(1) பக்கங்களின் எண்ணிக்கை 48

(2) புதுக்கித் திருப்பிய நாள் 1|10|90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

(68)

தமிழ்நாடு அரசு

P. W. D. துறை

அரசாணை எண். / மு. கோப்புத் தாள் எண். 2861 அச்சகம் / பலவகை

நாள் : 28-10-1891 ~~198~~ .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

24 Sheets

ஆவண, கா-1—18,006—15-6-87.

2861/1

28th October 1891, No. 2861 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From J. C. LARMINIE, Esq., Executive Engineer, Coimbatore Division, to the Superintending Engineer, IV Circle, dated Coimbatore, 20th October 1891, No. 6238.

I have the honour to report that, consequent on the abnormal rainfall from the 9th to the 17th, the Coonoor ghât has suffered extensive and serious damages.

2. The worst damage is between Barliyár and the Kullar bridge.

3. Above Barliyár the road was completely blocked to traffic, but thanks to the energetic efforts of Conductor Bragg, the road was again clear to Barliyár by the evening of the 16th; so these minor damages call for no further notice.

4. On the evening of the 15th, when in camp 10 miles south of Pollάchi, I received a telegram from the Chief Engineer directing me to proceed to Kullar and take steps for restoration of the damaged bridge, and accordingly I inspected the locality yesterday (Sunday 18th).

5. I shall now report on the heavy damage between Kullar and Barliyár and the measures which should, I think, be adopted to restore the ruined bridges, and as the proposals will involve considerable expense and will take several months to carry out, very early orders and an allotment of funds are requested.

6. Commencing with Kullar bridge—this consisted of three spans of 30 feet with heavy brick abutments and piers 6 feet thick. The right abutment and pier and bridge platform alone remain intact.

7. There can be no doubt that the other pier and roadway over the two left spans were swept away, owing to huge trees having been jammed across the front of the bridge, heading up the water (the trees can still be seen below the bridge and one is actually across the remaining pier and caused much scour along the right abutment). This heading up of the water sent it over the left approach and down the Odenthorai channel and over the Mettupálaiyam road. At a little way from the L abutment the approach road was not very high and the result was that the river breached through here, opening out an entirely new channel for itself some 80 feet wide to left of the left abutment which latter has been undermined and has toppled backwards and sunk; very probably its foundation had been undermined before its flank was turned.

8. The sit towards the left side of the river was still further increased by the high bed of rocky boulders above the bridge and towards the right, and the result is that now the whole flow of the river is through this new channel on the left of the ruined left abutment, and the total width of the river at this point will, in consequence, be about 200 feet.

9. The banks are low and ill-defined, the bed is composed of boulders from 6 inches to 2½ feet cube, so that altogether the site is about as unfavorable as it can be for the construction of a bridge.

10. From the foregoing it will be pretty clear that the destruction of the bridge is chiefly, if not entirely, due to the smallness of the openings (30 feet); with one bay of 90 feet there probably would have been no damage. So this principle should be kept well in view in deciding on the restoration.

11. I have little doubt that 90 feet of opening (if not less) will suffice, but if this be placed at the present site, retaining the remaining abutment or even using the remaining pier as such, embankments projecting into the river and heavy training walls will be required.

12. For other reasons (para. 8 *supra*) the site is a bad one, and I would therefore advocate the construction of the new bridge about quarter of a mile further up the stream here; there is a very rapid fall over rock and the whole of the left side of the river is a steep mass of rock which has stood the rush of the stream for ages and which of itself would almost suffice for a left abutment.

13. Owing to the drop in the river at this point, I believe a single span of about 70 or 80 feet will suffice, but owing to the flood in the river, I could not take measurements.

14. Regarding the style of truss to be adopted, I don't think anything can be devised better in appearance or more economical than the Whipple-Murphy truss just supplied by Messrs. Richardson and Cruddas for Farewell's bridge. The cost delivered at Mettupálaiyam for a 65-foot clear span was Rs. 5,950.

	RS.
The cost for an 80-foot span would be about	9,000
Abutments say	6,000
Diversion of road and land compensation	6,000
Total ...	21,000

This is for a bridge of 13½ feet width of roadway; but it seems to me that much money might be saved all over the country if these short bridges were designed for a width of roadway sufficient only for a single line of traffic (say 9 feet). As roads go, the Coonoor ghât carries a heavy wheeled traffic, but I cannot recollect ever passing vehicles on any of the bridges (I have been up and down many times).

15. In the instance under consideration a narrow bridge would be supplemented by the road dam which must be constructed at once at site of the ruined bridge, and this would really take all the traffic except during those rare and exceptional periods when the river is in flood.

16. *Other damages* between the foot of the ghât and Barliyár—four of the smaller bridges have been washed away; their abutments were formed chiefly of dry stone. To restore them will probably cost Rs. 8,000. This length of road is also much blocked by landslips, boulders, &c., but that this section is effectually closed to traffic for some time will presently appear.

17. A little below Barliyár and above the junction of the old ghât with the new is a serious breach about 150 feet wide and 50 feet below road level caused by scour down the road of the excess of flood water in the Barliyár river as also by wash down the steep vertical face over the road. A moderate estimate to repair this damage will be Rs. 5,000.

18. *Barliyár bridge.*—This has been swept clean way (it was also much damaged four years ago) under circumstances exactly similar to those at Kullar bridge aided by the lowness of the abutments over which the river rose.

19. The absolute necessity for the early replacement of the bridge by a single span of 70 feet is even more urgent than at Kullar, for the Barliyár stream is down such a steep rocky gorge that it is very doubtful if any kind of a satisfactory road dam can be formed. Efforts will be made to do so, but the reconstruction of the bridge is of pressing necessity.

20. To enable me to make early arrangements in this direction, I would ask for orders on the following points:—

First.—Funds.

Second.—Is the principle of single wide openings approved of? (the Railway Engineers have already recognized their necessity).

Third.—Can arrangements be made and estimates obtained from Messrs. Richardson and Cruddas for light Whipple-Murphy trusses similar to those supplied by them for Farewell's bridge on the Coonoor ghât.

Fourth.—Is the principle proposed in para. 14 with a view to considerable reduction in cost of bridges of a width of roadway of 9 feet approved?

21. Rains still continue and the Kullar river can only be crossed in basket boats; as soon as possible more definite conclusions as to the exact spans required for Kullar and Barliyár bridges will be formed.

22. A summary of the probable cost of restoring the ghât will be as under:—

	RS.
New Kullar bridge	21,000
Four minor bridges	8,000
Breach in the ghât below Barliyár	5,000
New Barliyár bridge	18,000
Minor damages, clearance of slips, &c.	2,000
Total ...	54,000

of which Rs. 30,000 would be required in this * year.

23. In conclusion, I would observe that, in the interests of economy, it will be better to restore the bridges in a thoroughly efficient and substantial manner than by any temporary makeshift patchwork arrangements.

---

* If iron work can be made up and paid for before 31st March 1892.

Copy forwarded to the Chief Engineer, Public Works Department, to save time, the Superintending Engineer being on tour.

20th October 1891.

(Signed) J. C. LARMINIE,
Executive Engineer.

From the Superintending Engineer, IV Circle, dated 21st October 1891, No. 554 W.

ORDER—dated 28th October 1891, No. 2861 W., Public Works.

His Excellency the Governor in Council has learnt with regret that the damage done to the Coonoor ghât and the road below by the recent floods has been so considerable.

2. The Executive Engineer, Coimbatore Division, has already been directed to take charge of the work of restoring communication even within Local Fund limits, and this arrangement will continue till this main line of communication has been placed in a thoroughly efficient condition, the cost of the work being met from Provincial Public Works Funds. The Superintending Engineer will accordingly apply for an allotment of such sum as may be required, and will meanwhile see that efforts to render the road practicable for wheeled traffic are not relaxed.

3. The Executive Engineer's suggestion to adopt a single wide opening for the new bridges seems the best, and will be adopted. The attention of the Consulting Engineer for Railways is called to this suggestion which should be kept in view in the designs for the new railway bridges. After the experience now gained it would, in

the opinion of His Excellency the Governor in Council, be most inexpedient to adopt any other plan than that now recommended for the road bridges.

4. Estimates for Whipple-Murphy bridges with 9 feet roadways, not 13½ feet as previously intimated, will be at once called for by the Executive Engineer from Messrs. Richardson and Cruddas, and on receipt and approval of these, the bridges themselves should be ordered to be made up by the firm if they will undertake to deliver them appreciably earlier than they could be obtained from home. This must be regarded as an essential condition of the contract.

5. It is understood that the Chief Engineer is about to visit the Coonoor ghât. The question of the new site proposed for the Kullar bridge will then receive his attention.

(True Extract.)

Major, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle.
" ~~Chief Engineer, Public Works Depar~~tment.
" Consulting Engineer for Railways.
" Examiner, Public Works Accounts.
" Local and Municipal Department.

Exd. A. Aubert.
Spare Copies

2861/3

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1891} Madras.
PUBLIC WORKS.

Dated October, 28th.

Recd. *Encl.*

G.O., 28th Oct. 1891, No. 2861 W.

OCTOBER.

Damage to the Coonoor Ghat and the road below

Orders regarding arrangements made for restoring communication, &c., on account of the recent —.

No. 6238 2861/4

Executive Engineer's Office,
Coimbatore Division,
Coimbatore, 20th October 1891.

FROM,

J. C. Larminie Esq
EXECUTIVE ENGINEER,
COIMBATORE DIVISION,

TO,

THE SUPERINTENDING ENGINEER,
FOURTH CIRCLE, COIMBATORE.

SIR,

Enclosures.

I have the honor to report that consequent on the abnormal rainfall from the 9th to the 17th, the Coonoor Ghat has suffered extensive and serious damages.

2 The worst damage is between Burliar and the Kullar bridge.

3 Above Burliar the road was completely blocked to traffic but thanks to the energetic efforts of Conductor Bragg, the road was again clear to Burliar, by the evening of the 16th.

So, these minor damages call for no further notice

4 On the evening of the 15th when in camp 10 miles south of Pollachi, I received a telegram from the Chief Engineer directing me to proceed to Kullar and take steps for restoration of the damaged Bridge and accordingly I inspected the locality yesterday (Sunday 18th).

5 I shall now report on the heavy damage between Kullar and Burliar and the measures which should, I think, be adopted to restore the ruined bridges and as the proposals will involve considerable expense and will take several months to carry out, very early orders and an allotment of funds are requested.

6 Commencing with Kullar Bridge — This consisted of

of three spans of 30 feet with heavy brick abutments and piers six feet thick. The right abutment and pier and bridge platform alone remain intact.

2861/5

7 There can be no doubt that the other pier and roadway over the two left spans were swept away, owing to huge trees having been jammed across the front of the bridge, heading up the water, (the trees can still be seen below the bridge and one is actually across the remaining pier and caused much scour along the right abutment). This heading up of the water sent it over the left approach and down the Odenthorai channel and over the Mettupalayam road. At a little way from the abutment the approach road was not very high and the result

was that, the river breached through here opening out an entirely new channel for itself some 80 feet wide, to left of the Left abutment which latter has been undermined and has toppled backwards and sunk very probably its foundation had been undermined before its flank was turned.

8 The sit towards the Left side of the river, was still further increased by the high bed of rocky boulders above the bridge and towards the Right, and the result is, that now the whole flow of the river is through this new channel on the Left of the ruined Left abutment, and the total width of the river at this point will in consequence be about 200 feet.

9 The banks are low

and

288/6

and ill defined, the bed is composed of boulders from 6 inches to 2½ feet cube, so that altogether the site is about as unfavorable as it can be, for the construction of a bridge.

10 From the foregoing it will be pretty clear that the destruction of the bridge is chiefly, if not entirely, due to the smallness of the openings (30 feet) with one bay of 90 feet there probably would have been no damage. So this principle should be kept well in view in deciding on the restoration.

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into the river and heavy training walls will be required.

12 For other reasons para 8 supra) the site is a bad one and I would therefore advocate the construction of the new bridge about quarter of a mile further up the stream here- there is a very rapid fall over rock and the whole of the Left side of the river is a steep mass of rock which has stood the rush of the stream for ages and which of itself would almost suffice for a Left abutment.

13 Owing to the drop in the river at this point, I believe a single span of about 70 or 80 feet will suffice, but owing to the flood in the river, I could not take measurements.

14 Regarding the style of truss to be adopted — I dont think anything can be devised better

better

better in appearance or more economical than the Whipple-Murphy truss just supplied by Messrs. Richardson and Cruddas for Farewell's Bridge. The cost delivered at Mettupalayam for a 65 foot clear span was Rs 5,950. The cost for an 80 foot span would be about Rs 9,000

Abutments say ——	" 6,000
Diversion of road and land compensation ——	" 6000
Total Rs	21,000

This is for a bridge of 13¼ feet width of roadway; but it seems to me that much money might be saved all over the country if these short bridges were designed for a width of roadway sufficient only for a single line of traffic (say 9 feet). As roads go, the Coonoor Ghat carries a heavy wheeled traffic, but I cannot recollect ever passing vehicles on any of the bridges

bridges (I have been up and down many times).

15 In the instance under consideration a narrow bridge would be supplemented by the road dam which must be constructed, at once, at site of the ruined bridge and this would really take all the traffic, except during those rare and exceptional periods when the river is in flood.

16 *Other Damages* between the foot of the Ghat and Burliar — four of the smaller bridges have been washed away, their abutments were for formed chiefly of dry stone. To restore them will probably cost Rs 8,000. This length of road is also much blocked by land slips boulders &ca, but that this section is, effectually closed to traffic for some time will presently appear.

2861/8

17 A little below Burliar and above the junction of the old Ghat with the new is a serious breach about 150 feet wide and 50 feet below road level caused by scour down the road of the excess of flood water in the Burliar river as also by wash down the steep vertical face over the road. A moderate estimate to repair this damage will be Rs 5,000

18 *Burliar Bridge* This has been swept clean away. (It was also much damaged four years ago) under circumstances exactly similar to those at Kullar bridge aided by the lowness of the abutments over which the river rose.

19 The absolute necessity for the early replacement of the bridge by a single span of 70 feet is even more urgent than at Kullar, for the Burliar

stream is down such a steep rocky gorge that it is very doubtful if any kind of a satisfactory road dam can be formed. Efforts will be made to do so, but the reconstruction of the bridge is of pressing necessity.

20 To enable me to make early arrangements in this direction, I would ask for orders on the following points.

1st Funds

2nd Is the principle of single wide openings approved of? (the Railway Engineers have already recognized their necessity)

3rd Can arrangements be made and estimates obtained from Messrs Richardson and Cruddas for light Whipple Murphy trusses similar to those supplied by them for Farewell's Bridge on the Coonoor Ghat.

4th

2861/9

4th Is the principle proposed in para 14; with a view to considerable reduction in cost of bridges; of a width of roadway of 9 feet, approved?

21 Rains still continue and the Kullar river can only be crossed in basket boats; as soon as possible more definite conclusions as to the exact spans required for Kullar and Burliar bridges will be formed.

A summary of the probable cost of restoring the Ghat will be as under:-

(22)

New Kullar bridge	Rs 21,000
4 Minor bridges	" 8,000
Breach in the Ghat below Burliar	" 5,000
New Burliar bridge	" 18,000
Minor damages clearance of slips &ca	" 2,000
Total	Rs 54,000

of which Rs 30,000 would be required in this year.

Arrangements can be made [illegible]

(12)

23 In conclusion, I would observe that in the interests of economy, it will be better to restore the bridges in a thoroughly efficient and substantial manner than by any temporary makeshift patchwork arrangements.

I have the honor &ca
(Signed) J. C. Larminie
Executive Engineer.

Copy forwarded to the Chief Engineer, P.W.D. to save time, the Supg Engineer being on tour.

J. C. Larminie
Executive Engineer,
Coimbatore Division

A.G.

2861/10

P. W. CURRENT No. 1114 D

P. W. D.

From

The Executive Engineer,
Coimbatore Division,

To

The ~~Supg.~~ Chief. Engineer,
~~Fourth Circle,~~ P.W. Department.
Coimbatore.

Dated 20
Despatched 20 } October 1891
Received 22

No. 6238

ENCLOSURES

SUBJECT.

Damage to the Coonoor Ghat — Reporting on — during the recent heavy rains.

For orders

No 938
16-x-91

Camp Burliar
15-10-91

To
The Divl officer
Coimbatore

2861
11

Sir

I am sorry to have to report that owing to the heavy Rains of last night. Landslips occurred in the following places on the Coonoor Ghat 15/1, 16/2&7, 17/5&8, 18/1, 19/5, 21/2&7 and 22/1,3&4 Miles/furlong but I managed to get the road open again down to 21/7 this is a very bad slip and has happened twice. I got a Cut through it yesterday but last night slip was worse still. I have only just managed to get through it today. and I fully expect to find it again blocked, as it is sure to come down with the first rains. and there is every appearance of heavy rains tonight.

2. Bavani River was in flood again this morning. so that Coolies could not cross. altho I have got a Wire rope fixed across the river. Kallar also was running very rapid I believe & my Coolies could not cross only by the Boats. This afternoon I heard that the Kot. Coonoor road was blocked

in the 11 Mile by a heavy bank slip. I have sent a gang of Coolies up to attend to the same as I had got all available Coolies working down here.

3. Farewell Bridge (temporary) is still safe. but must have had a very narrow escape last night as the waters was up to the Beams & rather the girders. the Pointing is very much knocked about but otherwise the same is safe if this goes I dont know what we can do. I also beg to state that the Old Abutments are only Ashlar. all the inside is made up of large size concrete I should call it. so that I should recommend the whole being pulled down. at present nothing can be done. but I am very glad we have the iron work for the new bridge at site.

4. I learn that the water in the River at Coonoor rose 2 feet higher than was ever known I dont know what rainfall

Since learnt that 7½ inches was registered at Coonoor

2861/12

was registered.

I am also informed by the Sub Overseer that the greater portion of the work done towards getting the Old Ghaut open for Tongas between Burliar & the foot of the Ghaut was also destroyed by last night rains. I have not troubled about the New Ghaut from Burliar to Kallar as nothing can be done to open this until we construct New Bridges. but I fully expect that it has again suffered by last nights rains.

5. I am sorry to say that H.E. Lady Wenlock & her Party could not go down owing to the state of the road as arranged for tomorrow. Friday.

I beg to remain
Sir
Your most Obedient
Servant
E. J. Asst. Engr.
Sub Divl Officer

Regr No 6719/3

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 1115 C
18 OCT. 91
FOURTH CIRCLE.

2861/13

From

The Officer in charge
Nilgiri Subdivision

Dated 15th } October 1891
Despd 16th }

No 938

Ghaut Road.

Reports further on the damage to the — and the steps taken to cut a way through.

No 6189.

To S E (IV)
for information and
E C Law
18-10-91 Ex: Engineer
[illegible]
[illegible]

P. W. D. 1115 C.J.

SUPG. ENGINEER'S OFFICE P.W.D.
No.
19 OCT. 91
Enclo
FOURTH CIRCLE.

From,

J. C. Larmenie Esqr

Executive Engineer,
Coimbatore Division.

To,

The Supg Engineer
4th Circle
Coimbatore

Dated 18
Despatched 18 } October 1891.
Received

E-2
M/1175/91

No. 6189.

ENCLOSURES.

SUBJECT.

Ghaut Road.

Reports further on the damages to the — and steps taken to cut a way through.

No 927
13-X-91

2861/14

Camp, Burliar
12-10-91

To
The Divl. Officer
Coimbatore
Sir

I am very sorry to have to report that the heavy rains of 9th 10 & 11th during which time nearly 20 inches was registered at Coonoor I dont know what it was on the Ghaut. has done very great damages to the Ghaut road & to several of the Bridges Burliar Bridge has been entirely washed away. during last night and the next small bridge situated 1/2 Mile lower down the Ghaut road has also been washed away. & on the 25 Mile 2 furlong another has been greatly damaged abutment second one but the platform is standing. 2 Bridges in the 20 Mile 6 & 7 furlong are more or less damaged. but if the rain keep off. I think these will stand.

Temporary bridge (Siremalli;) was allright this morning. but the pointing has been knocked out by the Stones brought down by the flood. The water level rose up to about 6 feet of the Roadway. but at

Burliar the flood passed over
the roadway of the Bridge several
feet high, if I can believe the people
and the ground seems to corroborate
their statement.
The New Ghat is blocked between
16 Mile & Burliar by landslips
I have all available Coolies
on boring rocks, cutting trees
and removing the earth &c. I
hope to get the road opened
again by Wednesday. I do not
know how it is below
Burliar as I was not able
to get there today.
I shall try & get a foot path
or if I can a causeway for
wheel traffic opened across
Burliar River, but I must
wait until the floods subside
These Rains have done more damage
to the roads Old & New Ghats than
we shall be able to make good
for some Months to come. I have
not seen anything like it since
1860. When the Coleroon burst its
banks. I shall remain on the
Ghat until I get it open
for traffic with the exception
of the Burliar. This of course
must have a New Bridge designed
In Conclusion I beg to state that
it was only this Morning that the
heavy damage was done. Yesterday

the Mails were passed up
the Ghat Road but were late
about one hour only.

Yours Obediently
R. J. Brigg Condr
Sub Div Officer

2861/15

No. 6188

ENGINEER'S OFFICE P.W.D.
No. 1114 C
18 OCT. 91
Enclo:
FOURTH CIRCLE.

Forwarded to S E (IV)

Kullar bridge is also reported to have been washed away. I am now en route for Kuttalcollin

Ex: Engineer

Polache
16/10

(To be kindly returned)

Regr. No. 6718 S

From.

The officer incharge of
Nilgiri Sub Division

To.

The Executive Engineer
Coimbatore Division

Dated 12th
Despatched 13th } October 1891
Received

No. 927

Subject.

Damages to the Ghaut road.
Reports on the —— by rain on 9th. 10th & 11th

2861/16

P. W. D.

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 1114 C. J.
19 OCT. 91
Enclo :
FOURTH CIRCLE.

From,

J. C. Larminie Esqr

Executive Engineer,

Coimbatore Division.

To,

The Supg: Engineer
4th Circle
Coimbatore

Dated 16 }
Despatched 18 } October 1891.
Received }

E.1 / PW 11175/91

No. 6188

ENCLOSURES.

SUBJECT.

Ghaut road -
Reports on the damages
to the - by rains on 9th, 10th & 11th

No. 554 / W

386/17

Supg. Engineer's Office, IV Circle,
21st October 1891.

From

Lt. Col. R. R. E. Drake Brockman R.E.,
Superintending Engineer,
Fourth Circle.

To

The Chief Engineer,
P. W. Department.

Sir,

Enclos: 2.
2 Reports.

I have the honor to forward for your information two Reports from the Sub divisional Officer Nilgiris received through the Executive Engineer, Coimbatore Division bringing to notice the damages done to the Kullar - Gudalur Ghat road by the heavy rains on the 9th, 10th & 11th instant and the Steps taken to open the traffic.

I have the honor to be,
Sir,
Your most obedt. Servt.,

R R E Drake Brockman,
Lt. Col.
Superintending Engi

P. W. CURRENT No. 11175

From

The Supg. Engr.
4. Circle

Da 21 } October/91
Dr. 22
R. 23.10.91

286/W

No. 554/W

2705 Wd/13-10-91.
2726 Wd/14-10-91.
Enclo 2

Kallar Gudalur Ghat Road.

Forwards, for information 2 reports from the E. E. Coimbatore Dn. bringing to notice the damages ts the —

2861/19

P. W. Department.

Read the following :—

Letter from the Executive Engineer, Coimbatore Dn No: 6238 d/20 Octr/91
Do — Supg: Engr. 4 Circle — 554 W d/21 Oct. 91

FOR ORDERS.

The undersigned begs, in Col. Pennycuick's absence, to submit the accompanying letter reporting on the damage done by recent floods to the Coonoor Ghat and road below.

The cost of restoring the ghat itself is a legitimate charge against Provincial funds and as funds are now available, they should, it is submitted, be allotted at once. The Kullar bridge is within Local Board limits, and in ordinary circumstances the

Yes — it is to be accepted as a provincial charge. It is no use looking to the Nilgiri Local fund, as that is practically the same thing. The repair of Kullar L. F. bridge may be thrown in with the rest. Propose what allotment is wanted.

The ghat road is not under the Nilgiri L. F. Board, but under the P. W. D.

the cost of restoring the structure would fall against Local Funds, but the catastrophe which has occurred is of an extraordinary character, the continuity of a main line of communication is involved, and the funds of the Local Board have, it is understood, been wholly exhausted by Famine Relief Works. The case thus seems one for aid from Provincial Funds. The simplest plan would probably be to continue the present arrangement under which the P.W.D. have assumed charge of the restoration works and to pay for them from Public Works Provincial funds.

The Executive Engineer's suggestion to adopt a single wide opening for the new bridges seems the best, and might be adopted.

Estimates for Whipple Murphy bridges

2 They have had Rs 25000 from Provl.

This statement was based on a report which came before the P.W.D. in which the President of the Board said that he could not pay for some tools used on Relief works because the resources of the Board were exhausted –

After this experience, it wd. be folly to adopt any other plan. The new railway shd. be made to alter all their bridge designs.

W
25 Oct.

[illegible] [illegible] Letter 2861 W d. 28th Oct 91 [illegible]

2861/20

bridges might, under the circumstances, be called for by the Executive Engineer wiring to Messrs. Richardson & Cruddas. It would take far too long to get the ~~m~~ bridges out from home

The proposal to narrow the bridges does not seem judicious. The bridges should be made to the full width of ~~14½'~~. 13½'

~~Major~~ R.E.

~~Dep. Chief Engr. & Under Secy. to Govt. P.W.D.~~

The railway shd. be finished in 2 years – so there seems every reason to minimize the cost by reducing the width of the bridges besides the old Broker bridge was only wide enough to admit one vehicle at a time: I don't know why the new one shd. be wider.

W
25 Oct.

This suggestion of the writer has been modified in the draft order in view of the remark of H.E. the Governor as noted above –

The new site proposed for the Kullar bridge will need attention.

W
23 Oct.

I concur in the above remarks which I have just seen –

I propose to visit the [illegible] in a few days –

W

29.10.91

R.S.

S/[illegible]

FOR ORDERS.

H.M.
H.E.

H.M. 23/10
R 27/10

A

For orders
M.S. & T. E.IV
and Remit soon

No. 2861 W d/ 28th Oct /91

B.V.R.
Civil Works

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

2861/21

READ the following

Letter from ~~the~~ Ex. Engr. Coimbatore Dn. } H.E. No. 6238 d/20.x.91.

do — do — Supdt. E. IV Circle .. .. .. 524 W d/ 21.x.91

His Excellency the Governor in Council has learnt with regret that the damage done to the Coonoor Ghat and the Road below by the recent floods has been so considerable.

2. The Executive Engineer Coimbatore Dn. has already been directed to take charge of the work of restoring communication even within Local Fund limits, and this arrangement will continue till this main line of

communication has been placed in a thoroughly efficient condition, the cost of the work being met from Provincial Public Works funds. The Supdg Engineer will accordingly apply for an allotment of such sum as may be required, and will meanwhile see that efforts to render the road practicable for wheeled traffic are not relaxed.

3. The Executive Engineer's suggestion to adopt a single wide opening for the new bridges seems the best, and will be adopted. The attention of the Consg: Engineer for Railways is called

to this suggestion which should be kept in view in the design for the new railway bridges. After the experience now gained it would, in the opinion of H.E. the Governor in Council, be most inexpedient to adopt any other plan than that now recommended for the road bridges.

4. Estimates for Whipple-Murphy bridges, with 9 feet roadways, not 13½ feet as previously intimated, will be at once called for by the Executive Engineer from Messrs Richardson & Cruddas, and on receipt and approval of these, the bridges themselves should be ordered to be made up by the firm if

they will undertake to deliver them appreciably earlier than they could be obtained from home. This must be regarded as an essential condition of the contract.

5. It is understood that the Chief Engineer is about to visit the Coonoor Ghat. The question of the new site proposed for the Kullar bridge will then receive his attention.

PWB 27.10.91

S 27.10

& 27 oct

4640C - 23-10-91 -
4739C - 27-10-91

S.E. IV Circle
~~Chief Engr P.W.D.~~
C.E. for Rys
Ex PWA
Lt ii depts
(To the Chief Secy for favor of countersignature

R. S.

2861/23

CHIEF SECRETARY
27 OCT 91
GOVERNMENT OF MADRAS

6 45 PM

The Hon the Chief Secretary
for favour of [illegible]

C.S. 27/10. R. 28/10

2861/24

CN ~~[illegible]~~
11284

Govt. of 18 Madras.

PUBLIC WORKS

G.O. 28.4. 91 No. 2861.

Damage to the Cannoor Ghat & the Road below.

Orders regarding arrangements made for restoring communication on account of the recent ____

(24)

10/11

6/11

5/28/10.