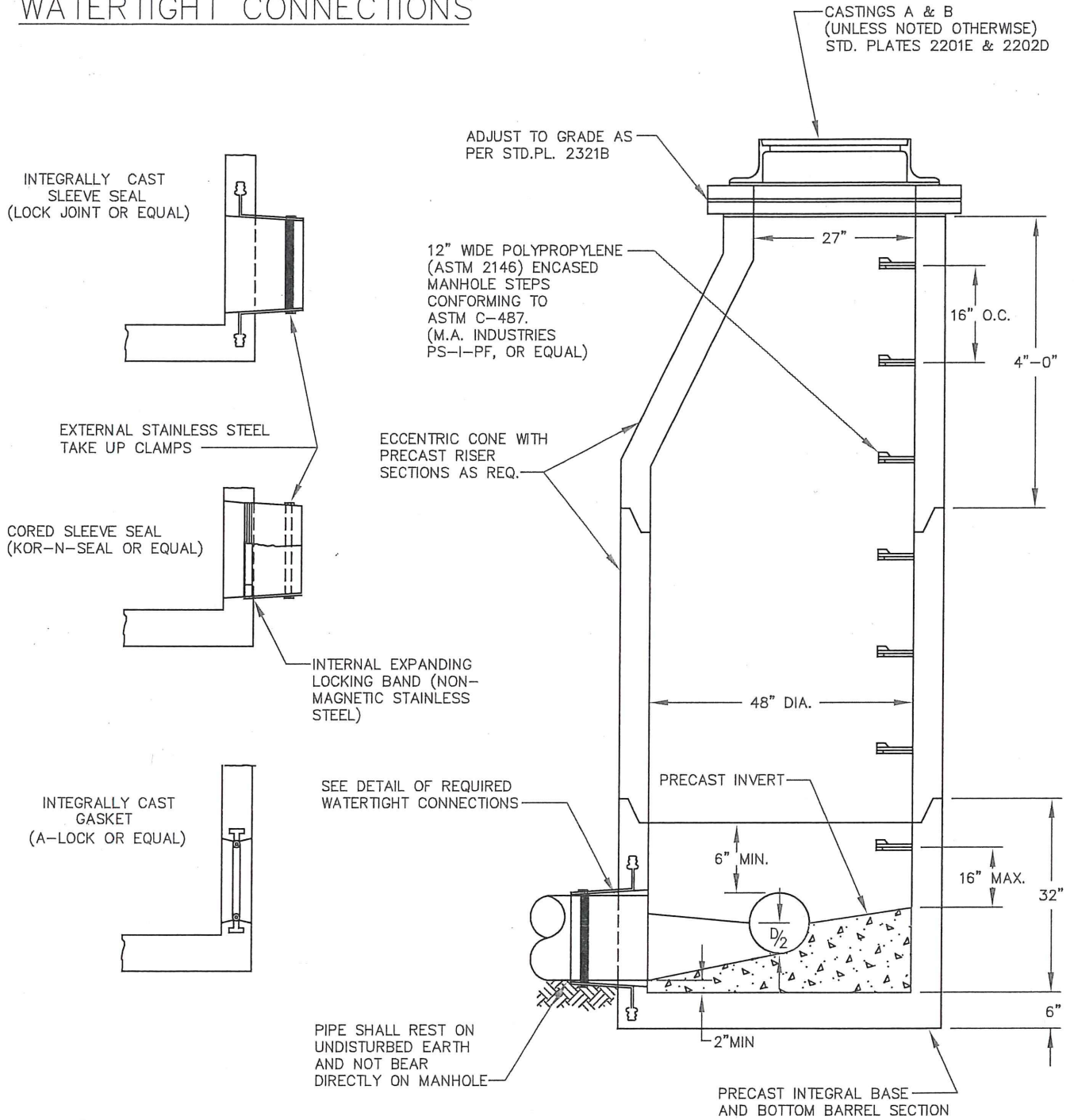


# DETAIL WATERTIGHT CONNECTIONS



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

*Aaron D. Hass*  
AARON D. HASS

Date 01-24-2017 Lic. No. 26424

NOTES:

1. FOR CONSTRUCTION OF NEW SANITARY SEWER UP TO 18" I.D.
2. PRECAST RISER SECTIONS TO MEET ASTM C-478
3. JOINTS BETWEEN PRECAST SECTIONS SHALL USE O-RING RUBBER GASKET CONFORMING TO ASTM C-443
4. WATERTIGHT PIPE CONNECTIONS SHALL MEET ASTM C-923 & C-443 AND ALLOW FOR 10' DEFLECTION IN ANY DIRECTION.

APPROVED *2-2-2017*  
*Paul J. Kutz*  
CITY ENGINEER

CITY OF ST. PAUL  
DEPARTMENT OF PUBLIC WORKS

MANHOLE, DESIGN TYPE I

Date of  
Revision  
JAN.  
2017

Standard  
Plate  
No.  
2101E