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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	719-A	(W) Press
B.P. No.		Mis.
Dated	13-3	1875

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
13th March 1875.*

Read the following letters —.

No 356A. From G S SAGE, Esq, District Engineer, South Arcot, to Colonel
G W. WALKER, R E, Chief Engineer, Public Works Department,
dated Camp at Cuddalore, 16th December 1874, No 197.

I HAVE the honor to lay before you an estimate for protecting the foundations
of the bridge across the Poniar, near
Manjacoopum, and to explain as follows.

1 Plan
1 Abstract Estimate

2 From all I can learn up to this
year water never rose above springings, this year we had three heavy freshes,
the smallest rose to 4 34 above springing, and the largest to 5 45.

3 Whilst on circuit I received a report that the bridge had received damage,
and on my return I tried to examine it, but up to present time there is too much
water to permit of proper examination

4. From what can be seen, the third pier from north has had a scour in
front of it and has been undermined and fallen slightly up stream, the arches on
either side being cracked and settled down five inches on up stream and three
inches on down stream side.

5 From enclosed section, which I am not sure is correct, but which is made
from the original plan in my office, signed by Lieutenant O'Connel, the then
District Engineer, shows only three feet foundation on five feet wells, and as there
are no aprons it is no wonder the pressure of water against these wells, as well as
the scour caused by a set in the river, has at last caused damage to the bridge.

6. There appears to have been an earthen groyne to counteract this set, but
this year's high floods have topped it and carried it away I am having a survey
of river made with a view to putting in two or three stone groynes, and will include
the cost in the estimate for repairing the arches, as soon as it is possible to find
out what is required.

7 The estimate now submitted is for putting two floors, each fourteen feet
over all, measuring from edge of cut waters, the floor to be one foot thick of brick
on edge on one and a half feet of concrete with five feet retaining walls below the
brick on edge carried on nine feet wells

8 It may be thought the work should be done by Local Funds, but I have
left that point to be settled, and request early sanction to the estimate to enable
me to push on with it I have directed brickmaking for the purpose to be put in
hand as such a large number are required, also the preparation of well rings.

No. 356B. From the same Officer, dated Cuddalore, 12th February 1875,
No. 237

IN continuation of my No 197, dated 16th December 1874, forwarding plan
and estimate for protective works to Poniar bridge, I have at last been able to get
the water down sufficiently to enable me to inspect the work, and am sorry to say
that the actual work is even worse than shown in the section sent you with my
letter abovementioned, the foundations are only three feet instead of five feet on

Proceedings of the Madras Government, Public Works Department,
13th March 1875.

wells of five feet; the wells have sunk away from the foundations, and water passes freely under the bridge

2 As to what should be done to this bridge, I am of opinion that when the river is embanked its waterway will be utterly insufficient, and in its present state, I mean without expensive protective works, it will not stand. I may mention that Mr Logan, Chief Engineer of the South Indian Railway, is here and has been looking at the bridge, &c, with reference to the waterway of the railway bridge across this river, and agrees with what I have stated above.

3 I wrote you demi-officially asking for the Circle Superintending Engineer to come and inspect the bridge, and I now do so officially, as I consider it absolutely necessary the matter should be thoroughly gone into and at as early a date as possible

No 356-C

ORDER THEREON, 13th March 1875, No 719-A

ESTABLISHMENT, No 22-A.

THE services of Captain Ross Thompson, R.E., having been made available by the return to duty of Major

C J Smith, R.E., and that officer having lately devoted much attention to the subject of the waterway necessary for the railway bridge over the Poniar, he will be deputed to advise the District Engineer as to the action to be taken with reference to the road bridge near Cuddalore

2 The effect of the river embankments on the waterway to be allowed, with reference both to the railway and road bridges, is a subject which should be previously discussed with the Chief Engineer for Irrigation.

(True Extract)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

To Captain Ross Thompson, R.E.
To the Chief Engineer for Irrigation
" Consulting Engineer for Railways.
" District Engineer, South Arcot
" Controller of Public Works Accounts.
" Financial Department.

Ed S T Austin.
Spare Copies

7950.4 - March 15-17 1875

Letter from the District Engineer of South Arcot No 197 of 16th Decr 1874.

This letter has not reached the Office of the Chief Engineer for Irrigation to which it appears to have been forwarded by mistake. I am quite unable to recommend for adoption so large an estimate as Rs. 33000, arrived at after a very imperfect examination of the bridge to which it refers, and of which the only information given is a section of the correctness of which the Dist. Eng. is not sure. The protective measures recommended would no doubt be useful, but are they the best

to be adopted with refer-
ence to the real neces-
sities of the work, and
would not something
much less costly an-
swer the purpose? On
what grounds are the
depths of the retaining
walls need the need of
a precise figure? What
is the nature of the
river's bed; could it
not be possible to take an
accurate section of it,
showing at least depth
and foundations may
be found?

The responsibility for
making the best remedy
for the present state of
the bridge must rest
with the District Engineer,
on the spot; and he must
be prepared to not en-
deavour if necessary - But
the chief engineer, at a
distance from the work,
must know no person
at hand, and if it must
be done, he must re-
sponsible for it.

opinion, without the pre-
sent information being
laid before him as to
the state of each arch,
and pier, foundation, &
floor between piers.

So far as he can judge
for it seems to Mr. Walker
that the Archer on each
side of the 3^d Pier from
the North must come
down - ^{if possible} ~~accordingly~~
the first thing to be done
is to support the Archer
on each side as centres,
before taking down the
chairs and over - Then
to rebuild them as soon
as possible, with a new
and new pier, laid to
such a depth ~~as may~~
~~be found advisable~~
and with such flooring
and aprons as may be
found advisable - The
weak points of the struc-
ture having thus been
first attended to, precau-
tions against future
possible damage may

... With reference to the requi-
... situation of the 2. of the
... letters circulated here.
... with ... of the
... deputation of the staff
... business to report upon
... of the ... of the
... of the ... it has been
... evident for some time
... part of the chief Supt.
... that Mr. Sager
... is not competent for
... the change of a District,
... but must in future
... be employed as a
... active work to carry
... out the designs of
... better trained Supt.
... needs. He is in very
... bad health, and has

there is too much water to permit of
proper examination.

4 From what can be seen, the 3^d pier from North has had a scum in front of it and has been undermined & fallen slightly up stream, the arches on either side

D P W
SOUTH ARCOT

No 197

From

DISTRICT ENGINEER'S OFFICE

Camp *Leedsalor*

Dated 16 December 1875

me, he may be avail:
the bridge at the level:
measured for in -
measured, being
with seeing to think
a can do what is
expected -

Lyons
11.3.75

I will carry out at once
14/2 *W*

there is too much water to permit of
proper examination.

4 From what can be seen, the 3rd
pier from North has had a scour in front
of it and has been undermined & fallen
slightly up stream, the arches on either
side

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the former
Marian
and as

this year
s, this
smaller
and the

wed a
rived
tried to
time

1093508/74

The (understand) bridge you
left with a much
of bridge south. I should
therefore wish Capt. Pop
Thompson to be deputed,
as soon as relieved by
Major C. J. Smith, to be
put officially in the
subject in all its bearings
to which the at-
tention of Mr. H. Mullins
will also have to be called.
This will interfere for
a time with Capt. Pop
Thompson's services, being
unable to visit with the
Rambhadrachari
in the capacity
of a Secretary.

I think that Capt. Pop Thompson
should be sent as proposed
109-3-75
W

Lyons
9.3.75

The (understand) bridge was
 left almost in a ruin
 of timber south of it. I should
 like to see it.

I forwarded to the Hon. Mr.
 Robinson, with reference to
 his conversation on the sub-
 ject of a Secretariat for the
 Railway Commission, for
 forwarding last -

Major C. J. Smith has
 arrived yesterday. He
 relieves Capt. R. K. Smith
 on today. The latter is
 therefore available for
 success for the trip to
 look - It need not be
 long, and from his
 return till the 12th April
 when he left for London.

G.O. 12712. 12-3-75

D P W
 SOUTH ARCOT

No 197

DISTRICT ENGINEER'S OFFICE

Camp *Madurai*
 Dated 16 December 1874.

From
 The District Engineer,
 South Arcot.

To
 The *Ch. of Engineer*
D. P. W.

Enclosures 2

1 Plan
 1 Abstract Es-
 mate.

Sir,
 I have the honor to lay before
 you an Estimate for protecting the foun-
 dations of the Bridge across the Periar
 near Munjreopuram, and to explain as
 follows.

2. From all I can learn up to this year
 water never rose above springing, this
 year we had 3 heavy freshes, the smallest
 rose to 4.34, above springing, and the
 largest to 5.45.

3. Whilst on circuit I received a
 report that the bridge had received
 damage, and on my return I tried to
 examine it, but up to present time
 there is too much water to permit of
 proper examination.

4. From what can be seen, the 3rd
 pier from North has had a scour in front
 of it and has been undermined & fallen
 slightly up stream, the arches on either
 side

The under-estimate to 16334
 11/12/74
 109

side being cracked and settled down
5" on up stream and 3" on down stream
side

5. From enclosed section which I am
not sure is correct, but which is made
from the original plan in my office
signed by Lt. Colonel the then Dist.
Engineer shows only 3 ft. foundation
on 5' wells and as there are no aprons
it is no wonder the pressure of water
against these wells as well as the scour
caused by a set in the river has at
last caused damage to the bridge.

6 There appears to have been an
earthwork groynes to counteract this set,
but this year's high floods have de-
stroyed it and carried it away. I am
having a survey of river made with
a view to putting in 2 or 3 stone
groynes and will include the cost in
the estimate for repairing the arches,
as soon as it is possible to find out
what is required.

7. The estimate now submitted
is for putting 2 floors each 14 ft. over
all measuring from edge of cut waters
the floor to be 1 ft. thick of brick on edge
on 1 1/2 ft. of concrete with 5 ft. retaining
walls below the brick on edge carried
on 9 ft. wells

8. It may be thought the work
should be done by Local funds
but I have left that point to be
settled and request early sanction
to the estimate to enable me to push
on with it. I have directed Brick-
making for the purpose to be put in
hand as such a large number are
required, also the preparation of well
rings.

I have the honor to be
Sir
Your Most Obedt Servt,

C. J. M. J.
District Engineer

D P W
SOUTH ARCOT

No 237

DISTRICT ENGINEERS OFFICE.

Camp, Cuddalore.
Date 12th February 1875.

From

The District Engineer

To

The

Chief Engineer

Enclosures

Sir,

D. P. W.
Fort St. George

In continuation of my letter of 1st 1874 dated 16th December 1874 forwarding my plan and estimate for Repetitive Works to Pennar Bridge, I have at last been able to get the water down sufficiently to enable me to inspect the work and am sorry to say that the actual work was even worse than shown in the section sent you with my letter above mentioned. The foundations are only 3 ft. instead of 4 ft. on wells of 5 ft., the wells have sunk away from the foundations and water passes freely under the bridge.

2 — As to what should be done to the Bridge, I am of opinion that when the river is in flood the way will be all right, but the present state

RECEIVED
FROM THE DISTRICT ENGINEER
11/2/75

No. 7950

To The Chief Engineer

18/2/75

Date

16th

Re printed

16th

Received

19th

No 197

Inclosures 2

Submitting Abstract

for protecting the foundations of the bridge

across the river near

the bridge with

the foundations on the

river side

is hereby 529/15/75

Execution 11/2/75

1875-3-75

1875-3-75

Extensive protective Works it will
not stand I may mention that
Mr. Logan Chief Engineer of the
South Indian Railway is here and
has been looking at the Bridge & sea-
with reference to the waterway of the
Railway Bridge across the river
and agrees with what I have stated
above.

3— I wrote you des officially asking
for the Circle Superintending Engineer
to come and inspect the Bridge and
I now do so officially as I consider
it absolutely necessary the matter should
be thoroughly gone into and at as early
a date as possible.

I have the honor to be

Sir

Your most obedient servant

L. J. Little
District Engineer

719 of 13th March 1900

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R. L.

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Extensive protective works it will
not stand I may mention that
Mr. Logan Chief Engineer of the
South Indian
has been
with refer
Railway
and agrees
above.

None

1875
SOUTH ARCOOT D.P.W.
The District Engineer
South Arcot

The Chief Engineer
D.P.W.

12
12
13 } February
1875

No 237
Enclosures

Submitting further
particulars in connec-
tion with the proposed
protective work to the
Ponnar Bridge South
Arcot District.

N-356a-356c

49-3-75

G.O. No. 7192-13-3-75

District Engineer

CP 7950 14/16 Dec 7/75
987- 12/14/75

G.O. No. 7192 of 13-3-75
The services of Capt.
R. S. Thompson have
having been made
available by the re-
turn of Capt. of Major
C. J. Smith R.S., and
that Office having
lately devoted much
attention to the sub-
ject of the waterway
necessary for the
Railway Bridge
near Ponnar, he
will be deputed to
advise the District
Engineer as to the ac-
tion to be taken with
reference to the kind
of bridge to be constructed.

R.S.E.

Extensive protective works it will
not do. I understand that

The effect of the levees
in the waterway is allowed,
with reference to
the Redway and
Red bridges, is a
subject which is
being discussed
with the Chief Eng.
for migration -

C.M.W.
11.2.75

Captain Ross Thompson B.C. Ind. Dept 13-8-75
Chief Eng. for Migration Ind. 15-8-75
S. Eng. S. Crosby
Controller
Fuel Dept
J.P. 22-3-75

District Engineer

Extensive protective Works it will

987-7950 A
Govt. of 1875 Madras

PUBLIC WORKS

To Capt. R. S. Thompson

Dated

Recd

Encl

10. 13 March 1875, No. 719

Nos. 356a-360e.

Captain R. S. Thompson

A. S. The services of
_____ made avail-
able for the special
duty in connection with
the Road bridge over
the Panar near
Chidambaram in South
Madr. District.

Captain A.
S. S. S. S.

Controller
Fund Dept.

District Engineer