CONCERNS BOTH BRITISH INDIA AND INDIAN STATES.

# Public Works (1893) Department.

RAILWAY BRANCH.

G.O., No. 818-79R

DATED 6th May

[Despatch Abstract.]

Railway lines from Hassan to Mysore City and from Tanjungude to Erode. — Ordered that the Government of India be addressed on the subject of the Concessions asked for by the promoters of the proposed lines.

Recommending with certain conditions the grant of the Concessions asked for by the promoters of the proposed —.

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6TH MAY 1893, No. 818 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

**Railway.**

Read the following papers:—

From the Resident in Mysore, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Bangalore, 21st March 1893, No. 990 255–92.

In continuation of my letter No. 751, dated 4th March 1893, I have the honour to forward a copy of a letter * from the Dewan of Mysore regarding the construction of a Railway from Hassan in the Mysore Province to Erode in the Madras Presidency, connecting the Southern Mahratta Railway system through Mysore with the South Indian system at Erode.

* No. 30, dated the 17th March 1893.

2. As it is proposed to grant the concession to make this line to the concessionaires of the Arsikere-Mangalore (*viâ* Hassan) Railway, it may be convenient to consider both projects at the same time.

ENCLOSURE.

From the Dewan of Mysore, to the Resident in Mysore, dated Bangalore, 17th March 1893, No. 30.

In continuation of my letter No. 29, dated 3rd March 1893, communicating the willingness of the Durbar to grant to Mr. F. Kirby a concession for the construction of the Arsikere-Mangalore Railway *viâ* Hassan and the Siradi or Manjarabad ghât, I have now the honour to submit the views of the Durbar regarding the other two railways in regard to which also Mr. Kirby had, in his letter of the 25th ultimo, applied for a similar concession.

2. These two railways are—

(1) From Hassan to the Mysore City wholly within the State, and (2) from Nunjungude to Erode partly within the State and partly within the Madras Presidency.

These two railways, together with the short length from the Mysore City to Nunjungude which has already been constructed by the State, would form a continuous line of very great importance, which may be called the Hassan-Erode Railway. It would, when the Arsikere-Mangalore line *viâ* Hassan is constructed, be the shortest and the most direct connection involving no break of gauge between the South Indian system at Erode and the Southern Mahratta system at Arsikere and it would give the districts of Southern India, served by the South Indian Railway, two outlets on the West Coast, one at Marmugoa through the Portuguese Railway and the other at Mangalore through the proposed Arsikere-Mangalore Railway.

3. If Mr. Kirby can form a company to take up the Hassan-Erode Railway in addition to the Arsikere-Mangalore, the Durbar can sell them the portion from Mysore to Nunjungude already constructed and the Company would thus have a most important system radiating from Hassan, first down the Manjarabad ghât to Mangalore, secondly, northwards to join the Southern Mahratta system at Arsikere, and, thirdly, southwards to join the South Indian system at Erode. An extension from the Mysore City to Erode was proposed by me in 1891 and Mr. McHutchin made a reconnaissance of it (*vide* his report, dated 12th May 1891). His Excellency the present Governor of Madras was pleased to express himself favorably of the project in a general way, but the matter was not further investigated owing to other railways under survey or construction.

4. Under such circumstances I beg to inform you that the Durbar are quite prepared to grant Mr. Kirby a concession for the Hassan-Erode Railway on the conditions stated in my letter No. 29, dated the 3rd instant, as regards the Arsikere-Mangalore Railway. The probable length and cost of the two railways will be as follows:—

| — | Mileage. In Mysore. | Mileage. In Madras. | Mileage. Total. | Probable cost in lakhs of rupees. |
|---|---|---|---|---|
| | | | | rs. |
| (1) Arsikere-Mangalore— | | | | |
| Arsikere to Hassan .. .. .. .. .. | 30 | .. | 30 | 18 |
| Hassan to the top of Manjarabad ghât .. .. .. | 26½ | .. | 26½ | 16 |
| From the top of Manjarabad ghât to the foot of the same .. | 20¾ | 4¾ | 25½ | 38 |
| From the foot of Manjarabad ghât to Mangalore .. | .. | 54½ | 54½ | 28 |
| (1) Total, Arsikere-Mangalore .. | 77¼ | 59¼ | 136½ | 100 |
| (2) Hassan to Erode— | | | | |
| Hassan to Holi-Narsipur .. .. .. .. | 21 | .. | 21 | 13 |
| Holi-Narsipur to Yedatore .. .. .. .. | 25 | .. | 25 | 15 |
| Yedatore to Mysore .. .. .. .. .. | 20 | .. | 20 | 12 |
| Mysore to Nunjungude (already made by the State) .. | 15 | .. | 15 | 7 |
| Nunjungude to the top of Gajalhatti ghât .. .. | 33 | 12 | 45 | 33 |
| From the top to the foot of the Gajalhatti ghât .. .. | .. | 12½ | 12½ | 21 |
| From the foot of the Gajalhatti ghât to Satyamangalam .. | .. | 17¾ | 17¾ | 10 |
| Satyamangalam to Erode .. .. .. .. | .. | 39 | 39 | 24 |
| (2) Total, Hassan-Erode .. | 114 | 81 | 195 | 135 |
| Grand Total of (1) and (2) .. | 191¼ | 140¼ | 331½ | 235 |

5. It will thus be seen that the two proposed railways will together have a total length over 330 miles and cost about 235 lakhs of rupees upon a liberal estimate. A glance at the map will show their great importance as completing the shortest routes of traffic from the south of India both to Marmugoa and Mangalore on the West Coast as already stated and to the East Coast Railway at Bezwada through Mysore, Bangalore and Guntakal, and to the districts of the Bombay Presidency through Arsikere and Harihar.

A small railway map is enclosed.

6. Mr. Kirby has already been promised the concession for the Arsikere-Mangalore line. The Durbar are willing to grant him one on the same terms for that portion of the Hassan-Erode Railway which is within the State (about 114 miles) on the condition that he succeeds in obtaining a similar concession from the Madras Government as regards the remainder within the Madras Presidency (about 81 miles), and I shall feel much obliged if you will be so kind as to move the Madras Government in the matter and also inform Mr. Kirby of the views of the Durbar as above stated.

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From Mr. W. LONSDALE, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Bangalore, 25th March 1893.

Having reference to a letter from the Resident of Mysore to yourself, dated the 4th of March, on the subject of a projected line of railway from Arsikere to Mangalore and to a further letter from the Resident, dated 21st March, as to a line of railway from Hassan to Mysore and from Nunjungude to Erode, I have the honour to state that, although these lines have formed the subject of two separate letters, they are intended, with the sanction of Government, to form one connected system which would be completed by the transfer of 15 miles of railway between Nunjungude and Erode which the Mysore Government is willing to effect. There would thus be unbroken communication between Mangalore and Erode.

2. In the letter from the Dewan of Mysore to the Resident which the latter forwarded to you under date the 21st March, he stated that he would agree to Mr. Kirby's proposal to construct the Nunjungude-Erode line and the Hassan-Mysore line, provided the Government of Madras would consent so far as that portion of the former which traverses Madras territory is concerned. I act in conjunction with Mr. Kirby in this matter and have authority to represent him, and I have the honour to state that we are prepared to form a company with the necessary capital for the construction of the entire system referred to and to acquire the 15 miles section between Mysore and Nunjungude. I beg to express the hope that the Government of Madras may be pleased to accord their consent to the scheme. Apart from the other advantages which these lines would afford to the country traversed, they would bring the south of India into nearer communication with Bombay by approximately 100 miles if the route by Arsikere from Erode were adopted and by about 130 miles by that by Bangalore, Hindupur, Dharmavaram and Guntakal. Mr. W. McHutchin of the Indian State Railways, at present in the service of the Mysore Government, has made a preliminary survey of the Nunjungude-Erode line and has stated that there is no serious difficulty as to the construction thereof if the route by the Gajalhatti pass be adopted.



3. I have been unofficially informed, with the sanction of His Excellency the Governor in Council, that the Government of Madras views favorably the construction of the line from Mangalore to Arsikere and I trust that they may for the same reasons consent to the Erode-Nunjungude line. In view of the fact that much time must inevitably be consumed in the official correspondence on this matter owing to the Mysore Government being concerned therein, I shall be greatly obliged if it can without inconvenience be brought before the Government of Madras at an early date. I understand that, should the Government of Madras approve the scheme, it will have to go before the Government of India for final sanction. When the reply of the Government of Madras reaches me officially through the Resident of Mysore, it is my intention to present the matter in person to the Secretary, Public Works Department, Calcutta. Should it not be possible to form a company in England before the end of June, it may not be possible during this year. I mention these details in excuse for appearing to be somewhat urgent.

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From Mr. W. LONSDALE, to the Consulting Engineer for Railways, dated Madras, 19th April 1893.

In the matter of the proposed Nunjungude-Erode Railway, I have the honour to inform you that I am authorized to state that the Mysore Durbar accepts the views of the Government of Madras as communicated by you to me, viz., that a route proceeding from Nunjungude to Erode may be taken, if found practicable, more to the eastward than the route proposed in the Dewan of Mysore's letter, dated 17th March 1893. That route was from Nunjungude *viâ* Chamrajnagar, the Gajalhatti pass, and Satyamangalam to Erode and was pronounced to be practicable by Mr. McHutchin of the Indian State Railways who was deputed to examine it by the Mysore Durbar. With the exception of the Gajalhatti ghât it passes through a country which would be likely to furnish profitable traffic. I am further authorized to state that the Mysore Durbar would now be glad to be informed of the precise route which the Government of Madras would prefer to the above. There are two routes which may be found practicable and which may meet the views of the Government of Madras:—

*No.* 1.—From Nunjungude to Kollegal in the Coimbatore district, thence to Andiyur south-eastwards and thence almost south to Erode.

*No.* 2.—From Nunjungude to Kollegal, thence due eastwards a little to the south by the existing road to Cauverypuram, and thence down the valley of the Cauvery to Erode.

2. No. 1 would be the shorter and would involve fewer river crossings. No. 2, in addition to being longer, would necessitate crossing several times. When the Government of Madras is making its decision, I venture, on behalf of the promoters of the project, to express the hope that prominent importance may be attached to the route which is most likely to afford profitable traffic. Subject to the selection of the route, I hope I may now assume that the sanction of the Government of India may be sought for the project. The scheme originally intended by Mr. Kirby, as indicated in his letter, dated the 25th February, to the Dewan of Mysore, viz., to connect Mangalore with Erode by a line to Arsikere, Hassan, Mysore and Nunjungude, would then be made practicable. I understand that certain terms to be granted to promoters of railways in India have quite recently been sent for sanction to the Secretary of State for India, and I have the honour to request that the entire proposals made by Mr. Kirby and myself may be considered as having been made subject to those terms.

REPORT by Mr. W. McHutchin, Officiating Chief Engineer of Mysore, on a metre gauge railway to connect the system of the Mysore State Railway with that of the South Indian Railway, dated 12th May 1891.

*Result of reconnaissance.*—As I at first considered it desirable to follow the existing main line of communication, I followed the main road from Nunjungude *viâ* Chamrajnagar, Attikalpur-Hassanur, and Dhimbam to Satyamangalam.

Up to the head of the Hassanur valley (5 miles and 3 furlongs beyond the Mysore frontier and 19 miles and 1 furlong from Satyamangalam), the country presented no material obstacles to the construction of a fairly cheap line of railway; but from this point there is a sudden ascent of about 600 feet in 2 miles of road to the head of the Hassanur ghât at Dhimbam (17 miles 1 furlong from Satyamangalam).

The road beyond Dhimbam winds down the precipitous face of the ghâts by means of numerous very sharp turns or doubles with an average grade of about 1 in 16. The descent to foot of the ghât proper (at 10 miles 4 furlongs from Satyamangalam) was ascertained by aneroid readings to be about 2,170 feet in a distance of 6 miles and 5 furlongs.

Two days were spent in the examination of the country for about 10 miles to the east and west of Dhimbam and of the southern face of the ghâts. The conclusion I arrived at was that to construct a line of railway at or near Dhimbam at a reasonable outlay was impossible.

Heights above M.S.L. of some of the more important places on the road are given below:—

*Heights above M.S.L. from aneroid readings.*

| | Levels. |
|---|---|
| Chamrajnagar ... ... ... | 2,350 |
| Hardanhalli drainage ... ... | 2,320 |
| Spur at 30½ miles ... ... ... | 2,422 |
| Suvarnavathi river at junction with stream from south from Talamalai, &c. ... ... ... ... ... | 2,356 |
| Suvarnavathi river 1 mile north-east of Attikalpur ... ... ... | 2,390 |
| Bridge on main road at 138½ miles ... | 2,564 |
| 139th mile of road ... ... ... | 2,591 |
| 140th do. ... ... ... | 2,618 |
| 141st do. ... ... ... | 2,660 |
| 143rd do. ... ... ... | 2,849 |
| 143½ do. ... ... ... | 2,847 |

| | Levels. | Madras mileage. |
|---|---|---|
| Frontier 5/146 ... ... | 2,932 | 24 4 |
| Road 4½ miles beyond frontier at Hassanur ... | 3,020 | 20 0 |
| Foot of Dhimbam ghât, 5 miles 3 furlongs beyond Mysore frontier ... | 3,030 | 19 1 |
| Head of Hassanur ghât at Dhimbam, 7 miles and 3 furlongs beyond frontier. | 3,620 | 17 1 |
| Foot of Hassanur ghât ... | 1,450 | 10 4 |
| Banari bungalow ... ... | 1,140 | 8 3 |
| Satyamangalam ... ... | 780 | ... |
| Gopichettipolliem bungalow ... ... ... | 610 | 16 0 |
| Erode Railway Station ... | 540 | 39 2 |
| Head of Gajalhatti pass at Talamalai ... ... | 2,998 | ... |

2. I then prospected the country at the head of the Gajalhatti pass at Talamalai, about 14 miles west of Hassanur; there is an old steep pass here which in former times was the principal means of access to the plains. I found from aneroid readings that the head of the ghât at Talamalai village was about 2,998 above M.S.L. A narrow belt of country towards the north and north-west from Talamalai is most favorable for the construction of a railway, being well cultivated and fairly populous, and I am of opinion that a line can be constructed at comparatively reasonable outlay from Hardanhalli (27 miles from Nunjungude), following generally the old track *viâ* Bommanhalli, Talavadi, Maravur, Higgalur, Hammalai, Hallapuram, Javanagoundanhalli to Mutianur at the head of the proposed ghât about 3,000 feet above M.S.L. The country to the east of the Talamalai plateau is very hilly and difficult, and to the west of the old track there is also hilly and broken country.

From Mutianur down to the low country, I estimate the descent to be about 1,600 feet to the foot of the more precipitous slopes; aneroid readings were not taken at the foot of the pass at Gajalhatti for want of time, but I do not think that the foot



of the more precipitous and difficult slopes of the ghâts would be at a lower level here than at the foot of the Hassanur ghât. Aneroid readings gave the foot of the Hassanur ghât to be 1,450 *above M.S.L.* and the level at Banari 2 miles beyond was *1,140*. It would, I think, be safe to assume that the foot of the precipitous upper slopes of the Gajalhatti pass would be reached at 1,400 feet above M.S.L.

It will, in my opinion, be found necessary to adopt a ruling grade of 1 in 40 from the head of ghât at Mutianur, about 3,000 feet above M.S.L., down to foot of the precipitous upper slopes of the ghâts at about 1,400 above M.S.L.; the length of the ghât would have to be 12½ miles, allowing 2,000 feet for bits of level, &c.

Sharp curves and some tunnels and viaducts will be necessary on this length, which will have to be worked by specially designed engines as on the Braganza ghât of the Portuguese Railway.

The actual bank of the Moyar river at Gajalhatti I assume to be at about 1,100 above M.S.L., the general fall of the river some 12 miles lower down being about 15 feet a mile; but the descent from 1,400 feet above M.S.L. to 1,100 feet above M.S.L. can be obtained with the usual grades of 1 in 100, and easier curves than on the more precipitous upper slopes can be adopted.

From the foot of ghât above Gajalhatti to Satyamangalam there would be no difficulty, the fall being gradual from 1,400 feet above M.S.L. to 780 above M.S.L. in a distance of 17 miles.

3. *General Result of Preliminary Reconnaissance.*—The general results of my preliminary reconnaissance are now given—

(1) *Estimated cost first* 27½ *miles* = 27·5 × 48,000 = 12,96,000, *or, say,* *Rs.* 13,00,000.—An easy line on the metre gauge can be obtained to a point 27½ miles from Nunjungude which would cost about Rs. 48,000 a mile.

(2) *Estimated cost of* 27½ *to* 33 *miles* = 5½ *miles at Rs.* 50,000 *a mile* = *Rs.* 2,75,000, *or, say,* 3,00,000 *lakhs.*—A line of railway on the metre gauge can be constructed with 1 in 100 grades, but with perhaps a few sharp curves of 1,000 feet to 1,500 radius, from 27½ miles to the Mysore frontier at 33 miles from Nunjungude at a cost of Rs. 50,000 a mile.

(3) *Estimated cost* 33 *to* 45 *miles at Rs.* 50,000 *a mile* = 6,00,000 *lakhs.*—A line of railway on the metre gauge can be carried out from here (33 miles) to the head of the Gajalhatti ghât at about the 45th mile at a cost of about Rs. 50,000 a mile. The country from the 33rd mile to the 40th mile is somewhat hilly and broken.

(4) *Estimated cost* 45 *to* 57½ *miles* = 12½ *miles at Rs.* 1,50,000 = *Rs.* 18,75,000.—The 12½ miles of ghât from the 45th mile to 57½ mile is in a difficult precipitous and broken country, necessitating 1 in 40 grades and sharp curves and several tunnels and viaducts. This ghât will cost, I should say, about Rs. 1,50,000 per mile.

(5) *Estimated cost* 57½ *to* 75 *miles* = 17½ *miles at Rs.* 50,000 *a mile* = *Rs.* 8,75,000.—From the foot of the Gajalhatti pass to Satyamangalam, a line can be constructed with maximum grades of 1 in 100 and curves of 3,000 feet radius at a cost of Rs. 50,000 a mile for a distance of 17½ miles.

(6) *Estimated cost* 75 *to* 114 *miles at Rs.* 50,000 *a mile* = *Rs.* 19,50,000.—The country from Satyamangalam to Erode presents no material difficulty, but between Kavundapadi and Sittodu there will be some broken and rough country easily negotiable with 1 in 100 grades and 3,000 feet curves. The distance from Satyamangalam to Erode will be about 39 miles, and I estimate the cost at Rs. 50,000 a mile.

4. The junction at Erode presents no great difficulty, but the Madras Railway will have to be crossed in order to form a junction with the South Indian Railway. The line will probably have to be taken round the west and south of the town owing to there being no room to the north between the river and the town, but the latter would be the best line to adopt, if found practicable, at even some additional outlay.

5. The total length and cost of the line I estimate as follows:—

| | | LAKHS. |
|---|---|---|
| In Mysore territory ... ... ... | 33 miles at a cost of ... | 16,00,000 |
| In Madras ... ... ... | 81 „ „ ... | 53,00,000 |
| Total ... | 114 miles | 69,00,000 |

6. The rates in force in Coimbatore district are much the same as those in force in Mysore, and I forward herewith a list of the prevailing rates given to me by the Deputy Collector at Satyamangalam. The country from Erode to Satyamangalam is well cultivated and populous. A list of villages 5 miles on either side of the main road in Satyamangalam taluk is enclosed; this list was given to me by the Tahsildar of Satyamangalam.

7. I have marked in pencil on accompanying maps the probable line to be followed by a railway, but the 12½ miles of ghât being in a difficult and broken country will require to be actually surveyed and levelled before any definite opinion as to the proper alignment can be arrived at.

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ORDER—dated 6th May 1893, No. 818 R., Public Works.

Ordered that the Government of India be addressed in continuation of G.O., No. 618 R., dated 23rd March 1893.

[Here enter No. 819 R., Public Works, dated 6th May 1893.]

(True Extract.)

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

To the Political Department.

Exd. C. A. Munisawmy.
Spare Copies

RAILWAY.

# Govt. of {1893} Madras.

## PUBLIC WORKS.

*Dated May, 6th.*

*Read.* *Encl.*

**G.O., 6th May 1893, No. 818 R.**

**MAY.**

## Railway Lines from Hassan to Mysore City and from Nunjungude to Erode

Ordered that the Government of India be addressed on the subject of the concessions asked for by the promoters of the proposed —.



## PUBLIC WORKS DEPARTMENT.

**Railway.**

LETTER—from

F. R. UPCOTT, Esq.,
*Joint Secretary to the Government of Madras,*
*Public Works Department,*
*Railway Branch,*

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

In continuation of my letter No. 619 R., Public Works, dated 23rd March 1893, I am directed to forward further correspondence noted in the margin regarding concessions asked for by Messrs. Kirby and Lonsdale to raise capital to construct a line from Hassan to Mysore City wholly within the Mysore State; to purchase the existing line from Mysore to Nunjungude; and to construct a line from Nunjungude to Erode partly in the Mysore State and partly in the Madras Presidency.

No. 990 of 21st March 1893 from Resident in Mysore to the Joint Secretary to Government, Public Works Department, Railway Branch.

No. 30 of 17th March 1893 from Dewan of Mysore to Resident in Mysore.

Letter of 25th March 1893 from Mr. Lonsdale to the Joint Secretary to Government, Public Works Department, Railway Branch.

Letter of 19th April 1893 from Mr. Lonsdale to the Joint Secretary to Government, Public Works Department, Railway Branch.

2. The Durbar has in the letter above quoted expressed its willingness to grant a concession in the Mysore State provided the Madras Government should support a similar concession for that portion of the line in British territory.

3. It is further asked that the whole scheme should be considered as one, viz.—

A line between Arsikere *vid* Hassan to Mangalore.
From Hassan to Mysore.
From Nunjungude to Erode.

4. I am directed to say that as regards the location of the line between Nunjungude and Erode, it is not yet established whether a line running due east from Nunjungude to Kollegal or from Mysore to that place, thence by the old Cauvery-puram pass and down or near the valley of the Cauvery to Erode may not prove to be a better line than that proposed from Nunjungude to Hardanhalli, thence following the road to Gajalhatti and thence to Satyamangalam and across the Bhavâni river to Erode. This latter route has been examined in 1891 under the orders of the Mysore Government, and I am directed to forward, for the information of the Government of India, a copy of the report of the reconnaissance made on that occasion.

5. While the Madras Government fully recognizes the importance of connecting Mysore with Erode by rail, His Excellency the Governor in Council considers it essential that the Eastern or Kollegal, Cauverypuram route should be examined so that the merits of the two routes may be fairly compared before the final location is settled, but with this proviso the Madras Government recommends the grant of the concession now asked for by the promoters.

6. The three conditions referred to in para. 3 of my letter, dated 23rd March 1893, No. 619 R., would necessarily be included in the present concession.

I have the honour to be,
Sir,
Your most obedient servant,

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

OOTACAMUND,
6th May 1893.

Exd. C. A. Munisawmy.
Spare Copies

RAILWAY.

# Govt. of {1893} Madras.

## PUBLIC WORKS.

*Dated May, 6th.*

*Recd.* *Encl.*

**6th May 1893, No. 819 R.**

**MAY.**

---

**Railway Lines from Hassan to Mysore City and from Nunjungude to Erode**

Recommending with certain conditions the grant of the concessions asked for by the promoters of the proposed —.

---

No. 30.

Office of the Dewan of Mysore,
Dated Bangalore, 17th march 1893.

From,

Sir. K. Sheshadri Iyer, K.C.S.I.
Dewan of Mysore.

To,

Colonel. O.D. Henderson, C.S.I.
Resident in Mysore.

Sir,

In continuation of my letter no: 29, dated 3rd march 1893, communicating the willingness of the Darbar to grant to Mr. F. Kirby, a concession for the construction of the Arsikere-Mangalore Railway, via Hassan and the Sriadi or Manjarabad Ghat, I have now the honor to submit the views of the Durbar regarding the other two railways in regard to which also Mr: Kirby had, in his letter of the 25th ultimo applied for a similar concession.

These two Railways are:—

(1) From Hassan to the Mysore city, wholly within the State and (2) From Nanjangode to Erode, partly within the State, and partly within the Madras Presidency.

These two railways, together with the short length from the Mysore City to Nanjangode which has already been constructed by the State, would form a continuous line of very great importance which

which may be called the Hassan-Erode Railway. It would, when the Areikere-Mangalore line via Hassan is constructed, be the shortest and the most direct connection involving no break of gauge between the South Indian system at Erode and the Southern Mahratta system at Areikere and it would give the Districts of Southern India, served by the South Indian Railway two outlets on the West coast, one at Marmugoa through the Portugese Railway and the other at Mangalore through the proposed Areikere-Mangalore Railway.

If Mr: Kirby can form a company to take up the Hassan-Erode Railway in addition to the Areikere-Mangalore, the Durbar can sell them the portion from Mysore to Ranjangode already constructed and the Company would thus have a most important system radiating from Hassan, first down the Manjarabad ghaut to Mangalore, Secondly, northwards to join the Southern Mahratta system at Areikere and thirdly southwards to join the South-Indian system at Erode. An extension from the Mysore city to Erode was proposed by me in 1891 and Mr: Mechtchin made a reconnaisance of it (Vide his report dated 12th May 1891). His Excellency the present Governor of Madras was pleased to express himself favorably of the Project in a general way, but the matter was not further investigated owing to other Railways under Survey or construction.

Under such circumstances I beg to inform you that the Darbar are quite prepared to grant Mr: Kirby a concession for

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for the Hassan-Erode Railway on the conditions stated in my letter No: 29, dated the 3rd instant as regards the Areikere-Mangalore Railway. The probable length and cost of the two railways will be as follows:—

| | Mileage | | | Probable cost in Lacs of rupees. |
|---|---|---|---|---|
| | In Mysore | In Madras | Total | |
| (1) Areikere-mangalore. | | | | |
| Areikere to Hassan | 30 | . | 30 | 18 |
| Hassan to the top of Manjarabad ghaut | 26½ | . | 26½ | 16 |
| From the top of Manjarabad ghaut to the foot of the same | 20¾ | 4¾ | 25½ | 38 |
| From the foot of manjarabad ghaut to mangalore | . | 54½ | 54½ | 28 |
| (1) Total Areikere-mangalore | 77¼ | 59¼ | 136½ | 100 |
| (2) Hassan to Erode | | | | |
| Hassan to Holé-Narsipur | 21 | . | 21 | 13 |
| Holé-Narsipur to Yedatore | 25 | . | 25 | 15 |
| Yedatore to Mysore | 20 | . | 20 | 12 |
| Mysore to Ranjangode (already made by the state) | 15 | . | 15 | 7 |
| Ranjangode to the top of Gajalhatti Ghat | 33 | 12 | 45 | 33 |
| From the top to the foot of the do | . | 12½ | 12½ | 21 |
| From the foot of the Gajalhatti Ghat to Sathiamangalam | . | 17½ | 17½ | 10 |
| Sathiamangalam to Erode | . | 39 | 39 | 24 |
| (2) Total Hassan-Erode | 114 | 81 | 195 | 135 |
| Grand Total of (1) and (2) | 191¼ | 140¼ | 331½ | 235 |

It will thus be seen that the two proposed railways will together have a total length over 330 miles and cost about 235 lakhs of rupees upon a liberal estimate. A glance at the map will show their great importance as completing the shortest routes of traffic from the South of India both to

a Coorg Railway map is enclosed.

to Marmugoa and Mangalore on the West Coast as already staked and to the East Coast Railway at Bezwada through Mysore, Bangalore and Guntakal, and to the Districts of the Bombay Presidency through Ankitkere and Harihar.

Mr: Kirby has already been promised the Concession for the Ankitkere-Mangalore line. The Durbar are willing to grant him one on the same terms for that portion of the Hassan-Erode Railway which is within the State (about 114 miles) on the condition that he succeeds in obtaining a similar Concession from the Madras Government as regards the remainder within the Madras Presidency (about 81 miles) and I shall feel much obliged if you will be so kind as to move the Madras Government in the matter and also inform Mr: Kirby of the views of the Durbar as above stated.

I have &c.,

Sd/ K. Sheshadri Iyer

Dewan of Mysore

Copy.

Henry Clarke

Registrar.

No. 990 Ena. 2.
25-5-92

FROM

THE RESIDENT IN MYSORE.

TO

Dated Bangalore, 21st ... 189

SIR,

P. Rendawar

P. W. CURRENT No. 2861

Kirby's

Proposed lines

Hassan-Mysore

Nunjingode-Erode

Encl: 2 (Mark)

Rec: 26.3.93

15 | 24
12 0
24
360
15
10

Bangalore
25th March 1893

From

Mr. William Lonsdale

To

The Secretary to Government
Public Works Department
(Railways)
Madras

Sir

Having reference to a letter from the Resident of Mysore to yourself dated the 4th of March on the subject of a projected line of Railway from Arsikere to Mangalore and to a further letter from the Resident dated 21st March as to a line of Railway from Hassan to Mysore and from Nunjingode to Erode I have the honor to state that although these lines have formed the subject of two separate letters they are intended with the sanction of Government to form one connected system which would be completed by the transfer of fifteen miles of Railway between Nunjingode and ~~Erode~~ Mysore which the Mysore Government is willing to effect. There would thus be

Mysore D

unbroken communication between Mangalore and Erode.

In the letter from the Dewan of Mysore to the Resident which the latter forwarded to you under date the 21st March he stated that he would agree to Mr. Kirby's proposal to construct the Nunjungode - Erode line and the Hassan - Mysore line provided the Government of Madras would consent so far as that portion of the former which traverses Madras Territory is concerned. I act in conjunction with Mr. Kirby in this matter and have authority to represent him, and I have the honor to state that we are prepared to form a Company with the necessary Capital for the construction of the entire system referred to and to acquire the 15 miles section between Mysore and Nunjungode. I beg to express the hope that the Government of Madras may be pleased to accord their consent to the scheme. Apart from the other advantages which these lines would afford to the country traversed they would bring the South of India into nearer Communication with Bombay by approximately

D

one hundred miles if the route by Arsikere from Erode were adopted and by about one hundred and thirty miles by that by Bangalore Hindupur Darmaveram and Guntakal.

Mr. W. Mc Stutchin of the Indian States Railways at present in the service of the Mysore Government has made a preliminary survey of the Nunjengode Erode line and has stated that there is no serious difficulty as to the construction thereof if the route by the Gujalhatti pass be adopted.

I have been unofficially informed with the sanction of His Excellency the Governor in Council that the Government of Madras views favorably the construction of the line from Mangalore to Arsikere and I trust that they may for the same reasons consent to the Erode Nunjengode line. In view of the fact that much time must inevitably be consumed in the official correspondence on this matter owing to the Mysore Government being concerned therein

I shall be greatly obliged if it can without inconvenience be brought before the Govern.t of Madras at an early date. I understand that should the Govern.t of Madras approve the scheme it will have to go before the Govern.t of India for final sanction. When the reply of the Govern.t of ~~India~~ Madras reaches me officially through the Resident of Mysore it is my intention to present the matter in person to the Secretary P. W. D. Calcutta. Should it not be possible to form a Company in England before the end of June it may not be possible during this year. I mention these details in excuse for appearing to be somewhat urgent.

I have the honor to be
Sir
Your most obedient Servant
D. Lonsdale

R. W. CURRENT No. 2948

Bangalore
Nunjungode - Erode

Rec. 27. 3. 93

Madras 19th April 1893

From

Mr. William Lonsdale

To

The Consulting Engineer for Railways
Madras

Sir

In the matter of the proposed Nunjungode - Erode railway I have the honor to inform you that I am authorized to state that the Mysore Durbar accepts the views of the Government of Madras as communicated by you to me viz. that a route proceeding from Nunjungode to Erode may be taken if found practicable more to the Eastward than the route proposed in the Dewan of Mysore's letter dated 17th March 1893. That route was from Nunjungode via Chamrajnagar, the Gazalhatti pass, and Satyamangalam to Erode and was pronounced to be practicable by Mr. Mc. Hutchin of the Indian State Railways who was deputed to examine it by the Mysore Durbar. With the exception of the Gazalhatti ghaut it passes through a country which would be likely to furnish profitable traffic. I am further authorized to state that the Mysore Durbar would now be glad to be informed of the precise route which the Government of Madras would prefer to the above. There

are two routes which may be found practicable and which may meet the views of the Government of Madras:

No 1. From Nunjingode to Kollegal in the Coimbatore district thence to Andipur South Eastwards and thence almost South to Erode.

No 2. From Nunjingode to Kollegal thence due Eastwards a little to the South by the existing road to Cauverypuram and thence down the valley of the Cauvery to Erode.

No 1 would be the shorter and would involve ~~two~~ river crossings ~~the same~~ Kabani only. No 2 in addition to being longer would necessitate crossing ~~the same~~ several times. When the Government of Madras is making its decision I venture on behalf of the promoters of the project to express the hope that prominent importance may be attached to the route which is most likely to afford profitable traffic. Subject to the selection of the route I hope I may now assume that the sanction of the Government of India may be sought for the project. The scheme originally intended by Mr Kirby as indicated in his letter dated the 25th February to the Dewan of Mysore viz. to connect Mangalore with Erode by a line to Periapatna Hassan Mysore and Nunjingode would then be made practicable. I understand that certain terms to be granted to promoters of Railways in India have quite recently been sent for sanction to the Secretary of State for India and I have the honor to request that the entire proposals made by Mr Kirby and myself may be considered as having been made subject to those terms.

I have the honor to be

Sir

Your most obedient Servant

J. Lonsdale

P. W. CURRENT No. 3730

Recd 19/3.

167 (E)

Report by Mr W. Mc Hutchin, Offg. Chief Engineer of Mysore, on a Metre-gauge Railway to connect the system of the Mysore State Railway, with that of the South Indian Railway, Dated 12th May 1891.

"

Result of Reconnoisance.

As I, at first, considered it desirable to follow the existing main line of communication, I followed the main road from Nanjangud, via Chamarajnagar, Attikalpur, Hassanur, and Dhimbam, to Sathyamangalam.

Up to the head of the Hassanur valley, (5 miles and 3 furlongs beyond the Mysore frontier, and 19 miles and 1 furlong from Sathyamangalam

Sathyamangalam), the country presented no material obstacles to the construction of a fairly cheap line of Railway; but from this point there is a sudden ascent of about 600 feet in 2 miles of road to the head of the Hasanur ghat at Dhimbam, (17 miles, 1 furlong from Sathyamangalam).

The road beyond Dhimbam winds down the precipitous face of the ghats by means of numerous very sharp turns, or doubles, with an average grade of about 1 in 16. The descent to foot of the ghat proper (at 10 miles 4 furlongs from Sathyamangalam), was ascertained by aneroid-readings to lie about 2170 feet in a distance of 6 miles

— Heights above M.S.L —
— from —
— Aneroid readings —

| | Levels | Madras mileage |
|---|---|---|
| Chamrajnagar | 2350 | |
| Hardanhalli drainage | 2320 | |
| Spur at 30½ miles | 2422 | |
| Suvarnāvathi river at junction with stream from South from Talamalai &c. | 2356 | |
| Suvarnāvati river 1 mile N.E of Attikalpur | 2390 | |
| Bridge on main road at 138½ miles | 2564 | |
| 139th Mile of road | 2591 | |
| 140th | 2618 | |
| 141 | 2660 | |
| 143 | 2849 | |
| 143½ | 2847 | |
| Frontier 5/146 | 2932 | 24-4 |
| Road 4½ miles beyond frontier at Hāsanūr | 3020 | 20-" |
| Foot of Dhimbam ghat 5 miles 3 furlongs beyond Mysore frontier | 3030 | 19-1 |
| Head of Hāsanūr Ghat at Dhimbam 7 miles and 3 furlongs beyond frontier. | 3620 | 17-1 |
| Foot of Hāsanūr ghat | 1450 | 10-4 |
| Banari Bungalow | 1140 | 8-3 |
| Sathyamangalam | 780 | " -" |
| Gopishettipalaiem Bungalow | 610 | 16-" |
| Erode Railway Station | 540 | 39-2 |
| Head of Gajalhatti Pass at Thalamalai | 2998. | |

miles and 5 furlongs.

Two days were spent in the examination of the country for about 10 miles to the east and west of Dhimbam and of the southern face of the Ghats. The conclusion I arrived at was that to construct a line of Railway at, or near Dhimbam at a reasonable outlay, was impossible.

Heights above M.S.L of some of the more important places on the road are given in the margin.

II. I then prospected the country at the head of the Gajalhatti Pass at Talamalai, about 14 miles west of Hassanur: there is an old steep pass here, which in former times was the principal means of access to the plains. I found

found from Aneroid readings that the head of the ghat at Talamalai village was about 2998 above M.S.L. A narrow belt of Country towards the north and north-west from Talamalai is most favorable for the construction of a Railway, being well cultivated and fairly populous, and I am of opinion that a line can be Constructed at Comparatively reason-able out-lay from Hara-dauballi (27 miles from Naujangūd), following generally the old track via Bommanhalli, Talavadi, Maruvūr, Higgalūr, Ham-malai, Hallapuram, Ja-vanagoundanhalli to Mutianūr at the head of the proposed ghat about

3000



3000 feet above M.S.L. The Country to the east of the Talamalai plateau is very hilly and difficult; and to the west of the old track there is also hilly and broken Country.

From Mutianūr down to the low Country, I estimate the descent to be about 1600 feet to the foot of the more precipi-tous slopes; Aneroid read-ings were not taken at the foot of the Pass at Gajalhatti for want of time, but I do not think that the foot of the more precipitous and difficult slopes of the ghats would be at a lower level here, than at the foot of the Hassanūr ghat. Ane-roid readings gave the foot of the Hassanūr ghat to be 1450 above M.S.L, and the

level

level at Banari 2 miles beyond was 1140. It would, I think, be safe to assume that the foot of the precipi-tous upper slopes of the Gajal-hatti pass would be reached at 1400 feet above M.S.L.

It will, in my opinion, be found necessary to adopt a ruling grade of 1 in 40 from the head of ghat at Mutianur, about 3000 feet above M.S.L. down to foot of the precipitous upper slopes of the ghats at about 1400 above M.S.L; the length of the ghat would have to be 12 ½ miles, allowing 2000 feet for bits of level &c.

Sharp curves and some tunnels and viaducts will be necessary on this length, which will have to be worked by specially designed engines as on the Braganza ghat of the Portuguese Railway.

The



The actual bank of the Mo-yar river at Gajalhatti I assume to be at about 1100 above M.S.L, the general fall of the river some 12 miles lower down being about 15 feet a mile; but the descent from 1400 feet above M.S.L to 1100 feet above M.S.L can be obtained with the usual grades of 1 in 100, and easier curves than on the more precipitous upper slopes can be adopted.

From the foot of ghat above Gajalhatti to Sathyamangalam, there would be no difficulty, the fall being gradual from 1400 ft above M.S.L to 780 above M.S.L in a distance of 17 miles.

General result of Preliminary Reconnoisance.

III. The general results of my preliminary reconnoi-sance are now given -

(1) An easy line on the metre gauge can be obtained to a point 27 ½ miles from Naugaugud, which would

Estimated cost 1st 27 ½ miles

27.5 × 48000 = 12,96,000, or say 13,00,000.

would cost about 48,000 Rs: a mile.

(2). A line of Railway on the metre-gauge can be constructed with 1 in 100 grades, but with perhaps a few sharp curves of 1000' to 1500 radius, from 27½ miles to the Mysore Frontier at 33 miles from Nanjangúd at a cost of 50,000 Rs a mile.

Estimated cost of 27½ to 33 miles = 5½ miles, at Rs 50,000 a mile = 2,75,000, or say - 3,00,000 lacs

(3) A line of Railway on the metre-gauge can be carried out from Hire (33 miles) to the Head of the Gajalhatti ghat at about the 45th mile, at a cost of about Rs: 50,000 a mile. The country from the 33rd mile to the 40th mile is somewhat hilly and broken.

Estimated cost 33 to 45 miles at 50,000 a mile = 6,00,000 lacs.

(4) The 12½ miles of ghat from the 45th mile to 57½ mile is in a difficult precipitous

Estimated cost 45 to 57½ miles = 12½ miles, at 1,50,000 = Rs: 18,75,000.

Estimated cost 57½ to 75 miles = 17½ miles at Rs: 50,000 a mile = 8,75,000.

Estimated cost 75 to 114 miles at 50,000 a mile = 19,50,000.

precipitous and broken country, necessitating 1 in 40 grades and sharp curves, and several tunnels and viaducts. This ghat will cost, I should say, about Rs: 1,50,000 per mile.

(5) From the foot of the Gajalhatti pass to Sattiya-mangalam, a line can be constructed with maximum grades of 1 in 100, and curves of 3000' radius, at a cost of Rs: 50,000 a mile for a distance of 17½ miles.

(6) The country from Sathyamangalam to Erode presents no material difficulty, but between Kaamundapadi and Sittódu there will be some broken and rough country easily negotiable with 1 in 100 grades and 3000' curves. The distance from

from Pathyamangalam to Erode will be about 39 miles, and I estimate the cost at 50,000 a mile.

IV. The junction at Erode presents no great difficulty, but the Madras Railway will have to be crossed in order to form a junction with the South Indian Railway. The line will probably have to be taken round the west and South of the town, owing to there being no room to the north between the river and the town, but the latter would be the best line to adopt, if found practicable, although some additional outlay.

V. The total length and cost of the line I estimate as follows:-

In Mysore Territory
33 miles at a cost of - 16,00,000.
In Madras 81 miles - 53,00,000
Total - 114 miles - 69,00,000 Rs

VI



VI. The rates in force in Coimbatore District are much the same as those in force in Mysore, and I forward herewith a list of the prevailing rates given to me by the Deputy Collector at Pathyamangalam. The country from Erode to Pathyamangalam is well cultivated and populous; a list of villages 5 miles on either side of the main road in Pathyamangalam Taluk is enclosed; this list was given to me by the Tahsildar of Pathyamangalam.

VII. I have marked in pencil on accompanying maps, the probable line to be followed by a Railway, but the 12½ miles of ghat being in a difficult and broken country will require to be actually surveyed and levelled before any definite opinion as to the proper alignment

alignment can be arrived at.

/Signed/ W. McC. Hutchin
Offg. Chief Engineer.

Notes by the Dewan on the above.

1. Communication between Mysore and the South of India was, in former days, through the Gajalhatti pass. In more recent days, the Hāsanūr Ghat was made and the Gajalhatti one abandoned. A connexion by Railway between Mysore and Erode by one of these passes I considered most important, and I accordingly asked Mr. McC. Hutchin, who had special experience in Railways, to make a preliminary reconnoitre of the country from Nanjanged (about 15 miles from Mysore City) to which the State Railway is now being extended, to Erode.

2. Such a line seems to me far more important than one from Nanjanged to Gūdalūr, if there be no reasonable prospect of further extension from Gūdalūr to Calicut.

3. Both South Indian and Mysore State systems are on the same gauge - (the metre). The Mysore system joins the Southern Mahratta system at Harihar, and will soon join the Guntakal-Hindupūr line at Hindupūr.

The Durbar also contemplate a line from Mysore City to Kadūr or Bānāvar (on the present Bangalore - Harihar line of the State Railway) and such a line, passing through Yedatorē, Holē-Narsipūr, Hassan, and near Chickmagalūr, would be fairly straight and

and save considerable distance between Mysore and Haribar.

4. It will thus be seen from a glance at the map that the proposed Connexion between Mysore and Erode is of incalculable benefit to the South of India, including the Mysore plateau. It would be the shortest route from the Southern Madras Districts to Poona and Bombay.

5. Doubtless, the old Gajalhatti pass (and not the present Hasanur Pass) is the one to adopt, and I have but very few observations to add to Mr. McHutchin's report. Briefly stated, they are as follows:-

Para VII of Report - Mr. McHutchin's line goes S.W. from top of ghat near Mutianur village, and hugs the Doddambala Hill - (a) By going to Talamalai and Madalli and if possible following the river down the ghat, some distance in the total length may perhaps be saved, keeping throughout as high up the hill slopes as may be necessary for purposes of grade; and in that way getting into the plain country some miles below the point marked on the map by Mr. McHutchin.

(b). The ghat line starting from near Gavi and winding round Doddambala Hill on the North and West may, upon further investigation, perhaps prove to be the cheapest.

All this can of course be settled only by a regular preliminary Survey.

Para III of the Report. Judging from our experience the probable cost as calculated by Mr. McHutchin is very

very near the mark, and if we are able to save in total mileage, the entire line need not cost much more than 65 lacs, though 70 or even 80 lacs cannot be considered as prohibitive for a work of this importance.

6. Mysore would sooner do such portion of this line as is in their State, than the proposed Nanjangud-Gudalur line, the Survey of which has recently been sanctioned by the Government of India, but is in abeyance till next cold weather, owing to the unhealthiness of the season. Advantage, I think, may well be taken of this pause to investigate the Gajalhatti Pass.

/Signed/ K. Sheshadri Iyer
Dewan

Ootacamund,
12th May 1891

PR

No. 818 R 96 May 1893.

A

PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

# PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Letter from the Resident in Mysore, No. 990/255-92, dated 21st March 93

Letter from Rev. W. Lea, dated ——— do 25th do

Do ——— Do ——— do 19th April 93

Report by Mr. W. McAlister, Chief Engr. of Mysore, dated 12th May 1893

ORDERED that the Government of India be addressed in continuation of G. O. No. 618 R. dated 23rd March 1893.

To

The Political Secretary

Despatch 15/5

A

No. 818-19 R 96 May 1893.

A

No. 819 P. Works

Joint Secretary

to

Govt. India

In continuation of
G.O. 618 R. P. Works dated 23 March

I have the honour to forward further correspondence noted in the margin, regarding concessions asked for by Messrs Kirby & Lonsdale to raise capital to construct a line from Dharwar to Mysore & wholly within the Mysore state —

To purchase the existing line from Mysore to Nunjunde — and

To construct a line from Nunjunde to Erode partly in the Mysore State & partly in the Madras Presidency —

2. The Durbar has in the letter above quoted expressed its willingness to grant a concession provided the Madras Govt. should grant a subsidy

of 21 March 93
No 590 from
Resident in Mysore
to Sec. Govt. Madras P.W.D.
No 30 dated 17 March
93 from Dewan of Mysore
to Resident in
Mysore
Letter of 25 March 93
from Messrs Lonsdale
to Sec. Madras Govt.
Ry. Branch
Letter of 19 April 93
do do

Mysore
in their State

former concessions
for that portion of the
line in British terri
tory —

3. It is further asked
that the whole scheme
should be considered
as one viz.
A line between
Arsikere via Hassan
to Mangalore —
From Barcoor to
Mysore —
From Nunjungode to
Erode —

I am directed to say
that as regards the
actual location of the
line between Nun-
jungode & Erode
it is not yet established
whether a line pass-
ing due east
from Nunjungode
to Kolligal, thence by
the old Cauvery Puram, and
down the valley of
the Cauvery to Erode
may not prove to
be a better line than that proposed
~~as good as to be~~
from Nunjungode,
to Bundarhalli.

Dr.

This Cuttin route has been examined in 1891 under the orders of the Mysore Govt. and I am directed to forward for the information of the Govt. of India a copy of the report of the examination and made on that occasion.

Note
I am not sure whether India has seen this. If it has been sent to Mysore before (note the reference)
Mrs

4. Gajehatti and then
to Sattyamangalam
across the Bhowani
River to Erode —
5. While the Madras Govt. fully
recognize the impor
tance of connecting
Mysore with Erode
by rail, H.E. the S. of S. in C. considers it
that the Eastern or
Kollegal, Cauvery Puram
route should be exa
mined so that the
merits of the two
routes may be fairly
compared before the fin
location is settled, — but
with this proviso
the Madras Govt.
recommends the gran
of the concession ap
plied for by the pro
moters —
6. The usual conditions
mentioned in the fo
mer correspondence
that Govt. should ha
the right on giving 12
months notice to pur
chase the railway
That the Co. should
have no power to

refer to in para 3
of my letter 23 March
93 to Govt of R.

Junior Concession
without the S. of S.
diuction and that
the alignment for
shall be subject to
the approval of Govt.
would necessarily be
included in the pre-
sent Concession

J. Rupcott.

2/5 93

Up despts
with 1 Encls.
15/5/93.
I am d

A
818-19 Ry 6th May/93