

(1) Number of pages _____

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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	945	(Cy)	Press
B.P. No.			Mis.
Dated	10. 4.		1876

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
10th April 1876.*

No 178 Read the following letter from Lieutenant-Colonel J H M SHAW-STEWART, R E, Consulting Engineer for Railways, to Major-General G W WALKER, R E, Secretary to Government, Public Works Department, dated Madras, 13th March 1876, No 123 —

I HAVE the honor to submit, for the approval of Government, the proceedings of a meeting held at Trichinopoly upon the 7th February 1876, which was attended by the principal officials of the South Indian Railway, by the Examiner of Railway Accounts, and by myself. It has been arranged that similar meetings shall in future be held periodically, once in every two months.

2 The submission of these proceedings has been delayed through want of the statement referred to in clause 5 of the minutes, showing excess expenditure on stores during the second-half of 1875. It has only to-day been received.

3 With reference to clause 2 of the minutes, I have already reported that the line between Madras and Chingleput cannot be opened for public traffic upon the 1st of April, as Government were led to expect, but that there appears to be no doubt of the line being opened between Madras and Tindivanam upon the 1st of July.

4 Clause 7 of the minutes has reference to arrangements which have been found necessary between the foot station and the junction station at Trichinopoly, pending the final decision as to the conversion of the line between Trichinopoly and Pondicherry.

SOUTH INDIAN RAILWAY

Minutes of a Meeting held at Trichinopoly on Monday the 7th of February 1876

PRESENT —

The Consulting Engineer for Railways
" Examiner of Railway Accounts,
" Agent, South Indian Railway
" Chief Engineer, do
" Traffic Manager, do

THE question of the extent of accommodation to be provided before any section of the railway is opened for public traffic having been discussed, it was agreed that the following list of requirements (completed and ready for use) should be considered as the essentials of efficient working —

- (1) The permanent way of rail to be laid at least on a through siding for each station fully ballasted, flagged and spiked with the full complement of fangs and spikes and fish-bolts throughout.
- (2) One telegraph wire on permanent standards with instruments, &c., at each station.
- (3) Booking offices, telegraph offices, goods sheds and approaches thereto, platforms and loading banks.
- (4) At locomotive depots, all engine shed accommodation.
- (5) All staff quarters for Station-masters, Guards, and Engine-drivers.
- (6) Tank-houses, wells, and water cisterns.
- (7) Thoroughfares which it is not found to furnish with gates or burners to be so furnished, or gate houses when required to be complete for occupation.
- (8) Telegraph posts to be numbered.

*Proceedings of the Madras Government, Public Works Department,
10th April 1876.*

- (8a) Turn-tables to be fitted with proper stops, and all points fitted with all necessary balance weights and levers, and fitted with all necessary locks and locking pins for securing them when necessary
- (8b) Gradient boards to be fixed at each change of gradient
- (9) All watchmen to be appointed and numbered
- (10) The formation width to be fully maintained, and side drains in cuttings completed.
- (11) Bridges to be complete in all respects according to design, and to have been tested for both deflection and oscillation; the results of such tests being recorded and embodied with the tabular statement ordered to be handed to the Inspecting Officer
- (12) All semaphores to be in position and effective, especially distant signals, which must have been tested and found efficient
- (13) If, through unforeseen circumstances, the whole of these requirements under the heads 3, 4 and 6 have not been supplied up to the full standard required, it shall rest with the Agent to determine whether he is prepared to work the line for public traffic (the sanction for its opening having been obtained from the Inspecting Officer) with the accommodation available

2 The Chief Engineer reported the progress made upon station, &c, buildings on the section between Madras and Chingleput, and the meeting, considering it improbable that there would be sufficient accommodation completed by the 1st of April next to justify the using of the line for public traffic from that date, decided to postpone its opening until the 1st of July following, by which time it was considered probable the section from Chingleput to Tindivanam would also be ready (the river Palar being crossed by means of a temporary tramway) for the public use. It was arranged that the completion of the Madras engine-shed (the foundations of which are already laid) should be effected as soon as possible

3 It was determined to postpone for the present the proposed additional outlay of Rupees 21,048 at Manicki Station for extra sidings, &c, and to provide only short lay-byes at both ends of the loading wharf siding, the engine turn-table to be removed to a position which would admit of further extensions of sidings being carried out when required

4 It was arranged that an estimate (prepared in form similar to that attached hereto) of the probable expenditure required for the purchase of stores in India should be submitted half-yearly by the Agent for the sanction of Government. And that the detailed bills for all purchases under this sanction on account of the General Stores Department and of the Engineering Stores Department should be submitted for review at official meetings to be held on the second Tuesday of every other month, the first meeting to be held in April next

5 The estimate (hereto attached) of probable stores requirements during the current half-year amounting to Rupees 4,13,000 was approved, and it was arranged that sanction should be communicated to the expenditure in excess of the amount sanctioned for the half-year ending 31st December 1875. A statement showing such excess expenditure to accompany these minutes

6 A desire having been expressed by the Government that Station-masters should be provided with a distinctive dress or uniform, the Traffic Manager undertook to supply what is needed as soon as possible. It was estimated that the annual expenditure under this heading would not exceed Rupees 5,000

7 The plan showing additional accommodation required at the Trichunopoly Junction Station having been examined, it was decided for the present to shorten the length of the siding marked C, and to take up the third rail from the main line west of the station. It was also arranged that the light rails run over by engines of the 5 feet 6 inches gauge should be removed and that the heavier rails should be substituted.

(Signed) W S BETTS,
Agent, South Indian Railway.
(Signed) J. H. M SHAW-STEWART, Lt-Col, R.E.,
Consulting Engineer for Railways

*Proceedings of the Madras Government, Public Works Department,
10th April 1876.*

SOUTH INDIAN RAILWAY

Statement showing the estimated Value of Stores Expenditure in India during the half-year ending 30th June 1876, and debited to the General Stores Account

Nomenclature	Quantity	Maximum Rate	Amount	Remarks
Timber	Tons 1,200	Rs 1.0	Rs 1,20,000	Principally required for engineering purposes
Coal	" 2,000	" 20	40,000	For locomotive.
Firewood	" 3,000	" 8	24,000	
Iron	lbs 300,000	Cents 63	18,900	Miscellaneous services
Oil	" 80,000	" 73	58,400	
Stationery	"	"	15,000	
Freight	"	"	20,000	Charges connected with the handling and conveyance of stores and material from port of deposit to up-country depot
Customs duty	"	"	30,000	
Loading charges	"	"	10,000	
Stores cooly bills	"	"	20,000	
Carriage bills	"	"	50,000	For miscellaneous services.
Miscellaneous	"	"	4,13,000	

NICAPATAM,
17th February 1876

(Signed) W S BETTS,
Agent

Statement showing Expenditure incurred in the purchase of Stores against Sanctioned Estimate for the half-year ending 31st December 1875

	Sanctioned Amount	Expenditure	Balance of Sanction unexpended.	Expenditure in excess of Sanction.
	Rs	Rs A P	Rs A P	Rs A P
Timber	1,00,000	41,579 3 10	58,420 12 8	
Firewood	15,000	19,550 10 2	7,449 5 10	
Coke	4,000	401 6 0	7,598 10 0	
Iron	6,000	17,539 8 10	11,539 8 10	
Oil	9,000	7,753 9 0	1,247 7 0	
Stationery	15,000	10,111 9 8	4,888 6 4	
Freight	20,000	33,160 10 0		13,160 10 0
Customs duty	20,000	46,000 3 0		26,000 3 0
Loading charges	10,000	3,581 4 4		21,551 4 4
Stores cooly bills	3,000	6,125 3 2		3,125 3 2
Carriage bills	30,000	31,417 8 11		1,417 8 11
Miscellaneous	30,000	51,607 2 6		21,607 2 6
Coal	4,000	10,708 14 9	23,291 1 8	
Total	3,14,000	3,10,503 14 2	1,02,895 10 7	84,592 8 9
			98,893 8 9	
			3,226 1 10	

NICAPATAM,
9th March 1876

(Signed) W S BETTS,
Agent

Note by the Consulting Engineer for Railways in explanation of the Minutes of Meeting held at Trichunopoly on the 7th February 1876, and with reference to the remarks made thereon by His Grace the Governor

CHAPTER I.—The object in view in having up the list of requirements contained in the clause was to enable the Engineers to direct their special attention to those portions of the work under construction which are deemed indispensable before any section of the line can be opened for traffic

It is of course desirable that no time shall be lost in opening the line and in obtaining some return for the outlay which, so long as the line remains unopened, forms a dead charge against the State.

*Proceedings of the Madras Government, Public Works Department,
10th April 1876.*

In the case of the Southern Extension of the South Indian Railway, disappointment often arose from neglect on the part of the Engineers of some essential point, and it seemed advisable, to prevent similar misunderstandings, that sufficient notice of the requirements which would be insisted on, should be given in the case of the Northern Extension.

The list of requirements was not therefore intended to include everything which will ultimately be provided for the proper working of the line, but only, keeping in view the great importance to the State and to the public of early opening, such requirements as are considered indispensable to safe working.

It is upon this principle that sections of railway within this Presidency have hitherto been opened for public traffic; those requirements which are not held to be indispensable being carried on to completion after the opening of the line.

With reference to the foregoing remarks, it has not hitherto been considered necessary that all gate lodges should be completed and ready for occupation before opening. Temporary huts are always run up by the gatemmen for immediate use.

In like manner the provision of gradient boards has not been held to be indispensable before opening. If they are to be named among the requirements, I think that power should be reserved to the Inspecting Officer to dispense with them.

The cuttings upon the line are few and of inconsiderable depth. It does not seem to me necessary to insist upon the completion of the side drains before the line is opened.

Turn-tables were not alluded to among the requirements, from the fact that they are provided only at engine stations. Upon the section between Madras and Tindivanam, which will probably be opened on the 1st July, turn-tables will be provided only at Madras. At Tindivanam, which will be a temporary terminus, a triangle will be constructed for turning the engines. All points should certainly be in good working order.

I observe that His Grace the Governor suggests that the dispensing power, conferred jointly upon the Agent and the Inspecting Officer, should be limited to heads 3, 4 and 6. I think it would be well to place no limit, but to rely upon the discretion of the responsible officers. It is, for example, proposed to open the line between Madras and Tindivanam during the construction of the bridge over the Palar, that river being crossed by a temporary road laid across the bed.

CLAUSE 4—All bills for stores purchased in India are subjected to close scrutiny by the Examiner of Railway Accounts before the periodical meeting, and it is his duty to bring to the notice of the Consulting Engineer every objection or irregularity. The object with which the bills are submitted for review at these periodical meetings is to allow such objections or irregularities to be brought forward, and to be dealt with by the Consulting Engineer in the presence of the responsible railway officials.

CLAUSE 6—The wording of this clause is somewhat misleading. The sum of Rupees 5,000 named is understood to be the entire probable annual expenditure under the head of "Clothing," including what is required for Guards and Porters, as well as for Station-masters.

MADRAS,
28th March 1876

(Signed) J H M SHAW-STEWART, Lt-Col, R.E.
Consulting Engineer for Railways

No 179.

ORDER THIRTEEN, 10th April 1876, No. 945.

RAILWAY, No. 19.

His Grace the Governor in Council considers that the arrangements proposed are judicious. In approving the list of requirements, however, the Governor in Council desires to draw the attention of the Consulting Engineer for Railways to the expediency of some additions to them as shown in the following amended copy—

- (1.) The permanent-way of main line and at least one through siding for each station fully ballasted, fanged, and spiked with the full complement of fangs and spikes and fish-bolts throughout.

*Proceedings of the Madras Government, Public Works Department,
10th April 1876.*

- (2) One telegraph wire on permanent standards with instruments, &c, at each station
- (3) Booking offices, telegraph offices, goods sheds and approaches thereto, platforms and loading banks.
- (4.) At locomotive depôts, all engine shed accommodation.
- (5.) All staff quarters for Station-masters, Guards, and Engine-drivers
- (6) Tank-houses, wells, and water-columns
- (7) Thoroughfares which it is intended to furnish with gates or barriers to be so furnished, and either permanent gate lodges or temporary huts when required to be complete for occupation.
- (8) Telegraph posts to be numbered.
- (8a) Turn-tables to be fitted with proper stops, and all points fitted with all necessary balance weights and levers, and fitted with all necessary locks and locking pins for securing them when necessary
- (8b) Gradient boards to be fixed at each change of gradient.
- (9) All watchmen to be appointed and numbered.
- (10) The formation width to be fully maintained and side drains in cuttings completed.
- (11) Bridges to be complete in all respects according to design, and to have been tested for both deflection and oscillation, the results of such tests being recorded and embodied with the tabular statement ordered to be handed to the Inspecting Officer.
- (12.) All semaphores to be in position and effective, especially distant signals, which must have been tested and found efficient.
- (13.) If, through unforeseen circumstances, the whole of these requirements under the heads 3, 4, and 6 have not been supplied up to the full standard required, it shall rest with the Agent to determine whether he is prepared to work the line for public traffic (the sanction for its opening having been obtained from the Inspecting Officer) with the accommodation available.

2 The Government understand that the sum of Rupees 5,000 stated in paragraph 6 is the whole estimated cost of clothing annually, and not the additional cost of the distinctive dress proposed for Station-masters.

(True Extract.)

Colonel,

Offg. Under Secy. to Govt, P.W.D.

To the Consulting Engineer for Railways

Ltd E C Shunker
Spare Copies

RAILWAY DEPARTMENT

CONSULTING ENGINEER'S OFFICE

Madras, 13th March 1876.

No. 123.

From

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

Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

I have the honour to submit for the approval of Government, the Proceedings of a meeting held at Trichinopoly upon the 7th February 1876, which was attended by the principal officials of the South Indian Railway; by the Examiner of Railway Accounts, and by myself. It has been arranged that similar meetings shall in future be held periodically, once in every two months

2. The submission of these Proceedings has been delayed through want of the statement referred to in clause 5 of the minutes, showing exact expenditure on stores during the second half of 1875. It has only today been received.

3. With reference to clause 2 of the minutes, I have already reported that the line between Madras and Chingleput cannot be opened for public traffic upon the 1st of April, as Government were led to expect; but that there appears to be no doubt of the line being opened between Madras and Tindivanam upon the 1st of July.

4. Clause 7 of the minutes has reference to arrangements which have been found necessary between the fort station and the junction station at Trichinopoly, pending the final decision as to the conversion of the line between Trichinopoly and Erode.

I have the honour to be,

Sir,

Your Most Obedt Servant
Mantwint

H. B. R. C.

Co. C. S. P. Railway

Note by the Consulting Engineer for Railways in explanation of the minutes of meeting held at Trichinopoly on the 7th February 1876, and with reference to the remarks made thereon by His Grace the Governor.

Clause 1.

The object in view in drawing up the list of requirements contained in this clause was to enable the Engineers to direct their special attention to those portions of the work under construction.

Minutes for the approval of Govt, proceedings of a meeting held at Trichinopoly on the 7th Feb 1876.

P. W. 1876 244
 RA. W. 1876 244
 20/1887
 The Secretary to Government
 P. W. Department
 Fort St. George
 1876
 No 123.

construction which are deemed indispensable before any section of the line can be opened for traffic.

It is of course desirable that no time should be lost in opening the line, and in obtaining some return for the outlay which, so long as the line remains unopened, forms a dead charge against the State.

In the case of the Southern Extension of the South Indian Railway, disappointment often arose from neglect on the part of the Engineers of some essential point

point; and it seemed advisable, to prevent similar misunderstandings, that sufficient notice of the requirements which would be insisted on, should be given in the case of the Northern Extension.

The list of requirements was not therefore intended to include everything which will ultimately be provided for the proper working of the line; but only, keeping in view the great importance to the State and to the public of early opening, such requirements as are considered indispensable to safe working.

It is upon this principle that sections of railway within this Presidency have hitherto been opened for public traffic: — those requirements which are not held to be indispensable being carried on to completion after the opening of the line.

With reference to the foregoing remarks, it has not hitherto been considered necessary that all gate lodges should be completed and ready for occupation before opening. Temporary huts are always run up by the gatemen

gatemen for immediate use.

quite satisfactory
Bel

In like manner the provision of gradient boards has not been held to be indispensable before opening. If they are to be named among the requirements, I think it at power should be reserved to the Inspecting Officer to dispense with them.

There seem to me to be necessary at all principal changes of gradient. when the incline is steeper than that in 400 — for the guidance of engine drivers and for the safety of the train. The cost of the necessary topography is a small sum required in England for the contour.

I have thought it necessary to point out the fall from washing away in heavy rain — Bel

The cuttings upon the line are few and of inconsiderable depth. It does not seem to me necessary to insist upon the completion of the side drains before the line is opened.

Turn-tables were not alluded

alluded to among the requirements
from the fact that they are pro-
vided only at engine stations.

only suggest that
where tables are fixed
they should be complete with
steps etc.

Upon the section between Madras
and Sinderanum, which will
probably be opened on the 1st July,
turn-tables will be provided only
at Madras. At Sinderanum,

which will be a temporary terminus,
a triangle will be constructed for
turning the engines. All points
should certainly be in good
working order.

I observe that His
Grace the Governor suggests that
the dispensing power, conferred

jointly

jointly upon the Agent and the
Inspecting Officer, should be
limited to heads 3, 4, and 6. I
think it would be well to place
no limit, but to rely upon the
discretion of the responsible officers.
His Grace, for example, proposed to open
the line between Madras and
Sinderanum during the construction
of the bridge over the Polar, that
river being crossed by a temporary
road laid across the bed.

Clause 4.

all bills for stores
purchased in India are subjected
to close scrutiny by the Examiner
of Railway Accounts before the
periodical

periodical meeting; and it is his duty to bring to the notice of the Consulting Engineer every objection or irregularity. The object with which the bills are submitted for review at these periodical meetings is to allow such objections or irregularities to be brought forward, and to be dealt with by the Consulting Engineer in the presence of the responsible Railway officials.

The wording of this Clause 6 clause is somewhat misleading.

The sum of Rs 5000 named is

understood

understood to be the entire probable annual expenditure under the head of "clothing," including what is required for guards and porters, as well as for station-masters.

Madras 2
28th March 1876

Mantleworth
Lt. Col. R.E.
Cons: Engineer for Railway

For orders

Letter from the Consulting Engineer for
Railways. No 123 dated 13th March 1876.

Circulated for
orders.

The arrangements
on the whole appear to
be judicious and sufficient
for the objects in view.
With reference to para 4
of the Minutes however
it is remarked that if
the detailed bills for
purchases of stores are
brought forward for the
first time at Committee
meetings the scrutiny
will probably be
careless and incomplete.
The procedure may
probably be modified
with advantage by
requiring submission
of the bills to the Consulting
Engineer.

beginning a short time
before the date fixed
for the meeting to enable
that officer to go prepared
to discuss the charges.

mm

For Orders P. D. D.

Note by Consulting Engineer
for Railways dated 28th March

Submitted for
further orders.

C. M. Walker Major Genl. P. D.
Secy. Government
S. H. B.

I quite agree that such requirements
only should be insisted on as are indispensable to
maintain safety & efficiency. I
think temporary limits proportionate are quite as good
as permanent ones. The object being to ensure that the
having shelled at his post - so that he had no excuse for
leaving it -

The government must see some expedient to save
money - even could not occupy any appreciable time
in fixing - They must not put not only as regards safety of
passengers but safety of coalings - the fracture of loadings

28/3

being very commonly observed to take
place at changes of gradient -

Side drains in cuttings. I should have thought as
essential here as in England - to avoid not only the
ballast, but formation being washed & softened
in heavy rains - but if Mr. Muller's opinion does not
imply from nature of cuttings & soil that the
drains are essential to safe working. I am
quite content with that opinion

As regards 7. tacks. I do not suggest their being
fixed - but only ^{that} when fixed they should be complete
with proper stops & which are constantly omitted
& forgotten until something goes off pursuant of them -

I do not desire to limit the discussion
concerning opinion of M. L. or Respecting Officer
but I read the Minutes. 13. as giving a direction
to the Agent - and that direction I should not be
disposed to extend beyond 3. 4. 6 & 8
1. 2. 5. 7. 9. 10. 11. 12. seem to admit of no
direction being in their nature essential to the
safe working of a line.

~~Suppose of the minutes~~
1881

~~That Respecting~~

I have somewhat modified the drafts
minute in consequence of the explanations
given by Mr.

No 945 — Public Works Department

PROCEEDINGS of the MADRAS GOVERNMENT.

UNDER date the 10th April 1887

READ the following —

1887

From
The Consulting Engineer
for Railways } (H.C. No 1234 / 13th March 1887)

B.C.

1. Who propose the
Governor in Council
considers that the
arrangements proposed
are ~~on the whole~~ ~~pro-~~
~~visions and sufficient~~

In approving the Act of ~~for the~~ ~~provisions~~
regulations however the certain additions have
Govt. desire to draw the ~~in~~ which appear
attention of the Com by full w. ~~which~~ have been
to the expediency of some ~~made~~ The rules as
additions to them as ~~made~~ amended are given
in the following amended ~~below~~
copy —

(1) The permanent way
of

of men, line and at
least one through siding
for each station fully
ballasted of angles and
spiked with the full
complement of fangs and
spikes and fish bolts
throughout

2) One Telegraph wire
or permanent standards
with instruments for a
each station

3) Resting Office,
Telegraph Office, Goods
Sheds and approaches
there to, Platforms and
Reading benches

4) Accommodation for
all engine shed rooms
and stores

5) All staff quarters for
Station Masters Guards
and Engine Drivers

(6) Sanitary Wells
and Water Columns.

(7) Thorough fairs which
it is intended to furnish
with gates or barriers to be
so furnished ^{after permanent} and gates
or temporary ^{gates} ~~gates~~ when required
to be complete for accen-
tuation

(8) Telegraph posts to be
permanently

(8a) Turn Tables to be fitted
with proper stops and
all points fitted with
all necessary balance
weights and counterweights
fitted with all necessary
locks and locking pins
for securing them when
necessary

(8b) Gradient boards
to be fixed at each change
of

of gradient
(9) All watchmen to
be appointed and
numbered.

(10) The formation is to be
fully maintained
and no drains are
to be completed.

(11) Bridges to be completed
in all respects according
to design and to have been
tested for both deflection
and oscillation, the results
of such tests being forwarded
and embodied with the
tabular statement
ordered to be handed
to the Inspecting Officer.

(12) All lamp posts
to be in position and
effective, especially
at night signals, which
are to be

must have been
checked and found
efficient.
(13) If the circumstances
be such as to require
the whole of these require-
ments under the heads
3, 4 & 6 have not been
supplied up to the full
standard required it
shall rest with the
agent to determine
whether he is prepared
to work the line for
public traffic (the
sanction for its opening
having been obtained
from the Inspecting
Officer) with the
accommodation avail-
able.

W. H. B.

2. With reference to para
4 of the Minutes of the
1894. the Governor in
Council is of opinion
that the Consulting
Engineer will have taken
care himself more than
he can well do in under-
standing to review the
details & bills of pur-
chases of stores at the
Committee meetings
at which they are
first produced. The
procurements may pro-
bably be made funds
with advantage by
requiring submission
of the bills to the Con-
sulting Engineer at
short time before the
date)

These have been explained

2. The Gov. understands that
the sum Rs. 5000 stated
in paragraph 6. is the
whole estimated cost of
clothing annually. & not
the additional cost of
the distinctive dress ^{required for}
Station Masters —

late fixed for the
meeting to enable that
Officers to go prepared
to discuss the charges
3. The sum (Rs 5000)
mentioned in para 6
of the Minutes as the
probable annual
charge in account of
a distinctive dress
for Station Masters
seems high. A distinctive
Cap or Turban with
Station Master clearly
inscribed thereon with
metal letters is all
that is needed.

Consulting Engineer
for Railway
Dated 28/4/16

Publ. of 1870

PUBLIC

papers in the
By Shelly

The Anti-Slavery Railways

12-4-76

10th April

7015

10-1-8-1

Minutes of Meeting S.C.
at Birmingham on the 1st Dec

1876 — Passing
a letter from the Com. Secy —
Rey. B. B. B. for a
vote —

Letter in the
29th July