

Public Works (1895) Department.

RAILWAY BRANCH.

G.O., No. 361

DATED 21st May

[Despatch Abstract.]

Bengal.— Estimate of Rs 8198 for a —
for the use of the First Assistant Locomotive
Superintendent at Perambur, sanctioned

BACK PAPERS.

[illegible]

FURTHER PAPERS.

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

Form No 4

Form No 4.

OFFICE OF THE CONSULTING ENGINEER FOR RAILW.

Madras, 30th March 1894

To

AGENT AND MANAGER, M. R.

No. 1021 Reply No. _____, dated _____

SIR,

Reminders

With reference to the concession for a line from Shoranur to Cochin and Calicut to Cannanore proposed by Mr. Cole, I have the honour to forward copy of 287 R.C. of Govt of India and request you will enable me to reply to Nos 6 and 7.

I would also ask for
an early reply to my 763
of 5th March. Now that
the survey is I believe com-
plete it would assist
me if you could supply
me with an independent
of the route as well -

Let's F.Ru.
12. 3/80

Subject.

Form No. 4.

original in Calicut - Enroute Cal

62
OFFICE OF THE CONSULTING ENGINEER FOR RAILWAYS,

Madras, 4th May 1894.

To

AGENT AND MANAGER, M. R.

No. 1437 Reply No. , dated

SIR,

I have the honour
to request the favour of an
early reply to my letter No.
1031 dated 30th March 1894
reys of 5th March regarding
Mr. Gale's proposals for a
line from Shoranur to
Cochin & Calicut to Coim-
more.

Yrs. F. R. A.

Reminders.

Subject.

Original in Calicut.
Cannanore Cor.

His Excellency the Governor
Hon Mr. Klein
Hon Mr. Gorse

Note
on Gales project for extension
of the Madras Railway.
Calicut. Cannanore
Shoranur. Cochin

In this file we have another
instance of the issue of letters
by the Railway Branch of the
P.W.D. on important projects without
circulation to the members of Govt.
Letter No 253.C of Jan 20, 1897, did
not issue until more than two
months after I joined the Govt, but
although it committed the Govt to a
definite approval of certain railway
schemes of importance, I never saw express an opinion on this line,
or heard of it until this file reached me 2 or 3 days ago. Now, so far as I
can see, did the Hon Mr. Gorse seek
papers. If so happens that I agree to
a great extent with the conclusions
stated in that letter, but that does
not affect the question of principle.
I trust I may not again have to make
complaints of this kind.

As to the two lines, Calicut to Cannanore
+ Shoranur (?) to Cochin, I think
this Govt should support the proposals for
their construction as energetically as
possible. I do not think that it can
be doubted that they will pay.
But this very fact raises a doubt
whether a concession for their con-
struction should be given to Mr. Gale.
Both the Govt & the Chamber of Commerce
borrow money at little if at all
over 3%. Why should not one or other do
so & make these railways & get their
profits, instead of having them to Mr.
Gale?

As regards the branch from Shoranur
(or Puthambai) it seems to me that
great caution will be necessary, before
Cochin is decided on as the southern terminus.

The Govt of India No 287.
L.C. of 20th Decr 1894 considers
the 2 projects favourably, but
before granting the concession
asks for more information
as to their cost & prospects
Calicut-Cannanore. The Madras
Railway on being asked to
take the yearly receipts of their
line from Ottapalam to Calicut
as a guide. The mileage is $61\frac{1}{2}$
the total receipts are 14,10,665
for the year ending Jan 1893.
Their survey - an approxi-
mate one gives
Calicut-Tellicherry $43\frac{1}{2}$ miles
estimated to cost 37,22,504 and
Tellicherry-Cannanore 12 miles
costing 18,00,000 that is
 $55\frac{1}{2}$ miles costing 55,23,000
By reducing their receipts
for $61\frac{1}{2}$ miles in the proportion
of $\frac{55\frac{1}{2}}{61\frac{1}{2}}$ the total receipts are
12,73,000 which (taking their
working expenses at 50%
to which figure they are
now,

now, nearly this gives 11 1/2 percent on the Capital cost

The Chief Auditor's figures quoted in the Engineer's Report give however 6.136 per cent. based on the Calicut extension. But here the Agent allows nothing for the present steamer traffic between Calicut & Cannanore nor for the canal which goes from Calicut to Badangara 13 miles from Tellicherry, see report by Mr. Bradley, Collector of Malabar Dec 69 of 3rd Feb. 1894 Board of Revenue.

The Resolution thereon says that the inference drawn by comparing the Calicut extension would probably be misleading

The visible traffic is given at only 5,000 man and mules monthly carried by road & canal between Calicut & Tellicherry.

This would only yield about 1000/- a year at 1/3 pie rate but the Collector says the passenger traffic would be heavy according to the estimates

by "Cochin" in this connection must, I presume, be understood some spot near Cochin on the Northern side of the mouth of the Cochin river. But if the railway is to end there, how can it be extended southwards without a bridge over the mouth of the river which is both deep & un navigable? And with such a bridge be possible at any reasonable cost? It strikes me that Ernakulam is a better place for the Southern terminus of the proposed line than Cochin, the cause extension thence to the South will be easier. I doubt don't know if this point has been looked into. If not, I think it should be.

Encl H. W. B.
21.5.94

All members of Govt. should have a voice as regards such projects as these. Sir H. Stokes & Mr. Gervin saw the first papers about Mr. Gale's proposals, but there is nothing to show how they would have regarded further information before Govt. when G.O. 20, Jan'y 94. 253 was passed, except that they would probably have hesitated to support the coast line from Calicut northwards. The complete papers ought to have been circulated to the Hon. Mr. Nixon & myself before orders were passed.

I agree with my colleagues that both lines should be supported. The Cochin terminus should be carefully considered. We are committed to Mr. Gale

Encl J. G.
22.5.94.

I suppose these figures are for the whole system, which passes through large tracts which are only sparsely populated & can hardly be used as a basis for comparison with the proposed line, which passes thro' a tract bearing a population of over 1000 to the square mile in the rural parts. While it will also serve 3 large Municipalities.

Encl W.
15.5.97

estimates the line will cost in round numbers, 1 lac per mile. Taking working at 50% it must earn 15 1/4/- per mile to pay 4% on Capital and assuming passengers pay 2 pice per mile and goods 10 pice per ton mile it must carry daily over 1000 passengers and 211 ton of goods.

The Madras Railway carries an average (on last 1/2 year's Revenue accounts) 1000 passengers daily per mile and 500 tons of goods. These figures are I believe correct but will be referred to the Agent to check.

Shoranur-Cochin line

Mr. Bradley states that he cannot give any fair estimate of traffic and the Political Resident has not replied to my letters asking for statistics.

but as this line also has been estimated to cost 1 lac per mile - the traffic in goods registered by Mr. Bradley being 463 tons per week - the prospect is very good, as far as goods

goods are concerned.
 I suggest therefore that
 India he informed that
 the Agents figures are
 not likely to be arrived
 at on the 2 lines which
 will be in competition
 with the ocean steamers
 and canals along the
 coast but on the basis
 of my figures per mile
 per week. they will be likely
 to earn 4 per cent on the
 Capital cost.

Encl. J.L.W.
 14.5.94.

Yes.
 But attention should be called to
 the collector's remarks as to the water
 competition both by sea & canal,
 and the likelihood of the railway,
 being preferred to either. Landing
 & shipplings are difficult always
 at Cannanore, Tellicherry & Calicut
 and almost impossible for some
 4 months every year, while the canal
 does not afford direct communi-
 cation between Calicut & Tellicherry
 as it stops 13 miles short of Tellicherry.
 This competition need not therefore
 I think be considered serious.

Encl. W
 15 May 94

B. Form No. 12.

Original in Calicut
 Comm. Secy

Circulate
 H.E. the Govt in Council
 Hon: Mr. Blair
 Hon: Mr. Grose.

No.

Government of Madras.

PUBLIC WORKS DEPARTMENT,
 RAILWAY BRANCH.

To
 THE SECY. TO THE GOVT. OF INDIA,
 P. W. DEPARTMENT.

189

SIR,

In reply to your
 287 R.C. of 20th March 94.
 I am directed to forward
 copies of Nos. 5290 of 10th
 and 16th May with enclosures
 from the Agent of the Madras
 Railway in the prospects of
 the Calicut-Cannanore
 and the Palghat or Shoranur
 Cochin railways.

An approximate plan
 estimate has been made
 by levelling the road from
 Calicut to Tellicherry. The
 result being that the line
 Calicut to Tellicherry

43 1/2

43½ miles is estimated
to cost Rs 37,22,500 and
Tellacherry to Cannanore
12 miles is estimated to
cost Rs 18,00,000 being
a total of 55½ miles es-
timated to cost Rs 55,22,500.

The traffic manager has
his estimate of traffic on
the actuals of the Madras
Railway between Calicut
and Ottapalam 61½ miles
for the year ending June 1893.

By reducing the receipts
in the proportion of $\frac{55\frac{1}{2}}{61\frac{1}{2}}$ the
amount is Rs 12,73,000
stating working expenses
at 50% the result gives
11½% on the total capital.
The Chief Engineer's estimate
of Rs 6.136% on the Tellu-
cherry line only is not sup-
ported by any figures.

With regard to the prospects
of the Shoranur Cochin line
the Agent refers again to his
letter printed with G.O 1967A
of 13 August 1892.

His

This estimated return
of 3.85 per cent. is, it may
be noted, on the direct line
between Palghat and Kuru-
patnam - what the Agent
in his letter of 16 May still
considers preferable to the
Shoranur route.

From recent surveys
made by the Chief Engineer
of Cochin, it is reported
possible to avoid the
tunnel costing 27 lakhs
which the Madras Railway
Chief Engineer considered
necessary but even with
this reduction the distance
from Palghat to Trichur
would be 47 miles as against
42 miles by the direct route
and although the double
junctions at Shoranur
& Olatkote Olatkote may
be expensive to work for
through traffic, these ob-
jections as it is considered
more than balanced by the
difference

4 difference in the estimate
cost which is 2 miles @ $1\frac{1}{2}$ lakhs
per mile (omitting the tunnel)
on the direct line + 18 miles
at 1 lakh per mile from
Shoranur so that with much
shorter construction length
the connection can be made.

The Agent further recom-
mends the extension to Chikmagalur
and in this connection
I am to remark that Erudur
column at the northern
side of the backwaters would
be the natural present
terminus and that this has
always been intended.

Taking therefore the two
lines as costing about 1
lakh per mile + expenses
@ 50% they must carry 1000
per mile per week to pay
4% + therefore carry 1000
passengers + 211 tons food
daily at a 2 pie + 10 pie's
rate respectively.

The visible present traffic
between Calicut + Sullia
is

is only given at 2000 tons
per month but the Collector
reports the passenger traffic
large, the population in the
tract which the line would
traverse being over 1000 per
square mile whereas be-
tween Shoranur + Cochin
463 tons food per week
have been registered. As
the Madras Railway
carry about 1000 passen-
gers + 500 tons food
daily one mile the pro-
spects seem encouraging.

I am further to say
that in reviewing the
estimate of traffic on this
given by the Agent Madras
Railway for the 2 lines under
reference, H.E. the Governor
in Council is of opinion
that they may possibly appear
too sanguine, as these
projected extensions would be
parallel to the Coast and
therefore

therefore in competition
with ocean steamers & co.
However as the Calcutta
points out landing and
shipping at the Port are
always conducted with
difficulty & expense which
for four months of the
year they are practically
stopped & also as the Canal
does not connect Telli-
cherry with Calcutta the
competition is not likely
to be serious on the con-
trary the probability is
that the railway would
be preferred to either a sea
or canal route..

On these grounds the pro-
posals are very earnestly
supported by His Excy the
Governor in Council..

His Excy the Governor in
Council would further
point out that it would
be much more economical
to the State, if the Govt or the
Madras Railway undertook
to raise the Capital to

Continued

Construct the branches,
as either party could easily
raise the required amount
at 3%, and therefore the
probable profits in excess
of this amount would be
recovered by them instead
of being diverted into the
pockets of a third party..

Intd F.R. 11.
30/5/84

Intd W.
4 June

N.B. The attention of the
Consulting Engineer is par-
ticularly called to the Hon.
members remark as to cir-
culation of important files.

Intd W.

I have noted this

Intd F.R. 11.
14/6/84

Original in Calcutt. Comm. Case

Care

Hon. Secy: the Governor

Hon. Mr. Bliss

Hon. Mr. Grose.

Gale's proposal to construct lines Calcutt. - Can-
naron & Palghat to Cochin.

Since writing the draft to India regarding these lines, Mr. Grose has sent me a private copy of a letter addressed by his Board to the Secy. of State, asking that the Calcutt. - Cannaron

I was under the impression that Mr. Gale was really the Madras Railway - but from the M.R. putting in a request for these lines, I suppose he is not.

line be given to them Railway to construct.

The letter is dated 19th

It is only right that we should March & I don't understand why a copy has been sent to us, for I pre-
back up the Madras Railway and help them to get these extensions. It is years since the Madras Railway has extended its system. While some the Govt. of India that horrid narrow gauge - which the Southern material has spread itself octopus-like over the land from sea to sea (most)

must have had one.

I think at the end of

the draft letter it should be said "and it is believed that the Madras Railway Company desire to construct one if not both branches themselves"

Entd W. 13 June
Entd W. B. - I would make it a new sentence.
14/6/87
Entd J. G. 15/6.

themselves as they are of
opinion that the simple
extension of an existing
trunk line is better left
in the hands of the original
Company than committed
to a separate agency."

Intd F.R.W.
17/6/94

His Excellency the Governor
Hon: Mr. Bliss
Hon: Mr. Grose

Proposed Railway
Calcutta. Canning
Shore. Cochin

Letter 735.R.C. of 7th Aug
from Govt of India

(encl) W
(a) H.W.B.
(a) J.G.

In regard to para 4, the
Madras Railway will be
asked to furnish the esti-
mates.

Yes
(encl) W
(a) H.W.B.
17/6/94

J.G.

It is curious that only Cochin
I urged the Secy of State to go in for
silver loans in India for railway
extensions. Little knowing that he
had advocated this policy last
May. The experiment is well
worth trying - but it wd have
succeeded to a certainty two
years ago. Now it is more doubtful
but, still well worth trying.

(encl) W

Before replying to para 4,
it will be necessary to con-
sult the Madras Ry. whether
they have other feeder lines
or extensions in view which
are preferable to the one from
Calcutta to Canning.

The line Madras to Rangoon
will shortly be made & the
extension to Rangoon is
being considered.

Putting these aside there

- (a) Dalgat to Dindigul
(b) Salem to Porto Novo
(c) Erode to Sattiamangalam

Of these the second (b)
was a famine line & not
likely to pay, the third (c)
may be put forward to pre-
vent the metre gauge line
from

from Erode to Kanyingad
the first (a) is the most
needed of the feeder lines
but it is not expected to
pay so well as the coach
line.

I don't understand India's
remark that because of the
difficulty in raising funds
in sterling or silver, this Govt
are asked to consider whether
other means of feeders
are preferable. A loan
must be raised in any
case, the Indian Ry have
ample borrowing powers
for feeder lines under their
Contract & they are in a
position to borrow at lower
rates of interest than Mr.
Gale.

Para b. is a criticism
on the return of traffic
but para g of this Govt's
406. D of 20th June discounts
the Agent's figures which
worked out to 11½% on the
Capital cost.

I do not think this para
calls for any reply.

(Ind) F.R. L
15/8/94

What India wants to be
assured of is that we have
not overlooked any line,
which is likely to be more
remunerative than those
under discussion & I expect
that the Ind Ry will not put
forward any before these

(Ind)

W

Para b had better be commu-
nicated to Mr. Moss for his
remarks.

We did not go carefully
into these points in our para g
of our letter of 20th June

(Ind)

W

16/8/94

No. 850. Dated 23rd August 1894.
Agent's Manager 76
Madras Railway

I am directed to forward
copy of letter 735 R of 7th
Aug from Govt of India
with enclosures & to ask you
to furnish an estimate of
the cost of surveying the
lines from Calicut to Can-
nannore & from Palghat
or Shoranur to Cochin
as defined in enclosure
to circular 7 R of 9th Oct 93.
2 To enable this Govt to
reply to para 5, I am to invite
your notice to the following
lines which it is believed
have been put forward
as possible feeders to the
M.R.

Palghat to Dindigul

Salem to Porto Novo

Erode to Sathyamangalam
and to ask whether these
or any other branches
should be preferred to
the line to Cannannore
and it would be desir-
able to obtain the views
of your Board on the
important

of important matter.

(3) You will observe in para 6 of the Govt letter of the probable receipts given by you on the proposed line to Tellicherry, are not considered by the Govt of India to be based on the ~~line~~ true earnings of the comparative section.

(Calicut - Ottapalam)
unless the whole of the traffic there be incremental and unless the port of Tellicherry is likely to supersede that of Calicut and I am to invite your reply to this criticism.

(Sd/-) F. R. L.
21/8/94

Enclosures (Copy)

735 Rec of 7th Aug

Despatch No 42 + enclosure

No 7759

406 D of 20 June

Despatch
23/8/94

23RD MAY 1895, No. ³⁶⁵/_A R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

Proceedings of the Madras Government, Public Works Department, dated 21st November 1893, No. 1394 R.

Read also the following papers :—

From the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated 20th January 1894, No. 253 C.

In reply to No. 967 R.C. of 25th September 1893, I am directed to say that with regard to the line of railway (i) from Madras to Bezwada, this Government has already supported the proposals of Messrs. Kirby and Lonsdale to obtain this concession and does not therefore consider Mr. Gale's proposal should be entertained.

With regard to project (ii) it appears preferable that the line should start from Shoranur and for the present only run as far as Cochin. The Political and Revenue Departments have been asked to furnish the statistics of traffic over the line, but no reply has as yet been received. In order to avoid any further delay, the following financial forecast is embodied for the information of the Government of India.

In considering the financial prospects of the proposed line it is difficult to estimate what proportion of the existing traffic will be retained by the public road and back-water canals which follow more or less closely the alignment of the railway line.

For purposes of a general estimate, however, it may be assumed (since the conditions of trade, population, cultivation, and length in miles are in most respects similar) that the receipts based on an average of four half-years ending June 1891 on the section of the Madras Railway from Olavacode to Tanore, both stations inclusive (61 miles in length), will fairly represent the receipts to be expected over the length of the proposed line (60.74 miles). To these receipts must be added a percentage of 50 per cent. to cover the anticipated receipts and developments of land and sea-borne traffic from Cochin, Alleppy, and the wealthy tract of country southwards of these seaport towns. This computation is a low one, when it is considered that the receipts of the terminal station at Calicut alone amounts to Rs. 6,19,488, i.e., at 88 per cent. of the entire length of the 61 miles referred to above, or in other words nearly as much again.

	RS.
Total gross receipts for passengers and goods for 61 miles in one year	7,06,588
Add 50 per cent. to cover anticipated receipts from Cochin and expected seaborne traffic	3,53,294
Total gross receipts	10,59,882
Deduct working expenses at 60 per cent.	6,35,929
Total net receipts	4,23,953

which on an outlay of Rs. 1,10,23,812 yields a return of 3.85 per cent.

Of project (iii) from Calicut to Cannanore the increase of traffic on the Calicut extension affords reasonable grounds for believing that this branch would pay.

The following statement shows the gross receipts of coaching and goods inwards and outwards traffic of the Calicut extension :—

						Kadalundi.	Ferokeh	Kallai.	Calicut	Total.
Half-years.										
Half-year ending December 1888						Rs	Rs	Rs.	Rs.	Rs.
Do. June 1889	..	..				3,439	64,885			
Do. December ..	..	..				3,715	83,384	25,362	3,08,935	4,02,621
Do. June 1890	..	..				3,032	69,052	33,425	3,54,651	4,75,175
Do. December ..	..	..				2,990	64,798	40,753	3,21,345	4,34,182
Do. June 1891	..	..				2,978	38,308	34,205	3,26,893	4,28,886
Do. December ..	..	..				3,495	43,001	37,621	2,83,774	3,62,681
Do. June 1892	..	..				2,808	35,081	42,713	3,07,105	3,96,317
Do. December ..	..	..				3,819	59,283	42,379	2,67,710	3,47,978
Do. June 1893	..	..				3,962	57,672	52,899	4,15,078	6,31,079
Five years' gross earnings	..	..				5,187	59,031	66,571	3,02,441	4,30,646
Deduct 55 52 per cent.	..	..						52,144	3,52,892	4,69,034
Five years' net earnings	..	..				..	..	..	..	42,78,619
	..	..				..	..	..	..	23,75,489
	..	..				..	..	..	..	19,03,130

Working expenses percentage, half-year ending				December 1888	June 1889	December 1890	June 1891	December 1892	June 1893
Do.	do.	do.	do.	...	59.05				
Do.	do.	do.	do.	...	56.34				
Do.	do.	do.	do.	...	61.54				
Do.	do.	do.	do.	...	53.04				
Do.	do.	do.	do.	...	51.84				
Do.	do.	do.	do.	...	58.40				
Do.	do.	do.	do.	...	57.99				
Do.	do.	do.	do.	...	56.33				
Do.	do.	do.	do.	...	54.50				
				...	46.26				

	Total	10) 555 29
Rupees 19,03,130 gives 95·1 per cent.	...	55 52
Capital of 20 lakhs of rupees.	...	
Income however directed to call attention	...	
to road works for five years, or 19 per cent. per annum	...	

I am however directed to call attention to the very long time asked, viz., 18 months to make the survey and 18 months to form the company and complete financial operations. It is suggested that nine months should be ample time, and with this proviso I am to say the Madras Government supports the proposals for the concession to Mr. Gale to construct a line from Shoranur to Cochin and Calicut to Cannanore as it appears that the Madras Railway Company are prepared to assist him.

From the Under Secretary to the Government of India, Public Works Department
(Railway Construction), to the Joint Secretary to the Government of Madras,
Public Works Department, Railway Branch, dated Calcutta, 20th March
1894, No. 287 R.C.

I am directed to acknowledge the receipt of your letter No. 253 C., dated 20th January 1894, submitting an expression of the views of the Government of Madras on the proposals of Mr. Henry Gale for the construction by a company of a line of railway from Palghat station on the Madras Railway *via* Trichoor and Cochin to Quilon, and another line from Calicut to Cannanore on the Malabar Coast.

2. With regard to the first project, you say that it appears preferable that the line should start from Shoranur instead of from Palghat, and should for the present run only as far as Cochin.

It is observed that it is estimated that the net receipts on the proposed line will amount to about Rs. 4,23,953, which, on an outlay of Rs. 1,10,23,812, would yield a return of 3·85 per cent.

3. As regards the second project, you say that the increase of traffic on the Calicut extension of the Madras Railway affords reasonable grounds for believing that the proposed Calicut-Cannanore branch will pay.

4. In reply I am to say that Mr. Gale has been informed that the Government of India are inclined to consider the above two projects favourably, but that before granting a definite concession they would like to have further information as to the cost and prospects of the proposed lines.

5. In the meanwhile, I am to request that the Government of India may be furnished with any further particulars that may be available about these lines, and with the estimates of cost on which the traffic calculations referred to in paragraphs 2 and 3 above are based.

6. I am also to request that the Government of India may be furnished with an expression of opinion by the Madras Railway authorities on the prospects of each of the projects which, it is understood, they are prepared to assist by undertaking to work the lines when constructed and to grant a rebate on the traffic interchanged.

7. I am to add that since the receipt of your letter Mr. Gale has intimated that, as the state is about to commence the survey of the line from Calicut *via* Tellicherry to Cannanore and in the light of further information which he has obtained, he considers that the period of three years, which he asked for to enable him to make surveys and form a company, may be reduced to 18 months in each case. I am to enquire whether the survey referred to is being carried out.

From the Joint Secretary to the Government of Madras, Public Works Department,
Railway Branch, to the Secretary to the Government of India, Public Works
Department, dated 20th June 1894, No. 406 D.

In reply to your No. 287 R.C. of 20th March 1894, I am directed to forward copies of Nos. 5490/366 and 5490 W/380 of 10th and 16th May 1894 with enclosures from the Agent and Manager of the Madras Railway on the prospects of the Calicut-Cannanore and the Palghat or Shoranur-Cochin Railways.

2. An approximate plan and estimate has been made by levelling the road from Calicut to Tellicherry; the result being that the line Calicut to Tellicherry 43½ miles is estimated to cost Rs. 37,22,504 and Tellicherry to Cannanore 12 miles is estimated to cost Rs. 18,00,000 being a total of 55½ miles estimated to cost Rupees 55,22,504. The Traffic Manager bases his estimate of traffic on the actuals of the Madras Railway between Calicut and Ottapalam 61½ miles for the year ending June 1893; by reducing the receipts in the proportion of $\frac{55\frac{1}{2}}{61\frac{1}{2}}$ the amount is Rs. 12,73,000, and taking working expenses at 50 per cent. the result gives 11½ per cent. on the total capital. The Chief Engineer's estimate of 6·136 per cent. on the Tellicherry line only is not supported by any figures.

3. With regard to the prospects of the Shoranur-Cochin line the Agent and Manager refers again to his letter printed with G.O., No. 1967 R. of 13th August 1892.

4. This estimated return of 3.85 per cent. is, it may be noted, on the direct line between Palghat and Kurapatnam which the Agent and Manager in his letter of 16th May still considers preferable to the Shoranur route.

5. From recent surveys made by the Chief Engineer of Cochin, it is reported possible to avoid the tunnel costing 27 lakhs which the Madras Railway Chief Engineer considered necessary, but even with this reduction the distance from Palghat to Trichur would be 47 miles as against 42 miles by the direct route and although the double junctions at Shoranur and Olavacode will be expensive to work for through traffic, these objections are, it is considered, more than balanced by the difference in the estimated cost which is 42 miles at $1\frac{1}{2}$ lakhs per mile (omitting the tunnel) on the direct line and 18 miles at one lakh per mile from Shoranur, so that with much shorter construction length the connection can be made.

6. The Agent and Manager further recommends the extension to Quilon, and in this connection I am to remark that Ernakolam at the eastern side of the backwater would be the natural present terminus and that this has always been intended.

7. Taking, therefore, the two lines as costing about one lakh per mile and expenses at 50 per cent., they must earn Rs. 154 per mile per week to pay 4 per cent., and therefore carry 1,000 passengers and 211 tons goods daily at 2 annas and pies 10 rate, respectively.

8. The visible present traffic between Calicut and Tellicherry is only given at 2,000 tons per month, but the Collector reports the passenger traffic large, the population in the tract which the line would traverse being over 1,000 per square mile, whereas between Shoranur and Cochin 463 tons goods per week have been registered.

As the Madras Railway carry about 1,000 passengers and 500 tons goods daily one mile, the prospects seem encouraging.

9. I am further to say that, in reviewing the estimates of return on capital given by the Agent and Manager, Madras Railway, for the two lines under reference, His Excellency the Governor in Council is of opinion that they may possibly appear too sanguine, as these projected extensions will be parallel to the coast and therefore in competition with ocean steamers and canals. However, as the Collector points out, landing and shipping at the ports are always conducted with difficulty and expense while for four months of the year they are practically stopped, and also as the canal does not connect Tellicherry with Calicut, the competition is not likely to be serious; on the contrary the probability is that the railway would be preferred to either a sea or canal route.

On these grounds the proposals are very earnestly supported by His Excellency the Governor in Council.

10. His Excellency the Governor in Council would further point out that it would be much more economical to the State, if the Government or the Madras Railway undertook to raise the capital to construct the branches, as either party could easily raise the required amount at 3 per cent., and therefore the probable receipts in excess of this amount would be recouped by them instead of being diverted into the pockets of a third party.

11. It is believed that the Madras Railway Company desire to construct one, if not both branches themselves, as they are of opinion that the simple extension of an existing trunk line is better left in the hands of the original company than committed to a separate agency.

ENCLOSURES.

From the Agent and Manager, Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 10th May 1894, No. 5490/366.

With reference to your letters Nos. 763 and 1031 of the 5th and 30th March last, respectively, I have the honour to advise you of the completion of the rough reconnaissance of the proposed Calicut-Tellicherry railway and to enclose two copies of the plan and section of the route selected. I also send twelve copies of the approximate estimate of the cost of the line and a brief note containing particulars and information obtained in the course of the reconnaissance.

2. With regard to the prospects of the traffic in passengers and goods, I beg to enclose a copy of a letter of the 16th March last from the Traffic Manager on the subject. The Officiating Chief Engineer estimates the return that may be expected at 6.136 per cent. This is based on a statement of the earnings of the Calicut Extension recently prepared by the Chief Auditor for the information of the Board. It will be observed that the anticipated receipts according to the Traffic Manager's calculation gives a larger return than this. I have no reason to suppose that the traffic on the proposed extension will be less than that between Calicut and Ottapalam.

3. I shall be glad if you will request the Government of India to include this line in the list of those to be surveyed during the next cold weather survey operations.

4. With regard to the prospects of the Shoranur-Cochin line, kindly refer to this office letter No. 5490/364, dated 4th May 1892, printed with G.O. No. 1967, dated 13th August 1892.

From the Traffic Manager, to the Agent and Manager, Madras Railway, dated 16th March 1894, No. 1364/21618 A and M.

[West Coast Extension]

[Your No. 5490/1729 of 6th March 1894.]

The distance from Calicut to Cannanore would, I understand, be approximately 60 miles by railway and taking this mileage as a basis I have had the figures taken out for the West Coast Section of the Madras Railway for a similar distance from Calicut for the year ending 30th June 1893.

The figures up to Ottapalam inclusive have been taken (distance 61½ miles) and the proportion for the additional 1½ miles subsequently deducted.

The total receipts for the Madras Railway Section under notice are Rs. 14,10,665, less proportion for 1½ miles Rs. 34,406, and I think these receipts may be taken as a very fair estimate of the traffic which might be expected between Calicut and Cannanore.

Inclusive of Calicut there are thirteen stations on the section from which these receipts are taken. On the line from Calicut to Cannanore there would be the important stations of Quilandi, Badakari, Tellicherry and Cannanore, but in addition to these we should have the choice of at least twelve village sites quite equal to if not more promising than our own intermediate stations at which to open additional stations between Calicut and Cannanore.

These details are shown in a report which was made by the Traffic Canvasser of this Department in May 1889.

BRIEF-NOTE on the Proposed Railway from Calicut to Tellicherry.

General Alignment—The reconnaissance of the country between Calicut and Tellicherry undertaken in January 1894, consisted of a traverse and a line of levels along the public road, which the proposed railway would closely follow, as shown in the index plan and section attached. Throughout the total length of 43½ miles the road runs along the coast and is therefore fairly level, except at the 29th, 34th and 40th miles, where it surmounts the hilly spurs which project down to the coast with grades of 1 in 20. Here more favourable routes were secured by the investigation of alternative lines a little further inland, as shown in green on the section, and although these will involve deep cuttings, a ruling gradient of 1 in 150 can be obtained with curves of a minimum radius of 2,800 feet.

2. *Description of Country and Towns*.—Except through the town of Calicut, where the line can be located so as to avoid important buildings, the country traversed is flat and level up to 8 miles, and then consists of slightly undulating tracts up to 25 miles. Between 26 and 31 miles, 33½ and 35½ miles, and 27 and 40 miles, the country is distinctly hilly and will entail heavy earthwork, while the remaining portion is level up to the terminus at Tellicherry (43½ miles).

The alignment falls throughout in British territory except between 37½ and 38½ miles, where it traverses the French settlement of Mahé.

The principal towns which the line will accommodate are West Hill (3 miles), Alatar (6 miles), Quilandi (15 miles), Buddagara (30 miles), Mahé (38 miles) and Tellicherry (43½ miles). The whole route is thickly populated, and the land to a great extent is under wet cultivation and covered with cocoanut plantations and gardens. The average value per acre is said to be Rs. 450.

3. *Waterway*—In addition to the ordinary drainage, requiring about 50 minor bridges varying in span from 6 to 20 feet, the following rivers and canals have to be crossed:—

Korai river	...	...	...	...	8½ miles—Waterway	750 feet.
Kottai do.	...	...	...	...	26½ "	400 "
Mahé do.	...	...	...	...	34 "	550 "
Karumpana canal	...	...	...	...	29 "	30 "

The three large rivers (tidal) are not bridged, but provided with ferries; so it may be assumed that the Local District Board will contribute to the cost of adapting the railway bridges for cart traffic as they have done in the case of the Perôk and Kallai rivers on the Madras Railway immediately south of Calicut.

4. *Approximate estimate*.—Attached is an approximate estimate framed in the usual form in which the main details are given, inclusive of the value of land and provision for rolling stock.

The estimate (for 5' 6" gauge) has been based on the standard adopted on the Madras Railway in regard to the accommodation at stations and general equipment, and the type of bridges

constructed at Ferôk and Kallai has been adhered to. The approximate estimated cost for the 43½ miles works out to Rs 37,22,504 or Rs 85,575 per mile, and the anticipated receipts should yield 6 136 per cent. on this outlay, judging from results on the Calicut extension.

5. *Extension to Cannanore.*—The present reconnaissance ended at Tellicherry, but the extension to Cannanore, a further distance of 12 miles, would be proportionately more costly, as three large rivers have to be bridged on this short length. The approximate estimate for this extension may be taken at Rs. 18,00,000 or Rs. 1,50,000 per mile.

6. *Staff employed*—The survey under review was conducted by Engineering Assistant J. E. Dalgairns and Surveyor V. A. Arputham Moodelly, and completed in six weeks. It included the investigation of 44 miles of alternative routes and deviations, which were surveyed and levelled in addition to the traverse and section (with check levels) obtained of the 43½ miles of public road, along which permanent bench marks have been recorded at suitable points. The information and results now submitted have been acquired under the sanctioned allotment of Rs 700. A larger plan plotted to a scale of 400 feet to an inch and a section to correspond have been prepared, and tracings of these will be furnished when the requisite staff can be spared from pressing current duties in the drawing office.

7th May 1894.

(Signed) H. C. WEST,
Offg. Chief Engineer.

PROPOSED Calicut-Tellicherry Railway (5' 6" gauge).

Approximate estimate.

Heads of account	Total cost in rupees				Notes
	Sub-heads		Main heads		
	Total cost	Rate per mile	Total cost	Rate per mile	
I—Preliminary expenses ..	Rs ..	Rs ..	Rs 700	Rs. 16	Cost of reconnaissance
1 Survey expenses ..	700	16	..	..	
2. Plant ..	..	..	..	..	
3. Establishment ..	..	..	..	..	Earthwork—For 39½ miles. Average height of bank 4 feet, cutting 6 feet in soft sandy clay soil, and average depth in cutting of rocky laterite 17 feet
II—Land ..	2,50,000	5,747	2,50,000	5,747	
III—Formation ..	..	..	4,40,000	10,115	
1. Earthwork ..	2,29,294	5,805	..	..	For four miles only For two miles only
2 Cutting laterite ..	2,00,706	50,177	..	..	
3 Road diversion ..	10,000	5,000	..	..	
IV—Bridge work ..	..	..	12,98,864	29,859	Three large bridges 750, 400 and 550 lineal feet, adapted for cart traffic at Rs 700 per lineal foot
1. Large bridges ..	11,90,000	27,356	..	..	
2 Minor do. ..	1,08,864	2,503	..	..	
V—Fencing ..	..	..	1,62,472	3,735	Fencing—Wire fencing has been provided throughout the line including gate-keeper's lodge
1. Fencing ..	1,53,120	3,520	..	..	
2 Road crossings ..	8,492	195	..	..	
3 Mile and gradient posts ..	860	20	..	..	It is assumed that Government will construct the line of telegraph, and the necessary instruments at stations only have been provided for.
VI—Electric telegraph ..	14,790	340	14,790	340	
VII—Ballast and permanent way ..	..	..	11,25,553	25,875	
1 Ballast ..	1,84,213	4,235	..	..	Ballast consists of fine laterite and sand. Permanent way to be 30 feet bull-headed rails on C I. Pot sleepers, landed at Calicut.
2 Permanent way ..	9,41,340	21,640	..	..	
VIII—Stations and buildings ..	..	..	2,04,000	4,690	
1 Stations and offices ..	2,04,000	4,690	..	..	First class station (Rs 1,30,000) at Tellicherry with requisite buildings, engine, carriage and goods sheds of half the standard length, staff quarters, engine turn-table, and water tank. Two second-class stations at Rs 22,000 each. Three third-class at Rs. 10,000 each.
2 Staff quarters ..					
3. Station machinery ..					
4 Workshop, store buildings, &c ..					

Approximate estimate—cont.

Heads of account	Total cost in rupees				Notes.
	Sub heads		Main heads		
	Total cost.	Rate per mile	Total cost.	Rate per mile	
	RS	RS	RS	RS	
IX —Plant	..	..	76,125	1,750	
1 Engineering ..	76,125	1,750	..	..	
2 Locomotive ..			..	..	
3. Carriage and wagon.			..	..	
4 Station and office furniture			..	..	
X —Ferries, &c ..	..	..	..	..	
1 Ferries ..	..	..	..	..	
2 Floating bridges ..	..	..	3,00,000	6,896	
XI —Rolling stock ..	..	..	..	..	
1. Locomotive ..	3,00,000	6,896	..	..	
2 Carriage and wagon.			50,000	1,149	
XII —General charges ..	..	..	..	..	
1 Direction ..	50,000	1,149	..	..	
2. Engineering ..			..	..	
3 Stores ..			..	..	
4 Audit and accounts.			..	..	
5 Medical and sanitation			..	..	
Total expenditure ..	..	..	39,22,504	..	Assumed contribution from District Board for adapting three large bridges for cart traffic
Deduct ..	..	..	2,00,000	..	
Total ..	..	..	37,22,504	..	
Length in miles ..	..	..	43 5	..	
Total rate per mile .	..	..	85,575	..	

(Signed) H. C. WEST,
Offg. Chief Engineer.

7th May 1894.

From the Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 16th May 1894, No. 5490 W—380.

With reference to paragraph 6 of the letter from the Government of India, dated 20th March last, forwarded with your letter No. 1031, I have the honour to inform you that I have been authorised by my Board to say that this company will be prepared to work the proposed lines of railway from Calicut to Tellicherry (and Cannanore) and from Shoranur to Cochin, when they are constructed and to grant a rebate on the traffic interchanged as laid down in Government of India Circular No. 924 R.C. of the 15th September 1893.

With regard to the last-named line, I consider the railway ought to follow the trade route, and should start from Palghat and be continued to Quilon, where it should connect with the South Indian Railway.

From the Officiating Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 7th August 1894, No. 735 R.C.

I am directed to acknowledge the receipt of your letter No. 406 D, dated 20th June 1894, forwarding a copy of two letters from the Agent and Manager of the Madras Railway Company, No. 5490/366, dated 10th May 1894, and No. 5490/380, dated 16th May 1894, the former reporting on the traffic prospects of the proposed Calicut-Cannanore and Palghat or Shoranur-Cochin Railways, and the latter stating that the Madras Railway Company will be prepared to work these lines when constructed and grant a rebate on the traffic interchanged as laid down in Government of India Resolution No. 924 R.C., dated 15th September 1893.

2 You state that the proposals for the construction of these lines are earnestly supported by His Excellency the Governor of Madras in Council, and that it

would be much more economical to the State if the Government or the Madras Railway Company undertook to raise the necessary capital for them. Also that it is believed that the Madras Railway Company desires to construct one if not both branches itself.

3. In reply, I am to enclose for information a copy of a despatch * from the Secretary of State forwarding a proposal by the Directors of the Madras Railway Company for the construction as part of

* No. 42, Railway, dated 3rd May 1894. their system of the line from Calicut to Tellicherry and Cannanore; and to inform you that it has been determined to carry out this cold weather the survey of this line, as well as of the line from Shoranur to Cochin.

4. I am accordingly to request that, with the permission of His Excellency the Governor in Council, you will obtain from the Madras Railway Company an estimate of the cost of a detailed survey of these lines, in view to the preparation of an approximate estimate of their cost, such as is defined in the rules for the preparation of railway projects (enclosure to this office Circular No. 7, Railway, dated 9th October 1893).

5. With reference to the proposal of the Madras Railway Company to raise the capital for the Calicut-Cannanore line by—

- (a) the issue of sterling debentures in England to meet the cost of permanent way, rolling stock, &c., and
- (b) the issue of 4 per cent. silver debentures in India under the guarantee of the Government of India to meet the cost of labour and materials in India,

I am to request, having regard to the difficulty that exists in raising funds either in sterling or in silver, that the Government of Madras will consider carefully whether the proposed line to Cannanore should be preferred to others, which the Madras Railway Company may propose for construction in connection with the development of its system.

6. As regards the prospects of traffic on the proposed extension, it is observed that the total receipts for the section, Calicut to Ottapalam inclusive, are taken as a very fair estimate of the traffic, which may be expected between Calicut and Cannanore.

These receipts, I am to point out, represent the total outwards and inwards traffic on the section, which include the earnings for the carriage over long distances of the main line, and consequently it does not seem reasonable to assume that these receipts represent the true earnings of the Calicut-Ottapalam section, unless it can be shown that the whole of the traffic is incremental to that on the main line and that it has been obtained by the construction of the section in question. Neither does it appear reasonable to apply these receipts for purposes of comparison to the Calicut-Tellicherry extension, unless it is assumed that almost the whole of the sea-borne trade of Calicut will be transferred to Tellicherry, whereby the rail carriage of the goods will be increased by 43½ miles. This assumption could only be made if Tellicherry were a far superior port to Calicut, which does not appear to be the case.

ENCLOSURES.

Despatch from the Right Honourable Her Majesty's Secretary of State for India, to His Excellency the Right Honourable the Governor-General of India in Council, dated India Office, London, 3rd May 1894, No. 42 R.

[Proposed construction by the Madras Railway Company of a line of Railway from Calicut to Tellicherry and Cannanore.]

I transmit, herewith, for your Excellency's information, copy of a letter † from the Directors of the Madras Railway Company proposing that the Company should construct as part of their system a line of railway from Calicut to

† No. 7759 of 19th March 1894

Tellicherry and Cannanore, being one of the lines proposed by Mr. H. Gale in his letter of the 30th June 1893, copy of which was forwarded to your Government with Lord Kimberley's Railway Despatch No. 66 of the 20th July 1893.

2. The arrangement proposed by the Directors of the Madras Railway Company for raising the necessary funds for the proposed line is similar in principle to the suggestions which were transmitted to you for consideration by Lord Kimberley's Railway Despatch No. 102 of the 23rd November 1893, respecting which an expression of your views is still awaited.

3. In the existing conditions of Indian finance it is clearly desirable that any possible extension of Indian railways, by other than gold operations, should be encouraged by your Government, and I am prepared, therefore, if you see no objection, to negotiate with the Company for the suggested extension of their system on the basis of a silver loan issued in India on learning that the project is, in your opinion, a desirable one.

From the Secretary, Madras Railway Company, to the Under Secretary of State for India, 61, New Broad Street, London, E.C., dated 19th March 1894, No. 7759.

Proposals for the extension of the Madras Railway system by this Company having been declined or put aside by the Indian Government, the Board of the Madras Railway Company are prepared to afford assistance and encouragement to other agencies for railway extensions in Southern India; and Mr. Gale, a professional gentleman of high character, formerly connected with the Madras Railway, and well informed in such matters, has, as the Secretary of State is aware, submitted proposals to the Government of India for the construction of certain standard gauge lines in close connection with the Madras Railway, and is engaged in forming syndicates and endeavouring to raise money for the purpose.

2. It is premature to judge of the probable success of the endeavours to float railway projects in India by private agency under the more liberal terms recently offered by the Government of India; but, having regard to the continued stringency of the money market, and the reluctance of the public to risk the investment of money in foreign undertakings of any sort, the difficulties of promoters are no doubt very serious, and their operations must necessarily be slow.

3. The Board believe that for many obvious reasons the simple extension of an existing trunk line is better left in the hands of the original Company than committed for construction to a new and separate agency. One, at least, of the railways proposed by Mr. Gale could certainly, they think, be more economically undertaken by this Company than by any other agency, and be constructed and worked as part of the Madras Railway system in the best interests of the State.

4. This is the proposed extension along the western coast from Calicut to Tellicherry and Cannanore, a distance of between 50 and 60 miles. It is understood that a reconnaissance of this line is already in progress, and that a survey will probably follow under the sanction of the Madras Government. When the results of this survey are known, the Board will be able to speak more confidently of the cost of the undertaking, and as to the prospects of the traffic both in passengers and goods.

5. The character of the country and the engineering requirements are, it is believed, very similar to those affecting the recent extension of this Company's system of nine miles, from Beypore to Calicut, on the same coast, which was completed in 1888.

6. The results of the working of that extension, notwithstanding its heavy cost (Rs. 20 lakhs), afford grounds for the belief that the proposed undertaking would be a financial success. The volume of trade between Calicut and Tellicherry is described by all who are acquainted with the locality—both Government officers and others—as being something extraordinary, and it is believed by the officers of this Company that the traffic of the line will exceed that of the Calicut extension.

7. In regard to the provision of funds for the new undertaking, the Board apprehend that the Secretary of State will be averse, in the present state of the finances, to sanction the issue of sterling debentures in this country to any considerable amount, though the Board would probably find no difficulty in placing whatever amount will be required at, say, 3½ per cent. They have ascertained, however, from their legal advisers, that there is nothing in the deed of settlement or in the Acts of Parliament of the Madras Railway Company which prevents them from raising a loan with the sanction of the Secretary of State, either in rupees in India or in sterling in England, or partly the one and partly the other, provided the amount, together with any loans now outstanding, does not exceed the proportion prescribed by the Act of the subscribed capital of the Company.

8. The Board are not yet in a position to state whether or not the placing of silver debentures in India is practicable to any great extent, but they are hopeful that it will be found possible to effect the issue of a moderate amount of these debentures at, say, 4 per cent., the principal and interest being guaranteed by the Indian Government.

9. The most economical arrangement would probably be—as avoiding all questions of exchange—to obtain the amount which is required for the provision of permanent-way, rolling-stock, and other necessary materials to be supplied from England, by the issue of sterling debentures in this country, and to provide for the payment of salaries, wages, labour, local materials, and other matters by the money obtained by silver debentures in India.

Sixth and Final Meeting, held in Council Chamber at 2.15 P.M. on Thursday, June 18, 1896.

All Members present.

360. *Resolved* that the Minutes as recorded be confirmed.

361. The printed proof of the report was revised and finally passed.

362. *Resolved* that the memorandums handed in by Mr. MacBride and Mr. Hodson, together with correspondence with the Hon. the Government Agent of the Western Province, be printed as appendices to the report.

Meeting closed at 4.45 P.M.

T. A. WYLIE,
Secretary.

APPENDIX B.

Schedule of Rates for the Construction of certain Buildings erected by the Public Works Department in Colombo.

		Rs.	c.	
Museum	Cost per superficial foot ...	8	23	Ground floor and one storey
	Cost per cubic foot ...	0	22½	
Custom House	Cost per superficial foot ...	11	42	Ground floor and two storeys
	Cost per cubic foot ...	0	24½	
Surveyor General's Office	Cost per superficial foot ...	7	38	Ground floor and one storey
	Cost per cubic foot ...	0	22	
New Post Office	Cost per superficial foot ...	6	19	Part two storeys, part one storey, and ground floor
	Cost per cubic foot ...	0	24½	

Filling from Galle Buck.

Cost Rs. 2 per cube = 54 cents per cubic yard.

Colombo, June 17, 1896.

R. K. MACBRIDE

APPENDIX C.

Notes on Plan No. H.85 of Beira Station.

1. The platforms are only 15 ft. wide: it is desirable to make them at least 20 ft. wide, or even more if practicable.

2. The distance from the pillars of the staircases to the edge of the platforms is apparently only about 4½ ft.; it ought to be at least 6 ft.

3. The tracks are only about 12 ft. apart centre to centre. I would strongly recommend that this be increased to 14 ft. at least, or more if practicable. This is the minimum spacing that has ever been allowed on Indian State Railways (broad gauge), and has now increased to 15 ft. 6 in., and indeed 16 ft. is usually adopted if possible.

4. No turn-outs should, so far as practicable, be sharper than 12 chains (792 ft.) radius. This is the minimum allowed on Indian State Railways, and anything sharper necessitates the use of a special class of engines.

5. The platforms should be capable of extension to 700 ft. long, without requiring the yard to be altered. But it would probably not be necessary to build them more than 550 ft. long at first, nor to cover more than 500 ft. long.

6. The plan shows a large number of facing points: these should be eliminated so far as possible. Facing points are doubtless unavoidable where, as in this arrangement, an up or a down line divides into two or more lines for trains going in the same direction, but they should not be permitted for any other cause. Cross-overs between lines of opposite direction should invariably be laid trailing, even if this seems to involve some inconvenience in shunting.

7. Sufficient room should be allowed to admit of treadle bars or facing point locks being put in if found necessary; and for trap switches to prevent engines or vehicles on side lines fouling the main line against signals.

8. I think a third line for the use of light engines going to and fro between the shed and the central station would be a great convenience, but it cannot be said to be absolutely necessary, provided that (as recommended in paragraph 10 (2) of the Commission's report) the only connection between the locomotive yard and the traffic lines be within the limits of Maradana Junction station, and that it be interlocked with the signals under the control of the Station Master, and be trapped to prevent the possibility of an engine fouling the main line in disregard of those signals.

9. One or two lie-byes should be provided to enable engines to stand out of the way, after detaching from an arrival train, till it is convenient to let them go off to shed or *vice versa*. Such should invariably be trapped and interlocked with signals, and engines coming in light from the shed should invariably be received in these and not allowed to stand in the main yard.

10. The dead ends shown on the promontory near the lime-kilns are objectionable, being too much curved. They should be made as straight as possible, and the gathering lines both here and at the Maradana gridiron should be made as nearly straight as it is possible to do.

11. The two entrances to the Wharf and Harbour lines should not be brought direct into the main lines used for passenger trains, but into a spare line parallel thereto, and connected with the through lines of the station yard by a cross-over suitably protected by interlocked signals and trapped. Provision should, however, be made for a more direct connection being hereafter arranged, with a completely interlocked junction, in the event of the Wharf lines being some day used for suburban passenger traffic.

12. I think two spare lines should be provided, instead of the one shown between the two island platforms. This would enable goods or stone trains to pass through the yard on their proper lines, and without stopping or interfering with trains standing at the platforms. It would also facilitate engine shunting.

13. Economy could be attained by only roofing the platforms, and providing cantilevers to cover say 8 or 9 ft. over the nearest track on each side of the platform, leaving the central lines uncovered.

14. Economy could also be attained by providing a large shed, open at the sides, at one end of the building, for the accommodation of third class passengers, instead of providing an enclosed hall in the body of the building as shown in the plan. The latter is rather small if it is to take the passenger traffic that now goes to the Pettah station, but the former could be made double the area at much less cost, and would, moreover, be capable of further extensions if required. In this case a separate arrangement might have to be made for the convenience of third class season ticket holders.

15. It would be well to submit the plan, when decided upon, to an interlocking expert, as he will probably find difficulties which it would be well to avoid, and regarding which he would probably be able to make valuable suggestions. The two best men I know in India for this purpose are Mr. A. Morse, Executive Engineer, North-Western Railway, at Lahore, and Mr. Storey of the Madras Railway. But, of course, the Consulting Engineers in England would be able to get plenty of professional opinion from Saxby and Farmer or other competent experts in England, but this might cause delay.

Colombo, June 17, 1896.

C. W. HODSON, M.I.C.E.

61-96

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BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	114	R	1-3-95				

FURTHER PAPERS.

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

7TH MAY 1895, No. 336 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper:—

G.O , dated 1st March 1895, No. 114 R., Public Works.

Read the following paper :—

From the Agent and Manager, Madras Railway, to the Consulting Engineer for Railways, dated Madras, 2nd February 1895, No. 5490/109 W.

I have the honour to submit herewith, for the information of the Government, a copy of a letter from the Chief Engineer, No. C/90, dated the 29th ultimo, on the subject of the new alignment of the proposed Shoranur-Cochin Railway, which it was decided should be adopted at the final survey at a meeting of the Travancore and Cochin officials held at the Residency, Trichur, on the 22nd January last. A copy of the minutes recorded at the meeting as well as a tracing showing the old and the new alignments are also enclosed. According to the new alignment, which meets with the wishes of both the Native States, the length of the proposed line is increased from 61 to 72 miles and a revised estimate prepared on this basis will shortly be submitted.

I have asked the Traffic Manager to prepare a report on the traffic prospects of the line from Shoranur to Trichur as well as from Pattambi.

ENCLOSURES.

From the Chief Engineer, Madras Railway, to the Agent and Manager, Madras Railway, dated
Madras, 29th January 1895, No C/90.

[*Shoranur-Cochin Railway*]

I beg to advise you that on the 22nd January 1895 the Resident of Travancore and Cochin was good enough to convene a meeting at Trichur at which were present—

Mr. H. B. Grigg, C.I.E., Resident of Travancore and Cochin.

Mr. H. B. Grigg, C.I.E., Resident of Travancore and
M.R. Rev. V. Subramania Pillai, Dewan of Cochin.

M R Ry. V. Subramania Pillai, Dewan of Cochin.
M R Ry. T Raja Rama Row, Dewan Peshcar of Kottayam, Representative of Travancore.

M. R. R. y. T. Raja Rama Row, Dewan Peishcar of Kottayam, Rep.
Mr. H. W. Hudson, Chief Engineer to the Cochin Government.

Mr. H. W. Hudson, Chief Engineer to the Cochin
Mr. H. C. West, Chief Engineer, Madras Railway.

Mr. H. C. West, Chief Engineer, Madras Railway.
Mr. A. B. Strange, Executive Engineer in charge of the Shoranur-Cochin Survey.

Mr. A. B. Strange, Executive Engineer in charge of the Shoranur-Cochin Survey.

2. The object of the meeting was to consider the relative merits of previously proposed extensions of the Railway to Cochin and to decide upon the best route which the survey now in progress should follow south of Trichur with a view to meet the requirements of both the Native States through which the line would pass and to fix the towns at which stations should be provided.

3. It was unanimously agreed that the point of departure on the Madras Railway should be at a point about $1\frac{1}{2}$ miles east of Shoranur station, as the gradients, curves and general configuration of the country rendered this site specially suitable for a junction station and would secure a very favourable crossing of the Ponnáni river about $\frac{1}{4}$ of a mile above the existing road bridge. It may be probably necessary to transfer the present Shoranur station to the new site ultimately.

4 The alternative proposal to make Pattambi station the point of departure was considered, but was not approved of by either the Resident or the Dewan of Cochin, as the country between this point and Tichur, although to a great extent free of hills, offered such meagre prospects of

traffic. The ground also at each side of Pattambi station has been examined, and it is found that no suitable site for a junction station could be obtained owing to the low level of the land, the difficulty of securing a favourable crossing of the Ponnani river, and the increased mileage from Madras which a junction here would involve.

5. It was also agreed that a line passing through the undermentioned towns (*vide* accompanying map) would best serve the interests of the railway as well as those of the Travancore and Cochin territories and meet with the sympathy and support of the Governments of both States:—

	Distance from Shoranur	MILES.
(1) Mulakaray	...	5
(2) Wadakanberry	...	8
(3) Mularthankavu	...	14
(4) Trichur	...	20
(5) Eddakunni	...	24
(6) Poodukad	...	29
(7) Ahtur	...	36
(8) Shalakudi	...	40
(9) Kodakulamkaray	...	47
(10) Chengal (ferry)	...	53
(11) Perambalur	...	56
(12) Keelamaad (for Alwaye)	...	62
(13) Eddapally	...	69
(14) Ernakulam (Cochin)	...	72

6. It will be observed that this route differs materially from any line previously surveyed or recommended; it occupies a position further inland than the more direct line to Cochin hitherto advocated and is consequently 72 miles in length as compared with the 62 miles on which the previous estimate submitted for the survey was based. It is desirable here to explain that any line of railway from Shoranur to Cochin must of necessity pass through a large area of Travancore as well as of Cochin, and it would appear that the interests of the former State had not been sufficiently consulted in the alignment followed when the preliminary survey was undertaken in 1871.

7. This point has been satisfactorily settled at the present meeting, and the final location of the line along the revised route indicated on the map will now be carried out during the survey in progress as far as funds will permit. This alignment has been carefully considered with due regard to the most important trade centres and is unquestionably best suited to the altered conditions of the country since the first preliminary survey was undertaken in 1871, or over twenty-four years ago. Owing to the opening out of additional roads, the extension of cultivated area and the general development of traffic in grain and forest produce, the route from all aspects. The detour eastwards in one place, commends itself as the most favourable to avoid traversing the isolated tract of Cochin territory between that town and Alwaye and thus obviate the difficulties in connection with custom dues, but it will accommodate the extensive timber traffic from the north-east portion of Travancore.

8. From an engineering point of view also this alignment possesses many advantages as it avoids the crossing of the large rivers near their mouths where they widen out and fall into the estuaries or backwaters which exist all along the coast. The bridging of these large streams at favourable points more inland will thus be secured, and the stations having been fixed at towns where existing roads meet, it is anticipated that competition from carriage by backwater will thus be averted. The country moreover is not difficult except for a short portion between Shoranur and Trichur and the adoption of this route will, it is hoped, result in economy of construction.

9. The officials present at the meeting approved of the proposal that the bridges over all large rivers should be so designed that they could be easily adapted for cart traffic and foot passengers if found necessary at any time after the opening of the railway, in which case tolls would be levied by the railway in lieu of any contribution being demanded from the States towards the cost of the structures.

10. Attention is here invited to the fact that the alignment now decided upon does not, except for a short length near Trichur, follow any route hitherto investigated by any preliminary survey, and it is evident that the cost of finally locating a line under these conditions must of necessity be costly compared with a route the general direction and particulars of which have been already determined by a preliminary survey. It is proposed therefore to shortly submit a revised estimate for completing a final survey of the Shoranur-Cochin Railway now

increased in length from 61 to 72 miles, and as both the Travancore and Cochin sircars appear anxious for the early construction of the line, it is hoped that funds will be sanctioned to retain the present survey staff to enable the plans and estimates for the complete project to be prepared.

11. I enclose a statement of the minutes recorded at the meeting held at Trichur on the 22nd January 1895 on which the information furnished in the present report has been based.

NOTES of discussion of a meeting held at the Residency, Trichur, regarding the extension of the Madras Railway to Ernakulam *via* Trichur.

Present.

H. C. West, Esq., Chief Engineer, Madras Railway.
A. B. Strange, Esq., Executive Engineer in charge of the Survey.
M.R.Ry. V. Subramania Pillai, Dewan of Cochin.
M.R.Ry. T. Raja Rama Row, Dewan Peishcar of Cottayam, as Representative of Travancore.
H. W. Hudson, Esq., Chief Engineer, Cochin.
H. B. Grigg, Esq., British Resident in Travancore and Cochin.

Note (1).—The unanimous opinion of the meeting was in favour of Shoranur as the point of departure.

Mr. West informed the meeting that all large bridges will be constructed so as to be adapted for foot passengers and traffic on payment of toll to be fixed by the Railway authorities and that no demand will be made on the States for any contribution towards the outlay for constructing these bridges.

Note (2).—The Shoranur route, as proposed by the Madras Railway, approved.

Note (3).—If portions of the public road are taken up for the railway, the Railway authorities will bear cost of construction of road diversions on fresh sites. States would be consulted.

II. Stations between Shoranur and Trichur to be at—

- (1) The Mulakaray toll-gate, 5 miles from Shoranur.
- (2) Wadakanberry, 8 miles from Shoranur.
- (3) A place 6 miles from Trichur (Mularthankavu).

III. Unanimously agreed that the station (Trichur) should be near the canal basin on the nearest spot to it where ample land is available.

IV. Line from Trichur to Ernakulam station—

	Distance from Trichur.	MILES.
(1) Eddakunni at crossing of roads serves Ullur and Ooragore	...	4
(2) Poodukad	...	5
(3) Ahtur serves Mala (at present) and Irinjalakudu	...	7
(4) Shalakudi	...	4
(5) Kodakulamkaray	...	7
(6) Chengal ferry to serve river traffic, more especially timber	...	6
(7) Perambalur to serve North-east Travancore traffic	...	3
(8) Keelamaad to serve Alwaye and Valankulam	...	6
(9) Eddapally	...	7
(10) Ernakulam	...	3
Total	...	52

Intermediate distance.

V. Agreed unanimously that the above line will best serve the interests and elicit the sympathy of both States and that so soon as the trade from Mala to line at Ahtur justifies the expenditure a branch should be run to the backwater at that point.

Ernakulam station to be opposite to Bolghatty. Passengers and goods to be discharged on waters edge and station to be inland behind Anjikalim Court-house and Jews' quarter so as not to disturb the Jews or interfere with the Court buildings or the station can be placed on north of the jail on land that can be reclaimed.

(Signed) H. B. GRIGG.
(") H. C. WEST.

TRICHUR,
22nd January 1895.

I would note here that the station proposed to be placed at Kodakulamkaray may perhaps, with greater convenience to the public, be located at Anjimallee which is not far distant.

(Signed) H. B. GRIGG.

Order—dated 1st March 1895, No. 114 R., Public Works.

A revised plan showing the proposed route of the railway now being surveyed between the Madras Railway and Cochin will be forwarded to the Resident in Travancore and Cochin who will obtain the views of the two Durbars as to the relative merits of Pattambi and Shoranur as the junction station with the Madras Railway. Full explanation should also be obtained from the Durbars of the advantages which are expected to accrue from the deviation towards Perambalur which adds 10 miles to the length of the line and avoids Alwaye altogether. It should further be pointed out that if the collection of dues is the only reason for the deviation, the difficulty can be avoided by having no station between Kodakulandai and Alwaye. His Excellency the Governor in Council observes that the present alignment is carried more inland than was the case in the survey of 1871 and that no particular reasons are given for such a great deviation. If, however, the new route is supported by both Durbars, no objection will be raised to their recommendations.

(True Extract.)

(Signed) A. D. G. SHELLEY, Captain, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following paper:—

From H. B. GRIGG, Esq., M.A., C.I.E., Resident in Travancore and Cochin, to the Chief Secretary to Government, dated Cochin, 3rd April 1895, Ref. on Circuit No. 17.

With reference to G.O., No. 114 R., dated 1st March 1895, I have the honour to submit herewith, for the information of Government, copies of letters from the Dewans of Travancore and Cochin, Nos. 1048/P.W. and 627/P. 81 of the 24th idem and the 2nd instant, respectively, containing their views on the proposed route of the railway now being surveyed between the Madras Railway and Cochin. With reference to the concluding portion of the letter from the Dewan of Cochin, I beg to add that I am addressing an urgent communication to the Chairman of the Chamber of Commerce of British Cochin in order to obtain the views of that body as suggested by the Dewan and I shall submit the same as soon as received.

I regret that I have not been able to reply to the Government Order above quoted earlier, as the Dewan of Cochin did not answer my reference to him on the subject until this morning.

The tracing received with the Government Order is herewith returned.

ENCLOSURES

From the Dewan of Travancore, to the British Resident in Travancore and Cochin, dated Trivandrum, 24th March 1895, No. 1048 P.W.

I have the honour to acknowledge your letter, Ref. on C. No. 856, dated the 10th instant, with enclosures, received here on the 16th instant and your telegram of the 22nd idem.

With regard to the starting point of the railway, viz., whether it should be Shoranur or Pattambi and its course up to Trichur, His Highness' Government have hardly any remarks to offer. They, however, observe from the Chief Engineer's letter to the Agent and Manager, Madras Railway, which forms one of the enclosures to your letter, that Shoranur has far greater facilities for a junction station than Pattambi and that the prospects of traffic on the Pattambi route are very meagre.

In respect of the line this side of Trichur, it seems to me that there can be no difference of opinion in regard to the desirability of avoiding competition with the cheap backwater communication along the coast and at the same time serving the inland traffic of the country. The interior taluks of North Travancore, as you observe in paragraph 65 of your review of the administration report for 1068, abound in rich soil and steps are now being taken to open them out. A northern railway, such as the one proposed to be of any real benefit to this State, should be within easy reach of those taluks if it does not traverse them. Perambalur, situated in the Proverthi of the same name, containing a population of over 14,000 forms the head-quarters of the Kunnathnad taluk and is the principal outlet for the trade of that taluk and the neighbouring

taluks of Thodupuzha and Muvattapuzha and the carrying of the railway to Perambalur or not far away from it would, besides serving the best interests of traffic, conduce materially to the further development of the country. Among the stations proposed, there is one at Keelamad, a village about two miles to the south-east of Alwaye, and this would serve the traffic of the latter place and Vallacolum.

Under the circumstances set forth, His Highness the Maharaja's Government are of opinion that the interests of this State would be best served by the line resolved on at the meeting of the 22nd January irrespective of the questions of the collection of customs dues, and I request you will kindly move the Madras Government in view to obtain their final approval of this line which, besides being beneficial to both the Native States concerned, is preferred by the Chief Engineer of the Madras Railway on account of the many advantages it possesses in an engineering point of view.

I have not received the plan referred to in the order of the Madras Government

From the Dewan of Cochin, to the British Resident in Travancore and Cochin, dated Ernakulam, 2nd April 1895, No. 627/P-81.

With reference to your letter, Ref. on C. No. 856 of the 10th March 1895, I have the honour to forward a copy of Mr. Hudson's letter, dated 25th March 1895.

2. This Government would prefer Shoranur to Pattambi as the junction station with the Madras Railway, because though the distance between each of these places and Trichur would be about the same, yet the principal traffic in passengers and goods on the proposed Cochin Railway would be to and from places east of Shoranur and the adoption of the Pattambi route would involve the unnecessary carrying of this traffic over 7 or 8 miles of railway between Shoranur and Pattambi. Besides this a large cattle and grain market is held weekly 5 or 6 miles north-east of Shoranur at Vaniankulam in Malabar, between which and places in Cochin there is a large trade.

3. As to the line to the south of Trichur, this Government is of opinion that the present alignment, which is more inland than the line surveyed in 1871, should be adopted, as the latter would pass through a large tract of paddy lands or kayals (lakes). It is almost parallel as far as Ahlur (described as Ahlur in the minutes and marked as Autur in the tracing) to the other line. If the line from Ahlur should proceed to Mala instead of Shalakudi and then follow the previously surveyed line to Ernakulam, the length of the line between Shoranur and Ernakulam would be a little over 61 miles or, according to Mr. Hudson, 63 miles. If Perambalur and other places in Travancore are to be served, a branch line may be constructed from the station near Alwaye.

4. As far as the Cochin sircar is concerned, it does not matter much whether the line passes through Mala or Shalakudi, but if it should pass through Shalakudi according to the present alignment, the mileage between Shoranur and Ernakulam and consequently the distance between the junction and the British port of Cochin would be increased by about 10 miles. It may also be noted that if the railway should pass through Mala which is connected with the backwater by a canal, Mala would serve as a station to catch the backwater traffic, and the traffic which would have to be carried by boats to and from Karupadnam if the railway should pass through Shalakudi will be diverted to Mala.

5. As the merchants and inhabitants of British Cochin are interested in the matter, I would suggest that the Chamber of Commerce in Cochin be also invited to express its opinion.

From the Chief Engineer, Cochin Government, to the Dewan of Cochin, Ernakulam, dated Trichur, 25th March 1895, No. 319.

In reply to your letter forwarding original papers with plan (already returned as requested) in reference to the new alignment of the proposed Shoranur-Cochin Railway, I have the honour to inform you, as stated in Mr. West's letter No. C/90, dated 29th January 1895, addressed to the Agent and Manager, Madras Railway, "it was unanimously agreed at the meeting that the point of departure on the Madras Railway should be at a point about 1½ miles east of the present Shoranur station."

2. The chief reasons for preferring Shoranur to Pattambi are—

(1) The largest cattle and grain market in Malabar is held weekly at Vaniankulam about 5 or 6 miles north-east of Shoranur; there is a large trade at this market with places in Cochin territory.

(2) The principal traffic in passengers and goods (timber, grain, &c.) on the proposed Cochin Railway would be to and from places east of Shoranur; although the mileage from either Pattambi or Shoranur to Trichur would be about the same, the Pattambi route would involve carrying this traffic over the 7 miles of railway (or 8½ miles to the new station) between Pattambi and Shoranur with a corresponding increase of fares, &c.

(3) On the Trichur-Shoranur route the railway would pass through Wadachanchery which is the centre of the taluk where the Tahsildar's, Munsif's, Registrar's, and other offices are situated.

(4) A better junction can be made with the main line of the Madras Railway and a better site for the bridge across the Ponnani river can be obtained at Shoranur than at Pattambi.

3. With regard to the line south of Trichur, the reason for taking it further inland was to tap the large village of Oolloor by a station at the junction of the roads at Eddakunni; it was also necessary to avoid the Thomanakoil and Mooreantha lakes with their valuable paddy fields situated between the Curvanoor river and Iringalakadu which was the objection at this point to the line surveyed in 1871 between Pattambi and Ernakulam; the line has been proposed to be taken from Eddakunni through Poodukad on to Shalakudi and Unjal, the Travancore frontier.

4. The line could, however, be shortened by branching off at Ahtur or Ahlur and joining the line surveyed in 1871 at Mala and on to Ernakulam.
The distance would then be—

From Shoranur to Ahtur or Ahlur						MILES.
Do.	Mala	...	...	...	...	36
Do.	Ernakulam	...	...	...	...	42
		...	...	...	...	63

5. By this route Alwaye would be about 5 miles to the east of this line.

6. A branch line could be made if required to Perambalur, the length of which would be about 12 miles.

7. I may mention here that the black dotted line representing the preliminary survey of 1871 between Pattambi and Ernakulam does not seem to have been correctly marked on the plan submitted by Mr. West. I therefore beg to enclose a copy of it with the line corrected in dotted green lines showing the crossing at the junction of the Alwaye and Shalakudi rivers (one bridge would serve the two rivers).

8. It will be observed that the 1871 line passes through the isolated piece of Travancore territory named Puthencherra which it would be well to avoid and which would be avoided if the line is taken from Ahlur to Mala.

9. Cochin has no objection to the line shown on the plan south of Shalakudi as it serves Travancore territory; the only thing is the mileage from Shoranur to Ernakulam would be increased from 62 to 72 miles.

10. Ernakulam will be the station for the British port of Cochin and the merchants may raise objections to the increased mileage of the railway as there is no doubt it will affect their interests.

11. As regards the proposal of having no station between Kodakulamkaray and Alwaye, if the line is taken through the isolated piece of Cochin territory named Vellarapully, it will be necessary to keep the line some distance to the east of the Chowrah Palace; this diversion would save about 6½ miles.

12. Alwaye and Chowrah are to the residents of Ernakulam, Muttancherry and British Cochin what Brighton is to London, and it will be to the interests of the people of Cochin to have a station at one or the other of these two places, or at both if possible.

No. 779, Political.

Transferred to the Public Works Department, Railway Branch.

FORT ST. GEORGE,
6th April 1895,

(Signed) W. FRANCIS,
Ag. Assistant Secretary.

From the Assistant Resident in charge, Travancore and Cochin, to the Chief Secretary to Government, dated Cochin, 11th April 1895, Reference on Circuit No. 23.

In continuation of my letter, Circuit No. 17 of the 3rd April 1895, I have the honour to submit herewith, for the information of Government, copy of a letter, dated the 10th idem, from the Honorary Secretary to the Chamber of Commerce in Cochin containing the views of that body on the route of the proposed Railway from Shoranur to Ernakulam, and, with reference to the concluding portion thereof, to state that from enquiries made I understand that there is always sufficient water in the backwater opposite to the site selected, at all states of the tide, to accommodate laden cargo boats.

ENCLOSURE.

From the Honorary Secretary, Chamber of Commerce, Cochin, to the Assistant Resident in charge, Travancore and Cochin, dated Cochin, 10th April 1895.

I have the honour to acknowledge receipt of your letter of the 4th instant enclosing copy of letter from the Chief Engineer to the Agent and Manager, Madras Railway, together with a tracing with regard to the proposed Railway from Shoranur to Ernakulam.

In reply thereto I beg to inform you that the subject was discussed at a meeting of this Chamber held this morning, and I am instructed to inform you that the proposed route meets with the approval of the Chamber, but they would suggest that when the site of the terminus at Ernakulam is being decided on due consideration should be given to its position in regard to the depth of water in the adjoining backwater, so that landing and shipping operations may be practicable at all states of the tide and the necessity for dredging thereby obviated.

No. 827, Political.

Transferred to the Public Works Department, Railway Branch, in continuation of endorsement, dated 6th April 1895, No. 779.

OOTACAMUND,
17th April 1895.

(Signed) L. DAVIDSON,
Acting Under Secretary.

ORDER—dated 7th May 1895, No. 336 R., Public Works.

His Excellency the Governor in Council approves of the proposed line to Cochin taking off from the Madras Railway at or near to Shoranur station. The actual position of the junction should be fully dealt with in the report accompanying the project estimate. The alignment decided on at the meeting between the Travancore, Cochin, and Madras Railway officials, held at Trichur on 22nd January 1895, should be adopted in the present survey, but His Excellency the Governor in Council is of opinion that reconnaissances should be made of the alternative route from Ahlur *via* Mala and Alwaye and of a branch line from Alwaye to Perambalur. The Agent and Manager, Madras Railway, will be requested to report the estimated cost of these reconnaissances, care being taken to utilize, where possible, the work of the present and previous surveys. Care should be taken when locating the terminus at Ernakulam to select a site offering facilities for landing and shipping operations at all states of the tide in the adjoining backwater.

(True Extract.)

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

To the Agent and Manager, Madras Railway.
" Examiner, Guaranteed Railway Accounts.
" Political Department.

Exd. C. A. Muniswamy.
Spare Copies

RAILWAY.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated May, 7th.

Recd. .

Encl.

G.O., 7th May 1895, No. 336 R.

MAY.

Shoranur-Cochin Railway

Orders on the subject of the alignment of the proposed—.

No. 336 R., PUBLIC WORKS.

MENT OF MADRAS.

KS DEPARTMENT.

ailway.

., Public Works.

as Railway, to the Consulting Engineer for February 1895, No. 5490/109 W.

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From the Chief Engineer, Madras Railway, to the Agent and Manager, Madras Railway, dated Madras, 29th January 1895, No. C/90.

[Shoranur-Cochin Railway].

I beg to advise you that on the 22nd January 1895 the Resident of Travancore and Cochin was good enough to convene a meeting at Trichur at which were present—

Mr. H. B. Grigg, C.I.E., Resident of Travancore and Cochin.

M.R.Ry. V. Subramania Pillai, Dewan of Cochin.

M.R.Ry. T. Raja Rama Row, Dewan of Kottayam, Representative of Travancore.

Mr. H. W. Hudson, Chief Engineer to the Cochin Government.

Mr. H. C. West, Chief Engineer, Madras Railway.

Mr. A. B. Strange, Executive Engineer in charge of the Shoranur-Cochin Survey.

2. The object of the meeting was to consider the relative merits of previously proposed extensions of the Railway to Cochin and to decide upon the best route which the survey now in progress should follow south of Trichur with a view to meet the requirements of both the Native States through which the line would pass and to fix the towns at which stations should be provided.

3. It was unanimously agreed that the point of departure on the Madras Railway should be at a point about 1½ miles east of Shoranur station, as the gradients, curves and general configuration of the country rendered this site specially suitable for a junction station and would secure a very favourable crossing of the Ponnani river about ¼ of a mile above the existing road bridge. It may be probably necessary to transfer the present Shoranur station to the new site ultimately.

4. The alternative proposal to make Pattambi station the point of departure was considered, but was not approved of by either the Resident or the Dewan of Cochin, as the country between this point and Trichur, although to a great extent free of hills, offered such meagre prospects of traffic. The ground also at each side of Pattambi station has been examined, and it is found that no suitable site for a junction station could be obtained owing to the low level of the land, the difficulty of securing a favourable crossing of the Ponnani river, and the increased mileage from Madras which a junction here would involve.

5. It was also agreed that a line passing through the undermentioned towns (*vide accompanying map*) would best serve the interests of the railway as well as those of the Travancore and Cochin territories and meet with the sympathy and support of the Governments of both States:—

	Distance from Shoranur.
	MILES.
(1) Mulakaray	5
(2) Wadakanberry	8
(3) Mularthankav	14
(4) Trichur	20
(5) Edakunni	24
(6) Poodukad	29
(7) Ahtur	36
(8) Shalakudi	40
(9) Kodakulamkaray	47
(10) Chengal (ferry)	53
(11) Perambalur	56
(12) Keelamaad (for Alwaye)	62
(13) Eddapally	69
(14) Ernakulam (Cochin)	72

6. It will be observed that this route differs materially from any line previously surveyed or recommended; it occupies a position further inland than the more direct line to Cochin hitherto advocated and is consequently 72 miles in length as compared with the 62 miles on which the previous estimate submitted for the survey was based. It is desirable here to explain that any line of railway from Shoranur to Cochin must of necessity pass through a large area of Travancore as well as of Cochin, and it would appear that the interests of the former State had not been sufficiently consulted in the alignment followed when the preliminary survey was undertaken in 1871.

7. This point has been satisfactorily settled at the present meeting, and the final location of the line along the revised route indicated on the map will now be carried out during the survey in progress as far as funds will permit. This alignment has been carefully considered with due regard to the most important trade centres and is unquestionably best suited to the altered conditions of the country since the first preliminary survey was undertaken in 1871, or over twenty-four years ago. Owing to the opening out of additional roads, the extension of cultivated area and the general development of traffic in grain and forest produce, the route as now fixed, though somewhat circuitous in one place, commends itself as the most favourable from all aspects. The detour eastwards through Perambalur is found to be imperative in order to avoid traversing the isolated tract of Cochin territory between that town and Alwaye and thus obviate the difficulties in connection with custom dues, but it will accommodate the extensive timber traffic from the north-east portion of Travancore.

8. From an engineering point of view also this alignment possesses many advantages as it avoids the crossing of the large rivers near their mouths where they widen out and fall into the estuaries or backwaters which exist all along the coast. The bridging of these large streams at favourable points more inland will thus be secured, and the stations having been fixed at towns where existing roads meet, it is anticipated that competition from carriage by backwater will thus be averted. The country moreover is not difficult except for a short portion between Shoranur and Trichur and the adoption of this route will, it is hoped, result in economy of construction.

9. The officials present at the meeting approved of the proposal that the bridges over all large rivers should be so designed that they could be easily adapted for cart traffic and foot passengers if found necessary at any time after the opening of the railway, in which case tolls would be levied by the railway in lieu of any contribution being demanded from the States towards the cost of the structures.

10. Attention is here invited to the fact that the alignment now decided upon does not, except for a short length near Trichur, follow any route hitherto investigated by any preliminary survey, and it is evident that the cost of finally locating a line under these conditions must of necessity be costly compared with a route the general direction and particulars of which have been already determined by a preliminary survey. It is proposed therefore to shortly submit a revised estimate for completing a final survey of the Shoranur-Cochin Railway now increased in length from 61 to 72 miles, and as both the Travancore and Cochin Governments appear anxious for the early construction of the line, it is hoped that funds will be sanctioned to retain the present survey staff to enable the plans and estimates for the complete project to be prepared.

11. I enclose a statement of the minutes recorded at the meeting held at Trichur on the 22nd January 1895 on which the information furnished in the present report has been based.

NOTES of discussion of a meeting held at the Residency, Trichur, regarding the extension of the Madras Railway to Ernakulam via Trichur.

Present.

H. C. West, Esq., Chief Engineer, Madras Railway.
A. B. Strange, Esq., Executive Engineer in charge of the Survey.
M.R.Ry. V. Subramania Pillai, Dewan of Cochin.
M.R.Ry. T. Raja Rama Row, Dewan Peishcar of Cottayam, as representative of Travancore.
H. W. Hudson, Esq., Chief Engineer, Cochin.
H. B. Grigg, Esq., British Resident in Travancore and Cochin.

Note (1).—The unanimous opinion of the meeting was in favour of Shoranur as the point of departure.

Mr. West informed the meeting that all large bridges will be constructed so as to be adapted for foot passengers and traffic on payment of toll to be fixed by the Railway authorities and that no demand will be made on the States for any contribution towards the outlay for constructing these bridges.

Note (2).—The Shoranur route, as proposed by the Madras Railway, approved.

Note (3).—If portions of the public road are taken up for the railway, the Railway authorities will bear cost of construction of road diversions on fresh sites. States would be consulted.

II. Stations between Shoranur and Trichur to be at—

- (1) The Mulakaray toll-gate, 5 miles from Shoranur.
- (2) Wadakanberry, 8 miles from Shoranur.
- (3) A place 6 miles from Trichur (Mularthankava).

III. Unanimously agreed that the station (Trichur) should be near the canal basin on the nearest spot to it where ample land is available.

IV. Line from Trichur to Ernakulam station—

	Distance from Trichur.
	MILES.
(1) Edakunni at crossing of roads serves Ullur and Ooragore	4
(2) Poodukad	5
(3) Ahtur serves Mala (at present) and Irinjalakudu	7
(4) Shalakudi	4
(5) Kodakulamkaray	7
(6) Chengal ferry to serve river traffic, more especially timber	6
(7) Perambalur to serve North-east Travancore traffic	3
(8) Keelamaad to serve Alwaye and Valankulam	6
(9) Eddapally	7
(10) Ernakulam	3
Total	52

Intermediate distance.

V. Agreed unanimously that the above line will best serve the interests and elicit the sympathy of both States and that so soon as the trade from Mala to line at Ahtur justifies the expenditure a branch should be run to the backwater at that point.

Ernakulam station to be opposite to Bolghatty. Passengers and goods to be discharged on waters edge and station to be inland behind Anjikaimal Court-house and Jews' quarter so as not to disturb the Jews or interfere with the Court buildings or the station can be placed on north of the jail on land that can be reclaimed.

Trichur,
22nd January 1895.

(Signed) H. B. GRIGG.
(") H. C. WEST.

I would note here that the station proposed to be placed at Kodakulamkaray may perhaps, with greater convenience to the public, be located at Anjimallee which is not far distant.

(Signed) H. B. GRIGG.

Order—dated 1st March 1895, No. 114 R., Public Works.

A revised plan showing the proposed route of the railway now being surveyed between the Madras Railway and Cochin will be forwarded to the Resident in Travancore and Cochin who will obtain the views of the two Durbars as to the relative merits of Pattambi and Shoranur as the junction station with the Madras Railway. Full explanation should also be obtained from the Durbars of the advantages which are expected to accrue from the deviation towards Perambalur, which adds 10 miles to the length of the line and avoids Alwaye altogether. It should further be pointed out that if the collection of dues is the only reason for the deviation, the difficulty can be avoided by having no station between Kodakulandai and Alwaye. His Excellency the Governor in Council observes that the present alignment is carried more inland than was the case in the survey of 1871 and that no particular reasons are given for such a great deviation. If, however, the new route is supported by both Durbars, no objection will be raised to their recommendations.

(True Extract.)

(Signed) A. D. G. SHELLEY, Captain, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following paper :—

From H. B. GRIGG, Esq., M.A., C.I.E., Resident in Travancore and Cochin, to the Chief Secretary to Government, dated Cochin, 3rd April 1895, Ref. on Circuit No. 17.

With reference to G.O., No. 114 R., dated 1st March 1895, I have the honour to submit herewith, for the information of Government, copies of letters from the Dewans of Travancore and Cochin, Nos. 1048/P.W. and 627/P. 81 of the 24th idem and the 2nd instant, respectively, containing their views on the proposed route of the railway now being surveyed between the Madras Railway and Cochin. With reference to the concluding portion of the letter from the Dewan of Cochin, I beg to add that I am addressing an urgent communication to the Chairman of the Chamber of Commerce of British Cochin in order to obtain the views of that body as suggested by the Dewan and I shall submit the same as soon as received.

I regret that I have not been able to reply to the Government Order above quoted earlier, as the Dewan of Cochin did not answer my reference to him on the subject until this morning.

The tracing received with the Government Order is herewith returned.

From the Dewan of Travancore, to the British Resident in Travancore and Cochin, dated Trivandrum, 24th March 1895, No. 1048 P.W.

I have the honour to acknowledge your letter, Ref. on C. No. 856, dated the 10th instant, with enclosures, received here on the 16th instant and your telegram of the 22nd idem.

With regard to the starting point of the railway, viz., whether it should be Shoranur or Pattambi and its course up to Trichur, His Highness' Government have hardly any remarks to offer. They, however, observe from the Chief Engineer's letter to the Agent and Manager, Madras Railway, which forms one of the enclosures to your letter, that Shoranur has far greater facilities for a junction station than Pattambi and that the prospects of traffic on the Pattambi route are very meagre.

In respect of the line this side of Trichur, it seems to me that there can be no difference of opinion in regard to the desirability of avoiding competition with the cheap backwater communication along the coast and at the same time serving the inland traffic of the country. The interior taluks of North Travancore, as you observe in paragraph 65 of your review of the administration report for 1068, abound in rich soil and steps are now being taken to open them out. A northern railway, such as the one proposed to be of any real benefit to this State, should be within easy reach of those taluks if it does not traverse them. Perumbayur, situated in the Proverthi of the same name, containing a population of over 14,000 forms the head-quarters of the Kunnathnad taluk and is the principal outlet for the trade of that taluk and the neighbouring

taluka of Thodupuzha and Muvattapuzha and the carrying of the railway to Perumbalur or not far away from it would, besides serving the best interests of traffic, conduce materially to the further development of the country. Among the stations proposed, there is one at Keelamad, a village about two miles to the south-east of Alwaye, and this would serve the traffic of the latter place and Vallacolum.

Under the circumstances set forth, His Highness the Maharaja's Government are of opinion that the interests of this State would be best served by the line resolved on at the meeting of the 22nd January irrespective of the questions of the collection of customs dues, and I request you will kindly move the Madras Government in view to obtain their final approval of this line which, besides being beneficial to both the Native States concerned, is preferred by the Chief Engineer of the Madras Railway on account of the many advantages it possesses in an engineering point of view.

I have not received the plan referred to in the order of the Madras Government.

From the Dewan of Cochin, to the British Resident in Travancore and Cochin, dated Ernakulam, 2nd April 1895, No. 627/P-81.

With reference to your letter, Ref. on C. No. 856 of the 10th March 1895, I have the honour to forward a copy of Mr. Hudson's letter, dated 25th March 1895.

2. This Government would prefer Shoranur to Pattambi as the junction station with the Madras Railway, because though the distance between each of these places and Trichur would be about the same, yet the principal traffic in passengers and goods on the proposed Cochin Railway would be to and from places east of Shoranur and the adoption of the Pattambi route would involve the unnecessary carrying of this traffic over 7 or 8 miles of railway between Shoranur and Pattambi. Besides this a large cattle and grain market is held weekly 5 or 6 miles north-east of Shoranur at Vaniankulam in Malabar, between which and places in Cochin there is a large trade.

3. As to the line to the south of Trichur, this Government is of opinion that the present alignment, which is more inland than the line surveyed in 1871, should be adopted, as the latter would pass through a large tract of paddy lands or kayals (lakes). It is almost parallel as far as Ahlur (described as Ahtur in the minutes and marked as Antur in the tracing) to the other line. If the line from Ahlur should proceed to Mala instead of Shalakudi and then follow the previously surveyed line to Ernakulam, the length of the line between Shoranur and Ernakulam would be a little over 61 miles or, according to Mr. Hudson, 63 miles. If Perumbalur and other places in Travancore are to be served, a branch line may be constructed from the station near Alwaye.

4. As far as the Cochin sircar is concerned, it does not matter much whether the line passes through Mala or Shalakudi, but if it should pass through Shalakudi according to the present alignment, the mileage between Shoranur and Ernakulam and consequently the distance between the junction and the British port of Cochin would be increased by about 10 miles. It may also be noted that if the railway should pass through Mala which is connected with the backwater by a canal, Mala would serve as a station to catch the backwater traffic, and the traffic which would have to be carried by boats to and from Karupadnam if the railway should pass through Shalakudi will be diverted to Mala.

5. As the merchants and inhabitants of British Cochin are interested in the matter, I would suggest that the Chamber of Commerce in Cochin be also invited to express its opinion.

From the Chief Engineer, Cochin Government, to the Dewan of Cochin, Ernakulam, dated Trichur 25th March 1895, No. 319.

In reply to your letter forwarding original papers with plan (already returned as requested) in reference to the new alignment of the proposed Shoranur-Cochin Railway, I have the honour to inform you, as stated in Mr. West's letter No. C/90, dated 29th January 1895, addressed to the Agent and Manager, Madras Railway, "it was unanimously agreed at the meeting that the point of departure on the Madras Railway should be at a point about 1½ miles east of the present Shoranur station."

2. The chief reasons for preferring Shoranur to Pattambi are—

(1) The largest cattle and grain market in Malabar is held weekly at Vaniankulam about 5 or 6 miles north-east of Shoranur; there is a large trade at this market with places in Cochin territory.

(2) The principal traffic in passengers and goods (timber, grain, &c.) on the proposed Cochin Railway would be to and from places east of Shoranur; although the mileage from either Pattambi or Shoranur to Trichur would be about the same, the Pattambi route would involve carrying this traffic over the 7 miles of railway (or 8½ miles to the new station) between Pattambi and Shoranur with a corresponding increase of fares, &c.

(3) On the Trichur-Shoranur route the railway would pass through Wadachanchery which is the centre of the taluk where the Tahsildar's, Munsif's, Registrar's, and other offices are situated.

(4) A better junction can be made with the main line of the Madras Railway and a better site for the bridge across the Ponnani river can be obtained at Shoranur than at Pattambi.

3. With regard to the line south of Trichur, the reason for taking it further inland was to tap the large village of Ooloor by a station at the junction of the roads at Eddakunni; it was also necessary to avoid the Thomanakoil and Moorecantha lakes with their valuable paddy fields situated between the Curvanoor river and Iringalakadu which was the objection at this point to the line surveyed in 1871 between Pattambi and Ernakulam; the line has been proposed to be taken from Eddakunni through Poodukad on to Shalakudi and Unjal, the Travancore frontier.

4. The line could, however, be shortened by branching off at Ahtur or Ahlur and joining the line surveyed in 1871 at Mala and on to Ernakulam.

The distance would then be —

	MILES.
From Shoranur to Ahtur or Ahlur	36
Do. Mala	42
Do. Ernakulam	63

5. By this route Alwaye would be about 5 miles to the east of this line.

6. A branch line could be made if required to Perambalur, the length of which would be about 12 miles.

7. I may mention here that the black dotted line representing the preliminary survey of 1871 between Pattambi and Ernakulam does not seem to have been correctly marked on the plan submitted by Mr. West. I therefore beg to enclose a copy of it with the line corrected in dotted green lines showing the crossing at the junction of the Alwaye and Shalakudi rivers (one bridge would serve the two rivers).

8. It will be observed that the 1871 line passes through the isolated piece of Travancore territory named Puthencherra which it would be well to avoid and which would be avoided if the line is taken from Ahlur to Mala.

9. Cochin has no objection to the line shown on the plan south of Shalakudi as it serves Travancore territory; the only thing is the mileage from Shoranur to Ernakulam would be increased from 62 to 72 miles.

10. Ernakulam will be the station for the British port of Cochin and the merchants may raise objections to the increased mileage of the railway as there is no doubt it will affect their interests.

11. As regards the proposal of having no station between Kodakulamkaray and Alwaye, if the line is taken through the isolated piece of Cochin territory named Vellarapully, it will be necessary to keep the line some distance to the east of the Chowarah Palace; this diversion would save about 6½ miles.

12. Alwaye and Chowarah are to the residents of Ernakulam, Muttancherry and British Cochin what Brighton is to London, and it will be to the interests of the people of Cochin to have a station at one or the other of these two places, or at both if possible.

No. 779, Political.

Transferred to the Public Works Department, Railway Branch.

FORT ST. GEORGE,
6th April 1895.

(Signed) W. FRANCIS,
Ag. Assistant Secretary.

Here sent to the Endorsement from Pol. Dept. No. 827 of 17 April 1895 with instructions.

ORDER—dated 12 April 1895, No. 828 R., Public Works.

His Excellency the Governor in Council approves of the proposed line to Cochin taking off from the Madras Railway at or near to Shoranur station. The actual position of the junction should be fully dealt with in the report accompanying the project estimate. The alignment decided on at the meeting between Travancore, Cochin, and Madras Railway officials, held at Trichur on 22nd January 1895, should be adopted in the present survey, but His Excellency the Governor in Council is of opinion that reconnaissances should be made of the alternative route from Ahlur *via*

W
23 apr
/

6

Handwritten signature

TH-APRIL 1895, No. 147R., PUBLIC WORKS.

7

Mala and Alwaye and of a branch line from Alwaye to Perambalur. The Agent and Manager, Madras Railway, will be requested to report the estimated cost of these reconnaissances, care being taken to utilize, where possible, the work of the present and previous surveys. Care should be taken when locating the terminus at Ennakulam to select a site offering facilities for landing (True Extract.) and shipping operations at all stages of the tide in the adjoining backwater.

Captain, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

To the Agent and Manager, Madras Railway.
" Examiner, Guaranteed Railway Accounts.
" Political Department.

Ed. C. A. Maniawmy.

Spare Copies

29 Jan. 1895

No. 990

The Agent & Manager.

Shoranur.

Shoranur - Cochin Railway.

I beg to advise you that on the 22nd January 1895 the Resident of Travancore and Cochin was good enough to convene a Meeting at Trichur at which were present :-

Mr. B. W. Gregory C.I.E. - Resident of Travancore & Cochin.

Mr. R. V. Subramania Pillai } Secy of Cochin

Mr. R. V. Raja Kumar Row - Secy of Travancore & Cochin
Representative of Travancore.

Mr. H. W. Hudson - Chief Engineer to the Cochin Government

Mr. H. C. West - Chief Engineer, Madras Railway.

Mr. H. W. Stringer - Executive Engineer in charge of the Shoranur - Cochin Survey

2. The object of the Meeting

was to consider the relative merits of previously proposed extensions of the Railway to Sechin and to decide upon the best route which the survey now in progress should follow south of Sechin with a view to the requirements of both the Native States through which the line would pass, & to fix the towns at which Stations should be provided.

It was unanimously agreed that the point of departure on the Madras Railway should be at a point about $1\frac{1}{2}$ miles east of Shoreour Station - as the gradients, curves and general configuration of the Country rendered this site specially suitable for a junction station, and would secure a very favorable crossing of the Gomany River about $\frac{1}{4}$ of a mile above the existing Road bridge. It may be probably necessary to transfer the

March 1895

3

present Shoranur Station to the new site ultimately. S. 11

4. The alternative proposal to make Puttambi Station the point of departure was considered, but was not approved of by either the Resident or the Governor of Cochin - as the Country between this point and Trichur, although to a great extent free of hills, offered such meagre prospects of traffic. The ground also at each side of Puttambi Station has been examined, and it is found that no suitable site for a junction Station could be obtained owing to the low level of the land, the difficulty of securing a favorable crossing of the Perambur River, & the increased mileage from Madras which a junction here would involve.

5. It was also agreed that the line passing through the undermen.

direct route (vide accompanying map) would best serve the interests of the Railways as well as those of the Government of Cochin Territories and meet with the sympathy and support of the Government of both States:-

	<u>Distance from Tharur</u>
(1) Mulakaray	5
(2) Madhancherry	8
(3) Mulathankudi	14
(4) Trichur	20
(5) Ettimannur	24
(6) Ootukad	29
(7) Ottur	36
(8) Shalaviti	40
(9) Kodakulamkerry	47
(10) Chenzal (ferry)	53
(11) Perumbalur	56
(12) Neelamangal / for Ottur	62
(13) Ettapala	69
(14) Ernakulam / Cochin	72

6. It will be observed that this route differs materially from

1898

57

any line previously surveyed or recommended; it occupies a position further inland than the more direct line to Cochin hitherto advocated and is consequently 72 miles in length as compared with the 62 miles on which the previous estimate submitted for the survey was based. It is desirable here to explain that any line of Railway from Shoranur to Cochin must of necessity pass through a large area of Travancore as well as Malabar & it would appear that the interests of the former State had not been sufficiently consulted in the alignment followed when the preliminary survey was undertaken in 1878.

This point has been satisfactorily settled at the present meeting, and the final location of the line along the former's route indicated on the map will now be carried out.

during the survey in progress as far as funds will permit. This alignment has been carefully considered with due regard to the most important trade centres, and is unquestionably best suited to the existing conditions of the country since the first preliminary survey was undertaken in 1871, or over 24 years ago. Owing to the opening out of cultivation and the extension of cultivated area & the general development of traffic in grain & forest produce the route is not perfect, though somewhat circuitous in one place. Commanded as the route is from all aspects. The detour eastward to through Phnom Penh is found to be imperative in order to avoid traversing the isolated tract of Cochin territory between that town and Siam and thus obviate the difficulties in connection with custom dues but it will

accommodate the extensive timber
traffic from the north east portion of
Laurance.

8. From an engineering
point of view also this alignment
possesses many advantages as it
avoids the crossing of the large rivers
near their mouth where they widen
out and fall into the estuaries or
backwaters which exist all along the
coast. The bridging of these large streams
at suitable points in inland will
thus be avoided, and the Stations having
been fixed at towns where existing
roads meet it is anticipated that
competition from Carriage by backwater
will thus be avoided. The country now
is not difficult except for a short
portion between Durban and Richards
and the adoption of this route will
it is hoped result in economy of con-
struction.

9. The officials present at

Print
Notes of discussion of a meeting held
at the Residency Trichur, regarding the
extension of the Madras Railway to
Ernakulam via Trichur.

Present.

H. C. West Esq. - Chief Engineer Madras Railway
A. B. Strange Esq. - Executive Engineer in
charge of the Survey.

M. R. Q. V. Subramania Pillai - Dewan
of Cochin.

M. R. Q. J. Raja Rama Rao - Dewan
Peichat of Cothayam, Representative
of Travancore.

H. W. Hudson Esq. - Chief Engineer - Cochin

H. W. Gilling Esq. - British Resident in
Travancore & Cochin.

Note (1). The unanimous opinion of the
Meeting was in favor of Shoranur as the
point of departure.

Mt. West informed the Meeting
that all large bridges will be constructed
so as to be adapted for foot passengers,
and traffic on payment of toll to be

2- 12 1/2
fixed by the Railway authorities &
that no demand will be made on the
State for any contribution towards the
outlay for constructing these bridges.
Article 12. The Government have agreed

proposed in the Madras Railway Act
passed

Article 13. Portions of the public
road are taken up for the Railway
the Railway authorities will bear cost
of construction & road diversions on
fresh sites. States would be consulted

II. Station between Shoranur & Trichur
to be at

1. The Mulakkaray Toll gate - 5 miles
from Shoranur.

2. The Channaray - 8 miles from Shoranur

3. A place 6 miles from Trichur (Kannur
road)

III. It was mutually agreed that the station
(Trichur) should be near the Canal
train on the nearest spot to it where
ample land is available

IV. Line from Trichur to Ernakulam.

Stations - Distance from Trichur.

1. Etlakunni - at crossing of road.	
serves Utharand Kodagone - 4 miles	
2. Poodukad	5
3. Chithur - serves Mula (at present)	
and Chingalukadu	7
4. Thattakudi	11
5. Chathambur	17
6. Chengal ferry - to serve river	
traffic more especially	
timber	6
7. Chiamkulam - to serve at S.	
Travancore traffic	3
8. Keechamad - to serve Aluray	
and Valankulam	6
9. Eddapally	7
10. Ernakulam	3

52 Total

It is agreed unanimously that the above line will best serve the interests and elicit the sympathy of both States so that so soon as the line from Madras to Per

Intermediate distances

at which time the reputation
of the station should be run to the
as before.

Ernakulam Station to be opposite to
Polythally. Passage & goods to be dis-
charged on waters edge & Station to be
inland behind Angamoodi
a few minutes so as not to disturb
the Jews or interfere with the Court build-
ing of the station can be placed in
N.W. of the field on land that can be
acquired.

(Sd) H.B.

Trickar
22nd January / 1875

I would note here that the Station pro-
posed to be placed at Kottakumbhary
may perhaps be with greater convenience
to the Public be located at a smaller
which is not far distant.

(Sd) H.B.

/ True Copy /

W. Chief Engineer

No. 1 TO E. R. 520.005
LETTER NO. 5490W 2-2-95
ATT 109

(No 11.)
No. 5490.98.
109

3,000-14-11-85.

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE,

MADRAS, 2^d February 1895

From

The Agent and Manager

Mr. R. B.

To

The Consulting Engineer for Railways
Madras.

SIR,

I have the honour to submit
herewith for the information of the Govern-
ment, a copy of a letter from the Chief
Engineers, No 8/90 dated the 29th ultimo, on
the subject of the new alignment of the
proposed Shoranur-Cochin Railway, which
it was decided, should be adopted, at the
final survey at a meeting of the Travancore
and Cochin officials held at the Presidency,
Trichur, on the 22^d January last. A copy
of the minutes recorded at the meeting as
well as a tracing showing the old and the
new alignments are also enclosed. —
According to the new alignment, which
meets with the wishes of both the native
States

LETTER NO.

1395

No.

Dated
Recd.

188

for Railways.

The Consulting Engineer

To

The Agent and Manager.

From

MADRAS RAILWAY

States, the length of the proposed line is increased from 61 to 72 miles and revised estimate prepared on this basis will shortly be submitted.

I have asked the Traffic Managers to prepare a report on the Traffic prospects of the line from Shoranur to Trichur as well as from Pattambi.

I have the honour to be,

Sir,

Yours most obedient servant

Edmund
Agent and Manager.

520

[Faint handwritten text, likely bleed-through from the reverse side of the page]

[Faint handwritten notes and signatures at the bottom of the left page]

Recd

No. 114. R. dated 1.3.95
PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Letter from the Agent and Manager
Madras Railway with enclosures.

No. 109 dated 2nd February 1895.

A revised plan shewing the proposed route of the railway now being surveyed between the Madras Railway and Cochin will be forwarded to the Resident in Travancore and Cochin who will obtain the views of the two Durbars as to the relative merits of Pattambi and Shoranur as the junction station with the Madras Railway. Full explanation should also be obtained -- from the Durbars of the advantages -- which are expected to accrue from the deviation towards Perambalur which adds 10 miles to the length of the line and avoids Alway altogether. It should -- further be pointed out that if the -- collection of dues is the only reason for the deviation, the difficulty can -- be avoided by having no station between Kodakulandai and Alway. His Excellency the Governor-in-Council observes that the present alignment is carried more inland than was the case in the survey of 1871, and that no particular reasons are given for such a great deviation. If however the new route is supported by both Durbars no objection will be raised to their recommendations.

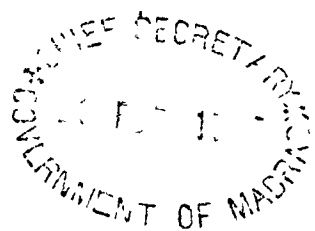
To
The Resident
of Travancore & Cochin
through the Political Dept.

File

LP

LD
23/2/95 19/2/95

No. 114. R. dated 1.3.95



13/5

No. 1048
D. 11

17
H. H. Culcherry
Gevandrum, 14th Dec 1895

From The Dewan of Travancore
To The British Resident
in Travancore and Cochin

Sir,
I have the honor to acknowledge your letter
Ref: in C. No. 856 dated the 10th Instant with
enclosures received here on the 16th Instant and
your telegram of the 22nd idem.

With regard to the starting point
of the railway, viz, whether it should be Shoranore
or Pattambi and its route up to Trichur His High-
ness' Government have hardly any remarks to
offer. They however observe from the Chief Engineer's
letter to the Agent and Managers, Madras Railway,
which forms one of the enclosures to your letter
that Shoranore has far greater facilities for a
junction station than Pattambi and that the
prospects of traffic on the Pattambi route are very
meagre.

In respect of the line this side of
Trichur, it seems to me that there can be no difference
of opinion in regard to the desirability of avoiding
competition with the cheap backwater communi-
cation along the coast and at the same time serving
the inland traffic of the country. The interior Taluk

of North Travancore as you observe in para 65-
of your review of the Administration Report
for 1868 abound in rich Soil and Steps are now
being taken to open them out. A northern railway
such as the one proposed to be of any real benefit
to this State, should be within easy reach of
those taluks if it does not traverse them. Perum-
bavur situated in the Province of the same
name containing a population of over 14,000
forms the head quarters of the Kunnathad Taluk
and is the principal outlet for the trade of
that taluk and the neighbouring taluks of
Thodupuzha and Muvattupuzha and the
carrying of the railway to Perumbavur or not
far away from it, would besides serving the
best interests of traffic, conduce materially
to the further development of the Country.

Among the Stations proposed, there is one
at Keelamad a Village about 2 miles to the
Southeast of Alwaye and this would serve
the traffic of the latter place and Vallacolum.

Under the circumstances
set forth His Highness the Maharaja's Govern-
ment are of opinion that the interests of
this State would be best served by the line
resolved on at the meeting of the 27th January
irrespective of the question of the Collection of

Customs dues and I request you will kindly
move the Madras Government in view to
obtain their final approval of this line
which besides being beneficial to both the
Native State concerned, is preferred by the
Chief Engineer of the Madras Railway on
account of the many advantages it possesses
in an engineering point of view

I have not received the
plan referred to in the order of the Madras
Government.

Phamse
(Sgd) Shungasa Subbiah
Dewan

(True copy)

J. W. D. S. C. P.
Assistant Resident

on

Enclosure No 1 to letter
Ref: on Circuit No 17 of 95
from the Resident in Travancore
Cott and Cochin

Regarding the route of the
proposed railway from
Shoranore to Cochin

Ms 9.2
2533/95

POH,

461

No 627
P. 81

Hazur Cut Cherry
Ernakulam
2nd April 1895

I

H. B. Briggs Esquire C. I. E
British Resident in Travancore and Cochin

Sir,

With reference to your letter Ref: one no 956 of
the 10th March 1895. I have the honor to forward a copy of
Mr. Hudson's letter dated 25th March 1895.

2. This Government would prefer Shoranore to
Pattambi as the junction station with the Madras Railway,
because, though the distance between each of these places
and Trichur would be about the same, yet the principal
traffic in passengers and goods on the proposed Cochin
Railway would be to and from places east of Shoranore,
and the adoption of the Pattambi route would involve the
unnecessary carrying of this traffic over seven or eight
miles of railway between Shoranore and Pattambi. Besides
this, a large cattle and grain market is held weekly five
or six miles north east of Shoranore at Vannankulam, in
Malabar, between which and places in Cochin there is
a large trade.

3. As to the line to the south of Trichur, this
Government is of opinion that the present alignment

which is more inland than the line surveyed in 1871 should be adopted, as the latter would pass through a large tract of paddy lands or Kayals (lakes). It is almost parallel as far as Ahlu (described as Ahlu in the minutes and marked as Antur in the tracing) to the other line. If the line from Ahlu should proceed to Mala instead of Shalaktudi and then follow the previously surveyed line to Ernakulam, the length of the line between Shoranore and Ernakulam would be a little over 61 miles or according to Mr. Hudson 63 miles. If Perumbalur and other places in Travancore are to be served, a branch line may be constructed from the station near Alwaye.

4. As far as the Cochin side is concerned, it does not matter much whether the line passes through Mala or Shalaktudi, but if it should pass through Shalaktudi according to the present alignment, the mileage between Shoranore and Ernakulam and consequently the distance between the junction and the British Port of Cochin, would be increased by about 10 miles. It may also be noted that if the Railway should pass through Mala, which is connected with the backwater by a canal, Mala would serve as a station to catch the backwater traffic, and the traffic which would have to be carried by boats to and from Kumpadnam, if the railway should pass through Shalaktudi, will be diverted to Mala.

5. As the merchants and inhabitants of British Cochin

Cochin are interested in the matter, I would suggest that the Chamber of Commerce in Cochin be also invited to express its opinion.

I have &c.
(Sigd) V Subramanyam Pillai
Dewan.

No. 319
1895.

Chief Engineer's Office
Trichur, 25th March 1895

The Dewan of Cochin
Ernakulam

Sir,

In reply to your letter forwarding original papers with plan (already returned as requested) in reference to the new alignment of the proposed Shoranore-Cochin Railway.

2. I have the honor to inform you as stated in Mr. West's letter No C/90 dated 29th January, 1895 addressed to the Agent and Manager Madras Railway "it was unanimously agreed at the meeting that the point of departure on the Madras Railway should be at a point about $1\frac{1}{2}$ miles east of the present Shoranore Station."

3. The chief reasons for preferring Shoran-

at the junction of the Alwaye and Shalabadi Rivers
(one Bridge would serve the two Rivers).
9. It will be observed that the 1871 line passes through
the isolated piece of Travancore territory named Puthen-
cherri which it would be well to avoid, and which
would be avoided if the line is taken from Aukloor
to Mala.

10. Cochin has no objection to the line shown on
the plan south of Shalabadi as it serves Travancore
Territory, the only thing is the mileage from Shoranore
to Ennakulam would be increased from 62 to 72
miles.

11. Ennakulam will be the station for the British
port of Cochin and the merchants may raise objections
to the increased mileage of the Railway as there is
no doubt it will affect their interests.

12. As regards the proposal of having no
station between Kodakulangara and Alwaye, if
the line is taken through the isolated piece of
Cochin Territory named Vellara fully it will be
necessary to keep the line some distance to the
east of the Behoverah Palace, this diversion would
save about $5\frac{1}{2}$ miles.

13. Alwaye and Behoverah are to the
residents

residents of Ennakulam, Muttancherry, and British
Cochin, what Brighton is to London, and it will be to
the interests of the people of Cochin to have a station
at one or the other of these two places, or at both, if
possible.

I have &c.

(Sigs) H. W. Hudson Esq. Esq. C. E.
Chief Engineer
Cochin Government

(True copy)

(Sigs) V. Subramanya Pillai
Dewan

(True copies)

F. W. D. S. Esq.
Assistant Resident

Enclosure no II to letter Ref: on Circuit
no 17 of 95 from the Resident in Travancore
and Cochin.

On 8.1
2837/95

Regarding the route of the
proposed railway from Travancore to
Cochin.

1895
PdH Dept
Enclosure No 2
To
461

Ref: on Circuit no 17995

1895 461
Residents' Office on Circuit
Cochin, 3rd April 1895

From H. B. Grigg Esquire M. A. C. J. C.
Resident in Travancore and Cochin

To
The Honorable Mr. J. F. Price C. J. J.
Chief Secretary to Government
Fort Saint George

Sir,
With reference to G. O. no 114 N dated
1st March 1895 I have the honor to submit
herewith for the information of Government
copies of letters from the Deans of Travancore
and Cochin nos 1098 and 627 of the 24th idem
and the 2nd instant respectively containing
their views on the proposed route of the rail-
way now being surveyed between the Madras
Railway and Cochin. With reference to
the concluding portion of the letter from
the Dean of Cochin I beg to add that I
am addressing an urgent communication
to the Chairman of the Chamber of Commerce
of British Cochin in order to obtain the views

2833

Port 461

From Shri N. S. Srinivasan
Travancore & Cochin

Indt No 779

Transferred to the Public
Works Department, Railway
Branch.

To
The Chief Secretary to Government
Fort Saint George

Dated 3rd April 1895
Recd 6/4

Fort St George 3 Francis
6th April 1895

Recd. 8-4-95
Ref No 17 of 1895

By Assistant Secretary
O. S. S. S.
Encls 3 (1/1/1)

No. of Enclosures. 2 & 1 plan.

CHIEF SECRETARY
6 APR. 1895
GOVERNMENT OF MADRAS

Shoranore Ernakulam
Railway -

Forward copies of
letters from the Managers of
Travancore and Cochin
regarding the route of
the proposed -

To
The Public Works Dept
Ry Branch

(107)

Chamber of Commerce
Cochin, 10th April 1895

Captain J. W. Dawson
Asstt: Resident, Bolykatty

Sir,

I have the honor to acknowledge receipt of your
letter of the 4th instant enclosing copy of letter from the
Chief Engineer to the Agent and Manager Madras Railway
together with a tracing with regard to the proposed Railway
from Shoranore to Ernakulam.

In reply thereto I beg to inform you that the
subject was discussed at a meeting of this Chamber held this
morning, and I am instructed to inform you that the proposed
route meets with the approval of the Chamber, but they would
suggest that when the rate of the terminus at Ernakulam is
being decided on due consideration should be given to its
position in regard to the depth of water in the adjoining
backwater, so that landing and shipping operations may be
practicable at all states of the tide, and the necessity for
dredging thereby obviated.

I have &c
(Sd) E. H. Black
Honorary Secretary

(True copy)

J. W. Dawson Capt-
Asstt: Resident
in charge.

HP

Enclosure n^o. I to Resident's letter
Ref: on circuit n^o. 23 of the 11th April
1895.



Copy of a letter containing the views
of the Cochin Chamber of Commerce
approving the new alignment for the
Shoranore - Cochin Railway.

5-
Political

496

A

no 336 Rdy-5-95
O.W.E. 1.
3067/25

Ref: on circuit n^o. 23.

From

Captain F. W. Dawson

Asstt: Resident in Charge

Travancé and Cochin

To

The Honorable Mr. J. F. Price C.S.I.
Chief Secretary to Government
Cotacaimund

Sir,

In continuation of my letter Circuit n^o. 17 of
the 3rd April 1895, I have the honor to submit herewith for
the information of Government Copy of a letter dated the
10th idem from the Honorary Secretary to the Chamber of
Commerce in Cochin containing the views of that body on the
route of the proposed Railway from Shoranore to Ernakulam,
and with reference to the concluding portion thereof to state
that from enquiries made I understand that there is always
sufficient water in the backwater opposite to the site selected,
at all states of the tide, to accommodate laden Cargo boats.

I have the honor to be

Sir
Your most obed^t. servant

F. W. Dawson

Asstt: Resident
in Charge.

MP

Resident's office on circuit
Cochin, 11th April 1895

8-496

His Excellency the Governor in Council approves of the proposed line to Cochin taking off from the Madras Railway at or near to Chorumur Station. The actual position of the junction should be fully dealt with in the report accompanying the project estimate. The alignment decided on at the meeting between Travancore Cochin and Madras Railway officials

1895
Political Department

From

The Asstt: Resident in
Travancore & Co

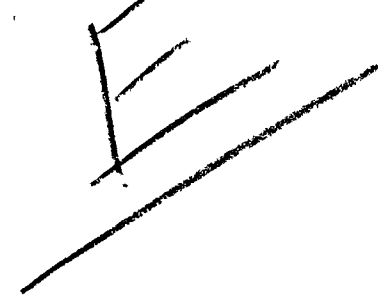
To

The Chief Secretary to Govt
Cotacron

Dated 11th April 1895

Received 15th April 1895
No. 1574/95

Ref: encircled no. 23
Enclosure - 1



Forwarding copy of a letter con-
taining the views of the Cochin Chamber
of Commerce on the new alignment for
the Shoranur Cochin Railway.

A. 336 Rd/7-5-95
[Signature]

To
The Public Works Deptt (Ry Branch)

(W.C)

no. 336 Rd/7-5-95
PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

again
Read the following

Progs. of the Madras } H.E. no. 114 R of 1895
Govt. P.W. Deptt. }
Read also

Political Department }
Enclosure with Encl. }
779 of 6 April 1895

His Excellency the
Governor in Council approves
of the proposed line to
Cochin taking off from
the Madras Railway at
or near to Shoranur
Station. The actual position
of the junction should be
fully dealt with in the
report accompanying the
project estimate. The align-
ment decided on at the
meeting between Travancore
Cochin and Madras Railway
officials

For officials held at Trichur
on 22nd January 1895.

should be adopted in the
present survey, but His
Excellency ^{the Governor} in Council is
of opinion that persons

Dances should be made of

Rec the alternative route from

Arthur via Mola and

Always, and of a branch

line from Always to Peram.

Salut. - The Agent. (strange)

Indo Railway will be

requested to report the

Estimated cost of these recon.

various, care being taken

to utilize where possible)

of the work of the present and

in Sh previous survey. Care should

be taken when locating the Germans at Ennakulam and shipping operations to select a site offering facilities for landing. A.H.H.

and shipping operations at all states, 1674195 -
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N. 336 R. d. 7. May 95

To
The Agent & Man: Mr. Key
- 4 - Ex. G. P. Rylands.
- 4 - Political Repro.

Paper taken out of the Records from the charge of the Referencer.

72

11

• with an Apothecary travelling in the former as suggested.
 • in para 6 of the Acting Sanitary Commissioner's report
 • on each train carrying over 200 passengers (only
 • required at festival times) we should have to increase
 • our rolling stock and medical staff. It seems
 • to me the difficulty might be met in a simpler
 • and less expensive manner by halting special
 • trains carrying pilgrims at certain intervals or
 • at principal stations, for 30 minutes during which
 • time the Company's Apothecaries could carry out a
 • cursory examination of the passengers and the
 • passengers themselves be able to visit the latrine,
 • or what would be better, some grounds near by,
 • with trenches ready made, set apart for their use.

"It might also be considered advisable
 • to have some bottles of Cholera Mixture available
 • in the Chief Guard's van, which the guard could
 • give out in prescribed doses when necessary,
 • in the initial stage of a Choleraic attack, this
 • might have some beneficial effect."

"In Conclusion, I beg to assure you that
 • the subject is one which will continue to receive
 • my careful attention."

With reference to the foregoing I am
 of opinion that the procedure adopted by the
 Railway Company is in the right direction,
 and on the most practical lines possible, under
 the circumstances only a general supervision
 of such crowds as frequent the Railway
 premises and trains at Festival times can be
 attained, and to attempt anything more
 would involve not only so serious an
 interference with the travelling public as to
 result in their avoiding the Railway, but
 would entail a very considerable increase in the
 Company's working expenses in the matter of
 Rolling

Rolling Stock and staff, without adequate result. I believe that a latrine carriage attached to a train would in many ways be more harmful than its absence, and an ambulance carriage would certainly scare many pilgrims into the most desperate straits before they would submit to being incarcerated in such a vehicle.

I think that during Festivals more might be done, and with greater advantage on the lines on which the Railway administration, now works, if the Company's Superintending Physician, and the Government Medical Officers in charge of the respective Districts traversed by the line of railway, put themselves before hand in communication and conjointly agreed on the measures that could best be taken with the staff and materials at their command to combat the epidemics and the insalubrious influences at work, or expected.

I have the honor to be,
Sir,
Yours most obedient servant

J. H. Le Mesurier
for Agt. Agent.

41A

1
A 797 30.8.95

No. 590 R. dated 20.9.95
PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Read Report from the Sanitary Commissioner of Madras, --

No. 890 dated 3rd May 1905.

Letter from the Agent and Manager, Madras Railway, No-

1628 dated 11th July 1905, with enclosure

Letter from the Agent, South Indian Railway, No. 797 dated

30th August 1905.

Order thereon, No. 590 R. dated 20.9.95

The Sanitary Commissioner -

in the report above quoted enters a --
strong protest on the pilgrim traffic
of the South Indian Railway as regards
overcrowding

Failure to detect and treat pilgrims -
suffering from Cholera.

and suggests need of Latrine carriages
and Ambulance carriages.

2. Regarding the first complaint it ap-
pears to His Excellency the Governor -
in Council that the reports reveal the
great insufficiency of the rolling --
stock and desires the attention of the
Railway Administration be drawn to this

It

It also appears desirable that pending the construction of more carriages, arrangements should be made to obtain by ^{hire} ~~line~~ or otherwise third class carriages from the Southern Mahratta Railway -- during times of much traffic.

3. Certain proposals are before the Government of India to allow the use of Covered Wooden Wagoons in emergencies -- but this should not delay the provision of third class carriages above alluded to.

4. ~~The accusation of failure to detect and separate pilgrims suffering from cholera~~ does not appear to be borne out by the reports, but it seems desirable to make a trial of attaching -- one ambulance carriage or to reserve 2 compartments (one for each sex) on a pilgrim train and to provide the guard with ~~prescribed remedies~~ *the necessary remedies* --

5. This system would supersede the -- present one of removing all the passengers from a carriage in which there is a detected patient and which system is tantamount to ^{converting} ~~turning~~ that carriage into an ambulance carriage besides causing great inconvenience ^{and} or discomfort to the healthy passengers.

6. As regards the supply of latrine carriages the evidence goes to show that it is practically impossible, and that the best way to deal with the -- wants of passengers in pilgrim trains -- is to stop the train between stations at convenient places where trenches -- should

That failure to detect and separate pilgrims suffering from cholera, has occurred

should be dug and screens erected and sweepers provided.

7. In view of the profit directly derived by the Railway ^{from} ~~by~~ this traffic -- it appears to His Excellency the Governor in Council that except in cases -- of wealthy Municipalities, it should devolve on the Railway Company to provide both the latrine accommodation -- ^{referred to} ~~above~~ ~~noted~~ as well as temporary -- cholera camps for the treatment of -- patients on removal from the train at places where no regular hospitals -- exist.

W. R. 19/5/85

M. R.

13/5/85

The Hon. Secy. to Govt. of India

June

19/5/85

*To The Comptroller for Rys of
Sanitary Comm. Dept.
Local & Mun. Dept.*

TELEGRAM

URGENT
ORDINARY
DEFERRED

SERIAL

No. 15

FROM

To

R.

Repletio (Secy: to the Govt. of
Madras)
Botacammund -Repatrio
(Colonial Secy)
Colombo

No. 12. B. - Eroqanda (By order,
Infusum (Government of
India) Mr. Hodson (Jacu
(will arrive on) Majima (Jm
5th next) to serve on Com.
matter

C
27/5/26

Despatch on 27/5/26

SERIAL
No. 16

TELEGRAM URGENT
DEFERRED

71 D

FROM

E.R.

To

Agent SIB

Adras.

SERIAL
 PARTMENT,
 ANCH. No. 17

Shall arrive Erode ~~at~~
 Wednesday morning ~~Knicker~~ at Secretary
 4 ~~knicker~~ morning
 send carrier, for ~~from~~ Colombo
~~to Tuticorin~~ I will inspect
 Kaidambar ^{sidri} Thursday morning if
 you arrange engine to take me on
 to Tuticorin

June 1896.

30/5

directed
 in that
 the following
 your address

on the 30th ultimo.

H.A. - Eroanda (By
 order of) Infusorum
 (Government of India)
 Knudson Epaculor
 (in the arrival on) Majima
 (June 5th next) to serve
 on Committee -

H.A. 6/6

No. 371-D

Government of Madras.

PUBLIC WORKS DEPARTMENT.

RAILWAY BRANCH

SERIAL

No. 17

To

THE

*Colonial Secretary**Colombo**Colombo 8 June 1896.*

SIR,

*I am directed
to inform you that
I despatched the following
telegram to your address
on the 30th ultimo.*

*12A.. Eroanda (By
order of) Infusum
(Government of India)
Mr. Hodson Ejaculo
(in the arrival on) Majuma
(June 5th next) to serve
on Committee -*

SERIAL
No. 1271

All communications
should be addressed
to the Secretary

No. 1271 G.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
GENERAL.

To
The Joint Secretary to the Government of Madras,
Public Works Department, Railway Branch.

Sir, the 28rd. May 1906.

Sir,
In continuation of Public Works Department telegram No. 1249 G., dated 10th. instant, I am directed to state that while Mr. Wodson is in the service of the Ceylon Government he will receive the pay of a Superintending Engineer 1st. class, namely Rs. 1,000 together with the exchange compensation allowance due under the rules, and deputation allowance under Article 26, Civil Service Regulations.

He may draw advances of salary, as required by him, within these amounts. His pay will be finally added in this country on his return, the Colonial Government being debited with the balance due after deducting advances received.

2. Mr. Wodson will also be entitled to travelling allowances for the journey by steamer and rail, and for necessary halts while on duty, such travelling allowances will be dealt with finally by the Colonial Government.

I have the honour to be,

Sir,

Your most obedient servant,

E. M. Walker

Under-Secy. to the Govt. of India.

Documents accompanying:-

No 37123 51 June 1896

Copy to C. B.
to be sent to
the (C. B.)
also
Mr. C. B. R. W.
2/6

W. CURRIE No. 4959

(R) Form No 3

No 50812 of 4/6/96
PUBLIC WORKS DEPARTMENT,
RAILWAY BRANCH.

bf

PROCEEDINGS OF THE MADRAS GOVERNMENT.

No. 19

Read the following

Recd: 1. 6. 96

Letter from the Govt. of India P.W. Dept. - } H.S. No. 12718 of 22 May '96

Communicated
to the Engineer P.W.
Accounts in continu-
ation of G.O. No. 466R
of 27th May 1896.

4/6/96

fnR

To
The Engineer P.W. Dept. ✓
- Secy. to Govt. P.W. Dept. ✓
C.W. Hodson Esq. ✓

Registered on 11.5.96

4959

3

7

14. No 508. R dated 11.6.56

17/6 ²²/₁₉₇₆

For the information of Railway Officials only.

THE CEYLON GOVERNMENT RAILWAYS.

WORKING
TIME TABLES

FROM

DECEMBER 17, 1895,

And until further notice,

FOR

MAIN LINE—Colombo to Nawalapitiya and
Bandarawela;

BRANCH LINES—Peradeniya and Kandy to Matale;
Polgahawela to Kurunegala;

COAST LINE—Colombo to Wharf, Galle, and Matara.



COLOMBO.

H. C. COTTE, ACTING GOVERNMENT PRINTER, CEYLON.

1895.



THE CEYLON GOVERNMENT RAILWAYS.

All previous issues of the Working Time Tables and Addenda are hereby cancelled.

The line between Nawalapitiya and Bandarawela inclusive is herein referred to as the Bandarawela line.

Each Member of the Staff connected with the working of the Railway is required to make himself thoroughly acquainted with the subjoined Rules and Regulations.

Particular attention is directed to the arrangements for working the line by Pilotman in cases of obstruction.

The attention of all concerned is specially directed to the changes made in the formation of the Trains, and to the altered methods of working.

SPECIAL INSTRUCTIONS FOR WORKING TRAINS DOWN INCLINES.

The greatest caution and vigilance must be observed by the Engine Drivers and Guards in working down Inclines, and under no circumstance may lost time be made up on a descending gradient. The prescribed speed must be uniformly maintained throughout.

IMPORTANT NOTICE.

It is the duty of Station Masters to give the order to admit Trains into their Stations and to see that the points and lines are right before giving such order to admit Trains. They are also responsible for the correct working of the Signals, and will be held accountable for any accident arising from a neglect of these duties.

The Officer in charge of the Station for the time being shall be considered to be the Station Master.

FIXED SIGNALS.

In connection with rules 48 to 56, pages 10 and 11 of the Rules and Regulations issued in 1893, it is hereby notified for the information of all concerned that—

1. Except for Down Trains approaching Hutton there are no "Distant" Signals upon this Railway within the meaning of rule 55.
2. The Signals placed outside Station limits and now frequently mis-called "Distant" Signals are "Home" Signals to which rule 50 applies.
3. The Signals on Station platforms are not Home Signals; they are merely indicators for the guidance of the pointsmen, but (except for shunting purposes) these Signals must never be passed when at Danger.
4. Where Station Signals (as in clause 3 hereof) are not supplemented by Home Signals outside the Station limits, as at Mahara for Up Trains and Alagalla for Down Trains, approaching trains must be brought to a stand not less than 200 yards outside the most distant points in that direction, unless the Signal is lowered to admit them.
5. At stations where there is only a Home Signal in one direction and no Station Signal, as at New Péráleniya, trains approaching the unprotected side must stop 200 yards outside the platform, unless signalled forward by proper Hand Signal.
6. The only Starting Signals on the line are at Maradana Junction for Down Trains leaving that Station.

1.—REGULATIONS FOR WORKING KANDY, PERADENIYA, POLGAHAWELA, MAHARA, MARADANA, FORT, AND MATARA JUNCTIONS.

JUNCTION SIGNALS.

SIGNALS at all Junctions, and the Distant Signals connected with them, must always be kept at Danger, except when taken off to allow a Train to pass. When a Train approaches a Junction the Signalman must ascertain whether the line on which the Train has to run is clear, and if so he must then exhibit the proper Signals for it to proceed. Immediately the Train has passed the Signals must be again put to Danger.

Kandy Station.

- 1 Home Signals only are placed at this Station
- Up Trains approaching Kandy Station must whistle as follows:—
 Passenger Lines—One long whistle.
 Goods Lines—Two long whistles.
 Mátalé Line—Three long whistles.

Peradeniya Junction.

- 2 The Junction approached from Colombo is called the West Junction. The Junction approached from Kandy is called the East Junction. The Junction approached from Návalapitiya is called the South Junction.

- 3 Each Junction is protected by a Semaphore Home Signal, which must not be passed when at danger. (See paragraphs 6 and 7.)

4 Each Junction is also provided with a Semaphore Signal in the opposite direction, situated as nearly as possible midway between the Junctions. These Signals are supplemented by fixed auxiliary Signals, placed 50 yards in advance of them, and Trains and Engines passing between Junctions must stop Dead at the Auxiliary Signals, unless the proper Semaphore Signal is lowered for them to proceed.

- 5 Whistles approaching the West and South Junctions:—

For Loop Line—One long whistle.
 For Kandy Line—Two long whistles.

Whistles approaching the East Junction:—

For Colombo Line—One long whistle.
 For Náu-oya Line—Two long whistles.

- 6 All Trains must approach and pass through the Junctions cautiously, and the Drivers must be prepared to act promptly in accordance with such Signals as may be exhibited.

7 The Drivers of Trains passing through the Loop must bring their Trains to a stand 50 yards from the Junction Points, unless ordered forward by the Station Master personally. After dark the Drivers will comply with Hand Signals shown from the Junction Points.

Polgahawela Junction.

- 8 Trains to and from the Kurunégala Branch—Two whistles.
 Main Line Trains—One whistle.

Mahara Junction.

- 9 The Junction points must be kept locked, and only be opened to allow Trains to pass to or from the Quarry Branch.

Main Line Trains.—Up Trains will give One long whistle when approaching the Junction.

Mahara Quarry Trains.—Up Trains approaching Mahara Junction must give Two long whistles, and on receiving the All right Signal must draw on to the Branch Line. Down Trains must stop Dead at the Signal on the Quarry Branch, and must not pass on to the Main Line until the Driver has received the Main Line Train Staff or Staff Ticket, and the signal is lowered.

Trains will run with Train Staff only between the Junction and Quarry.

Maradana Junction.

10. The Signals placed at this junction are Stop Signals, which must not be passed when at danger.

Down Trains leaving the Junction from Lines on the left-hand side of the Station platform are controlled by the Starting Signal placed upon the left-hand side of the Coast Line—the top arm for the Coast Line; the lower arm for the Engine Shed.

Down Trains leaving from Lines on the right-hand side of the Station platform are controlled by the Starting Signal placed upon the right-hand side of the Main Line.

Whistles :—

Colombo Passenger Lines—One long whistle.
Colombo Goods Lines—Two long whistles.
Wharf and Coast Line—Three long whistles.
Engine Shed—One short and one long whistle.

Up Trains approaching the Junction from the Colombo Yard are controlled by the Signal which is situated on the left hand side of the Line between No. 4 Signal-box and the Maradána bridge.

Up Trains approaching the Junction from the Coast and Wharf Lines are controlled by (1) a Signal near the canal bridge, which protects the south approaches to the new Engine Shed ; (2) a Signal near the turntable, which protects the operations at No. 4 Signal-cabin ; and (3) a Signal 40 yards south of the Maradána Junction bridge, which protects Trains at the Junction Station. These Signals are not to be passed when at Danger. The lowering of one Signal only indicates that the Line is clear to the next Signal. The lowering of an intermediate Signal does not give permission for one at Danger to be passed.

Train from the Coast Line requiring to go to the Main Line side of platform at Maradána Junction must stop clear of the crossing at No. 4 Signal cabin and take the Main Line there.

Whistles :—

For Main Line side of platform—One long whistle.
For Coast Line side of platform—Two long whistles.

The speed of Shunting Engines is not to exceed Six miles an hour through the Colombo Station Yard.

Fort Junction.

11 Home Signals only are placed at this Junction.

Coast Line Trains must give One long whistle when approaching the Junction Signals.

Up Trains must be prepared to stop clear of the road gates when the Semaphore Signal is at Danger.

Up and Down Trains coming off or going on to the Wharf Line must give Two long whistles when approaching the Junction Signals.

Matara Junction.

Trains leaving Galle for Main Line—One whistle.
Trains leaving Galle for Matara Line—Two whistles.
Main Line trains approaching Galle—One whistle.
Matara Branch trains approaching Galle—Two whistles.

II.—REGULATIONS FOR WORKING BY TRAIN STAFF AND TICKET.

Exceptions to these rules are made in the case of obstructions necessitating the working of the Line by Pilotman (Section III.) and for working the Night Mail (Section IV.), which see.

THE Traffic Superintendent personally has authority to order that trains may in case of emergency be run without Staff or Ticket ; but this authority is not extended to any other officer.

Drivers and Guards are hereby directed to act upon instructions issued by the Traffic Superintendent to proceed without Staff or Ticket.

All such orders will be addressed from the Traffic Superintendent personally, thus :—

“ From A. G. Perman, Traffic Superintendent, to ————.”

and no order in any other form is to be accepted.

The Driver will report and deliver telegram immediately on arrival in shed.

1 A Train Staff or Train Staff Ticket must be carried with each Train or Engine, and without this Staff or Ticket no Train or Engine must be allowed to travel on the Line.

2 No Train or Engine must be permitted to leave any Staff Station unless the Staff for that portion of the Line over which it is to travel is then at the Station.

3 At Stations where Trains have to cross each other, all Signals must be kept at Danger, except when required to be taken off to admit a Train ; and when Trains which have to cross each other are approaching the Station in opposite directions, and the Signals have been taken off for one Train, they must not be taken off for the other Train until the first one has come to a Dead stop, and the Pointsman has seen that the Line on which the other Train will arrive is quite clear.

4 The person in charge of the Station for the time being is the sole person authorized to receive and deliver the Staff or Ticket.

5 When a Train or Engine is ready to start from a Station, and no second Train or Engine is intended to follow before the Staff will be required for a Train in the opposite direction, it is the duty of the person in charge of the Station to give the Staff to the Engine Driver, who will place it in a socket provided for that purpose on the Engine.

6 If other Trains or Engines are intended to follow in succession before the Staff can be returned, a Ticket indicating that the Staff is following must be given by the person in charge of the Station to the Engine Driver of the first Train or Engine, the Staff for the Section being shown to him, and so on with any other Train or Engine, except the last, the Staff itself being given to the Engine Driver of the last Train or Engine, as directed in Regulation 5. The person who gives the Ticket to the Engine Driver must satisfy himself that the Train has gone forward with such Ticket, and that “ T. A. arrived ” for that Train has been telegraphed from the Station in advance, before he allows another Train to follow. After the Staff has been sent away no other Train or Engine must, under any circumstances, leave the Station to follow in the same direction until the Staff for that Section has been returned. The

Station Master in charge of the Staff at Crossing Places must satisfy himself that the Train running in the one direction has arrived complete before handing over the Staff to the Engine Driver about to travel in the opposite direction.

7 No Engine Driver with a Train or Light Engine must leave a Station until he has received the Staff or Ticket as proper for that Section of the Line over which he is about to travel, and as booked for his particular Train or Engine, and he must not take the Staff or Ticket from any other than the person in charge of the Station for the time being. After receiving the Staff or Ticket he must not start until the proper Signals have been exhibited, and when with a Train, until a Signal has also been given by the Guard. On arriving at the Station to which the Staff or Ticket extends, such Staff or Ticket must immediately be given up to the person in charge of the Station, and the Tickets afterwards dealt with as the latter may be instructed by the Traffic Superintendent.

Whenever, in consequence of special arrangements, a Train Ticket is given to a Driver where in ordinary course he should receive the Train Staff, the Ticket must be endorsed, showing the reason for the departure from the booked arrangement; and in like manner, when the Train Staff is given to a Driver where in ordinary course a Ticket should have been given, it must be accompanied by a memorandum, dated and signed by the Station Master, showing the reason for the departure from the booked arrangement.

8 An Engine Driver will render himself liable to dismissal if under any circumstances he leaves a Staff Station without the Staff or Ticket for the Section over which he is about to travel, or if he leaves with a Ticket without having also seen the proper Staff.

9 Each Staff has engraved or marked on it the name of the Staff Station at each end of the Section to which only it applies. The Staff Boxes and Tickets for the different Sections are painted and printed in different colours. Relief staves are stamped "Relief" on one side, and are labelled on the other side with particulars of the Section for which they are for the time being available.

10 Tickets must be kept in the proper Ticket-box, fastened by an inside spring, the key to open the box being the Staff for the same Section as the box, so that if the Ticket-box is kept locked, for which the person in charge of the Station will be held strictly responsible, access to the Tickets cannot be obtained unless the proper Staff for the Section is then at the Station.

11 All spare Tickets must be kept under lock and key, and in the care of the person in charge of the Station.

12 The Staff, when at the Station, must not be kept in the box, but on the brackets outside of it.

13 Engine Drivers must be extremely careful not to take a Staff or Ticket beyond the Station at which it ought to be left.

14 When a Special Train or Engine has to be run without previous notice, the usual "Special Train" Tail Signal must, when

practicable, be attached to the preceding Train, for the guidance of the Platelayers and others employed on the Line.

15 When Trains are assisted by a second Engine in the front, the leading Engine must carry the Staff or Ticket; but when the assistant Engine is behind, pushing the Train, the Train Engine must carry a Ticket and the assistant Engine the Staff, except in cases where the Train and assistant Engine are travelling over the entire length of the Section, and have to be followed by another Train or Engine, when the Train and assistant Engine must each have a Ticket. When the assistant Engine is intended to return to the Station from which it started, without running through the entire Section, it must always carry the Staff.

16 In the event of an Engine which carries the Staff breaking down between two Stations, the Guard in charge of the Train will be held responsible for the proper protection of his Train until the same can proceed on its journey. The Fireman must take the Staff to the Staff Station in the direction whence assistance can be obtained or is expected, in order that the Staff may be at the Station on arrival of the assistant Engine. Should the Engine that fails carry a Ticket instead of a Staff, assistance should come from the Station at which the Staff has been left; but if assistance can be more readily obtained at a Station other than that where the Staff is, the procedure should be as provided in regulation 17, except that it will be to the Fireman who is going for assistance, that the Guard will give the written permission for his return with the assistant Engine. The Fireman must accompany the assistant Engine to the place where he has left his own Engine.

17 When a Train or portion of a Train is left upon the single line from accident, or inability of the Engine to take the whole forward, the Engine Driver must not, if he be in possession of a Ticket, return for it except by written instructions from the Guard; and the Guard must continue to protect his Train. If the Engine Driver be in possession of the Staff, he may return to his Train without obtaining instructions from the Guard authorizing him to do so.

18 Should the accident be of such a nature as to block the Line and stop the traffic for any considerable time, special arrangements must be made for working the Trains to and from the point of obstruction on each side. The Train Staff Regulations must be carried out on that side where the Staff is at the moment of the accident, and on the other side the traffic must be conducted by a Pilotman, to be appointed by an order in writing, and the person in charge of each end of the Section worked by the Pilotman must be supplied by the Officer appointing the Pilotman with a copy of such order. (See section III.)

19 When the Line is again clear, no Train or Engine must be allowed to pass the point where the obstruction existed without the Staff and the Pilotman. The Pilotman must accompany the Train or Engine carrying the Staff to the Staff Station, when the traffic will be again conducted according to the Train Staff Regulations.

20 When a Ballast, Firewood, or other Service Train (hereinafter referred to as a Service Train) has to work on the Line, the Staff must be given to the Engine Driver in charge of it. This will close the Line whilst the Service Train is at work. The Service Train must proceed afterwards to one of the Staff Stations to open the Line, before the ordinary traffic can be resumed.

21 Should, however, the Service Train be required to work between two Stations which are in effective telegraphic communication, and the circumstances are such as to necessitate the retention of the Staff at the starting Station, it will be competent for the Station Master to issue a Ticket to the Driver of the Service Train; but no following Train must proceed either with Staff or Ticket until the Station in advance has notified by telegraph to the starting Station that the Service Train in question is either shunted clear of the running Line or has proceeded onward.

22 Service Trains not stopping to work between Stations will run with Staff or Ticket as Ordinary or Special Trains.

23 It is to be clearly understood that these regulations do not in any way relieve those in charge of Service Trains of the responsibility of properly protecting them by Hand Signals.

24 All previous Orders not in accordance with the foregoing are hereby cancelled.

III.—WORKING OF LINE BY PILOTMAN.

WHEN, in consequence of an obstruction, a Station Master or other responsible officer undertakes to make arrangements for the working of a portion of a Section of the line by Pilotman, he must prepare two or more, as may be necessary, of the printed forms provided for the purpose of establishing working by Pilotman during obstruction (see specimen, page 9). One of these must be given to the officer in charge of the Staff Station from which the Pilotman is to work, and the other must be given to the Pilotman.

2 The Pilotman must, if possible, be a person who can speak, read, and write English, and he must wear a distinctive badge, which, until the regular badge can be obtained, must be a red flag tied round the left arm. So soon as the officer is satisfied that the arrangements are understood, Trains may be allowed to go on to the point of obstruction under the control and by the permission of the Pilotman.

3 The Pilotman must, when practicable, accompany every Train, but when it is necessary for him to remain at the obstruction for a succeeding Train, (section II., 19) as may be the case just before re-opening a long Section, he must furnish the Engine Driver with one of the printed Pilotman's Tickets (see specimen Ticket, page 9) properly filled up and signed, and must personally start the Train.

The Ticket granted in these cases will apply only to the single journey to the other end of the Section being worked by Pilotman, where it must be immediately given up to the Station Master, who must at once cancel it by writing the word "Cancelled" across the face of the Ticket, and after ordinary working has been resumed it must be forwarded to the Traffic Superintendent with a report giving full particulars.

After issuing a Ticket for the starting of a Train which he does not accompany, the Pilotman must not permit another Train to enter the Section until after a suitable interval, in accordance with the nature of the gradients (section V., 7), but in no case less than ten minutes, instructing the Engine Driver to proceed cautiously.

The Pilotman must accompany such Train.

SPECIMEN FORM.

Working of Single Lines by Pilotman during Obstruction.

Ceylon Government Railways.

_____ Station,
_____, 18 ____.

The Single Line at _____ being obstructed, the Traffic between _____ and the place of obstruction will be worked by Pilotman in accordance with Rules contained in section II., rules 18 and 19.

_____ will act as Pilotman, and no Engine or Train is to be allowed to pass between _____ and the obstruction unless he is present, and personally orders the Engine or Train to start.

This Order is to remain in force until the Pilotman is withdrawn by me.

Signed _____.

To _____.

* Noted by _____ at place of obstruction. Time _____.

* Noted by _____ Station or Box _____. Time _____.

* Noted by _____ Pilotman.

* These signatures must be made on the copy held by the Pilotman

1. The above form must be filled up and used whenever it is temporarily necessary, owing to obstruction on a Single Line, to work the traffic by a Pilotman.

2. In the event of a Station Master himself acting as Pilotman, he must address and give the form to the person he leaves in charge of his Station.

3. Station Masters and other persons in charge receiving this form will be held responsible that the Inspectors, Foremen, Signalmen, and others at their Station are immediately made acquainted with the circumstances, and are instructed in their necessary duties.

4. On the other side of the obstruction the line will be worked by the Train Staff as directed in section II, rule 18.

NOTE.—The time at which this form is cancelled must be written across it.

Form of Pilotman's Ticket.

(Front of Ticket.)

CEYLON GOVERNMENT RAILWAYS

PILOTMAN'S TICKET.

To be used in accordance with Rule 3, section III.

Train No. ____.

To the Guard and Engine Driver.

You are authorized to proceed from _____ to _____ Pilotman following.

Signature of Pilotman _____.

Date _____.

(Back of Ticket)

This ticket is to be given up by the Engine Driver, immediately on arrival, to the person in charge of the Staff Station to which he is authorized to proceed, to be dealt with as the latter may be instructed by the Traffic Superintendent.

IV.—SPECIAL ARRANGEMENTS FOR WORKING THE NIGHT MAIL TRAIN.

Colombo to Polgahawela.

1 The Night Mail Train will be run from Colombo to Polgahawela on the authority of a "Line Clear" Ticket, issued by the Station Master, Colombo, and will not carry or exchange either of the usual intermediate Train Staves or Tickets.

2 The following Stations, viz., Kelaniya, Hunupitiya, Mahara, Heneratgoda, Mirigama, Ambepussa, and Alawwa will be closed and the lights of signals connected with them extinguished on the receipt of a "stop work" order from the Station Master, Colombo.

3 To obtain the "stop work" order all stations from Mirigama to Kelaniya (except Veyangoda) will wire, after receiving "Line Clear" for No. 12 Down R.R. if it runs, and Ambepussa and Alawwa after receiving "Line Clear" for No. 13 Up, the following certificate:—

From Station Master, ———, to Station Master, Colombo.

I certify that the Train Staff for the ——— Section is locked in my safe, and that the line is clear in terms of Standing Order No. 4.

When No. 12 Down R.R. does not run Kelaniya will wire after receiving "Line Clear" for No. 11 Down, and Mahara, Heneratgoda, and Mirigama after receiving "Line Clear" for No. 13 Up.

As each certificate is received the Station Master will wire "stop work."

4 The Guard of No. 13 Up will wire on arrival at Polgahawela:—

From Guard (name), to Station Master, Colombo.

I certify that No. 13 Up Train has arrived here safely, and that after crossing No. ——— Down at ——— there has been no other Train on the road.

5 The Guard of No. 11 Down will give a similar certificate to the Station Master immediately after his arrival at Colombo.

Should No. 12 Down R.R. be running, or any Special Train later than No. 11 Down, the Guard of No. 11 Down must *not* give a certificate, but the Guard of the later Train must do so.

6 When the last Train due to arrive has safely come in, the Station Master, Maradana Junction, will send by hand to the Station Master, Colombo, a certificate similar to that wired from the Station in the form given above.

7 When all these certificates have been received by the Station Master he will sign the "Line Clear" Ticket, which will authorize the Driver of the Mail Train to proceed from Colombo to Polgahawela without carrying or exchanging the usual intermediate Train Staves or Tickets.

Form of Line Clear Ticket.

No. _____ LINE CLEAR TICKET. _____ UP.

Having received the prescribed intimations that the line is clear of all trains and engines, I hereby authorize the driver of NIGHT MAIL Train to proceed from COLOMBO to POLGAHAWELA with this Ticket in place of the usual intermediate Train Staves or Tickets.

Date _____.

Signed _____.

8 The Standing Order No. 4 referred to is as follows:—

Before the Line Clear certificate for the Mail Train is wired to the Station Master, Colombo, the Station Master must satisfy himself by personal inspection—

- That the line on which the Mail Train is to pass is perfectly free from any obstruction within the limits of his Station.
- That all points are correctly set in the proper position for the passage of the Train and are securely locked.
- That all road-crossing gates are securely locked across the cart road and are quite clear of the line.
- That every Engine and Train except the Mail has passed clear out of the sections on either side of his Station.
- That he has received "Line Clear" in both directions.
- That vehicles in sidings are firmly braked or spragged, that they are clear of the running line, and that the scotch blocks are placed across the rail and locked in that position.
- That all the keys referred to in b, c, and f are also locked in the safe.
- That the signal lights have been extinguished, and that all "Up" signals have been placed at "All right."

The certificate of the Station Master, Mahara, must include the Quarry Junction.

9 Station Masters must see that all signals are placed at *danger* before unlocking their safes in the morning for the issue of the Train Staff and point, gate, and scotch block keys.

10 All the intermediate gates will be closed and locked across the cart road, and the lights of the signals in connection with them extinguished, except No. 2 gate at 2 miles 10 chains and No. 4 gate at 3 miles 70 chains, which will work as usual.

11 The Station Master, Colombo, will forward daily to the Traffic Superintendent the certificates upon which he issued the Line Clear Ticket on the previous night, and the Station Master, Polgahawela, will forward the Line Clear Ticket duly cancelled.

12 Inspector Nambiar must make a careful inspection of all the level crossings at least once a fortnight to make sure that the signals, gates, and approaches are in good order and the fastenings complete and efficient. He must send in a fortnightly certificate to this effect to the Traffic Superintendent.

Kandy to Matale.

13 Mahaiyawa and Ukuwela Stations on the Matalé Line will be closed, and all intermediate level crossing gates will be locked across the public road, and the lights of the signals connected with them, and with the stations, extinguished, and the following Train Staff arrangements will apply.

14 The Driver of the 7.45 P.M. Down Train from Matalé must carry on to Wattagama the Staff for the Matalé-Ukuwela Section as well as the Staff for the Ukuwela-Wattegama Section and leave both at Wattagama. He must also carry on to Kandy the Staff for the Katugastota-Mahaiyawa Section as well as the Staff for the Mahaiyawa-Kandy Section and leave both at Kandy.

The Driver of the Night Mail must take from Kandy the Staves authorizing his journey to Katugastota, and must give both up at Katugastota; and from Wattagama he must take the Staves authorizing his journey to Mátalé, and must give them both up at Mátalé.

The Driver of the 5.55 A.M. from Mátalé must bring forward the Staves so conveyed and give them up at their respective Stations.

Gampola to Nawalapitiya.

15 The Driver of No. 15 Down must bring forward to Gampola the Staff for the Nawalapitiya-Ulapane Section as well as the Staff for the Ulapane-Gampola Section and must give them both up at Gampola.

The Driver of the Night Mail must take both the Staves through to Nawalapitiya and give them up there.

The Driver of the first Down Train from Nawalapitiya in the morning must take a Ticket to cover the Nawalapitiya-Ulapane Section and the staff for the Ulapane-Gampola Section to cover that section exchanging the Staff for a Ticket at Ulapane.

16 Before closing the station for the night the Station Masters of Mahariyawa and Ukuwela must receive a "stop work" order from the District Superintendent, Kandy, to obtain which they must telegraph the following certificate, and as each certificate is received the District Superintendent must wire the order to stop work:—

From Station Master, _____, to District Superintendent, Kandy. I certify that the line is clear for the Night Mail Train in terms of Standing Order No. 4.

Station Master, Ulapane, must similarly wire the District Superintendent, Nawalapitiya.

Station Masters must see that all signals are placed at *danger* before unlocking their safes in the morning for the issue of the Train Staff and point, gate, and scotch block keys.

The District Superintendents to forward these certificates daily to the Traffic Superintendent.

The District Superintendents, Kandy and Nawalapitiya, to note the foregoing orders relating to gates on the Main Line and to make the same arrangements in their districts, and particularly see that the fortnightly certificates are duly forwarded.

V.—RULES FOR WORKING THE LINE BY THE BLOCK TELEGRAPH SYSTEM.

THE Ceylon Government Railways are worked throughout on the block telegraph system. The object of the block telegraph system is to prevent more than one Train or Engine being between any two telegraph stations at the same time. The following instructions explain the mode of working, and must be rigidly adhered to by all concerned:—

- 1 Each length of line between telegraph stations is a Section.
- 2 Two Trains must not be in the same Section at the same time.

3 Immediately a Train starts from a Station the Station in advance must be informed by wire, thus: "T.A. on line."

4 Immediately a Train arrives at a Station, the Officer in charge having satisfied himself by seeing the tail lamp that the whole of the Train has safely arrived, must telegraph to the Station in the rear, thus: "T.A. arrived"

This will indicate to the Station in the rear that the line is clear up to the outside limit of the Station in advance.

5 No Train or Engine may leave any Station until the message announcing the arrival of the preceding Train at the Station in advance has been received and recorded in the book provided for that purpose.

No inquiry is to be made for the "T. A. arrived" message; if it has not been received in due course rule 6 must be carried out.

6 Course to be followed when "Train Arrived" is not received after proper interval:—

If after signalling a Train forward an unusual time has elapsed without "Train Arrived" being given the Station Master must assume that the Train has broken down, and not that the "Train Arrived" signal has been omitted to be sent, and he must ask for information as to the cause of delay by sending a message in the following form:—

"D. D. D.

From _____

To _____

Do you know why Train No. _____, signalled to you at h. _____ m. _____, has not arrived?"

The reply is to be sent in a similar form, but in all cases before replying the Station Master must be particular to refer to his Line Clear book to satisfy himself that no mistake has been made.

7 When from any cause communication by telegraph is interrupted, the traffic must be worked as follows:—

- a. On the Kadugannawa Incline the Trains may proceed with extreme caution, following each other at intervals of not less than twenty minutes.
- b. On the Bandarawela line Trains may proceed with extreme caution, following each other at intervals of not less than twenty minutes.
- c. On the Gampola-Nawalapitiya section Trains may proceed with extreme caution, following each other at intervals of not less than twenty minutes.
- d. On all other portions of the line the interval must not be less than fifteen minutes.

Before any Train or Engine is allowed to enter the Section where the telegraphic failure exists the Engine Driver and Guards must be informed in writing of the circumstance.

These rules in no way interfere with the Regulations for Working by Train Staff and Ticket.

VI.—SPECIAL RULES FOR WORKING TRAINS ON THE KADUGANNAWA INCLINE.

THE Incline is divided into four Sections :—

- a.—Rambukkana to Kadigamuwa.
- b.—Kadigamuwa to Alagalla.
- c.—Alagalla to Ballany.
- d.—Ballany to Kadugannawa.

Each length of line between these Stations is a Section.

Two Trains are not to be on the same Section at the same time.

The Incline is worked in accordance with the block-instructions as per section V.

Up Trains.

Up Trains with two Engines must have one Engine in front and one in rear, the heavy bank Engine always being in front.

The full load, including Brake Vans, is shown on page 26, and this number must not be exceeded. With Goods Trains a Brake is to be attached in front of the seventh vehicle from the rear of the Train. When an Engine of the 63 class works the Train the Brake is to be attached in front of the ninth vehicle from the rear.

When a Train is so light as to require only one Engine, care should be taken to have sufficient brake power in rear to hold the whole Train if required.

Down Trains.

The Engines are all to be in front, and in Goods Trains a bank Brake Van is to be placed in the centre of the Train.

The full load of a Train is 28 loaded vehicles, or 30 loaded and empty including Brake Vans, which number must not be exceeded.

Before leaving Kadugannawa Station such a number of the brakes on the vehicles in the front part of the Train are to be applied as will enable the Train to be easily stopped on the summit of the Incline.

Every Train must be brought to a dead stand on the summit of the Incline.

Before commencing the descent of the Incline such a number of the brakes of the vehicles are to be applied by screwing, weighting, or pinning down as will ensure the most perfect control over the Train.

The greatest caution and vigilance must be observed by Engine Drivers and Guards in working down Inclines, and under no circumstances may lost time be made up on a descending gradient. The prescribed speed must be uniformly maintained throughout.

Engine Drivers when requiring the speed reduced will give three short whistles, and the usual two short sharp whistles when they require the Train to be stopped.

When a Train is in charge of a Bank Rider he will determine the amount of brake power to be applied. Guards, Brakemen, and bank coolies must implicitly obey his directions, and render him every assistance in the safe working of the Train.

In the absence of a Bank Rider the Head Guard will take this duty, and must be assisted and obeyed in like manner.

Every Train will be supplied with more than sufficient brake power, and the Engine Driver and Bank Rider or Head Guard will be held jointly responsible for its safe working down the Incline.

VII.—SPECIALS ON INCLINES.

FOR the protection of Trolleys working down Inclines, the following instructions are to be adhered to :—

1 No special Train or Engine is permitted to be run over the under-mentioned Sections of the Line, viz. :—

- UP.**—From Rambukkana to Kadugannawa.
From Nawalapitiya to Hatton.
From Talawakele to Pattipola.

DOWN.—From Bandarawela to Pattipola.

Nor in either direction between Hatton and Talawakele until previous notice has been duly given by one or more of the following means, viz. :—

- a.—By written advice in ordinary course.
- b.—By telegram and tailboard.
- c.—By "special following" signals on the preceding Train.
- d.—By telegram only.

2 When in a case of emergency the last method is the only one possible, no Engine or Train may be started until the telegram shall have been received at and acknowledged by the Station next in advance, except as provided in clause 6 hereof.

3 Immediately upon receipt of a telegram announcing the running of a Special, for which no notice as in a, b, and c has been given (such as relief Engines, or Engines with Train Staff), the Station Master must exhibit a red flag (or red light in the opposite direction to which the Train or Engine is running) upon the running line until such Engine or Train shall have arrived.

The danger Signal so exhibited is for the guidance of Officers in charge of passing Trolleys, and such Officers will stop at such Signal, and remove the Trolley from the line.

4 Should it be within the knowledge of a Station Master receiving telegraphic notice of a Special Engine or Train for which no notice as in a, b, and c has been given, that a Trolley is in the Section over in which the Special is to run, he must at once telegraph to the Station advance of the Trolley to stop the Special until the arrival of the Trolley.

5 In order to prevent unnecessary delay under clause 4, Officers using Trolleys which are not going through to the next Telegraph Station in advance must invariably stop at the last Station they are passing and inform the Officer in charge that the Trolley will be removed at a certain time and mileage.

6 Should there be a failure of the telegraph at the time the Special is required to run, the Special must be despatched in the time of, or near the time of, a booked Train; but should that be impracticable, the Special must run at Caution, and the whistle must be frequently sounded.

7 Officers in charge of Trolleys should acquaint themselves with all the information obtainable and required before starting down Inclines, and the Station Masters are directed to give every such information, but these regulations in no way relieve the Officer in charge of the Trolley of his responsibility that all due and proper precautions for its safety are taken by him.

8 The Assistant Engineer at Nānu-oya and Inspector of Ways and Works at Kandy should be informed of all Special Trains run above Kadugannawa.

The following District Officers should be informed of the Special Trains run over their respective Districts :—

Between Rambukkana and Kadugannawa.

Foremen Platelayer at Kadugannawa.

Between Kadugannawa, Kandy, and Nawalapitiya.

Foreman Platelayer at Gampola.

Between Nawalapitiya and Hatton.

Foreman Platelayer at Hatton.

Between Hatton and Nānu-oya.

Foreman Platelayer at Nānu-oya.

Between Nānu-oya and Ohiya.

Foreman Platelayer at Pattipola.

Between Ohiya and Bandarawela.

Foreman Platelayer at Ohiya.

Between Kandy and Matale.

Foreman Platelayer at Wattagama.

VIII.—NANU-OYA TO BANDARAWELA EXTENSION.

THE following information is given for the guidance of Drivers and Guards working over the line :—

2 Double Up Trains will be assisted by an Engine at the rear from Nānu-oya to Pattipola, and double Down Trains from Bandarawela or Haputalé to Pattipola. At Pattipola the assistant Engines of Trains in both directions must be placed in front.

Gradients and Working.

3 From Nānu-oya, 128 miles 6 chains to 135 miles 11 chains, the ruling gradient is 1 in 52 up, with one or two slight exceptions, as at 131 miles 16 chains and 134 miles 55 chains, where, for a few chains, it flattens to 1 in 94 and 1 in 80.

4 At 135 miles 11 chains there are 2 chains of level, and then 11½ chains of 1 in 66 down, followed by 22 chains of 1 in 440, also down, whence there is a rise of 1 in 60 for 40 chains, a level for 2½ chains, and then a fall of 1 in 55 for 31 chains, succeeded by a level for 4½ chains, and a rise of 1 in 60 for 38 chains; when Ambawela Station is reached at 136 miles 76 chains.

5 Between 135 miles 11 chains and Ambawela Station, 135 miles 76 chains, the Trains must be handled very carefully indeed, because of these reversing gradients.

6 From Ambawela, 136 miles 76 chains, to Pattipola, 139 miles 6 chains, there is a succession of up gradients. The gradients are :—

1 in 50 for 50½ chains	1 in 47½ for 61½ chains
1 in 66 for 7 do.	1 in 50 for 35 do.

7 At Pattipola, 139 miles 6 chains, there is a Crossing and Telegraph Station, and at this Station the assistant Engines of Trains in both directions must be placed in front

8 From Pattipola, 139 miles 28 chains, to Summit Level, 139 miles 53 chains, there is a rise of 1 in 66, then the Summit Level of 19 chains, falling to 1 in 200 for 4 chains and 1 in 73 for 26 chains, from whence there is a down gradient of (practically) 1 in 44 for whole distance, 13 miles 20 chains, to Haputalé.

9 At Summit Level all Up Trains must stop, and before commencing the descent of the Incline, such a number of the brakes of the vehicles must be applied by screwing, weighting, or pinning down as will ensure the most perfect control over the Train.

10 Haputalé, 153 miles 42 chains, to Diyatalawa, 156 miles 54 chain; is practically 1 in 44 falling; Diyatalawa Yard is on 1 in 100 falling; Diyatalawa to Bandarawela contains several short levels as below :—

End of Diyatalawa Yard	156 61	}	1 in 44
	to		
	158 72	}	Level
	159 17		1 in 44
	159 43	}	Level
	159 54		1 in 44
	159 63	}	Level
	159 67		1 in 200
Bandarawela Yard	160 48½		

Down Trains.

11 The gradient from Bandarawela to Summit Level is practically 1 in 44 up all the way, except for the several short levels shown as between Bandarawela and Diyatalawa and assistant Engines must be placed at the rear of the Trains.

12 All Down Trains must be brought well under control at Summit Level and let cautiously down to Pattipola.

At Pattipola, 139 miles 28 chains, there is a Crossing and Telegraph Station, and at this Station the assistant Engines of Trains in both directions must be placed in front. Before leaving Pattipola sufficient brake power must be applied to take the Train safely down to Ambawela, 2 miles.

13 From Ambawela, 136 miles 76 chains to 135 miles 11 chains, is a series of reverse gradients (see paragraph 3), and the greatest care must be taken to ensure smooth working of the Trains and prevent the breaking of drawbars.

14 At 135 miles 11 chains all Down Trains must stop, and sufficient brake power must be applied to take the Train safely down to Nānu-oya, a distance of 7 miles on a down gradient of practically 1 in 52.

There are three level crossings on the Haputalé-Bandarawela extension : 1 at 153 miles 44 chains, just outside of Haputalé Station, protected by the Haputalé Station Down Home Signal; 1 at 158 miles 70 chains protected by a Signal in each direction; 1 at 159 miles 40 chains protected by one Double-armed Signal.

GENERAL NOTICES TO STATION MASTERS, INSPECTORS, GUARDS, AND OTHERS.

EACH Station Master is required to examine and compare every issue of the Time Books, Bills, and Special Train Notices, as far as his own Station and Staff Working is concerned, and to report immediately by wire to the Traffic Superintendent any inaccuracies he may discover.

2 Each Station Master will be held responsible that each Guard, Signalman, Gatekeeper, and other member of the Staff under his charge, who can read and understand English, and whom it may concern, is promptly supplied with a copy of the Service Book, and any Notice of Special Traffic or Special Arrangements which may be issued.

It will be the duty of the Station Master to convey such information in suitable terms to those of his Staff whom it may concern who are unable to read and understand English.

3 In the event of a break down, accident, or serious delay to any Train, the nearest Station Master must at once telegraph all particulars to the General Manager and Traffic Superintendent at Colombo, and to the District Superintendents; the Traffic Superintendent will arrange for copies of such Telegrams to be at once sent to the Engineer of Ways and Works, Locomotive Engineer, and Accountant; and the District Superintendents will send copies to the local officials of Engineering Departments.

Foremen, Guards, and Drivers must give the Station Masters all particulars in their power.

4 In the event of a Train coming to a standstill in ascending an Incline, it must be divided, and the first portion taken to the top of the Incline or to the next Shunting Station, care being taken that the rear part is properly secured with sprags and brakes before the foremost part is disconnected. The Senior Guard must remain with the portion of the Train left behind, and the Junior Guard go with the first portion of the Train to the top of the Incline, or to the Shunting Station.

When there is only one Guard with the Train it is the duty of the Fireman to ride upon the last vehicle of the front portion of the Train in place of the Junior Guard.

The Guard left with the second portion of the Train in each case must take the necessary steps to protect it. Special attention is directed to Rules 16 and 17 of the "Regulations for Working by Train Staff and Ticket" contained herein.

5 Should any case occur where a Passenger Train comes to a stand in any of the longer tunnels on the Incline, and the Train cannot at once proceed on its journey, the front Driver, after giving three short whistles, must immediately commence cautiously to back the Train until it is clear of the tunnel, the rear Driver controlling the speed with his Engine Brakes.

The Guards, immediately the Train has commenced to back, must at once apply the Independent Brakes on a sufficient number of vehicles as to have the Train under control, so that it may be brought to stand when clear of the tunnel. Should it then be decided by the Drivers that they are unable to take the Train forward, the Train must be divided and the front portion worked forward to the next crossing Station, in accordance with clause 4

6 When from any cause, such as "line clear" not having been received, crossing Train not having arrived, the Train Staff not being at the Station, or other reason, it is necessary to stop a Train, which otherwise would run through, the fixed signals must be kept at danger till the speed of such Train has been sufficiently reduced to enable it to stop at the point required.

7 When a Train has to "pass" or "cross" another Train at a Station at which it is not appointed to stop, the Driver of the Train which is not appointed to stop must approach at reduced speed, and when the Signal is showing "All right," pass through the Station slowly, and be prepared to stop by Hand Signal or otherwise.

8 Drivers of Trains must approach and pass through the "Crossing Places" cautiously.

9 Engines to assist Up Trains from Nawalapitiya must not leave that Station until five minutes after the departure of the Trains they are to assist, and the speed must not exceed six miles an hour.

10 Catch Points are situated on the Colombo side of Galboda, Watawala, Hatton, Watagoda, Nanu-oya, and Ambawela Stations, also on the Bandarawela side of Ohiya, Haputale, and Diyatalawa.

11 Trains must be marshalled, classified, and made up as follows, and Guards in charge of Trains must report every case in which the instructions are not strictly carried out:—

a. They must be so formed before starting that vehicles for each Station shall be together when put off; this rule must be observed throughout the journey, unless special instructions are issued to the contrary.

b. The order of marshalling must be that Vehicles for the Station at which the Train terminates shall be next the rear Brake Van, and the Vehicles to come off at the next Station next the Engine. This rule must be observed throughout, the object being to facilitate the work with the Trains at Stations by having as few Vehicles as possible attached to the Engine when shunting.

Exception.—Through traffic not passing *via* the loop at Pérádeniya Junction must be formed in reverse order.

c. Vehicles containing EXPLOSIVES must always be marshalled as near the rear Brake Van as possible.

Exception.—At Watawala and Galboda, by Down Trains, the Vehicles are to be picked up as they stand, next to the Engine.

Vehicles in which gunpowder, kerosine oil, or other dangerous goods are loaded must have an "Explosive" label (A 208) nailed on each side. The Loading Station will be held responsible for doing this.

Explosives in small Quantities.—Explosives marked (*) in Classification Book in consignments of less than 56 lb. may be conveyed

in the locker of Guards' Vans by Goods Trains if packed in the same manner as gunpowder by Passenger Trains (*vide* clause 29 of page 15 of Classification Book).

Not more than two consignments to be forwarded by the same train.

12 Every Brake Van attached to a Train must be provided with one screw coupling, a tail board, and two springs. Every rear van must also carry a complete set of side and tail lamps.

It will be the duty of the Officer in charge of the Station at which Brake Vans are attached to see each Van properly equipped before starting.

Guards must report on their Journal any neglect of this order.

13 Each Guard must, before starting on his journey, satisfy himself that his watch is correct with the clock at the Station from which he starts, and must again compare and regulate it if necessary by the clock at the Station where his journey ends, before commencing his return journey. Colombo Time to be strictly observed at all Stations.

14 The Brakes and Couplings of every vehicle must be carefully examined before being taken on, either from the starting Station or at any intermediate Siding, and any that are defective must not be attached to the Train, the Guard reporting those that are refused to the Station Master, and also on his Journal.

15 Through Traffic must be worked by the proper service of Through Trains to destination, and not short to intermediate Stations.

16 Traffic for the longest distances must have preference by Through Trains. Wagons reduced at Stations as over the load must go forward in order of date.

17 Guards must see that they have Invoices for all Wagons in their Trains, except those from Colombo, and specially report every case where this rule is departed from. Any neglect in this respect will be punished by fine or dismissal.

18 Should a Train on arriving at a Station be so heavily laden that it cannot take on more Vehicles, the Guard is to ascertain what traffic there is to be forwarded, and if it is *Perishable*, Market, or General Goods, he is to detach from his Train a sufficient number of non-important Wagons, so that he may take forward the urgent traffic.

To facilitate this the specially printed "*Perishable*" label (A 209) must always be affixed to Wagons by the Loading Station.

Loaded Wagons must always be taken on in preference to empties.

19 To facilitate shunting operations the Guard must inform the Driver, as far as possible, what Wagons are to be exchanged at the next Station in advance.

20 All Wagons to and from Galboda, Watawala, Alawwa, Ambepussa, Mahara, and Moratuwa to be weighed at Colombo.

21 Mixed Wagons must be labelled to the several Stations for which they contain goods with label A 210, and marshalled to go through to the furthest Station. Wagons containing goods for more than one Station on the Bandarawela Line must be attached to No. 8 Up Train only, in order that goods for intermediate Stations may be unloaded while the Train waits.

Discretion in the loading of Mixed Wagons is expected; for instance, traffic for Kotagala and Haputale should not be loaded together if it is possible to put the Kotagala traffic in a Wagon for Talawakele. As a rule small lots for Galboda and Watawala should be loaded together or with goods for Hatton, small lots for Kotagala with goods for Talawakele, small lots for Watagoda with goods for Nanu-oya, small lots for Ambawela and Ohiya with goods for Haputale, and with Bandarawela for Diyatalawa.

Every endeavour should be made to obtain full loads for single Stations, to prevent the delays inevitable in the case of Mixed Wagons.

Every Wagon loaded to the Bandarawela Line should contain at least two tons, and all concerned are requested to see that Wagons do not run light over this section of the Line; but this is not to be made an excuse for delaying traffic.

22 Non-vacuum vehicles (not being carriages conveying passengers) and not exceeding three four-wheelers in number may be run in rear of trains on any part of the line between Mátara and Kandy and Nawalapitiya, provided always there is an engine in the rear on the Kadugannáwa and Ulapane Inclines.

23 The attention of Guards is invited to General Rules 222, 228, and clause 5 of Rule 297, and it is hereby ordered that no Train shall be brought to a Terminal Station at a higher rate of speed than will admit of its being stopped by the application of the ordinary hand brakes only.

24 Frequent complaint is made of carriage doors coming open between Stations; and Station Masters, Guards, and all concerned are requested to see that every door is properly closed before the starting of any Train. The Station Master and Guard are equally responsible for this being done, and will be held equally liable for any consequences which may arise out of a neglect of this order.

25 The Refreshment Cars are not to be considered as affording seating accommodation for passengers, and sufficient room should always be provided on the Trains for the requirements of First and Second class travellers, irrespective of the Refreshment Cars.

26 Horse-boxes should only be used for the conveyance of horses; and should applications be made for horse-boxes to convey cattle, the applicants should be informed that horse-boxes are not available, and that cattle should be sent in cattle trucks. An exception may be made in the case of valuable cows, for which special rates will be quoted on application to the Accountant.

27 Station Masters and Guards must exclude from the English and other best carriages all packages that will not go under the seats; in fact, as far as possible, all boxes and articles likely to damage the upholstery should be kept out, and only bags, rugs, and small articles of that kind allowed in.

28 The maximum gauge for loading in open wagons—timber, machinery, boilers, &c.—should be as under:—

	Ft. in.
Height above rail at centre	... 13 6
Width at top or 4 ft. 6 in. above rail	... 9 6
Width at 6 ft. above rail level	... 10 6

29 Charges for broken carriage windows :—

Lavatory, Rs. 7.50 ; Third Class, Rs. 2 ; Bogie Composite or Section, Rs. 4.50.

30 In case of any alteration of the Engine running that may affect the Locomotive working, the Officer making the alteration must advise the Locomotive Officer of the District at the time the alteration is made. An alteration is only to be made when specially necessary from some unforeseen cause.

ACCOUNTANT'S DESPATCH CASES.

The Accountant's Despatch Case with memo. of contents (Form No. A 254) must be sent to the Accountant, Colombo, daily (Sundays excepted), by trains as under :—

Bandarawela to Galboda by the 12 40 P.M. Down Train.

Nawalapitiya Line and Stations from Matale downwards to Polgahawela inclusive by the Train leaving Nawalapitiya at 1 24 P.M. and Matale 12.50 P.M.

Alawwa and remaining Down Stations by the 4.22 P.M. Down Train.

Coast Line, Matara to Maradana inclusive, by the 7.30 A.M. Up Train.

Saturday's and Sunday's ticket slips, collected tickets, &c., must be sent on Monday.

All Despatch Cases will be returned to Colombo Terminus in time to be forwarded by the following Trains :—

To Stations on the Main Line as far as Kandy by the 5 15 P.M. Up.

To Matale, Nawalapitiya, and Bandarawela Line Stations by the 9 15 P.M. Up Mail Train.

To the Coast Line by 5.12 P.M. Down. Station Master, Kalutara South, to see to the transfer at his Station into the proper trains for Stations to Galle.

The Station Master, Colombo, will see to their despatch by these Trains. If any Station Master fails to receive his Despatch Case by the right train he should call the attention of the Guard to the fact and report it to the Accountant by the next Train, otherwise he will be held responsible for the value of the case.

EXAMINATION AND COLLECTION OF TICKETS.

THE ticket of each intending passenger by train must be examined by the station staff before the passenger is allowed to join the train. The person examining the ticket should nip it.

2 Tickets, passes, &c., must be collected from passengers at the stations where they alight, except when arrangements have been made for collecting them at stations short of destination (such as collection of Colombo tickets at Maradana Junction).

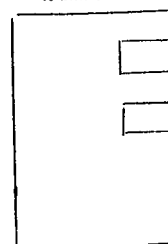
Immediately after collection the tickets must be cancelled by the cancellation nippers. (Accountant's Circular T 137/92.)

3 If a passenger travels in a train with a ticket out of date, or otherwise not available, and the excess has not been collected at the station where the passenger joined the train, and if the excess due cannot be recovered at destination, the station at which the passenger joined the train will be debited with the full amount of excess. (Accountant's Circulars Nos 8688 and 89 of December 13, 1888)

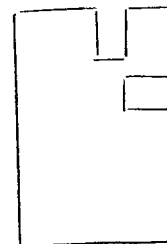
4 Passengers joining trains at terminal stations must be seated by the station staff, who will be held responsible for examining the tickets of the passengers. (Traffic Superintendent's Circular No. 63 of September 19, 1887.)

5 *Collection of Excess* — When a passenger wishes to override, or to travel in a carriage of a class higher than that for which he holds a ticket, the Station Master of the station at which this is made known must collect the excess (single fare from station to which ticket is available to station to which passenger wishes to travel, or difference between single fares), retain the ticket, and issue an excess fare ticket (Form A 5)

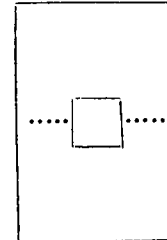
Change from 2nd to 1st Class, or from 3rd to 2nd Class



Change from 3rd to 1st Class



If the passenger is overriding the guard should fold the ticket & nip in centre, thus,



The ticket should then be handed to the Station Master, who will collect the excess

6 The Station Master who collects the ticket and excess must mark "Excessed" on the ticket, also the number of the excess fare ticket issued, and the station to which it was issued. The excessed tickets to be sent to the Accountant daily, pinned to the daily excess fare return. (Accountant's Circular No. 20 of February 15, 1889.)

7 To prevent delays the Station Master must carry his excess ticket book and fare table with him when attending to trains.

8 The excess fare ticket should, as far as possible, be filled in with ink or over carbon paper, and must always be signed in full by the person who collected the excess.

9 In all cases where Guards become aware that passengers are riding in a carriage of a next higher class than that for which they have tickets, the guards must nip their tickets twice on one side of the tickets, and if passengers holding third class tickets are travelling in a first class carriage the ticket must be nipped once at the end and once at the side (Traffic Manager's Circular No. 15 of March, 1879)
— See previous page.

10 Whenever in consequence of insufficient room in the Train the Guard finds it expedient to place a passenger in a higher class of carriage than that for which he holds a ticket, care must be taken to point out the passenger to the Station Master of the station at which he alights, and advise him of the circumstances. If the Guard leaves the Train at an intermediate station he must inform the Guard to whom he hands over charge of the Train

11 Stations collecting excess fare tickets in lieu of tickets must carefully scrutinize them, and be quite satisfied they cover the journey before passing them. (Traffic Superintendent's Circular No. 43 of June 26, 1889)

12 *Passes*—Special attention is called to Accountant's Circular No. ¹³³³/₃₃₃ /89 of February 10, 1890.

13 *Season Tickets*—The attention of Station Masters is called to clause 3 of Season Ticket Contract (Form A 38), and Station Masters are required to see the Season Tickets held by passengers who state that they hold such tickets

14 *Ticket Nippers*.—Numbered ticket nippers have now been issued to Station Masters and Guards, and special attention must be paid to instructions contained in Circular No. ²²³/₃₀₃ /90 of March 2, 1891.

15 *Excess Luggage*.—When booking excess luggage the numbers printed on tickets held by passengers must in every case be inserted on the excess luggage ticket.

The excess luggage ticket must be collected at the time the excess luggage is delivered to owner at destination.

16 *Horse, Carriage, and Dog Tickets*.—These tickets must be collected before owner is allowed to remove the horse, carriage, or dog at destination, and a receipt must be obtained in the delivery book or on the back of the ticket.

RESERVED ACCOMMODATION.

For instructions how to charge, see Accountant's Circular No. ³⁶¹/₃₃₃ /92.

STATIONS AT WHICH TICKETS ARE TO BE EXAMINED AND COLLECTED.

Coast Line.

By 4.45 A.M. and 9.5 A.M. Up Trains on week days, and 5.0 A.M. and 10.35 A.M. Up on Sundays, tickets must be examined at Maradana Junction before the Train leaves there for Colombo Terminus, and tickets for Maradana collected.

By 1.15 P.M. and 5.35 P.M. Up, tickets must be examined at Pettah, and those for Maradana collected.

Main Line Up Trains.

Colombo Terminus.—All tickets must be examined at the time the passengers are seated.

Maradana Junction.—Passengers by 7.30 A.M., 1.50 P.M., and 5.15 P.M. Trains must be seated, and their tickets examined by Colombo collectors.

Kadugannawa.—By 7.30 A.M. and 1.50 P.M. Trains tickets must be examined, and passengers in wrong portion of Train changed.

The Head Guard will be responsible for the examination of First and Second class carriages and Refreshment Car in Bandarawela portion, the Station Master for the Third class Nawalapitiya and Bandarawela. The Under Guard for First and Second class in Kandy portion, and the Booking Clerk for Third class

Peradeniya Junction.

By the 9.15 P.M. Up Mail the Guards must see that passengers for Kandy and Matale line are changed into the connecting Train.

Main Line Down Trains.

Gampola.—By 6.0 A.M. and 6.35 A.M. Trains all tickets must be examined, and any passengers in the wrong portion must be changed.

The Head Guard will be responsible for examination of First and Second class carriages and Refreshment Car, and Senior Booking Clerk for Third class in Colombo portion. The Under Guard for First and Second class, and Junior Booking Clerk for Third class in Kandy portion.

Peradeniya Junction.—By 5.25 A.M. Down the Guards are responsible for the proper changing of passengers at this Junction.

Polgahawela.—By 5.25 A.M. Nanu-oya and 6.35 A.M. Express Trains tickets must be examined, and passengers for stations at which these Trains do not stop must be changed by the Station Staff.

By the 6.35 A.M. the Head Guard and Under Guard of the following Stopping Train will be responsible for the examination of the portions from Bandarawela and Nawalapitiya, and the Polgahawela Station Staff for the portion from Kandy.

Matale Line.—By 5.55 A.M. Down Train tickets must be examined at Kandy by Station Clerks, and passengers seated in the proper portions of the connecting Train for which they hold tickets.

LOADS OF TRAINS.

UP.	Single Engine				Double Engine
	4-wheel Coupled, 5-ft Wheels, 16 in by 22 in.	4-wheel Coupled, 6-ft Wheels, 17 in by 24 in.	6-wheel Coupled, 4 ft 4 in Wheels, 17 in by 26 in.	6-wheel Coupled, 4 ft 4 in. Wheels, 18½ in by 26 in.	
Galle to Colombo	24	28	—	—	—
Colombo to Rambukkana	24	28	—	—	—
Rambukkana to Kadugannawa	7	9	12	—	20
Kadugannawa to Kandy	24	28	—	—	—
Kandy to Katugastota	11	—	—	—	—
Katugastota to Wattagama	15	—	—	—	—
Wattagama to Matale	14	—	—	—	—
Kandy to Gampola	20	23	—	—	—
Gampola to Nawalapitiya	11	13	C W.	C W.	22—23
Nawalapitiya to Hatton	—	—	10—9	13—12	18—20
Hatton to Talawakele	—	—	12	14	22
Talawakele to Nanu-oya	—	—	10—9	13—12	18—20
Nanu-oya to Pattipola	—	—	11—10	13—12	18—20
Pattipola to Bandarawela	—	—	20	20	20

DOWN.

DOWN.	Single Engine				Double Engine
	4-wheel Coupled, 5-ft Wheels, 16 in by 22 in.	4-wheel Coupled, 6-ft Wheels, 17 in by 24 in.	6-wheel Coupled, 4 ft 4 in Wheels, 17 in by 26 in.	6-wheel Coupled, 4 ft 4 in. Wheels, 18½ in by 26 in.	
Bandarawela to Pattipola	—	—	10—9	13—12	18—20
Pattipola to Nanu-oya	—	—	14	17	24
Nanu-oya to Talawakele	—	—	24	24	24
Talawakele to Hatton	—	—	14	17	24
Hatton to Galboda	—	—	24	24	24
Galboda to Nawalapitiya	—	—	14	17	24
Nawalapitiya to Peradeniya	20	24	—	—	30*
Peradeniya to Kandy and vice versa	24	24	—	—	30*
Matale to Wattagama	11	—	—	—	—
Wattagama to Katugastota	18	—	—	—	—
Katugastota to Kandy	11	—	—	—	—
Peradeniya to Kadugannawa	19	22	—	—	30*
Kadugannawa to Rambukkana	28	28	—	—	30*
Rambukkana to Colombo	27	30	—	—	—
Colombo to Galle	24	28	—	—	—
Kurunegala to Polgahawela and vice versa	20	—	—	—	—

"C" means Coaching stock.

"W" means Goods or Mixed.

Wharf to Colombo and vice versa { Tank Engines, 12
 Goods Engines, 16 by 22, 20

Tank Engines on Coast Line, 17.

Galle and Matara and vice versa { Tank Engines, 14
 Passenger Engines, 17 by 24, 24

* Not to exceed 30 vehicles, loaded or empty

Carriage Loads—1 Bogie to count as 2 four-wheels, 2 bogies to count as 5 four-wheels, 3 bogies to count as 7 four-wheels, 4 bogies to count as 10 four-wheels, 5 bogies to count as 12 four-wheels, 6 bogies to count as 14 four-wheels, 7 bogies to count as 17 four-wheels, 8 bogies to count as 20 four-wheels, 9 bogies to count as 22 four-wheels, 10 bogies to count as 24 four-wheels.

Horse-boxes and carriage trucks, 5 loaded or 6 empty to count as 4 four-wheels.

Goods Vehicles.—The loads given above refer wholly to four-wheel vehicles. Carriages and wagons, steel wagons, and 12-ton wagons, whenever loaded with over 8 tons, are to count as follows:—3 to count as 4 of the ordinary type, 6 to count as 9 ordinary.

Steel bogie low-sides when loaded with over 12 tons count as 3 four-wheel ordinary wagons.

For the information of Drivers the weights of contents of steel and 12-ton wagons must always be shown on the label.

The attention of Drivers is particularly called to their authority to reduce the load as shown in maximum above; but in such cases a report must be sent to the Traffic Superintendent by the Station Master, and the Driver must state the reason of his refusal on his Train Ticket.

Three empties to count as two loaded ones.

FORMATION OF TRAINS.

* * The formation in all cases is from the Engine to the rear.
 Four-wheeled stock is intended unless Bogie stock is specially ordered.
 Every precaution must be taken for the prevention of Empty Mileage.

Main Line Up Trains.

4.0 a.m. Nawalapitiya to Nanu-oya and Bandarawela.

Continuation of 9.15 p.m. from Colombo.

One Bogie Third, one Sleeping Car, and Bogie Brake Refreshment Car will be detached at Nanu-oya and a new train consisting of a Bogie Third and a Tri-Composite taken on.

9.25 a.m. Kadugannawa to Kandy.

Goods Wagons, Four-wheeled Composite, Four-wheeled Third, and Brake Van.

6.0 a.m. Colombo to Talawakele.

Mixed to Polgahawela; goods beyond.

Engine, seventeen Wagons, one Goods Brake Van, one Four-wheeled Composite, three Thirds, and one Passenger Brake Van from Colombo, and one Van Goods Wagon from Henaragoda for Van Goods for Bandarawela Line. To clear Colombo of Bandarawela Line Wagons.

The Colombo men to get this Train ready at Polgahawela for the Incline, so that there shall be no delay at Rambukkana. At Polgahawela this Train must be made up to a full load with Wagons from Kurunegala and Polgahawela.

6.30 a.m. Kandy to Nanu-oya.

Goods only to Peradeniya; mixed beyond. The Coaches for this Train, viz, one Brake-Tri-Composite and one Bogie Third will come from Kandy attached to the rear of 7.10 A.M.

To take traffic for Stations beyond Nawalapitiya. Full load to be made up at Peradeniya Junction.

7.30 a.m. Colombo to Bandarawela.

One Bogie Third (if required), and one Refreshment Car for Nawalapitiya; one Bogie Composite and two Bogie Brake Thirds for Bandarawela; one Bogie Composite, one or more Bogie Thirds and one Bogie Brake Third for Kandy.

This train must be formed of varnished stock only, and be fitted with the Vacuum Brake throughout.

Notes — Station Master, Colombo, to advise Rambukkana the total load of the Train, and Kandy and Nawalapitiya the number and destination of vehicles for Stations beyond Nawalapitiya; also to advise Kandy the number on for Matale, Gampola and Nawalapitiya.

This Train to stop at West Junction, Peradeniya, to detach Kandy portion. It will then proceed *via* the Loop to South Junction, and back to the platform to attach there the portion from Kandy.

When the signal at the West Junction is at danger, this Train must stop dead before passing it.

An extra Engine will assist this Train from Gampola to the top of 85th mile Bank, returning at once to assist No. 4 Up Goods when required.

This Train will work the goods traffic forward from Nanu-oya and must reduce a Bogie Brake Third, if necessary to do so, to clear the yard of Up traffic.

10.40 a.m. Kandy.

The guard of 7.30 A.M. will telegraph from Rambukkana to the Station Master, Kandy, the seating accommodation available in the Bandarawela Composite; and if there is sufficient room for the Kandy passengers this Bogie Composite is not to be run. If it has to be run, it should be detached at Nawalapitiya, if possible.

One Bogie Third for Talawakele, one Bogie Composite for Hatton, and one Bogie Brake Third for Nanu-oya.

All varnished stock fitted with the Vacuum Brake.

Also one Bogie Composite and one Bogie Brake Third, in rear, for Colombo.

This Train will stop at the East Junction and leave the Colombo portion clear of the points and then proceed as at present.

A Sergeant and four Kandy Porters to be sent out with this Train to assist in the transfer at the Junction.

7.45 a.m. Colombo to Peradeniya Junction.

Mixed to Rambukkana; goods beyond.

Wagons for Polgahawela, Kurunegala, Rambukkana, Kandy, and Matale Line, Goods Brake Van, one Third, one Composite, and a Passenger Brake Van from Colombo.

This Train will do the Van Goods work for Kandy and Matale Line.

The Colombo men to form this train at Rambukkana ready for the Incline, so that there may be no delay when the Bank Engines are ready.

9.0 a.m. Colombo to Nawalapitiya. R.R.

Goods only for Bandarawela Line; to make up with traffic for Stations above Nawalapitiya if necessary.

11.0 a.m. Goods Colombo to Kandy.

To do all the local work at roadside Stations.

1.15 p.m. Kandy to Nanu-oya.

One Bogie Third and one Bogie Tri-Composite for Nanu-oya, one Brake Third for Hatton. To clear Kandy and Peradeniya of Bandarawela Line traffic and do local work. Wagons for Gampola must be sent by this Train.

1.50 p.m. Colombo to Nawalapitiya.

Engine, Goods Wagons, one Bogie Brake Third for Nawalapitiya; two Bogie Thirds, one Four-wheel Third, one Bogie Composite, and one Bogie Refreshment Car for Kandy. All varnished stock.

To take Wagons from Colombo for Nawalapitiya and Bandarawela Line Stations. This Train must not do any local Goods work. To make up to a double Engine load with Goods Wagons at Gampola. Colombo to advise Kandy and Nawalapitiya what number of vehicles there are for Stations beyond Peradeniya.

This Train will pick up at Kadugannawa a Tea Leaf Wagon for Gampola.

This Train to stop at West Junction, Peradeniya, to detach the passenger portion. It will then proceed *via* the Loop to South Junction, and back to the platform for the portion from Kandy.

The 1.50 p.m. Up MUST KEEP TIME

5.35 p.m. Kandy.

Engine, Wagons, one Bogie Third, one Four-wheeled Composite and Brake Third for Nawalapitiya. To be attached at Peradeniya Junction platform to 1.50 P.M. Colombo. Only Wagons for Nawalapitiya and Stations beyond should be sent by this Train.

5.15 p.m. Colombo to Kandy.

Engine, Goods Wagons, and one Bogie Composite and Brake Third for Kandy; (these coaches form the Colombo portion of 10.40 A.M. Kandy, which see) three Thirds for Rambukkana and one Passenger Brake Van. The load to be made up entirely of Wagons for Stations beyond Nawalapitiya. These Wagons form the 6.30 A.M. from Kandy, which see.

9.15 p.m. Mail Train. Colombo to Matale, Nawalapitiya, Nanu-oya, and Bandarawela.

One Sleeping Car, and one Bogie Third, one Brake and Refreshment Car for Nanu-oya, and Mail Brake Van for Matale.

To make up to full load of Goods for Gampola, Hatton, and Bandarawela Line

On arrival at Peradeniya West Junction this Train will change Engine and then run round the Loop and back to the platform to transfer Kandy passengers.

See special Staff arrangements for working this Train.

It is particularly directed that no unnecessary noise is to be made at Stations *en route*.

All passengers will change at Nanu-oya into the Local Train formed of one Bogie Third and a Tri-Composite.

Main Line Down Trains.**5.0 a.m. from Kandy.**

Coaches of No. 15 Down complete This Train will pick up three Thirds and a Brake Van at Rambukkana.

A Vacuum Van Goods Wagon for Coast Line to be run on this Train It is to be detached at Rambukkana to go forward by 10.5 A.M. Down Goods.

6.0 a.m. from Nawalapitiya.

Goods Wagons, one Bogie Brake Third for Colombo; one Four-wheeled Composite, one Bogie Third, and one Brake Third for Kandy To make up to a load not exceeding 24 vehicles with wagons from Nawalapitiya and Gampola.

This Train will not stop at Peradeniya South Junction to detach the Kandy portion; it will run round the Loop to the West Junction, and back to the Station and change Engine.

7.10 a.m. Kandy to Peradeniya Junction.

Coaches for Colombo (reverse of those Up by 1.50 P.M.) to be attached to 6.0 A.M. from Nawalapitiya and behind these Coaches must be attached Coaches to form No. 5 Up, viz., one Brake-Tri-Composite and one Bogie Third. The Mail Van from Matale by 5.55 A.M. to be attached to this Train for Colombo.

8.20 a.m. from Kandy.

One Four-wheeled Composite, one Third, and one Brake Van. To clear Kandy and Peradeniya Junction of all Down Line Goods traffic, which must be worked forward by the 9.30 A.M. from Kadugannawa.

10.5 a.m. Goods Rambukkana to Colombo.

To take on the Van Goods Wagon for Coast Line put off 5.0 A.M. Kandy.

To clear Rambukkana of all Goods Wagons for Down Stations and do local work at roadside Stations.

All Van Goods for the Coast Line must be sent by this Train.

5.25 a.m. Nanu-oya to Kandy and Colombo.

Goods Wagons, Bogie Third, and Brake-Tri-Composite for Kandy.

To attach at Hatton one Bogie Brake Third also for Kandy. This Train must attach for Colombo all extra carriages worked up by No. 4 or other Trains

No shunting to be done by this Train at Gampola.

At Peradeniya Junction this Train will stop on the Loop and detach the portion for Kandy, it will then back to the platform and attach the Coaches for Colombo brought out by 10.40 ex Kandy

Passengers from Bandarawela Line for Down Main Line Stations to change Trains at Peradeniya Junction.

12.30 p.m. from Rambukkana.

To bring forward the Wagons worked down by the 8.20 A.M. Kandy.

To take on at Polgahawela Coaches of 7.45 A.M. Up. If an extra carriage required, it must be taken from those worked up on 6.0 A.M.

12.30 p.m. from Kandy.

Goods only to Polgahawela. To have a Van Goods Wagon on from Kandy to Colombo. To take on at Polgahawela the Coaches of 6.0 A.M. Up This Train will form the 4.22 P.M. from Polgahawela.

6.35 a.m. Bandarawela to Colombo (Mixed to Nanu-oya).

One Bogie Composite, two Bogie Brake Thirds for Colombo.

To take on at Nanu-oya one Bogie Composite, one Bogie Brake Third for Kandy To take on at Talawakele one Bogie Third for Kandy To attach at Nawalapitiya, next to Engine, one Refreshment Car for Colombo

This Train to stop at Peradeniya South Junction to detach the Kandy portion It will then proceed to the West Junction and back to the platform to attach portion from Kandy No Wagons are to be attached to this Train South of Nanu-oya.

1.25 p.m. Nanu-oya to Kandy.

Goods Wagons, Bogie Third, and Brake-Tri-Composite through to Kandy.

12.40 p.m. Bandarawela to Kandy.

Brake-Tri-Composite and Bogie Third for Nanu-oya At Nanu-oya passengers will change into a Train formed of the Coaches of 4.0 A.M. Up. Empty Wagons must be taken on in rear of the loaded. At Peradeniya Junction this Train will run round the Loop and back to platform *via* West Junction.

Sunday Up Trains.**5.35 a.m. Nawalapitiya to Bandarawela.**

Same as for Mail on week days.

7.0 a.m. Colombo to Bandarawela.

Same as 7.30 A.M. on week days.

3.0 p.m. Colombo to Kandy and Nawalapitiya.

Return of 7.10 A.M. Down. Through portion in front Kandy portion in rear. This Train will stop at the West Junction, Peradeniya, to detach the Kandy portion, it will then run round the Loop and back to the platform to pick up the passengers from Kandy First and Second Class passengers to and from Kandy to be transferred at Peradeniya Junction.

Sunday Down Trains.**7.10 a.m. Kandy to Colombo.**

To be made up of the Coaches forming No. 15 Down and the Kandy portion of the 1.50 P.M. Up (less the Colombo Bogie Composite) of the previous night.

The Mail Van from Matale by the 5.55 A.M. Train to be attached at Kandy

5.20 a.m. Bandarawela to Colombo.

Same as on week days for 6.35 A.M. Down.

1.0 p.m. Bandarawela to Nawalapitiya and Kandy.

Return of No. 1 Up local to Nanu-oya and No. 1 Up through from Nanu-oya. To clear Bandarawela Line of Goods traffic for Down Stations.

6.40 p.m. Kandy to Peradeniya Junction.

One Composite, one Third, and one Van, all Four-wheelers.

WORKING OF BRAKE-TRI-COMPOSITES.

There are three Brake-Tri-Composites, which must work as follows. —

- (1) Nanu-oya to Kandy on No. 7 Down; Kandy to Nanu-oya on No. 8 Up
- (2) Kandy to Nanu-oya on No. 5 Up; Nanu-oya to Kandy on No. 13 Down.
- (3) Nanu-oya to Bandarawela by No. 2 Up; Bandarawela to Nanu-oya by No. 15 Down.

The passenger portion of the above-mentioned Trains will only consist of two passenger vehicles (except for an extra Bogie Brake Third on No. 5 Up and No. 7 Down as between Kandy and Hatton), unless heavy traffic specially requires it. Whenever a Tri-Composite has to be stopped for repairs, No. 5 Up and No. 13 Down will work in their Kandy formation to and from Nanu-oya.

Station Master, Kandy, will see to and arrange this.

Locomotive Engineer will arrange that Tri-Composites will only be stopped at Kandy.

The run of the Coaches forming No. 2 Up and No. 15 Down must be changed every week by exchanging them on Sunday at Nanu-oya with those on the Kandy run.

ROZELLE PLATFORM

THIS Platform is situated about midway between Hatton and Watawala, and is open for the receipt and despatch of Goods. All communications with regard to goods to or from this Platform must be addressed to the Station Master, Hatton.

The Platform is protected by Up and Down Platform Semaphore Signals, which must be placed at **Danger** by the Guard of any train stopping there to exchange traffic, and put to **All right** when the Train is leaving. The 5.25 A.M. Nanu-oya is the only Train allowed to stop at this Platform, and in no case must the detention exceed *ten minutes*.

This Platform will shortly be opened as a Telegraph and Crossing Station, and provision has been made in the Time Tables herein for the crossing of Trains, but until the Station is opened No. 1 Up R.R. must follow No. 8 Up from Watawala

TRANSMISSION OF MESSAGES FOR THE PUBLIC.

THE following are the conditions and rates in accordance with which the public travelling by train may send or receive private telegrams through the Railway Department —

Conditions.

1. A message can only be sent by the Railway Telegraph by a passenger travelling, or about to travel, by train.
2. A message may be addressed to any Railway Station where there is a Telegraph Office.
3. The Railway Telegraph Department will only forward such message when the line is clear of Railway Service Telegrams.
4. The Railway Telegraph Department will not be responsible for delay or for non-delivery, and will not undertake to investigate complaints with regard to such messages.
5. Every endeavour will, of course, be made to ensure quick despatch and correct delivery.

Rates.

1. The charge for a telegram containing eight words or groups of three figures or less in the body will be Re. 1.30.
2. The charge for every additional word or group of three figures in the body will be 10 cents.
3. The charge of Re. 1.30 includes 80 cents for the telegram and 50 cents for delivery.
4. The address (wired free) includes names of offices from and to which the telegram is to be despatched, the actual names and designations of the sender and addressee, and the latter's address. No other words can be transmitted unless paid for as part of the body of the message. If the sender of the telegram desires his own address to be telegraphed, it must be paid for.
5. Whenever a porter cannot be spared for the conveyance of the message, a messenger will be employed, and his name entered on the month's pay sheets for an approved fee.

The regulations in page 17 of the Telegraph Rule Book are hereby cancelled.

General Manager's Office,
Colombo, December 10, 1895

W. T. PEARCE,
General Manager.

Dis- tance.	UP. STATIONS	1 Goods RR	2 Mail, Mixed	3 Mixed Goods	4 Mixed to P. wela, beyond	5 Mixed	6 Express Pass	7	8 Mixed ★	9 Goods RR	10 Goods	11 Mixed.	12 Goods RR	13 Mixed.	14 Mail, Pass, & Goods
M. O.															
0 37	Colombo	d	5 0	A M	A M 0	A M	7 30	A M	7 45	A M	11 0	P M	2 30	P M	9 15
3 14	Maradana Junction	a	—	—	6 4	—	7 33	—	7 48	—	11 53	—	2 30	5 18	9 33
5 21	Kelaniya	a	—	—	6 15	—	7 34	—	7 50	—	11 55	—	2 30	5 30	9 40
9 0	Hunupitiya	a	—	—	6 23	—	—	—	7 59	—	11 55	—	2 30	5 39	—
16 59	Mahara	a	—	—	6 35	—	—	—	8 0	—	11 55	—	2 30	5 45	—
22 54	Henaragoda	a	—	—	6 42	—	—	—	8 7	—	11 55	—	2 30	5 52	—
30 54	Veyangoda	a	—	—	6 50	—	—	—	8 8	—	11 55	—	2 30	5 54	—
34 45	Mirigama	a	—	—	6 58	—	—	—	8 8	—	11 55	—	2 30	5 54	—
40 44	Ambepussa	a	—	—	7 0	—	—	—	8 8	—	11 55	—	2 30	5 54	—
45 34	Alawwa	a	—	—	7 1	—	—	—	8 8	—	11 55	—	2 30	5 54	—
52 11	Polgahawela	a	—	—	7 2	—	—	—	8 8	—	11 55	—	2 30	5 54	—
55 50	Rambukkana	a	—	—	7 3	—	—	—	8 8	—	11 55	—	2 30	5 54	—
59 14	Kadigamuwa	a	—	—	7 4	—	—	—	8 8	—	11 55	—	2 30	5 54	—
62 14	Alagalla	a	—	—	7 5	—	—	—	8 8	—	11 55	—	2 30	5 54	—
65 0	Ballany	a	—	—	7 6	—	—	—	8 8	—	11 55	—	2 30	5 54	—
70 46	Kadugannawa	a	—	—	7 7	—	—	—	8 8	—	11 55	—	2 30	5 54	—
74 36	Peradeniya Junction	a	—	—	7 8	—	—	—	8 8	—	11 55	—	2 30	5 54	—
70 46	Kandy	a	—	—	7 9	—	—	—	8 8	—	11 55	—	2 30	5 54	—
74 36	Peradeniya Junction	a	—	—	7 10	—	—	—	8 8	—	11 55	—	2 30	5 54	—
70 46	Kandy	a	—	—	7 11	—	—	—	8 8	—	11 55	—	2 30	5 54	—

82 74	× Ulapane	a	10 4	—	—	—	8 7	—	—	—	—	—	—	—	—
87 29	× Nawalapitiya	a	10 7	—	—	—	8 7	—	—	—	—	—	—	—	—
94 38	× Galboda	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
100 13	× Watavala	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
—	× Rozellet	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
108 16	× Hattton	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
111 25	× Kotigala	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
115 69	× Talawakele	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
120 9	× Watagoda	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
128 6	× Nanu-oya	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
136 76	× Ambawela	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
139 6	× Patupola	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
142 76	× Ohya	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
153 42	× Haputale	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
156 54	× Dryatalawa	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—
160 36	× Bandarawela	a	10 23	—	—	—	8 7	—	—	—	—	—	—	—	—

Local stone trains are not shown here, see separate table, pages 46 and 47

The small figures in centre of column denote passing times

(R means Call when Required

Note.—Black figures and black dots show that the Train takes Ticket

Goods only, between Polgahawela and Peradeniya Junction

Runs on a "Line C" Ticket (signed by Station Master, Colombo) from Colombo to Polgahawela

No 6 Up Express will be assisted by an extra engine in the run from Gampola to the top of 85th mile Bank. The extra engine will run light to Gampola

Immediately to be worked for and from Kaduganawa to Peradeniya

No 9 Up R R Ticket will be worked for and from Kaduganawa to Peradeniya

No 10 Down unless otherwise ordered

No 11 Down unless otherwise ordered

No 12 Down unless otherwise ordered

No 13 Down unless otherwise ordered

No 14 Down unless otherwise ordered

No 15 Down unless otherwise ordered

No 16 Down unless otherwise ordered

No 17 Down unless otherwise ordered

No 18 Down unless otherwise ordered

No 19 Down unless otherwise ordered

No 20 Down unless otherwise ordered

No 21 Down unless otherwise ordered

No 22 Down unless otherwise ordered

No 23 Down unless otherwise ordered

No 24 Down unless otherwise ordered

No 25 Down unless otherwise ordered

No 26 Down unless otherwise ordered

No 27 Down unless otherwise ordered

No 28 Down unless otherwise ordered

No 29 Down unless otherwise ordered

No 30 Down unless otherwise ordered

No 31 Down unless otherwise ordered

No 32 Down unless otherwise ordered

No 33 Down unless otherwise ordered

No 34 Down unless otherwise ordered

No 35 Down unless otherwise ordered

No 36 Down unless otherwise ordered

No 37 Down unless otherwise ordered

No 38 Down unless otherwise ordered

No 39 Down unless otherwise ordered

No 40 Down unless otherwise ordered

No 41 Down unless otherwise ordered

No 42 Down unless otherwise ordered

No 43 Down unless otherwise ordered

No 44 Down unless otherwise ordered

No 45 Down unless otherwise ordered

No 46 Down unless otherwise ordered

No 47 Down unless otherwise ordered

No 48 Down unless otherwise ordered

No 49 Down unless otherwise ordered

No 50 Down unless otherwise ordered

No 51 Down unless otherwise ordered

No 52 Down unless otherwise ordered

No 53 Down unless otherwise ordered

No 54 Down unless otherwise ordered

No 55 Down unless otherwise ordered

No 56 Down unless otherwise ordered

No 57 Down unless otherwise ordered

No 58 Down unless otherwise ordered

No 59 Down unless otherwise ordered

No 60 Down unless otherwise ordered

No 61 Down unless otherwise ordered

No 62 Down unless otherwise ordered

No 63 Down unless otherwise ordered

No 64 Down unless otherwise ordered

No 65 Down unless otherwise ordered

No 66 Down unless otherwise ordered

No 67 Down unless otherwise ordered

No 68 Down unless otherwise ordered

No 69 Down unless otherwise ordered

No 70 Down unless otherwise ordered

No 71 Down unless otherwise ordered

No 72 Down unless otherwise ordered

No 73 Down unless otherwise ordered

No 74 Down unless otherwise ordered

No 75 Down unless otherwise ordered

No 76 Down unless otherwise ordered

No 77 Down unless otherwise ordered

No 78 Down unless otherwise ordered

No 79 Down unless otherwise ordered

No 80 Down unless otherwise ordered

No 81 Down unless otherwise ordered

No 82 Down unless otherwise ordered

No 83 Down unless otherwise ordered

No 84 Down unless otherwise ordered

No 85 Down unless otherwise ordered

No 86 Down unless otherwise ordered

No 87 Down unless otherwise ordered

No 88 Down unless otherwise ordered

No 89 Down unless otherwise ordered

No 90 Down unless otherwise ordered

No 91 Down unless otherwise ordered

No 92 Down unless otherwise ordered

No 93 Down unless otherwise ordered

No 94 Down unless otherwise ordered

No 95 Down unless otherwise ordered

No 96 Down unless otherwise ordered

No 97 Down unless otherwise ordered

No 98 Down unless otherwise ordered

No 99 Down unless otherwise ordered

No 100 Down unless otherwise ordered

No 101 Down unless otherwise ordered

No 102 Down unless otherwise ordered

No 103 Down unless otherwise ordered

No 104 Down unless otherwise ordered

No 105 Down unless otherwise ordered

No 106 Down unless otherwise ordered

No 107 Down unless otherwise ordered

No 108 Down unless otherwise ordered

No 109 Down unless otherwise ordered

No 110 Down unless otherwise ordered

No 111 Down unless otherwise ordered

No 112 Down unless otherwise ordered

No 113 Down unless otherwise ordered

No 114 Down unless otherwise ordered

No 115 Down unless otherwise ordered

No 116 Down unless otherwise ordered

No 117 Down unless otherwise ordered

No 118 Down unless otherwise ordered

No 119 Down unless otherwise ordered

No 120 Down unless otherwise ordered

No 121 Down unless otherwise ordered

No 122 Down unless otherwise ordered

No 123 Down unless otherwise ordered

No 124 Down unless otherwise ordered

No 125 Down unless otherwise ordered

No 126 Down unless otherwise ordered

No 127 Down unless otherwise ordered

No 128 Down unless otherwise ordered

No 129 Down unless otherwise ordered

No 130 Down unless otherwise ordered

No 131 Down unless otherwise ordered

No 132 Down unless otherwise ordered

No 133 Down unless otherwise ordered

No 134 Down unless otherwise ordered

No 135 Down unless otherwise ordered

No 136 Down unless otherwise ordered

No 137 Down unless otherwise ordered

No 138 Down unless otherwise ordered

No 139 Down unless otherwise ordered

No 140 Down unless otherwise ordered

No 141 Down unless otherwise ordered

No 142 Down unless otherwise ordered

No 143 Down unless otherwise ordered

No 144 Down unless otherwise ordered

No 145 Down unless otherwise ordered

No 146 Down unless otherwise ordered

No 147 Down unless otherwise ordered

No 148 Down unless otherwise ordered

No 149 Down unless otherwise ordered

No 150 Down unless otherwise ordered

No 151 Down unless otherwise ordered

No 152 Down unless otherwise ordered

No 153 Down unless otherwise ordered

No 154 Down unless otherwise ordered

No 155 Down unless otherwise ordered

No 156 Down unless otherwise ordered

No 157 Down unless otherwise ordered

No 158 Down unless otherwise ordered

No 159 Down unless otherwise ordered

No 160 Down unless otherwise ordered

No 161 Down unless otherwise ordered

No 162 Down unless otherwise ordered

No 163 Down unless otherwise ordered

No 164 Down unless otherwise ordered

No 165 Down unless otherwise ordered

No 166 Down unless otherwise ordered

No 167 Down unless otherwise ordered

No 168 Down unless otherwise ordered

No 169 Down unless otherwise ordered

No 170 Down unless otherwise ordered

No 171 Down unless otherwise ordered

No 172 Down unless otherwise ordered

No 173 Down unless otherwise ordered

No 174 Down unless otherwise ordered

No 175 Down unless otherwise ordered

No 176 Down unless otherwise ordered

No 177 Down unless otherwise ordered

No 178 Down unless otherwise ordered

No 179 Down unless otherwise ordered

No 180 Down unless otherwise ordered

No 181 Down unless otherwise ordered

No 182 Down unless otherwise ordered

No 183 Down unless otherwise ordered

No 184 Down unless otherwise ordered

No 185 Down unless otherwise ordered

No 186 Down unless otherwise ordered

No 187 Down unless otherwise ordered

No 188 Down unless otherwise ordered

No 189 Down unless otherwise ordered

No 190 Down unless otherwise ordered

No 191 Down unless otherwise ordered

No 192 Down unless otherwise ordered

No 193 Down unless otherwise ordered

No 194 Down unless otherwise ordered

No 195 Down unless otherwise ordered

No 196 Down unless otherwise ordered

MAIN LINE—BANDARAWELA, HAPUTALE, NANU-OYA, KANDY, AND COLOMBO.—WEEK DAYS.

DOWN.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STATIONS	Mixed	Goods	Goods	Mixed	Light	Mixed	Mixed	Light	Goods	Express	Regular	Goods	to Kandy	Mixed	Goods	Mixed
STATIONS	Mixed	Goods	Goods	Mixed	Light	Mixed	Mixed	Light	Goods	Express	Regular	Goods	to Kandy	Mixed	Goods	Mixed
Bandarawela	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM
X Diyalawada																1240
X Haputale																1 2
X Ohiya																1 17
X Pattipola																1 30
X Ambavela																2 20
X Nanu-oya																2 30
X Watagoda																2 50
X Talakele																2 55
X Kotagala																3 5
X Hulton																3 10
X Rozelle†																3 55
X Watawala																4 30
X Galboda																5 10
X N. Pitaya																5 15
14 m Bankd																5 37
X Ulapane																6 14
X Gampola																6 17
																6 47
																7 7
																7 27
																7 32
																8 0
																8 5
																8 40
																9 0
																9 33
																9 40

(36)

(37)

UP.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STATIONS	Mixed	Goods	Goods	Mixed	Light	Mixed	Mixed	Light	Goods	Express	Regular	Goods	to Kandy	Mixed	Goods	Mixed
STATIONS	Mixed	Goods	Goods	Mixed	Light	Mixed	Mixed	Light	Goods	Express	Regular	Goods	to Kandy	Mixed	Goods	Mixed
P'deniya J																10 2
Kandy																10 15
X P'deniya J																10 25
X K'gannawala																
Baliy																
X Alagalla																
K'gannawa																
X R. Bukkana																
X Poigawela																
X Alawwa																
X Am. Pucsa																
X Mingama																
X Veyangoda																
X Hen'goda																
X Mahara																
X H. Pitaya																
X Kelaniya																
X M'dana J																
X Colombo																

Local stone trains are not shown here, see separate table pages 46 and 47

† Mixed to Nanu-oya

‡ Will not start till 9.40 when No. 2 Up R. runs

§ No. 8 Down to leave Kambukkana at 11.45 A.M. when No. 9 Up R. runs

† Due notice will be given of the opening of Rozelle

§ When No. 1 Up R. runs this Engine will stop at Alagalla for it to pass and for No. 4 Down to precede. It will then take Staff

¶ This Train must not be allowed to delay No. 11 Up

A Takes Staff when R. Goods Train runs

B Takes Ticket when R. Goods Train runs

C. R. means Call when Required

The small figures in centre of column denote passing times

† Takes Staff on Saturdays

§ Takes Staff on Saturdays

¶ Takes Staff on Saturdays

No. 5 Down light engine must shunt out and march all up-country wagons on hand at Rambukkana Bankrider of No. 4 Up will do this work

¶ Shunt wait for "Line Clear" of No. 12 Down when that train runs

BRANCH LINE.—POLGAHAWELA AND KURUNEGALA.

Dis- tance	DOWN. STATIONS	WEEK DAYS		SUNDAYS		Dis- tance	UP. STATIONS	WEEK DAYS		SUNDAYS	
		A.M.	P.M.	A.M.	P.M.			A.M.	P.M.	A.M.	P.M.
M C	× Kurunegala	8 15	3 15	8 25	2 15	—	× Polgahawela Junct . d	9 25	4 25	9 25	5 25
5 45	× Potuhera	8 33	3 33	8 43	2 33	7 40	× Potuhera	9 50	4 50	9 50	5 50
	× Polgahawela Junct . d	8 35	3 35	8 45	2 35		× Kurunegala	9 52	4 52	9 52	5 52
13 8	× Polgahawela Junct . d	9 0	4 0	9 10	3 0	13 8	× Kurunegala	10 10	5 10	10 10	6 10

All Trains will carry Staff. Load of Trains—20 Loaded Vehicles each way.

BRANCH LINE.—PERADENIYA JUNCTION, KANDY, AND MATALE

Dis- tance	STATIONS	WEEK DAYS							SUNDAYS				
		1	2	3	4	5	6	7	8	9	10	11	Mixed
M C	× Peradeniya Junct . d	7 29	9 49	11 1	1 30	2 24	—	6 2	6 57	10 5	10 15	1 40	AM
0 40	× Peradeniya	7 33	9 53	11 5	1 36	2 28	—	6 5	7 0	CR	—	1 40	AM
3 70	× Kandy	7 40	10 0	11 13	1 45	2 35	—	6 13	7 10	10 15	10 25	1 50	AM
4 71	× Mahayawa	7 45	—	11 20	—	—	—	6 20	—	—	—	1 55	AM
7 25	× Katugastota	7 50	—	11 25	—	—	—	6 25	—	—	—	—	AM
11 31	× Wattagama	7 51	—	11 26	—	—	—	6 26	—	—	—	—	AM
17 52	× Ukuwela	8 1	—	11 36	—	—	—	6 36	—	—	—	—	AM
21 0	× Matala	8 4	—	11 39	—	—	—	6 39	—	—	—	—	AM
		8 16	—	11 51	—	—	—	6 49	—	—	—	—	AM
		8 19	—	11 54	—	—	—	6 52	—	—	—	—	AM
		8 38	—	12 13	—	—	—	7 12	—	—	—	—	AM
		8 39	—	12 14	—	—	—	7 23	—	—	—	—	AM
		8 50	—	12 25	—	—	—	—	—	—	—	—	AM

Between Kandy and Matala: All Trains will carry Staff.

Between Peradeniya Junction and Kandy:

Week Days—Nos. 7, 8, and 9 will carry Ticket, and Nos. 1, 2, 3, 4, 5, 10, and 11 will carry Staff.
Sundays—All Trains carry Staff except No. 4.

* See special Staff arrangements for this Train

BRANCH LINE.—MATALE, KANDY, AND PERADENIYA JUNCTION.

Dis- tance	DOWN. STATIONS	WEEK DAYS							SUNDAYS				
		1	2	3	4	5	6	7	8	9	10	11	Mixed
M C	× Matala	—	—	—	—	—	—	—	—	—	—	—	AM
3 37	× Ukuwela	—	—	—	—	—	—	—	—	—	—	—	AM
9 56	× Wattagama	—	—	—	—	—	—	—	—	—	—	—	AM
13 61	× Katugastota	—	—	—	—	—	—	—	—	—	—	—	AM
16 18	× Mahayawa	—	—	—	—	—	—	—	—	—	—	—	AM
17 19	× Kandy	—	—	—	—	—	—	—	—	—	—	—	AM
20 49	× Peradeniya	—	—	—	—	—	—	—	—	—	—	—	AM
21 9	× Peradeniya Junction	—	—	—	—	—	—	—	—	—	—	—	AM

A cross opposite the name of a Station denotes that it is a Crossing Station

C.R. means Call when Required.

STAFF WORKING.

Between Matala and Kandy: All Trains will carry Staff.

Between Kandy and Peradeniya Junction:

Week Days—Nos. 1, 2, and 6 will carry Ticket, and Nos. 3, 4, 5, 7, 8, 9, and 11 will carry Staff.
Sundays—All Trains carry Staff except No. 1.

TRAIN STAFF REGULATIONS MAIN LINE.—COLOMBO, KANDY, HAPUTALE, AND BANDARAWELA.

STATIONS		WEEK DAYS														SUNDAYS		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3
From	To	Goods R R	Mail, Pass, & Goods	Goods to N oya R R	Mixed	Mixed	Express Pass		Mixed	Goods R R	Goods	Mixed	Goods R R	Mail, Pass and Goods	Pass	Pass	Pass	
Maraduna J.	Kelaniya	Ticket	—	—	Ticket	—	Ticket	—	Staff	Staff	Staff	Staff*	Staff	Staff	—	Staff	Staff	
	... Mahara	Ticket	—	—	Ticket	—	Ticket	—	Staff	Ticket	Staff	Staff	Staff	Staff	—	Staff	Staff	
	... Henarigoda	Ticket	—	—	Ticket	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Tkt s	—	Staff	Staff	
	Mahara	Ticket	—	—	Ticket	—	Staff	—	Staff	Staff	Staff	Staff*	Staff	Tkt s	—	Staff	Staff	
	Henarigoda	Ticket	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff*	Staff	Tkt s	—	Staff	Ticket	
	Veyangoda	Staff	—	—	Ticket	—	Ticket†	—	Staff	Staff	Staff	Staff*	Staff	Staff	—	Staff	Staff*	
	... Mirigama	Staff	—	—	Ticket	—	Staff	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff*	
	Veyangoda	Staff	—	—	Ticket	—	Staff	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff*	
	Mirigama	Staff	—	—	Ticket	—	Staff	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff*	
	Ambepussa	Staff	—	—	Tkt †	—	Staff	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff*	
Alawwa	Polgahawela	Staff	—	—	Staff	—	Ticket	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff	
	... Rambukkana	Staff	—	—	Staff	—	Ticket	—	Staff	Staff	Ticket	Ticket	Staff	Staff	—	Staff	Staff	
	polgahawela	Staff	—	—	Staff	—	Ticket	—	Staff	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff	
	Rambukkana	Staff	—	—	Staff	—	Ticket	—	Staff	Staff	Ticket	Staff	Staff	Ticket	—	Staff	Staff	
Alagalla	Kadugannawa	Staff	—	—	Staff	—	Ticket	—	Staff*	Staff	Ticket	Staff	Staff	Staff	—	Staff	Staff	

STATIONS		WEEK DAYS											SUNDAYS					
From	To	Goods R R	Mail, Pass, & Goods	Goods to N oya R R	Mixed	Mixed	Express Pass		Mixed	Goods R R	Goods	Mixed	Goods R R	Mixed	Mail, Pass and Goods	Pass	Pass	Pass
Kadugannawa	Peradeniya J	Ticket	—	—	Ticket	—	Ticket	—	Staff	Ticket	Staff	Staff	Staff*	Staff	Staff	—	Staff	Staff
Peradeniya J	Gampola	Staff	—	—	—	—	—	—	Staff	—	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Gampola	Ulapane	Staff	—	—	Staff	—	Staff	—	Staff*	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Ulapane	Nawalapitiya	Staff	—	—	Staff	—	Staff	—	Staff*	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Nawalapitiya	Galboda	Ticket	—	—	Ticket	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Galboda	Watawala	Staff	—	—	Staff	—	Ticket†	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Watawala	Rozelle	Tkt. s	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Rozelle	Hatton	Ticket	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Hatton	Kotagala	Ticket	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Kotagala	Talawakele	Ticket	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Talawakele	Watagoda	Staff	—	—	Staff	—	Ticket	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Watagoda	Nanu-oya	Ticket	—	—	Staff	—	Staff	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	—	Staff	Staff
Nanu-oya	Ambawela	—	—	—	—	—	Tkt s	—	—	—	—	—	—	—	—	—	—	—
Ambawela	Patupola	—	—	—	—	—	Staff	—	—	—	—	—	—	—	—	—	—	—
Patupola	Ohya	—	—	—	—	—	Staff	—	—	—	—	—	—	—	—	—	—	—
Ohya	Haputale	—	—	—	—	—	Staff	—	—	—	—	—	—	—	—	—	—	—
Haputale	Diyatalawa	—	—	—	—	—	Staff	—	—	—	—	—	—	—	—	—	—	—
Diyatalawa	Bandarawela	—	—	—	—	—	Staff	—	—	—	—	—	—	—	—	—	—	—

* Ticket when R R follows
† Ticket on Saturdays
‡ Staff when Down R R runs
§ Staff on Saturdays

MAIN LINE.—BANDARAWELA, HAPUTALE, KANDY, AND COLOMBO

TRAIN STAFF REGULATIONS.

DOWN. STATIONS

WEEK DAYS

SUNDAYS

From	10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Bandarawela	Mixed	Goods R.R.	Goods R.R.	Goods R.R.	Mixed	Light fuel	Mixed	Mixed	Goods R.R. & light	Goods R.R. & light	Ex-press Pass	Plot for 8 up	Goods R.R.	Mixed to Kandy, Goods to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy	Mixed to Kandy, Goods to Kandy
Diyatalawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haputale	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ohya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pattupola	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ambawela	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nannu-oya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Watagoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Talawakele	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kotagala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hatton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rozelle	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Watawala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Galboda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

From	10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Galboda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nawalapitiya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ulapane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gampola	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Peradeniya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kadugannawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alagalla	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rambukkana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polgahawela	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alawwa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ambepussa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mirigama	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Veyangoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Henaratgoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mahara	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kelaniya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maradana	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Ticket when R.R. follows

† Takes Staff on Saturdays.

† Takes Staff when Up R.R. runs.

§ See note on page 37.

s Ticket when Down R.R. runs and Up R.R. does not run

LOCAL TABLE OF TRAINS BETWEEN

STATIONS		Workmen & Train.	No. 4 Main Line	No 1 Enbille	No 1 Coast I line	No 8 Up Main I line	No 8 p Main I line	No 2 Up Coast Lline	Lght Engines	No 4 Up Coast I line	No 9 R R Main Lline	No 5 Up Coast Line	No 2 Rubble.	No 10 Up Goods Main Line			
UP.		A M	A M	A M	A M	A M	A M	A M	A M	A M	A M	A M	A M	A M			
Wharf	d	—	—	—	—	—	—	—	—	—	—	—	—	—			
Fort	.. d	—	—	—	—	—	—	—	—	—	—	—	—	—			
"	.	5	42	—	7	6	—	—	—	—	—	—	—	—			
Racquet Court J	d	—	—	—	—	—	—	7	49	—	—	—	—	—			
Pettah	.. a	5	44	6	3	—	—	8	10	—	—	—	9	55			
"	.. d	5	46	6	8	7	8	7	51	8	11	8	54	9	58		
Maradana	.. a	5	50	6	10	7	10	7	54	8	30	8	56	10	0		
"	.d.	—	6	4	6	15	7	7	58	8	34	9	0	10	0		
Kelaniya	a	—	6	6	25	—	—	7	34	7	54	—	—	10	4	11	
"	.. d	—	6	15	—	—	—	8	3	—	—	9	15	—	11	1	
Mabara	a	—	6	16	—	—	7	4	8	4	—	9	26	—	11	2	
Mahara Quarry	a	—	6	35	6	50	—	8	23	—	—	—	—	10	30	11	4
		—	—	6	55	—	—	—	—	—	—	—	—	10	35	—	—

LOCAL TABLE OF TRAINS BETWEEN

STATIONS	Light Engines	No 2 Coast Line	No 3 Coast Line	No 1 Down Rubble	No 1 Down Main Line	No 4 Coast Line	Light Engines	No 2 Down R.R. Main Line	No 4 Down Main Line,	No 6 Down Coast Line	Wharf Special R.R.	No 2 Down Rubble	No 6 Down Goods Main Line
DOWN.	A M	A M	A M	A M	A M.	A M	A M	A M	A M	A M	A M	A M	P M
Mahara Quarry	—	—	—	7 15	9 6	—	—	—	—	—	—	11 35	—
Mahara . d	—	—	—	7 20	9 23	—	—	—	11 0	—	—	11 40	12 50
Kelaniya . a	—	—	—	8 5	9 25	—	—	—	11 19	—	—	—	—
" . d	—	—	—	8 15	9 34	—	—	—	11 20	—	—	—	—
Maradana J . a	—	—	—	8 16	9 37	—	—	—	11 29	—	—	—	1 17
" . d	6 06	20 7	35 8	8 16	9 37	9 59	—	—	11 34	11 38	11 50	12 6	1 18
Pettah ... a	6 46	25 7	39 8	8 20	—	9 41	9 54	—	—	11 42	—	12 10	—
" . d	6 10	27 7	42 8	8 25	—	9 44	10 5	—	—	11 46	—	12 15	—
Racquet Court J. d	6 13	—	—	8 28	—	—	10 8	—	—	—	—	12 18	—
Fort . a	—	6 30	7 44	—	—	9 46	—	—	—	11 48	—	—	—
" . d	—	—	—	—	—	—	—	—	—	—	—	—	—
Wharf . a	—	—	—	—	—	—	—	—	—	—	12 5	—	—

WHARF AND MAHARA.—UP TRAINS—WEEK DAYS.

[illegible]

MAHARA AND WHARF.—DOWN TRAINS.—WEEK DAYS.

Light Engines	Saturday Wharf Train	Return Cooly RR Special	No 6 Down Coast Line	No 7 Down Main Line	No 8 Coast Line, Saturday	No 8 Down Main Line	No 9 Coast Line	No 3 Down Rubble	No 10 Down V hrf.	No 11 Down Coast Line	No 12 Down Coast Line	No 10 Down Main Line.	No 13 Main Line.	No 14 Down Coast Line	No 15 Down Coast Line	No 12 RR Main Line
PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
1 20	1 45	1 48	2 15	2 30	3 20	3 47	4 04	4 15	4 30	4 35	4 50	5 12	6 15	6 19	7 00	—
1 24	—	—	2 19	2 52	3 24	4 44	4 10	4 19	4 34	4 56	5 23	—	6 23	6 27	7 10	—
1 35	—	—	2 22	—	3 27	—	4 21	4 21	4 37	5 23	—	—	6 25	7 12	—	—
1 33	—	—	—	—	—	—	4 24	—	—	—	—	—	—	—	—	—
—	—	—	2 24	—	3 29	—	4 9	—	—	—	—	—	—	—	—	—
—	2 0	—	—	—	—	—	—	—	4 30	—	—	—	—	—	—	—

COAST LINE—MARADANA JUNCTION, WHARF, AND GALLE.—WEEK DAYS.

Distance	DOWN.	1	Mixed to Goods only beyond	3	4	5	6	7	8	9	10	11	12	13	14	15
M C	STATIONS	Mixed	A M	A M	Pass	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Ex Pass	Mixed
1 6	X Maradana Junction	—	6 20	7 35	9 37	11 38	2 15	1 45	3 20	4 0	4 15	4 30	5 12	—	PM 6 15	PM 7 0
1 6	X Pettah	—	6 25	7 39	9 41	11 42	2 19	•	3 24	4 4	4 34	4 34	5 16	—	PM 6 19	PM 7 4
1 45	X Fort	—	6 27	7 42	9 44	11 46	2 22	•	3 27	4 7	•	4 37	5 23	—	PM 6 23	PM 7 10
2 47	Wharf	—	6 30	7 44	9 46	11 50	2 24	•	3 29	4 10	•	4 39	5 27	—	PM 6 25	PM 7 14
2 24	X Slave Island	—	6 32	7 46	9 50	—	2 26	2 0	3 31	4 14	4 30	4 41	5 27	—	PM 6 27	PM 7 14
3 25	X Kollupitiya	—	6 37	7 50	9 55	11 54	2 31	2 31	3 35	4 14	4 46	4 51	5 32	—	PM 6 31	PM 7 19
4 45	X Bambalapitiya	—	6 43	7 53	10 0	11 59	2 37	2 37	3 40	4 19	4 51	5 0	5 38	—	PM 6 36	PM 7 24
6 70	X Wellawatta	—	6 48	8 0	10 5	12 4	2 43	2 43	3 45	4 23	4 55	5 0	5 44	—	PM 6 41	PM 7 29
7 44	Dehiwala	—	6 54	8 16	10 21	12 11	2 47	2 47	3 50	4 28	5 0	5 11	5 49	—	PM 6 45	PM 7 34
8 70	X Mount Lavinia	—	7 0	8 18	10 10	12 28	2 55	2 55	3 56	4 33	5 11	5 29	5 55	—	PM 6 46	PM 7 40
11 22	Angulana	—	7 7	8 11	10 16	12 15	3 1	3 1	4 1	4 38	5 11	5 32	6 0	—	PM 6 52	PM 7 45
12 5	Lunawa	—	7 13	8 25	10 21	12 35	3 8	3 8	4 3	4 40	5 11	5 32	6 0	—	PM 6 57	PM 7 46
13 7	X Moratuwa	—	7 26	8 32	10 21	12 40	3 15	3 15	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46
17 51	X Panadure	—	7 36	8 36	10 21	12 50	3 19	3 19	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46
21 37	X Wadduwa	—	7 46	8 46	10 21	12 56	3 29	3 29	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46
26 6	X Kalutara North	—	7 56	8 52	10 21	12 56	3 36	3 36	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46
27 28	X Kalutara South	—	8 0	9 1	10 21	12 56	3 45	3 45	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46
29 8	Katukurunda	—	8 28	9 2	10 21	12 56	3 49	3 49	4 4	4 55	5 11	5 32	6 0	—	PM 6 58	PM 7 46

Saturdays only

Not on Saturdays

Saturdays only

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Distance	UP.	1	Mixed to Goods only beyond	3	4	5	6	7	8	9	10	11	12	13	14	15
M C	STATIONS	Mixed	A M	A M	Pass	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Ex Pass	Mixed
31 16	Payagala North	—	9 14	9 35	1 41	4 23	4 23	4 23	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
31 75	X Payagala South	—	9 20	9 39	1 45	4 27	4 27	4 27	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
33 10	Maggona	—	9 30	9 44	1 50	4 32	4 32	4 32	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
35 7	X Beruwala	—	9 35	9 51	1 57	4 39	4 39	4 39	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
38 28	X Alutgama	—	9 45	10 0	2 6	4 48	4 48	4 48	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
45 29	X Kogoda	—	10 0	10 4	2 13	4 52	4 52	4 52	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
49 63	X Balapitiya	—	10 20	10 21	2 29	5 0	5 0	5 0	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
52 62	X Ambalangoda	—	10 31	10 31	2 44	5 19	5 19	5 19	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
60 14	X Hikkaduwa	—	10 44	10 44	2 53	5 28	5 28	5 28	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
64 13	X Dodanduwa	—	10 52	10 52	3 13	5 40	5 40	5 40	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
68 28	X Ginotota	—	11 8	11 8	3 14	5 50	5 50	5 50	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0
71 68	X Galle	—	11 9	11 9	3 24	6 0	6 0	6 0	5 3	5 19	6 15	6 39	7 2	—	PM 7 40	PM 8 0

(51)

T Ticket on Saturdays s Staff on Saturday.

s Staff on Saturday.

NOTE—A cross opposite the name of a Station denotes that it is a Crossing Station

No. 3 Down will take on at Alutgama the wagons for stations from Balapitiya to Galle The times shown in the Public Time Table

are earlier than those given here, but if the work can be done to run to the Public Time Table, those times may be taken

No. 5 Down to take the goods for Kogoda

COAST LINE.—GALLE, WHARF, AND MARADANA JUNCTION.—WEEK DAYS.

UP. STATIONS	1 Mondays only	2 Mixed	3 Mixed	4 Mixed	5 Mixed	6 Pass	7 Mixed	8 Mixed	9 Goods only to M tuwa, Mixed to Colombo	10 Mixed	11 Mixed	12 Mixed	13 Mixed	14 Mixed	15 Mixed
Galle	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	M	PM
× Gintola	—	—	—	5 0	—	—	9 5	—	—	1 15	—	—	—	5 35	6 45
× "Dodanduwa	—	—	—	5 5	—	—	9 15	—	—	1 25	—	—	—	5 45	—
× "Hikkaduwa	—	—	—	5 10	—	—	9 20	—	—	1 37	—	—	—	5 46	6 56
× "Amba'goda	—	—	—	5 21	—	—	9 31	—	—	1 38	—	—	—	5 57	—
× "Balapitiya	—	—	—	5 22	—	—	9 36	—	—	1 48	—	—	—	6 11	7 8
× "Kosgoda	—	—	—	5 32	—	—	9 46	—	—	1 49	—	—	—	6 12	7 19
× "Beruwala	—	—	—	5 35	—	—	9 51	—	—	2 5	—	—	—	6 28	7 35
× "Maggona	—	—	—	5 49	—	—	10 7	—	—	2 9	—	—	—	6 31	—
× "Payagala S	—	—	—	5 56	—	—	10 17	—	—	2 17	—	—	—	6 39	—
× "Payagala N	—	—	—	6 4	—	—	10 25	—	—	2 18	—	—	—	6 40	—
× "Katukurunda	—	—	—	6 15	—	—	10 31	—	—	2 28	—	—	—	6 50	—
× "Kalutara S	—	—	—	6 16	—	—	10 42	—	—	2 29	—	—	—	6 51	—
× "Kalutara N	—	—	—	6 32	—	—	10 58	—	—	2 45	—	—	—	7 7	—
× "Colombo	—	—	—	6 36	—	—	11 3	—	—	2 49	—	—	—	7 10	—
× "Wadduwa	—	—	—	6 45	—	—	11 12	—	—	2 58	—	—	—	7 19	—
× "Panadura	—	—	—	6 50	—	—	11 19	—	—	3 5	—	—	—	7 20	—
× "Moratuwa	—	—	—	6 52	—	—	11 20	—	—	3 6	—	—	—	7 27	—
× "Lunawa	—	—	—	6 57	—	—	11 25	—	—	3 10	—	—	—	7 28	—
× "Angulana	—	—	—	7 1	—	—	11 28	—	—	3 11	—	—	—	—	—
× "Mt Lavina	—	—	—	7 2	—	—	11 29	—	—	3 15	—	—	—	—	—
× "Dehiwala	—	—	—	7 8	—	—	11 35	—	—	3 21	—	—	—	—	—
× "Wellawatta	—	—	—	7 9	—	—	11 36	—	—	3 22	—	—	—	—	—
× "Bamba'pitiya	—	—	—	7 14	—	—	11 41	—	—	3 25	—	—	—	—	—
× "Kollupitiya	—	—	—	7 16	—	—	11 45	—	—	3 30	—	—	—	—	—
× "Slave Island	—	—	—	7 22	—	—	11 52	—	—	—	—	—	—	—	—
× "Wharf	—	—	—	7 23	—	—	—	—	—	—	—	—	—	—	—
× "Fort	—	—	—	8 10	—	—	—	—	—	—	—	—	—	—	—
× "Petiah	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Maradana J	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Colombo	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—

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DOWN STATIONS	1 Mondays only	2 Mixed	3 Mixed	4 Mixed	5 Mixed	6 Pass	7 Mixed	8 Mixed	9 Goods only to M tuwa, Mixed to Colombo	10 Mixed	11 Mixed	12 Mixed	13 Mixed	14 Mixed	15 Mixed
× Wadduwa	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	M	PM
× "Panadura	—	—	—	5 0	—	—	9 5	—	—	1 15	—	—	—	5 35	6 45
× "Moratuwa	—	—	—	5 5	—	—	9 15	—	—	1 25	—	—	—	5 45	—
× "Lunawa	—	—	—	5 10	—	—	9 20	—	—	1 37	—	—	—	5 46	6 56
× "Angulana	—	—	—	5 21	—	—	9 31	—	—	1 38	—	—	—	5 57	—
× "Mt Lavina	—	—	—	5 22	—	—	9 36	—	—	1 48	—	—	—	6 11	7 8
× "Dehiwala	—	—	—	5 32	—	—	9 46	—	—	1 49	—	—	—	6 12	7 19
× "Wellawatta	—	—	—	5 35	—	—	9 51	—	—	2 5	—	—	—	6 28	7 35
× "Bamba'pitiya	—	—	—	5 49	—	—	10 7	—	—	2 9	—	—	—	6 31	—
× "Kollupitiya	—	—	—	5 56	—	—	10 17	—	—	2 17	—	—	—	6 39	—
× "Slave Island	—	—	—	6 4	—	—	10 25	—	—	2 18	—	—	—	6 40	—
× "Wharf	—	—	—	6 15	—	—	10 31	—	—	2 28	—	—	—	6 50	—
× "Fort	—	—	—	6 16	—	—	10 42	—	—	2 29	—	—	—	6 51	—
× "Petiah	—	—	—	6 32	—	—	10 58	—	—	2 45	—	—	—	7 7	—
× "Maradana J	—	—	—	6 36	—	—	11 3	—	—	2 49	—	—	—	7 10	—
× "Colombo	—	—	—	6 45	—	—	11 12	—	—	2 58	—	—	—	7 19	—
× "Wadduwa	—	—	—	6 50	—	—	11 19	—	—	3 5	—	—	—	7 20	—
× "Panadura	—	—	—	6 52	—	—	11 20	—	—	3 6	—	—	—	7 27	—
× "Moratuwa	—	—	—	6 57	—	—	11 25	—	—	3 10	—	—	—	7 28	—
× "Lunawa	—	—	—	7 1	—	—	11 28	—	—	3 11	—	—	—	—	—
× "Angulana	—	—	—	7 2	—	—	11 29	—	—	3 15	—	—	—	—	—
× "Mt Lavina	—	—	—	7 8	—	—	11 35	—	—	3 21	—	—	—	—	—
× "Dehiwala	—	—	—	7 9	—	—	11 36	—	—	3 22	—	—	—	—	—
× "Wellawatta	—	—	—	7 14	—	—	11 41	—	—	3 25	—	—	—	—	—
× "Bamba'pitiya	—	—	—	7 16	—	—	11 45	—	—	3 30	—	—	—	—	—
× "Kollupitiya	—	—	—	7 22	—	—	11 52	—	—	—	—	—	—	—	—
× "Slave Island	—	—	—	8 10	—	—	—	—	—	—	—	—	—	—	—
× "Wharf	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Fort	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Petiah	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Maradana J	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—
× "Colombo	—	—	—	8 17	—	—	—	—	—	—	—	—	—	—	—

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The black figures and dots denote that the Train takes Ticket

• Ticket on Saturdays
s Staff on Saturdays.

No. 7 Up will do the Goods work from Galle to Alutgama. See Note for No. 3 Down, which also applies to this Train.
* No time allowed for water at Kalutara South

COAST LINE.—GALLE, WHARF, AND MARADANA JUNCTION.—SUNDAYS.

UP. STATIONS.			DOWN. STATIONS.		
1	2	3	4	5	
Pass	Pass	Pass	Pass.	Pass	
A.M.	A.M.	A.M.	P.M.	P.M.	
—	6 50	10 37	3 40	3 40	Maradana Jun
—	6 59	10 45	3 50	3 50	Pettah
—	7 0	10 46	3 51	3 51	"
—	7 11	10 57	4 2	4 2	Fort
—	7 12	10 58	4 3	4 3	"
—	7 22	11 8	4 13	4 13	Wharf
—	7 23	11 9	4 18	4 18	Slave Island
—	7 39	11 25	4 34	4 34	Kollupitiya
—	7 43	11 29	4 40	4 40	Bambalapitiya
—	7 51	11 38	4 48	4 48	"
—	7 52	11 39	4 49	4 49	Wellawatta
—	8 2	11 50	4 59	4 59	"
—	8 3	11 51	5 0	5 0	Deliwala
—	8 14	12 7	5 16	5 16	Mount Lavinia
—	8 23	12 15	5 26	5 26	"
—	8 32	12 24	5 35	5 35	Angulana
—	8 33	12 25	5 36	5 36	Lunawa
—	8 39	12 31	5 42	5 42	Moratuwa
—	8 40	12 32	5 43	5 43	"
—	8 44	12 36	5 47	5 47	Panadura
—	8 45	12 37	5 48	5 48	"
—	8 48	12 40	5 51	5 51	Wadduwa
—	8 49	12 41	5 52	5 52	"
—	8 55	12 47	5 58	5 58	Kalutara North
—	8 56	12 48	5 59	5 59	Kalutara South
—	9 1	12 53	6 4	6 4	"

[illegible]

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COAST LINE.—GALLE AND MARADANA JUNCTION.

WEEK DAYS.

UP. STATIONS		Mondays only														
From	To	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Galle	Gintota	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dodanduwa	Hikkaduwa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hikkaduwa	Ambalangoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ambalangoda	Balapitiya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kosgoda	Balapitiya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alugama	Kosgoda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beruwala	Alugama	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alugama	Beruwala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Painavala South	Painavala South	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kalutara South	Kalutara South	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kalutara South	Kalutara North	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kalutara North	Wadduwa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wadduwa	Panadura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Panadura	Mount Lavinia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mount Lavinia	Mount Lavinia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mount Lavinia	Wellawatta	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wellawatta	Bambalapitiya	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bambalapitiya	Slave Island	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slave Island	Slave Island	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slave Island	Port	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port	Port	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port	Pettah	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pettah	Maradana Junc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maradana Junc.	Maradana Junc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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• Takes Staff on Saturdays.

• Takes Ticket on Saturdays.

COAST LINE.—MARADANA JUNCTION AND GALLE.

WEEK DAYS

DOWN. STATIONS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
From	To	Mixed	Mixed	Mixed	Pass	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Mixed	Express Pass	Mixed
Maradana J	Pettah	—	Staff	Staff	Ticket	Ticket	Staff	Ticket	Ticket	Ticket	Ticket	Staff	Staff	—	Tkt s	Staff
Pettah	Fort	—	Staff	Staff	Staff	Ticket	Staff	Ticket	Ticket	Ticket	Staff	Staff	Staff	—	Staff	Staff
Fort	Wharf	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slave Island	Bambalapitiya	—	Staff	Staff	Staff	Staff	Staff	Staff	Ticket	Ticket	—	Staff	Ticket s	—	Staff	Staff
Bambalapitiya	Wellawatta	—	Staff	Staff	Staff	Staff	Staff	Ticket	Ticket	Staff	—	Ticket	Ticket s	—	Staff	Staff
Wellawatta	Mt Lavinia	—	Staff	Staff	Staff	Staff	Staff	Staff	Staff	Ticket	—	Ticket s	Staff	—	Staff	Staff
Mount Lavinia	Moratuwa	—	Staff	Staff	—	Staff	Staff	Staff	Staff	—	—	Ticket	Ticket	—	Staff	—
Moratuwa	Panadura	—	Staff	Staff	—	Staff	Staff	Staff	Staff	—	—	Ticket	Ticket	—	Staff	Staff
Panadura	Wadduwa	—	Ticket	Staff	—	Staff	Ticket	Ticket	Ticket	—	—	Ticket	Ticket	—	Staff	Staff
Wadduwa	Kalutara N	—	Ticket	Staff	—	Staff	Ticket	Ticket	Ticket	—	—	Ticket	Staff	—	Staff	Staff
Kalutara N	Painavala S	—	Ticket	Staff	—	Staff	Ticket	Ticket	Ticket	—	—	Staff	—	—	Staff	—
Kalutara S	Beruwala	—	Ticket	Staff	—	Staff	Ticket	Ticket	Ticket	—	—	Staff	—	—	Staff	—
Beruwala	Alugama	—	Ticket	Staff	—	Staff	Ticket	Ticket	Ticket	—	—	Staff	—	—	Staff	—
Alugama	Kosgoda	—	—	Staff	—	Staff	Staff	Staff	Staff	—	—	—	—	—	Staff	—
Kosgoda	Bambalapitiya	—	—	Staff	—	Ticket	Staff	Staff	Staff	—	—	—	—	—	Staff	—
Bambalapitiya	Hikkaduwa	Staff	Staff	Staff	—	Ticket	Staff	Staff	Staff	—	—	—	—	—	Staff	—
Hikkaduwa	Dodanduwa	Staff	Staff	Staff	—	Ticket	Staff	Staff	Staff	—	—	—	—	—	Staff	—
Dodanduwa	Gintota	Staff	Staff	Staff	—	Staff	Staff	Staff	Staff	—	—	—	—	—	Staff	—
Gintota	Galle	Staff	Staff	Staff	—	Staff	Staff	Staff	Staff	—	—	—	—	—	Staff	—

• Takes Staff on Saturdays.

• Takes Ticket on Saturdays.

TRAIN STAFF REGULATIONS. BRANCH LINE-GALLE AND MATARA

STATIONS		WEEK DAYS			SUNDAYS.	
From	To	1	2	3	1	2
DOWN.						
Galle	Talpe	Staff	Staff	Staff	Staff	Staff
Talpe	Ahangama	Staff	Staff	Ticket	Staff	Staff
Ahangama	Weligama	Staff	Staff	Staff*	Staff	Staff
Weligama	Kamburugamuwa	Staff	Staff	Staff*	Staff	Staff
Kamburugamuwa	Matara	Staff	Staff	Staff*	Staff	Staff

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STATIONS		WEEK DAYS			SUNDAYS	
From	To	1	2	3	1	2
UP.						
Matara	Kamburugamuwa	Staff	Staff	Staff	Staff	Ticket
Kamburugamuwa	Weligama	Ticket	Staff	Staff	Staff	Ticket
Ahangama	Ahangama	Staff	Staff	Staff	Staff	Staff
Ahangama	Talpe	Staff	Staff	Staff	Staff	Staff
Talpe	Galle	Staff	Staff	Staff	Staff	Staff

* Ticket on Saturdays

STATIONS FROM COLOMBO TO BANDARAWELA WILL OPEN AND CLOSE AS UNDER		WEEK DAYS		SUNDAYS		REMARKS		SUNDAYS		REMARKS	
STATIONS		Open at	Close at	Open at	Close at	SUNDAYS		Open at	Close at	REMARKS	
Colombo Telegraph Office		A M	P M	A M	P M			A M	P M		
Kelaniya ..		5 55	6 40	5 0	10 0	Always open		5 0	10 0	After "Stop Work" from Galle and Kandy	
Hunupitiya ..		6 0	6 20	6 0	5 30	After "Line Clear" of No 13 Down		7 0	5 30	After "Line Clear" of No 2 Down	
Mahara ..		6 15	6 20	6 15	6 20	After No 13 Down has left		7 10	5 20	After No 2 Down has left	
Heneratgoda		6 30	6 50	6 30	6 50	After No 14 Up has left		7 15	5 20	After "Line Clear" of No 2 Down	
Veyangoda		6 30	7 30	6 30	7 30	After "Line Clear" of No 13 Up and "Stop Work" from Colombo		7 30	5 0	do	
Mirigama ..		6 30	7 45	6 30	7 45	do		7 45	4 45	After "Line Clear" of No 3 Up	
Amberpusa		6 30	8 0	6 30	8 0	do		8 0	4 55	After "Line Clear" of No 4 Up	
Alawwa		6 0	12 10	6 0	12 10	After "Line Clear" of No 14 Up		8 0	5 15	do	
Polgahawela		6 15	1 15	6 15	1 15	After "Stop Work" from Kadugannawa		8 0	5 25	do	
Kadugannawa		5 30	1 15	5 30	1 15	After "Line Clear" of No 14 Up		7 0	5 45	After "Stop Work" from Kadugannawa	
Aligalla ..		5 30	1 15	5 30	1 15	After "Line Clear" of No 14 Up		7 45	6 45	After "Stop Work" of No 3 Up	
Baliyana ..		5 30	1 15	5 30	1 15	do		7 0	7 15	do	
Kadugannawa		4 50	2 5	4 50	2 5	do		7 0	9 70	After "Line Clear" of No 4 Down	
Peradeniya Junction		5 30	2 30	5 30	2 30	do		10 30	9 40	do	
Gampola ..		6 0	9 35	6 0	9 35	After "Line Clear" of No 16 Down		10 30	9 10	do	
Ujapane		4 0	8 0	4 0	8 0	Always open		5 0	9 50	After "Line Clear" of No 4 Kandy Down	
Nawalapitiya		4 45	7 30	4 45	7 30	After "Line Clear" of No 16 Down		5 30	8 0	After "Line Clear" of No 4 Down	
Galle ..		5 0	7 30	5 0	7 30	do		6 0	7 30	do	
Watawala ..		5 0	8 0	5 0	8 0	do		5 30	6 55	do	
Hatton ..		5 0	8 30	5 0	8 30	After "Line Clear" of No 8 Up		7 30	6 0	do	
Kadugannawa		5 0	8 30	5 0	8 30	do		7 45	5 40	do	
Talawakelle		5 15	7 10	5 15	7 10	After "Line Clear" of No 6 Up		8 0	5 10	After "Stop Work" from Bandarawela	
Watawala ..		4 45	7 10	4 45	7 10	do		5 30	6 45	After "Line Clear" of No 2 Up	
Nawapitiya		7 0	5 15	7 0	5 15	do		7 0	5 0	do	
Amawala ..		7 0	5 15	7 0	5 15	After "Line Clear" of No 6 Up		6 0	6 0	do	
Potapota ..		7 0	6 15	7 0	6 15	do		6 45	5 15	After "Stop Work" from Bandarawela	
Haputale ..		6 30	6 45	6 30	6 45	After "Stop Work" from Bandarawela		5 20	6 45	After "Line Clear" of No 2 Up	
Bandarawela		6 30	6 45	6 30	6 45	After "Line Clear" of No 6 Up		5 15	6 45	do	
Paradeniya		5 45	7 0	5 45	7 0			4 45	7 0		

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STATIONS FROM MATARA TO MARADANA JUNCTION WILL OPEN AND CLOSE AS UNDER.

STATIONS	WEEK DAYS		REMARKS	SUNDAYS		REMARKS
	Non-days Open at	Close at		Open at	Close at	
Matara	A M	P M	After "Stop Work" from Galle do do do	A M	P M	After "Stop Work" from Matara do do do
Kamburugamuwa	—	6 30		6 45	8 0	
Weligama	—	7 20		7 45	8 0	
Ahangama	—	7 40		7 30	8 0	
Talpe	—	8 0	After "Line Clear" of No. 14 Down do do do	7 15	8 0	After "Line Clear" of No. 4 Down do do do
Galle	—	8 0		7 0	8 0	
Gintola	—	4 30		6 30	10 20	
Doldanduwa	—	4 50		6 45	10 0	
Hikkatuwa	—	5 5	After "Line Clear" of No. 14 Down from Galle After "Line Clear" of No. 14 Down do do	7 0	9 50	After "Line Clear" of No. 4 Down from Galle After "Line Clear" of No. 4 Down do do
Ambalangoda	—	5 15		7 0	9 40	
Balapitiya	—	5 0		7 45	9 0	
Kosgoda	—	5 45		7 45	9 0	
Alugama	—	4 15	After "Line Clear" of No. 14 Down from Galle After "Line Clear" of No. 14 Down After No. 14 Down has passed do	6 30	10 0	After "Line Clear" of No. 4 Down from Galle After "Line Clear" of No. 4 Down After No. 4 Down has left do
Beruwala	—	4 35		6 15	8 20	
Waggona	—	4 45		8 20	8 10	
Pajugala South	—	4 50		8 25	8 15	
Pajugala North	—	4 55	After "Line Clear" of No. 14 Down from Galle After "Line Clear" of No. 14 Up do do	8 30	8 0	After "Line Clear" of No. 4 Down has left do do do
Katukurunda	—	5 0		8 40	7 55	
Kalutara South	—	4 30		4 30	10 0	
Kalutara North	—	5 15		4 50	7 40	
Wadduwa	—	5 30	After No. 14 Up has passed do do do	5 15	7 35	After No. 6 Down has left do do do
Panadure	—	5 45		5 30	8 0	
Moratwa	—	5 50		5 40	8 0	
Lunawa	—	6 0		5 40	8 0	
Angulana	—	4 30	After "Line Clear" of No. 14 Down from Galle After No. 14 Up has left After "Line Clear" of No. 14 Up do	4 30	10 0	After "Line Clear" of No. 4 Down from Galle After No. 6 Down has left After "Line Clear" of No. 6 Down and No. 5 Up After "Line Clear" of No. 5 Up After "Line Clear" of No. 5 Up
Mount Lavinia	—	4 30		5 40	7 55	
Dehiwala	—	6 20		4 30	10 0	
Wellawatta	—	6 15		5 55	7 30	
Bambalapitiya	—	5 15	After No. 14 Up has left After "Line Clear" of No. 14 Up do do	6 0	7 35	After "Line Clear" of No. 4 Down from Galle After "Line Clear" of No. 4 Down After "Line Clear" of No. 4 Down After "Line Clear" of No. 4 Down
Kollupitiya	—	6 0		6 5	7 40	
Slave Island	—	6 15		6 10	7 35	
Fort	—	5 25		6 15	7 45	
Pettah	—	6 0	After "Line Clear" of No. 14 Up do do do	6 20	7 50	After "Line Clear" of No. 5 Up do do do
Maradana Junction	—	6 0		6 20	7 50	
	—	5 30		6 30	8 0	
	—	5 30		6 30	8 0	

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STATIONS ON THE MATALE AND KURUNEGALA LINES WILL OPEN AND CLOSE AS UNDER.

STATIONS	WEEK DAYS		REMARKS	SUNDAYS		REMARKS
	Open at	Close at		Open at	Close at	
Peradeniya New	A M	P M	Always open After "Stop Work" from Kandy After "Line Clear" of Mail from Matale do After "Stop Work" from Kandy do	A M	P M	After 7 35 P M has left After "Line Clear" of 7 35 P M Up from Matale do do do
Kandy	5 0	7 30		7 0	10 0	
Maharaja	6 15	8 55		6 0	10 10	
Katugastota	6 15	3 0		6 30	7 45	
Wattegama	6 0	3 0	After "Line Clear" of 7 35 P M Up from Matale do do do	6 15	8 45	After "Line Clear" of 7 35 P M Up from Matale do do do
Ukuruwa	5 45	8 20		6 0	8 45	
Matale	5 25	3 30		5 45	8 45	
Potuhara	8 15	5 15		5 25	9 0	
Kurunegala	7 45	5 45	After "Line Clear" of 4 25 P M Up	8 25	6 15	After "Line Clear" of 5 25 P M Up
				7 50	6 45	

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FORMATION OF TRAINS

DOWN.							
No of Train	Passenger Coaches					Corresponding No of Up Train	Goods Wagons for
	Station for	First	Second	Third	Van Fish Trucks		
1	Galle from Ambalangoda	1	1	3	1	15	As required
2	Moratuwa	\$1	3	1	—	9	All stations
*3	Alutgama	—	—	—	—	—	All stations south of Kosgoda
	Galle	1	1	5	1	10	Nil
	Panadure	—	1	4	1	—	Kosgoda, Ambalangoda and Galle
*4	Mount Lavinia	2	1	6	2	6	Gintota and Galle
*5	Galle	1	1	5	1	—	Wharf
	Panadure	—	1	3	1	14	Panadure and Moratuwa
*6	Galle	2	2	7	1	—	Moratuwa
	Panadure	—	—	—	—	4	Alutgama
7 & 10	Wharf	\$1	2	1	—	11	Nil
8	Panadure (Sat only)	1	2	6	2	12	Galle only
*9	Moratuwa	2	2	7	1	13	Moratuwa
11	Alutgama	1	1	5	1	1	Moratuwa
	Panadure	—	1	5	1	—	do
*12	Kalutara South	1	1	5	1	5	do
	Panadure	1	2	4	1	—	do
*14	Galle	2	2	7	1	7	do
	Panadure	—	—	—	—	—	do
*15	Moratuwa	1	1	8	2	2	Monday morning, workmen's train
Extra Coaches.							
Saturdays.							
*5	Panadure	—	—	2	—	5	On Sunday
*6	Do	—	—	2	—	4	On Monday
	Galle	—	—	2	—	2	On Sunday
Sundays.							
*1	Galle	1	1	5	1	5	do
	Alutgama	1	2	5	1	—	do
*2	Kalutara South	1	1	5	1	1	do
	Panadure	1	2	4	1	—	do
*3	Galle	2	2	5	1	7	do
	Ambalangoda	—	—	5	1	—	do
*4	Moratuwa	2	1	8	1	4	do
*5	Galle	2	2	7	1	4	do
	Panadure	—	—	2	1	—	do
6	Moratuwa	\$1	4	1	—	—	do

* Formed of coaches fitted with the automatic vacuum brake

† Goods brake van

‡ To take these on at Ambalangoda on Monday mornings

§ Composite

|| The present daily goods trains will run only as between Colombo and Alutgama (No 2 Down and No 9 Up, which see.) Nos 3 and 5 Down Mixed will take the wagons forward from that station. No 7 Up will bring them to that station.

The engine of No 2 Down will take forward No 3 Down from Alutgama, and must stand ready with its wagons to back on to that train as soon as No 3 engine is detached. Engine of No 3 Down will return working No 7 Up from Alutgama to Colombo. The Galle engine working No 7 Up will, with all the goods wagons, detach immediately on arrival at Alutgama and will work forward No 9 Up. Galle Guards will work through.

ON THE COAST LINE

UP.

No of Train	Passenger Coaches					Corresponding No of Down Train	Goods Wagons from
	Station from	First	Second	Third	Fish Trucks		
	Workmen's train	—	—	4	1	6	On Sunday
1	Alutgama	1	1	5	1	11	Moratuwa
	Panadure	—	—	1	5	—	
*2	Moratuwa	1	1	8	2	15	
*4	Galle	2	2	7	1	6	
*5	Panadure	—	—	2	1	—	Nil
*5	Kalutara South	1	1	5	1	12	Nil
*6	Panadure	1	2	4	1	4	All Up wagons to be worked by this train to Alutgama, where they must be detached to be taken forward by No 9 Up
*6	Mount Lavinia	2	1	6	2	—	
*7	Galle	2	2	7	1	14	
	Panadure†	—	—	3	1	—	
8	Wharf	\$1	2	1	—	7 & 10	Wharf
11	Galle	1	1	5	1	3	All stations
*10	Panadure	—	—	1	4	—	
9	Alutgama	—	—	—	1	—	
	Moratuwa	\$1	3	1	—	2	
12	Panadure (Sat only)	1	2	6	2	8	Panadure
*13	Moratuwa	2	2	7	1	9	Moratuwa
*14	Galle	1	1	5	1	5	Galle only
	Panadure	—	—	1	3	—	—
15	Ambalangoda from Galle	1	1	3	1	1	As required
Extra Coaches.							
Mondays.							
1	Panadure	—	—	2	—	6	On Saturday
Sundays.							
*1	Kalutara South	1	1	5	1	2	To be formed of coaches of 12 Down of Saturday
	Panadure	1	2	4	1	—	To be formed of coaches of 14 Down of Saturday
*2	Galle	2	2	7	1	3	To be formed of coaches of 6 Down of Saturday
	Panadure	—	—	3	1	—	—
*3	Galle	2	2	7	1	5	—
	Panadure	—	—	2	1	—	—
*4	Moratuwa	1	1	8	1	4	—
	Galle	1	1	5	1	1	—
*5	Alutgama	1	2	5	1	5	On Saturday
	Panadure	—	—	2	—	—	—

No 6 Down will take forward the van goods wagon arriving by No 6 Down Main line train

NOTE.—When mail steamers arrive the Station Master must be prepared to strengthen the trains with 1st and 2nd class to Mount Lavinia or Moratuwa, as may be required.

Horse-boxes and carriage trucks not fitted with the vacuum brake, to the number of three, may be run in the rear of the vacuum trains when it is impracticable to send them by other trains

Sunday trains to take goods wagons if required. If the traffic is so heavy as to require extra accommodation on No 3 Down Sunday the Pettah and Fort Station Masters must arrange with Station Master, Colombo, as early as possible.

A spare fish truck to be kept in hand at Moratuwa, Alutgama, Ambalangoda and Galle. During the fish season fish trucks must be run as required

1896.

NEW CENTRAL PASSENGER RAILWAY STATION FOR COLOMBO.

REPORT of the COMMISSIONERS appointed to inquire into and report upon
the question of a Site for a new Central Passenger Railway Station for
Colombo.

Ordered by His Excellency the Governor to be Printed.



Colombo:

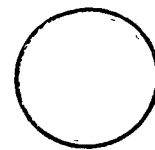
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To be purchased at the GOVERNMENT RECORD OFFICE, COLOMBO, price cents

1896.

COMMISSION.

IN the Name of Her Majesty VICTORIA, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith
By His Excellency the Right Honourable Sir JOSEPH WEST RIDGEWAY, Knight Commander of the Most Honourable Order of the Bath, Knight Commander of the Most Exalted Order of the Star of India, Governor and Commander-in-Chief in and over the Island of Ceylon, with the Dependencies thereof



WEST RIDGEWAY,

To the Hon. F. R. SAUNDERS, C.M.G.; the Hon. R. K. MACBRIDE, C.M.G., the Hon. W. W. MITCHELL, C.M.G., and C. W. HODSON, Esq., Superintending Engineer, State Railways, India.

GREETING

WHEREAS We deem it expedient that a Commission should issue for the purpose of inquiring into and reporting upon the question of a site for the new central passenger railway station, and in connection therewith, and more especially on (1) the comparative merits of the schemes proposed by Major G. F. WILSON, R.E., in his report on the Ceylon Railway System, and the General Manager of the Railway, and that proposed by Mr. F. J. WARING, C.M.G., judged from the point of view of convenience and expense, and on (2) the question whether the requirements and estimates of the General Manager of the Railway, as submitted in his letter No. 298, dated 17th March, 1896, are reasonable

Now know Ye that We, the said Governor, reposing great trust and confidence in your prudence, ability, and fidelity, have, with the advice of Our Executive Council, in pursuance of the powers in Us vested by the Ordinance No. 9 of 1872, nominated, constituted, and appointed, and by these presents do nominate, constitute, and appoint you, F. R. SAUNDERS, R. K. MACBRIDE, W. W. MITCHELL, and C. W. HODSON, to be Our Commissioners for the purpose aforesaid, with authority to exercise all the powers which Commissioners appointed under the said Ordinance may lawfully use and exercise.

And We do hereby authorize and empower you, Our said Commissioners, to make all necessary inquiries into the said matter, and to report to Us under your hands within three months from this date, or so much earlier as may be possible, upon the matter referred to you as aforesaid

Given at Kandy, under the Seal of this Island, this Twentieth day of May, in the year of our Lord One thousand Eight hundred and Ninety-six

By His Excellency's command.

W. T. TAYLOR,
Acting Colonial Secretary.

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Confidential.

NEW CENTRAL PASSENGER RAILWAY STATION
FOR COLOMBO.

REPORT OF THE COMMISSIONERS.

THE Commission appointed to inquire into and report upon the question of a site for a new central passenger station for Colombo, having taken evidence, report as follows.

They consider that—

1. The goods station as at present arranged at the terminus is too cramped for economical and efficient working, and that more shed and shunting accommodation and improved access for cart traffic are necessary, and should be provided without delay.
2. Relief can best be given by removing the coaching arrangements from the present terminus to another site, by extending the present goods sheds, and laying marshalling sidings, improving the road approaches, and enlarging the space allotted to cart traffic.
3. The difficulty of bringing the Galle traffic into the present Main Line station also points to the desirability of removing the present passenger station to another site.
4. Partial relief can be given by extending the goods sheds, and removing the present engine shed, &c., and laying marshalling sidings, so far as practicable, without immediately removing the coaching arrangements, and by improving the road approaches. This measure will, however, not materially relieve the congestion of cart traffic near the sheds, nor will the full benefit of the improved shunting arrangements be felt so long as the coaching business has to be done in the same yard.
5. If the goods traffic continues to increase at the same rate at which it has been increasing of late years (say 10 per cent per annum), this partial measure of relief will only suffice for three or four years. It may also prove insufficient earlier if the traffic anticipated from the further railway extensions now under consideration (*e.g.*, the Jaffna and Kelani Valley projects), has to be dealt with in the same yard.
6. It is therefore important that the coaching arrangements should be removed from their present position to another site within three or four years at most. The execution of this work will probably take at least two years, so the scheme should be worked out in full detail, and the work sanctioned and commenced within one year from the present date, or as much earlier as possible.
7. Two principal sites were recommended for a new central passenger station, and preliminary plans for the same were laid before the Commission, viz :—
 - (a) By Mr. Waring at the site of the present Fort station.
 - (b) By Mr. Pearce at Beira, as suggested in Major Wilson's report.

The Commission consider the former site, on account of the curvature of the line, is not suitable for such a station; but that the latter is the most suitable of any of the sites which have been suggested for making a new central passenger station at a moderate cost.

8. It has been suggested that a site might be obtained by filling up the Lotus Pond, and diverting the present lake-side line through the native town. Such a site might offer certain advantages for laying out convenient sidings, and arranging for easy access to the harbour face; but these advantages would be largely counterbalanced by the inconvenience inseparable from the taking of the Main Line traffic through a number of crowded thoroughfares crossed on the level. The cost also would probably exceed that of the Beira project by about Rs. 800,000. The Commission, therefore, do not recommend this scheme.

9. Another scheme has been suggested, viz, to locate the proposed central station in the open space west of the Lotus Pond, and to design it as a terminus. This station would however be very cramped, unless not only the Lotus Pond, but also a large area of the lake, be filled up. If this were done, the scheme would probably not cost less than that referred to in paragraph 8; and there are other obvious disadvantages. The Commission, therefore, do not recommend its further consideration.

10. The Commission consider that whatever scheme be adopted, the following conditions should be kept in view :—

- (a) The new station should provide for all coaching arrangements now carried on at the present terminus, with the exception of the sheltering of valuable or surplus stock.
- (b) It should provide for the whole passenger traffic of the present Fort and Terminus stations, and for that of the Pettah also if it is to be closed, as well as for all probable increases for the next ten years or so.
- (c) It should be capable of still further extension should traffic increase beyond the above expectation, and for the accommodation of the traffic of any new railways likely to be brought into Colombo (*e.g.*, the Jaffna and Kelani Valley projects), whether broad or narrow gauge.

- (d) It should provide for a good and convenient suburban service, and also for the running of through trains between Galle and Kandy should thus eventually prove desirable.
- (e) It should provide convenient access to the present Custom House and Harbour Works lines, and be suitable also for the goods traffic which would arise if extensive warehouses and wharves be established along the harbour face, as is probable at some future date.
- (f) The arrangements referred to in (e) should, if possible, be capable of adaptation for the accommodation of a suburban passenger service along the harbour face, should necessity for this eventually arise.
- (g) All arrangements that may be considered necessary in order to comply with conditions (e) and (f) should be discussed with the Harbour authorities and laid down on the Municipal and Harbour Works plans; and no new vested interests should be allowed to arise which might interfere with the eventual execution of such arrangements.
- (h) The station building at the central station should provide for the accommodation of the offices of the General Manager and of the Traffic Superintendent; and also for that of the Accountant, if funds permit.
- (i) The connection between the new station and the present Maradana Junction should be a double line free from all points or crossings whatsoever, except such as are within the limits of stations, and under the direct control of the station masters concerned.
- (j) The possibility of a third line being eventually required for locomotive purposes, and even of a fourth for Harbour traffic, should be provided for.
- (k) Between Parson's road and Maradana Junction inclusive, all points over which passenger traffic may pass, and the entrances to the goods and locomotive yards and to the Wharf lines should be interlocked with the signals on an approved modern system; and traps should be provided to prevent the possibility of engines or vehicles coming out of the side yards on to the main lines against signals.
- (l) The question of road approaches to the station should be carefully considered and the number of level crossings kept down as much as possible. When these are unavoidable they should be capable of being interlocked with the signals; and the expediency of providing overbridges for foot passengers at any rate should be considered.
11. The General Manager produced preliminary plans and approximate estimates for the works recommended in his scheme, the cost of which is as follows:—

New Central Station at Beira		Rs
Passenger station building, 292 ft. by 53 ft., including upper story for offices	...	208,742
Platforms ... { 1 of 550 ft by 20 ft. } 27,500 square feet	...	45,010
Roofing ... { 2 of 550 ft by 15 ft. } do.	...	158,400
Furnishing and lighting	...	30,000
Two overbridges for platforms	...	30,000
Road deviation, 13,200 square yards at Re. 1	...	472,152
Filling in Lotus Pond, 54,234 cubic yards, at Re. 1	...	13,200
Permanent way complete, 5,936 lineal yards, at Rs 15	...	89,040
Points and crossings, 29 sets	...	11,160
Native latrine,	...	3,000
Signals and interlocking	...	30,000
Land and compensation	...	120,000
Double line from Maradana to Beira:—		792,786
Filling in lake, 17,050 cubic yards, at Re. 1	...	17,050
Permanent way, 796 lineal yards, at Rs 15	...	11,940
Total		28,990
Add contingencies, at 5 per cent	...	821,776
Total for the Beira Scheme		41,089
Add, if a third line be provided —		862,865
Filling 34,100 cubic yards, at Re. 1	...	34,100
Permanent way 800 lineal yards, at Rs 15	...	12,000
Contingencies, at 5 per cent.		46,100
Grand Total		911,270

12. Besides the above, the General Manager produced estimates for the following works, urgently required at the present Maradana terminus, to give the partial relief referred to in paragraph 4, and he stated that these requirements are altogether independent of the proposed removal of the coaching arrangements, and that if they be sanctioned, he will be able to get along for about four years, unless the traffic continues to increase at the rate at which it has been increasing recently.

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The cost is as follows:—

	Rs
Removal of old engine and turn-table and relaying of marshalling sidings in the space so obtained	117,653
Enlargement of certain workshops	36,600
Extra staff for supervision	5,000
159,253	
Add contingencies, at 5 per cent.	7,963
167,216	
Providing present open passenger platform with temporary covering (say)	25,000
Extending goods sheds and altering boundary	35,371
Widening canal bridge and improving approach road	28,659
Interlocking (say)	20,000
Lighting goods yard with electricity (say)	20,000
129,030	
Add contingencies, at 5 per cent	6,452
135,482	
Total	302,698

13. The Commission consider the above estimates adequate and reasonable for the works specified; but they would remark that the cost of the filling in connection with the passenger station will depend largely upon the nature of the material, and the place from which it is obtained; and they are of opinion that a notable economy is possible if the railway be allowed to obtain the material by removing sand at the Galle Buck. It is desirable that this should be carefully considered, as upon it depends the relative cost of land compensation and lake filling, and consequently the exact alignment to be selected.

14. They also consider that if the Beira scheme be adopted, the present Fort and Pettah stations should be closed; but there would be no objection to a separate station for the Pettah being hereafter re-established, either at the same or a neighbouring site, if it be found desirable so to do; meanwhile the present station should not be taken down.

15. They also consider that the plans produced fulfil fairly conditions (a), (b), (d), (h), (i), (j), and (l) of paragraph 10, and that they are susceptible of being made to comply with conditions (c), (e), (f), (g), and (k). The plans and estimates have, however, been prepared very hurriedly, and should now be carefully revised; and the Commissioners are of opinion that when so revised the complete working estimate of the Beira project should not exceed Rs. 900,000 to Rs. 950,000.

16. The Commission therefore recommend that—

- (I.) The works referred to in paragraphs 4 and 12 should be sanctioned forthwith.
- (II.) The Government should face the necessity for spending at least Rs. 900,000 or Rs. 1,000,000 on a new central station within the next three years.
- (III.) The General Manager should be directed to carefully revise the Beira scheme so as to fulfil the conditions laid down in paragraph 10, and to submit complete working plans and estimates for the same within three months.
- (IV.) The Beira scheme so revised should be sanctioned and commenced within twelve months of this date, unless in the meantime a complete project for a better scheme has been approved in its stead.

Colombo, June 18, 1896

F. R. SAUNDERS.
R. K. MACBRIDE.
W. W. MITCHELL.
C. W. HODSON.

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APPENDIX A.

MINUTES OF PROCEEDINGS.

Preliminary Meeting, held in Council Chamber at noon on Wednesday, June 3, 1896.

Present.—The Hon. F. R. Saunders, C.M.G., Chairman; the Hon. R. K. MacBride, C.M.G.; the Hon. W. W. Mitchell, C.M.G.

1. *Resolved* that Mr. F. J. Waring, the Chief Resident Engineer, and Mr. W. T. Pearce, the General Manager of the Railway, be called upon to attend a Meeting of the Commission, the latter on Monday, the 8th June, and the former on Wednesday, the 10th June, and give evidence regarding their respective schemes for a new central passenger station for Colombo.

2. *Resolved* that the Government be asked to allow the Commission to employ one of the railway officers to act as Secretary.

Second Meeting, held in Council Chamber at 12 noon on Monday, June 8, 1896.

Present.—Hon. F. R. Saunders, C.M.G., Chairman; Hon. R. K. MacBride, C.M.G.; Hon. W. W. Mitchell, C.M.G.; and C. W. Hodson, Esq., M.I.C.E.—*Secretary*, T. A. Wylie.

1. Commission read.
2. *Mr. W. T. Pearce* examined states:—

I am General Manager of the Ceylon Government Railways, and have held this position for about eleven years. My recommendation that a new central passenger station should be built in Colombo is necessitated by increased traffic both in passengers and goods, which cannot be dealt with properly in the present yard at Maradana.

My proposal is to build a new passenger station at Beira, and thereby give room for extending the goods warehouses and goods yard at Maradana. Either the passenger station or the goods sheds must be moved, otherwise there is no way of relieving the present compressed state of the yard. Before Major Wilson suggested the removal of the passenger station to Beira, I had proposed the placing of the goods warehouses there. A large passenger station in the position suggested will meet all native as well as European passenger requirements. It is true I propose to abolish three passenger stations—the present terminus at Maradana, Fort, and Pettah.

3. *Mr. Hodson.*—Will another station near the Royal College be necessary?

4. *Mr. Pearce.*—I do not think so. If built at Beira the new station will meet the requirements of the Law Courts.

5. *Mr. Hodson.*—Has the idea of continuing the present lines through the Ceylon Company's store ever been considered?

6. *Mr. Pearce.*—Yes, and plans were prepared, but not found suitable, as it does not relieve the Maradana yard.

7. *Mr. MacBride.*—Is a run-through station such as you have proposed the most suitable?

8. *Mr. Pearce.*—Yes.

9. *Mr. Mitchell.*—Would you propose to work upon the same system as at present?

10. *Mr. Pearce.*—Yes, but if necessary we might arrange to run certain coaches on the Galle trains through to the Main line—say to Kandy and Bandarawela.

11. *Mr. MacBride.*—If you do not run trains through, what is the use of a run-through station?

12. *Mr. Pearce.*—The terminal of the Sea Coast line will still be Maradana Junction, and consequently trains will run through as at present.

13. In reply to the Chairman's request that he would explain his proposals *Mr. Pearce* stated:—

The present passenger station is too close to the goods shed, and, as I have before mentioned, there is no room for extension. Both passenger station and goods sheds are too small to meet the present requirements of the traffic. The approach road to the warehouses is so narrow that bullock carts are often blocked for a considerable time before they can get out of the yard after discharging their loads. The sidings are insufficient, and the accommodation altogether inadequate.

One scheme for affording the necessary relief was to put the goods sheds on Captain's Garden. This proposal required a level crossing over the Coast line, and therefore meant great difficulty in working the traffic.

Another scheme was to remove the goods sheds to Beira, but when Major Wilson suggested the erection of a passenger station at Beira, I went into the matter with my officers, and afterwards decided to adopt it as the most suitable arrangement

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CENTRAL PASSENGER STATION FOR COLOMBO.

In proposing to do away with the present passenger terminus at Maradana, I do not intend that the present buildings should be pulled down. I should use half the station for providing additional accommodation for goods traffic, and the remaining portion to house valuable passenger stock, such as the Governor's saloon and other spare carriages.

I propose to lengthen the existing goods sheds 150 or 200 ft. This means encroachment upon the public road, a portion of which we require to take into the railway yard. To admit of this the road over the canal bridge must be widened and the road deviated as shown on plan H 84 M. This latter I consider a municipal work, and I have not submitted an estimate for it.

14. An inspection of the plan referred to led to a suggestion on the part of the Committee that the deviation of the road should be made between the Royal College grounds and the Ceylon Company's store, and thereby afford still greater relief to the railway by giving it the whole of the land inside the lock-gate.

15. *Mr. Pearce* agreed that this would be most desirable, and stated that he had already proposed something similar to this a long time ago.

16. *Mr. Pearce* requested to submit a plan showing the proposed deviation.

17. *Mr. Pearce* then proceeded with his explanation, and stated:—

The proposal I have made will give quite sufficient accommodation for any goods traffic which is likely to be brought to the terminus in future, although I think consideration might be given to a suggestion I made some years ago for a line to admit of railway warehouses being erected near the present coal sheds.

I am prepared to adopt Major Wilson's suggestion that the new passenger station should be fixed at Beira. It will not inconvenience the passengers who at present use the Fort and Pettah stations if these stations as well as the Maradana terminus are abolished.

I have not yet submitted an estimate for the new station buildings, as I wished first to have some idea as to what amount of money the Government would be prepared to spend upon it.

I propose to have a two-storied building with booking offices, waiting hall, first and second class waiting rooms, refreshment rooms, and the usual station offices, lamp room, &c., on the ground floor. Above this, offices for the General Manager, Traffic Superintendent, and Accountant.

The station will have three platforms, one connected with the booking offices from which the Main line trains will start, and two island platforms for the Sea Coast trains to transfer passengers to and from the up and down Main line trains. I propose to lay down two additional lines from Maradana yard. This will give three through lines: one up, one down, and one for engines alone to proceed to and from the running shed.

18. *Mr. Hodson.*—Then, do you propose to work double line from the new station to Maradana Junction?

19. *Mr. Pearce.*—Yes.

20. *Mr. Pearce* continuing:—The station will be placed on the straight, and the platforms will be 550 ft., sufficiently long to take our longest train—all on the straight.

21. *Mr. Hodson.*—If the station could be put still further forward towards the Racquet court and Lotus pond, it would be a decided improvement. The cost of acquiring the extra land would probably be not more than the cost of filling up the lake.

22. *Mr. MacBride.*—It would mean deviating Norris road and the purchase of the whole block at the corner where the Sailors' Home now stands.

23. *Decided* that the Government Agent should be asked to give cost of acquiring the block of land bounded by Norris road, Maliban street, Front street, and Kaffre lane.

24. *Mr. Mitchell.*—Were the bridge over Parson's road lowered, would it make any considerable or appreciable reduction in the gradient, and would this reduce the cost of the new station as regards reclaiming a portion of the lake?

25. *Mr. Pearce.*—Yes, it would make a considerable difference. The saving in filling, say 3 ft. of lake, would bring about a very large saving, but I do not know whether it would be practicable. The lowering of the bridge might not permit pada boats to go under with cargoes of tea for the mills situated on the far side of the lake.

26. *Decided* that the Secretary should arrange to take the necessary measurements to ascertain if the bridge can be lowered without preventing the passage of pada boats.

27. In reply to question by the Chairman, as to how it was proposed to work the new station, *Mr. Pearce* stated:—

28. I propose to work it both as a main and suburban station. Main line trains will start from and terminate there. Seaside trains will run through, but passengers, luggage, &c., will be transferred into the Main line trains there, and not at Maradana Junction.

29. In reply to question by *Mr. Hodson*, *Mr. Pearce* admitted that the plan of the station yard could be improved, and added that the actual details of working had not yet been settled.

30. *The Chairman.*—Will your plan also provide for the terminus traffic of the narrow gauge line from the Kelani Valley, if constructed?

31. *Mr. Pearce.*—Yes, I would put a separate platform for the narrow gauge line on the lake side of proposed station.

32. *Mr. Hodson.*—This would be an additional argument for going nearer into the Pettah so as to allow for extension on the lake side for narrow gauge platform and sidings, as the present plan does not admit of much extension on the lake side.

33. *Mr. Pearce* admitted that this was the case, but pointed out that with a narrow gauge sharper curves could be made.

34. *Mr. Hodson* pointed out that additional sidings would be required for standing spare stock, &c.

35. *Mr. Pearce* stated he would not propose to keep spare narrow gauge stock there, but would keep it in the present Maradana yard.

36. *The Chairman* remarked that surely it would be necessary to keep some additional carriages at the terminal station.

37. *Mr. Pearce* replied that one or two additional sidings would be required, but the sharper curves of the narrow gauge would admit of this, though of course *Mr. Hodson's* scheme of placing the station nearer the Racquet court would give more room.

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38. *The Chairman*.—Is the proposal you have made to the Government for extending the line to the Wharf by way of the coal sheds, one which would fit in with this scheme?

39. *Mr. Pearce*.—The two schemes have never been considered together. They could be made to fit in so far as the railway is concerned, but it would affect the public roads. At present there is a line shown to the new Breakwater, and I would in time propose to make this a passenger line to Mattakkuli. It would also join the present Wharf line near the passenger jetty, and so form a loop.

40. *Mr. Pearce* desired to furnish the Commission with the plans for the Mutual Railway projected many years ago, also plans of the proposal to place the new passenger station in the Fort behind the Public Works Offices and near Bristol Hotel.

41. *Mr. Hodson* pointed out to the Commission that if it should be necessary to go to the Wharf at some future time to build sheds, &c, and to make a future passenger line to Mutwal, the possibility of this should be considered in the present scheme for a new central passenger station, as it would probably necessitate a fourth line from Maradana to Beira.

42. *Mr. Pearce* stated he considered that three lines would be sufficient for all future requirements, as a large goods traffic is already being conveyed to and from the Wharf, as well as a heavy passenger traffic over a single line between Fort and Maradana.

43. *The Chairman* pointed out that *Mr. Pearce* had not furnished all his estimates. No estimate appeared to have been sent in for the station building, lighting, or inter-locking.

44. *Mr. Pearce* explained, that as the style of building had not been settled upon, and as by the time the station is built the introduction of electric lighting might become general, he had deferred making any estimate for this work. As regards inter-locking, he could furnish approximate estimate.

45. *Mr. Mitchell* suggested that it would be well to get from *Mr. Pearce* an estimate of cost of lighting by gas.

46. *Mr. Pearce* requested to furnish estimate for lighting, and also for inter-locking.

47. *Mr. Hodson* suggested that *Mr. Pearce* should be asked to bring with him to the next Meeting of the Commission a rough sketch of the kind of station building he proposed, giving area and probable cost.

48. *Mr. Mitchell* asked if *Mr. Pearce* was prepared to accept the building suggested by *Mr. Waring*, and if not, what alterations he would propose.

49. *Mr. Pearce* replied that he had not seen or heard anything of *Mr. Waring's* plans and estimates until just before coming to the Meeting, and had not considered them.

50. *Mr. Hodson* asked if roofing the platforms alone would be sufficient without covering over the lines of rails.

51. *Mr. Pearce* stated that this would not be sufficient owing to the heavy driving rain-storms. It would be necessary to cover both lines and platforms.

52. *The Chairman* asked what *Mr. Pearce* thought his scheme could be carried out for.

53. *Mr. Pearce* replied that he estimated the total cost at about one and a half million rupees. Without the building, lighting, and inter-locking the estimates he had sent in amounted to about one million.

54. *Mr. Hodson* pointed out that the deviation of the road scheme should be included in *Mr. Pearce's* estimate, whoever had to pay for it.

55. *Mr. Pearce* directed to prepare estimate accordingly.

56. *The Chairman* inquired if 5 per cent. for contingencies was sufficient.

57. *Mr. Pearce* stated that it was.

58. *Mr. Hodson* asked if it was ever exceeded.

59. *Mr. Pearce* replied that it was not.

60. In reply to question by *Mr. Hodson*, *Mr. Pearce* stated that so far as he was concerned all previous schemes had been abandoned.

61. Decided to request Messrs. *Pearce* and *Cantrell* to attend the next Meeting at 1.30 p.m. for examination.

62. Meeting adjourned at 6.30 p.m. until 12 noon on Wednesday, June 10, 1896.

Third Meeting, held in Council Chamber at noon on Wednesday, June 10, 1896.

Present.—The Hon. F. R. Saunders, C.M.G., Chairman; the Hon. R. K. MacBride, C.M.G.; the Hon. W. W. Mitchell, C.M.G.; and C. W. Hodson, Esq., M.I.C.E.

Mr. Waring stated:—

63. I am Chief Resident Engineer. I have been connected with the Ceylon Railways since 1875, and have held the appointment of Chief Resident Engineer since June, 1882. From August, 1891, to August, 1892, I acted as General Manager of Railways. During that time I submitted a proposal to Government for improving and enlarging Fort station, so that trains could be run through from the Sea Coast to Main line and thereby relieve the pressure at the Main station caused by the cramped and insufficient space in Colombo yard. The intention was to close the main station as a passenger station, and as a matter of fact it was closed for two months as an experiment. I did not propose to close Pettah station. I am aware that a proposal has been made by Major Wilson to do away with Fort and Pettah stations, as well as the present terminus, and to build a new central station at Beira, and it was in consequence of seeing this proposal that I drew the attention of Government to my proposals of 1892.

I have seen the General Manager's plans and estimates which were sent to me by the Secretary to this Commission yesterday evening.

64. *The Chairman* requested *Mr. Waring* to express his opinion with regard to the General Manager's plans for giving effect to Major Wilson's proposal.

65. *Mr. Waring* first of all pointed out that the goods traffic on the railway had not increased since 1881, as in that year 317,000 tons of goods were carried, whereas in 1894 the

tonnage amounted to only 314,000 tons; but the revenue from goods traffic has doubled itself, as in 1881 it was Rs. 1,892,000 and in 1894 Rs. 3,585,000. This shows that goods are now carried much longer distances than was the case in 1881. Passenger traffic has also practically doubled itself, as in 1881 2,167,000 passengers were carried, and in 1894 the number had increased to 4,216,000, receipts also about double.

He therefore maintained that there has not been the enormous increase of goods traffic reported by *Mr. Pearce*—as compared with 1881.

66. *Mr. Waring* then stated with reference to the letter addressed by the General Manager to the Hon. the Colonial Secretary on the 17th March last:—

In paragraph 5 *Mr. Pearce* proposes to lengthen the goods shed—a work necessitating the removal of the plumbago platform and other alterations. Again, in the course of the evidence he gave before the Commission on Monday last, *Mr. Pearce* stated he proposed to use half the present passenger station as an extension of the goods shed. It appears to me that if this is done there is a question as to whether the extension of the goods shed, upon which *Mr. Pearce* proposes to spend Rs. 35,000, is necessary. This point may possibly not have been considered by *Mr. Pearce*.

67. In paragraph 12 of his letter, *Mr. Pearce* stated that the Main line goods trains consist of 24 loaded wagons, and mentions the number of these trains in and out of Colombo daily in support of his argument that additional siding accommodation is required for marshalling purposes. I understand that the maximum load is 24 vehicles, and as some, if not most, of these trains are mixed trains, I do not think that they take 24 goods wagons as *Mr. Pearce's* letter implies.

68. In paragraph 16 *Mr. Pearce* speaks about the money spent upon sidings being ultimately recouped. He is wrong in what he says. The sum of Rs. 111,000 includes all materials. It includes ballast, sleepers, fastenings, points and crossings, as well as rails. He cannot sell anything but the rails for Rs. 60 per ton, and therefore the credit taken is not correct.

69. With regard to the additional sidings shown by *Mr. Pearce* on his plan No. 2. If the goods traffic has not increased, I admit that the number of stations to and from which wagons are sent has increased, and the difficulty of marshalling wagons must consequently have increased; but I really do not think that the increase in this work can be sufficient to justify an expenditure of nearly Rs. 185,000 in providing additional siding accommodation in Colombo yard.

70. In plan H 84 M *Mr. Pearce* has shown that a deviation of the road in front of the main station is necessary, to admit of his proposed extension of the goods sheds and to give more room for the cart traffic in the goods yard. If there be any congestion of the cart traffic to or from the goods sheds, it seems to me that it occurs at the bridge which carries the road over the canal, and which is much narrower than the other part of the road, and I think that the bridge might be widened on the railway side without interfering with the Ceylon Company's store. This appears to me to be a more economical arrangement, as it gives the required relief without any deviation of the road, and if *Mr. Pearce* knocks down the wall between the entrance gates to the passenger and goods yards, he will be able, by slight alteration of the roads, to get much more room for the cart traffic.

71. In paragraphs 18 to 20 of *Mr. Pearce's* evidence, he states he proposes to work double-line between Maradana Junction and the new station at Beira, and to have a third line to run engines to and from the engine shed. I maintain that a third line is quite unnecessary. If double line working is brought into use at all, I consider that two lines are amply sufficient for all the traffic, including the running of the engines to and from the locomotive yard.

72. With reference to paragraphs 24 to 26, I would point out that any difficulty of headway might be obviated by the use of a swing bridge.

73. As regards paragraphs 30 to 36, sharper curves, so far as I can see, will not help *Mr. Pearce* at all, as, if he proposes to run a narrow gauge line on the lake side of the new station, he will still want breadth at the station. There is no question of curves there—it is simply a question of lines and platforms.

74. *Mr. Hodson* pointed out that what *Mr. Pearce* apparently meant was that a narrow gauge line could be brought into the station on the lake side, as it would admit of sharper curves being used in either direction for this purpose, but that of course the yard would have to be widened and one or more additional platforms added for the admission of the narrow gauge trains.

75. *Mr. Waring*.—Referring to questions 38 and 39 of *Mr. Pearce's* evidence, I see on plan H 84 O a new route is shown for the line to the Breakwater works. I think the proposal is objectionable, because it means a back shunt for all stone trains. Therefore, I think it would be an advantage if the existing Racquet court line could be maintained in its present position, as it might, if extended, form a loop to connect with the present Wharf line, but with *Mr. Pearce's* proposal this is not possible without a back shunt.

76. I will now offer one or two remarks with regard to *Mr. Pearce's* estimates. I do not know where *Mr. Cantrell* proposes to get his stuff for filling up the lake, but it seems to me that Re. 1.75 per cubic yard a very long price.

It seems to me that by going a few miles down the Seaside line, say as far as Lunawa or Angulana, where there is plenty of foreshore from which sand could be brought, it should be possible to do the filling in of the lake for much less than Re. 1.75 per cubic yard, and I cannot help thinking that this price is too high.

77. In *Mr. Pearce's* plan no horse and carriage dock is shown, and although this is included in estimate, no siding or approach road are estimated for.

78. *Mr. Hodson* pointed out that *Mr. Pearce* had explained to the Commission that his plan was merely a sketch plan, and that the details had not been worked out.

79. *Mr. Hodson*.—Do you consider, *Mr. Waring*, that it is not necessary to increase the accommodation already in the goods yard at Maradana very much? Do you think that the present accommodation in the way of goods sheds is sufficient?

80. *Mr. Waring*.—It is some years now since I was connected with the management of the Railway. I am aware that blocks used to take place, but I found that they were generally due to removable misunderstandings. The goods shed was lengthened at the time, and I think that if *Mr. Pearce* proposes to use half the present passenger station for goods work, it will give ample room without lengthening the goods shed and carrying out the other alterations consequent thereon.

I do not think any necessary modification or alteration of the passenger station would cost one quarter as much as Mr. Pearce's proposal.

81. *Mr. Hodson*.—Can you remember when you were in charge of the Railway, or have you since (recently) noticed the state of the cart traffic in the Maradana goods yard? Have you seen carts jammed in the yard?

82. *Mr. Waring*.—I am aware that the cart traffic is frequently congested, but I maintain that the jam takes place at the bridge over the canal, which, if widened as I have already suggested, will remove this difficulty, and extra room can be given in the goods yard by pulling down the urinal and widening the carriage road alongside the arrival platform. I believe this would give a splendid roadway, about 40 ft. in width and about 400 ft. long.

83. *The Chairman*.—Then are we to understand that you object to part of Mr. Pearce's scheme as unnecessary at present?

84. *Mr. Waring*.—Yes, that is so; but if later on it is found necessary, the remainder could be carried out.

85. *The Chairman*.—Would it not be possible to widen the bridge a little on the Ceylon Company's store side also, without interfering with the store?

86. *Mr. Waring*.—Yes, I think this might be done.

87. *Mr. Hodson*.—Do you dispute the fact that it is desirable to obtain more accommodation for goods traffic?

88. *Mr. Waring*.—I think if the passenger traffic is taken away from the main station it is not necessary to increase the boundary of the goods yard, or to spend money in increased goods shed accommodation at present.

89. *Mr. Hodson*.—Mr. Pearce wants to increase this accommodation immediately. It is not possible to remove the passenger traffic from the station within a year; in fact, you think it will take longer. What is to be done to relieve the pressure in the meantime?

90. *Mr. Waring*.—Colombo station has at present two arrival and two departure platforms. Perhaps it would be possible to use the departure platforms for both outgoing and incoming trains for the time being, and give up the other half of the station for goods traffic.

91. *Mr. Mitchell*.—Do you consider that more accommodation is necessary in Maradana yard for sheltering carriages?

92. *Mr. Waring*.—We have been told by Mr. Pearce in his Administration Report that carriages suffer deterioration owing to want of covered carriage sheds. I am not prepared to say anything about this.

93. *Mr. Mitchell*.—You spoke about getting sand from the sea-side some distance from Colombo. Why not from Galle Buck?

94. *Mr. Waring*.—I understood that the Government objected to sand being taken from Galle Buck. If it is possible to obtain it from there, so much the better, as I believe it might be done for a total cost of 50 cents per cubic yard—getting and filling say 30 cents, emptying 5 cents, and running charges 15 cents. I base my estimate for the running charges on the assumption that the sand will be carried at 6 cents per ton per mile, which is the charge for transport of Engineer's materials.

95. *The Chairman*.—Do you know sufficient of the traffic at the Pettah to express an opinion as to whether or not it would be advisable to bring that passenger traffic all into the proposed main station at Beira and abolish Pettah station altogether?

96. *Mr. Waring*.—I am decidedly opposed to the abolition of Pettah station.

97. *Mr. Hodson*.—Why do you consider it not desirable to deal with the whole of the Fort and Pettah traffic at one station?

98. *Mr. Waring*.—Partly on account of the fact that a larger station would be necessary. It is quite practicable to deal with the traffic of the two stations together, but there are local conditions which render it desirable not to deal with the traffic at one station.

99. *Mr. Hodson*.—What are the local conditions that render it undesirable to combine the traffic of these two stations?

100. *Mr. Waring*.—First of all I submit that although the Fort and Pettah stations are very close together, they have an entirely distinct class of passengers. Again, to put one station at Beira in lieu of these two stations would mean—taking the General Post Office as the centre of the Fort and striking a radius—increasing the distance for the users of the Fort station 33 per cent, and practically doubling the distance for the users of the Pettah station, as from the present Fort Station to the entrance to the General Post Office the distance, via Chatham street, is 693 yards and to Beira it is 1,034 yards. From the present Pettah station to the Town Hall, via Gasworks road, the distance is only 550 yards, but from Beira it is 946 yards to the Town Hall via Front street and Main street.

The passenger traffic at Fort, Pettah, and Colombo Terminus is rapidly increasing, as the following figures will show:—

Number of Passengers booked.

	1889 No	1894. No	Increase Per Cent
Fort	74,195	114,518	54
Pettah	262,907	300,856	33
Colombo	55,461	77,587	40

101. *The Chairman*.—In 1895 there was a considerable decrease in the number of passengers booked at Colombo main station.

102. *Mr. Waring*.—That I was not aware of, as I have not seen the figures for last year.

103. *Mr. Hodson*.—It would appear that by the adoption of a station at Beira the distance from the heart of the Fort to Fort station, and from the heart of the Pettah to Pettah station, would be increased by about 400 yards as compared with the present distances. Do you think that the inhabitants of the Fort will suffer severely by this increase?

104. *Mr. Waring*.—I think they would suffer, and would object most strongly.

105. *Mr. Hodson*.—Do the bulk of the people who go to the Fort travel by train?

106. *Mr. Waring*.—The bulk of the people using the Fort are people to whom the increased distance would be a decided objection.

107. *The Chairman*.—Do you anticipate as strong or stronger objections on the part of the people who use Pettah station?

108. *Mr. Waring*.—It was a mistake to build two stations so close together in the first place, but having built them, it would be a very serious matter to take them away.

109. *The Chairman*.—Is there not a large fish traffic at Pettah station?

110. *Mr. Waring*.—Yes, and that would also have to be considered.

111. *The Chairman*.—Pettah station is also a depot for lake traffic?

112. *Mr. Waring*.—Yes. It might be possible, however, to transfer the landing place to Beira.

113. *The Chairman*.—Will you now explain your scheme?

114. *Mr. Waring*.—Since I made my proposals in 1892 I have been told that the present Fort station is objected to on the grounds that it is on a very sharp curve, and that the gradients are unfavourable. On studying my plans I thought of a way by which they could be improved at a comparatively small cost. I now produce plans showing what I propose:—

Drawing No. 781 gives—

	Square Feet.	Rs.	Rs.
A passenger station building, including a verandah, 150 ft x 35 ft =	5,250		
A covered way for carriages, 60 ft x 12 ft =	720		
	5,970		
5,970 sq. ft., at Rs. 8 per sq. ft.		47,760	
Platforms, covered with concrete or cement, including ramps — one 520 ft by 20 ft. = 10,400 sq. ft., one 135 ft by 11 ft = 1,485 sq. ft., one 520 ft by 25 ft. = 13,000 sq. ft., one 590 ft by 20 ft. = 10,400 sq. ft., total 35,285 sq. ft., at Rs. 1 27		44,812	
Roof supported by columns, 115 ft by 500 ft. = 57,500 sq. ft. at Rs. 200 per square 100 ft ...		115,000	
Overline foot-bridge, 15 ft wide, say		8,000	
Two steam or hydraulic traversers to traverse bogie carriages, say including engines, &c., fixed complete		20,000	
One engine turntable, 50 ft. diameter		12,000	
Furnishing and lighting		10,000	
Water closet and latrine accommodation for natives, say		3,000	
Total for station and appliances		260,572	
Permanent way in sidings, 2,285 lin. yds., at Rs. 15		34,275	
15 sets single points and crossings, at Rs. 380 each		5,700	
2 sets three throw switches, at Rs. 760		1,520	
3 sets diamond crossings, 4 in a set, at Rs. 1,000		3,000	
3 buffer stops, at Rs. 500		1,500	
		45,995	
<i>Road diversions</i>			
29 chains = to 638 lin. yds., say 20 yds wide on the average = 12,760 sq. yds., at Rs. 1 per sq. yd.		12,760	
Filling up corner of Lotus pond, 9 chains = 198 yds. by 3 chains = 66 yds. by say 3 yds. deep = 39,204 cub. yds., at Rs. 1		39,204	
Purchase of land and buildings at corner of Norris road and Front street, including Sailors' Home, say		20,000	
Doubling the line from T (entrance to Fort station) drawing No. 781, to Colombo station goods warehouse siding, 60 chains = 1,320 lin. yds., at Rs. 15 per lin. yd.		19,800	
Doubling bridge over canal near Eastern Produce Company's mills, say		3,000	
Addition to railway offices near present site, say 80 ft. by 25 ft., 2,000 sq. ft., two stories, at Rs. 15 per sq. ft.		30,000	
Interlocking all points and crossings in central station yard and establishment of absolute block system between Maradana Junction station and Slave Island, say		50,000	
		481,331	
<i>Summary.</i>			
Central station ...		260,572	
Permanent way in sidings, &c., in station yard		45,995	
Diversions of public roads		12,760	
Filling in corner of Lotus pond		39,204	
Purchase of land and buildings		20,000	
Doubling line between central station and Colombo yard		19,800	
Doubling bridge over canal		3,000	
Addition to railway offices		30,000	
Interlocking points and crossings and establishment of absolute block system between Slave Island and Maradana Junction inclusive		50,000	
Add 5 per cent. for contingencies		24,066	
Grand Total		505,397	

115. In my estimate it will be seen that I have not provided new offices at the central station for the management establishment, but have included a liberal allowance for the enlargement of the present head offices, as in my opinion it is not essential that such offices should be at

the principal station. Witness Newcastle-on-Tyne on the North-Eastern Railway in England, Derby on the Midland Railway, also several of the Indian Railways, the East Indian in particular, the offices of which are in Calcutta and the station at Howrah.

116. In 1892 I proposed to give platforms 500 ft. in length. In present plan I have provided two of 520 ft. and two short platforms of 135 ft., from which mixed trains can be started.

117. The two bogie carriage traversers are for inserting or removing individual carriages of through trains.

118. In addition to the through platform lines, I have a spare line running outside the station for goods trains and connecting with the Wharf line.

118a. Trains running through the central station from up-country to Galle or the reverse might stop from 10 to 15 minutes to be re-marshalled. Carriages being added or taken off from the centre line marked C D on tracing No. 781, the clear length of which is about 720 ft., and which will therefore accommodate say 17 bogie carriages. For this purpose the traversers will be most convenient.

118b. If so sharp a curve as 6 chains radius can be admitted, I would recommend that line x — x on tracing No. 781 be put in. The curve might be made easier by altering the Wharf line for some distance.

118c. I have not made any provision for horses and carriages at the central station. They might be loaded and unloaded at Colombo station as at present.

118d. In reply to question by Mr. Hodson —

My estimate does not include anything for altering the existing gradient, and if the new station is made, it will be necessary either to pull down the present bridge over the neck of the lake at the level crossing and put in a swing-bridge, or to flatten the existing gradient of 1 in 160 to 1 in 660, which is in effect altering the level of the station yard a maximum of 2 ft.

119. In the matter of permanent way material I have been more liberal than Mr. Cantrell in his estimate. He has put down Rs. 13 50 per lineal yard, but I have allowed Rs. 15.

For points and crossings Mr. Cantrell has calculated at the rate of Rs. 348 84 per set, I have allowed Rs. 380.

For diamond crossings I have put down Rs. 1,000 for each, but Mr. Cantrell has allowed only Rs. 300.

Again, I have provided three buffer stops at Rs. 500, Mr. Cantrell (20) at Rs. 150 each.

120. Again, Mr. Cantrell has included only Rs. 6,000 in his estimate for two overbridges, whereas I have put down Rs. 8,000 for one.

121. Mr. Hodson.—On this alignment of the main line (drawing No. 781) do you think you could by any means get more lines or sidings in if required? Is that the utmost accommodation that can be given?

122. Mr. Waring.—I am afraid I could not get very much more in the way of through lines, but I could get in dead end sidings on the ground coloured pink in block plan No. 782.

123. Mr. MacBride.—Do you not think it objectionable to have a terminal station on a curve?

124. Mr. Waring.—Not if the curve be such a one from which sidings can be laid.

125. Mr. Hodson.—Does your estimate include cost of filling up lake and Lotus pond?

126. Mr. Waring.—It includes a portion of the Lotus pond, but not any portion of the lake.

127. The Chairman.—In the event of a narrow gauge line being constructed to the Kelani Valley, would your plan enable you to provide accommodation for the narrow gauge trains in the central station?

128. Mr. Waring.—I have not considered this question in connection with my terminus scheme. I fancy the route the narrow gauge line would take would make the transfer at Maradana Junction.

129. Mr. MacBride.—Why have transfer station at Maradana.

130. Mr. Waring.—Only in order to save money.

131. Mr. Hodson.—But could you work the narrow gauge line into your design?

132. Mr. Waring.—Yes, with sharper curves it could be brought in—that is, a 2 ft. line.

133. This concluded Mr. Waring's examination, and the further examination of Mr. Pearce was proceeded with after the evidence given by Mr. Waring had been read by the Secretary.

134. The Chairman.—Is it a fact that the traffic in goods in 1881 was practically as great as it is now?

135. Mr. Pearce.—I was here in 1881 and was Acting Finance and Traffic Manager. I dealt with the traffic, and had not the least difficulty in doing so in a goods shed about half the size of the present shed, as the bulk of the traffic was coffee, which can be dealt with much more easily than any other description of goods. In place of coffee we now have to deal with tea, which cannot be handled nearly so expeditiously, and requires more room.

I am frequently round the yard and warehouses. I have a thoroughly experienced and capable Station Master directly supervising the work, and a Traffic Superintendent who takes care that the best possible arrangements are made to deal with the traffic, and I say without fear of contradiction that the traffic cannot be better dealt with than it is at present; that we do require the additional accommodation asked for, and that we cannot do without it.

136. Mr. Mitchell desired that Mr. Pearce should describe more fully the difference in the traffic which made increased accommodation necessary.

137. Mr. Pearce.—When the bulk of the traffic was in coffee, it came down in train loads, and was often unloaded direct into boats and carts without going into the warehouse at all. I should say that six tons of coffee were unloaded in the time now taken in unloading four tons of tea. It came from fewer stations, and consequently fewer wagons were necessary. Again, the traffic was more concentrated, and was consigned in large quantities to a smaller number of consignees than at present. It was removed more by boat than cart, and carts used to take a heavier load, say one and a half ton of coffee to one ton of tea.

138. The Chairman.—As it is proposed to use part of the present passenger station as a goods shed, it is not quite clear that any extension of the goods shed is necessary?

139. Mr. Pearce.—There is not the least intention of using any portion of the present passenger station as a goods shed.

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140. The Chairman.—What do you propose to use it for?

141. Mr. Pearce.—For loading and unloading direct from carts to wagons and *vice versa*.

142. Mr. Mitchell.—But is it not a fact that you are using the passenger station at present as a goods store?

143. Mr. Pearce.—No, traffic is not stored there, it is merely placed there temporarily owing to want of accommodation in the sheds.

144. Mr. Hodson.—Do not you think it would be a very great convenience to have the inwards shed on one side and the outwards shed on the opposite side?

145. Mr. Pearce.—I have found it better and cheaper working to have the sheds as they are in one long length, so that as soon as wagons are emptied they can be pushed forward for use in the outwards shed.

146. Mr. Hodson.—I find that in two previous schemes—Captain's Garden and Skinner's road—two separate goods sheds were shown, one inwards and one outwards.

147. Mr. Pearce.—I have been watching the traffic and have since altered my views, as not only is one long shed for both inwards and outwards traffic more suitable from a railway point of view and more cheaply worked, but it is more convenient for the cart traffic. Sheds placed opposite one another would necessitate increased shunting.

148. The Chairman.—Could not the shunting difficulty be got over by putting in a turntable?

149. Mr. Pearce.—It is practicable, but not such a convenient arrangement as the present one.

150. The Chairman.—Mr. Waring considers that the cart traffic might be dealt with by widening the present road bridge over the canal, and that this could be done more economically on the railway side. Do you consider this would suffice?

151. Mr. Pearce.—Certainly not, for although there is occasionally a block at the canal bridge, which certainly ought to be widened both for railway traffic and for the convenience of the public road traffic, the block occurs chiefly in the railway yard, which must also be widened, in order that the traffic may be efficiently dealt with and the congestion of carts avoided. My scheme provides for this.

152. Mr. Hodson.—Do you consider that you could manage to work when the passenger station has been moved without increasing your boundary?

153. Mr. Pearce.—No, the boundary must be extended in order to admit of the extension of the goods shed. It is a *sine qua non*.

154. Mr. Hodson.—If, instead of extending the goods shed, you utilized half of the existing passenger station as a goods shed, could you manage without extending your boundary?

155. Mr. Pearce.—To use half of the present passenger station as a goods shed would be almost impracticable in ordinary working. The carts now stand along the whole length of the shed, and this proposal would bring them opposite to one another and would cause a still greater block.

156. The Chairman.—Could you by using the departure platforms for both out and in trains make sufficient room on the arrival side to carry out this proposal?

157. Mr. Pearce.—We certainly could not confine all trains, both arrival and departure, to two platforms, as the train service would not admit of it. The work of marshalling the trains would also not admit of it.

158. The Chairman.—You propose to have a double line from Maradana Junction to the new central station for ordinary traffic, and a third line for the locomotive traffic. Do you consider it absolutely necessary to have a third line for engines?

159. Mr. Pearce.—It is not essential though it is desirable.

160. Mr. Hodson.—Would you be prepared to work all your traffic with only two lines supposing all your other proposals were agreed to?

161. Mr. Pearce.—I could work without a third line, though I consider it would greatly facilitate the working of the traffic to have it.

162. Mr. Hodson.—You propose to pull up the present entrance to the Racquet Court line and substitute it by one facing the opposite direction. Do you consider that would prove convenient for working?

163. Mr. Pearce.—I consider it would be even more convenient seeing that the same engine does not work through, the stone trains being worked from the Junction through the Racquet Court by a special Breakwater engine.

164. Mr. Hodson.—Do you work only Breakwater trains over the Racquet Court lines?

165. Mr. Pearce.—Yes, nothing but stone trains.

166. Mr. Hodson.—Do you look forward to a time when you will have a public traffic in that direction?

167. Mr. Pearce.—I should think it will be necessary to provide for such traffic at some future time.

168. Mr. Hodson.—Do you consider that the arrangements you now propose will prove convenient when you have to work public traffic down to the Breakwater line?

169. Mr. Pearce.—I see no reason why it could not be done with an improved curve, but the present curve would not be suitable.

170. The Chairman.—Will your present station arrangements permit of better curves being given over the Breakwater line?

171. Mr. Pearce.—Yes, for the stone traffic.

172. The Chairman.—But would you have a public passenger traffic?

173. Mr. Pearce.—I have not taken that into consideration.

174. The Chairman.—Would you be able to incorporate Mr. Waring's entrance into the Racquet Court line into your proposed station?

175. Mr. Pearce.—Not satisfactorily.

176. This concluded the examination of Mr. Pearce. Mr. A. G. Perman, Traffic Superintendent, was next examined.

177. The Chairman.—Mr. Waring has pointed out that the goods traffic is practically the same now as it was in 1881. If such is the case, what is the necessity for additional accommodation in Colombo?

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178. *Mr. Perman.*—I admit that the total tonnage is only about the same, but the traffic has entirely changed since 1881, and where one consignment of coffee in those days would be 60, 80, or 150 tons, we now have a large number of small consignments, often almost equal to the tonnage; that is to say, we have to deal with upwards of 150 consignees in the transport of 150 tons of goods, whereas in the old coffee days this weight would be divided amongst two or three consignees only. Again, the traffic in coffee used to come in twice a year, and train load after train load of heavy consignments could be worked down as fast as the trucks were emptied direct into carts and boats and returned, and the shorter distance—I believe the line was only opened as far as Gampola or Nawalapitiya in 1881—greatly facilitated the expeditious transport of goods.

Now we have to carry hundreds, nay thousands, of small consignments over longer distances. Planters do not send down tea in such large consignments as they used to despatch coffee; and tea, instead of being loaded direct into boats and carts, has, as a general rule, to be stacked in the warehouses for a day or so until removed by consignees.

179. *Mr. Hodson.*—But the substitution of tea for coffee cannot be the only reason for such a large increase in small consignments?

180. *Mr. Perman.*—The small traffic has largely increased since the minimum charge of Re. 1 was abolished, and we have to deal with thousands of small consignments which have to be kept separate, and consequently require more warehouse room.

181. *Mr. Hodson.*—But surely you have a minimum charge for goods consignments?

182. *Mr. Perman.*—No, none whatever.

183. *Mr. Hodson.*—That seems to me to be a mistake. You ought to have a minimum charge for goods—small articles should go as parcels.

184. *The Chairman.*—Would it suffice if you use part of the present passenger station as a goods shed instead of extending the existing goods shed as proposed?

185. *Mr. Perman.*—My proposal is to use one line of the present passenger station, in addition to extending the goods shed for the accommodation of goods. Even if three lines could be spared—and I do not see how they are to be spared—we could not bring carts in to use more than one line.

186. *The Chairman.*—But if you use one line, would it not do for the present, without any extension of the goods shed?

187. *Mr. Perman.*—No, we practically use that line now for the loading and unloading of up-country goods.

188. *The Chairman.*—Mr. Waring considers that the congestion of the cart traffic can be relieved by widening the canal bridge on the railway side?

189. *Mr. Perman.*—The congestion is caused by our being unable to take the carts into the yard. It is not a question of the bridge at all, though I admit that the bridge requires widening for the convenience of the public, owing to carts blocking it on their way to the goods yard. If our yard were large enough to take in the carts, there would be no trouble on the bridge.

190. *The Chairman.*—From what you know of the traffic at Pettah station, do you think it desirable to bring the whole of the traffic at that station into the one central station as proposed?

191. *Mr. Perman.*—I would prefer to have one central station, as trains could be more easily loaded, and strengthened when necessary, and the traffic could be dealt with under the same supervision and with the same staff.

192. *The Chairman.*—But would it be satisfactory to combine the traffic of Fort and Pettah stations?

193. *Mr. Perman.*—I am aware that there is a distinct traffic at each of these stations, but I would propose to get over this objection by having separate entrances, and keeping the first and second class passengers apart from the third class.

194. *The Chairman.*—Your reply refers only to area, whereas the question is more one of convenience to native passengers now using the Pettah station.

195. *Mr. Perman.*—I do not think the proposal to abolish Pettah station would cause much inconvenience to the native traffic. I am in favour of having the whole of the traffic under one roof. It would be a terminus for most of the trains, and the passengers could be more easily dealt with. The discomfort which passengers at present experience, owing to the congestion at Pettah station, would be removed by the larger space in the new station.

The delays which now take place at Pettah would also be avoided. During the fish season trains are often detained on the up journey 8 or 9 minutes at Pettah.

196. *Mr. Hodson.*—Do you consider that you will be able to handle all the traffic satisfactorily in the area given in Mr. Pearce's plan?

197. *Mr. Perman.*—That is a question which I cannot answer until the working plan is prepared.

198. *The Chairman.*—Will the Seaside trains terminate at, and start from, the central station, or will they run to Maradana?

199. *Mr. Perman.*—That is a question I have been thinking over. We shall have to serve Maradana, but the through trains from Galle should terminate at the central station, the suburban traffic being provided for by a service of local trains between Maradana and say Moratuwa.

200. *The Chairman.*—If you have a double line from Maradana Junction to the central station, would that suffice for locomotive purposes, or do you consider a third line necessary?

201. *Mr. Perman.*—The traffic could be worked with two lines only, but I propose a third line as a matter of convenience, though it is not a *sine qua non*. By the opening of the new station as a terminus we shall nearly double the train service, and it will be a great convenience to keep the locomotive working separate from the traffic trains.

202. *The Chairman.*—Do you consider the advantage would justify the extra cost of a separate line?

203. *Mr. Perman.*—I do.

204. *The Chairman.*—If a railway is made to the Kelani Valley on a narrow gauge, will it be practicable to adapt the new station as proposed by Mr. Pearce?

205. *Mr. Perman.*—I should require time to reply to this question as regards goods traffic, but there would, I think, be no difficulty in putting in another platform and additional sidings on the lake side of the proposed new passenger station to accommodate narrow gauge trains. There

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would, however, be great difficulty in getting a narrow gauge line into the goods yard at Colombo.

206. *The Chairman.*—On the assumption that the present Colombo station is abolished as a passenger station, would the new Fort station, as shown in the plan which has been prepared by Mr. Waring, be sufficient for the traffic requirements without the abolition of Pettah station?

207. *Mr. Perman.*—It will not suffice for all the work in the preparation of trains, such as examining, washing, and marshalling, which is now done in Maradana yard.

208. *Mr. Hodson.*—Do you consider it would be a practicable state of working to continue the arrangement, &c., of the trains in Maradana yard and use the Fort as a terminal?

209. *Mr. Perman.*—No, I would prefer a large station in which all the work could be done. When Mr. Waring's plan was prepared in 1892, it was on the assumption that the work would be done at Maradana, as a proper terminal station was not contemplated.

210. *Mr. Hodson.*—Then this (Mr. Waring's latest plan) would be only a partial solution of the difficulty?

211. *Mr. Perman.*—Yes, it would only admit of the Main line trains being started from and terminated at the Fort station.

212. *Mr. Hodson.*—How much room would you have to keep in the goods yard at Maradana for your passenger stock?

213. *Mr. Perman.*—The same room as we require now, and consequently it would not give the relief required in the goods yard.

214. *Mr. Hodson.*—Supposing, for the sake of argument, that Mr. Waring's Fort station, which does not include widening into the lake for doubling the line from Maradana Junction, were to cost five lakhs of rupees, and that Mr. Pearce's central station, exclusive of widening into the lake, were to cost ten lakhs which do you consider would be the most economical?

215. *Mr. Perman.*—I think that Mr. Pearce's scheme would be the most economical because it provides for all the work in connection with the trains.

216. *Mr. Mitchell.*—Will the marshalling of trains and the washing of carriages now performed in Maradana yard be done in the new station suggested by Mr. Pearce?

217. *Mr. Perman.*—Yes.

218. *Mr. Hodson.*—Mr. Waring says that if it is desirable to abolish all the work in connection with passenger trains from Maradana, it can be done at Fort as shown upon his plan No. 782.

219. *Mr. Perman.*—I do not think it would be so satisfactory, as it gives a terribly sharp curves.

220. *Mr. Hodson.*—What is the objection to putting the station on a curve?

221. *Mr. Perman.*—One of the principal objections to a station on a curve is that carriage doors when opened slam, unless held. It also requires two men to hold open the van doors whilst luggage, &c., is being loaded and unloaded. In shunting the drivers cannot see signals unless the shunters are close at hand, and in shunting long trains two or three men are necessary to repeat the signals, and there is a greater liability of mishaps. I consider that if the shunting has to be done on the ground proposed to be reclaimed by Mr. Waring, it would be dangerous.

222. *Mr. Mitchell.*—Are there any other difficulties in the way of working a station on a curve?

223. *Mr. Perman.*—The greater the curve the more difficult it is for trains to start, especially if there is also a gradient to contend with.

224. *The Chairman.*—All things considered, are you of opinion no site can be found to give a better station than that at Beira?

225. *Mr. Perman.*—No, I consider a better station could only be obtained by going nearer the Pettah.

226. *Decided* that Mr. Pearce be asked to prepare by the 16th instant, in conjunction with his officers, a working plan of the yard he proposes to lay down at Beira.

227. *Mr. Cantrell*, Engineer of Ways and Works, in reply to the Chairman's request that he would give details of his estimate of Re. 1.75 per cubic yard for filling in the lake, stated:—

I propose to obtain cabook from the Main line between Hunupitiya and Mahara. Freight will cost 53 cents, cutting 40 cents, loading and unloading 40 cents. I should require 50 wagons and 2 brake vans, which would add say 32 cents per cubic yard, and 10 per cent. for contingencies makes up the total estimated cost. When the work is completed the trucks might be sold to the traffic for half their original cost.

If I can be permitted to take sand from Galle Buck, I should say it might be possible to do the work for 62 cents per cubic yard, but I was under the impression that the Government would not allow this.

228. *Mr. Hodson.*—Mr. Waring thinks there is sufficient room to get in two lines, that is, another line in addition to the present line between Fort and Colombo yard, without any filling up of the lake, by taking in part of the Municipal road.

229. *Mr. Cantrell.*—I did not think it would be possible to get the ground from the Municipality, and therefore have not considered the question.

Meeting adjourned at 7 P.M. until Tuesday, the 16th June.

Fourth Meeting, held in Council Chamber at noon on Tuesday, June 16, 1896.

All the Members of the Commission present.

230. *The Chairman* stated that in the interval since the last Meeting Mr. Waring had undertaken to prepare new plans giving increased platform accommodation and additional sidings at Fort to meet the objections raised by the Railway officers to his previous plans in respect of these two items, and that Mr. Waring was present to explain his further proposals. It was therefore decided to examine Mr. Waring before going into the plans and estimates prepared by the Railway officers.

[]

231. *The Chairman*.—Are you prepared, Mr. Waring, to submit new plans for the consideration of the Commission.

232. *Mr. Waring*.—I am now prepared with amended plans. When I prepared plans for the last Meeting I contemplated starting the local trains from Maradana Junction—in fact with a better train service it has occurred to me that Kelaniya, Hunupitiya, and Mahara might also become thriving suburban stations; and I am not at all certain that were attempts made to develop the local traffic with Colombo as far north as Mahara, it would not result in quite as large a suburban passenger traffic at these stations as on the Seaside line. I also contemplated running the through trains from Galle forward to Kandy and Bandarawela, only taking on or putting off carriages at the Fort to adapt the through trains on coming off the Seaside line for the altered conditions of traffic to Bandarawela and Kandy, and that is what I understood was desired in 1892; but now I understand the Railway officers propose a different system altogether, and that the trains for up-country are to start from the central station.

If so, it is perfectly plain that accommodation to make up the different trains is required, and I have now prepared additional sidings for this purpose in drawing No. 781 A, but I would point out that the additional sidings could really be added to the station on plan No. 781.

I also have to point out that I have two sets of sorting sidings, which might be used for washing, cleaning, &c., of carriages: one to the south marked AA, and another set on the east side of the station marked BB. I have had no opportunity of consulting with the Railway officers as to what length of sidings is required, neither have I had time to go into the matter as thoroughly as I could have wished to have done, but I have been able to put upon the space AA, plan 782, sidings to the aggregate length of 3,362 yards, and I have been able to put upon space BB sidings to the aggregate length of 1,292 yards, altogether 4,654 yards. They are laid out with a minimum breadth of 8 ft. in the clear between the lines. Until that breadth is obtained the sidings are what may be called non-effective. Allowing the non-effective length at say 40 per cent, we should have 1,862 yards of in-effective; deducting this we get an effective length of 2,792 lined yards of sidings. Taking the bogie carriages to be 14 yards in length, we should thus have room for 200 such carriages, or 400 four-wheel carriages on these sidings.

233. Exception was taken, I think, at the last Meeting to the platform shown on tracing No. 781 being somewhat deficient in length; so I would like to point out that on tracing No. 781 A there are five platforms provided, three of which are 700 ft in length and two about 660. I would also mention that something of the same kind could be done with the station as shown in plan No. 781. The roof remains 500 ft in length, same as in my previous design. The alteration of the platforms between tracing 781 and 781 A made the adoption of two overbridges better than one, and these I have provided.

234 I now submit my amended estimate:—

	Rs.	Rs.
Passenger station and building as before	...	47,760
Platforms under roof, 32,500 superficial feet at Re 1 27	...	41,275
Extension of platforms beyond roof, 11,020 superficial feet at Re 1 27	...	13,996
Roof, including cantilever on the lake side, 500 ft by 120 ft at Rs. 200 per 100 sq ft	...	120,000
Furnishing and lighting	...	10,000
Two foot-bridges at Rs 6,000	...	12,000
Total for Station	...	245,031
Engine turntable	...	12,000
Metalling road diversion as before	...	12,760
Filling up Lotus pond, 39,204 cubic yards at Re 1	...	39,204
Permanent way complete, 4,330 yards at Rs. 15	...	64,950
Twenty-three sets of points and crossings at Rs 350	...	8,050
Four sets of diamond crossings at Rs 500	...	2,000
Signals, including interlocking	...	50,000
Land compensation	...	50,000
Water closets for third class passengers	...	3,000
Total	...	241,964
Add 5 per cent for contingencies	...	48,393
Total	...	290,357
South Sorting Sidings —Filling up lake, including diversion of Parson's road, 330 yards by 70 yards by 3 yards deep=69,300 yards at Re 1	...	69,300
Metalling public road, 660 yards by 15 yards=9,240 superficial yards, at Re 1	...	9,240
Sidings and materials, 3,362 yards, at Rs. 15	...	50,400
Twenty-three points and crossings, at Rs. 350	...	8,050
Six buffer stops	...	600
Add 5 per cent contingencies	...	137,520
Total	...	144,306
East sorting sidings (ground already made), 1,292 lined yards at Rs. 15	...	19,380
Ten sets points and crossings at Rs 350	...	3,500
Add 5 per cent. contingencies	...	22,880
Total	...	24,024
Additions to Railway offices as in previous estimate, 2,000 square feet, at Rs 15	...	30,000
Add 5 per cent. contingencies	...	1,500
Total	...	31,500

* Increased from Rs 20,000 to Rs 50,000 by permission of the Commission. (See paragraph 320)

CENTRAL PASSENGER STATION FOR COLOMBO

	Rs.	Rs.
Doubling line from end of station yard Maradana Junction, as in previous estimate, 1,320 yards, at Rs 15.	...	19,800
Add 5 per cent contingencies...	...	990
Total	...	20,790
Grand Total	...	732,054

235. *Mr. Mitchell*.—At our last Meeting Mr Perman described the difficulties of keeping the doors of carriages open when trains are standing at a station on a curve, and this is very noticeable at the present Fort station. Is your proposed new station on the same curve?

236. *Mr. Waring*.—No, the curve has been altered from 11 chains to 20 chains

237. *Mr. Mitchell*.—Do I understand that with the altered curve the carriage doors will not slam?

238. *Mr. Waring*.—A train standing at any of the platforms would have very little cant.

239. *Mr. MacBride*.—But a guard standing on the platform would not be able to see the driver unless quite near to the engine. Do you admit the objection?

240. *Mr. Waring*.—I admit the objection.

241. *Mr. MacBride*.—In a recent question in connection with the Northern Railway Commission, you stated it was objectionable that Messrs. Ormsby and Waddell had put their station on a curve.

242. *Mr. Waring*.—Messrs. Ormsby and Waddell designed the Anurādhapura station, as I understood their plan, partly 300 ft. in radius and partly on a reverse curve of 400 ft. I pointed out that I thought 300 ft. was the minimum radius to be allowed for a metre gauge, and if so it is impossible to get sidings out of a 300 ft. curve, and therefore I said, what I now believe to be the fact, that the station was impracticable.

243. *Mr. Hodson*.—Will you kindly tell us what curves your plan for Fort station contains?

244. *Mr. Waring*.—I believe that in the approaches to the station itself the minimum curve is 10 chains. In the two shunting yards the minimum is 8 chains

245. *Mr. Hodson*.—And these minimum curves are freely used?

246. *Mr. Waring*.—Yes; I dare say they are.

247. *Mr. Hodson*.—We have now a station that contains a great deal more accommodation than was given in your first plan No. 871. Do you consider that this station would be a convenient station to work from a traffic point of view?

248. *Mr. Waring*.—It could be worked, but would not of course be so convenient as if on the straight.

249. *Mr. Hodson*.—Do you not think it would be very inconvenient to work?

250. *Mr. Waring*.—I think it is a very simple station, and gives every facility

251. *Mr. Hodson*.—Men shunting would never be able to see. If one line were blocked it would be almost impossible for the people on the line next to it to see anything?

252. *Mr. Waring*.—I think there would certainly be difficulties of the nature you have now pointed out, but they are not insuperable. I admit that it would be somewhat difficult.

253. *Mr. Hodson*.—On this plan if shunting is done on the end away from the station in either of the two yards, it would have to be done on the Main line?

254. *Mr. Waring*.—That could be obviated by putting in another line at each end, but I did not contemplate that the shunting would be done at the ends. I believed that it would be done mostly in the middle between the station and the yards.

255. *Mr. Hodson*.—Will you please give us the effective length of the sidings?

256. *Mr. Waring*.—In the south yard there are twelve sidings, varying in length from 88 yards to 203 yards, and the total effective length is 1,774 yards. In the east yard there are five sidings, varying in length from 88 yards to 165 yards, total effective length 610 yards; that is to say, the two yards have sidings with a total effective length of 2,384 yards, and in addition there are five platform lines in the central yard with 1,596 yards, the lines varying from 292 to 363 yards.

257. *The Chairman*.—Have you heard of a proposal made a few years ago to put a station on the spare ground behind the Public Works offices?

258. *Mr. Waring*.—No.

259. *Mr. Hodson*.—Could you put in a station upon the ground mentioned by the Chairman as suitable as the one shown on your present scheme?

260. *Mr. Waring*.—No, because the ground is too cramped even if the Lotus pond is filled in. Besides a back shunt station is an unmitigated nuisance.

261. *Mr. Hodson*.—Has the station you show on plan No. 871 A a single or double storey building?

262. *Mr. Waring*.—A single story.

263. *The Chairman*.—Do you consider Re. 1 per cubic yard for filling up the lake a high or low charge?

264. *Mr. Waring*.—I consider it a reasonable charge.

265. *Mr. Pearce* having intimated to the Chairman that he was prepared with the plans, &c., required by the Commission, his examination was next decided upon.

266. *The Chairman*.—Since you were last before the Commission, Mr. Pearce, you have prepared some amended plans. Will you be good enough to explain what you now propose.

267. *Mr. Pearce*.—The amendment of the plan of the proposed station at Beira is more especially with reference to the lines running into it. My first plan was merely one giving the general space required. I now produce a plan showing the lines as they would be actually worked.

268. I also produce a plan showing the new bridge and deviation of the road over the canal and estimate for same, which I had before deemed to be a municipal work.

269. In my revised plan of the new station I have provided only two lines instead of three as before suggested, as the traffic can be worked upon two lines.

270 I also produce estimates revised in accordance with certain suggestions made at the last Meeting, and I now hand in my final revised estimates. The original estimates as regards the Maradana yard have not been altered in any way.

271. Estimate of alterations and additions in Maradana yard.—

	Rs
Extension of goods shed and re-building of boundary wall	35,371
Widening canal bridge and deviation of public road	28,659
Sidings, &c., in goods yard, including removal of old running shed	184,696
Inter-locking	20,000
Lighting of yard by electricity	20,000
Add 5 per cent for contingencies	288,726
	14,436
Total	303,162

272. This amount, Rs. 303,162, is what I require for immediate expenditure. It is irrespective of any scheme for a central station, and is required to give the necessary additional accommodation for the proper working of the goods traffic. This is wholly independent of any change in the passenger station, and the passenger traffic is not in any way affected thereby, but if a new station is not given at present certain additions to the present terminus are necessary, e.g. the uncovered portion of the passenger platform should be provided with at least a temporary roof.

273. *Mr. Hodson*.—Do you mean to say that you will be able to get on for, say, a couple of years with this, though the passenger station is kept at Maradana?

274. *Mr. Pearce*.—Yes, and I should prefer to have this rather than a make-shift station.

275. *Mr. MacBride*.—Do you consider this amount indispensable to meet present requirements?

276. *Mr. Pearce*.—It is absolutely necessary. We cannot work the traffic properly without it.

277. *The Chairman*.—Assuming the Government limited the expenditure to three lacs of rupees, do you consider the alterations you propose in Colombo goods yard should have the preference over everything else?

278. *Mr. Pearce*.—Yes.

279. *The Chairman*.—If these three lacs of rupees are allowed, will you get the relief to the cart traffic congestion which you consider necessary?

280. *Mr. Pearce*.—No, it would not wholly remove the difficulty, but it would relieve it to a certain extent because I have provided in this amount for extension of the railway yard boundary.

281. *Mr. Hodson*.—If the Government do not permit the railway boundary to be extended as shown in plan H 84 M, or the canal bridge to be widened, but give you all the other items, which make up your estimate of three lacs of rupees, will you then be able to get along for, say, two years?

282. *Mr. Pearce*.—I shall, though of course not so conveniently as if I have the extra room estimated at Rs. 28,659.

283. *Mr. Hodson*.—How long do you imagine that your proposals at Beira would take to execute?

284. *Mr. Pearce*.—At least two years.

285. *The Chairman*.—How long would it take to execute the proposed works estimated to cost three lacs?

286. *Mr. Pearce*.—I could manage to get the work done within six months.

287. *Mr. Hodson*.—Do I understand you to say that you could afford to wait for two years before the Beira scheme is sanctioned, or that this work would only enable you to go on until the Beira scheme is finished if taken in hand now?

288. *Mr. Pearce*.—If the three lacs are sanctioned, I expect I should be able to go on for say four years.

289. *Mr. Hodson*.—Will you tell us what your goods traffic has increased since 1894.

290. *Mr. Pearce*.—The tonnage in 1894 being 314,461 and in 1895 411,915, the total increase amounted to 97,454 tons.

291. *Mr. Mitchell*.—Is not a great deal of that increase due to increase in stone traffic for the new Breakwater?

292. *Mr. Pearce*.—Yes, about sixty-seven thousand tons; excluding the stone traffic, the tonnage in 1894 was 275,212 and in 1895 305,365, giving an increase of 30,153 tons in ordinary traffic.

293. *Mr. Hodson*.—That is practically an increase of 10 per cent. on the 1894 traffic. Would you say that you could get along for four years altogether if you are given the extension now asked for, i.e., assuming you think this increase would continue at the same rate, would you have to modify your previous answer?

294. *Mr. Pearce*.—I should, but I do not anticipate that the 10 per cent. increase will continue for the next four years.

295. *Mr. Hodson*.—On referring to the Administration Report for 1894, I find that there has been a steady increase since 1886. What reason have you for supposing that the increase will not be maintained?

296. *Mr. Pearce*.—Because I do not think we can expect planting to develop for the next four years as it has during the last few years.

297. *Mr. MacBride*.—Has the traffic during 1896, so far as you know, increased, compared with that of 1895?

298. *Mr. Pearce*.—Yes, there has been a considerable increase, and I might add that I have estimated the same increase for 1896 over 1895 as for 1895 over 1894.

299. *The Chairman*.—Will you now let us know what you estimate the cost of your revised or amended plans for a new station at Beira?

CENTRAL PASSENGER STATION FOR COLOMBO.

300. *Mr. Pearce*.—I hand in my statement of probable cost of carrying out my scheme including double line from Maradana Junction

301. Details of estimate referred to:—

	Rs.	Rs.
Passenger station and building including head office accommodation on upper story	208,742	
Platforms, 27,500 square feet, at Re 1 63	45,010	
Roof, 550 ft by 120 ft, at Rs. 200 per 100 square ft	158,400	
Furnishing and lighting	30,000	
Two foot-bridges at Rs 15,000	30,000	
Total for Station	472,152	
Metalling road diversions, 13 200 square yards, at Re 1	13,200	
Filling up Lotus pond, 54,234 cubic yards, at Re 1	54,234	
Permanent way complete, 5,936 lineal yards, at Rs 15	89,040	
Twenty-nine sets of points and crossings, including diamond crossings	11,160	
Signals, including inter-locking	30,000	
Land and compensation	120,000*	
Native urinals and water closets	3,000	
Total for station and station yard	792,786	
Add 5 per cent for contingencies	39,639	
Total	832,425	

Doubling Line from Maradana to Beira

Filling in lake, 17,050 cubic yards, at Re 1	17,050
Permanent way complete, 796 square yards	11,940
	28,990
Add 5 per cent for contingencies	1,449
Total cost of whole scheme for new station at Beira	862,864

302. After inspection of the plans of the works set forth in the foregoing estimate, the examination of Mr. Pearce was resumed.

303. *Mr. Hodson*.—Will you kindly tell us what accommodation is given in your new station yard at Beira in the way of platforms and effective length of sidings?

304. *Mr. Pearce*.—The total length of sidings at the station is 5,932 lineal yards. The effective length of sidings from 6 ft. clear to 6 ft. clear is 3,696 lineal yards. The platforms provided in the central station cover an area of 27,500 square feet. There are three platforms of 550 ft. in length, one of which is 20 ft. wide and the other two 15 ft. in width.

305. *Mr. Hodson*.—I notice that your platforms are only 15 ft. wide, whereas Mr. Waring in his estimate has provided two of 20 ft. and one of 25 ft. Do you think that 15 ft. platforms will suffice for your traffic?

306. *Mr. Pearce*.—I think they will, because they are not intended to hold a number of people waiting for a train, as the passengers will either join the train at once by going across the overbridges, or will simply change immediately from one train to another. Similar platforms at the present terminus are only 13 ft. wide.

307. *Mr. Hodson*.—I notice that your platforms are 550 ft. in length, whereas Mr. Waring has provided platforms 700 ft. long. Do you consider that 550 ft. is sufficiently long?

308. *Mr. Pearce*.—Yes; I consider 550 ft. quite sufficient.

309. *Mr. Hodson*.—What is the length of your trains?

310. *Mr. Pearce*.—Our longest train is 500 ft., say twenty-four vehicles of 21 ft. each.

311. *The Chairman*.—You have increased your requirements so much of late that do you consider 500 ft. sufficient for future requirements?

312. *Mr. Pearce*.—Quite.

313. *Mr. MacBride*.—What is the length of the present platform of Colombo terminus?

314. *Mr. Pearce*.—330 ft.

315. *Mr. Hodson*.—Do you not sometimes run trains in this neighbourhood of twenty-eight or more vehicles?

316. *Mr. Pearce*.—Not passenger vehicles.

This concluded Mr. Pearce's examination.

Mr. Waring was then recalled.

317. *Mr. Mitchell*.—In the course of your examination, Mr. Waring, I think you said with regard to the sidings in Colombo yard, that you deferred to the opinions expressed by the General Manager and Traffic Superintendent. Would you now be disposed to defer to the opinion expressed by those officers as to the necessity for the extension of accommodation for goods at the main station?

318. *Mr. Waring*.—I would very largely defer to the opinion of the officers who have to deal with the traffic; but in my examination I pointed out what appeared to me to be an error as the traffic in 1894 was not bigger than in 1881, that is to say, the tonnage of goods was not greater, and therefore it did not appear to me to be a reasonable thing to ask for increase of goods accommodation upon a basis which was not a correct basis. But now, in view of the explanations since given by the traffic officers, that the extra accommodation is asked for, not so much because the traffic has increased as because the nature of the traffic has altered, my position is somewhat changed, and I would therefore defer to the opinion of those officers, as their opinion must necessarily be more reliable than mine.

* Increased from Rs. 70,000 to Rs. 120,000 in accordance with a decision of the Commission (See paragraph 120)

319. The Secretary read letters from the Government Agent, Western Province, to the effect that a reliable appraisalment of the block of land which the Commission desired to know the cost of acquiring was in course of preparation, and would be ready in a few days; but in the meantime the Mudaliyar of Colombo had reported as a result of a cursory view of the premises, that he would value the premises known as the Sailors' Home at Rs. 30,000 to Rs. 35,000, say Rs. 32,000, and the rest of the block containing twenty houses with their appurtenances at Rs. 96,000; total Rs. 128,000. He (the Mudaliyar) is however not prepared to vouch for the correctness of this appraisalment.

The Secretary added that the area of the block referred to is 1 acre and 23½ perches.

320. Decided to put down the sum of Rs. 120,000, plus 5 per cent. for contingencies in Mr. Pearce's estimate, and to increase Mr. Waring's estimate for land from Rs. 20,000 to Rs. 50,000, plus contingencies.

321. The Secretary reported with regard to paragraph 26, that on measurement of one of Messrs. George Stewart & Co.'s pada boats laden with tea when passing under the Parson's road bridge, the clearance between the top of the hood and the lowest beams of the bridge was found to be 36½ inches.

Examination of Mr. A. G. Perman, Traffic Superintendent.

322. [During the temporary absence of Mr. Saunders the chair was taken by Mr. MacBride.]

323. *The Chairman.*—Have you examined Mr. Waring's plan of the proposed station?

324. *Mr. Perman.*—Yes.

325. *The Chairman.*—Will you please state generally your opinion of it?

326. *Mr. Perman.*—My opinion with regard to the plan before me (No. 781 A) is that there would be great objection to having a station so much on the curve as this is, and that many of the curves shown here are not suitable for the class of engine we use for our train service.

One other objection is that no provision is made in the station itself for attaching and detaching carriages for the purpose of increasing or reducing the weight of trains.

It is an oversight no doubt, but no horse box or carriage siding is provided. I also find that the approaches to certain sidings are not such as I should recommend for adoption, inasmuch as all the trains shunting from the east foul the south yard, and *vice versa*, and that in itself would be a very important objection.

There is no way of getting into the sorting sidings except by the roads which would foul the opposite yard, unless by going a very long way out from the station, and to go so far out is not desirable.

326. *Mr. Hodson.*—Do you think that the arrangement of the passenger lines in the passenger portion of the station would be more convenient than the arrangements you have shown in your own plan?

327. *Mr. Perman.*—Naturally the platform which is next to the station buildings will be the platform for the Main line trains, and I think there should be only one line between that and the next platform, so that the transfer could be made direct from one train to another without the intervention of the crossing bridges.

328. *Mr. Hodson.*—This arrangement, which you have shown upon your own plan, could probably be worked into Mr. Waring's plan. Could it not?

329. *Mr. Perman.*—I have not the least doubt but that it could be done.

330. *Mr. Hodson.*—The peculiar feature of Mr. Waring's plan is the provision of two guid-irons, one at each end, of what may be called the passenger portion of the station. Do you consider that this would be found a convenient system?

331. *Mr. Perman.*—It would be very inconvenient because, as I have stated already, any train leaving the station towards the south for the south sidings must necessarily foul the east end sidings to get to its place, and *vice versa*.

332. *Mr. Hodson.*—These sidings are on a particularly sharp curve. The bulk of the two guid-irons is on a 10-chain curve. Do you consider that this curvature would be found inconvenient in working?

333. *Mr. Perman.*—All shunting sidings on curves are difficult to work because of the short distance at which the shunters can see the driver, and to the short distance a driver can see either ahead or behind him, and at night this is a distinct disadvantage.

334. *Mr. Hodson.*—Are you prepared to say there would be danger to the staff in working these sidings with the traffic you anticipate having?

335. *Mr. Perman.*—There is a greater element of danger in working sidings on curves, though we have worked 10-chain curves at Maradana with only one fatality, as far as I know, though two or three men have been injured.

336. *Mr. Hodson.*—Would you like to have the responsibility of working that yard?

337. *Mr. Perman.*—I should be very sorry to have to take the responsibility of working a yard with approaches like this.

338. *Mr. Hodson.*—That yard is said to contain about 4,000 lineal yards of effective length of sidings, and your yard is said to have 3,700 effective yards of siding. Which do you consider the most convenient yard?

339. *Mr. Perman.*—I think the yard as set out by me for the proposed new station will be sufficient for the working for a number of years, and I believe it has many less points and crossings in it, and therefore it would be more easily worked. I mean more particularly from the point of view of the number of shunters and pointsmen required. I should also say that the plan I have drawn is capable of extension to an unlimited degree so long as we can fill in the lake for this purpose.

340. *Mr. Hodson.*—Have you had any experience in the matter of inter-locking?

341. *Mr. Perman.*—Yes.

342. *Mr. Hodson.*—Will you kindly give us particulars of any experience you have had in inter-locking arrangements?

343. *Mr. Perman.*—During the last six years of my service on the Great Western Railway I was in charge of a depôt—Southall—the great coal depôt of that Railway which had three inter-locking boxes and an auxiliary grand frame. These boxes were inter-locked with each other as regards the signals. I was able to work all the boxes personally.

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Previous to that I remember almost the introduction of the inter-locking on the Great Western Railway, and I have been able to work every box that has been under my supervision.

344. *Mr. Hodson.*—Do you think that the yard, according to Mr. Waring's plan, could be inter-locked?

345. *Mr. Perman.*—Yes, I think it could be inter-locked.

346. *Mr. Hodson.*—How many boxes would it require?

347. *Mr. Perman.*—Four boxes at least.

[Here Mr. Saunders resumed the duties of Chairman.]

348. *Mr. Hodson.*—How many boxes do you think would be necessary for the plan prepared by yourself?

349. *Mr. Perman.*—Two boxes.

350. *Mr. Hodson.*—What would be the monthly cost of the establishment required for each box?

351. *Mr. Perman.*—Assuming we have native pointsmen at say Rs. 60 per month, as I understand is paid in Madras, three per day would be required, and the cost per box would be Rs. 180 per month.

352. *Mr. Hodson.*—Therefore two boxes would be Rs. 360 per month; that is to say, Rs. 4,320 per annum, which capitalized at twenty years purchase is equivalent to Rs. 86,000.

This concluded Mr. Perman's examination.

Meeting adjourned at 6 45 P.M. until Wednesday at 3 P.M.

Fifth Meeting, held in Council Chamber at 3 P.M. on Wednesday, June 17, 1896.

All Members Present.

353. *Mr. MacBride* handed in a memorandum showing the actual cost per square foot of superficial area and per cubic foot of total solid contents of certain well known buildings in Colombo, for the sake of comparison with the estimate of the Railway offices for the station building.

(This is given as appendix B.)

354. He also stated that the actual cost of the filling of various low places in the Fort with sand from the Galle Dock was 54 cents per cubic yard. This includes provision and wear and tear of rolling stock, hire of engine; cost of haulage, &c., as well as of getting, loading, and unloading. The amount of work done was 260,000 cubic yards approximately.

355. *Mr. Hodson* handed in a memorandum recording certain remarks on the plans for the Beira scheme, and making certain suggestions from a technical point of view, and recommended that these should be borne in view when final working plans are being prepared.

(This is given as appendix C.)

356. In reply to a question by the Chairman, Mr. Hodson remarked that he considered that there would be great difficulty in bringing the goods traffic of a system of narrow gauge lines into the existing goods yard at the present terminus, even after the coaching arrangements be removed.

To do so would necessitate a considerable amount of narrow gauge sidings with one or more goods platforms, and perhaps a transshipping platform. To obtain the necessary space at the present Maradana yard would probably involve the removal of the workshops, which otherwise might be left in their present position for many years to come, though doubtless the removal of these and of the locomotive arrangements to another site (probably between Maradana Junction and the Kelani bridge) will eventually prove desirable to provide further space for the goods yard, even if the broad gauge be adhered to. It would not do to lay mixed gauge sidings in the goods yard or to use the same platform face for two gauges. And to extend the goods yard in the direction of Captain's Garden would be inconvenient, as the Main line would then cut it in half.

357. *Mr. Hodson* added that if narrow gauge lines are likely to be brought into Colombo from the east of Maradana, it would perhaps suffice at first to stop them at Maradana Junction and to lay out a small goods and locomotive yard for them in that neighbourhood. In that case it would be desirable to select and reserve a plot of land at once for the purpose. There would probably not be any large amount of transshipment of goods at first between narrow and broad gauges, but a small transshipping platform could be provided at the proposed narrow gauge yard, and if the traffic increased largely the necessity for removing the workshops could be faced hereafter.

358. As regards coaching arrangements, Mr. Hodson considered that there would be little difficulty in laying a mixed gauge round the lake side line, through the central station, and that the Beira scheme would admit of extension on the lake side for the laying of the sidings necessary for the working of a narrow gauge coaching traffic. It would however cost a considerable sum, and in fact the extra cost of providing for the narrow gauge coaching, goods and locomotive arrangements over and above what would be necessary for broad gauge ones, should be carefully considered before deciding to bring narrow gauge lines into Colombo, or even to adopt them at all.

359. The report was next considered, and a draft having been passed the Secretary was desired to obtain, if possible, a printed proof in time for final consideration before Mr. Hodson's departure for India on the following day.

Meeting adjourned at 7 P.M. until the next day at 2 15 P.M.

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Sixth and Final Meeting, held in Council Chamber at 2.15 P.M. on Thursday, June 18, 1896.

All Members present.

360. *Resolved* that the Minutes as recorded be confirmed.

361. The printed proof of the report was revised and finally passed.

362. *Resolved* that the memorandums handed in by Mr. MacBride and Mr. Hodson, together with correspondence with the Hon. the Government Agent of the Western Province, be printed as appendices to the report.

Meeting closed at 4.45 P.M.

T. A. WYLIE,
Secretary.

APPENDIX B.

Schedule of Rates for the Construction of certain Buildings erected by the Public Works Department in Colombo.

		Rs.	c.	
Museum	Cost per superficial foot ...	8	23	Ground floor and one storey
	Cost per cubic foot ...	0	22½	
Custom House	Cost per superficial foot ...	11	42	Ground floor and two storeys
	Cost per cubic foot ...	0	24½	
Surveyor General's Office	Cost per superficial foot ...	7	38	Ground floor and one storey
	Cost per cubic foot ...	0	22	
New Post Office	Cost per superficial foot ...	6	19	Part two storeys, part one storey, and ground floor
	Cost per cubic foot ...	0	24½	

Filling from Galle Buck.

Cost Rs. 2 per cube = 54 cents per cubic yard

Colombo, June 17, 1896.

R. K. MACBRIDE

APPENDIX C.

Notes on Plan No. H.85 of Beira Station.

1. The platforms are only 15 ft. wide: it is desirable to make them at least 20 ft. wide, or even more if practicable.

2. The distance from the pillars of the staircases to the edge of the platforms is apparently only about 4½ ft.; it ought to be at least 6 ft.

3. The tracks are only about 12 ft. apart centre to centre. I would strongly recommend that this be increased to 14 ft. at least, or more if practicable. This is the minimum spacing that has ever been allowed on Indian State Railways (broad gauge), and has now increased to 15 ft. 6 in., and indeed 16 ft. is usually adopted if possible.

4. No turn-outs should, so far as practicable, be sharper than 12 chains (792 ft.) radius. This is the minimum allowed on Indian State Railways, and anything sharper necessitates the use of a special class of engines.

5. The platforms should be capable of extension to 700 ft. long, without requiring the yard to be altered. But it would probably not be necessary to build them more than 550 ft. long at first, nor to cover more than 500 ft. long.

6. The plan shows a large number of facing points: these should be eliminated so far as possible. Facing points are doubtless unavoidable where, as in this arrangement, an up or a down line divides into two or more lines for trains going in the same direction, but they should not be permitted for any other cause. Cross-overs between lines of opposite direction should invariably be laid trailing, even if this seems to involve some inconvenience in shunting.

7. Sufficient room should be allowed to admit of treadle bars or facing point locks being put in if found necessary; and for trap switches to prevent engines or vehicles on side lines fouling the main line against signals.

8. I think a third line for the use of light engines going to and fro between the shed and the central station would be a great convenience, but it cannot be said to be absolutely necessary, provided that (as recommended in paragraph 10 (2) of the Commission's report) the only connection between the locomotive yard and the traffic lines be within the limits of Maradana Junction station, and that it be interlocked with the signals under the control of the Station Master, and be trapped to prevent the possibility of an engine fouling the main line in disregard of those signals.

9. One or two lie-byes should be provided to enable engines to stand out of the way, after detaching from an arrival train, till it is convenient to let them go off to shed or *vice versa*. Such should invariably be trapped and interlocked with signals, and engines coming in light from the shed should invariably be received in these and not allowed to stand in the main yard.

10. The dead ends shown on the promontory near the lime-kilns are objectionable, being too much curved. They should be made as straight as possible, and the gathering lines both here and at the Maradana gridiron should be made as nearly straight as it is possible to do.

11. The two entrances to the Wharf and Harbour lines should not be brought direct into the main lines used for passenger trains, but into a spare line parallel thereto, and connected with the through lines of the station yard by a cross-over suitably protected by interlocked signals and trapped. Provision should, however, be made for a more direct connection being hereafter arranged, with a completely interlocked junction, in the event of the Wharf lines being some day used for suburban passenger traffic.

12. I think two spare lines should be provided, instead of the one shown between the two island platforms. This would enable goods or stone trains to pass through the yard on their proper lines, and without stopping or interfering with trains standing at the platforms. It would also facilitate engine shunting.

13. Economy could be attained by only roofing the platforms, and providing cantilevers to cover say 8 or 9 ft. over the nearest track on each side of the platform, leaving the central lines uncovered.

14. Economy could also be attained by providing a large shed, open at the sides, at one end of the building, for the accommodation of third class passengers, instead of providing an enclosed hall in the body of the building as shown in the plan. The latter is rather small if it is to take the passenger traffic that now goes to the Pettah station, but the former could be made double the area at much less cost, and would, moreover, be capable of further extensions if required. In this case a separate arrangement might have to be made for the convenience of third class season ticket holders.

15. It would be well to submit the plan, when decided upon, to an interlocking expert, as he will probably find difficulties which it would be well to avoid, and regarding which he would probably be able to make valuable suggestions. The two best men I know in India for this purpose are Mr. A. Morse, Executive Engineer, North-Western Railway, at Lahore, and Mr. Storey of the Madras Railway. But, of course, the Consulting Engineers in England would be able to get plenty of professional opinion from Saxby and Farmer or other competent experts in England, but this might cause delay.

Colombo, June 17, 1896.

61-96

C. W. HODSON, M.I.C.E.

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APPENDIX D.

I

The SECRETARY, Central Railway Station Commission, to the GOVERNMENT AGENT, Western Province
No 1. Colombo, June 9, 1896

SIR,—I AM directed by the Commissioners appointed by His Excellency the Governor for the purpose of inquiring into and reporting upon the question of a site for a new central passenger railway station, to ask you to be so good as to give the cost of acquiring the block of land (upon part of which the Sailors' Home now stands) bounded by Norris road, Maliban street, Front street, and Kaffre lane

I am, &c,
T A WYLIE,
Secretary

II

The SECRETARY, Central Railway Station Commission, to the GOVERNMENT AGENT, Western Province
No 4. Colombo, June 15, 1896

SIR,—I HAVE the honour to invite your attention to my letter of the 9th instant, and to inquire whether you can furnish me with the desired information in time for the next Meeting of the Commission, which is fixed for 12 noon to-morrow, Tuesday

I am, &c,
T A WYLIE,
Secretary.

III

The GOVERNMENT AGENT, Western Province, to the SECRETARY, Central Railway Station Commission
No 1,155. The Kachchéri,
Colombo, June 15, 1896

SIR,—WITH reference to your letter of this day's date, I have the honour to state that the information asked for cannot possibly be supplied by to-morrow, but will be sent as soon as practicable.

I am, &c,
A. R. DAWSON,
Government Agent

IV

The GOVERNMENT AGENT, Western Province, to the SECRETARY, Central Railway Station Commission
No 1,168. Government Agent's Office,
Colombo, June 16, 1896

SIR,—WITH reference to my letter No 1,155 of yesterday's date, and to my conversation with you this morning, I have the honour to inform you that the Mudaliyar of Colombo states that he had a cursory view of the premises on the 11th instant, and that he would value—

	Rs
The premises known as the Sailor's Home at Rs. 30,000 to Rs. 35,000, say	32,000
And the rest of the block containing twenty houses with their appurtenances at	96,000
Total ...	128,000

2 He is, however, not prepared to vouch for the correctness of the above appraisement. A reliable appraisement will be sent to you in due course.

I am, &c,
A. R. DAWSON,
Government Agent.

NOTE.—The result of the actual appraisement of the block of land above referred to had not been furnished up to the time this report was forwarded to the Government Printer.—T A. WYLIE, Secretary

NEW CENTRAL PASSENGER RAILWAY STATION
FOR COLOMBO.

THE Commission, having taken evidence, consider that—

1. The goods station as at present arranged at the terminus is too cramped for economical and efficient working, and that more shed and shunting accommodation and improved access for cart traffic are necessary, and should be provided without delay.

2. Relief can best be given by removing the coaching arrangements from the present terminus to another site, and by extending the present goods sheds, and laying marshalling sidings, and improving the road approaches, and enlarging the space allotted to cart traffic.

3. The difficulty of bringing the Galle traffic into the present Main Line station also points to the desirability of removing the present passenger station to another site.

4. As a temporary measure, relief can be given by extending the goods sheds, and removing the present engine shed, &c, and laying marshalling sidings, so far as practicable, without immediately removing the coaching arrangements, and by improving the road approaches. This measure will, however, not materially relieve the congestion of cart traffic near the sheds, nor will the full benefit of the improved shunting arrangements be felt so long as the coaching business has to be done in the same yard.

5. If the goods traffic continues to increase at the same rate at which it has been increasing of late years (say 10 per cent. per annum), this temporary measure of relief will only suffice for three or four years at most. It will also prove insufficient earlier if the traffic anticipated from the further railway extensions now under consideration (e.g., the Jaffna and Kelani Valley projects), has to be dealt with in the same yard.

6. It is therefore important that the coaching arrangements should be removed from their present position to another site within three or four years at most, and as the execution of this work will probably take at least two years, the scheme should be worked out in full detail, and be sanctioned, and work commenced within one year from the present date, and as much earlier as possible.

7. Two principal sites were recommended for a new central passenger station, and preliminary plans for the same were laid before the Commission, viz. :—

- (a) By Mr. Waring at the site of the present Fort station.
- (b) By Mr. Pearce at Beira, as suggested in Major Wilson's report.

The Commission consider the former site is, on account of the curvature of the line, not suitable for such a station; but that the latter is (the most) suitable for making a new central passenger station at a moderate cost.

8. It has been suggested that another site might be obtained by filling up the Lotus Pond, and diverting the present lake-side line through the native town. Such a site might offer certain advantages for laying out convenient sidings, and arranging for easy access to the harbour face, but these advantages would be largely counterbalanced by the inconvenience inseparable from the taking of the Main Line traffic through a number of crowded thoroughfares on the level. The cost also would probably exceed that of the Beira project by about Rs. 800,000. The Commission, therefore, do not recommend this scheme.

9. Another scheme has been suggested, viz., to locate the proposed central station near the offices of the *Times of Ceylon*, and to design it as a terminus for the trains in both directions (i.e., Galle and Kandy respectively). This station would however be very cramped, unless not only the Lotus Pond, but also a large area of the lake be filled up. If this be done, the cost of this scheme would probably not be less than that referred to in paragraph 8; and it would be inferior thereto in compelling all through trains (whether Main Line or suburban, and probably even goods trains also) to come into the terminus and go out again in the reverse direction. The Commission, therefore, do not recommend its further consideration.

10. The Commission consider that whatever scheme be adopted, the following conditions should be kept in view :—

- (a) The new station should provide for all coaching arrangements now carried on at the present terminus, with the exception of the shelter of valuable or surplus stock.
- (b) It should provide for the whole passenger traffic of the present Fort and Terminus stations, and for that of the Pettah also if it implies the closing of the latter, and for all probable increases of the same for the next ten years or so.
- (c) It should be capable of still further extension, should traffic increase beyond the above-stated expectation, and for the accommodation of the traffic of various new railway projects likely to be brought into Colombo (e.g., the Jaffna and Kelani Valley projects), whether broad or narrow gauge.

- (d) It should provide for a good and convenient suburban service, and also for the running of through trains between the Galle and Kandy lines, should this eventually prove desirable.
- (e) It should provide convenient access to the Custom House and Harbour Works lines, which ought to be suitable also for the goods traffic which would arise if extensive warehouses and wharves be established along the harbour face, as is probable at some future date.
- (f) The arrangements referred to in (e) should, if possible, be capable of adaptation for the accommodation of a suburban passenger service along the harbour face, should necessity for this eventually arise.
- (g) All arrangements that may be decided upon as probable in order to comply with conditions (e) and (f) should be discussed with the Harbour authorities and laid down on the Municipal and Harbour Works plans, and that no new vested interests should be allowed to arise which might interfere with the eventual execution of such arrangements.
- (h) The station buildings at the central station should provide for the accommodation of the offices of the General Manager and of the Traffic Superintendent, and also for that of the Accountant, if funds permit.
- (i) The connection between the new station and the present Maradana Junction should be a double line free from all points or crossings whatsoever, except such as are within the limits of stations and under the direct control of the station masters concerned.
- (j) The possibility of a third line for locomotive purposes, and even a fourth for Harbour traffic having to be eventually laid, should be provided for.
- (k) Between Parson's road and Maradana Junction inclusive, all points over which passenger traffic may pass, and the entrance to the goods and locomotive yard, and of the Wharf line, should be interlocked with the signals on an approved modern system; and traps should be provided to prevent the possibility of engines or vehicles coming out of the side yards on to the main lines against signals.
- (l) The question of road approaches to the station should be carefully considered and the number of level crossings kept down as much as possible. When these are unavoidable they should be capable of being interlocked with the signals; and the expediency of providing overbridges for at least foot passengers should be considered.

11. The General Manager produced preliminary plans and estimates for the works recommended in his scheme, the cost of which is as follows:—

New Central Station at Beira		Rs
Passenger station building, 292 ft. by 53 ft., including upper story for offices	...	208,742
Platforms ... { (1) 550 ft by 20 ft. } 27,500 square feet	...	45,010
Roofing ... { (2) 550 ft by 15 ft }	...	158,400
Furnishing and lighting (say)	...	30,000
Two overbridges for platforms (say)	...	30,000
Road deviation, 13,200 square yards at Re. 1	...	472,152
Filling in Lotus Pond, 54,234 cubic yards, at Re. 1	...	13,200
Permanent way complete, 5,936 lineal yards, at Rs. 15	...	54,234
Points and crossings, 29 sets (say)	...	89,040
Native latrine, (say)	...	11,160
Signals and interlocking (say)	...	3,000
Land and compensation (say)	...	30,000
	...	120,000
Double line from Maradana to Beira —	...	792,786
Filling in lake, 17,050 cubic yards, at Re. 1	...	17,050
Permanent way, 796 lineal yards, at Rs. 15	...	11,940
Total	...	28,990
Add contingencies, at 5 per cent.	...	821,776
	...	41,089
Total for the Beira Scheme	...	862,865
Add, if a third line be provided —	...	
Filling 34,100 cubic yards, at Re. 1	...	34,100
Permanent way, 800 lineal yards, at Rs. 15	...	12,000
Contingencies, at 5 per cent	...	46,100
	...	2,305
	...	48,405
Grand Total	...	911,270

12. Besides the above, the General Manager produced estimates for the following works, urgently required at the present Maradana terminus, to give the relief required immediately (see paragraph 4 above), and stated that these are altogether independent of the proposed removal of the coaching arrangements, and that if these be sanctioned, he will be able to get along for about four years, unless the traffic continues to increase at the rate at which it has been increasing recently.

The cost is as follows:—

	Rs
Removal of old engine and turn-table and relaying of marshalling sidings in the space so obtained	117,653
Enlargement of certain workshops	36,600
Extra staff for supervision (say)	5,000
	159,253
Add contingencies, at 5 per cent.	7,963
	167,216
Providing present open passenger platform with temporary covering	25,000
Extending goods sheds and altering boundary	35,371
Widening canal bridge and improving approach road	28,659
Interlocking (say)	20,000
Lighting goods yard with electricity (say)	20,000
	129,030
Add contingencies, at 5 per cent	6,452
	135,482
Total	302,698

13. The Commission consider the above estimates adequate and reasonable for the works specified, but they would remark that the cost of the filling in connection with the passenger station will depend largely upon the nature of the material, and the place from which it is obtained, and they are of opinion that a notable economy is possible if the railway be allowed to obtain the material by removing sand at the Galle Buck. It is desirable that this should be carefully considered, as upon it depends the relative cost of land compensation and lake filling.

14. They also consider that if the Beira scheme be adopted, the present Fort and Pettah stations should be closed; but there would be no objection to a separate station for the Pettah being hereafter re-established, either at the same or a neighbouring site, if it be found desirable so to do; meanwhile the present station should not be taken down.

15. They also consider that the plans produced fulfil fairly conditions (a), (b), (d), (h), (i), (j), and (l) of paragraph 10, and that they are susceptible of being made to comply with conditions (c), (e) to (g), and (k). The plans and estimates have, however, been prepared very hurriedly, and should now be carefully revised; and the Commissioners are of opinion that when so revised the complete working estimate of the Beira project should not exceed Rs. 900,000 to Rs. 950,000.

16. The Commission, therefore, recommend that—

- The work referred to in paragraphs 4 and 12 should be sanctioned forthwith.
- The Government should face the necessity for spending at least Rs. 900,000 or Rs. 1,000,000 on a new central station within the next three years.
- The General Manager should be desired to carefully revise the Beira scheme so as to fulfil the conditions laid down in paragraph 10, and to submit complete working plans and estimates for the same within three months.
- The Beira scheme so revised should be sanctioned and commenced within twelve months of this date, unless in the meantime a complete project for a better scheme has been approved in its stead.

Colombo, June 18, 1896

Colonial Secretary's Office,

Colombo 8th July 1896.

Sir,

I am directed to request you to be good enough with the permission of His Excellency the Viceroy in Council, to convey to Mr.C.W.Hodson, Consulting Engineer for Railways Madras, the thanks of the Government of Ceylon for his services in connection with the selection of a site for the central Passenger Railway station at Colombo.

I am Sir,

Your obedient servant,

(Signed)

for Colonial Secretary.

The Secretary to the Government of India,

Calcutta.

B.B.Bose.

SERIAL
No. 20

Extract from the
Madras Mail
of 15 June 1896.

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A NEW CENTRAL RAILWAY STATION FOR COLOMBO.
—Owing to the need of a new passenger terminus, and increased accommodation for goods traffic and for workshops, the necessity for which has recently been exemplified by a block of traffic at Maradana, a Commission has been appointed by the Governor to enquire into the subject. It consists of the Hon'ble Mr. F. R. Saunders, the Hon'ble Mr. W. W. Mitchell, Mr. R. K. MacBride, and Mr. C. W. Hodson. Their first meeting was held on Saturday last, their second one to-day (10th), and other meetings will take place during the ensuing week, when the Commission will take further evidence. Among other sites and proposals which the Commission are investigating the Engineers' Department of the Railway have supplied plans for a new passenger station on the basis of Major Wilson's recommendations and the sketch contained in his Report submitted to the Ceylon Government in November last. Major Wilson, it will be remembered, strongly recommended a central passenger station off Norris Road, between the Fort and Pettah stations, the site to include the jut of land opposite the Soldiers and Sailors' Home. This project would require further reclamation from the Lake at this spot, and also along the line from the present Terminus, to admit of additional lines being laid down; but Major Wilson estimated the cost at Rs. 1,000,000, which was Rs. 500,000 cheaper than any of the other proposals, which included such undertakings as the utilisation of Captain's Garden on the one hand and the cutting down of the Maradana hill on the other. It will interest our readers to learn that, for the purpose of serving on the above commission, the Ceylon Government asked the Government of India to send down an expert. The gentleman selected was Mr. C. W. Hudson, Consulting Engineer to the Madras Government, and he arrived at Colombo on Thursday last via Tuticorin. Since his arrival he has been busy reading up the literature on the subject, and making himself acquainted with the various recommendations made. The consequence is that he has come to the conclusion—quickly but definitely—that the most eligible site by a long way, is Major Wilson's selection, and there can be little doubt—although the commission has not yet come to a decision—that their recommendation to Government will be a

passenger station on the spot indicated. This will involve the abolition of the Fort and Pettah stations, but the spot is conveniently situated, as there are easy approaches from all directions. Mr. Hudson hopes that whatever is done at this site will be adequately conceived and carried out; and that the project of a large central passenger station in a busy seaport like Colombo will not be spoilt by undue attention to economy. The witnesses to be examined by the Commission will include Mr. F. J. Waring, we believe. Its Report, we heard, had been called for by the 15th July, but although there will be nothing to delay it longer than that, we understand that no time limit or other request for urgency has been made by Government to the Commission. The Commission sat this afternoon in the Legislative Council Chamber. Mr. Saunders was in the chair, and the others present were Messrs. Mitchell, MacBride and Hodson, Messrs. Waring, W. T. Pearce, A. G. Perman and W. Cantrell were also present.—T.

SERIAL
No. 27

*Extract from The
Madras Mail
of 16 June 1896*

MR. HODSON, THE CONSULTING ENGINEER to the Madras Government, is expected to be away from Madras for a fortnight on a visit to Ceylon, but the period says a Colombo contemporary will probably be three weeks. "After he has finished his work with the local Commission—say in a week's time—Mr Hodson will visit Nawara Ehiya. He has also been requested by Mr Saunders, who is also Chairman of the Northern Railway Extension Commission, to give that body his advice on certain matters before it; but his appointment has in no way had to do with that question or the larger one of railway connection with Southern India."