHALL BE BOLTED INTO MANHOLE THRU CONCRETE GRADE RING WITH 1/2" DIAMETER KWIK BOLT STUD ANCHOR SYSTEM.
10. MANHOLE GRADE SETTING SHALL BE AS FOLLOWS:
 - A. FLUSH WITH GRADE IN PAVED AREAS
 - B. 0.10' ABOVE GRADE IN MOWED PLAZA AREAS WITHIN OR ADJACENT TO STREET RIGHT-OF-WAY.
 - C. 2.0' ABOVE GRADE IN CROSS-COUNTRY UTILITY RIGHTS-OF-WAY.
 - D. A HEIGHT SPECIFIED BY THE WATER RESOURCES ENGINEER.
11. PENETRATING LIFTING HOLES SHALL BE PLUGGED WITH EXPANSION GROUT.

WATER RESOURCES DEPARTMENT
CITY OF MONROE, NC

FILE NO. | 2.04.00 | DIV. NO. | 2