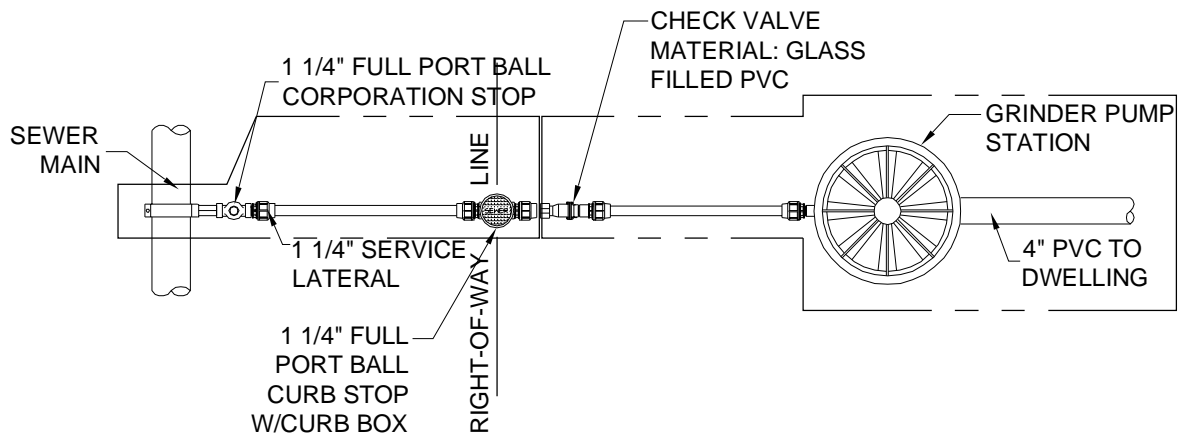


NOTES:

1. 4" SINGLE RUNNING TRAP WILL BE INSTALLED WITHIN ONE PIPE LENGTH OF THE END OF THE 6" LATERAL.
2. MINIMUM DEPTH OF 4" LATERAL WILL BE 48" BELOW FINISHED GRADE UNLESS APPROVED BY TOWNSHIP ENGINEER.
3. IF THERE IS NOT A CLEANOUT LOCATED INSIDE OF DWELLING AN ADDITIONAL CLEANOUT SHALL BE INSTALLED IMMEDIATELY OUTSIDE OF THE BUILDING PRIOR TO RUNNING TRAP
4. LOCATE VENT CAP AND CLEANOUT IN LAWN AREA. MUSHROOM CAP SHALL BE USED ON VENT.
5. IN GENERAL, SANITARY SEWERS SHOULD BE LOCATED AT LEAST 100 FEET FROM PUBLIC WATER SUPPLY SOURCES AND 50 FEET FROM PRIVATE WATER SUPPLY SOURCES, UNLESS THE SANITARY LINES ARE ENCASED IN CONCRETE OR APPROVED EQUIVALENT.

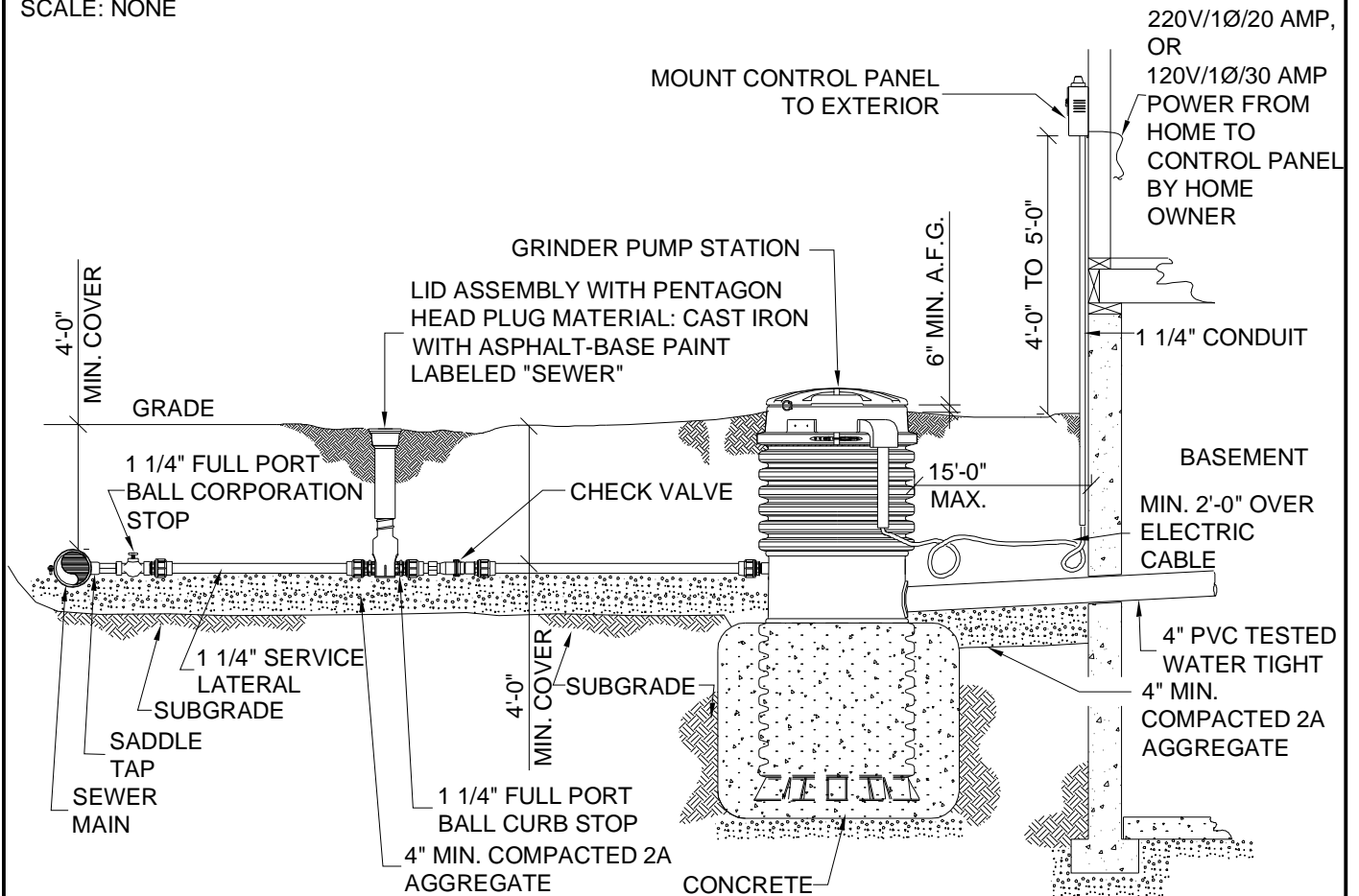
TYPICAL BUILDING SEWER

SCALE: NONE



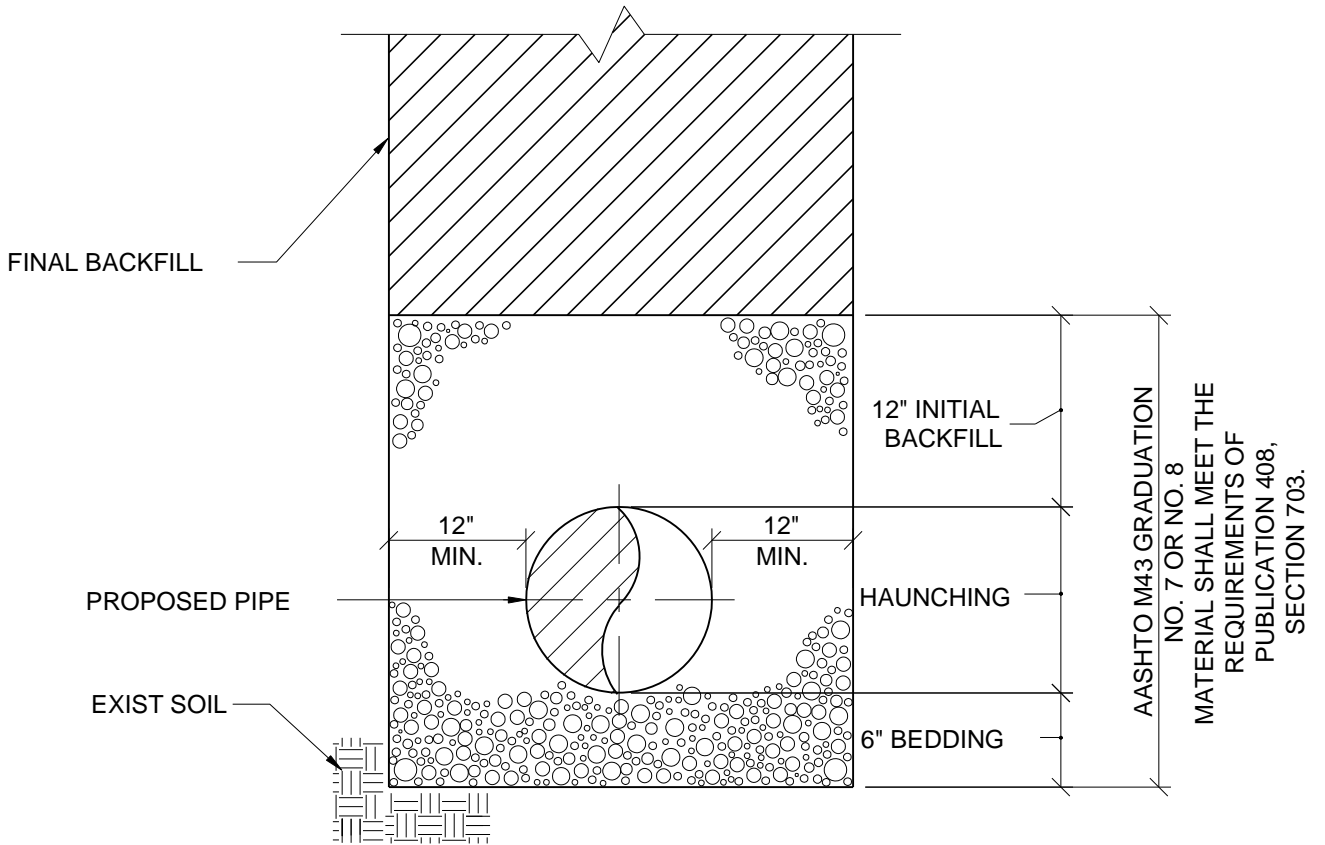
TYPICAL GRINDER PUMP LATERAL INSTALLATION - PLAN

SCALE: NONE



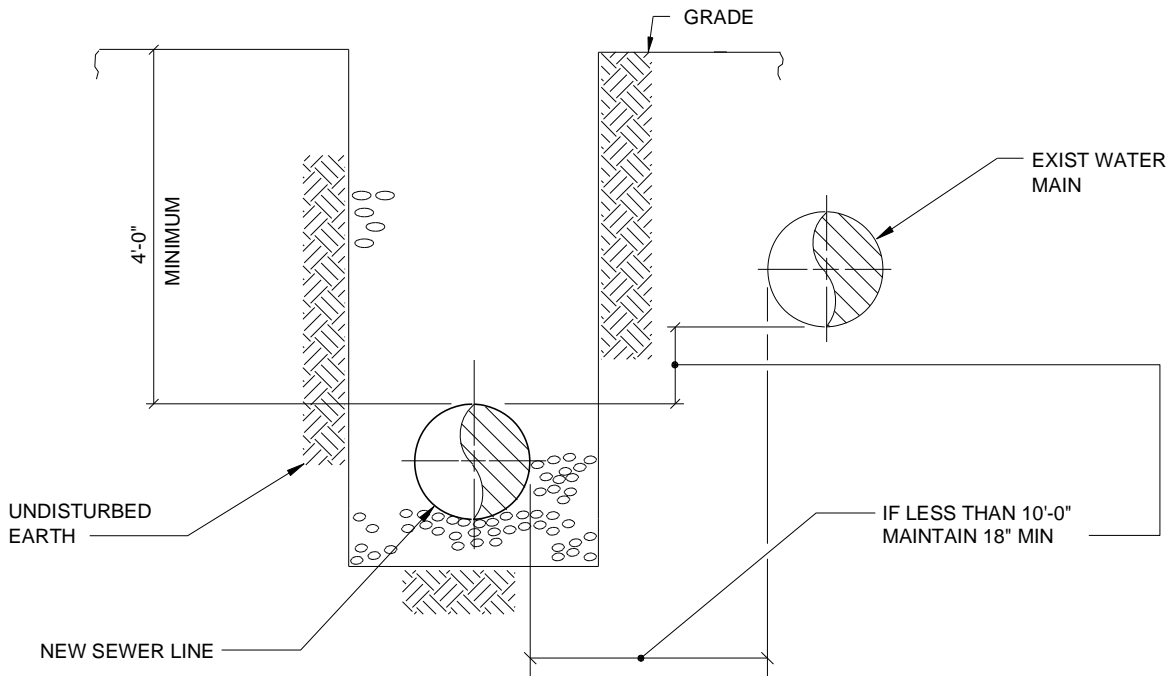
TYPICAL GRINDER PUMP INSTALLATION - ELEVATION

SCALE: NONE



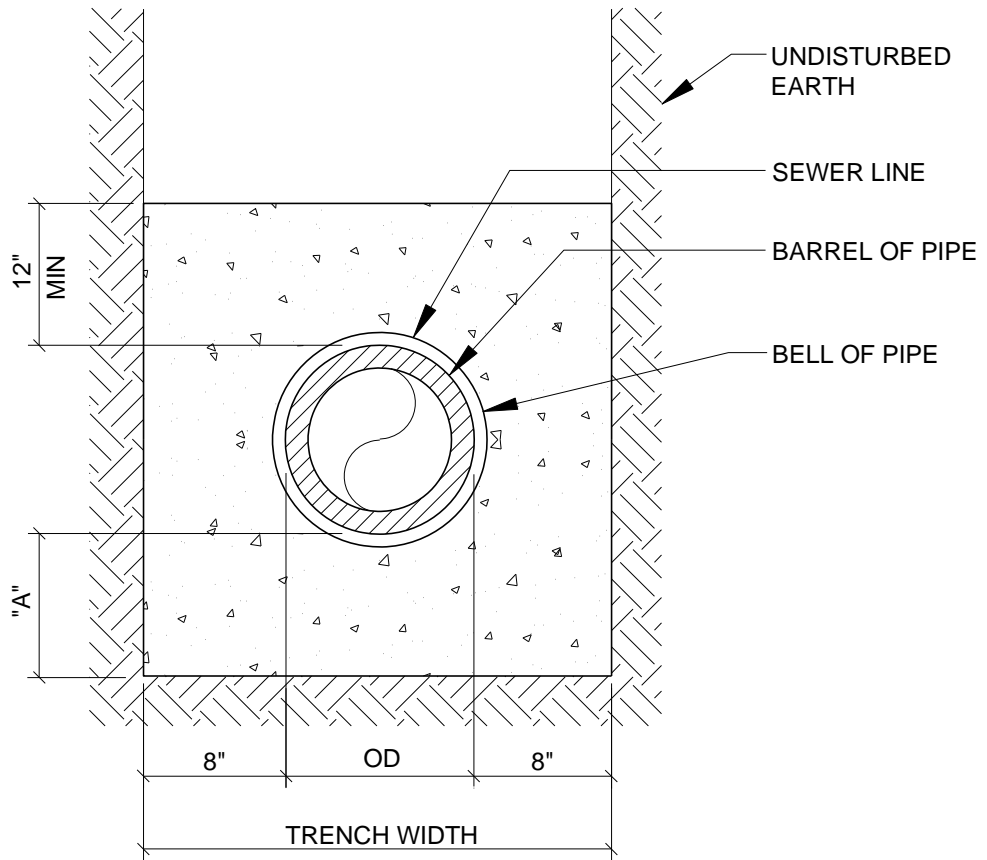
**TYPICAL EXCAVATION, BACKFILL &
PIPE EMBEDMENT DETAIL**

SCALE: NONE



NEW SEWER LINE PARALLEL
TO EXISTING WATER MAIN DETAIL

SCALE: NONE

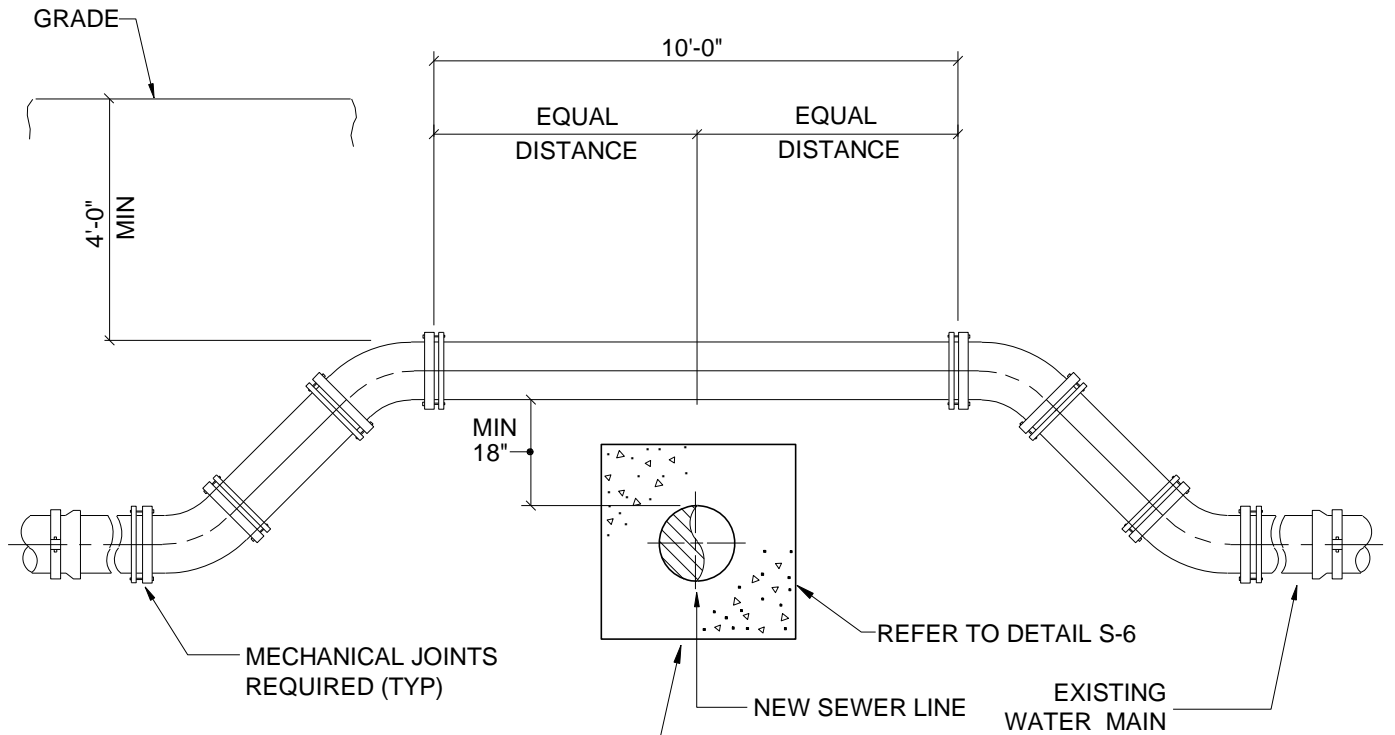


PIPE SIZE	"A"
4" - 16"	6"
18" - 48"	6"
54" - 84"	10"

NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT THE END OF 28 DAYS.

CONCRETE ENCASUREMENT DETAIL

SCALE: NONE

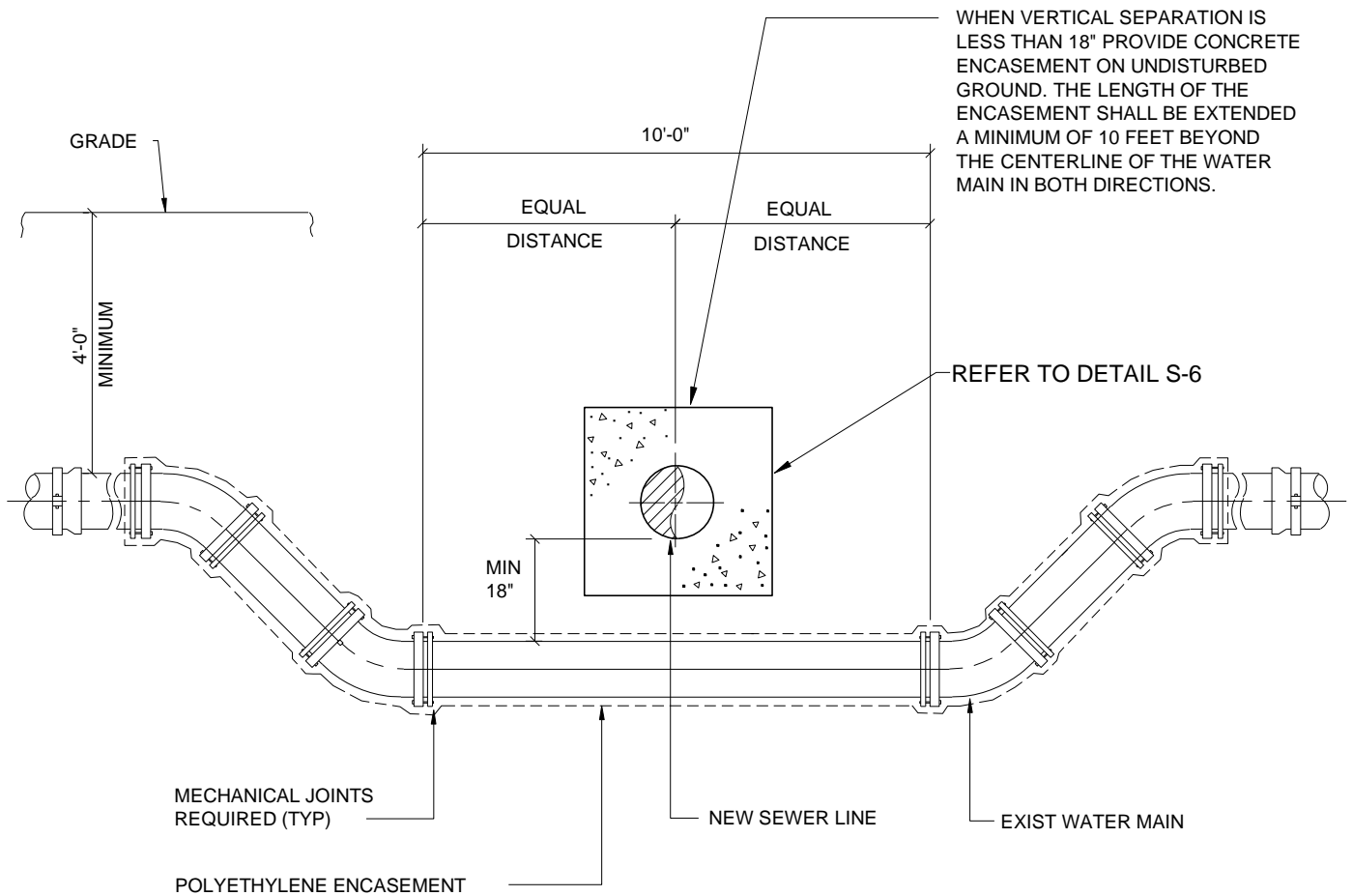


WHEN VERTICAL SEPARATION IS LESS THAN 18" PROVIDE CONCRETE ENCASEMENT ON UNDISTURBED GROUND. THE LENGTH OF THE ENCASEMENT SHALL BE EXTENDED A MINIMUM OF 10 FEET BEYOND THE CENTERLINE OF THE WATER MAIN IN BOTH DIRECTIONS.

NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.

NEW SEWER LINE CROSSING
UNDER EXISTING WATER MAIN DETAIL

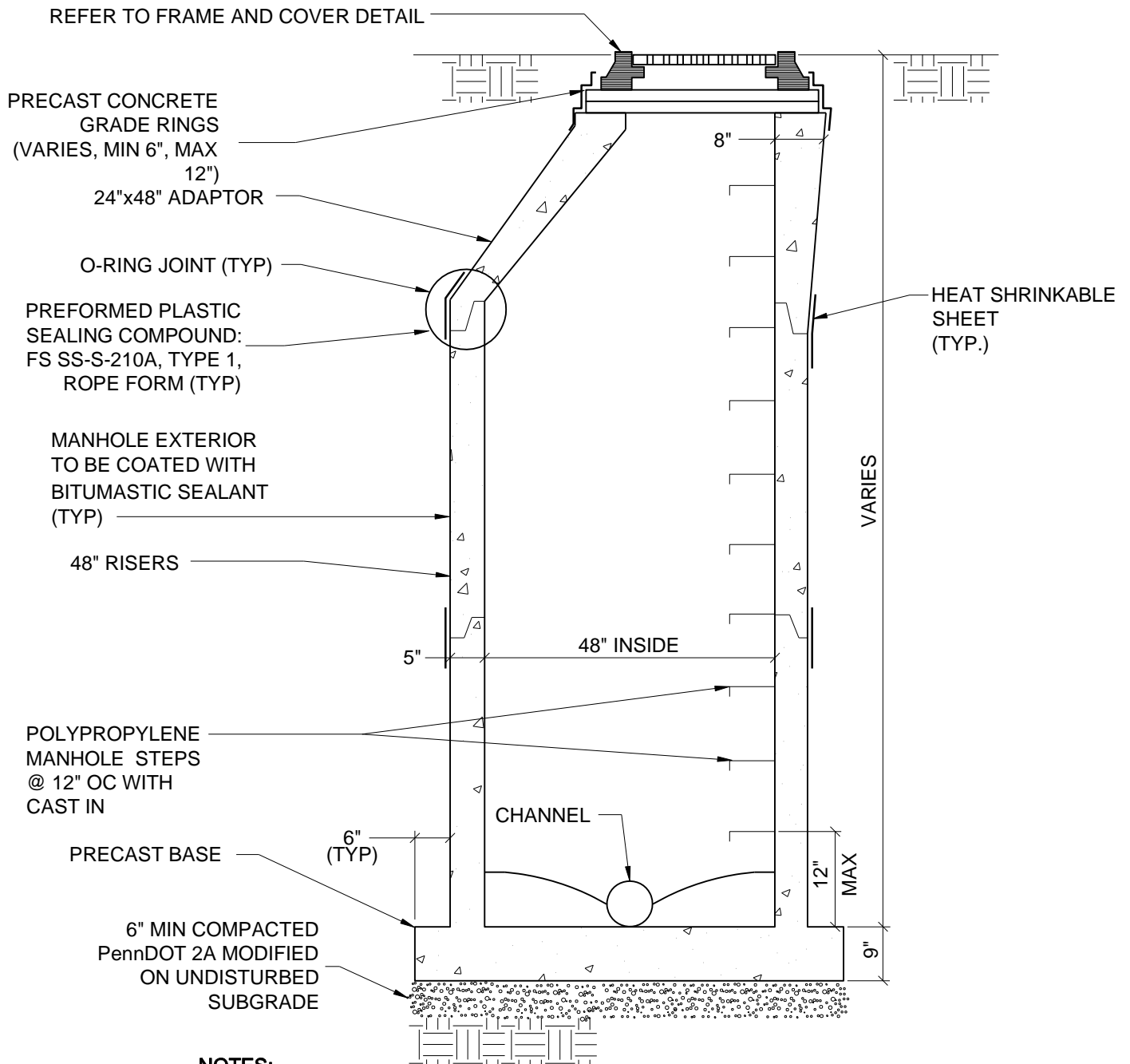
SCALE: NONE



NOTE: ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.

NEW SEWER LINE CROSSING OVER EXISTING WATER MAIN DETAIL

SCALE: NONE

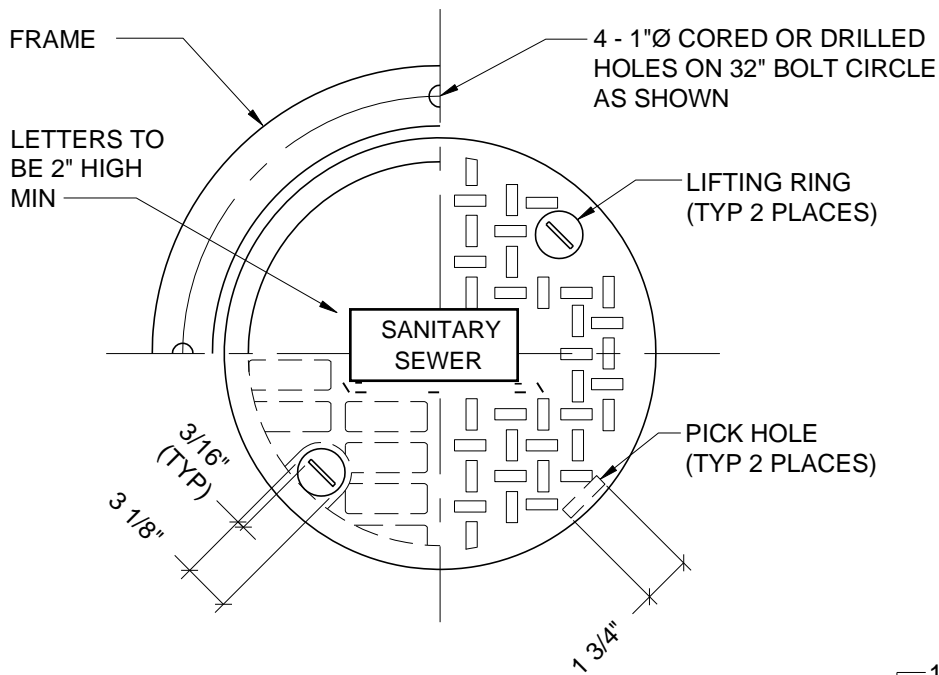


NOTES:

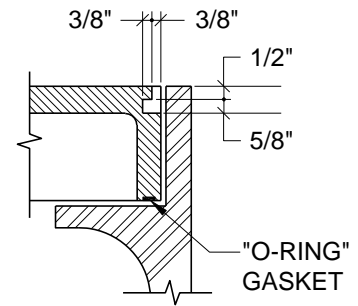
1. ALL PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A CAST-IN-PLACE GASKET. (TYP) (A-LOK OR APPROVED EQUAL)
2. MANHOLES EXCEEDING A DEPTH OF 16 FEET SHALL PROVIDE PRE-CAST LANDING PLATFORM.

TYPICAL MANHOLE DETAIL

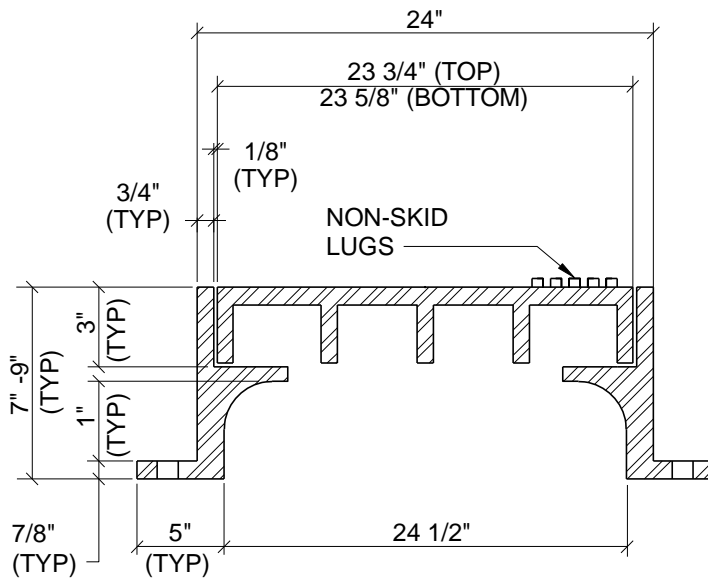
SCALE: NONE



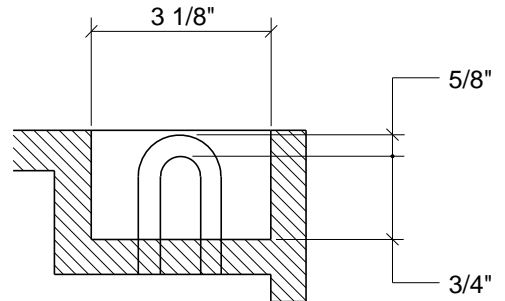
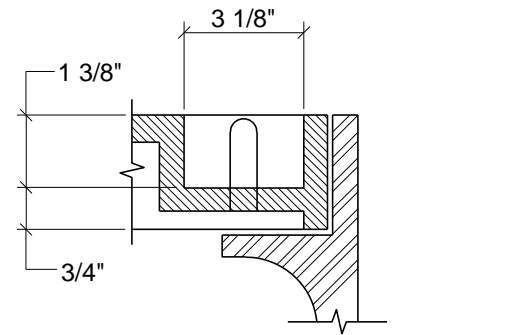
PLAN



PICK HOLE DETAIL



SECTION

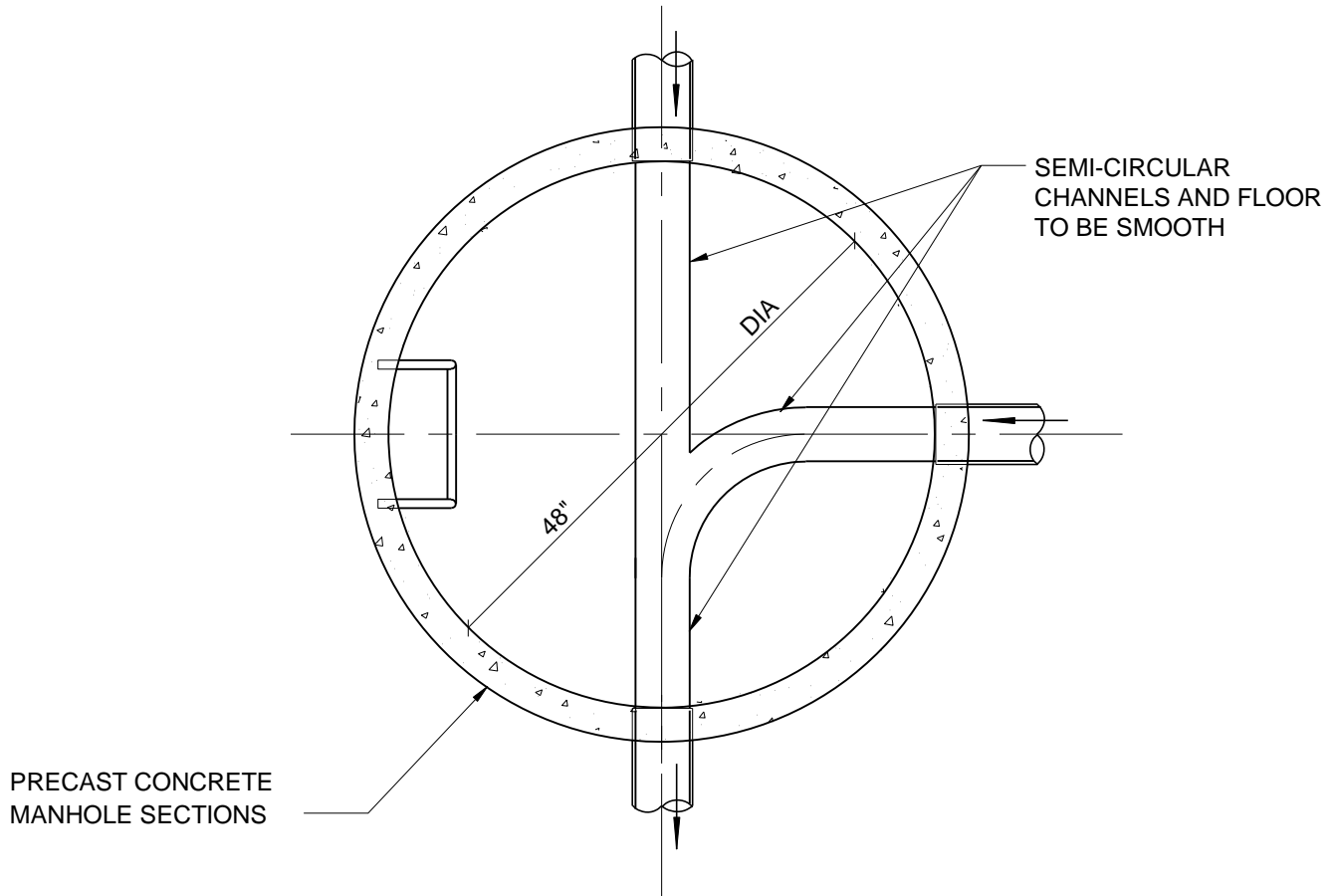


LIFT RING DETAILS

NOTE: APPROXIMATE WEIGHT 500#

CAST IRON REGULAR MANHOLE FRAME & COVER

SCALE: NONE



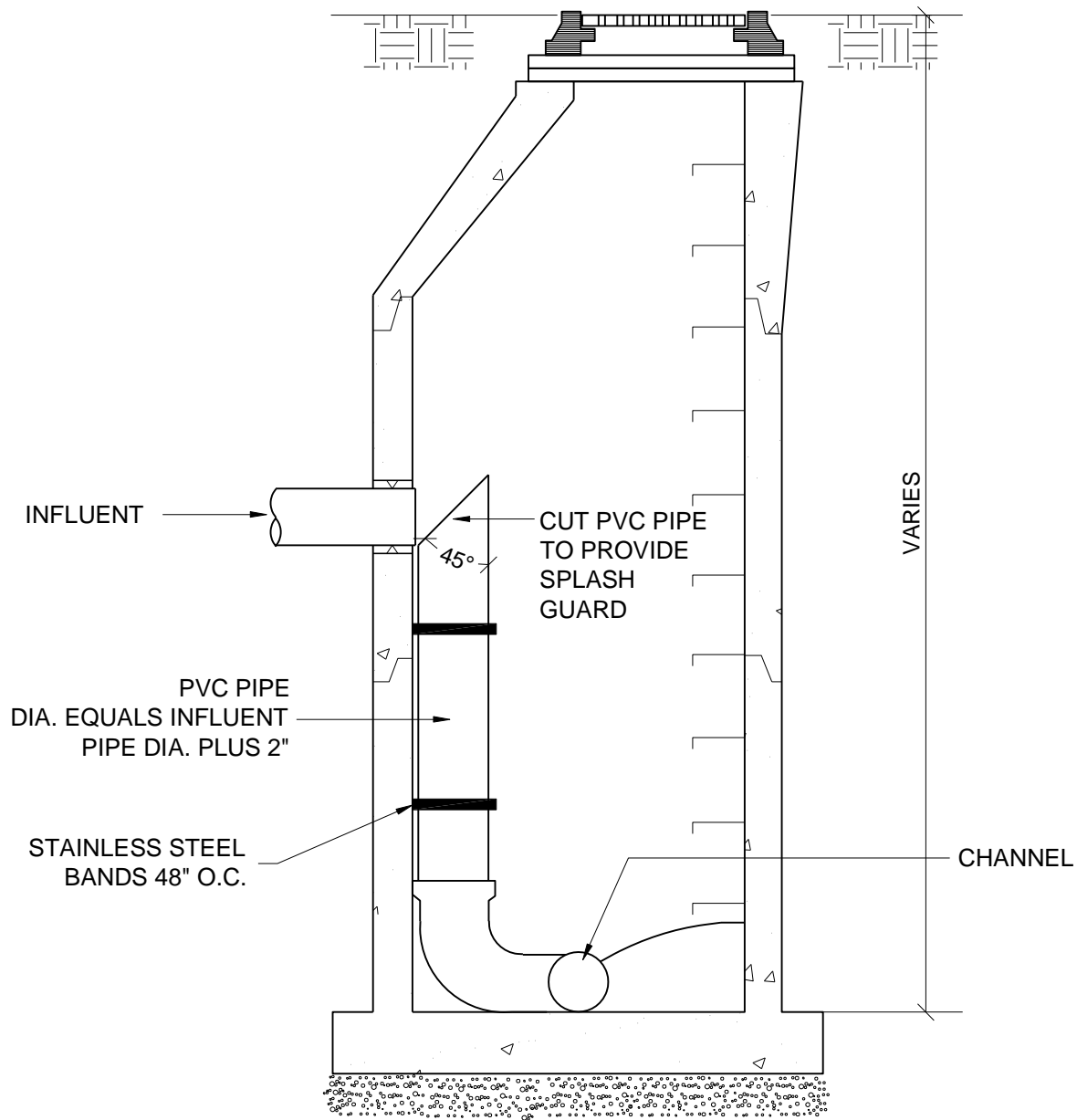
NOTE:

1. ALL FLOW CHANNELS SHALL BE PRE-CAST BY MANUFACTURER UNLESS AUTHORIZED BY AUTHORITY

MANHOLE BASE

TYPICAL CHANNEL CONFIGURATION

SCALE: NONE



TYPICAL INSIDE DROP MANHOLE DETAIL

SCALE: NONE