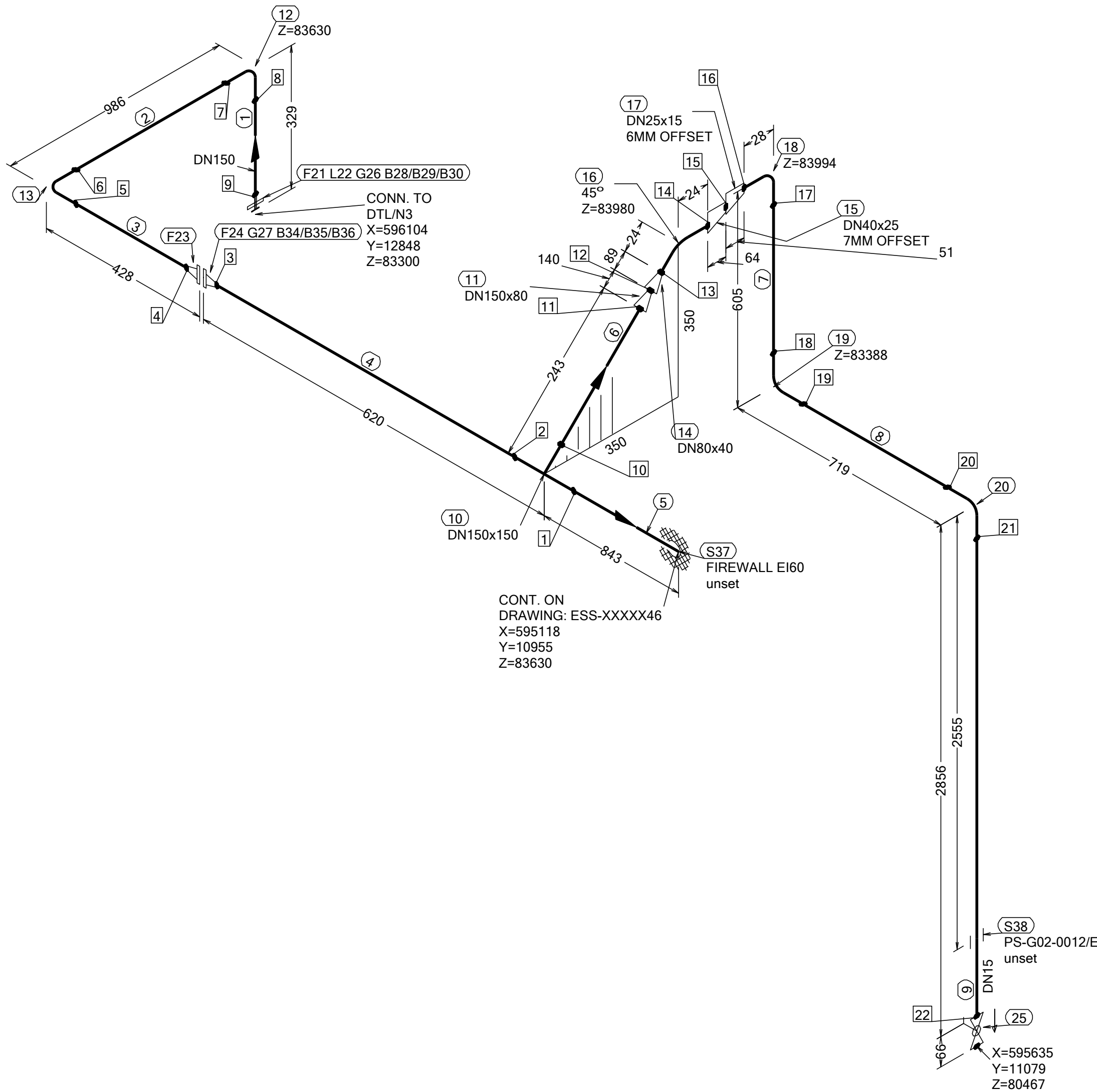
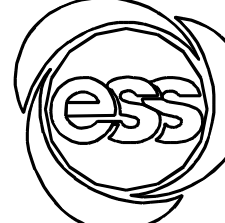


N (Y)



WELD	WPS	FABRICATION MATERIALS				
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS	
	PIPE					
1	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	45		
2	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	528		
3	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	144		
4	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	422		
5	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	700		
6	PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	100		
7	PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	549		
8	PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	663		
9	PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	2828		
	FITTINGS					
10	TEE EQUAL, SS-EN 10253-4, TYPE A, 168.3x2.0 / 168.3x2.0	150 x 150	EN 1.4404	1		
11	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 168.3x2.0 / 88.9x2.0	150 x 80	EN 1.4404	1		
12	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 168.3x2.0	150	EN 1.4404	1		
13	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 168.3x2.0	150	EN 1.4404	1		
14	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 88.9x2.0 / 48.3x2.0	80 x 40	EN 1.4404	1		
15	REDUCER ECC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1		
16	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 48.3x2.0	40	EN 1.4404	1		
17	REDUCER ECC, SS-EN 10253-4, TABLE A.5, 33.7x2.0 / 21.3x2.0	25 x 15	EN 1.4404	1		
18	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1		
19	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1		
20	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1		
	FLANGES					
21	LOOSE FLANGE, SS-EN 1092-1, TYP 02, PN16	150		1		
22	WELDING RING WITH COLLAR, SS-EN 1092-1 TYPE 35, PN16	150		1		
23	FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	150		1		
24	FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	150		1		
	VALVES / IN-LINE ITEMS					
25	BALL VALVE, WORCESTER A44, SHORT, BW	15		1		

PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
29	GASKETS				
30	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	150	EXPANDED GRAPHITE	1	
31	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	150	EXPANDED GRAPHITE	1	
32	BOLTS				
33	HEXAGONAL NUT, M6M, ISO 4032	20	EN 1515-4, A4	8	
34	WASHER, BRB, ISO 7089	20	A4, HV≥250	16	
35	90 mm HEXAGONAL BOLT, M6S, ISO 4017	20	EN 1515-4, A4-70	8	
36	HEXAGONAL NUT, M6M, ISO 4032	20	EN 1515-4, A4	8	
37	WASHER, BRB, ISO 7089	20	A4, HV≥250	16	
38	80 mm HEXAGONAL BOLT, M6S, ISO 4017	20	EN 1515-4, A4-70	8	
39	SUPPORTS				
40	PENETRATION ATTA	150		1	
41	ESS Atta	15		1	

WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0060416	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G02
Quality Level For Weldign Acc To TBN	Design Pressure 10bar (g)	Bend Radius N/A	Bending Procedure N/A	Coupling Installation Procedure TBN	Pressure Test Program TBN	Alternate System Tag	Date (First Issue) 170522
Weld Joint Efficiency Factor (Longitudinal) 1,0	Test Pressure 14.3bar (g)	Insulation Specification N/A				Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM DIW SUPPLY FOR FEB ESS.ACC.E02.E04.WP0005	Scale -
Elevation (z) Acc To BCS	Quality Class MQC4-C	Insulation Thickness N/A				Format A2	
	Media CWM	Allowance For Corrosion 0				Sheet 1 of 1	
	Pipe Specification MQC4-W-PN16	Surface Treatment N/A				Document Number ESS-XXXXX20	Revision A1