

CR-004 Tunnel Extension

Impact on tunnel and access layout

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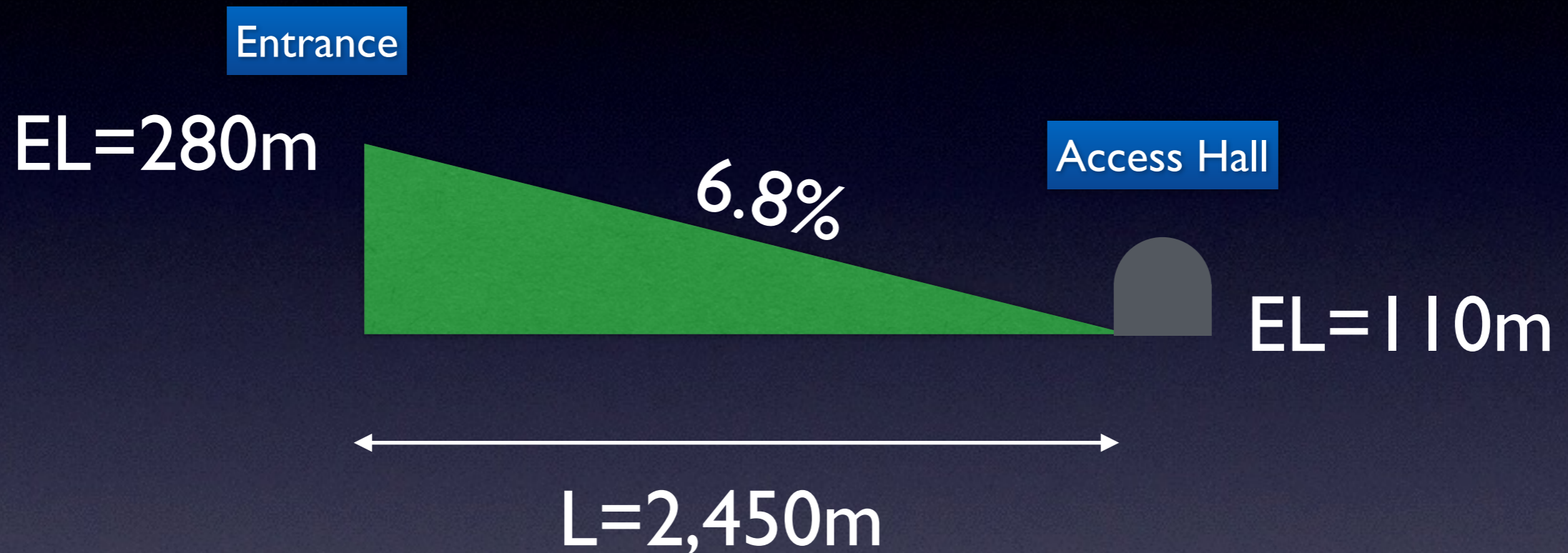
Access Tunnel

(Quick study for CR-004)

Access Tunnel	L(m)
PM-8	1,210
PM-10	2,450
PM-12	1,270
PM-13	1,140
PM-14	1,470
PM-16	880
PM-17	540

Access Tunnel	L(m)
PM+8	990
PM+10	1,300
PM+12	1,160
PM+13	1,150
PM+14	1,470
PM+16	1,900
PM+17	630

PM-10 Acces Tunnel (Quick study for CR-004)



6.8% → 9%

L=2,450m → 1,850m ($\Delta L=600m$)

Length of Access T.

	TDR	CR-003	CR-004
	Horizontal T@DH	Vertical shaft@DH	Vertical shaft@DH +1.5km / linac
PM-17	550	910	540
PM-16	680	820	880
PM-14	810	1,230	1,470
PM-13	1,150	1,270	1,140
PM-12	1,730	2,380	1,270
PM-10	1,300	1,300	2,450
PM-8	440	550	1,210
PM+8	650	990	990
PM+10	1,300	1,300	1,300
PM+12	720	1,160	1,160
PM+13	1,160	1,220	1,150
PM+14	1,250	1,480	1,470
PM+16	1,340	1,770	1,900
PM+17	600	500	630
Total (31km)	8,450	10,170	10,670
Total (50km)	13,680	16,880	17,560