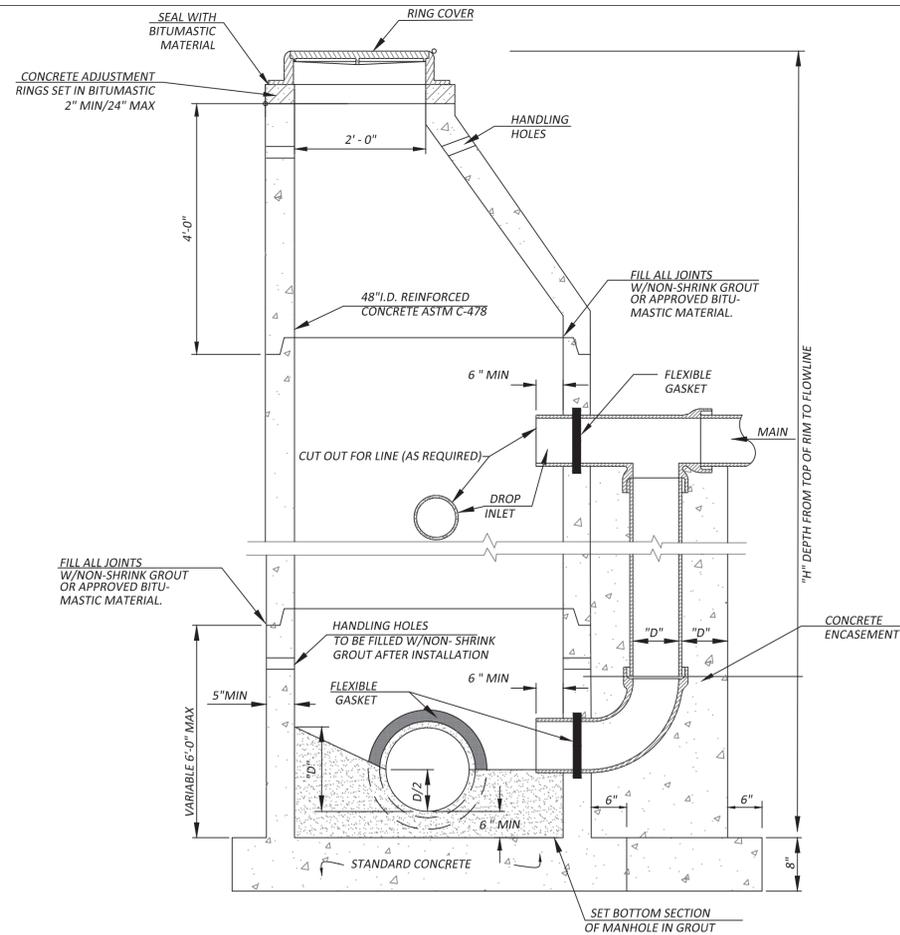


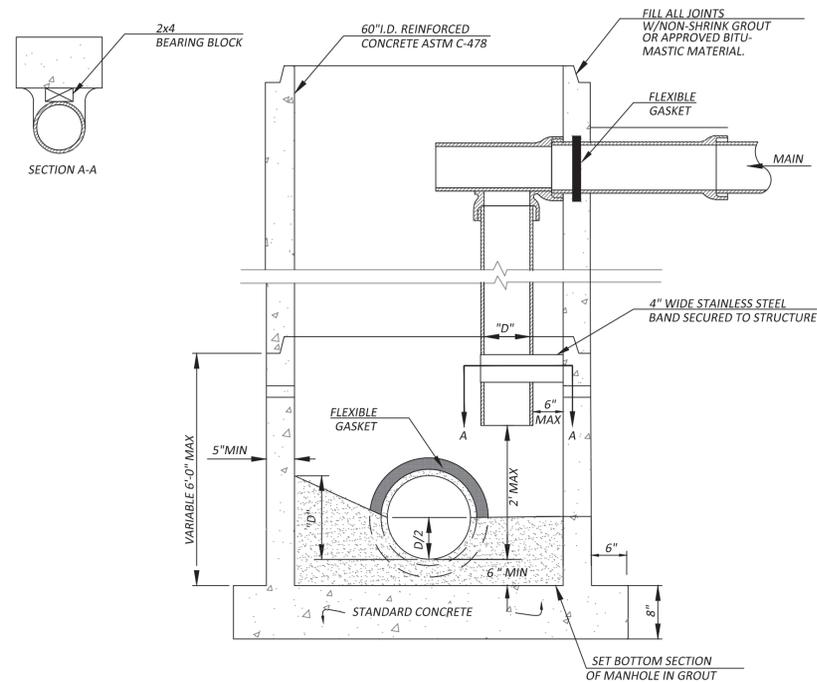
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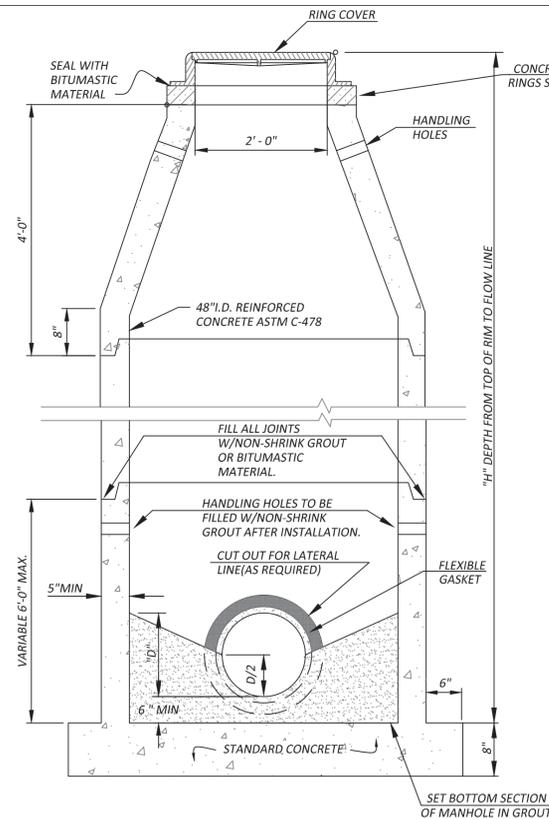
PLOTTED BY: RICK PETRIE



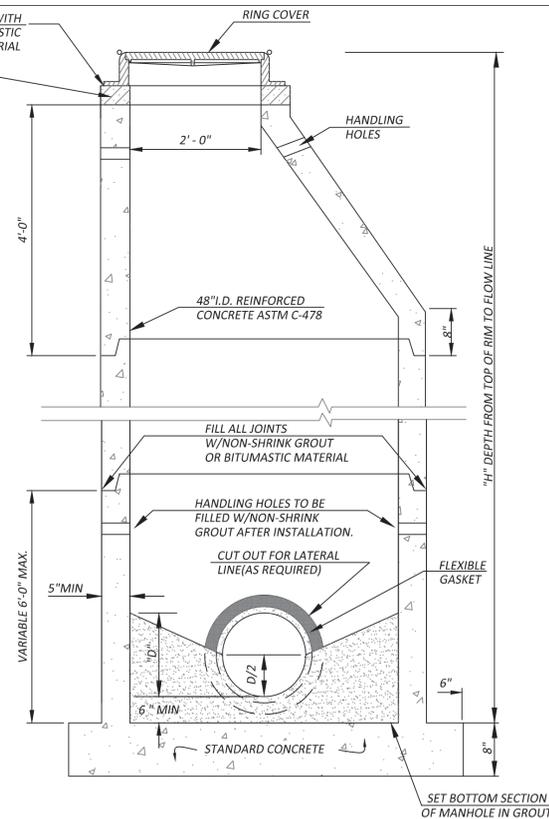
PRECAST OUTSIDE DROP MANHOLE DETAIL (NOT TO SCALE)



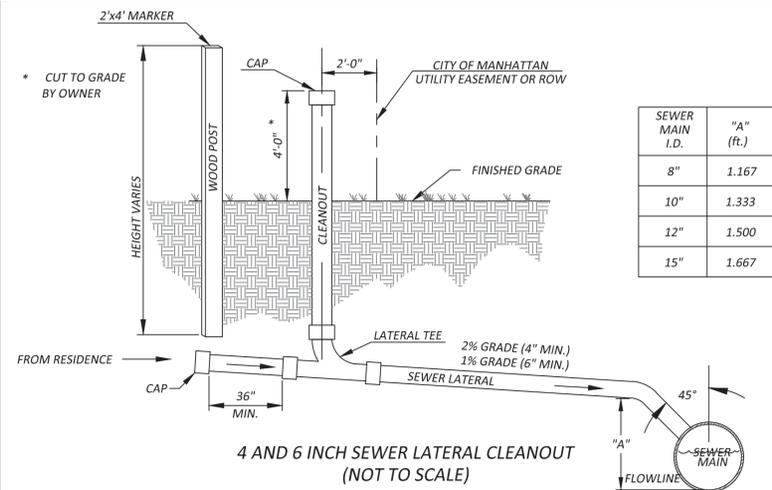
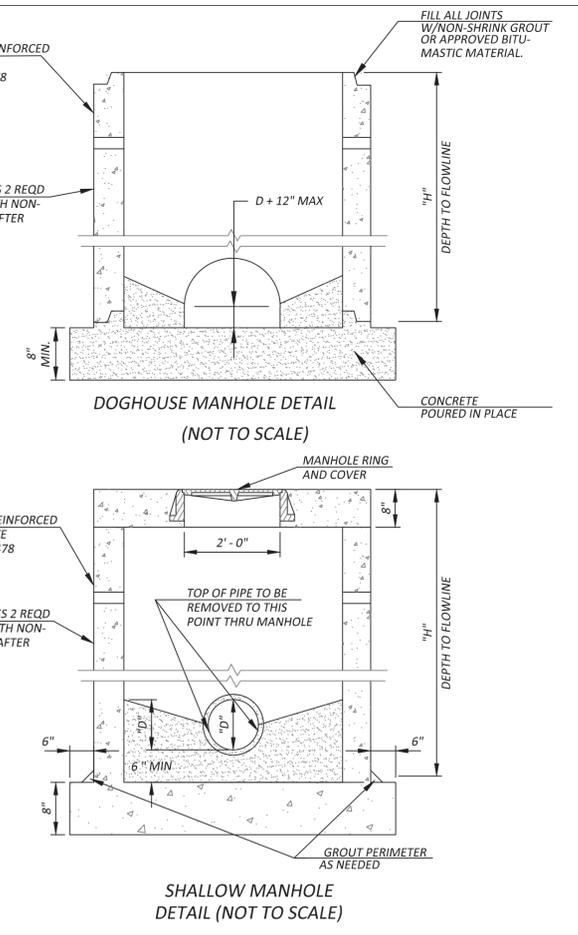
PRECAST INSIDE DROP MANHOLE DETAIL REQUIRES SPECIAL APPROVAL FROM CITY ENGINEER (NOT TO SCALE)



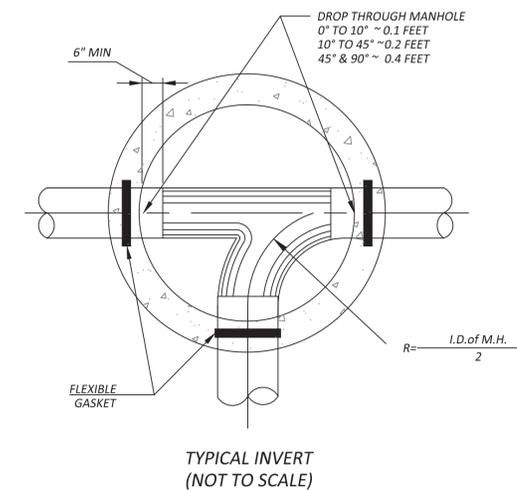
PRECAST MANHOLE DETAIL (NOT TO SCALE)



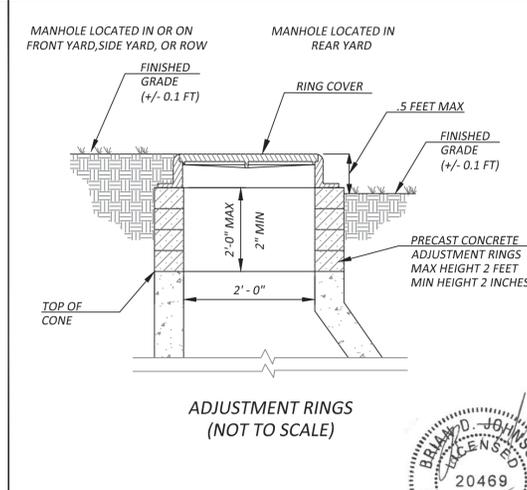
ECCENTRIC PRECAST MANHOLE DETAIL (NOT TO SCALE)



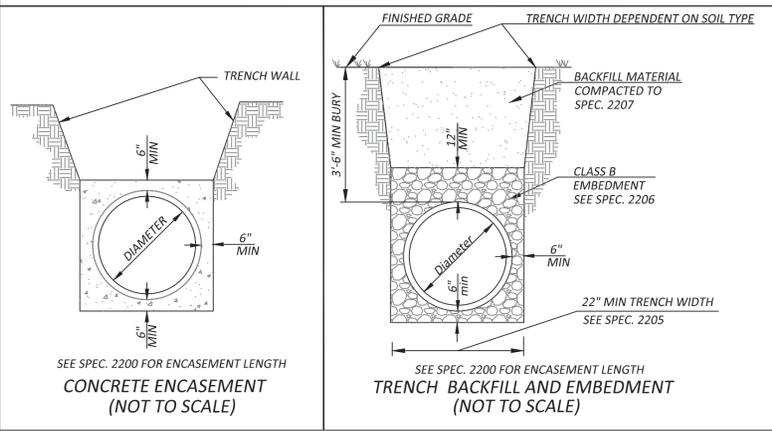
4 AND 6 INCH SEWER LATERAL CLEANOUT (NOT TO SCALE)



TYPICAL INVERT (NOT TO SCALE)



ADJUSTMENT RINGS (NOT TO SCALE)



SEE SPEC. 2200 FOR ENCASEMENT LENGTH CONCRETE ENCASEMENT (NOT TO SCALE)

SEE SPEC. 2200 FOR ENCASEMENT LENGTH TRENCH BACKFILL AND EMBEDMENT (NOT TO SCALE)

NOTES:

1. PRECAST MANHOLE SECTIONS SHALL BE USED UNLESS PRIOR APPROVAL HAS BEEN GIVEN BY THE CITY ENGINEER
2. STANDARD RING AND COVER SHALL BE DEETER 1256 FOR IN STREET AND OUT OF STREET LOCATIONS
3. BOLT DOWN RING AND COVER SHALL BE CLAY & BAILEY 2014
4. A DROP MANHOLE SHALL BE CONSTRUCTED WHEN THE FLOWLINE OF THE INCOMING LINE IS EQUAL TO OR GREATER THAN 24 INCHES ABOVE THE FLOWLINE OF THE MANHOLE INVERT
5. STEPS SHALL NOT BE INSTALLED IN MANHOLE SECTIONS
6. MANHOLE SPACING SHALL NOT EXCEED 400 FEET WITH OUT APPROVAL OF CITY ENGINEER
7. ALL SPEC. NUMBERS REFER TO THE MANHATTAN CITY STANDARD SPECIFICATIONS
8. NO LATERALS SHALL BE PERMITTED INTO MANHOLES
9. WATERPROOFING WILL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE BITUMEN SHALL CONSIST OF TWO (2) SIX (6) MILL COATS OF ASPHALT, COAL TAR PITCH, OR A COATING MEETING ASTM D-41. ASPHALT SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-449. COAL-TAR PITCH SHALL CONFORM TO THE REQUIREMENTS OF ASTM C450.
10. FOR PIPE DIAMETERS OF 8"-12", THE DROP PIPE SHALL HAVE THE SAME NOMINAL DIAMETER AS THAT OF THE INCOMINGSEWER. FOR LARGER PIPE SIZES, A MINIMUM 12" DIAMETER DROP PIPE SHALL BE PROVIDED.
11. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY KDHE MINIMUM DESIGN STANDARDS, CHAPTER IV SECTION F.9.
12. PRECAST CONCRETE CEMENT SHALL CONFORM TO ASTM C150.
13. ANY PRECAST CONCRETE SECTION WHICH HAS BEEN DAMAGED IN TRANSIT OR ONSITE SHALL THAT THE WATER TIGHTNESS OF THE SECTION HAS BEEN ADVERSELY AFFECTED SHALL NOT BE UTILIZED IN THE CONSTRUCTION OF THE MANHOLE.



NO.	DATE	DESCRIPTION	BY
<p>City of <b>Manhattan</b> Kansas</p> <p>PUBLIC WORKS</p> <p>1101 POYNTZ AVE., MANHATTAN, KS 66502 (785) 587-2415</p> <p>MANHATTAN STANDARD DETAILS MSD 2210 SANITARY SEWER DETAILS</p>			
CITY ENGINEER: ROBERT OTT, P.E.		DESIGN BY: BRIAN JOHNSON, P.E.	
CITY PROJ. #:		DRAWN BY:	
DATE:		PAGE OF	