

Govt. of Madras.
PUBLIC WORKS.

*Printed and
13/11/90*

Recd. Encl.
G.O., 11. 11. 1890, No. 1774 R.
1775

East Coast Railway
Correspondence
relative to the
modified alignment
of the ———, commencing
the C. & P. Ry. in
connⁿ to the E. C.
East Coast Ry.

Forw^d copy of proceedings
regarding the modified
alignment of the E. C. Ry.
from Ellur to Sambricottah.
C.C. 11. 11. 1890
120 1/2

INDIAN TELEGRAPHS. 05733 6

To (Office) Madras Triplicane From (Office) Vizagapatnam

Words 108 Day 14 Hour 19 Minute 22 Official Message

To (Person) Works Dy. From (Person) M. C. E. C. R.

Before settling finally about
these New Survey of Glease
Consider fully bridging Godaverry
in future of only one
place to do it
That is at Rajahmundry
costs there fifty four
lacs low down eighty
seven lacs it ~~is~~ bridge
is built your proposal
increases length of line
over sixteen miles with
no adequate return present
line shorter than Canal
line six miles Country
you propose for line of —

Recd. from LN. Sent to LN.

At Hrs. Mts. by At Hrs. Mts. by

Madras 15-10-90

Telegraph Master.

<div style="display: flex; justify-content: space-between;"> Office From (Office) </div>				
Words.	Day.	Hour.	Minute.	Official Instructions.

To (Person)	From (Person)
----------------	------------------

Full of tanks and
 had for railway if
 you wish we can
 take line from Rajahmundry
 to Samalkota Near Dowlaishocka
 any other alteration is
 in my opinion a
 decided mistake.

28/10/90
 R. with papers.

64 Word Form.

Recd. from	LN.	Sent to	LN.
At	Hrs.	Mts. by	At
Hrs.		Mts. by	Teleg

MADRAS 15-10-90

P.W. C de 9801

Rd. 15-10-90.

Special

P. W. DEPARTMENT.

11/10

Read the following:—

Telegram 7/10/90 from
East Coast railway asking for
the appointment of a deputy
Collector to take up land in
Najmundy D.

FOR ORDERS.

I refer to Telegram to East
Coast Railway in reply.

- " Your Telegram 7th alignment
through Najmundy district from
" Ellore to Samalotta not approved
" of. Orders under in use for a
" revised survey with stations in
" boats
" Canals so that ~~trains~~ ^{trains} can be
" ~~unloaded~~ ^{unloaded} direct into ~~boats~~ ^{trains}
" ~~Ellore~~ ^{Ellore} Blimadol, Chibrol ^{Shadipattinam}
" ~~Chibrol~~ ^{Chibrol} on Ellore Canal
" ^{about 4} ~~at~~ ^{miles} 8, 17 & 24 and
" At Samalotta on the Samalotta
" Canal. Show maps arrangements
" for revised survey at once in
" anticipation of ~~details~~ ^{details} of
" several detailed instructions "

The stations are at the places

to watch the work

Telegram dated 11-10-90

JH

11/10/90

10.10.90

Suitable -

Ch
10/10/90

FOR ORDERS.

P. W. DEPARTMENT.

Railway Branch.

Read the following:—

Note No. 137 J, dated 25th September 1890
from the Chief Engineer for Irrigation
on the alignment of the East Coast
Railway from Ellore to Chauracotta.

FOR ORDERS. Note by E. R.

1. I think it may be accepted that
Ellore, Rajmundry and Chauracotta
are obligatory points on the railway
and that any deviation from the
existing alignment must be
made between these points. (See
maps put up (1) Index plan and
section of the East Coast Railway
scale 1 mile = 1 inch and (2) (3) and (4)
plans of the Delta irrigation
canals scale 2 miles = 1 inch).
2. It must be borne in mind
that the East Coast Railway is
meant to be a famine protection
line, and it is therefore absolutely
necessary that the wagons of
the railway should be placed
in direct communication with

Am 9/10 R 1/10

the boats on the navigable canals in the most convenient way possible ^{for loading} without the intervention of carts and it is clear that what is convenient in time of pressure will in this case be also convenient and economical for the requirements of ordinary trade.

3. It is also certain that in time of famine the river will be extraordinarily low and the difficulties of navigation which are described as at all times "troublesome" will be greatly increased and it may be almost impossible to get large boats from the head works of the canal to the Railway at Rajmundry.

4. In time of famine there will also be scarcity of water for the canal and it may be found difficult to keep up an adequate supply in the Ellore canal for navigation purposes.

From the reasons given in Paras 2, 3 and 4 above I draw the ^{inferred} inference that at all places where the railway touches the canal the sidings should be

FOR ORDERS.

so arranged as to admit of direct loading from boats into waggons and that the proposed junctions of the East Coast Railway with the navigable canals of the delta at Ellore, Rajmundry and Samalcutta and Cocanada ^{are} not sufficient.

6. The amount of the ordinary traffic to be dealt with will be best understood from the fact recorded by the Irrigation Department that the lengths of navigable canals are

Eastern section 159 miles
Central section 119 "
Western section 212 "

and that approximately ^{293,000} ~~264,000~~ passengers and ^{375,000} ~~280,000~~ tons of goods ^{were} are carried over them. ^{in 1898-99}

7. With respect to the alignment between Ellore and Rajmundry. It appears from the index plans that the levels along the proposed alignment are as follows above mean sea level.

	ft.
Ellore station mile 37	45.00
Bheemadol station mile 49	57.00
Pruckaisrowpalew " 61	164.00
Kornamadee " 70	80.00
" mile 74	174.00

Brungabad station mile 84 — 62.00
It will thus be seen that proposed
Railway will rise 119 feet between
miles 37 and 61 with the fall 84
feet in 12 miles to rise again 94 feet
in the next 4 miles and fall again
112 feet in 10 miles to the Godavery
river whereas the canal runs with
a gradient of less than inches
in the mile between Ellora and
Rajmundry and if the railway
could exactly follow the canal
it might be made almost level.
So far as the plans show there should
be no difficulty in getting a satis-
factory line which would touch
the canal near Bheemadole
a mile 36 ^{26 again about mile} Bheemole mile 15 of the
Ellora canal from whence it
might run nearly direct to the
Rajmundry crossing or touch
the canal again at about mile
33 if considered essential. Such
a line would not I think be
more than 3 miles longer than
that set out but would be ap-
proximately level would be
in touch throughout with the
rich and populous lands of the
delta

would get into difficult
country here.
Proper place for station
Nidadol - a large market
on the banks of a navigable
stream close to main canal.
sidings might be along
the navigable stream
Jm

delta and the navigable canals
instead of passing through a
district from which very little
traffic can be expected.

8. The works on the proposed
alignment between Rajmundry
and Samalotta are very heavy
and the gradients are steep
and it appears from the plans
that a better alignment from
an engineering point of view
could be obtained for the railway
from Rajmundry to about mile 8
on the canal and running thence
close to the canal through a
level country to Samalotta.
Such an alignment would not
apparently increase the length
of the railway to any inconsiderable
extent and would certainly
carry it through a much richer
country where I am told easy
gradients could be obtained
with much lighter works.

9. Copies of the note by the Chief
Engineer for Irrigation and of
this note might be sent to the
Government of India for in-
formation and to Mr. Walker
who

Ans. a copy of our letter to Dublin
might go to Mr Walker for
information. As regards the
London & North Canal the line
the run from Richmond either
through Dublin or via 5th & 6th
miles of the Irish Canal water
direct to the latter point.

Lucy A. Coll. R.E.
 Conf. to the
 off. ~~Janet Dec. to Govt.~~
 P. H. A. Ry. Bk.

10
Class. } *L.S.* INDIAN  TELEGRAPHS. 03123 *4-10*
Monthly
Number. }

O
(No.) *Madras* From *Vizagapatnam*
(Office)

Words.	Day.	Hour.	Minute.	Official Instructions.
<i>31</i>	<i>7</i>	<i>19</i>	<i>10</i>	<i>Adm. Head at</i>

O
(Person) *Works Railway* From *En. C. E.*
(Person) *C Ky*

please arrange to place
another deputy collector
at disposal of collector
Madavay district for
acquiring land in Rajahmundry
division

<i>Recd. from</i> _____ <i>L.N.</i> _____		<i>Sent to</i> _____ <i>L.N.</i> _____		
<i>At</i> _____	<i>Hrs.</i> _____	<i>Mts. by</i> _____	<i>At</i> _____	
G. W. Allen & Co.—No. 109 T.—20 11-89—18,00,000				<i>Telegraph Master.</i>

MADRAS 8-10-90

For
Asst Chief Engineer for
Eng

Madras, 29 September 1890.

From G. J. Walch Esq
THE CHIEF ENGINEER FOR IRRIGATION,

To
THE Consulting Engineer
Railway Branch
Madras.

Enclosures.

SIR,

I have the honor to inform you
that the length of navigable canals
in each section of the Godavari Delta
is as follows:-

Eastern Section	189 miles
Central "	119 "
Western "	212 "
Total	490

I have the honor to be

Sir

Your most obedient servant

G. J. Walch

Chief Engineer for
Irrigation

PW C. No. 9545

Oct 8-10-90

No. 1323 S of 5.9.90

No. 1403-4 R of 19.9.90

Please put up in return

9/10

See Memoirs - Papers for 1890-91

9/10

10/10

Send to the latter point.

18



From

THE CHIEF ENGINEER FOR IRRIGATION,

To

THE

Cany Engineer for Irr.

No. 304-4

Dated 24.9.90

Despatched

Received 6. October 1890

ENCLOSURES.

Subject.

Growing the length of the
canals in each section
of the Godavari Delta

T-14.

INDIAN TELEGRAPH.				Monthly Local No. 23
Class. 103	To Station			From Station
11/2			Day. 1	Hour. 70
			Minute. 20	Official Instruction. 200 Read at morning
To (Person) C. En			From (Person) C. En	

1 Just returned to wait for
2 your telegram 21 February
3 about line of railway not
4 understood what do you mean
5 by a direct line from
6 Rajahmundry via Secunderabad
7 to Samulcottah

8

9

10

11

12

13

14

RECD. FROM			L. N.			SENT TO			L. N.		
At	Hrs.	Mts. By	At	Hrs.	Mts. By	At	Hrs.	Mts. By	At	Hrs.	Mts. By
Date						Postmaster.					



18

REGISTERED

No. 22

FILE

RATES OF CHARGE FOR INLAND TELEGRAMS.

The address (including name of Sender, and name and residence of Addressee)
is transmitted free.

	First 8 words.	Each additional word.	A group of 3. or less figures, is reckoned as one word.
Deferred Message	... 8 Annas.	... 1 Anna.	
Ordinary "	... 1 Rupee	... 2 Annas.	
Urgent "	... 2 Rupees	... 4 Annas.	

No charge for delivery within a distance of 5 Miles.

Rd 3-3-90.

TELEGRAM ^{URGENT}
~~ORDINARY~~
DEFERRED

FROM

To

E. R.

Government India that you
should fully consider the
compensation merits of a
line from Rangoon
to be made to be established
a line as well as that
the line affected in the
a commensurate. Having regard
to cost of future working and
commence to build.

C/11

Report by P. H. Smith 21.2.90
Telegram dated 21-2-90

REGISTERED
No 23



TELEGRAM
URGENT
ORDINARY
DEFERRED

FROM

E. R.

To E. C. S. Wattair

Your telegram 1st -
Recommence suggests ~~line~~
line Rejokm and Semuloh
Tuni to Canada by West
Alternative line now suggested
is Rejokm and to Canada
West and thence to Little
Semuloh & Tuni - thus
putting Canada on main line

C.S.S.

3/3/90

Telegram despatched 3-3-90

R
3/3/90

No 137d

Note by the Chief Engineer for Irrigation

-2-

Colonel Gracey has been good enough to show me the Index Map of the alignment proposed for the East Coast Railway and from it I see that it is not intended to touch the Godavari system of Canals anywhere except at its extreme Western end (Ellore) and its extreme Eastern end (Samulcottla).

2. When the general question of the line was being considered before the surveys were commenced, I strongly urged on the notice of Col. C. J. Smith, the great advisability of putting the Railway in direct communication with the Godavari western Delta system of navigable Canals (212 miles in length) near the Eastern end of the Ellore Canal, where the Canals

where

where the Canals which fan out over the delta leave the main line; all the Canal traffic of the whole Western delta goes from, and comes to, the Ellore Canal at 6 miles and 10 miles from its head at Viseswararam and it surely out of all reason that in order to get to the Railway it should have to go on from 34 to 37 miles nearly parallel to the Railway and at but a short distance from it, or be compelled to go into, and for some miles along, the River which is often troublesome and sometimes impossible navigation for Canal boats.

3. The line as laid out between Ellore and the Godavari seems to have the sole merit of straightness, it goes through a country of no great richness, past no town or large villages, it leaves untouched the delta with its teeming prosperity and it seems to purposely avoid the splendid system

Gostanaddi
Velpur
Bank &
Narsapur
Canals

Venkiah &
Weyeru -
Akeed and
Mudi Canals

of Canals ready to become Railway feeders, if the Railway will but let them do so at some fairly convenient place or places.

4. The best place as regards the Canal traffic, at which the communication between the railway and the Canals could be established is Pethipett 6 miles from the head of the delta, but to take the main line, there would probably entail, some though not great, difficulties and I therefore advocated and still advocate (even if a branch should be made to Pethipett) that the main line should touch the Ellore Canal somewhere near Tadipillygudem (17 miles down the Ellore Canal) to which place it might be taken with but slight deviation from a straight course, with no great increase of length, and without encountering a single difficulty.

5. At that place (Tadipillygudem) one of the chief roads from the delta

delta crosses the Canal and the largest grain market of 'Pestapad' the district lies only two miles or so away along that road, whilst boats coming from, or going to, the heart of the delta would in the case of those using the Venkiah & Weyern Akid and Uudi Canals have only 20 miles further, and in the case of those using the Gostanaddi and Velpur, Bank and Narsapur Canals have 11 miles further of good navigation to proceed along, than would be the case were they to meet the railway at the point at which they had to meet the railway.

6. As regards the Eastern Division of the delta, the alignment of the railway would be much better, from the point of view of convenience to traffic, were it to touch the Canals somewhere between Daulaish-

weram and 5 miles down instead of doing so only at some 30 miles down the Samulcottah. The Canals which intersect the delta fan out from about 4 miles down from Daulaishweram.

Canal, and I do not think the extra cost of taking the line as suggested would be great, at all events would not be incommensurate with the advantages gained.

7. Of course in all cases in which the railway is supposed to touch the Canals, it is absolutely necessary that it should really do so and not be $\frac{1}{4}$ or $\frac{1}{2}$ a mile away or any distance which would necessitate the use of carts to effect the interchange of traffic.

Camp
Cuddapah
25 Sept 1890

C. S. Swale

Chief Engineer for Irrigation

340

Madras, *8th November* 1890.

*Letter from the Engineer-in-Chief, East
Coast Railway No. C2 dated 30th October 1890*

No. *784*

SUBMITTED

*For the orders of*Government *to**Reference to P.W. & Indorsement**No. 4211 C dated 16th Oct 1890.**Sd/-**Major R.E.**For offg. Genl. & Engr. J. J. J.*

Subject.

From

The Engineer-in-Chief

East Coast Railway

The Consulting Engineer

for Railways, Madras

Dated Camp Madras 30 October 1890

Sir,

I have the honor to acknowledge the receipt of your No 2336 of 18th instant with a note by the Chief Engineer for irrigation.

On receipt of your telegram on the subject I made immediate arrangements for the surveys and alignment ordered by Government.

It appears from the note of the Chief Engineer for Irrigation that in his opinion the Railway does not touch the canal in a sufficient number of places, and I gather that he impressed his views on Colonel Smith when the idea of the line was first started.

On my receiving orders for the final Survey of this line Colonel Smith gave me the maps of the country with the line marked on in red that he and his colleagues approved of; these officers went over the country selecting the line, and so carefully did they do so that

that in Colonel Smith's notes which he gave me, the name of every town and village of any importance which it was desirable to go by, is noted.

5 This line goes practically straight from Bezvada to Ellore; he states that a good station ground can be got near the parade ground there, and that we should have a siding from it to the canal below the lock.

6 He notes the desirability of getting a good crossing of the Rudimer, as that river floods the entire country on both sides, and then keeps on the higher and harder ground from the river to Ellore rather than the lower and softer ground near the canal. Colonel Smith thought, and so do I, that the country between Bezvada and Ellore would be well and sufficiently served by touching the canal at these two points. There is a suggestion now of following the canal bank from Bezvada to Ellore, instead of keeping on the higher ground out of the flood influence of the Rudimer. An examination of the index map will show, that it would be most dangerous and unadvisable, from an engineering point of view, to place ourselves between the Rudimer and the canal for the first 10 (canal) miles from Bezvada, and we know, from the floods to which this river is subject, that the farther north we keep from its banks the better,

that, all things being taken into consideration I am of opinion that, any departure from the line as marked out in the direction of the canal for this length, will be a mistake, and lead us into permanent trouble.

7 It would no doubt be better for the village of Gunnavaram if the Railway touched it, instead of being one mile away, but it is far better for the railway both for construction purposes and maintenance, that it should be in the position marked.

8 Any one looking at the plan can see at once, that the same reasoning influenced us in keeping the line by Noozvid station so far north, and which obliged us, later on, to bend slightly south, in order to touch Ellore. A straight line could have been run from our station of Gunnavaram right into Ellore, which would have gone very near the canal at Secilly, but the ground passed over would have been very much worse for our purpose, than that over which we run. On this section I am of opinion that any change from the present alignment will be most unwise.

9 We now come to the section between Ellore and the Godavery. Colonel Smith says, "the Railway should leave the canal a mile or two beyond Goondegole, (say from Khemadole)"

and run as straight as practicable for Chagulloos." (near
 (Kodavur) The crossing among the tanks between
 "Shimadole and Koroor must be left for
 "future consideration after examination and
 "Survey; a fairly direct line seems practicable."
 No doubt when Colonel Smith wrote these
 directions he had his Walsh's views before
 him, but well knew that the tanks and
 the country in which they lay, were not
 desirable for a railway. We know what
 injury has been done, before now, by the bursting
 of tanks in Madras; and unless there were
 very strong reasons on the other side no
 Engineer of my experience would adopt
 the lower line.

10 It has been said that the upper or
 located one, does not serve the requirement
 of this delta, as it obliges many boats,
 loaded in the branch canals, to return as
 far as Ellore, in order to meet the Railway.
 In my opinion this is not the case.

11 The great mass of the canals are practically
 due south of the 10th mile of the canal, measured
 from the Godavery, and join the main channel
 between the 6th and 10th miles. If any produce
 intended (say) for Coconada, entering the
 main canal between these points, had to go
 back to Ellore in order to catch the Railway,
 no doubt, great inconvenience would be
 felt; but this is not the case. During all
 the

the fair months in the year, when the Godavery
 is not in flood, boats can go direct into
 that river and up 3 miles to our station
 at Aurungabad, and when the river is in
 high flood, it can leave the canal near
 the first mile, and go direct to the Chagulloos
 station 5 miles up the large river, which
 there crosses our line, and which at this
 time of year, has a much greater depth
 of water than is required for any canal
 boat.

11 This fact no doubt influenced Colonel
 Smith when he said "go as straight as
 possible from near Shimadole and avoid
 the large tanks which here cover the country."

12 Thus we see that the Railway is in perfect
 contact with the canal at Ellore, and can
 without difficulty be brought into immediate
 contact with it at Shimadole, while at
 Chagulloos and Aurungabad, we can at all
 seasons bring boats to the line.

13 It may be said that this pier by
 Chagulloos is not used for boating. Certainly
 not now, as it leads to no wharf in particular,
 but with a Railway station on it, it would
 soon become of great importance. At
 present it has no towing path, but would
 it

it not be better and cheaper to make one than 5 or 6 extra miles of railway?

14 It therefore becomes a question whether it is advisable or not to change 3.5 miles of Railway, having access to the canals at each end from good and sound ground where it can be cheaply maintained to a lower and wetter, and more costly level subject to danger, and lengthen the line by 5 or 6 miles in order to get a couple of extra stations on the canal, one of which would be little used. My opinion is that such a change is not desirable.

15 The section between Rajahmundry and Coconada is the next to be considered. Colonel Smith in his instructions is quite distinct when he writes "From Rajahmundry the line must go to Samulcotta, to shorten the branch to Coconada, and keep in touch with the canals." My own impression is that the balance of reasons in favor of a partially direct line from Rajahmundry to Coconada or one by Samulcotta are about equal; in the latter case we go over a far better country, we serve Samulcotta, an important place, well, and make things equal for Coconada; in

in the former case we traverse a soft wet country, abandon Samulcotta, and do not improve Coconada.

16 The gain, if any, being that the 30 miles of country passed through is richer and more populous on the lower than on the higher line.

17 So far as I know from conversation with Colonel Smith from whom I got my orders, and from his detailed notes carefully drawn up for my guidance, and from the lines laid down on the maps furnished to me, the above were his and Mr Molesworth's reasons for taking the upper and higher level line, touching the canal at intervals, rather than a low level, one along or near the canal bank.

18 I am bound to say that I agree with their views in the matter, but if Government think it more advisable to follow the canal more closely, I shall push the survey of the other line with all possible despatch.

19 The staff for the survey between Ellore and Coconada have already

8
got their orders for this work, and in
20 In an early part of this letter, I
stated my reasons for not thinking it
desirable to approach the canal bank
between Bezawada and Ellore, I now
request the favor of being informed
whether the line between these points, is
to be changed, and if so, to what
extent, also whether Government wishes
a new line to be surveyed from
Rajshumdry via Bowleswaram direct
to Coconada or from Bowleswaram to
Samuleotta.

I have the honor to be,
Sir,

Your most obedt. servant,

F. B. W. C. M. R.

Engineer-in-Chief
East Coast Ry.

REGISTER	
No	846
FILE	
No	

PW
Encl
10754/90

36

From

THE CONSULTING ENGINEER

FOR RAILWAYS.

MADRAS.

No.

784

Dated

8th

Received

November 1890.

No. of ENCLOSURES.

Subject.

In regard to the modified
alignment of the East Coast
Railway between Ellore
and Samuleotta ordered
by the Madras Government

A

No. 1744 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

11th Nov 90

38

Read the following

Telegram to the Engr. in
Chief East Coast Ry. } H.C. No. — of 21st Feb 90

Telegram from — do — of 1st March 90

Telegram to — do — of 3rd do —

Telegram from — do — of 7th Oct 90

Telegram to — do — of 11th do —

Telegram from — do — of 14th do —

Public Works Depto: Letter to Engr.
of India Govt. } — 4211 C of 16th do —

Telegram to the Engr.
in Ch. E.C. Ry. } — of 18th do —

Telegram from — do — of 18th do —

Telegram to — do — of 20th do —

Telegram to Collector of
Godavery } — of 23rd do —

Telegram to Collector
of Coconada } — of 24th do —

Letter from Collector
of Godavari } — of 28th do —

P.T.O

Telegram to Collector of } H.B. No. — at 30.6.1890
Gowari —

Endorsement from the }
Consulting Engineer for Ry } — No 784 at 8th Nov 90

Telegram to Engr. in Chief }
East Coast Ry Survey — } — at 8th do —

Communicated A No. 1474-75 R 11th Nov 90

to the Consulting Engineer
for Railways with reference

to his endorsement No. 784

dated 8th November 1890 for

Communication to E. in C. East Coast Ry

2. A copy of these Progs.

will be forwarded for the

information of the Govt. of

India. —

H.B. No 1475 R 11th Nov 90

Forwarded.

27/11/90

H.B. R

27/11/90
To The Consulting Engrs for Ry ✓
— Chief Engineer for Irrigation
— Revenue Dept.
— Collector of Madagasy
— Collector of Kistna