

SECTION 84 - EARTH ROADS

1910. An earth road is constructed by clearing the topsoil and using a grader to form ditches about 8 m apart (see Figure 19.1). Material from these is spread inwards, shaped, compacted and given a camber of about 4%. The slope of the ditch on the road side should normally be about 1:2, reducing to 1:3 where erosion is a particular problem. The road should be built to such a level that the formation at the side of the road is at least 600 mm above the water table. This may require the construction of low embankments in low-lying areas.

1911. Earth roads are used: -

- a. For hasty work in the combat zone.
- b. As construction and haul roads.

1912. They should be located on the firmest and best-drained ground available.

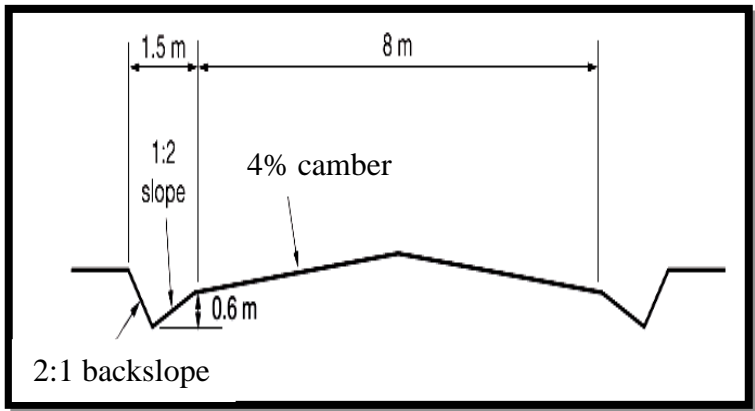


Figure 19-1: Typical Graded Earth Road

he must be carefully shaped and good drainage is vital except for the most temporary use in dry weather. Continuous maintenance is required and dust control is desirable. Under traffic, the roads become rutted and reshaping is required. This is best carried out by a motor grader blading soil inward from the edges of the road and reshaping to form a camber, thus allowing water to run off the road surface to the side ditches.

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1913. For very hasty construction for immediate operational use, it may be best to disturb the ground surface as little as possible, and to throw spoil from side ditches outside the road width. Otherwise, adequate camber, shoulders, and side drains should be provided.

1914. Cut and fill must be kept to a minimum.

1915. Standard dimensions are given in Figure 19.2 and Table 19.1.

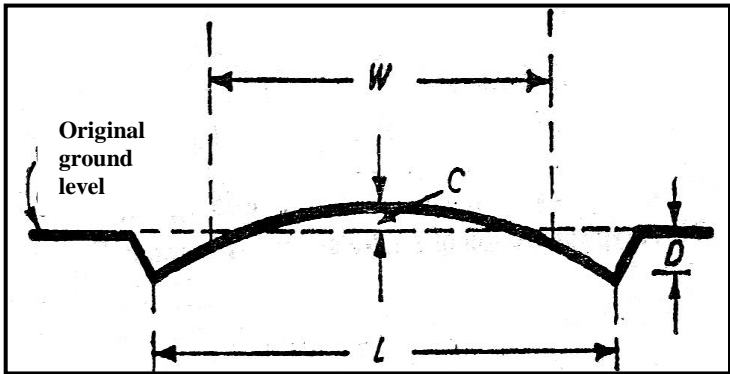


Figure 19-2: Dimension of Earth Road

TABLE 19.1- EARTH ROADS-DIMENSONS

Serial No.	Width of carriageway W (ft)	Height of crown above original ground level C (ins)	Distance between bottoms of side ditches L (ft)	Depth of ditches below original ground level D (ins)
(a)	(b)	(c)	(d)	(c)
1	10	6	18	9
2	12	8	20	12
3	18	8	27 5	24
4	30	18	34	30

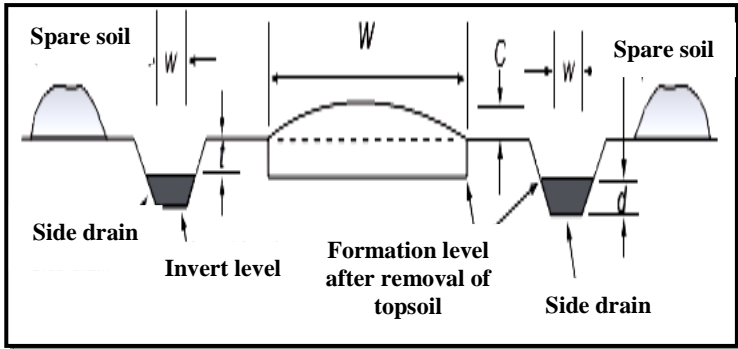


Figure 19-3: Dimensions for a General Purpose Earth Road - Deliberate Construction.

1916. Useful plant for rapid construction includes angle dozers, graders, scarppers, and rooters or scarifies.

1917. Maintenance of earth roads is dealt with in chapter 27.