

TUNNEL LENGTHS (m)

	main beam turn-around	BC2	e- side ML	BDS	e+ side ML	TOTAL
380 Gev	3 898	600	3 513	3 800	3 513	15 324
1.5 Tev	3 898	600	8 783	5 500	8 783	27 564
3 Tev	3 898	600	10 510	5 500	10 510	31 018
Total	11 694	1800	22 806	5 500	22 806	64 606

SITE LENGTHS (m)

	main beam turn-around	BC2	e- side ML	BDS	e+ side ML	TOTAL
380 Gev	610	600	3 513	3 800	3 513	12 036
1.5 Tev	610	600	8 783	5 500	8 783	23 971
3 Tev	610	600	10 510	5 500	10 510	27 425
Total	1 830	1800	22 806	5 500	22 806	54 742

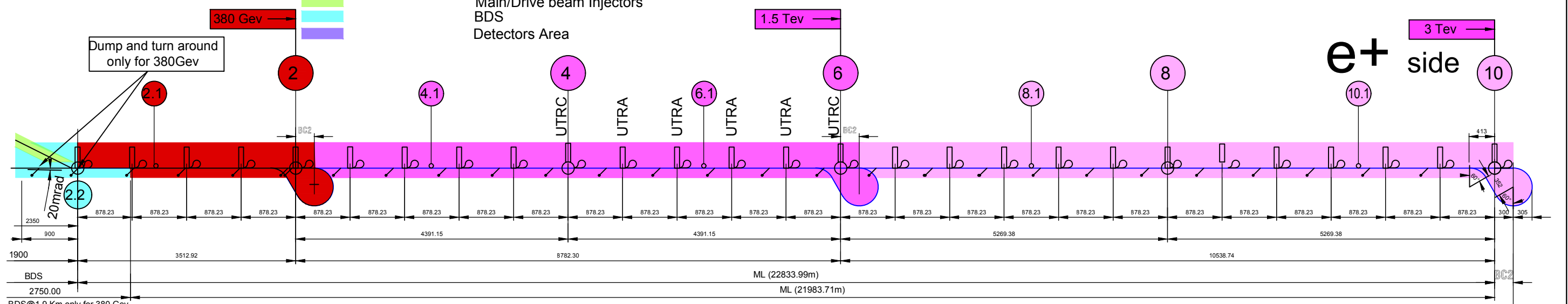
main + drive beam injector complex
see drawing N°
CLIC.CE-1.1799.0002.3

TUNNELS SECTIONS

Area	beam turn-around	e- e+ sides ML	BDS
section dims.	Ø3 m	Ø5.6m	Ø5.6 m

Legend : 380Gev 1.5 Tev 3 Tev

ML
Main/Drive beam Injectors
BDS
Detectors Area



SHAFTS

Point	1.1	1.2	2	2.2	3	3.2	4	5	6	7	8	9	10	11
Øm	18	12	9	9	9	9	9	9	9	9	9	9	9	GALLERY 6 X 5.3

SURVEY BORINGS

Point	2.1, 3.1	4.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 11.1
Øm	1.50	

SHAFT BASE CAVERNS (10 UTRC)

Point	2, 3, 4, 5, 6, 7, 8, 9, 10, 11
(LxWxH)m	55 x 16 x 18 2 storeys

UTRA CAVERNS

Number	8 x	8 x	8 x	10 x	10 x
(LxWxH)m	40 x 10 x 7.2	45 x 10 x 7.2	50 x 10 x 7.2	55 x 10 x 7.2	65 x 10 x 7.2

SERVICE CAVERN & IP

Point	1	1.2
(LxWxH)m

DETECTORS HALL

Point	1.1
(LxWxH)m	62 x 31.5 x 33.5

MAIN BEAM DUMP CAVERNS & SERVICE HALLS (✓)

Point	BDS CAVERNS 1.3, 1.4	BDS SERVICE HALLS 2.2, 3.2
(LxWxH)m	20 x 8 x 14 + 1 storey	49 x 16 x 18 3 storeys

DRIVE BEAM DUMP CAVERNS (✓)

Number	At each UTRAs, UTRCs and Tune-up			
(LxWxH)m	10 x	20 x	22 x	2 x
	6 x 9 x 5			

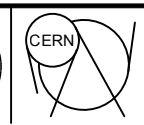
DRIVE BEAM RETURN LOOP

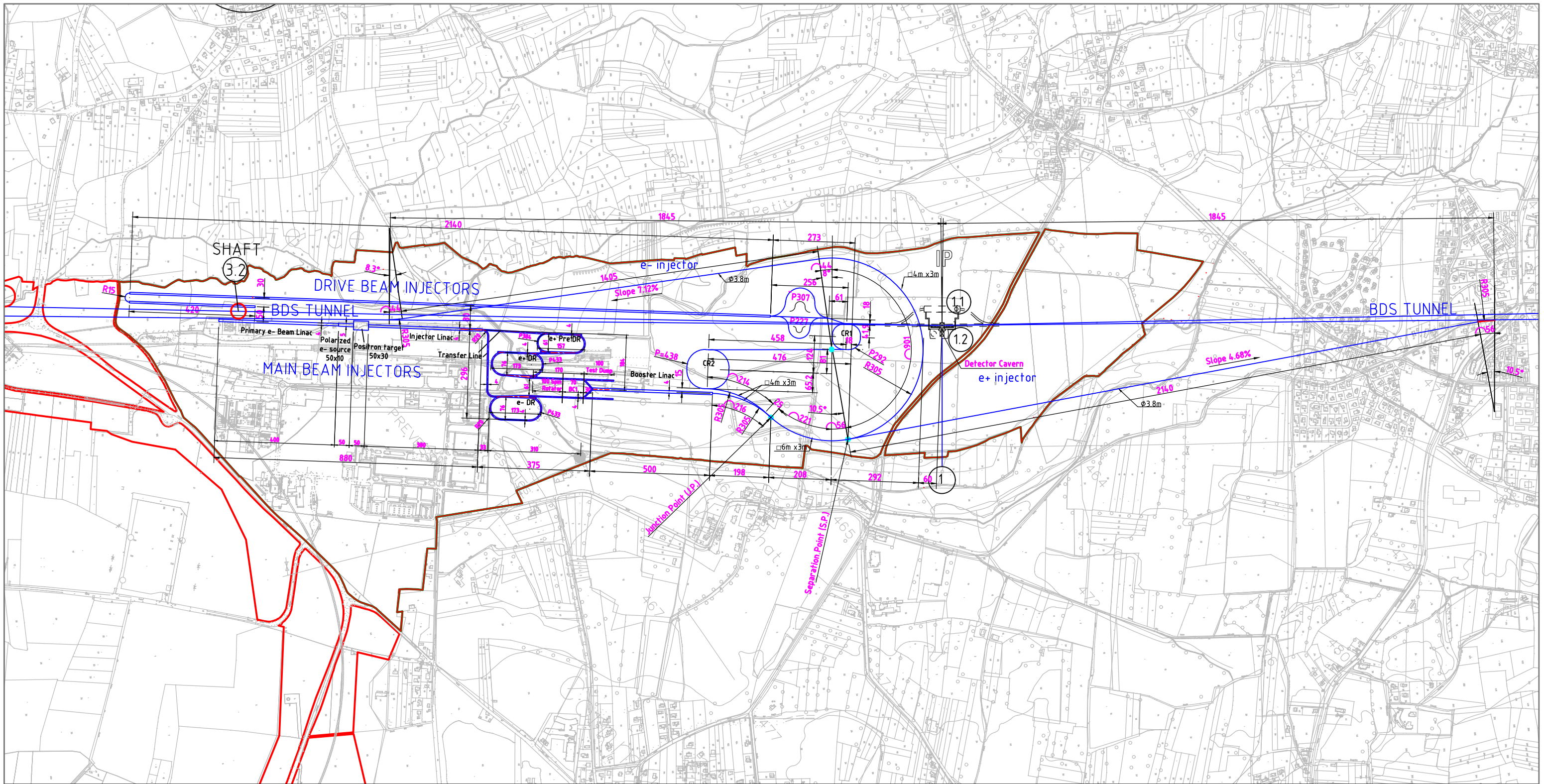
Number	10 x	26 x	48 x
(LxWxH)m	63 x 2.4 x 3		

BC2 CAVERNS

Number	2 x	2 x	2 x
(LxWxH)m	100 x 10 x 3		

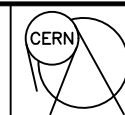
UTR = Underground Technical Room





INJECTORS TUNNELS	DRIVE BEAM INJECTORS COMPLEX							MAIN BEAM INJECTORS COMPLEX								COMMON TRANSFER TUNNEL J.P. to S.P.	FINAL TRANSFER TUNNELS ((From Separation Point))			
	LINAC	DL1	DL2	CR 1	CR 2	Transfer Lines	TT to Junction Point	Preliminary e- beam LINAC	Polarized e- source	Positron Target	Transfer Lines	e+ Pre DR	e+/e- DR	SpinRotator +BC1+TD	Booster LINAC		TT to Junction Point	e- TT	e+ TT	
Length (l) m	2140 +48+420	227	307	292	438	518	239	400	50	50	482	384	2x433	2 x 313	500	216	277	945	1449	2196
Section (w x h) m	6 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	5 x 3	30 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	6 x 3	4 x 3	φ 3.8	φ 3.8
Surface Buildings (l x w x h) m	2560 x 30 x h 9	-	-	30x30 x h 5	30x30 x h 5	-	-	400 x 7 x h 3	Compton R. 30x30x h3	Linac1+2. 30x30xh5(x2)	-	30x30 xh5(x2)	30x30 xh5(x2)	-	500 x 5 x h 3	-	Inject.Hall 30x30xh5	delta e-/e+ = 198m		

CLIC- MAIN / DRIVE BEAM INJECTORS AND EXPERIMENTAL AREA LAYOUT

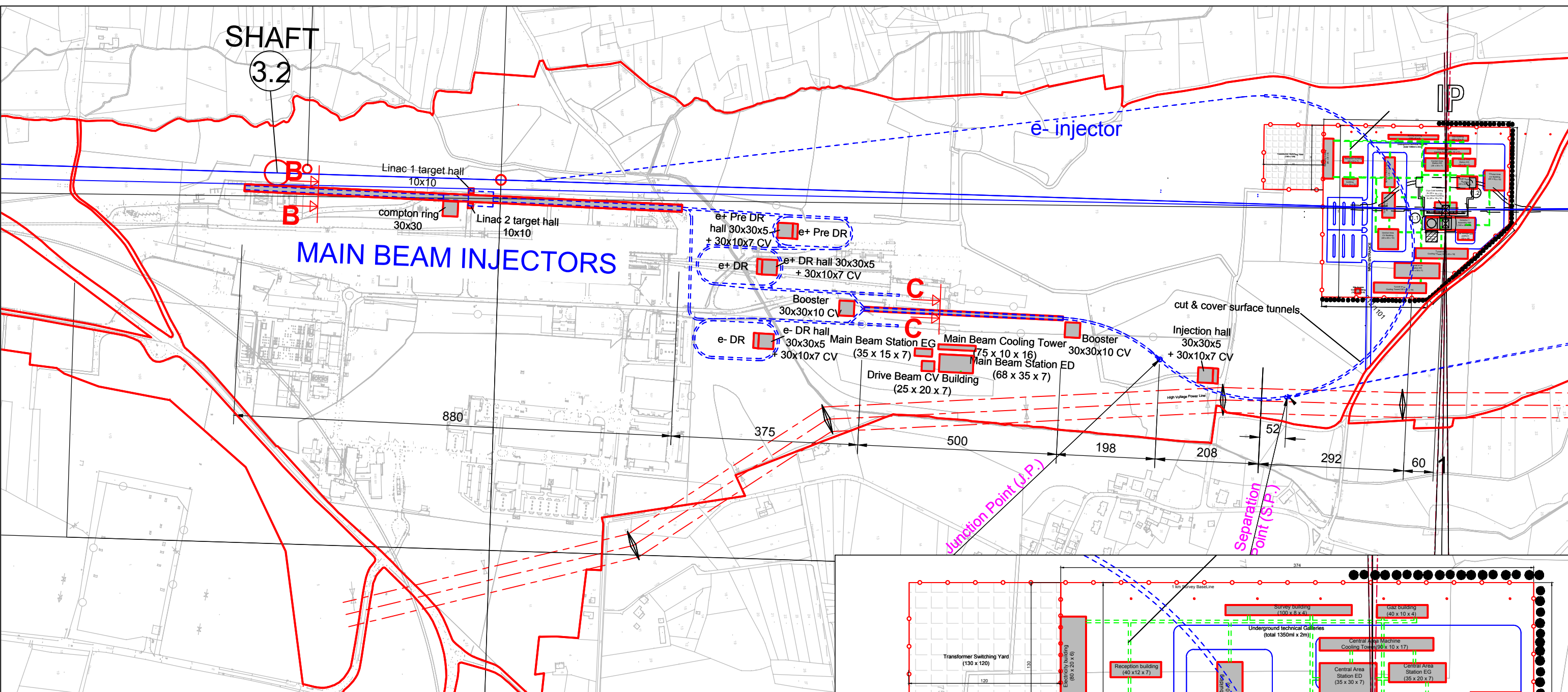


GROUP : GS-SE
 CIVIL ENGINEERING
 SUPERVISOR : J.OSBORNE
 DESIGNER : P.SERAFINO

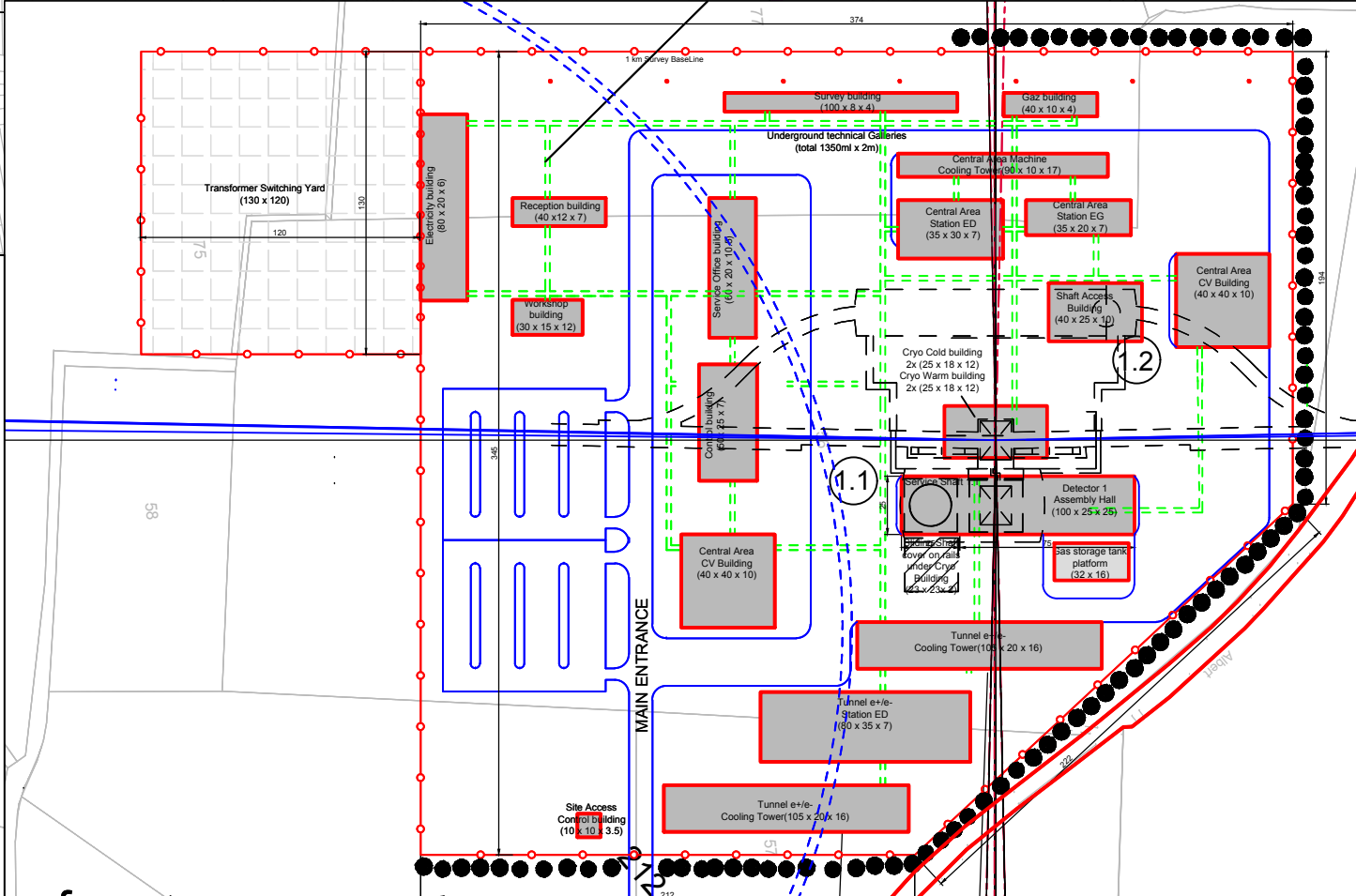
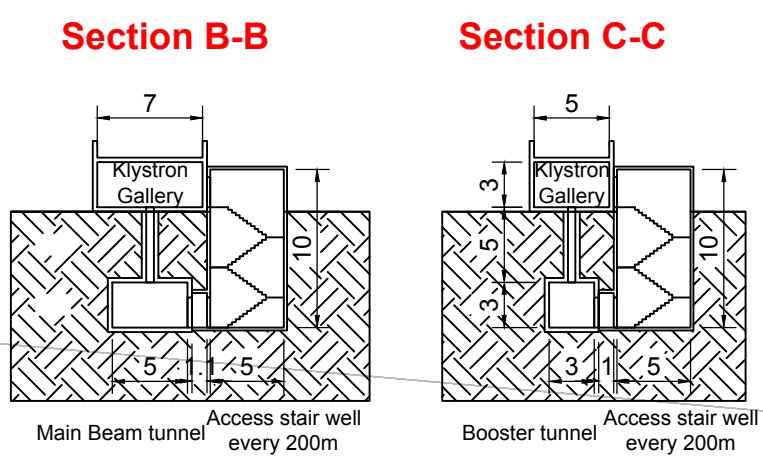
SCALE : 1/8000(A3_FORMAT) DATE : 02-JUN-2017

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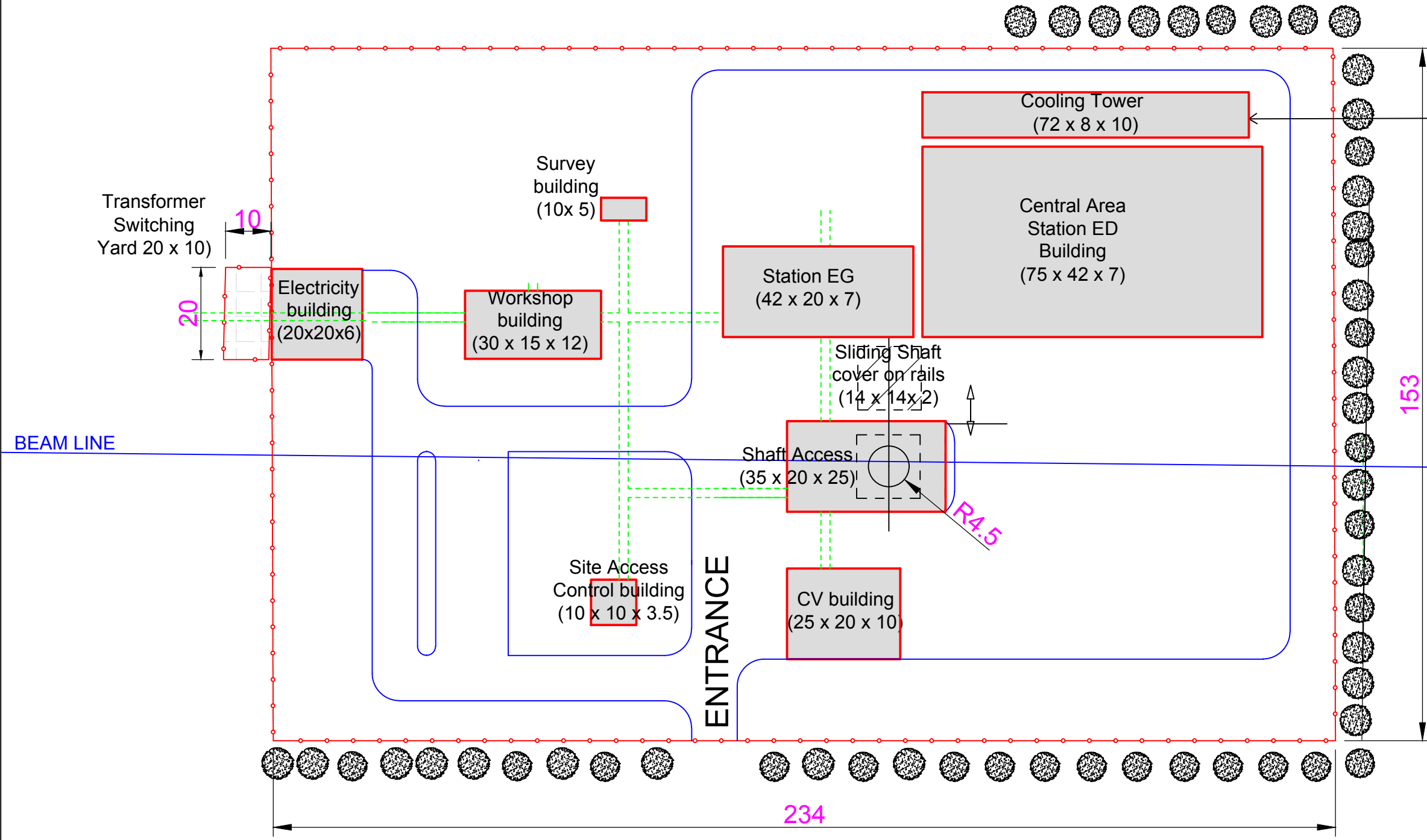
SIZE INDEX
 3 L



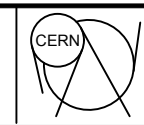
380 Gev Klystron Main Beam Injector Cross Sections



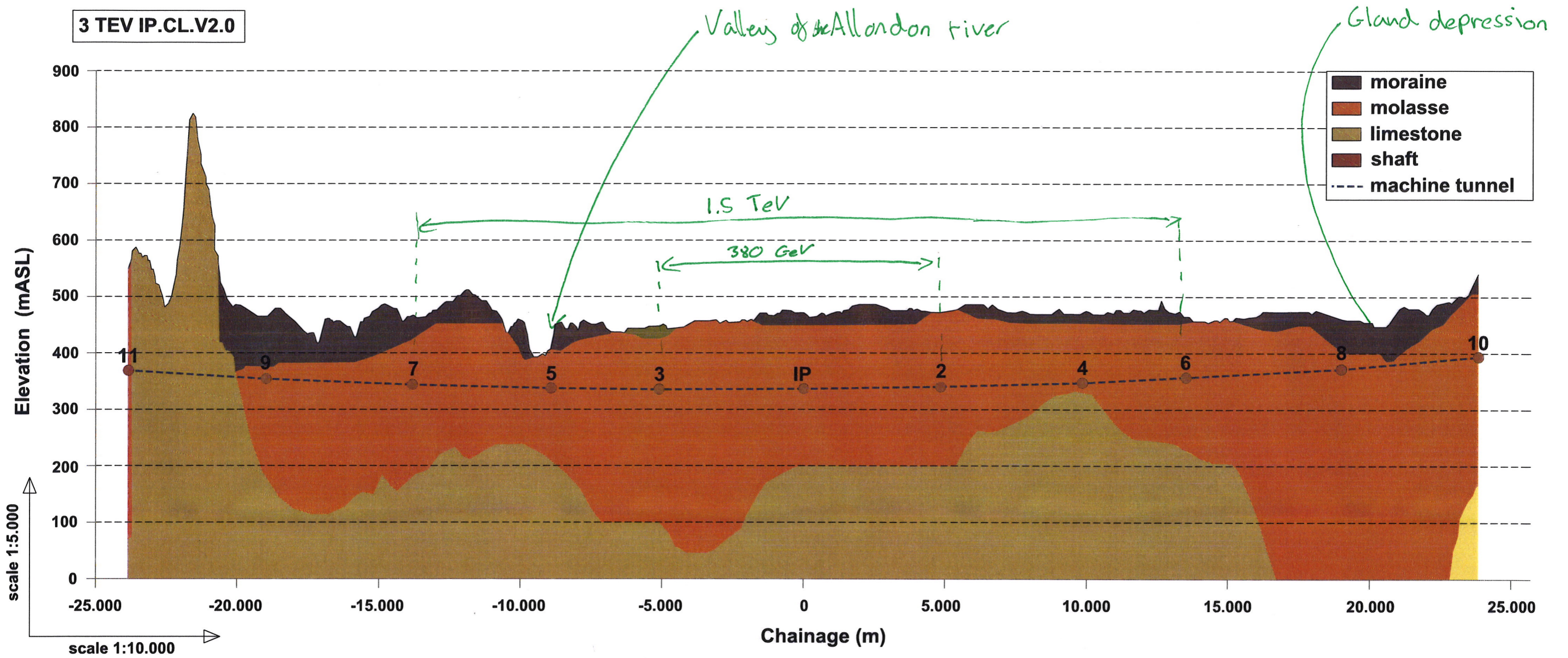
KLYSTRON & DRIVE BEAM

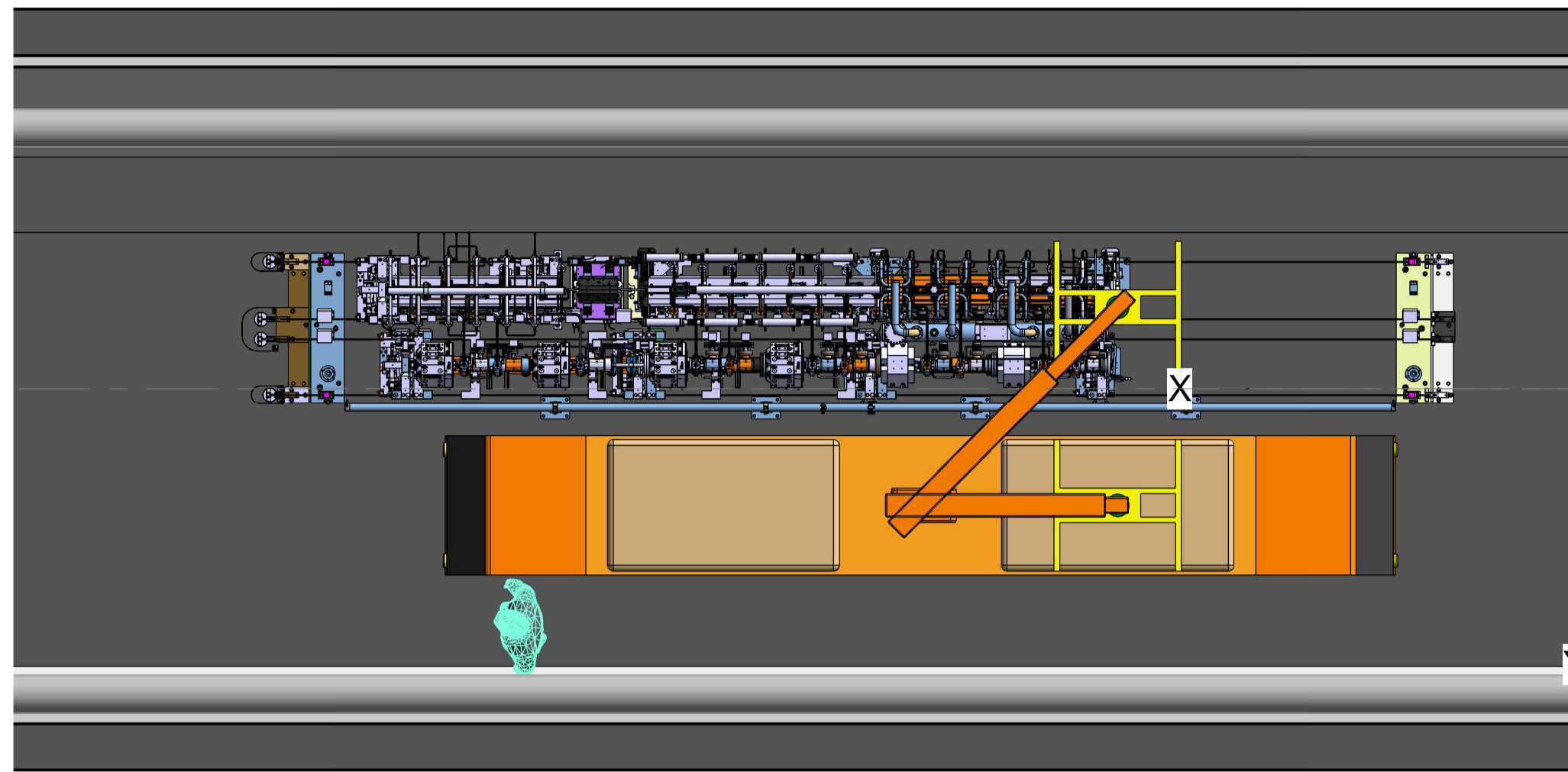


1. Only located at shaft 1,4,5,8 and 9. Can be scaled down for power requirements less than 60 Mw
2. Pumping station building still required

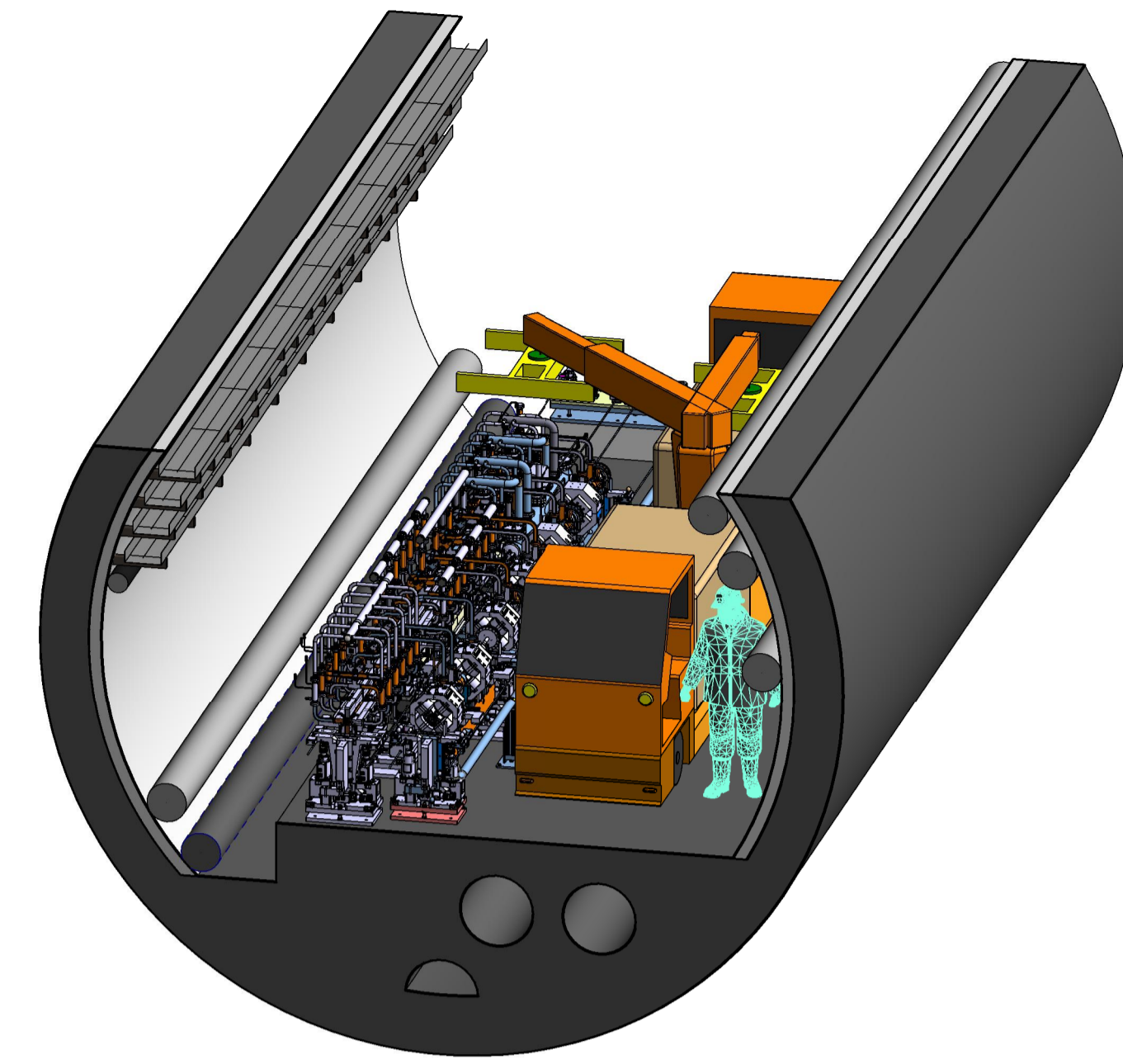


3 TEV IP.CL.V2.0

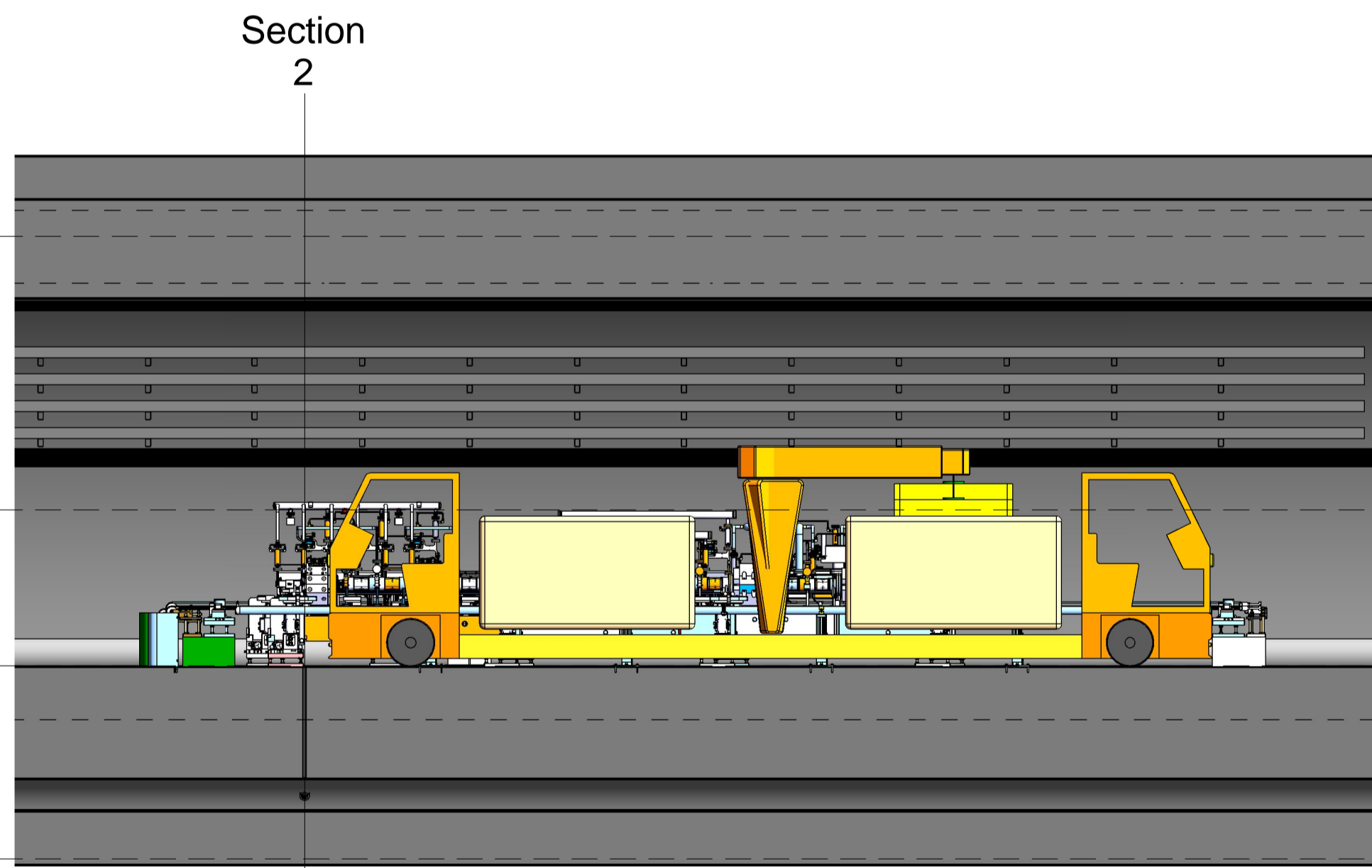




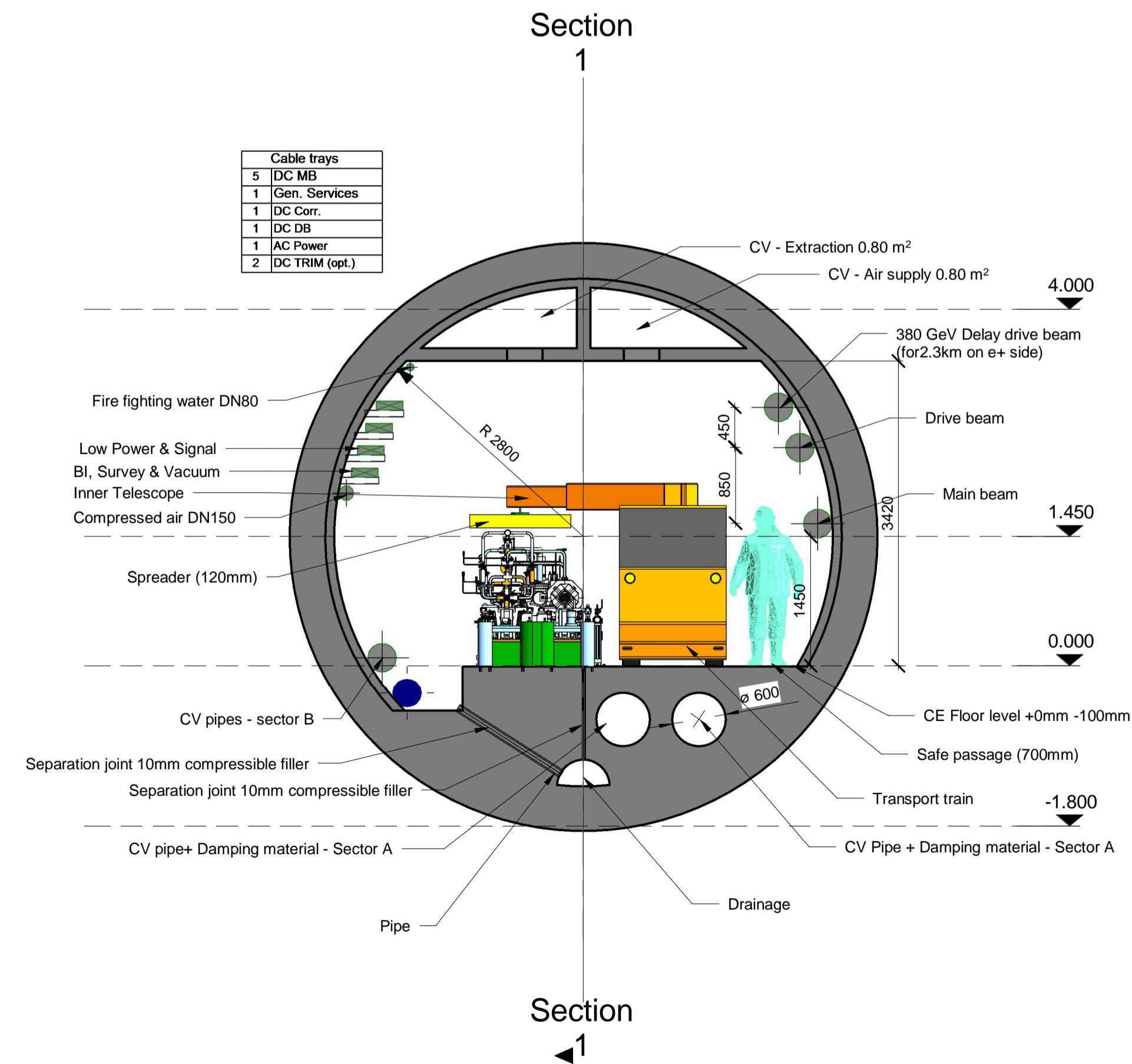
PLAN
1 : 50



3D VIEW

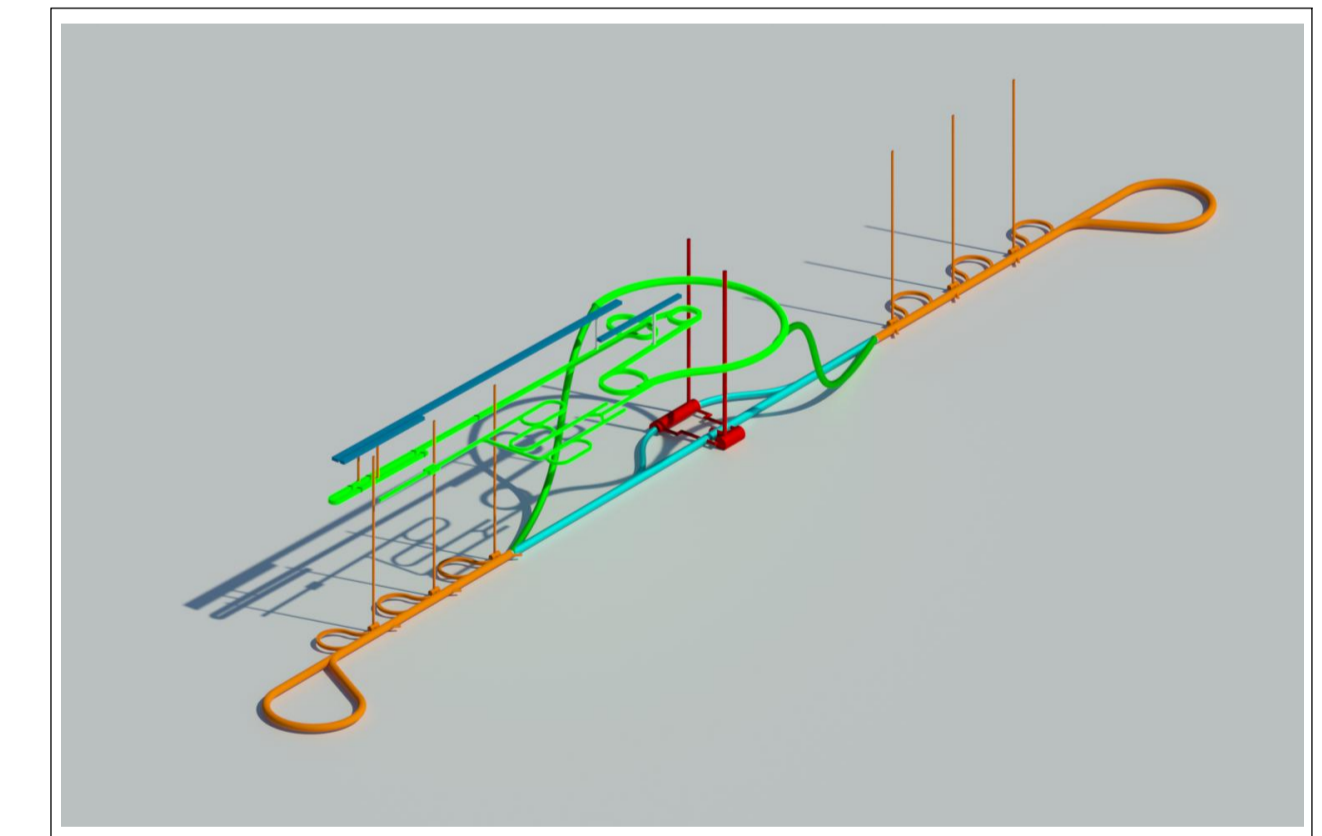


Section 1
1 : 50



Section 2
1 : 50

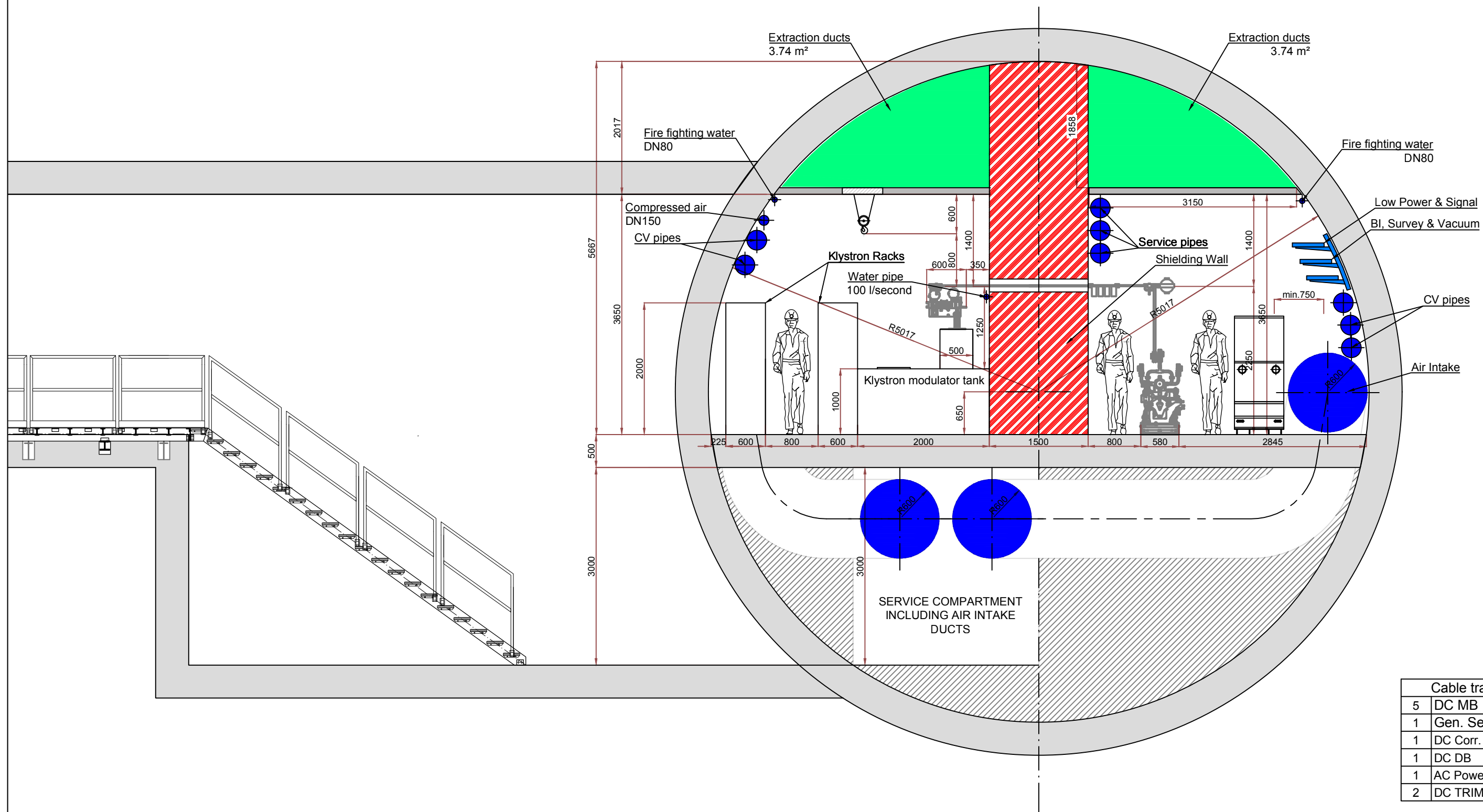
PLAN 3D SITUATION



Compact Linear Collider

SMB-SE CIVIL ENGINEERING

D				
C				
B				
A				
IND.	07/12/17	P.SERAFINO		DRAWING CREATION
				MODIFICATION
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ECHELLE SCALE 1:50		DES/DR CONTROLLED RELEASED APPROVED	P.SERAFINO M.STUART J.OSBORNE	07/12/2017 07/12/2017 07/12/2017
TUNNEL TYPICAL CROSS SECTION				DRAWING UNITY IV
NOT VALID FOR EXECUTION NON VALABLE POUR EXECUTION				OAC - CLIC.CE-117100004 1 -



Cable trays	
5	DC MB
1	Gen. Services
1	DC Corr.
1	DC DB
1	AC Power
2	DC TRIM (opt.)

