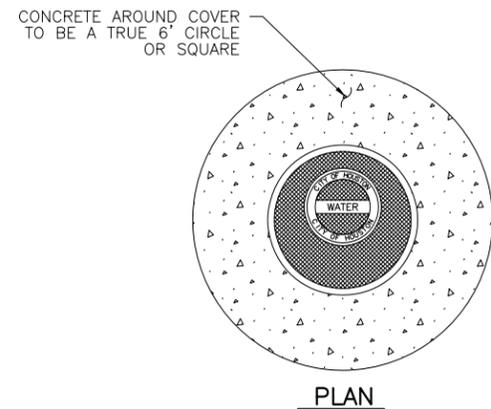
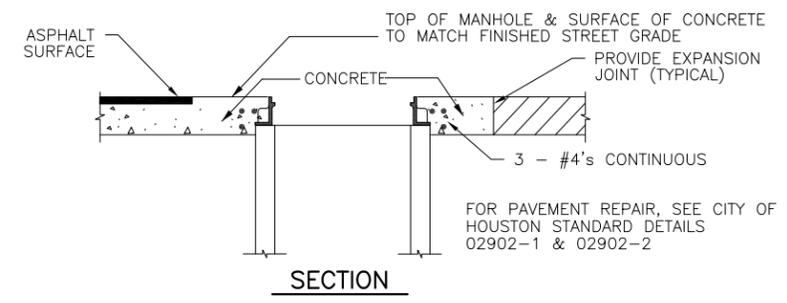


1 HEAVY DUTY MANHOLE RING AND COVER



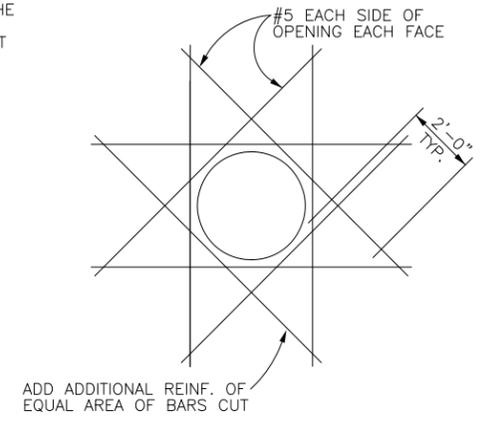
PLAN



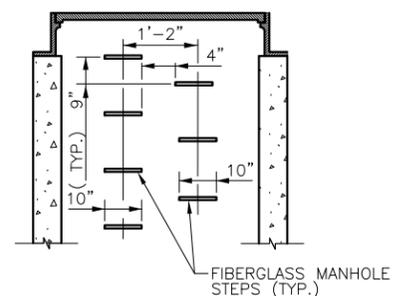
SECTION

2 MANHOLE CONCRETE COLLAR DETAIL

**NOTES:**  
1. CONSTRUCT THE FINAL TWO FEET OF THE MANHOLE AND PLACE CONCRETE WITHIN BLOCKOUT AFTER THE STREET PAVEMENT HAS BEEN INSTALLED.

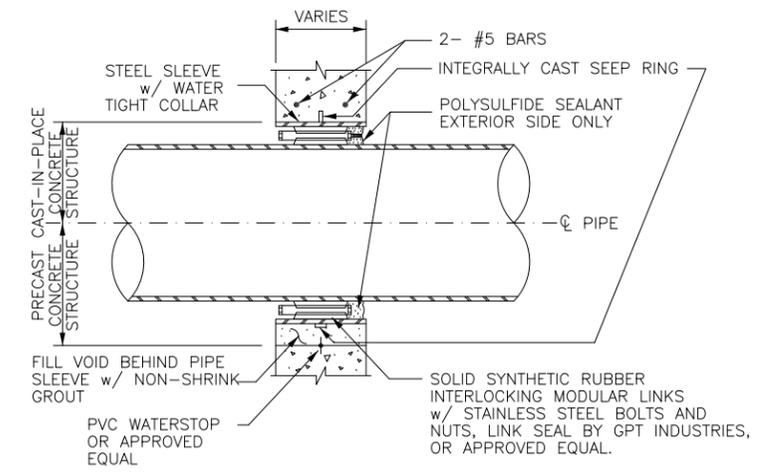


3 SERVICE MANHOLE REINFORCEMENT DETAIL



**NOTES - MANHOLE STEPS:**  
1. PROVIDE MODEL PS1-PF STEPS AS MANUFACTURED BY M.A. INDUSTRIES INC. OR APPROVED EQUAL.  
2. BOTTOM MANHOLE STEP SHALL BE NO HIGHER THAN 12" ABOVE MANHOLE INVERT.

4 MANHOLE STEP DETAIL



5 TYPICAL WALL PENETRATION DETAIL

<b>CITY OF HOUSTON</b>	
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING	
STANDARD LDWL MANHOLE DETAILS	
(NOT TO SCALE)	
APPROVED BY:	APPROVED BY:
CITY ENGINEER	DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: NOV-10-2016	DWG NO: