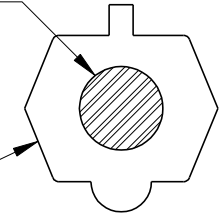


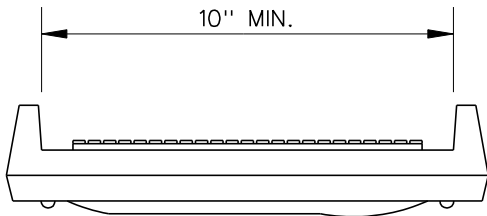
TOP PLAN

1/2" GRADE 60 STEEL  
REINFORCING BAR,  
ASTM A615

POLYPROPYLENE  
PLASTIC, ASTM D4101



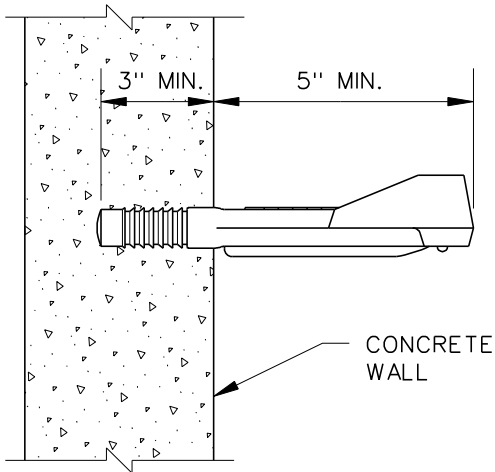
SECTION A-A



FRONT ELEVATION

NOTES:

1. STEPS TO BE EQUAL TO ASTM C478.
2. STEPS MAY BE CAST IN PLACE OR DRIVEN INTO PREFORMED OR DRILLED HOLES IN CONCRETE. STEPS MUST EXCEED MINIMUM PULLOUT LOAD OF 1200 LBS.
3. STEPS SHALL BE SPACED VERTICALLY AT 16" O.C. AND ALIGNED VERTICALLY.



SIDE ELEVATION

CITY OF  
EMERSON

WATER & SEWER DEPARTMENT

MANHOLE  
STEPS

CONSTRUCTION STANDARD

DATE: 9/26/2007

REVISION DATE

REVISION DATE

REVISION DATE

REVISION DATE

STANDARD  
DETAIL  
NO.

4.15