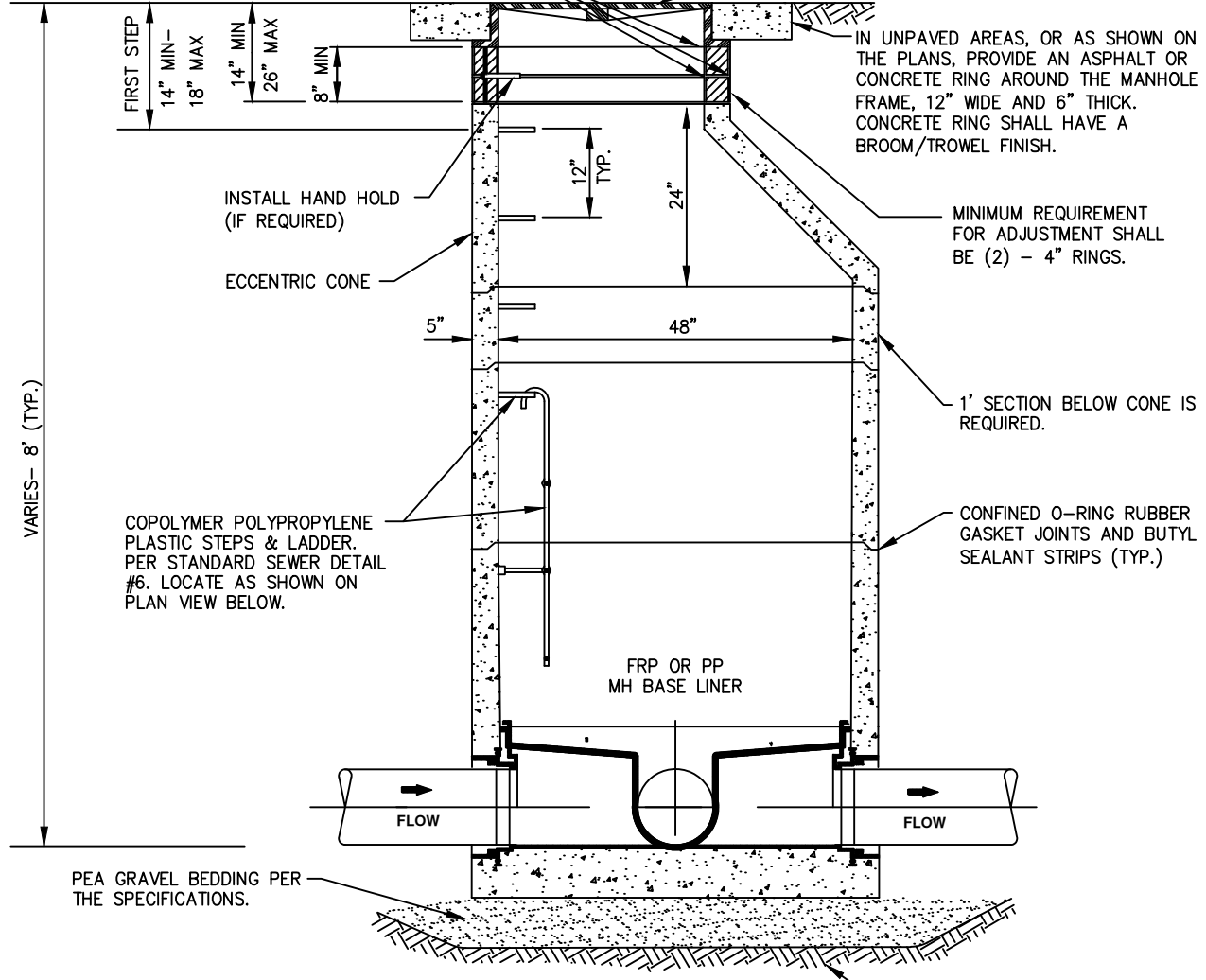


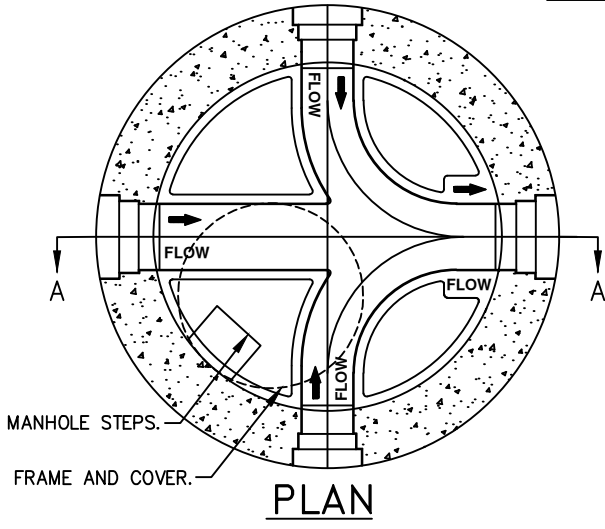
GROUT ADJUSTING RINGS INSIDE, OUTSIDE AND BETWEEN. GROUT UNDER CASTING. INSIDE GROUT SHALL HAVE A SMOOTH BROOM FINISH.

MANHOLE FRAME AND COVER PER THE STANDARD SEWER DETAIL #5. LOCATE AS SHOWN ON PLAN.



VARIES- 8' (TYP.)

**SECTION A-A**



**PLAN**

**NOTES:**

1. THE MANHOLE BASE LINER SHALL BE A FIBERGLASS REINFORCED PLASTIC (FRP) OR POLYPROPYLENE (PP) BASE LINER SYSTEM PER THE ENGINEERING SPECIFICATIONS. FOR PRIVATE MANHOLES, CONCRETE CHANNELS WILL BE ALLOWED.
2. IF PP BASE LINER IS UTILIZED, A MINIMUM SLOPE OF 0.06' IS ACCEPTABLE ACROSS THE INVERT CHANNEL. THE FRP BASE LINER SHALL REQUIRE THE DISTRICT STANDARD MINIMUM SLOPE OF 0.1' ACROSS THE INVERT CHANNEL.
3. MARKER POSTS MAY BE REQUIRED IN EASEMENTS.
4. FOR MANHOLES LESS THAN 5' IN DEPTH, SEE SEWER STANDARD DETAIL #3, SHALLOW MANHOLE AND SEWER STANDARD DETAIL #16, EXTRA SHALLOW MANHOLE.
5. ALL PICK HOLES SHALL BE GROUTED ON THE INSIDE AND OUTSIDE OF MANHOLE.
6. MANHOLE LID SHALL BE ORIENTED PER THE DISTRICT'S DIRECTION.

**PRECAST MANHOLE W/ BASE LINER**

NOT TO SCALE

<b>DETAIL APPROVALS</b>	
<b>EDITOR</b>	TMC
<b>MANAGER</b>	SJD

**NORTHSHORE UTILITY DISTRICT**  
2021 STANDARD SEWER DETAILS

**1**

LAST UPDATED  
FEBRUARY 2020