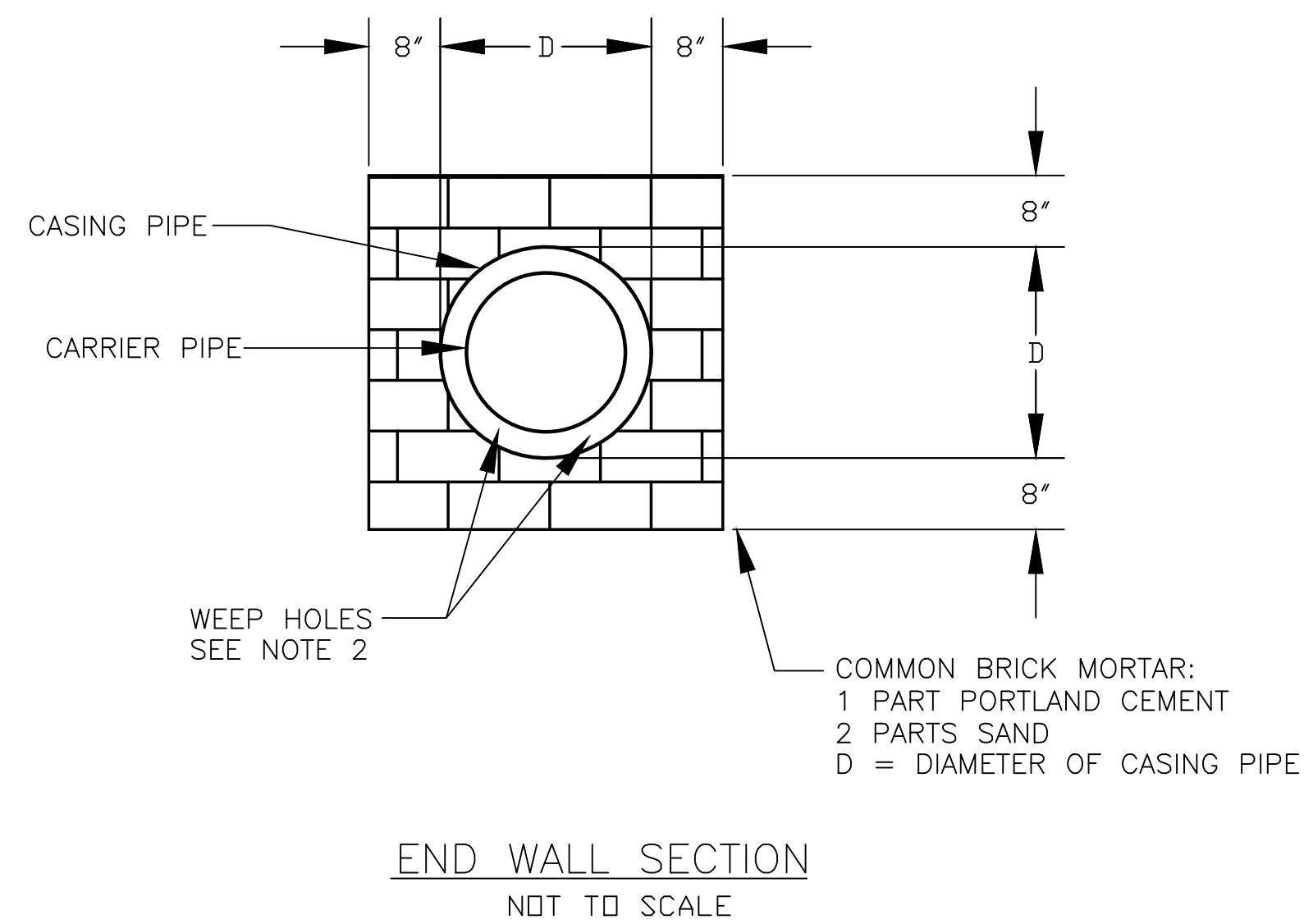
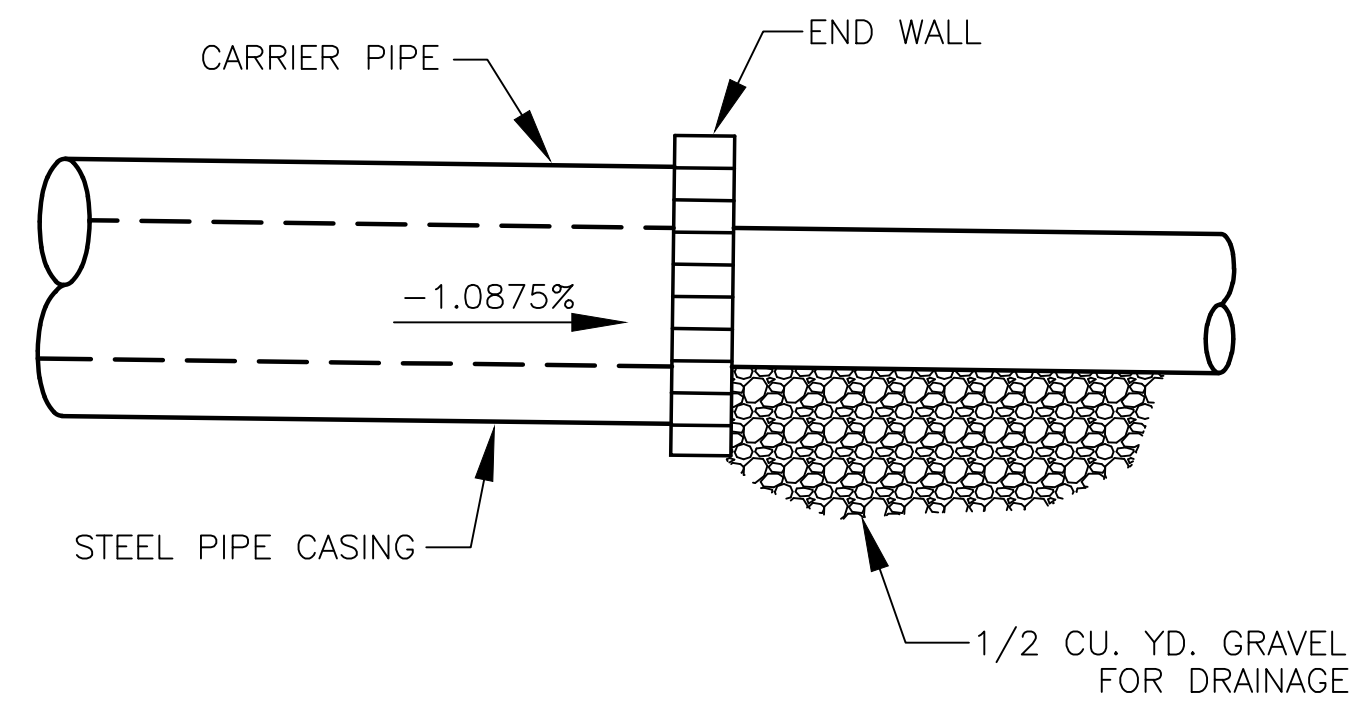
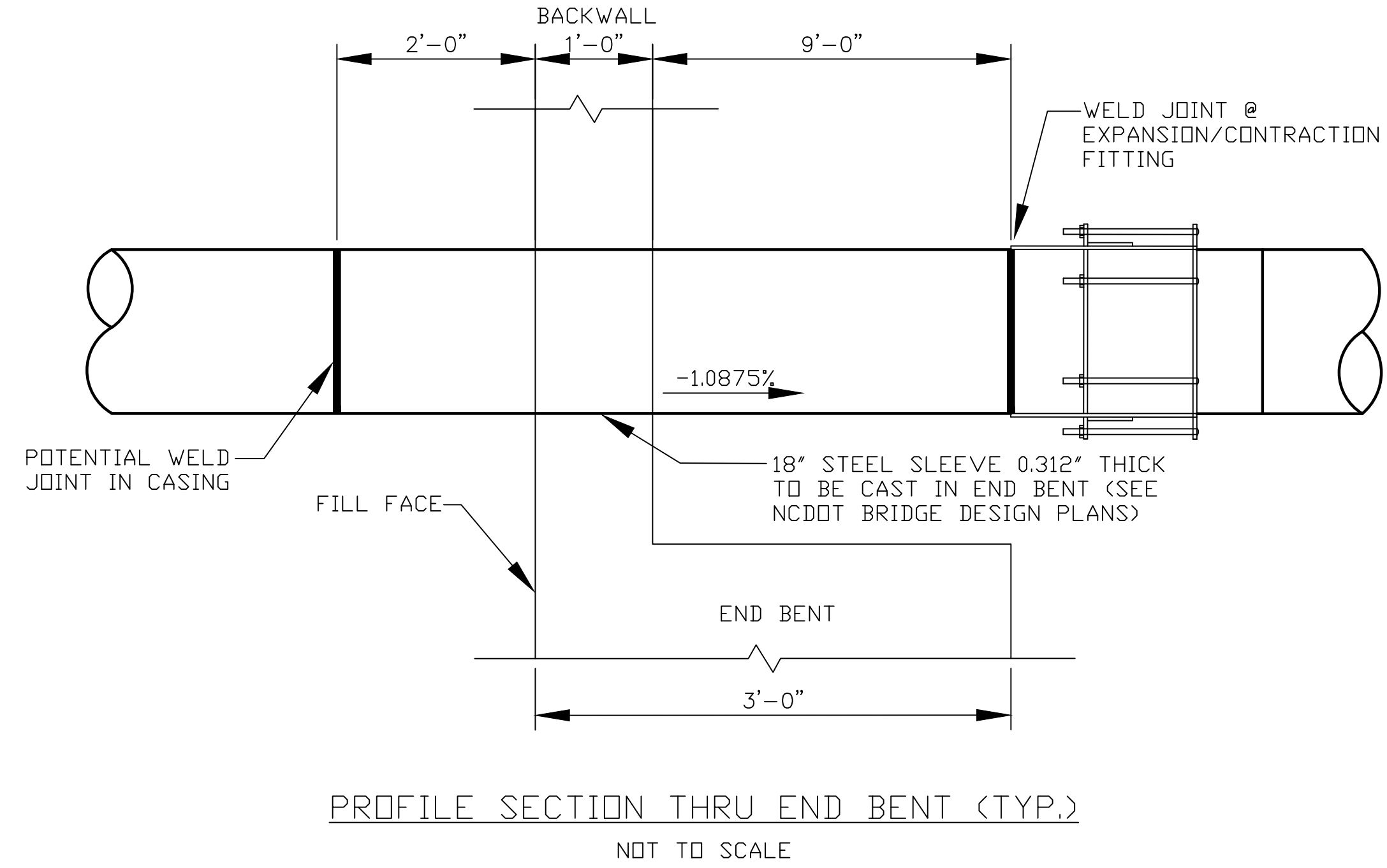
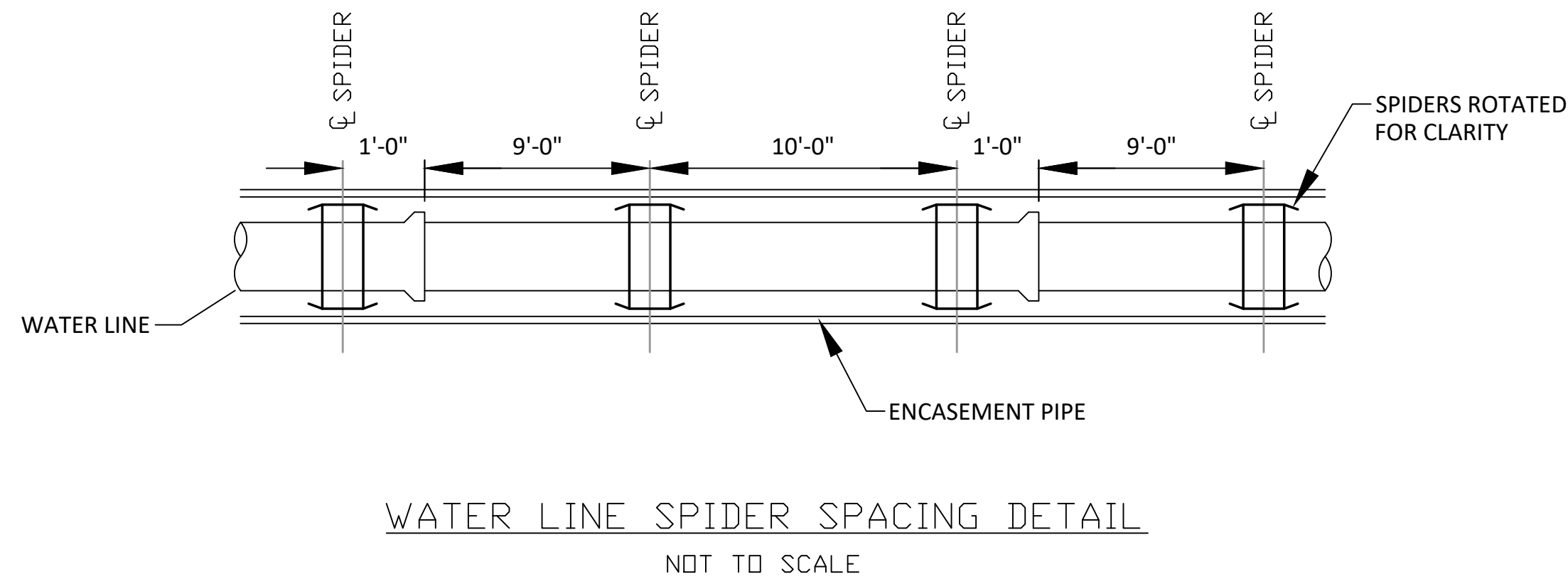


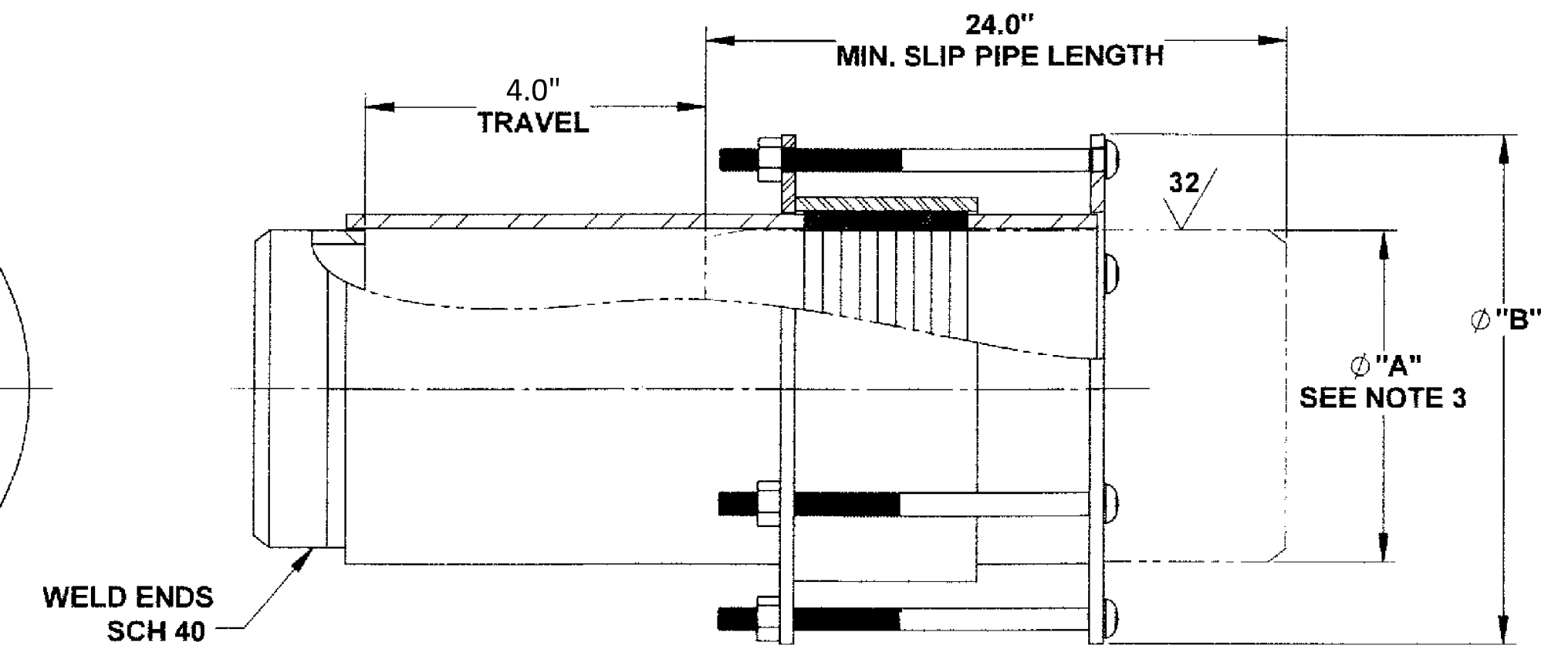
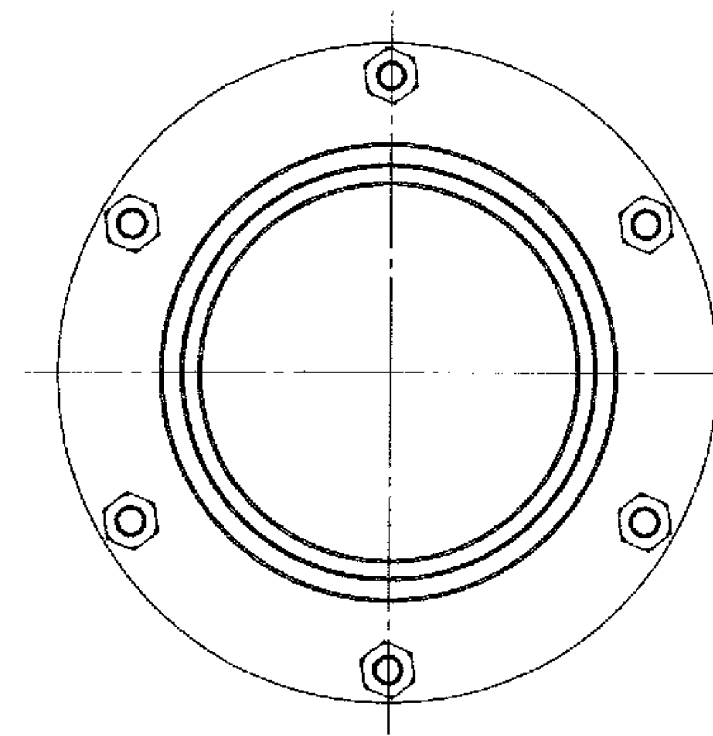
# PERMANENT WATER LINE DETAILS

PROJECT REFERENCE NO. <b>B-5772</b>	SHEET NO. <b>UC-3D</b>
DESIGNED BY: JDM	
DRAWN BY: RCC	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
alley, williams, carmen, & king, inc. CONSULTING ENGINEERS FIRM LICENSE No. F-0203 120 SOUTH MAIN STREET KANNAPOLIS, NC 28082	



- NOTES:
- SEE DRAWINGS FOR LOCATION, SIZE AND LENGTH OF STEEL PIPE CASINGS.
  - INSTALL TWO (2) 1" DRAINS EACH SIDE OF CARRIER PIPE IN DOWNHILL END WALL.

WRENCH SIZE CHART	
NUT	SIZE
5/8"-11UNC HH	1-1/16"



NOM. PIPE SIZE	SLIP PIPE O.D. "A"	MAX O.D. "B"	APPROX. WEIGHT (LBS)
3	3.50	8.38	50
4	4.50	9.63	65
6	6.63	11.88	90
8	8.63	13.88	125
10	10.75	16.00	185
12	12.75	18.00	195
14	14.00	19.25	220
16	16.00	21.25	250
18	18.00	23.25	280
20	20.00	25.25	310
22	22.00	27.25	340
24	24.00	29.31	370

- NOTES:
- SEE MANUFACTURER'S CATALOG FOR ADDITIONAL DETAILS.
  - 8" WELD END EXPANSION JOINT SHOWN OTHER SIZES SIMILAR
  - CUSTOMER FURNISHED SLIP PIPE MUST HAVE A PREPARED END AT LEAST 24IN IN LENGTH THAT IS ROUND, SURFACE ROUGHNESS OF 32 $\mu$ IN OR BETTER 18IN MIN. FROM STAB END, AND NO GREATER THAN +.030" OR -.010" FROM NOMINAL SIZE.
  - ENGINEERED FOR AXIAL PIPE MOVEMENT ONLY

EXPANSION COUPLING DETAIL  
NOT TO SCALE