M.R.O. 1—77,006—6-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 853 354, 855	2994-95	Press / Mis.
Dated	17-12-	18 72

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 17th December 1872.

No. 353:-. Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 2nd December 1872, No. 664:—

WITH reference to the Order of Government, No. 2,280, dated 26th September 1872, I have the honour to submit letters* from the Agents of the Madras, the Great Southern of India, and the Carnatic Railways, showing what the sharpest curve is in each system upon which a platform or other fixed structure has been erected. In the case of the Great Southern of India and Carnatic Railways the Agents furnish similar information in regard to the fixed structures proposed to be erected upon the extensions.

* From Madras Railway, No. 866, dated 29th November 1872.
From Great Southern of India Railway, No. 4,759, dated 21st October 1872.
From Carnatic Railway, No. 601, dated 17th October 1872.

2. The Agents also reply to the inquiry of the Government of India whether, with a view to the possible introduction of longer carriages on bogie frames, they consider it desirable that the standard maximum dimensions for moving structures should be modified.

3. On the Madras Railway system the sharpest curve upon which a platform or other fixed structure has been erected has a radius of 26 chains or 1,716 feet. It is explained by the Chief Engineer that the increased projection due to this curve in the event of the use of a 60-feet carriage on bogie frames would be 1·75 inches, and that no modification in the standard maximum dimensions for moving structures will, therefore, be necessary.

4. On the open line of the Great Southern of India Railway the radius of the sharpest curve upon which a fixed structure has been erected is 60 chains or 3,960 feet, and on the Southern extension 80 chains or 5,280 feet. Mr. Betts states that he does not advocate the introduction of carriages on bogie frames; but it does not appear to me that it would be necessary in any case to modify the standard dimensions for moving structures on this line.

5. On the open line of the Carnatic Railway the fixed structures are all on the straight; on the Cuddalore line the sharpest curve upon which it is proposed to place a fixed structure has a radius of 20 chains or 1,320 feet. The Chief Engineer states that, in the event of the introduction of long carriages upon bogie frames, "he is of opinion that the dimensions regulating the position of fixed structures should be modified to insure sufficient space for the rolling stock on the inside of curves as well as to allow for the elevation of the outer rail."

From the Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 29th November 1872, No. 866.

WITH reference to your letter, No. 821, dated the 8th ultimo, I have the honour to quote as follows from a letter* received this day from the Chief Engineer:—

* No. 555, 29th November 1873.

"The radius of the sharpest curve on the Madras Railway system upon which a platform or other fixed structure has been erected is one of 26 chains. This passes through Kootipooram Station, South-West Line.

"The projection of a carriage 60 feet long, width 40 feet wheel base would be 1¼ inches greater on a curve of 26 chains radius than on a straight line.

"This difference is so small that, in my opinion, no modification of the standard maximum dimensions for moving structures will be necessary so far as the Madras Railway is concerned."

From W. S. BETTS, Esq., Agent of the Great Southern of India Railway, to the Consulting Engineer for Railways, dated Negapatam, 21st October 1872, No. 4,759.

YOUR letter, No. 427, of the 8th instant. The radius of the sharpest curve on the open line upon which a platform or other fixed structure has been erected is 60 chains.

The following is the radius of each curve on the Southern Extension, upon which fixed structures will be erected :—

District No. 4,	Vadamadura,	80 Chains.
Do. ,, 7,	Tripanacondum,	120 ,,
Do. ,, 8,	Tirumungalum,	120 ,,
Do. ,, 9,	Virduputty,	160 ,,
Do. ,, 13,	Tuticorin,	80 ,,

I do not advocate the introduction on this Company's line of carriages on bogie frames, and, therefore, I do not consider it desirable that the standard maximum dimensions for moving structures should be modified.

From the Agent and Manager of the Carnatic Railway Company (Limited), to the Consulting Engineer for Railways, dated Madras, 17th October 1872, No. 601.

WITH reference to your letter, No. 271, dated the 8th instant, I have to submit a copy of the Chief Engineer's letter, No 548, dated 15th instant, in which he expresses his opinion that the dimensions of *fixed* structures should, in the event of long carriages with bogie frames being adopted, be so modified as to insure sufficient space for the rolling stock on the inside of curves as well as to allow for the elevation of the outer rail.

2. There is also enclosed a list of the proposed stations on the line between Madras and Cuddalore with the radius of the curves on which some of them will be situated ; the stations on the open line between Arconum and Conjeveram are on the straight.

3. It is observed that in paragraph 2 of your letter under reply you inquire if it is thought desirable to alter the maximum dimensions of *moving* structures ; but, as designs for the rolling stock are to be finally settled in England, it is presumed that this letter will supply the information and opinion required to be given.

From the Chief Engineer, to the Agent and Manager of the Carnatic Railway Company (Limited), dated Madras, 15th October 1872, No. 548.

WITH reference to the Consulting Engineer's letter, No. 271, of the 8th instant, I beg, herewith, to send you a Memorandum of the stations proposed for the line between Madras and Cuddalore showing the rate of curvature on which platforms and fixed structures will be placed.

For the open line the stations are all on straight portions of the line.

In the event of long carriages with bogie trucks being sanctioned for our line I am quite of the opinion that the dimensions regulating the position of fixed structures should be modified to insure sufficient space for the rolling stock on the inside of curves as well as to allow for the elevation of the outer rail. It is not, however, possible for me to fix upon the amount of increase that will be necessary until I receive from England the designs of our carriages.

Proceedings of the Madras Government, Public Works Department, 17th December 1872.

Memorandum of the radius of Curves at Stations on Line from Madras to Cuddalore.

Chetput	Straight.
Locomotive Workshops	85·95 Chains.
Sydapet	Straight.
Guindy	Do.
St. Thomas' Mount	Do.
Palaveram	71·625 Chains.
Vundaloor	85·95 ,,
Goodavancherry	85·95 ,,
Shingapermall Covil	Straight.
Chingleput	Do.
Maduranticum	42·975 Chains.
Acherivauk	Straight.
Wellacoor	Do.
Tindevanum	Do.
Chendoor	Do.
Vickravandy	42·95 Chains.
Villapooram	Straight.
Akadavilly	Do.
Punrooty	Do.
Nellicoopum	Do.
Trippaloor	20 Chains.
Cuddalore	36 ,,

(Signed) F. S. DIBBLEE,
Chief Engineer.

No. 354. ORDER THEREON, 17th December 1872, No. 2,994.

RAILWAY, No. 62.

ORDERED that these papers be forwarded to the Government of India:—

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government.

No. 355. Docket No. 2,995, dated 17th December 1872.

COPY of the above forwarded to the Government of India with reference to Proceedings, No. 39, dated 3rd September 1872.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

Ed. A. S. Rodgers..

Railway Department.

CONSULTING ENGINEER'S OFFICE,

No. 664.

From

LIEUT.-COLONEL J. H. M. SHAW STEWART, R.E.,

Consulting Engineer for Railways,

To

COLONEL G. W. WALKER, R.E.,

Secretary to Government,
Public Works Department,
Fort Saint George.

SIR,

From Madras Railway No 886 dated 29th Nov. 1872
" G.I.P. Railway " 4759 " 21st Oct. "
" Carnatic " 1601 " 17th Oct. "

With reference to the Order of Government No. 2,280, dated 26th September 1872, I have the honour to submit letters from the Agents of the Madras, the Great Southern of India and the Carnatic Railways, showing what the sharpest curve is in each system upon which a platform or other fixed structure has been erected. In the

the case of the Great Southern of India and Carnatic Railways the Agents furnish similar information in regard to the fixed structures proposed to be erected upon the extensions.

2 The Agents also reply to the enquiry of the Government of India whether with a view to the possible introduction of longer carriages on bogie frames they consider it desirable that the standard maximum dimensions for moving structures should be modified.

3 On the Madras Railway system the sharpest curve upon which a platform, or other fixed structure

structure, has been erected, has a radius of 26 chains, or 1,716 feet. It is explained by the Chief Engineer that the increased projection due to this curve, in the event of the use of a 60 feet carriage on bogie frames, would be 1·75 inches, and that no modification in the standard maximum dimensions for moving structures will therefore be necessary.

4. On the open line of the Great Southern of India Railway the radius of the sharpest curve upon which a fixed structure has been erected, is 60 chains, or 3,960 feet; and on the Southern extension 80 chains, or 5,280 feet. Mr. Betts states that he does not advocate the introduction of carriages on bogie frames: but

it

it does not appear to me that it would be necessary, in any case, to modify the standard dimensions for moving structures on this line.

5. On the open line of the Carnatic Railway the fixed structures are all on the straight. On the Cuddalore line the sharpest curve upon which it is proposed to place a fixed structure, has a radius of 20 Chains, or 1,320 feet. The Chief Engineer states that, in the event of the introduction of long carriages upon bogie frames, he is of opinion that the dimensions regulating the position of "fixed structures should be modified "to insure sufficient space for the rolling stock on the inside of curves, as well as to allow for the elevation "of the outer rail".

I have the honour to be,
Sir,
Your most Obed.t Servant,

Madras
23 Decr
1872

V. Brandreth Lieut Col R.E.
Cons. Engr. for Railways

P. W. 1872 Depart.

RAILWAY DEPARTMENT.

1872.

From No. 5957.

The Consulting Engineer
for Railways,

To

The Secretary to Government,
P. W. Department,
Fort Saint George.

Dated 2nd
Recd. 3rd } Dec 4 1872.

No. 2994-2995-17/Dy/12

No. 664-
Encls: 4 √

Forwarding with observations letters from the three Agents showing what the sharpest curve is in each system upon which a platform or other fixed structure has been erected -

With orders

Ro 26 Dft 5/12 pp 368-369

Ordered that these papers be forwarded to the Govt of India.

C.E. for Rys.

Recd 4/12/72

Recd 20/12/72

Encl: 4 Letters

Ordered that these papers be forwarded to the Govt of India with reference to Ro: No 3967 dy 3rd Sept: 1872.

Recd 20/12/72

No. 5957

Govt. of {1872} Madras.

PUBLIC WORKS.

To The Consulting Engr for Railways
& The Secretary to the Govt of India

Dated

Recd. Encl. 4

G. O. 17 Decr 1872 2994-2995.

Nos. 353-354 & 355

Standard Dimensions for Railways. Passing orders on letter from the Consulting Engr for submitting correspondence furnishing information relative to the Standard maximum dimensions for moving structures on the Madras Railways.

Forwarded papers furnishing certain information relating to the Standard maximum dimensions for moving structures on the Railways in Madras.