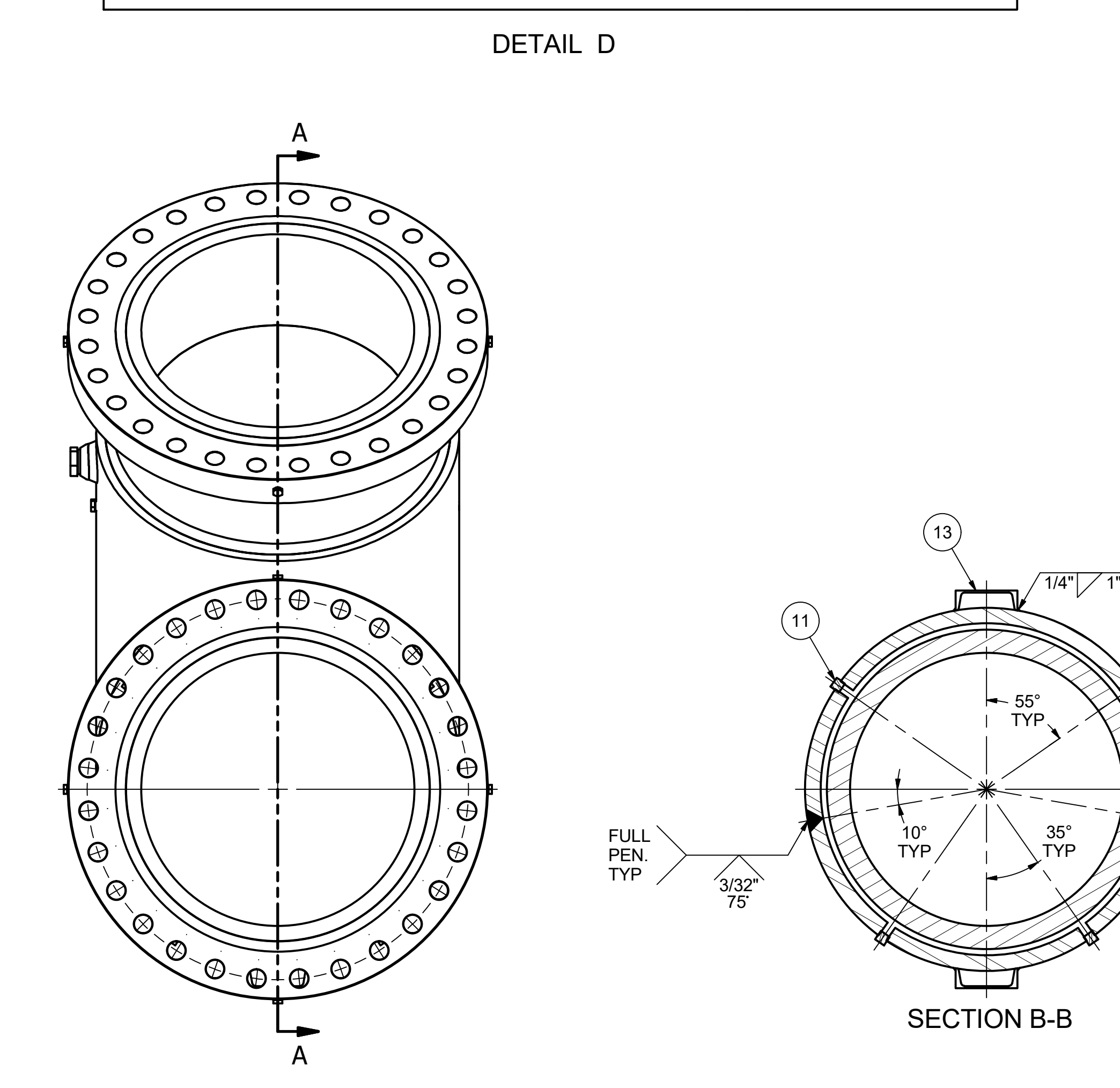
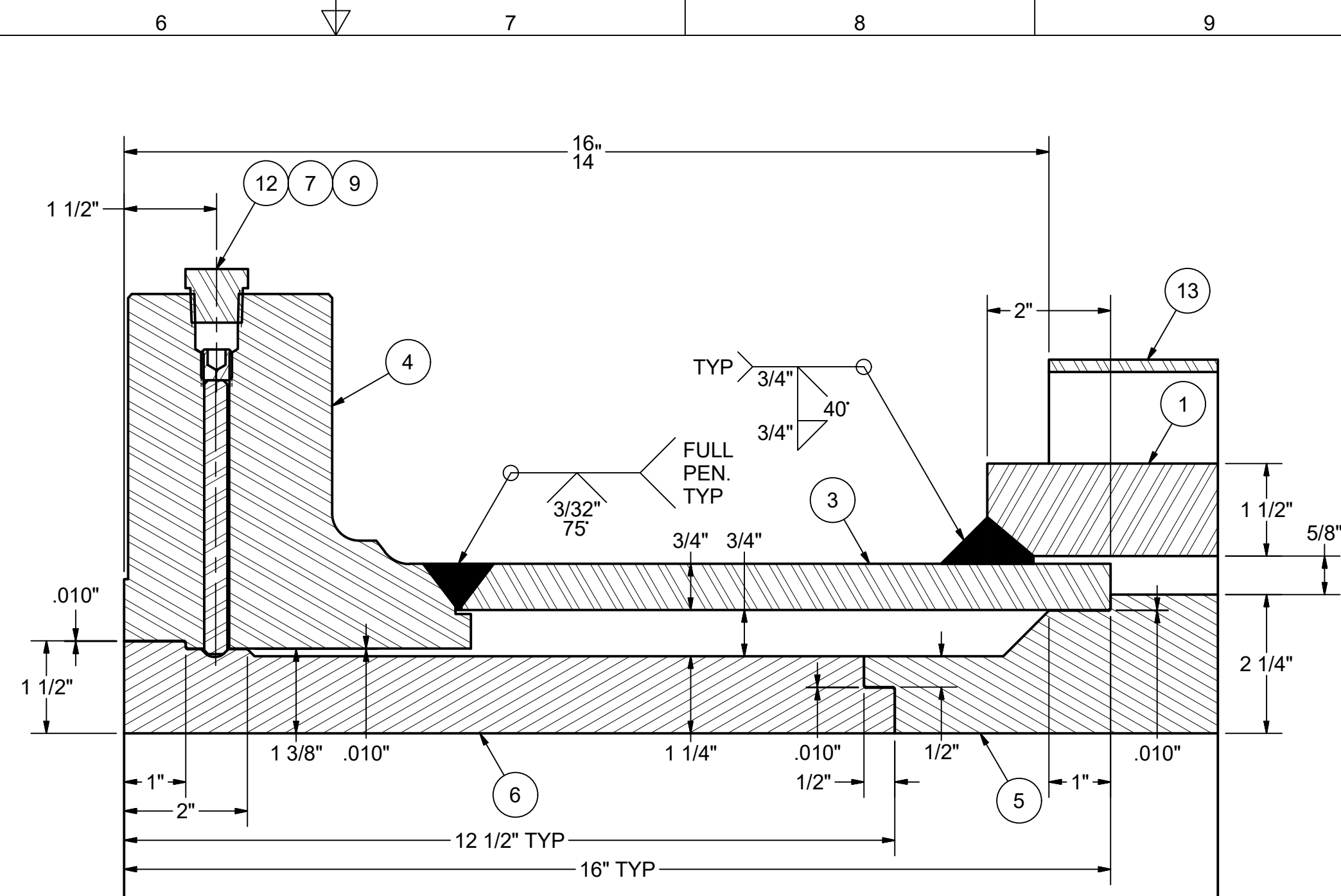
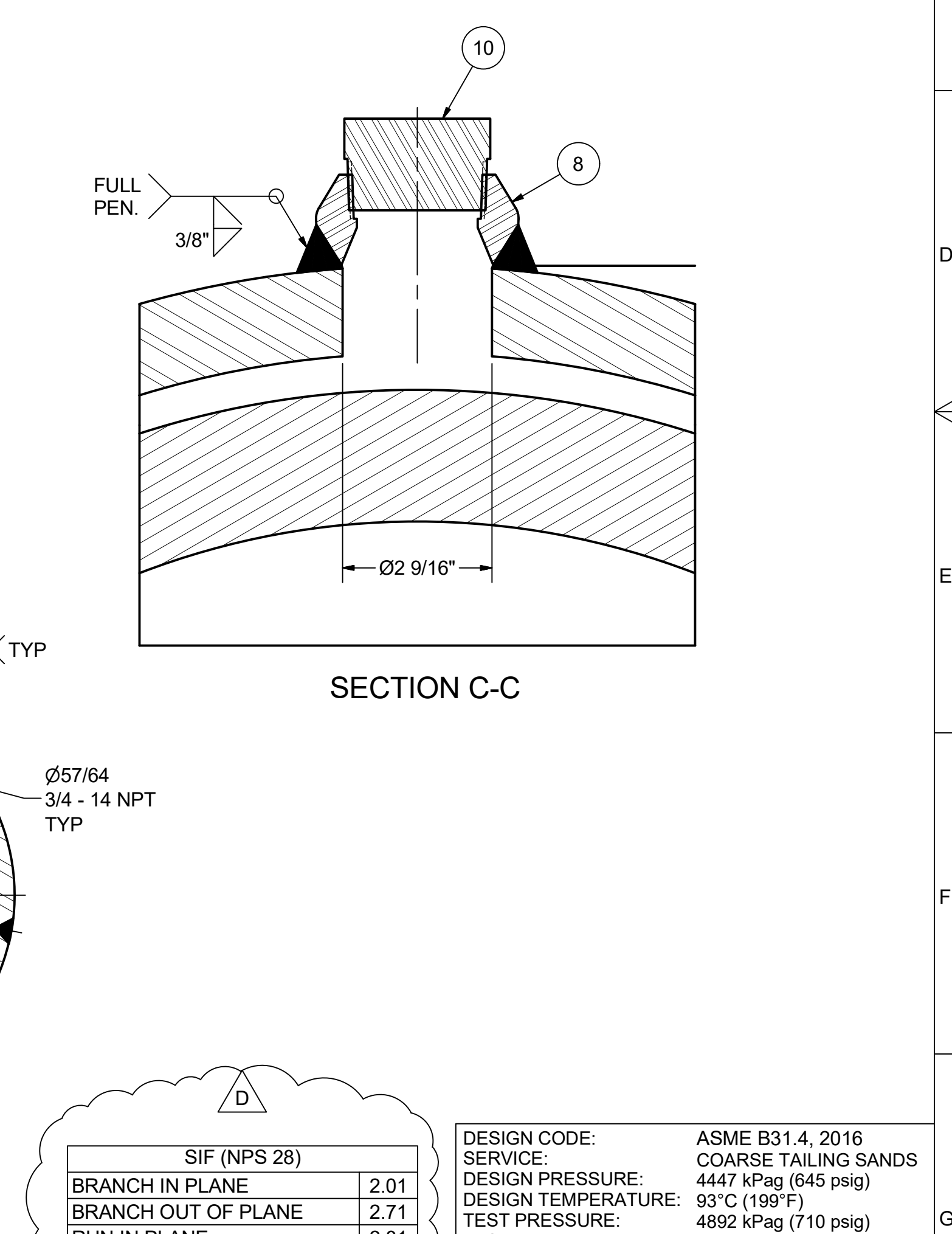
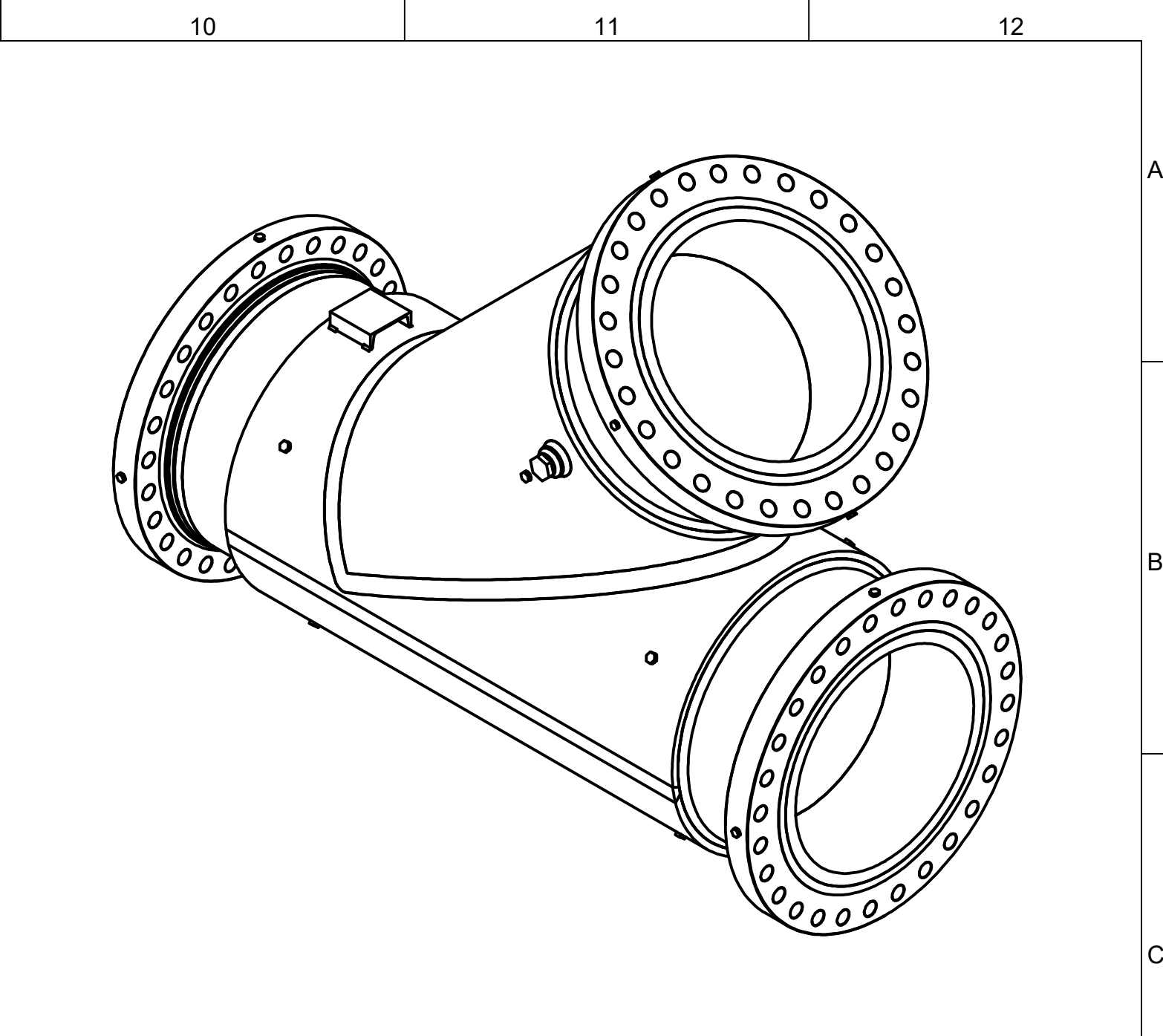


BILL OF MATERIAL			
ITEM	ITEM QTY	PART NUMBER	DESCRIPTION
1	1	A1-19037-100-01 Trunk shell	106 1/32" x 66 1/2" x 1 1/2" PLATE, A516 Gr.70N, ROLLED TO 35 1/4" OD
2	1	A1-19037-100-02 Branch shell	106 1/32" x 48 15/16" x 1 1/2" PLATE, A516 Gr.70N, ROLLED TO 35 1/4" OD
3	3	A1-19037-100-03 32in pipe	32" x 3/4" WALL x 10 17/32" PIPE, API 5L X52 PSL-2
4	3	A1-19037-100-04 28in CL300 RF flange - custom	28" CLASS 300 B16.47 Ser.A FFSO FLANGE, A105N, Ø28 7/8" BORE
5	1	A1-19037-100-05 HCWI lateral	26 1/2" ID x 2 1/4" WALL x 45° HCWI LATERAL, 19 1/2" x 51" x 51", ASTM A532 CLASS III TYPE A, LEVEL 2, PF# 503364
6	3	A1-19037-100-06 HCWI liner - pup	26 1/2" ID x 1 1/4" WALL x 12 1/2" HCWI LINER, ASTM A532 CLASS III TYPE A, LEVEL 2, PF# 503363
7	12	A1-19037-100-07 Trap rod	Ø3/8" x 4 7/16" ROUND BAR, A36
8	1	A1-19037-100-08 2in x 36in threadolet	2" x 36" CLASS 3000 THREADOLET, A105N
9	12	ANSI B18.3 - 1/2-13 UNC x 0.5	1/2"-NC x 1/2" FLAT POINT SOCKET HEAD SET SCREW, PLATED
10	1	ASME B16.11 Hex Head Plug 2	2"-NPT HEX HEAD PLUG, A105N
11	9	ASME B16.11 Hex Head Plug 3/4	3/4"-NPT HEX HEAD PLUG, A105N
12	12	ASME B16.11 Hex Head Plug 1/2	1/2"-NPT HEX HEAD PLUG, A105N
13	2	Tag mount - 6in	C6x8.2 x 6" [152mm], 44W



REVISION HISTORY			
REV	DATE	DESCRIPTION	INITIALS
E	1/16/20	ADD PF NUMBERS TO DESCRIPTIONS	JDS
D	1/10/20	UPDATED WELD SYMBOL, UPDATED NOTE, ADDED SIF TABLE	GVD
C	12/18/19	CHANGED HYDRO TO 4 HOURS	BEM
B	11/25/19	32" PIPE WAS PSL-1, ADDED "LEVEL 2" TO HCWI DESCRIPTIONS, UPDATED DESIGN DATA, ADDED TAG MOUNTS	GVD
A	11/14/19	ISSUED FOR REVIEW	GVD



SIF (NPS 28)			
BRANCH IN PLANE	2.01	BRANCH OUT OF PLANE	2.71
RUN IN PLANE	2.81	RUN OUT OF PLANE	1.62

DESIGN CODE:	ASME B31.4, 2016
SERVICE:	COARSE TAILING SANDS
DESIGN PRESSURE:	4447 kPag (645 psig)
DESIGN TEMPERATURE:	93°C (199°F)
TEST PRESSURE:	4892 kPag (710 psig)
TEST TEMPERATURE:	15°C (59°F)
TEST DURATION:	4 HOURS

REV	E
SHEET	1 OF 1