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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. 205-206 Press Original
B.P. ~~No.~~ Misc.

Dated 23. 1. ~~195~~ 1875

Not to be folded or roughly handled

No. 425. Read the following letter from Lieutenant-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, dated Madras, 14th December 1874, No. 755 :—

In compliance with the instructions contained in the Order of Government, under date the 8th May 1874, No. 1,230, I have the honor to lay before His Excellency in Council two letters* from the Agent of the South Indian Railway, giving the information called for by the Government of India in their letter, No. 821 G.R., dated the 18th April 1874.

* No. 226, 19th November 1874, with enclosures.
,, 274, 10th December 1874.

2. From the estimates prepared by the Chief Engineer, it will be seen that the cost of converting the open line between Negapatam and Erode to the metre gauge will probably be much less if the heavy material now in use were retained, than if it were replaced by 40 lb. rails on wooden sleepers. The estimated cost of each operation is Rupees 16,07,604 and Rupees 2,19,408, respectively, showing a saving effected by retaining the existing material of Rupees 13,88,196. These figures are necessarily approximate, as the estimate has in each case been credited with the value of old material, calculated at one-half of its cost if now ordered in the market. Supposing, however, that the old material could be expected to realize 75 per cent. of its cost if now ordered in the market, there would still be a saving of Rupees 3,32,368 effected by keeping the heavy material. Mr. Logan also represents that the existing permanent-way will be cheaper in maintenance than the light material.

3. Mr. Logan proposes to carry out the work of conversion by dividing the open line into eight sections averaging 20 miles in length; and to complete the alteration of each section between the last train on Saturday night and the first on Monday morning in every successive week, working from Negapatam westwards.

4. According to this programme the alteration of the entire open line would be completed in eight weeks; but the Government will observe that Mr. Betts, in his letter, No. 274, states that the metre gauge rolling stock expected from England will probably enable him to work the line between Negapatam and Trichinopoly at the date now named for opening the Southern Extension between Trichinopoly and Madura, viz., the 1st July 1875. He accordingly proposes to commence at once making arrangements for altering the gauge between Negapatam and Trichinopoly, by reducing the height of platforms, and other work not affecting the working of the broad gauge; and to defer the alteration of gauge between Trichinopoly and Erode until the receipt of sufficient new rolling stock, working it for the present with the existing broad gauge stock. In order to insure the conversion of the Negapatam-Trichinopoly line by July 1875, Mr. Betts asks for authority to telegraph to his Board to send out by steamer 20 miles of metre gauge tie-bars. It is expected that this quantity will be sufficient for the conversion of the entire open line, it being intended that the broad gauge tie-bars which are set free from each successive section shall be at once altered to suit the metre gauge, and made available for use upon the next section.

5. I have had an opportunity of discussing this important question in all its bearings with the Agent and the Chief Engineer, and the arrangement now sub-

mitted for approval seems the best that can be devised. The estimated cost of conversion, Rupees 2,19,408, is therefore recommended for sanction. In order to avoid the possibility of delay in opening the line by the date named, it is considered by the Railway Authorities to be of great importance that no time should be lost in authorizing the Board of Directors to despatch the metre gauge tie-bars required for 20 miles of line. Looking to the fact that the conversion of the whole open line has received the sanction of Government, and that the comparative estimates which accompany this remove all doubt as to the expediency of retaining the existing heavy material, I have taken upon myself the responsibility of authorizing the Agent to apply to his Board by telegram for the tie-bars in question. I trust that this action will be approved by Government, and that they will further authorize the immediate commencement of the conversion of the line between Negapatam and Trichinopoly, in so far as it can be effected without interfering with the working of the existing gauge, the actual alteration of the gauge being carried out by sections as proposed by Mr. Logan.

6. With regard to the arrangements for the junction at Erode between the Madras and the South Indian Railways, where there will be of necessity a break of gauge, I am in communication with the Agent of the Madras Railway, and shall address Government upon the subject in due course.

From W. S. BETTS, Esq., Agent of the South Indian Railway, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Negapatam, 19th November 1874, No. 226.

Your letter No. 245 of the 15th May last, in which you intimate that the Government of India had decided in favor of the early conversion to the metre gauge of the entire open line, was duly forwarded to the Chief Engineer, and I now submit a copy of his report thereon (No. 6,485, dated the 5th ultimo,) and his detailed estimates for the carrying out of the work.

2. The adoption of estimate No. 2 will result in an estimated saving of nearly fourteen lakhs, and it will enable us to alter the gauge as soon as desired. If new material had to be ordered from England at least a year would pass away before it could be placed on the ground here. It must be remembered, too, that the cost of collecting the 68 lb. rails, etc., (were they dispensed with), and of conveying them to where they could be used, would be a heavy charge.

3. I trust therefore that Government will sanction the adoption of estimate No. 2, and authorize the work being proceeded with in the manner suggested by the Chief Engineer. It will be observed that the estimates provide for the alteration of the gauge of the line up to the Erode junction only; the length from the junction to the station at Erode remains untouched. I doubt whether the Madras Railway Authorities would advocate a station like Erode being worked with a mixed gauge, setting aside consideration of the large expenditure which would be caused on the laying of a third rail from the junction to the station and in the station sidings; the alteration of points and crossings, turn-tables, ash-pits, platforms, etc.

4. My opinion is that through traffic, both of passengers and of goods, should be exchanged at the junction, a covered platform being provided there with the broad gauge on one side and the metre gauge on the other. This, I apprehend, would be the least costly plan. Will you please consult with the Agent of the Madras Railway Company on the subject, and let me know the result.

From the Chief Engineer, to the Agent of the South Indian Railway, dated 5th October 1874, No. 6,485.

Your Nos. 339 and 1,476. I now send you estimates as requested for the conversion of the open line from broad (5 feet 6 inches) to (3 feet 3½ inches) narrow gauge between Trichinopoly and Erode, viz.:—

	Cost. Rs.
1st.—Using new light permanent-way materials, the same as sanctioned for, and now being laid on, the Southern and Northern Extensions	16,07,604
2nd.—Using the heavy permanent-way materials now in the line	2,19,408

In the first estimate the cost of laying the light material has been credited with the value of the old heavy material estimated to be worth half the value of such material if now ordered in the market.

I have tried to get as near an approximation as possible to the relative costs of the two projects, and it appears that the plan of retaining our present material is by far (nearly eight times) cheaper in first cost, and I am sure that it will be also cheaper in maintenance than the light material.

1. In explanation of the excess of my present estimate over the one submitted with my No. 1,008 of 29th April 1873, I have to inform you that I have, on re-consideration, taken higher rates in the latter than in the former.

2. I think in the latter that I rather under-estimated the cost of labor and superintendence in shifting the rails, as I find from experience since gained on our extensions that the class of skilled labor required for this work is very limited with rates tending higher, owing to the great demand for platelayers, which will increase rather than diminish as our extensions proceed.

3. I have also raised the rate of teak timber from 3-8-0 to 4 per cubic foot, owing to the difficulty we have lately experienced in getting timber suitable to our requirements. In my original approximate estimate I took the sleepers at Rupees 1-8-0 each, this being the price entered in our original narrow gauge estimate, but the latest advices from England show that it is necessary to enter them at the increased rate of Rupees 2-2-9 each.

In several other items, as set forth in the accompanying abstract, I have thought it safer to leave a greater margin than before, although, of course, if the work can be done more cheaply it will be.

I would submit the following programme for the work of conversion.

The alteration of the gauge to be commenced from Negapatam towards Erode and proceed in lengths thus:—

Negapatam to Kulikery	18 Miles.
Kulikery to Saliamungalum	20 ,,
Saliamungalum to Boodalore	20 ,,
Boodalore to Trichinopoly	23 ,,
Trichinopoly Fort Station to Kulithalay	21 ,,
Kulithalay to Caroor	24 ,,
Caroor to Cudumudy	17 ,,
Cudumudy to Erode	24 ,,

The alteration of each length to begin every successive Saturday night after the last train has passed, and the length to be converted before Monday's traffic begins.

During the week narrow gauge trains to run over the entire converted length, and to tranship goods and passengers to the broad gauge at the station reached, and so on a length every week until the eight portions above enumerated have been completed throughout.

During each week every preparation possible would be made to expedite the work to be done on the succeeding length, while the sections already converted would require attention in levelling up and putting into good working order.

The foregoing is no doubt a slow programme, but it must be borne in mind that our command of the skilled labor and superintendence required for such a work is small, and any attempt at a rush to get through without proper instruments to work with would inevitably entail a bad road, and much expense in afterwards undoing, and doing properly, what had been badly done at first, not to mention the risk of accidents from imperfect work.

Here, again, as in the case of cost, we shall endeavour to be better than our estimate, and do the work more quickly than is now suggested, if the means at our command will admit of it.

From W. S. BETTS, Esq., Agent of the South Indian Railway Company, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Negapatam, 10th December 1874, No. 274.

YOUR letter No. 331 of the 25th ultimo. I expect to receive sufficient metre gauge rolling stock to enable me to work the line between Negapatam and Trichinopoly and the Southern Extension by the 1st July next, and I should wish therefore to commence making arrangements for the alteration of gauge between those points on the open line as soon as possible, so that the work may not be done hurriedly. The alteration of platforms and other work not affecting the working of the existing gauge could be started as soon as sanction is received. I propose to defer the alteration of the gauge between Trichinopoly and Erode until a further supply of rolling stock is received, transhipment of passengers and goods from one gauge to the other being effected at the former station; for the working of this section the existing broad gauge stock would be utilized.

2. Only a short length of the line between Negapatam and Trichinopoly is laid with iron pot sleepers. I propose to obtain from England sufficient tie-bars for the first section to be altered west of Trichinopoly, and these would suffice for the eastern section, the displaced tie-bars being made available for the section before referred to. A sufficient number of wooden sleepers will, I expect, be in this country to replace those which may be found unsuitable for the new gauge.

3. Will you please obtain the sanction of Government to my telegraphing to the Board of Directors to send out, say, 20 miles of tie-bars by the Suez Canal.

No. 426. ORDER THEREON, 23rd January 1875, No. 205.

RAILWAY, No. 55.

THESE papers will be forwarded to the Government of India with a recommendation that early sanction be accorded to that portion of the estimate for conversion of the line with existing material, which will suffice for the section from Negapatam to Trichinopoly, amounting to Rupees 1,02,786. But the opportunity will be taken of re-opening the question as to the break of gauge being made to occur at Erode or at Trichinopoly.

2. Meanwhile the orders of the Government of India must be awaited, but the action of the Consulting Engineer in authorizing supply of tie-bars from England is approved.

(Here enter No. 206, dated 23rd January 1875.)

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

To the Consulting Engineer for Railways.

Lnd. R. C. Shunker.
Four Copies

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, *January 23rd*, 1875.

No 427. No. 206.

FROM COLONEL G. W. WALKER, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To THE SECRETARY TO THE GOVERNMENT OF INDIA,
Public Works Department.

RAILWAY, No. 56.

SIR,—I am directed to submit, for the information of the Right Honorable the Governor-General in Council, correspondence conveying the information called for in your letter, No. 821, of 18th April 1874, paragraph 3.

2. It is shown that the probable difference in cost of conversion of the entire line of rail between Negapatam and Erode would be nearly 14 lakhs in favor of using materials existing on the line instead of new light material; besides which, in the former case, the alteration may be carried out as soon as desired, while, in the latter, a year would elapse before anything could be done.

On these grounds I am directed to recommend the early sanction of so much of the lower estimate as provides for conversion of the line between Negapatam and Trichinopoly, viz., Rupees 1,02,786, with a view that the work may be carried out by the 1st July when sufficient metre gauge rolling stock for working it and the Southern Extension may be expected to reach Negapatam.

But with reference to the estimate for conversion of the rest of the line, I am directed to seek permission to re-open the question whether break of gauge shall occur at Erode or at Trichinopoly, and to request its further re-consideration by the Government of India on the following grounds.

3. The sanctioned Railway system for the southern portion of the Madras Presidency will comprise when completed—I., a metre gauge line from Madras *via* Chingleput, Tanjore, Trichinopoly, and Madura to Tuticorin, a distance of 447 miles, with a branch on the same gauge from Trichinopoly to Negapatam, 81 miles; II., a standard gauge line from Madras by Salem to Erode, and a metre gauge connection between Erode and Trichinopoly. Thus all the Southern Districts will have direct communication by the metre gauge line with Madras, and the important seaports of Negapatam and Tuticorin. But passengers, mails, troops, and goods proceeding westwards will be transferred at Erode.

4. That station is a small town of 10,000 inhabitants at most. It is notoriously unhealthy, ill-furnished with accommodation for travellers, and sparingly supplied with resources to meet the demands of any large body of men. Trichinopoly, on the other hand, is a large town and military cantonment, comprising with its important suburb of Streerungum a population of 87,800 inhabitants,

wealthy place and the capital of a district, and, therefore, is obviously of itself the more convenient situation for such operations as breaks of gauge entail.

5. But military and political considerations also afford strong arguments in favor of the retention of the Erode-Trichinopoly branch unaltered. The chief military stations of the south of this Presidency are Madras, Bangalore, Cannanore, and Trichinopoly, and, it may be added, Wellington. And it is of very great importance that as few impediments as possible should be allowed to interfere with direct communication between them. The gauge of the Erode-Trichinopoly line remaining unchanged it will be practicable when troops are needed at any southern locality to convey them to Trichinopoly without obstruction. Similarly any portion of the troops stationed at Trichinopoly required for service westwards or northwards can be conveyed at once without the delay, etc., inevitable from break of gauge, especially at a locality like Erode, where it would be impracticable, without previous notice, to provide food, shelter, or forage for any considerable number of troops. If any emergency rendered it necessary to send troops southwards, there would be alternative lines direct from Madras to Trichinopoly; the eastern line being metre, and the midland standard, gauge, and the resources of both Companies available.

6. Looking at the question from an economical point of view, it must be remembered that the metre gauge line under discussion will be started with all the cost of the broad gauge, in addition to the cost of conversion estimated at Rupees 1,16,622.

7. It would probably be found inconvenient for the South of India Railway to work this small section of line with a gauge different from that of other portions of their system, but His Excellency the Governor in Council has no doubt that the Madras Railway Company would be willing to work it as a branch of their main line; and if the Government of India concur in the advisability of retaining the broad gauge on this section, negotiations can accordingly be opened with that Company.

8. I am to express the hope of His Excellency the Governor in Council that the importance of the interests involved will be considered sufficient justification for his now re-opening this question, and that it may be determined on its own merits without reference to former decisions.

9. A sketch map of the Railway systems referred to accompanies this letter for easy reference.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

Exd. E. C. Shanker.

Spare Copies

PUBLIC WORKS DEPARTMENT.

Line from Erode to Negapatam.

G. O., No. [illegible], dated 23rd January 1875.

MINUTE BY THE HONORABLE J. D. SIM. C.S.I.

THESE estimates must of course be submitted to the Supreme Government, and their early decision solicited as to which shall be accepted.

2. I would take the opportunity of bringing again under consideration the question of the expediency of converting the existing standard gauge line from Trichinopoly to Erode, 86 miles in length, into a metre gauge line.

3. Our railway system for the southern portion of the Presidency will comprise when completed, I., a metre gauge line from Madras *via* Chingleput, Tanjore, Trichinopoly, and Madura to Tuticorin, a distance of 447 miles, with a similar branch from Trichinopoly to Negapatam, 81 miles; II., a standard gauge line from Madras by Salem to Erode, and metre gauge connection between Erode and Trichinopoly.

4. Thus all the southern districts have direct communication, by the metre line, with Madras and the important sea-ports of Negapatam and Tuticorin. But passengers, mails, troops, and goods proceeding westwards break gauge at Erode.

5. Now, if it were proposed for the first time that Trichinopoly and Erode should be connected together by a line to be made, maintained, and worked by the Metre Gauge Company, a strong case might be made out for a metre gauge line of connection, but here we already have a connecting link of the standard gauge, which it is proposed to convert, at a minimum expense of £10,000, into a metre line.

6. A glance at the map will, I think, show very conclusively that the inevitable break of gauge should take place at Trichinopoly, not at Erode. The former (including the suburb of Sreerungum) is a large town and Military Cantonment, with a population of 87,800, the head-quarters of the district, and healthy. Erode is a small town of 10,000 inhabitants, and notoriously unhealthy, with but scant accommodation for travellers. Obviously, therefore, the former is the more convenient situation for such operations as break of gauge entails.

7. But it is on military and political grounds that I advocate the retention of the Erode branch as it is. Our great military stations are Madras and Bangalore. Retain the Erode line as it is, and

I may add Wellington.

if troops be needed in Trichinopoly, Tanjore, or any southern locality, they can be conveyed at once to Trichinopoly without change of carriage; or if any portion of the troops at Trichinopoly are required for service westwards, they can be conveyed at once, without the delay, etc., inevitable from break of gauge, especially at such a place as Erode—where it would not be easy, without previous notice, to find food or shelter, or forage, for any considerable number of troops. Then, again, if any

emergency rendered it necessary to send troops southwards, we should have alternative lines direct from Madras to Trichinopoly—the eastern metre and the midland standard gauge lines—and the resoures of both companies would be available. These are, I think, very important considerations, and should be submitted to the Government of India before it is too late. So far as economy is concerned, it must be remembered that the metre gauge here starts with all the cost of a broad gauge *plus* that of conversion into a narrow gauge.

8. It will of course be inconvenient for the Great Southern of India Railway Company to work this small section of line, but I am confident the Madras Railway Company would be willing to work it as a branch of their main line, and if the Supreme Government concur in the advisability of retaining the line as it is, we could enter into negotiations with them.

9. If the whole line from Erode to Negapatam could be retained with a third line of rail, it would be better, but I understand there are insuperable difficulties to its adaptation to both purposes.

P. S.—I enclose a sketch map.

29*th January* 1875.

(Signed) J. D. SIM.

PUBLIC WORKS DEPARTMENT.

Line from Erode to Negapatam.

G. O., No. 205, dated 23rd January 1875.

MINUTE BY THE HONORABLE W. ROBINSON, C. S. I.

I ENTIRELY endorse Mr. Sim's views, and would request a re-consideration of the resolution to convert the section of rail between Erode and Trichinopoly into metre gauge line, at the hands of the Government of India.

2. Trichinopoly is the military and civil capital of South India as well as the proper entrepot of the inland trade of the south, and should be kept in unbroken connection with the net work of standard gauge railways. I take the same view as Mr. Sim's of the military importance of this connection, and I believe that the Madras trunk line would derive sensible advantage by being kept in direct communication with Trichinopoly without break of gauge.

3. Trichinopoly would then become the point of departure for the southern system of metre gauge railways—it will be otherwise in connection with Madras by a metre gauge line—and the proper place for the break of gauge for traffic passing beyond it.

4. Doubtless the Madras Railway Company would rent or buy the line to avoid a disconnection which will assuredly prove detrimental to their interests if carried out.

30*th December* 1874.

(Signed) W. ROBINSON.

S.P. 16

South Indian Railway

Letter from the Chief Engineer to the Agent dated 6th October 1874 No 6485.

Yours nos 339 and 1476.— I now send you estimates as requested for the conversion of the open line from broad (5'6") to (3'3 3/8") narrow gauge between Erichenopoly and Erode viz

1st Being new light permanent way Materials, the same as sanctioned for, and now being laid on the Southern and Northern Extensions Rs 16,07,604.. Cost

2nd Being the heavy permanent way materials now in the line ——— 2,19,408.—

In the 1st estimate, the cost of laying the light material has been credited with the value of the old heavy material, estimated to be worth half the value of such material, if now ordered in the market

I have tried to get as near an approximation as possible, to the relative costs of the two projects, and it appears that the plan retaining our present material is by far (nearly 8 times) cheaper in first cost, and I am sure that it will be also cheaper in maintenance than the light material

1 In explanation of the excess of my present estimate over the one submitted with my No 1008 of 29 April 73, I have to inform you that I have on reconsideration taken higher rates in the latter than in the former

2. I think in the latter that I rather underestimated the cost of labor and superintendence in shifting the rails, as I find from experience since gained, on our extensions, that the class of skilled labor required for this work is

very

very limited with rates tending higher, owing to the great demand for platelayers, which will increase rather than diminish, as our extensions proceed.

3. I have also raised the rate of teak timber from 3/0/0 to 4/0/0 per cubic foot owing to the difficulty we have lately experienced in getting timber suitable to our requirements. In my original approximate estimate I took the sleepers at Rs 1-6- each. This being the price entered in our original narrow gauge estimate; but the latest advices from England shew that it is necessary to enter them at the increased rate of Rs 2.2.9 each.

In several other items as set forth in the accompanying Abstract, I have thought it safer to leave a greater margin than before, although of course the work can be done more cheaply, it will be

I would submit the following programme for the work of conversion

The alteration of the gauge to be commenced from Negapatam towards Erode and proceed in lengths thus:

Negapatam to Kulikery	18 miles
Kulikery to Kaliamungalum	20 "
Kaliamungalum to Roodalore	20 "
Roodalore to Trichinopoly	23 "
Trichinopoly Fort station to Kulithalay	21 "
Kulithalay to Carroor	24 "
Carroor to Cudumudy	17 "
Cudumudy to Erode	24 "

The alteration of each length to begin every successive Saturday night after the last train has passed and the lengths to be converted before Monday's traffic begins during

During the week narrow gauge traces to run over the entire converted length and to tranship goods and passengers to the broad gauge at the Station reached, and so on a length every week until the 8 portions above enumerated have been completed throughout.

During each week every preparation possible would be made to expedite the work to be done on the succeeding length while the sections already converted would require attention in levelling up and putting into good working order.

The foregoing is no doubt a slow programme, but it must be borne in mind that our command of the skilled labor and superintendence required for such a work is small, and any attempt at a quick to get through without proper instruments to work with would inevitably entail a bad road, and must expense in afterwards undoing, and doing properly what had been badly done at first, not to mention the risk of accidents from imperfect work.

Here again as in the case of cost, we shall endeavour to be better than our estimate and do the work more quickly than is now suggested if the means at our command will admit of it.

(Time copy)
Wm. Allingham
Chief Clerk.

No. 274

South Indian
~~GREAT SOUTHERN OF INDIA~~ RAILWAY.

AGENT'S OFFICE,

NEGAPATAM, 10th December 1874

From

THE AGENT,
South Indian
~~Great Southern of India~~ Railway,

To

The Consulting Engineer
for Railways
Madras

SIR,

Your letter No 331 of the 26th ultimo
I expect to receive sufficient metre gauge
rolling stock, to enable me to work the
line between Negapatam and Trichinopoly
and the Southern Extension by the 1st July
next; and I should wish therefore to
commence making arrangements for
the alteration of gauge between those
points on the Open line as soon as
possible, so that the work may not be
done hurriedly. The alteration of
platforms and other work not affecting
the working of the existing gauge
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nopoly and Erode until a further
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Only a short length of the line between Negapatam and Trichinopoly is laid with iron pot sleepers. I propose to obtain from England sufficient tie bars for the first section to be altered west of Trichinopoly, and there would suffice for the eastern section. The displaced tie bars being made available for the section before referred to. A sufficient number of wooden sleepers will, I expect, be in this country to replace those which may be found unsuitable for the new gauge

Will you please obtain the sanction of Government to my telegraphing to the Board of Directors to send out say 20 miles of the bars by the Suez Canal.

I have the honor to be
Sir
Your most obedient Servant
William Bell
Agent

From The Agent
To The Consulting Engrs
for Railways.

Dated 10th December 74
Rec'd 12th " "

No 274

Relative cancellation of
the open line of
the South Indian
Railway &c &c

E
74/8584 M D

CONSULTING ENGINEER'S OFFICE.
Railway Department.

No. 7554

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,

In compliance with the instructions contained in the Order of Government, No. 8584, dated the 8th May 1874, No. 1230, I have the honour to lay before His Excellency in Council two × letters from the Agent of the South Indian Railway, giving the information called for by the Government Circular letter No. 821 G. O. dated the 19th April 1874.

2. From the estimates prepared by the Chief Engineer it will be seen that the cost of converting the open

× No. 226 - 19th November 1874 with enclosures.
— — 274 - 10th December 1874. —

open line between Negapatam and Erode to the metre gauge will probably be much less if the heavy materiab now in use were retained, than if it were replaced by 40 tb rails on wooden sleepers. The estimated cost of each operation is Rs. 16,07,604 and Rs. 2,19,408, respectively; showing a saving effected by retaining the existing material of Rs. 13,88,196. These figures are necessarily approximate, as the estimate has in each case been credited with the value of abl material, calculated at one half of its cost if now ordered in the market. Supposing, however, that the abl material could be expected to realise 75 per cent of its cost if now ordered in the market, there would still be a saving of

Rs. 3,32,368 effected by keeping the heavy material. W. Logan also represents that the existing permanent way will be cheaper in maintenance than the light material.

3. W. Logan proposes to carry out the work of conversion by dividing the open line into eight sections averaging 22 miles in length, and to complete the alteration of each section between the last train on Saturday night and the first on Monday morning in every successive week, working from Negapatam westwards. According to this programme the alteration of the entire open line would be completed in eight weeks; but the Government will observe that W. Betts, in his letter No. 274, states that the metre gauge rolling-stock expected from England will probably

viably enable him to work the line between Negapatam and Trichinopoly at the date now named for opening the Southern Extension between Trichinopoly and Madura, namely the 1st. July 1875. He accordingly proposes to commence at once making arrangements for altering the gauge between Negapatam and Trichinopoly, by reducing the height of platforms, and other work not affecting the working of the broad gauge; and to defer the alteration of gauge between Trichinopoly and Erode until the receipt of sufficient new rolling-stock, working it for the present with the existing broad gauge stock. In order to insure the conversion of the Negapatam-Trichinopoly line by July 1875, I would ask for authority to telegraph to his Board to send out by steamer 20 miles of metre gauge tie-bars. It is expected that this quantity will be sufficient for the conversion of the entire open line, it being intended that the broad gauge tie-bars which are set free from each successive section shall be at once altered to suit the metre gauge, and made available for use upon the next section.

5. I have had an opportunity of discussing this important question with the Agent and the Chief Engineer, and the arrangement now submitted for approval seems the best that can be devised. The estimated cost of conversion, Rs. 2,19,408, is therefore recommended for sanction.

In order to avoid the possibility of delay in opening the line by the date named, it is considered by the Railway Authorities to be of great importance that no time should be lost in authorising the Board of Directors to despatch the metre gauge tie bars required for 20 miles of line. Looking to the fact that the conversion of the whole

whole open line has received the sanction of Government, and that the comparative estimates which accompany this remove all doubt as to the expediency of retaining the existing heavy materials; I have taken upon myself the responsibility of authorising the Agent to apply to his Board by telegram for the tie bars in question. I trust that this action will be approved by Government, and that they will further authorise the immediate commencement of the conversion of the line between Negapatam and Trichinopoly inasfar as it can be effected with the working of the existing gauge, without interfering, the actual alteration of the gauge being carried out by sections, as proposed by Mr. Logan.

6. With regard to the arrangements for the junction at Erode between the Madras and the South Indian

Indian Railways, where there will be of necessity a break of gauge, I am in communication with the Agent of the Madras Railway, and shall address Government upon the subject in due course.

I have the honour to be
Sir
Your most obedient servant

Madras
4th December
1874

Mewitt Lieut R.E.
Cons. Engineer for Railways

P. W. 1874 Department
Proof for Camp

RAILWAY DEPARTMENT.

No. 7858.

From

The Consulting Engineer
for Railways.

To

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

Dated 14 December 1874.

Recd. 16 December 1874.

Enc. 4 No. 755.

Ry. Dept. 205-12-74.

Submitting two letters together with enclosures, from the Agent of the South Indian Railway, showing the route of connecting the open line between Negapatam and Erode to the metre gauge.

Ans 425
6-1-75
Ltr 21-12-74

Gauge Railways. I take the same view as Mr Lind of the military importance of this connexion and I believe that the Madras Railway Company would derive considerable advantage by having direct communication with Arkonum [illegible] I believe the facilities for the transhipment of stores from the Railway to the Ordnance Factory at Arkonum would be very much increased by having a metre gauge line from the Madras Railway to the Ordnance Factory and a transhipping place for the break of gauge from traffic passing beyond it

Doubtless the Madras Railway Company would rent or buy the line to avoid a disconnexion which will assuredly prove detrimental to their interests if carried out.

30/12 W Robinson

[illegible] been laid down
[illegible] Indians [illegible] it is
[illegible] Guarrs [illegible]
[illegible] to our [illegible]
[illegible] in Wm & [illegible]
Under [illegible] arrangement
and Instructions as convenient
& Station for Detachments [illegible]
could well have been done
and said Districts not offering
that New advantages can be
[illegible] and by
by any future Economy.

[illegible] and
[illegible] Indians
[illegible] Districts
[illegible] Western
[illegible] Districts of the Presidency
[illegible] Head pass from Guards to
[illegible]

7658

~~uniformity of gauge in regard the lines under the management of the Madras Company, & of the amalgamated Companies, respectively.~~

~~The only doubt in the matter is whether, considering that the officer of the Madras Govt has hitherto expressed a very decided opinion in favor of the complete conversion, and that, after long correspondence, the Secy of State has very positively decided that the conversion shall be complete, we should now reopen the question with any probability of success.~~

[illegible]
2/1

86 miles in length }

Minute 37/1

These returns alter [illegible] of [illegible] be [illegible] to the [illegible] and [illegible] decision [illegible] be accepted [illegible]

I would take the opportunity of bringing again under consideration the question of converting the [illegible] of [illegible] the Existing Standard gauge line from [illegible] into a metre gauge line

£10.000

87,800 — the head
Quarters of the
District Health
Grade is a Rural
town of 1000 in-
habitants, and
Picturesquely
Health Visits
Districts are
Conducting for
travelling Observ
the from the Forest
time consist
in the Lake Districts
for the Lake Dis-
trict Breakfast
from Carlisle
Visit it on Holi
day Political
Grounds but I
do not know the

Surveyed
Welling ton -

Centers of the Grade
Branch as it is
One Peat Holi
tary Students are
Medical Officers
Districts
Grade Districts
Holiday Journeys
Conveyance
Visit Districts
Carriage
Districts
Political Grounds

if the likelihood
occur in the advi-
sability of retaining
the line as it
is, he could ren-
-der it to inspection
with them.

If the whole
line from Brooke
to Weyabatan
could be retained
with a third
line of rail, it
would be better
but I understand
there are insu-
perable difficulties
but admittedly

To bottom binder

L. D.

29. 12.

Enclosure

Block Indent

G.O. No. 205 Dy 23 January 1875

P. W. D.

Proceedings of the Madras Government,

Under date the 187

Read the following:—

From

The Consulting Engineer for Railways } (Rl. No. 755 dy 14 Dec. 74)

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

It is observed that if the broad guage material be retained the conversion of the line between Negapatam and Erode is estimated to cost no more than Rs 219408 while Rs 1607600 are asked down as the cost of the work if new light

L. D.

To Secretariat.

JR 30/12

To Secretariat.

light Permanent Way
material, as suggested
by the Government of
India, he need. It is
also pointed out that
the conversion with ex-
isting material will oc-
cupy a much shorter
time than if narrow
gauge material has to
be ordered from England,
and that the subsequent
cost of maintenance
will be much less in
the former case.

There seems no
objection to the imme-
diate reduction of the
height of platforms;

and the concurring
Engineer's action in
authorizing the Agent
to telegraph for 20 miles
of metre gauge ties bars
is approved. No work
should, however, be put
in hand which is likely
to be affected by the
adoption of either of the
alternative estimates,
the ultimate decision
on which must be
referred to the Government
of India. The work
of actual conversion of the
line cannot be author-
-ized in anticipation of
the orders of that
Govt.

Government on the
Estimates which will
how be submitted,
with a recommendation
in favor of the smaller
one.

Docket No. dated

Copy of the above
forwarded to the Govt.
of India with reference
to their letter No. 821 GR
dated 18th April 1874.

C.M.W.

C.R. Jon Rys
Actg Ry Accts

Proceedings of the

From the Chief Engr for
Rys.

Madras Government

Read the following

No. 575 of 24 Dec/74

These papers will be
forwarded to the Govt of
India with a recommen-
dation that early sanction
be accorded to that por-
tion of the Estimate for
conversion of the line with
existing Standard, which
will suffice for the section
from Shegaon to
Jalamb only amounting to
Rs. 1,02,786 But there
appears to be room
of reopening the question
as to the Breach of gauge
being made at this section of
Khandesh or at Jalamb only

and in order that the
question may be considered
by the Govt. of India in
the light of the fullest
information as to all
details, the Compy is
requested to ascertain
from the Managers of
both lines the terms in
which it might be
arranged that the Madras
Railway Company
should work the section
from Erode to Trichinopoly
as a branch of their
main line. We will also
obtain from the Chief
Engineer Irrigation
the best Estimate of the
cost of doubling
Erode between Trichinopoly
and Erode in the event
of that alternative being
adopted. Meanwhile

Meanwhile the
orders of the Govt. of India
must be awaited, but the
action of the Company
in authorizing supply
of timbers from England
is approved.

To the Secy Govt. for Rlys &c
Despd 25/1/75.

To

The Secretary to the
Govt of India
P.W. Depth

Sir,

I am directed to submit
for the information of the
Right Hon'ble the Governor
General in Council corres-
pondence comprising the in-
formation called for in
your letter No 821 of 18
April last, and to state that the
probable difference in cost
of conversion of the intend-
line of Railway between Nega-
patam and Trinkomalee would
be nearly 14 Lakhs and
favor of using materials
existing on the line instead
of new light material;

besides

besides which, in the former
Case the alteration may be
Carried out as soon as decided,
while in the latter a year
would elapse before any
thing could be done.

2. On these grounds I
am directed to recommend
the early sanction of Go
vernment to the lower Estimate
as provides for conversion of
the line between Negapatam
and Trichinopoly viz
Rs 102,786; with a view
that the work may be
carried out by the 1st July
when sufficient metre gauge
Rolling Stock for working
it and the Southern Ex
tension may be expected
to reach Negapatam.

But with reference to the
Estimate for conversion of
the

A slate pencil
to

Better omit
per hundred.

Lot.

the rest of the line I am
directed to reopen the question
whether break of gauge shall
occur at Trichy or at Erich-
mopoly; and to request its
further reconsideration by
the Govt: of India in the
light of the following ob-
jections [which have lately
occurred to the Excellency the
Governor in Council as turning
the scale against conversion
West of the latter station;
and in favor of making at
the place where change
of gauge shall take place.

3. The sanctioned Railway
system for the Southern
portion of the Madras Presi-
dency will comprise when
completed, 1 6° metre gauge
line from Madras via Chin-
glepat, Tanjore, Trichinopoly
and Madura to Tuticorin

a

a distance of 147 miles, with a branch on the same gauge from Trichinopoly to Negapatam 81 miles. II a standard gauge line from Madras by Salem to Erode, and a metre gauge connection between Erode and Trichinopoly. Thus all the southern districts will have direct communication by the metre gauge line with Madras and the important seaports of Negapatam and Tuticorin. But passengers, mails, troops and goods proceeding westwards will be transferred at Erode. That station is a small town of 10,000 inhabitants at present but conveniently situated, well furnished with accommodation for travellers;

and

Para 4.

and sparingly supplied with resources to meet the demands of any large body of men. Trichinopoly, the second large town and military cantonment, comprising with its important suburb of Utrumalai a population of 87,000 inhabitants, a wealthy place, and the capital of a district, is obviously of itself the more convenient situation for such operations as break of gauge entail. But military and political considerations also afford strong arguments in favour of the retention of the Erode Trichinopoly branch unaltered. The chief military stations of the south of India are Madras, Bangalore, Cannanore and Trichinopoly, and it may be added,

Para 5.

Wellington

Excellency. And it is of very great importance that as few impediments as possible should be allowed to interfere with direct communication between them. The gauge of the Madras Trichinopoly line remaining unchanged it will be practicable when troops are needed at any southern locality to convey them to Trichinopoly without obstruction. Similarly any portion of the troops stationed at Trichinopoly required for service Northwards or Northwards can be conveyed at once without the delay & inevitable from break of gauge; especially at a locality like Gooty, where it would be impracticable, without serious loss, to provide forage, for any considerable number of troops. If any

emergency rendered it necessary to send troops Southwards, there would be alternative lines direct from Madras to Trichinopoly; the Eastern line being metre, and the Midland standard gauge; and the resources of both Companies available.

6. Looking at the question from an Economical point of view it must be remembered that the Metre Gauge lines under discussion will be started with all the Costs of the broad gauge, in addition to the cost of conversion estimated at Rs 11,6,22.

7. It would probably be found inconvenient for the South of India Railway to work this small section of line with a gauge different from that of other portions of their system; but this

Excellency

13-10-24 [illegible]

Excellency the Governor in Council has no doubt that the Bradford Railway Company would be willing to work it on a branch of their line; and if the Govt. of India concur in the advisability of relaying the broad gauge on this section, negotiations can be opened with that Company & I am to press the hope of His Excellency the Governor in Council that the importance of the interests involved will be considered sufficient justification for now reopening this question, and that it may be determined as it own hands without reference to former decisions.

9. A sketch map of the Railway systems referred to accompanies this letter for ready reference.

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Sign & D. Copies & D. Copied of previous Proceedings with Estimate & Sketch despatched to Govt of India 25/1/75.