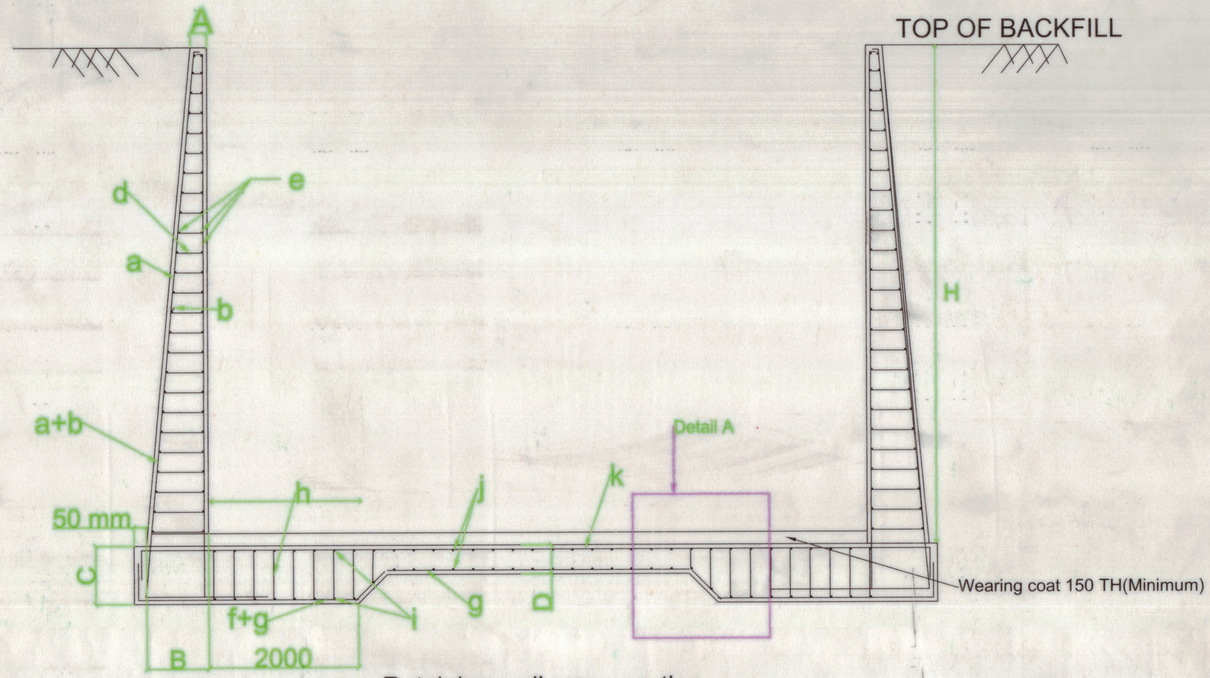
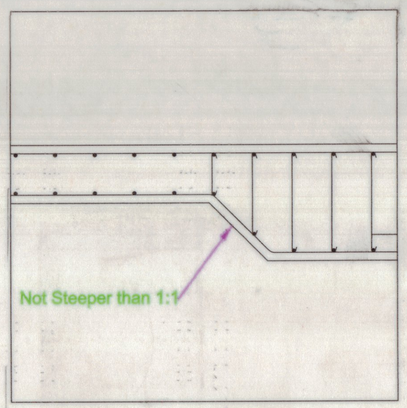


Retaining wall cross section



Detail A

Wall						
Wall Height 'H' (m)	Thickness 'A' (mm)	Thickness 'B' (mm)	Reinforcement			
			Main		Shear "d"	Longitudinal and transeverse "e"
			"a"	"b"		
8	300	1000	25 @ 180 c/c	25 @ 180c/c (Curtailed at 3.0 meters from Top)	10 @ 180 X 180	12 @ 90c/c
7	300	750	25 @ 180 c/c	25 @ 180c/c (Curtailed at 2.5 meters from Top)	10 @ 180 X 180	12 @ 90c/c
6	300	700	20 @ 180 c/c	20 @ 180c/c (Curtailed at 2.5 meters from Top)	10 @ 180 X 180	10 @ 90 c/c
5	200	650	16 @ 180 c/c	16 @ 180c/c (Curtailed at 2.0 meters from Top)	10 @ 360 X 180	10 @ 90 c/c
4	200	600	12 @ 90 c/c	NA	NA	10 @ 90 c/c
3	200	450	10 @ 90 c/c	NA	NA	10 @ 90 c/c
2	200	300	10 @ 90 c/c	NA	NA	10 @ 180 c/c

Bottom Slab								
Wall Height 'H' (m)	Thickness 'C' (mm)	Thickness 'D' (mm)	Reinforcement					
			Main			Shear 'h'	Distribution Top and Bottom 'i'	Distribution Top and Bottom 'j'
			"f"	"g"	"k"			
8	1000	650	25 @ 180c/c	25 @ 180c/c	20 @ 180c/c	10 @ 180 X 180	12 @ 90c/c	12@ 90c/c
7	750	450	25 @ 180c/c	25 @ 180c/c	20 @ 180c/c	10 @ 180 X 180	12 @ 90c/c	12@ 180c/c
6	700	400	20 @ 180c/c	20 @ 180c/c	16 @ 180c/c	10 @ 180 X 180	10 @ 90 c/c	10 @ 180c/c
5	650	300	16 @ 180 c/c	16 @ 180c/c	16 @ 180c/c	10 @ 180 X 180	10 @ 90 c/c	10 @ 180c/c
4	600	300	12 @ 180c/c	12 @ 180c/c	16 @ 180c/c	NA	10 @ 90 c/c	10 @ 180c/c
3	450	300	NA	10 @ 90c/c	10 @ 90c/c	NA	10 @ 90 c/c	10 @ 180c/c
2	300	300	NA	10 @ 90c/c	10 @ 180c/c	NA	10 @ 180 c/c	10 @ 180c/c

1. All dimensions are shown in Millimeters unless otherwise noted.
2. Grade of concrete shall be M30.
3. Reinforcement Steel shall Fe500 conforming to IS 1786: 2008.
4. Angle of repose of backfill material shall not be less than 30°. Cohesion of backfill is considered as 0 kPa.
5. No weep holes shall be provided in the retaining wall.
6. Live Load Surcharge equivalent to 1.2 m height of earth fill as per clause 710.4.4 of IRC 78: 2014 is considered in the design.
7. No Dead load surcharge shall act within 14 m from outer face of wall.
8. Earth filling behind retaining wall shall be flushed with the top of retaining wall.
9. Preparation of subbase and subgrade shall conform to section 6 of IRC: 15- 2017.
10. Design is based on IS 456, IRSCBC and IRC 6.
11. This drawing is suitable for cast-in-situ arrangement only.
12. Expansion joint should be provided at a spacing of 30 m c/c with gap of 20 mm to be filled with suitable filler material.
13. Maximum foundation pressure under the wall is 10 t/sqm. It shall be ensured that SBC of soil under the base slab of U type retaining wall is more than the foundation pressure. pl

HQ
Drg.No: GM|W|SC|BR|RUB|RCC|STD|276|2023.

SOUTH CENTRAL RAILWAY

HEAD QUARTERS OFFICE, SECUNDERABAD

STRUCTURAL DRAWING OF U TYPE RCC RETAINING WALL ON APPROACH ROAD OF RUB: HEIGHT OF WALL VARYING FROM 1 m TO 8m.

CBE	PRADEEP GUPTA
DY.CE/BR.D	C. NAGARAJU
AXEN/ROB	B.CHINTIAH 13/10/2023
SSE/DES/Br.D	MITHUN SINGH 13/10/23
JE/DES/Br.D	M.SUPREME 13/10/23