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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2339 Press Mis.

224-25

Dated 15-3- 1871.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 15th September 1871.

No. 224. Read the following Proceedings of the Government of India in the Public Works Department, (Railway,) dated Simla, 25th August 1871, Circular No. 10-R.—

STATE RAILWAYS.

Rules regarding the acquisition of land to be observed by Engineers.

I.—THE general course of procedure laid down in the Public Works Code, Chapter XIII, 1, 14 is to be followed on the State Railways. Paragraph 14A is to be attended to in all cases when it is applicable.

II.—Railway Officers shall not obtain possession of land, whether by purchase, lease, or on simple toleration, except through the Revenue authorities.

III.—Engineers in preparing land plans for submission will divide their application under two heads, namely,—

(a)—Land required permanently, or land necessary for the Railway when it is opened for public traffic, and when the works of construction are finished.

Such lands are the sites of bridges, embankments, cuttings, fences, and other works, the cess or berm introduced for the sake of safety between the limit of the works and the adjacent spoil bank, bazaar, or side cutting, roads permanently required and immediately in the neighbourhood of stations, overbridges, underbridges, or level crossings on the Railway, land or water required for the water supply, land wanted for the preparation and reception of such materials as are used in maintenance, as ballast pits; land for the lasting diversion of water-courses, and all space permanently required at the stations, whether for traffic, storage, workshops, dwellings, or recreation.

(b)—Land required temporarily, or land necessary to be taken up, but not permanently wanted

Such land will be for roads for access to works while in progress, but which will subsequently be abandoned, land for side cutting and spoil banks occupied during construction for the preparation and reception of materials used in constructing the Railway, as brick-fields, quarries, or ballast pits, the temporary diversion of streams and highways. The sites of Overseers' dwellings to be occupied only during construction will come in this class.

IV.—The land to be taken up permanently for the through line of Railway will be, in the first instance, sufficient for a double line, so as to allow of a cart-road to exist parallel to the Railway outside the fence, so long as the line remains single. This road will be useful not only during construction for service purposes, but afterwards for access to the stations, and for maintenance purposes. Station sites and temporary land shown in the annexed sketch to be taken for a single line with sidings only.

V.—For the purposes of preparing land plans, the seat of the embankments of Railways on the narrow gauge may be considered to be 22 feet wide, as for a double line, added (on the supposition that slopes of 2 to 1 will suffice) to four times the height of the embankments When flatter slopes are required in exceptional cases, extra allowance must be made for them A width of 19 feet will be taken up on each side of the embankment, of which 3 feet will be reserved as a cess on each side of the bank between the toe of the slope and the edge of

the seat of the fence mound, and the remainder for a ditch and mound fence. Without any allowance for slopes of embankments, the least breadth of land required for the permanent works would thus be 60 feet, and the minimum breadth to be taken up permanently for the Railway in embankment will be 64 feet.

Similarly, in cuttings, a width at formation level of 30 feet will be taken as for a double line; fence, cess, and slopes may, as a general rule, be calculated as for embankments. The least breadth actually necessary will thus be 68 feet, and the minimum breadth to be taken up permanently for cuttings will be 72 feet. In sidelong ground the side widths will be duly provided for.

The centre line of a single track narrow gauge Railway having been laid out, the width of land to be taken up when the formation is in bank, with slopes of 2 to 1, will be 25 feet *plus* twice the height of the bank on one side, and 35 feet *plus* twice the height of the bank on the other side of the centre line; but in no case will a less width than 27 feet on one side and 37 feet on the other side be taken up. Similarly, in cutting, the minimum width to be taken up on each side of the centre line will be 31 feet and 41 feet, respectively. A sheet of cross sections is annexed.

VI.—Land to be taken up temporarily will be principally for side cuttings and spoil banks, and will generally adjoin the land required permanently.

Embankments under 3 feet in height will have side cutting on one side of the Railway only. Slopes of side cutting will be generally 2 to 1 all round, but care must be taken to provide for exceptional cases when a flatter slope may be needed. Similarly, the contents of cuttings under 3 feet high will be led to spoil on one side only.

Land for side cuttings will be taken on the calculation that they will not exceed 10 feet in depth. They will be formed into well-defined tanks. In every 300 feet along the Railway, 60 feet, with a slope of 2 to 1, will remain untouched so as to prevent the tanks becoming continuous. The tanks will thus be 240 feet long, and the 60 feet spaces will be used for storage of ballast or other purposes, provided they remain uncut. A sufficient water-course will be provided at right angles to the centre line of Railway for each culvert or bridge, and on either side of this water-course land will be left clear of the side cuttings, sufficient to prevent the water from the river running into the side cuttings. The precaution of leaving land uncut in this manner is necessary to prevent the formation of a dangerous stream parallel to the Railway.

VII.—In the neighbourhood of towns or other places where land is above the ordinary value, the width of land to be taken for slopes, fence, etc, must be specially considered to secure economy.

VIII.—All land will be applied for in continuous portions, when practicable, mile by mile, or village by village on each sheet; the plans will be drawn to the scale of 300* feet = 1 inch; the centre line of Railway will be shown divided into chains each 100 feet in length, and all dimensions will be figured in feet. The name of each zillah, pergunnah, and mouzah will be shown on each sheet. On curves the tangential point on the centre line will be marked and the radius of curvature given. The areas in acres, roods, and poles will be recorded in

* Plans already prepared on the scale of 1,0 feet = 1 inch will be received, but the smaller scale should be adopted in future, or in anticipation of the general adoption of decimal scales in the State Railway Department, a scale of $\frac{1}{4,000}$ may be used.

accordance with the fiscal divisions in a schedule (form annexed) showing in detail the class to which the land belongs, and the purpose to which it is to be devoted. Land required permanently will be colored pink; temporary land will be colored yellow.

IX.—Detached portions of land should be referred to some fixed point on one of the main sheets with distances and compass or other bearings, or such reference to the published maps of the neighbourhood as will ensure a ready identification of the land, a corresponding entry should be made on the main sheet to draw attention to the detached plot.

X.—As a general rule, three complete sets of land plans and schedules will suffice for record, namely,—

One for the Engineer in charge of the Railway.
One for the Local Government or Administration.
One for the Revenue authorities, but should more be required, they will be supplied by the Railway Engineers.

XI.—The general correctness of the plans and schedules submitted by the Railway Engineer in charge being attested by the Consulting Engineer or other Controlling Officer of the Government, the application will be forwarded to the Revenue authorities, and will be dealt with by them under the orders of the Local Government.

XII.—The land plans and schedules will be rectified from time to time as changes occur, and it will be necessary for Local Governments to see that a correct register of all Railway lands is maintained.

XIII.—When land is no longer required for the Railway, it will be re-transferred to the Revenue authorities and disposed of by them; it will be the duty of the Consulting Engineer or other Controlling Officer of Government, in conjunction with the Engineer in charge of the Railway and the Revenue authorities, to periodically adjust the boundaries, the Controlling Officer being held specially responsible for any excess of land held for Railway purposes. All contemplated changes in the land occupied by a Railway should be reported to the Consulting Engineer or other Controlling Officer, who will notify the same to the Local Government, and it will be for the latter to see that the necessary steps are taken by the Revenue authorities for entering such changes in their records, and for carrying out all further requisite proceedings.

XIV.—In Native States, all land will be obtained through the Political Agent, and the distinction of temporary and permanent need not be observed; but this will not make it the less incumbent on the officials concerned to see that all land not permanently required for the purposes of the Railway is restored when no longer wanted, and to keep as complete records of the land retained for Railway purposes in Native States as in British territory. Such plans and schedules as the Political Agent may require will be supplied by the Railway Engineers.

XV.—The narrow gauge having been made one metre, and the introduction (as soon as the means are available) into the State Railway Department of the metrical system having been decided upon, the dimensions given in this Circular will hereafter be converted to the new standard with such slight modifications as may be found convenient.

Proceedings of the Madras Government, Public Works Department,
15th September 1871.

RAJPOOTANA STATE RAILWAY.

PLAN No _____

DISTRICT _____

Schedule of land taken for the use of the Railway in Zillah _____

Pergunnah _____

Mouzah _____

No of Plan	Purpose for which required	CLASS A, COLORED PINK			CLASS B, COLORED YELLOW		
		Occupation, permanent			Occupation, temporary.		
		Land for the regular works of the Railway including land for high roads and rivers, etc, etc			Land for excavations, spoil, and for contingencies of construction, for dwelling houses, etc, etc		
		ACRES	R	P	ACRES	R	P.
	Total.						

Superintending Engineer.

Deputy Consulting Engineer to Government.

Proceedings of the Madras Government, Public Works Department,
15th September 1871.

Circulated for adoption on State Railways to all Governments and Administrations

(By order,)

(Signed) E. C. S. WILLIAMS, Major, R.E,
Deputy Secretary.

225. ORDER THEREON, 15th September 1871, No. 2,339.

RAILWAY, No. 23. COMMUNICATED to the Consulting Engineer for Railways for information.

(True Extract.)

(Signed) A. deC. SCOTT, Captain, R E.,
Under Secretary to Government.

he Acting Consulting Engineer for Railways.

t. C. Shunker.

No. 4216.

GOVERNMENT OF INDIA

PUBLIC WORKS DEPARTMENT.

RAILWAY.

To

CIRCULAR No. 10 RAILWAY.

Dated Simla, 25th August 1871

Received 6th Septr

Enc: 1.

2 sets of Plans
each containing
7 Plans

STATE RAILWAYS.

Rules regarding the acquisition of land to be observed by Engineers.

No 2339

Communicated to the Executive Engineer for Railways (Calcutta) for information.

Dated 15th September 71.

35

× Rec'd 29/9/71

Ack. 18th Sept 71.

C. No. 4206.

Govt of India 1871 Works.

PUBLIC WORKS.

To The Consulting Engr for Railways.

Dated 15th Septr 1871. No. 2339.

Nos. 274 & 225

State Railways.

Enclosed from Lt Pine-Coffin forwarding Plans & Estimates for regulating the Land & Roads adjacent to the Engineers Cantonments at the Lansdowne Depot

Sept 1871

No 2339

Communicated to the Consulting Engineer for Railways for information.

Lal Sahib Singh
15th Septr/71

Audit

35 × Recd 29/9/71-

C.R. for Rept
× Rec'd accordingly

Sent 16th September/71-