Public Works (1895) Department.

RAILWAY BRANCH.

G.O., No. 547-8R

DATED 26th August

[Despatch Abstract.]

Inspection Reports:— The— of the Madras Railway for the half-year ended the 30th June 1895, communicated to the Agent & Manager for information & necessary action and a copy of the Pros: ordered to be forwarded to the Govt of India.

Forwarding Pros: on the— of the Madras Railway for the half-year ended the 30th June 1895.

In Jeroi

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

MADRAS RAILWAY.

STANDARD GAUGE 5′ 6″.

Total mileage including branches 850.

Inspection Report for the half-year ending 30th June 1893.

1. The inspection was made during the latter part of July in company with the Agent, Heads of departments, and District officers.

2. **Banks and cuttings** were maintained in good order and full section.

3. **Bridges and culverts.**—The question now needing consideration is how far the Railway administration should strengthen their bridges up to Government of India standard. Of spans up to 50′ nearly all have been strengthened up to Board of Trade standard, and a few of these have been strengthened up to Government of India rules.

4. There are many girder bridges which the Chief Engineer considers might, with advantage, be converted into arched bridges. I very strongly recommend this as the best and cheapest method where the foundations and headway admit of its being done.

5. The following bridges are to have an intermediate pier :—

$2 \times 50'$ at Bowringpett station, 2 screw pile piers with cross girders.
$\frac{1}{2}$, 1×50 stone intermediate pier.
$\frac{3}{3}$, 1×50 do. do.

6. $\frac{3}{1}$ bridge is weak and in bad order; new girders are required.

7. 136. *Cheyáru bridge.*—The longitudinals require renewal; bearing plates would be an improvement on the new timbers.

8. 175. *Papaghni bridge*, 179. *Chitrávati bridge*, 232. *Pennéru bridge.*—The bolts which have been used in place of loose rivets in the joints of rail troughs and cross girders should be painted over; they are very rusty.

9. Some 6′ rail openings near Gooty require arching over, as the abutments are being pressed together by the expansion of the black soil behind.

10. $\frac{3}{3}$, $5 \times 30'$; the girders are much in need of scraping and painting.

11. The rattling of the hand-rails on many bridges is very marked. I suggest that condemned wire rope might be substituted as an experiment for the present tubing.

12. **Permanent-way.**—There was no marked difference in the sections except near miles 117–120, south-west line, where the new 30′ rails and pot-sleepers had been newly laid which was rough. At this place the old rails should be at once picked up and stored.

At Kátpádi station the curve to transhipping platform was 5′ $7\frac{1}{8}$″ gauge; this should be seen to.

13. The Kolar Gold Fields branch road was in better order than when I last inspected it. The traffic complain of the small loads the engines can take, but with 6° curves and $\frac{1}{33}$ grades this is unavoidable, and assisting engines seem the best way of overcoming the difficulty.

14. Mr. Stoney exhibited a double cast iron pot-sleeper for joints to be used with fish plates. I have no objection, subject to Agent's approval, to a trial of these being made at some point on the main line where they can be under observation for the purpose of noting the deflection and wear of rails.

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17. **Stations.**—The sanitation of stations appears good. I object however to the immaculate condition of most of the latrines which leads me to suppose that they are closed against the public before inspection, and request the Inspecting Medical officer will take this up and see that no restrictions are placed on their use at any time.

The insanitary state of the ditch alongside of line at Siruvallur requires attention.

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26. The safety siding on the metre gauge line—it is now decided—is to be at the place recommended by me in 1893; it is already laid and used as a shunting siding. It will be fitted by the Madras Railway Company (who work the yard) with a weighted lever and treadle bar to stand laid for the siding and worked when necessary by a pointsman at the points. The Madras Railway Company will issue such rules as they find necessary to allow its being used as a shunting siding, but not as a lay-bye, and the present short catch siding will be removed.

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Calicut.—The proposed branch line to the Sea Customs house is not required, as the Cannanore extension will serve this.

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30. The installation of steam pumps and stand pipes along the line at rivers, &c., is the remedy. Many of the original water stations have been closed and dismantled, and the evil of this is now being felt. The old-fashioned water columns are still in use. I think much time might be saved by adapting 8" piping and swan-necked columns placed between tracks, which would have to be pulled out to standard distance of 16' 7".

31. *Salem*, *Nandalúru*, *Pódanúr* and *Whitefield* (for Bangalore) are stations in great need of more water.

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Signals.—The south-west line from Salem to Pódanúr is fitted with Stoney's point indicators. I do not myself think they should show any light to the in-coming train, but they may be useful for the station staff; the drivers should not, in my opinion, be bound by them. I noticed at night two signals for a train which had to be stopped outside the points—the signal lamp of the point indicator on one side and the signal lamp of the pointsman on the other; the driver was entirely guided by the light shown by the pointsman's lamp.

33. In order to comply with the new rules for working State lines, which the management have accepted with certain modifications, I request all distant signal arms be weighted in addition to the weighted levers at foot of post; the Chief Engineer estimates the cost about Rs. 10,000.

34. The station at Tiruttani fitted by Saxby and Farmer's interlocking of points and signals is now open to fast through running, there being no conflicting signals mentioned in the last report, and Púdi station has Anderson's system of interlocking by means of a selecting lever; this is also open to fast through running.

The working of the points and signals was in good order, except that the Tiruttani northern points required a slight adjustment.

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Puttúr station is to be fitted with Dutton's wire interlocking, but it is not ready.

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The engineering shops have been closed and transferred to Arkonam.

39. *Central Station, Madras.*—The Pintsch's oil gas plant is under erection; the Agent hopes to light this station as well as the carriages.

40. *Perambúr.*—The Locomotive Superintendent showed a plan embodying the extensions he considers necessary when the Madras Railway take over the southern portion of the East Coast line. I concur in the necessity of this, but noticed that some work on the new timber yard line was commenced in anticipation of sanction, which is irregular. The extension of the shops will also entail more land for a Second Assistant Locomotive Superintendent's house. The shops were in good order and working full time.

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The covered goods wagons load plates for increased loads from 10¾ to 12 tons are being fixed.

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44. **Stores.**—The general stores at Ráyapuram were in good order and condition, but I request more care in storing cotton waste which should have separate divided bins.

Renewed efforts might be made to dispose of the large quantities of iron of sizes which have been lying here since the line was opened and not used by the Locomotive Department in any quantity.

45. The small stores at the various engine changing stations were also in good order.

46. The stores of teak seemed large, about three years' supply being on hand. It is a question which is the cheapest to purchase—selected logs at Rs. 100 a ton or unselected at Rs. 80. In view of the great waste in off-cuttings, I agree with the Locomotive Superintendent that selected logs will in future be most economical.

47. **General.**—The Madras Railway has been supplied with a copy of the recent orders to ensure the comfort and convenience of native passengers.

48. At several stations very complete arrangements have already been made for the provision of wholesome refreshments. The provision made for the resting and eating accommodation for native passengers at Rénigunta, Raichur, &c., does not seem to be much made use of; possibly the prices charged are too high. An attendance book might be kept at these places.

49. The supply of drinking water to trains standing at the station is not in many cases sufficient.

50. There are often delays in opening the ticket offices. At Cuddapah, on my inspection, the ticket office was not opened for the issue of tickets until the train had drawn up at the platform, although there were 30 or 40 passengers waiting to take tickets.

51. The remark in paragraph 58 of the last report is again brought to the notice of the authorities.

52. I noticed also that some time elapsed when a train entered a station before the doors were unlocked to enable passengers to get to the latrine, and at Gooty a native youth without any badge was collecting tickets.

53. No steps appear to be contemplated to carry out the suggestion in paragraph 56 of the last report, viz., the running through trains between Bombay and Madras. I hope the Agent will see his way to taking this matter up.

54. The policy of the Madras Railway in interlocking small roadside stations, using point indicators, &c., is, in my opinion, a mistake.

I consider that the vacuum brake should have first place in the improvements they make for the public safety, and that the above devices should succeed not precede the adoption of the brake, and I invite the special attention of the Railway administration to this opinion.

55. The want of feeder roads is still in many places very evident. I request the Agent to forward a list of those most needed in their order of importance for submission to the Local and Municipal Department.

OOTACAMUND,
8th August 1895.

(Signed) F. R. UPCOTT,
Senior Government Inspector of Railways.

STATEMENT showing result of tests of bridges on Madras Railway inspected on 29th July 1895.

Name or number of bridge.	Mileage.	Particulars of water-way. Number of spans.	Particulars of water-way. Length of spans in feet.	Description of girder.	Particulars showing position in which test was applied. Number of span counting Madras.	Right or left girder.	Top or bottom boom.	Point at which deflection and oscillation were taken.	First test. Deflection. In inches.	First test. Deflection. In terms of span.	Second test. Deflection. In terms of span.	Third test. Oscillation in inches.
North-west line, mile 140,12.	140,12	4	24	10' flanged continuous over 2 spans 53' long each girder.	1	R	All in bottom boom.	Centre of bottom boom.	1/4	1/1142	1st span.	Nil.
					1	L			1/4	1/1152	2nd ,,	
					1	R			1/4	1/1152	1st ,,	
					1	L			3/16	1/1536	2nd ,,	
					2	R			3/16	1/1536	1st ,,	
					2	L			1/4	1/1152	2nd ,,	
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REMARKS.—These girders were strengthened by the addition of plates to top and bottom booms; speed of engine about 30 miles per hour.

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Senior Government Inspector.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

Report of inspection of the Madras Railway for the half-year ending 30th June 1895.

ORDER—dated 26th August 1895, No. 547 R., Public Works.

Communicated to the Agent and Manager, Madras Railway, for information and necessary action.

2. A copy of these Proceedings will be forwarded for the information of the Government of India.

[Here enter No. 548 R., dated 26th August 1895.]

(True Extract.)

(Signed) F. R. UPCOTT,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Agent and Manager, Madras Railway.
" Resident in Mysore.
" Local and Municipal Department.

ENDORSEMENT—dated 26th August 1895, No. 548 R., Public Works.

Forwarded.

(By order.)

Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. T. K. Narayana Aiyangar.
Spare Copies

RAILWAY.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated August, 26th.

Read. *Encl.*

G.O., 26th Aug. 1895, Nos. 547, 548 R.

AUGUST.

Inspection Report

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Read 23/8/95

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(Signed) F. R. UPCOTT,
Senior Government Inspector of Railways.

Statement showing result of tests of bridges on Madras Railway inspected on 29th July 1895.

Name or number of bridge.	Mileage.	Particulars of water-way. Number of spans.	Particulars of water-way. Length of span, in feet.	Description of girder.	Particulars showing position in which test was applied. Number of span counting Madras.	Right or left girder.	Top or bottom boom.	Point at which deflection and oscillation were taken.	First test. Deflection In inches.	First test. Deflection In terms of span.	Second test. Deflection In terms of span.	Third test. Oscillation in inches.
North-west line, mile 140.12.	140/12	6	24	10" flanged continuous over 2 spans 63' long each girder.	1	R	All in bottom boom.	Centre of bottom boom.	1/4	1/1152	1st span.	Nil.
					1	R			1/4	1/1152	2nd ,,	
					1	L			1/4	1/1152	1st ,,	
					1	L			3/16	1/1536	2nd ,,	
					2	R			3/16	1/1536	1st ,,	
					2	R			1/4	1/1152	2nd ,,	
					2	L			3/16	1/1536	1st ,,	
					2	L			3/16	1/1536	2nd ,,	

Remarks.—These girders were strengthened by the addition of plates to top and bottom booms; speed of engine about 30 miles per hour.

Ootacamund,
8th August 1895.

(Signed) F. R. UPCOTT,
Senior Government Inspector.

A. No. 547. R. dated 26.8.95.

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Report of Inspection of the Madras Ry for the half year ended 30 June 1895.

Communicated to the Agent & Manager Madras Railway for information & necessary action.

2. Copies of these Proc. will be forwarded for the information of the Govt. of India.

Ltr. No. 548 R dated 26th August 96 Forwarded

F. Ellis

2 Returned with remarks from R
4 Received & perused by Govt
4 Local & Mail Govt.

Copy to H.E. the Governor for perusal

Copy to Mr. Ellis

SERIAL
No. 2

Inspection Report of the Madras Railway for the half year ending 30th June 1895.

Forwarded to His Excellency the in Council Governor for perusal.

J. Hooper
Offg. Secy. to Govt: P. W. D. Rly Br.

* always supposing that the Local Boards cannot give material assistance (wh. is usually the case)

Let me see the list which has been called for

WW
28/8/95

JG
30/8

await list mentioned in para 55. the Govt Members may be asked to collect subscriptions with small pleas

JHH 30/8 55

A.

No. 574 R. dated 26.8.95

one of the most important points mentioned is that of feeder roads. Considering the number of years wh. the Madras Rly has been open, I think this defect is one wh. reflects seriously on the Administration. I have never concealed my opinion that it is absolutely the duty of the Govt: in the first instance* to construct the necessary & important lines of communication, leaving it to local bodies to maintain them. The Govt: of India has repeatedly called the attention of the authorities to the meagre allotments to communications compared with buildings - & I think be should* slightly increase & adjust these grants, and if this means deferring the construction of taluk cutcheries, I do not think the public will be anything but gainers.

W
29 Aug

JW 29/8 R 39/8

SERIAL
No. 6

With reference to remarks by His Excellency and Hon. W. Bliss – I submit the list of feeder roads & a small scale –

The roads are aggregate 60 miles in length –

The Local Boards might be called upon to construct the roads mentioned in the list –

Ootacamund 20/11/95 –

His Excellency the Governor –
Hon. W. Bliss –
Hon. W. Grose –

The attention of the Local Boards concerned should be drawn to these roads – and they should be called upon to show cause why they should not construct them. To all those who have not the means to construct them, I would give grants – and see that the money was promptly and properly spent.

The question generally should be looked into when the Local Fund Budgets come up. In this respect the Local Boards should be told that District Communications are not to be confined to the main lines but that feeder roads are required. Remember also that existing unmetalled roads should receive improvement.

WM
25/11/95

We ought to call for a similar return from the South Indian and East Coast Railways. I am sure that a judicious outlay in this direction will pay hand over fist – if not literally most certainly indirectly.

WM
22 Nov
25/11/95

Call for list, with general return of feeder roads to be used in case of necessity

2/3570 f 95