G.O. 1—31-10-52—2-11-52.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Con. G.O. 2-58

G.O. No. 1837 Press Mis.

26-3-58

Dated 6-3-58 19

Not to be folded or roughly handled

Read the following letters.

No. 36. From Major E. LAWFORD, Officiating Chief Engineer; to the Secretary to Government, dated 3rd August 1858, No. 2158.

SIR,

* No. 2351 dated 19th December 1857.
" 160 " 28th January 1858.
2 Original letters.
4 Abstract Estimates.
1 General Abstract Estimate.
2 Plans.

With reference to the orders of Government marginally* quoted I have the honor to submit three several Estimates of the expense of constructing a Rail or Tramway between the Madras Railway Terminus and the Custom House.

2. The first proposition for a work of this nature originated with Captain Rawlins who suggested the construction of a Railway between the Terminus and Custom House by the fourth line North Beach, but when the survey was made by Mr. Kennedy it appeared to me to offer such difficulties in the sharpness of its curves that I endeavoured to obtain a line on the seaward side of the Town along the front of the Rice godown's and other buildings and there is no doubt that if this could be accomplished it would be incomparably the best line. But the plan involves the purchase of the entire row of buildings fronting the sea and though I have not been able to arrive at any tolerably accurate knowledge of their probable cost, I am assured it will be so far beyond the average market rate that it is useless to think of it.

3. The cost of the Railway along this line would be 40,000 Rupees and perhaps (but I have no data to guide me) the purchase of ground would be 60,000 more, making the whole sum up to one Lac for the acquisition of an excellent Railway for goods and coals and ample space for general traffic.

4. This space I am of opinion cannot be obtained by any increase of the number or demensions of groynes as experience has shewn that no permanent beach can be formed in that part by such means and this remark may be considered as a reply to the order of Government quoted in the margin.

No. 160 dated 28th January 1858.

5. The cost of an advanced bulwark either of masonry and stone or of piles would probably amount to as much as the purchase of the buildings on the beach and it would have the effect of obstructing the safe landing of goods.

6. On the whole, I am of opinion that if an iron Railway be preferred, the line I have proposed including the purchase of the beach buildings is by far the best that would be selected.

7. It will be observed that the line passes between the Coal sheds belonging to Government and those of the P. and O. Company with sidings to enable both to make use of the rails for which the Company should make some payment.

8. The other plans now submitted are for Tramways of stone and wood, the latter with and without thin iron plates laid on them. Of these two, the stone tram is estimated at Rupees 21,850 and the wooden one at Rupees 21,150 and with iron plates Rupees 28,060. These were proposed by Lieutenant F. Moberly and are intended to run through the fourth line beach to the back of the Custom House.

9. I confess I do not anticipate much good from either of these plans, for if intended to be used by common carts they must be so by means of a single bullock as a pair cannot but walk on the trams, and this would wear their hoofs if stone were used, and would not be feasible with wood or iron.

10. It appears to me that the subject of this communication between the terminus and place of shipment is too important for any decision to be formed on a single opinion and although I am myself in favor of the most costly and most perfect work I am by no means prejudiced against others

11. I would therefore recommend that the question should be referred to Collector of Sea Customs the Commissioner of Police and the Chamber of Commerce who are well able to appreciate the importance of the proposed work and the relative value of the different modes of execution, which must depend in great measure on the nature and amount of the Traffic of which I am not accurately informed.

12. With respect to the Estimates, I am not so certain of their accuracy as in more ordinary cases but adding 10 per cent to each for contingencies, I am disposed to place confidence in them as considerable care was taken in their preparation.

Letter from Mr. R. KENNEDY, Executive Engineer 3rd Class ; to Major, E. LAWFORD in charge of Central Circle, dated Adyar, 25th May 1858, No. 10.

SIR,

I have the honor to acknowledge receipt of resolution in Extract from the Proceedings of the Chief Engineer No. 450 of 20th Instant, requesting me to submit a Report on the proposed Tramway.

2. Looking upon this as a matured scheme, after full consideration of Captain Rawlins' proposals, by the Central office, and acting under your own authority and personal directions and consequently having the benefit of the best knowledge and experience to work by, it certainly did not strike me as at all necessary to submit a Report along with the estimates and plans. Believing however that there are objections to the laying down of the Tramway as indicated in the plan, I gladly seize the opportunity to remark upon them, trusting to your indulgence if I have misapprehended the purport of your request.

3. There are two points to be considered in such a scheme, First, the necessity of providing greater accommodation for the beach and Railway Traffic, and Second, is the means proposed the best that can be adopted to secure the desired end ?

4. Of the first there can be no question, as the evidence on every hand is overwhelming.

5. On the second point there may be diversity of opinion, and mine may be little worth but I incline to think that if the Tramway is carried along the beach road, it will rather make matters worse than mend them.

6. The unceasing press, and crush, and accumulation, of goods and people, between the P. and O. Co's. office and Clive's Battery, proves the great need of extended accommodation for an ever extending traffic, at present the Roadway there is much too narrow, and if the Tramway is laid on it, the portion left for general traffic will be narrow still. In such a crowded thoroughfare, the rail would require to be fenced to prevent accidents and if fenced the space in front of the grain godowns, where now bandies are continually loading and discharging, would be occupied, and no other place would be available for them. Nor does it seem that these bandies would be less necessary with the rail than without it.

7. Farther back between the Custom House and the Railway ground, there is no open continuous street, and the Tramway could only be laid down in that quarter by the destruction of warehousing space ; of which there is already apparently too little.

8. It therefore seems necessary to consider whether additional space cannot be created on the beach itself.

9. There may be political reasons for preserving what still remains of Clives' Battery, but were there not, the clearing away of the whole of it would entirely change the aspect of affairs in its vicinity, and give ample space and accommodation, where now all is cramped and confined. Shed room for the storage of coals might also be appropriated on its site if necessary, and still leave additional room available for general public purposes, and as Clives' Battery extends farther seaward than the beach line, means might be used to reclaim permanently from the sea, a good width of beach extending from it to near the Custom House, to make the improvement complete it would be requisite in addition to cut off the projecting portions of the Peninsular and Oriental Company's and Messrs. Dymes, Offices, which are at present most unsightly and inconvenient.

10. Having regard to the further development of traffic per the Madras Railway and the sea, and the great improvement that might be affected in connection therewith at that portion of the Port, unless again political reasons preclude it, I would sweep away what remains of the

bastions and Ramparts between Clives' Battery westward to the road leading into the Madras Railway station where upon the plan the Tramway ends at.

11. With the materials from these works, I would fill up the hollow sandy ground lying between them and the Railway compound wall, thereby making available for commercial and Public purposes, a large area of space where it is most needed, easing the already over-crowded North-East angle of the Town, extending its boundaries, improving its salubrity and adding to its appearance.

12. With these improvements executed it might probably be found that no Tramway would be needed, but in present circumstances if the formation of one is determined on, my idea of it is that it should be carried away from other thoroughfares that a new path for it should be formed by piercing with Tunnels all buildings in the line and isolating it entirely from contact with other traffic.

13. In speaking of reclaiming the beach, I take it for granted it can be done without fear of failure by means of groins, which is I believe your own opinion as well as that of other eminent authorities.

14. I have given expression to my views thus freely, fully alive to the importance of the subject, and knowing at the same time that if erroneous, they will be only valued for what they are worth by your experienced judgment.

Letter from Lieutenant F. J. MOBERLY, Civil Architect, P. D.; to Colonel C. E. FABER, Chief Engineer, dated 16th July 1858, No. 357.

SIR,

1. I have the honor to return the plan and report forwarded by you, for "a Tramway to connect the Railway Terminus and Government Coal Sheds with the Custom House," and to enclose in addition, estimates for a granite paved way and a wooden way, on another line marked in orange on the Map.

2. The former of the two, I think will be preferable, because the hardness of the material ; and its safety from distruction will require less attention for maintenance and repair, whereas even kyanized wood is, I believe, open to injury from being buried in the ground ; as this must be, and is also liable to be shaken and displaced, and will require constant looking after.

3. The plan and estimate made by Mr. Kennedy is for a Railway, and along the most crowded thoroughfare in Madras, which it would necessarily diminish as common carts could not proceed along or across it ; as to prevent risk from accident, he considered it necessary to raise a fence. There is also the expense of house frontage on the most eligible spots.

4. For this reason originally, I took up the view of a paved way on the same level, as the original road which would be no bar to the traffic ; but would be useful for any common bandies that might be going the same way, and afterward turned my attention to the advantages of a line behind the main thoroughfare.

5. I do not think it is necesssary to make any large and sweeping curves, the traffic will be but a slow one, and on this line there will be required only 2 godowns instead of the offices of 2 Firms and various small godowns.

6. Mr. Supervisor Eaton suggested that from its want of elasticity, granite caused a jarring to the shoulders of the draught animal and proposed a wooden way, for which I have accordingly forwarded an estimate leaving it to your decision.

7. I have not been able to find any data from which to compare the efficiency of wooden or granite Tramways ; but I believe that the wooden pavement has been all taken up again in the crowded thoroughfares in London.

8. Referring however to Parnell on roads, page 112, I find that Mr. Walker an eminent Engineer in 1819 "after experimenting on the commercial road from London to the

"Docks, considered that 2 horses on a granite road could do as much or more work than 3 "horses on a gravelled road" and at page 113 "with an annual traffic of 2,50,000 tons in 13 "years the paving had not cost 20 pounds in repairs."

9. The friction is calculated at 12½lbs. per ton page 107. I do not propose to make so heavy a substructure as that of the commercial road, we have not the same means of draught.

10. But I believe it will be very long before any material repair will be required to such masses of masonry as these blocks 5 to 6 feet long 12″ wide and 6″ thick laid on 12″ of beaten laterite and surrounded by 6″ of broken stone and gravel.

11. With the idea that one bullock or horse may be used, I have preferred a double line to a complete pavement so that the draught animal can walk on the gravelled way between.

12. I have included the item for clearing away ramparts and bastions, because I believe it will be a general improvement to the site of much traffic; and the cost will be nearly covered by the value of materials and the rent of land around for building purpose.

13. I have also made an estimate for a branch line to the beach at Clive's Battery and into the Custom House that any goods which are to be entered may pass into the main building; while the main traffic which will be embarked after examination will be carried to the front on the beach.

No. 37. From Major E. LAWFORD, Officiating Chief Engineer; to the Secretary to Government, dated 12th August 1858, No. 2744.

SIR,

In my letter of the 3rd Instant, No. 2458, I have incidentally noticed the subject referred for the Chief Engineer's consideration, in Extract Minutes of Consultation No. 1413, dated 3rd October 1857, in the Public Department, and I now proceed to state more distinctly my opinion that, the proper and fixed limit of the beach road is DeHavilland's Bulwark, which extends up to Clive's Battery, and that I do not consider it possible by means of groynes, to secure any permanent increase of space, while any addition to the number of those works will be dangerous to boats.

2. An advanced bulwark either of stones or piles would be exceedingly costly, and must at certain seasons prevent the beaching of boats along that part.

3. I am therefore of opinion that, no practicable means of increasing the width of road along the North Beach exists, except by the purchase and removal of the front row of buildings, from the Steam Office to Clive's Battery.

No. 38. ORDER THEREON, No. 1854; dated 9th September 1858.

With his Proceedings of the 8th December 1857, the Chief Engineer submitted an estimate for constructing a Tramway along the Second Line Beach, to connect the Custom House with the Railway Terminus, and thus to draw off a portion of the large Traffic from the first or main line beach. Captain Rawlins, the Garrison Engineer, who originated the project, roughly estimated its cost at 31,000 Rupees; and the Chief Engineer, adding 4,000 Rupees to the estimate, recommended its insertion in the Budget of 1858-59. For the reasons stated however in Extract from the Minutes of Consultation of the 19th December 1857, No. 2351, the estimate was returned to the Chief Engineer, who was requested to re-submit it for the Budget of 1859-60, in a complete state, with return, of Traffic, after communication with the Municipal and Railway Officers. On the 21st December 1857, the Chief Engineer submitted a Memorandum from Captain Rawlins, in which he suggested a Plan for affording further facilities to the Traffic between the Custom House and the Railway Terminus, including, among the measures proposed, the Tramway which he had previously recommended. Captain Rawlins' plan was approved in Extract from the Minutes of Consultation of the 28th January 1858, and estimates for carrying it into execution were ordered to be prepared for entry in the Budget of 1859-60. The first letter from the Officiating Chief Engineer, above recorded, relates to the Tramway; the second is submitted with reference to the recommendation* of the Municipal Commissioners, that measures might be adopted for arresting the further encroachments of the Sea on the North beach road, between the Custom House and Clives' Battery and conveys the opinion of the Officiating Chief Engineer that no practicable means exist for increasing the width of the road referred to, except by the purchase and removal of the front row of buildings between the Peninsular and Oriental Company's Office and Clive's Battery.

* Communicated with Extract Minutes Consultation in the Public Department dated 3rd October 1857, and referred to the Chief Engineer by an order in this Department dated 12th Idem.

2. With regard to the proposed Rail or Tramway, to connect the Custom House with the Railway Terminus, the Officiating Chief Engineer submits the following estimates, after deducting Rupees 6,320 sanctioned on the 13th February 1858, for a Railway to the Government Coal sheds, and adding ten per cent. for contingencies.

	Rs.
Railway with Iron Rails and Teakwood Sleepers	37,040
Tramway of granite	17,080
Do. of wood	16,310
Do. of wood and Iron	23,910

3. The Railway is to connect the Terminus and the Government and Peninsular and Oriental Company's Coal Sheds with the Custom House, passing through the first or main line beach; the Tramway is to connect the same places, passing however through the fourth line beach. The Officiating Chief Engineer is not in favor of a Tramway through the latter line, on account of the difficulties which it offers in the sharpness of its curves; and he does not advocate the construction of one, of either stone or wood, for the reasons which he assigns in para. 9, of his letter of the 3rd August 1858. He is of opinion that a Railway on the first line beach would incomparably be the better line; and adding to the estimate Rupees 60,000, the supposed value of the buildings fronting the Sea, proposed to be purchased and removed, he calculates the entire cost of the Railway at a lac of Rupees. Major Lawford suggests that, as the line passes between the Government Coal Sheds and those of the Peninsular and Oriental Company, with sidings to enable both to make use of the rails, that Company should make some payment for the accommodation which it will derive by the arrangement.

4. While thus giving his own opinion as to the best plan of providing facilities for the traffic between the Terminus and place of shipment, Major Lawford states that he is by no means prejudiced against the plans recommended by others with the same object; and adverting to the importance of the subject, he advises that the question should be referred to the Collector of Sea Customs, the Commissioner of Police and the Chamber of Commerce, in view to an opinion being obtained on the relative value of the different modes of execution, with reference to the nature and traffic on the line.

5. The Government are of opinion that the communication between the Custom House and Clive's Battery certainly requires improvement. It was originally* supposed by Major Lawford, that an advanced bulwark of Piles would be sufficient to protect the enlarged roadway required for the heavy traffic along the beach, and an estimate had actually been prepared for the purpose by Captain Rawlins. But on further consideration, Major Lawford entirely agreed with Captain Rawlins that the Piles would endanger the landing place; and in this opinion the Commandant of Engineers and the Chief Engineer also concurred. In his letter of the 12th August, Major Lawford distinctly states that the requisite space cannot be permanently secured by means of the existing groins, and that any addition to their number will be dangerous to boats. Thus the only plans by which the object in view

* Report dated 13th November, and submitted by the Chief Engineer with his Proceedings dated 3rd December, and recorded in Consultation of the 23rd December 1857.

can apparently be attained are those alluded to in the present letters. A Tramway along the fourth line beach appears to Government the most desirable of these plans, as a Railway along the first line beach might it is apprehended to a great extent impede the crowded passenger transit necessarily created by shipping requirements. Before however expressing any decided opinion the Government resolve to refer the projects for the report of a Committee, composed of the following Gentlemen:

Acting Collector of Sea Customs.

Colonel Boulderson, Chief Municipal Commissioner.

Colonel Silver, and Captain O'Connell.

The Chamber of Commerce will be requested to nominate one of their body as a member of the Committee, and the Agent and Manager of the Railway Company will likewise be asked to name a member.

From Chief Engr. 8th Decr. 1857, No 5798, with Enclosure.
Extract Min. Consultation 19th December 1857, No. 2351.
From Chief Engr. 21st Decr. 1857, No. 6101, with Enclosure.
Extract Minutes Consultation 28th January 1858, No. 160.
From Offg. Chief Engr. 3rd and 12th Aug. 1858, with Enclosure.

6. A copy of the correspondence noted in the margin will be furnished to the Committee, who will investigate and report on the several plans proposed for improving the communication between the Custom House and the Terminus, their advantages, and their probable cost and returns.

7. The Acting Collector of Sea Customs will communicate with the Agent of the Peninsular and Oriental Company, regarding the amount that he will be prepared to pay for the accommodation afforded by the passage of the Railway along the Company's Coal Sheds.

8. Ordered that a copy of the Officiating Chief Engineer's letter of the 12th August, with a transcript of these Proceedings, be communicated to the Public Department, with reference to an Extract from the Minutes of Consultation in that Department, dated 3rd October 1857, No. 1413.

(Signed) T. PYCROFT,
Chief Secretary.

1858

Central Office of Pw.
Fort Saint George
3 August 1858

From
The Officiating Chief Engineer
To
The Secretary to Government &c &c.
Sir

Marine

× No 2351 of 19th Decr 1857
" 160 " 28 January 1858

Enclosed
2 Orig Letters
1 Map
1 Plan
2 Estimates

With reference (to the orders of Government marginally quoted) I have the honor to submit three several Estimates of the expense of constructing a Rail or Tramway between the Madras Railway Terminus and the Custom House.

2 The first proposition for a work of this nature originated with Captain Rawlins who suggested the construction of a Railway between the Terminus and Custom House by the fourth line North Beach, but when the survey was made by Mr Kennedy it appeared to me to offer such difficulties in the sharpness of its curves that I endeavoured to obtain a line on the seaward side of the Town along the front of the pice godowns and other

other buildings and there is no doubt that if this could be accomplished it would be incomparably the best line. But the plan involves the purchase of the entire row of buildings (fronting) the sea and though I have not been able to arrive at any (tolerably) accurate knowledge of their probable cost, I am assured it will be so far beyond the average market rate that it is useless to think of it.

3 The cost of the Railway alone along this line would be 10.000 Rupees and perhaps (but I have no data to guide me) the purchase of ground would be 60,000 more making the whole sum up to one Lac for the acquisition of an excellent Railway for goods and coals and ample space for general traffic.

4 This space I am of opinion cannot be obtained by any increase of the number or dimensions of groynes as experience has shewn that no permanent beach can be formed in that part by such means and this remark may be

considered

No 160 dated 28th January 1858.

considered as a reply to the order of Govern-
ment quoted in the margin.

5 The cost of an advanced bul-
wark either of masonry and stone or of
piles would probably amount to as much
as the purchase of the buildings on the
beach and it would have the effect of
obstructing the safe landing of goods.

6 On the whole I am of opinion
that if an iron railway be preferred the
line I have proposed including the pur-
chase of the beach buildings is by far
the best that could be selected.

7 It will be observed that
the line passes between the Coal sheds be-
longing to Government and those of the
Bombay B. Company with sidings to enable
both to make use of the rails for which
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the stone trams is estimated at Rupees 21,850 and the wooden one at Rupees 21,150 and with iron plates Rupees 28,060. These were proposed by Lieutenant F. Moberly and are intended to run through the fourth line back to the back of the Custom House

9 I confess I do not anticipate much good from either of these plans, for if intended to be used by common carts they must be so by means of a single bullock as a pair cannot but walk on the trams, and this would wear their hoofs if stone were used, and would not be feasible with wood or iron.

10 It appears to me that the subject of this communication between the terminus and place of shipment is too important for any decision to be formed on a single opinion and although I am myself in favor of the most costly and most perfect work I am by no means prejudiced against others.

I would therefore recommend that the question should be referred to the Collector of Sea Customs the Commissioner of Police and the Chamber of Commerce who are well able to appreciate the importance of the proposed work and the relative value of the different modes of execution, which must depend in great measure on the nature and amount of the traffic of which I am not accurately informed.

12 With respect to the Estimates I am not so certain of their accuracy as in more ordinary cases but adding 10 per cent to each for contingencies I am disposed to place confidence in them as considerable care was taken in their preparation.

I have the honor to be
Sir
Your most obedient Servant
H. Conway Mayo
Officiating Chief Engineer

Central Office of Pro.
Fort Saint George
3 August 1858

Compd. P&S

Central Office of Public Works
Fort Saint George 12th August 1858.

№ 2744.

From

The Officiating Chief Engineer

To

The Secretary to Government
Public Works Department.

"Public"

Sir,

In my letter of the 3rd Instant № 2458, I have incidentally noticed the subject referred for the Chief Engineer's consideration, in Extract Minutes of Consultation № 1413 dated 3rd October 1857, in the Public Department, and I now proceed to state more distinctly my opinion that, the proper and fixed limit of the beach road is De Havilland's Bulwark, which extends up to Clives' Battery, and that I do not consider it possible by means of groynes, to secure any permanent increase of space, while any addition to the number of those works will be dangerous to boats.

2. An advanced bulwark either of stones

Cons: 23 Dec: 57 № 12 to 15 & 17
— 2 Feby 58 № — 52 & 53.

Read the Extract Minutes of Consultation noted in the Margin, and the Report of the Officiating Chief Engineer dated 12th August 1858 № 2744.

Ordered, that a Copy of the Report of the Officiating Chief Engineer be forwarded to the Board of Revenue for information and such remarks as they may think proper to offer.

To the Board of Revenue.

Dated 19 Aug: 1858.

Cons: 23 Dec: 1858 № 12 to 15 & 17
— 2 Feby 58 № — 52 & 53.

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To the Board of Revenue.

Dated 19 Aug: 1858.

stones or piles would be exceedingly costly, and must at certain seasons prevent the beaching of boats along that part.

3 I am therefore of opinion that, no practicable means of increasing the width of road along the North Beach exists, except by the purchase and removal of the front row of buildings, from the Steam Office to Clive's Battery.—

Central Office of C.E.
Fort Saint George
12 August 1858.

I have the honor to be
Sir,
Your Most Obedient Servant
Lawford Major
Officiating Chief Engineer

From the Offg Chief Engr Offg 3 Aug 58
Con 1743 in Cons

P. Works 1858 Dept
Dy to Cons 11th Sept
No 1824

From
The Offg Chief Engineer
&
The Secretary to Government
Public Works Dept

Dated 12th
Rec'd 13th } August 1858.

No 2744

Sir & No 1854 - 9th September 1858

States that no practicable means of increasing the width of road along the North Beach exists, except by the purchase and removal of the front row of buildings from the Steam Office to Clive's Battery.

Copy to the Offg Chief Engr
Secretary
9 Sept 58.

No 337.

Con 1st Aug 11th 1825

Lawson I would be how the Whole
Chamber of Commerce could be pitted
upon it. The Chamber might be
asked to name one of their body as
a member as they did in the case
of the Police. The Railway Company
might also be asked to name
one. Then with the Asst. Collector
the Customs. The Chief Municipal
Commissioner. The Port Officer
and any other person or persons
whom the Govt might appoint, empowering
investigate & report on the several
projects. Their advantages & disadvantages

cost & returns.

20/8/58

I think the first is the best plan
the tram way along the sea face — which
seems the best plan. I think the
rail along the front breakwater between
the crowded passenger traffic
necessarily reqd by shipping arrangements
to much
I would ask Col Colvin & Capt O'Connell
to join Committee

WM

Public Works Dept.

No. 1854

Extract from the Minutes of Consultation
Dept.
Under date the 9 ~~August~~ 1858.

Read the following
letters from the Officiating
Chief Engineer.

Here enter 3rd & 12th August 1858
Nos 21658/2744

Wilts Riv Pro-

ceedings of the 8th December
1857, the Chief Engineer
submitted an Estimate
for constructing a Tram-
way along the second
line beach to connect
the Custom House with
the Railway Terminus,
and thus to draw off
a portion of the large
traffic

traffic from the first or
main line beach. Captain
Rawlins, the Garrison
Engineer, who originated
the project, roughly esti-
-mated its cost at 3,000
Rupees; and the Chief
Engineer, adding 4000
Rupees to the estimate,
recommended its inser-
-tion in the Budget of
1858/59. For the reasons
stated however in Ex-
-tract from the Minutes
of Consultation of the
19th December 1857 N°2357,
the estimate was re-
-turned to the Chief En-
-gineer, who was re-
-quested to resubmit
it for the Budget of
1859/60, in a complete
state

state, with returns of
traffic, after communi-
-cation with the Mu-
-nicipal and Railway
Officers. On the 21st Decem-
-ber 1857, the Chief En-
-gineer submitted a
Memorandum from
Captain Rawlins, in
which he suggested
a plan for affording
further facilities to
the traffic between the
Custom House and the
Railway Terminus,
including, among the
measures proposed,
the Tramway which he
had previously recom-
-mended. Captain
Rawlins plan was
approved in Extract
from

from the Minutes of Consultation of the 28th January 1858, and estimates for carrying it into execution were ordered to be prepared for entry in the Budget of 1859/60. The first letter from the Officiating Chief Engineer, above recorded, relates to the Tramway; the second is submitted with reference to the recommendation of the Municipal Commissioners, that measures might be adopted for arresting the further encroachments of the sea on the north beach road, between the Custom House and Oliver Battery, and

Communicated with Govt minutes in the Pub. Dept dated 3d October 1857, and referred to the Chief Engineer by an order in this Dept dated 12th idem.

and conveys the opinion of the Officiating Chief Engineer that no practicable means exist for increasing the width of the road referred to, except by the purchase and removal of the front row of buildings between the Peninsular and Oriental Company's Office and Oliver's Battery.

2. With regard to the proposed Rail or Tramway, to connect the Custom House with the Railway Terminus, the Officiating Chief Engineer submits the following Estimates, after deducting Rupees 6,320

sanctioned

sanctioned on the 18th February
1858 for a railway to the
Government Coal Sheds,
and adding ten percent
for Contingencies.

	Rs
Railway with Iron Rails and Teakwood Sleepers	37,040
Tramway of granite	17,080
Do. of Wood	16,310
Do. of Wood & Iron	23,910

3. The Railway
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Oriental Company's Coal
Sheds with the Custom
House, passing through
the first or main line
beach; the Tramway
is to connect the same
places, passing however
through the fourth line
beach. The Officiating
Chief

Chief Engineer is not
in favor of the Tramway
through the latter line,
on account of the diffi-
-culties which it offers
in the sharpness of
its curves; and he
does not advocate the
construction of one, of
either stone or wood,
for the reasons which
he assigns in para 9
of his letter of the 3d
August 1858. He is of
opinion that a Rail-
-way on the first line
beach would incom-
-parably be the better
line; and adding to
the Estimate Rs 60,000,
the supposed value of
the buildings fronting
the sea, proposed to
be

be purchased and removed, he calculates the entire cost of the Railway at a lac of Rupees. Major Lawford suggests that, as the line passes between the Government Coal Sheds and those of the Peninsular and Oriental Company, with sidings to enable both to make use of the rails, that Company should make some payment for the accommodation which it will derive by the arrangement.

4 While thus giving his own opinion as to the best plan of providing facilities for the

the traffic between the Terminus and place of shipment, Major Lawford states that he is by no means prejudiced against the plans recommended by others with the same object; and advertising to the importance of the subject, he advises that the question should be referred to the Collector of Sea Customs, the Commissioner of Police and the Chamber of Commerce, in view to an opinion being obtained on the relative value of the different modes of execution,

with

with reference to the nature and amount of traffic on the line.

5. The Government are of opinion that the communication between the Custom House and Clues Battery, certainly requires improvement. It was originally supposed by Major Lawford, that an advanced bulwark of Piles would be sufficient to protect the enlarged roadway required for the heavy traffic along the beach, and an estimate had actually been prepared for the purpose by Captain Rawlins

* Report dated 13th Nov.r, & submitted by the Chief Engr with his proceedings dated 8th Dec.r, and recorded in Corr.e of the 23rd Dec.r 1857.

Rawlins. But on further consideration, Major Lawford entirely agreed with Captain Rawlins that the Piles would endanger the landing place, and in this opinion the Commandant of Engineers and the Chief Engineer also concurred. In his letter of the 12th August, Major Lawford distinctly states that the requisite space cannot be permanently secured by means of the existing groins, and that any addition to their number will be dangerous to boats. Thus the only plans by which the object in view can apparently be attained are those alluded to in the present letter. A tramway along the fourth line beach appears to Government the most desirable of these plans, as

as a railway along the first line beach ~~might~~ it is apprehended ~~would~~ to a great extent impede the crowded passenger transit necessarily created by shipping requirements. Before however expressing any decided opinion ~~finally deciding~~, the Government resolve to refer the projects for the report of a Committee, composed of the following Gentlemen

Actg Collr of Sea Customs
Colt Boulderson, Chief Municipal Comr
Colt Silver, and
Captn O'Connell

The Chamber of Commerce will be requested to nominate one of their body as a Member of the Committee; and the Agent and Manager of the Railway Company will likewise be asked to name a member.

6 ..... A copy of the ~~correspondence~~ noted in the margin will be furnished to

From Chief Engr 8th Decr 1857 N°5798 with Encls.
Coltt Comms. Cons. 19th Decr 1857, N° 2351.
From Chief Engr 21st Decr 1857, N° 610 with Encls.
Coltt Comms. Cons. 28th Jany 1858 N° 160.
From Offg Chief Engr 3rd/12th Augt 1858 with encls.

to the Committee, who will investigate and report on the several plans proposed for improving the communication between the Custom House and the Terminus, their advantages, and their probable cost and returns.

7 The acting Collector of Sea Customs will communicate with the Agent of the Peninsular and Oriental Company, regarding the amount that he will be prepared to pay for the accommodation ~~which~~ afforded by the passage of the railway along the Company's Coal sheds.

Ordered that a copy of the Officiating Chief Engineer's letter of the 12th August, with a transcript of

of these proceedings, be communicated to the Public Department, with reference to an Extract from the Minutes of Consultations in that Department dated 3d October 1857 No 1413:

To Copies to the Offg Chief Sy
Engr 10
1 — Ag Collr of Sea Customs
with the Correspd. &c in P.C. Abstract &pnl
viz. 3 Printed Papers — 5 Digl Estimates & 2 Plans
3 — Municipal Comrs for the Town of Madras
1 — Coll J Silver
1 — Capt. D.P. O'Connell
1 — Chamber of Comce
1 — Agent & Manager of the Railway Coe
5 — Pub. Dep. with letter of the 12th Augt
1 — Comr of Police

Rawlins. But on further consideration, Major Crawford entirely agreed with Captain Rawlins that the Piles would endanger the landing place; and in this opinion the Commandant of Engineers and the Chief Engineer also concurred. In his letter of the 12th August, Major Crawford distinctly states that the requisite space cannot be permanently secured by means of the existing groins, and that any additional to their number will

will be dangerous to locate. Thus the only plans by which the object in view can apparently be attained, are those alluded to in the present letters; and the Government, concurring with Major Rawford in the importance of the question under discussion, resolve to forward a Copy of the Correspondence noted in the margin, to the Acting Collector of Sea Customs, with the request that he will, in communication with the Chamber of Commerce, the Commissioner of Police, and the

From Chief Engr. 8. Dec. 1857 No 5798, with enc.
Ext. Minr Cons. 19. Dec. 57, No 2351
From Chief Engr. 21. Dec. 57 No 610 with enclosure
Ext. Minr Cons. 28. Jany 58 No 160
From O/C Chf Engr., S.V. 12. Augt 58 with enc.

and the Municipal and Railway Officers, submit a report on the relative value of the plans proposed, with reference to the nature and extent of traffic between the Terminus and the Custom House. The Acting Collector will also communicate with the Agent of the Peninsular and Oriental Company, regarding the amount that he will be prepared to pay for the accommodation which will be afforded by the passage of the railway along the Company's

Company's Coal Rds.

Ordered that a copy of the Officiating Chief Engineers letter of the 12th August, with a transcript of these proceedings, be communicated to the Public Department, with Reference to an Extract from the Minutes of Consultations in that Department dated 3rd October 1857. No 1453.

M. R. O.

Public Works 1858 Dep.t
Dft. to Com.s 14th Sept.r

No 1857

Extract from Jour.s of Com.s
Dft. 9th Sept.r 58.

From the Chamber of Commerce
of 17th Sept.r 58 & No 2157
with Com.s 5 Oct.

From the Committee appointed to
investigate the projects for improving
the Communication between the
Eastern Terminus of the Railway
& the Harbour of New York &c &c
Relative to the Railway Terminus
&c &c

The undersigned a Report of a
Committee composed of the
undersigned with instructions to
take such steps as might be
necessary for improving the Com-
munication between the
Custom House & the Railway
Terminus.

No 86 a 1838.