

(1) Number of pages \_\_\_\_\_

(2) Date of repair \_\_\_\_\_

(3) Initials of the Referencer \_\_\_\_\_

# MADRAS RECORD OFFICE

## Government of Madras

*Public Works* DEPARTMENT

|          |      |       |
|----------|------|-------|
| G.O. No. | 1159 | Press |
| B.P. No. |      | Mis.  |
| 365-366  |      |       |
| Dated    | 22 4 | 1843. |

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,  
22nd April 1873.*

Read the following papers:—

No. 365. From Colonel A. BOILEAU, R. E., Superintending Engineer, 5th Division, to Lieutenant-Colonel J. MULLINS, R. E., Chief Engineer for Irrigation, dated Cuddalore, 5th July 1871, No. 77.

I HAVE the honour to forward, for the sanction of Government from the current year's Reserve under "Agricultural, Ordinary," an estimate of Rupees 1,350, with a plan and specification, for rebuilding an aqueduct (with pathway) over

1 Plan.  
1 Estimate.  
1 Specification.

the supply-channel of Alapaukam on the road to the Permal Tank, leading from the main road from Cuddalore to Negapatam *via* Chellumbrum, in the Cuddalore Taluq of the South Arcot District.

2. An aqueduct across the said channel was built some twenty years ago to discharge the surplus water from the wet cultivation of about 250 cawnies in the limits of the villages of Alapaukam and Pooranicooppam, but this has now failed to answer its purpose owing to imperfections in its construction.

3. It would appear that the foundations having failed, innumerable cracks appeared in the flooring, piers, and abutments of the aqueduct, so that the ryots experience great difficulty in taking water over it. They are in the habit of closing the cracks with stiff clay and turf, but this does not fully meet their object, and in fact nothing but a complete re-construction of the work, as now proposed, will suffice.

4. The proposed aqueduct is designed in accordance with the plan of the old one, except that an addition of a pathway on one side for foot-passengers has been made. The waterway and discharging capacity of the aqueduct is the same as that of the old one.

5. The foot-path will prove very useful to passengers going to the Permal Tank and villages and fields in that neighbourhood.

6. The banks of the channel being out of order, it is also proposed to repair and strengthen them.

7. The date of the construction of the old aqueduct is not known, nor could any information be obtained of its original cost, or of the name of the officer or subordinate by whom it was built.

No. 182.

No. 365-A. *Note by the Chief Engineer for Irrigation.*

THERE being no apparent reason for the nine arches of 3 feet span each shown in the design as received from South

1 Original Plan.  
1 Revised do.  
1 Original Estimate.

1 Revised Estimate.  
1 Specification.  
1 Letter.

Arcot, a revised design providing five arches of 6 feet has been substituted.

The direction of the wings has been altered to allow of a proper connection between the aqueduct and the channel banks.

2. Puddle has been inserted at the back of the abutments and wings, with a prolongation into the channel banks.

Proceedings of the Madras Government, Public Works Department,  
22nd April 1873.

3. The depth of the foundation has been slightly, and that of the lower retaining wall considerably, increased.

4. The aqueduct flooring has been stopped at the back of the abutments. The prolongation shown in the original design would have been laid on earth and a crack at the rear face of the abutments would have resulted.

5. The top of the puddle, when not covered by the banks, will be protected by 9 inches of brick rubbish.

6. The revised estimate amounts to Rupees 1,420.

FORT ST. GEORGE,  
21st March 1873.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,  
Chief Engineer for Irrigation.

No. 366.

ORDER THEREON, 22nd April 1873, No. 1,159.

IRRIGATION, No. 17.

SANCTIONED for execution from the  
grant for Minor New Works, Agricultural, for 1873-74.

(True Extract.)

Lieut.-Colonel, R.E.,  
Joint Secretary to Government.

No 77.

Superintg. Engrs office, 5<sup>th</sup> Divn,  
Buddalore, 5<sup>th</sup> July 1877.

From,

The Superintending Engineer,  
5<sup>th</sup> Division.

To,

The Chief Engineer  
for Irrigation.

Sir,

Enclosures 3.

1 Plan  
1 Estimate  
1 Specification

I have the honor to forward,  
for the sanction of Government from  
the current year's Reserve under "Agricultural-Ordinary", an estimate  
of Rupees 1,350, with a plan & specification,  
for rebuilding an aqueduct [with  
pathway] over the supply channel of  
Alapankam on the road to the  
Permal tank leading from the main  
road from Buddalore to Negapatam  
via Chellumburam, in the Buddalore  
Taluk of the South Arcot District.

2. An aqueduct across the said  
channel was built some 20 years ago to  
discharge the surplus water from the  
cultivation of about 250 acres in the  
limits.

limits of the villages of Alapanhem and Ioranicoppam, but this has now failed to answer its purpose, owing to imperfections in its construction.

3. It would appear that the foundations having sealed innumerable cracks appeared in the flooring, tiers and abutments of the aqueduct, so that the ryots experience great difficulty in taking water over it. They are in the habit of closing the cracks with stiff clay and turf, but this does not fully meet their object, and in fact nothing but a complete reconstruction of the work, as now proposed, will suffice.

4. The proposed aqueduct is designed in accordance with the plan of the old one, except that an addition of a pathway on one side for foot passengers has been made. The waterway and discharging capacity of the aqueduct is the same as that of the old one.

5. The foot path will prove very useful to passengers going to the Jernal Tank, and villages, and

fields in that neighbourhood.

6. The banks of the channel being out of order, it is also proposed to repair and strengthen them.

The date of the construction of the old aqueduct is not known, nor could any information be obtained of its original cost or of the name of the Officer or subordinate by whom it was built.

I have the honor to be

Sir,

Your most obedient servant.

A. B. A. Colmel R.E.  
Superintg. Engineer, 5<sup>th</sup> Division

Note by the Chief Engineer for Irrigation -

There being no apparent  
 Enclosures to: reason for the 9 Arches of 3 feet span  
 1. Original Plan each shown in the design, as received  
 1 Revised - do. - from South Arcot, a revised design  
 1 Original Estimate - mate. - providing 5 arches of 6 feet has been  
 1 Revised - do. - substituted. The direction of the  
 1 Specification wings has been altered to allow of  
 1 Letter. a proper connection between the  
 Aqueduct and the Channel banks.  
 Detailed plan inserted +

Puddle has been inserted at the back of the abutments and wings, with a prolongation into the channel banks-

The depth of the foundation has been slightly, and that of the lower retaining wall considerably increased.

The Aqueduct flooring has been stopped at the back of the abutments. The prolongation shown in the original design would have been laid on earth.

*Handwritten signature*

Hunt  
 The San Francisco  
 & Pacific  
 The Great Engineer  
 for San Francisco

Feb 5<sup>th</sup> } July 1877.  
Mar. - 53

Enclosure 3.

Agreement over the  
supply channel of  
Kashmir. —  
Howard's for the

Hereward for the

acquisition of land; and  
redemptive of \$122,1350 for  
with fast facts on one  
side, over the deeply  
charged of Afghanistan,  
in the border line today

South-West

Q. 2036/43-209

1159753.

and a crack at the rear face of the abutments would have resulted.

The top of the puddle, when not covered by the banks, will be protected by 9 inches of brick rubbish.

The revised estimate amounts to Rupees 1420

Fort Saint George }  
21<sup>st</sup> March 1873. }  
Colonel R.E. }  
Chief Engineer for Irrigation

To the Secretary to Government  
Public Works Department.

Immediate

MEMORANDUM.

REQUESTED for reference the under-mentioned papers

Enclosure to G.O. 1159 of 22 Apr 73  
One plan from  
etc recd. and  
4/5/73

OFFICE OF THE CHIEF  
ENGR. FOR IRRIGATION,  
P. W. Department,  
May 1873

To The Registrar of the

Mr. Hartman  
Head Clerk.

Public Works 1873 Referred  
to G.O. 1159 of 22 Apr 73  
28-2036

The Chief Engineer  
for Irrigation

of the Department of  
Public Works

Referred to  
G.O. 1159 of 22 Apr 73

Enclosure to  
G.O. 1159 of 22 Apr 73

Re-building an Aqueduct  
over the Alapachan  
supply Channel.  
Route West

G.O. 1159-22 of April 73-

62044/5 Q.S.

Ch 365

Specification to accompanying Plan and Estimate for rebuilding an aqueduct with path way from Chellamburru road to the Permaul Tank, on the Allapattam supply Channel in the Cuddalore Taluk of South Arcot District.

1<sup>st</sup> Amount of Estimate Rs 1350- --

One thousand three hundred and fifty only as per Detailed and Abstract Estimates submitted herewith. The aqueduct to be 6 feet wide over an under tunnel of 9 vaults of 3 feet span.

2<sup>nd</sup> The bed of the channel is of stiff clay.

3<sup>rd</sup> The foundations of the aqueduct are to be of Brick in chunam  $1\frac{1}{2}$  feet deep, under the flooring.

4<sup>th</sup> The cut waters of the piers are to be connected with each other, and with those of the abutments by retaining walls in front, and rear, and also in centre, Flooring over all to be  $1\frac{1}{2}$  feet deep, and the flooring under the arches are to be of the same thickness.

5 The piers are to be  $1\frac{1}{2}$  feet thick and the abutments 2 feet, raised to a uniform height, 3 feet for the aqueduct and  $5\frac{1}{2}$  feet for the path way in rear of the aqueduct.

aqueduct, the vertical sine of the arches to be 6 inches giving total height of  $3\frac{1}{2}$  and 6 feet to their soffits,

6 The flooring over the arches of aqueduct is to be 6 feet broad 9 inches thick properly levelled to carry the supply water from Permaul Tank to the Alapa Kune Paddy fields, and the parapet walls are to be raised over the arches 3 feet high and  $1\frac{1}{2}$  feet thick in the aqueduct and 1 foot high and  $1\frac{1}{2}$  feet thick in the pathway, built of brick in Chumam.

7 The Superstructure of the aqueduct with path way is to be well plastered with 2 coats of Chumam including also the floor and sides of aqueduct.

8 The Channel banks are to be properly strengthened and parts of the bank to be put into proper section.

*W. H. Jones*

No. 1 Range Office S.A.  
Cuddalore 28 June 1871

Executive Engineer,  
No. 1 Range S.A.

*Abraham John R.E.*  
Superint<sup>d</sup> Engineer, 5<sup>th</sup> Div.

Excavating foundation and filling

Carried over

10  
20  
923 47

Agricultural

South Arcot District

N<sup>o</sup> 1 Range

New Works

Chudalore Talook

— Abstract Estimate of 1871-72 —

Work — Rebuilding an Aqueduct with pathway from Chellumburum road to the Permaul Tank on the supply channel of Alapanthum.

Remarks — The date of construction is not known precisely, but from enquiry it would appear that the building must be about 20 years old.

The Aqueduct was built across the supply channel of the Alapanthum village to discharge the surplus and flood water from the wet cultivation of about 250 bawries in the limits of Alapanthum and Torvanekuppum this is cracked in several places and the ryots depending upon this channel are unable to convey the water to their cultivation from Permaul Tank, the banks of the channel are worn out and breached in many places by the late monsoons upon this the ryots complained to the late Superintending Engineer when he enquired at this place who inspected the Aqueduct and channel banks and decided that it was to be prepared for rebuilding the Aqueduct with a pathway on the Northern side of it, so as to continue the bank from Alapanthum to the Permaul Tank.

The Estimate provides for closing breaches, strengthening the channel banks and rebuilding the Aqueduct with pathway as suggested by Col<sup>l</sup> C. A. Torub & Co. and the work will be very useful and advantageous to the ryots.

Site — This work is situated close to Alapanthum in the 12<sup>th</sup> Mile of Chellumburum road.

| Quantity | Description of work                          | Rate | Per | Amount | Total |
|----------|----------------------------------------------|------|-----|--------|-------|
| 561.2    | Cubic feet of Brickwork in chunam            | 2    | 64  | 705    | 4     |
| 590.2    | ditto of Archwork do                         | 2    | 3   | 60     | 83    |
| 42       | Squares of Plastering with 2 coats of chunam | 2    | 8   | 105    |       |
|          | Removing old work                            |      |     | 10     |       |
|          | Excavating foundations and filling           |      |     | 20     |       |

Carried over 923 4 7

5<sup>th</sup> Division D. J. N.  
South Arcot District  
No 1 Range

E. H. 2036/73  
L. O. N. 1159/73.

Specification to be made  
for the building an aqueduct  
with path way from  
Chellumburum road to the  
Permaul Tank on the  
supply channel of  
Alapanthum in line  
of Chellumburum road.

Superint<sup>d</sup> Engineer, 5<sup>th</sup> Div.

|                                                                       |     |      |       |
|-----------------------------------------------------------------------|-----|------|-------|
| Brought over                                                          | 923 | 4    | 7     |
| Providing temporary channel and Dam<br>and a Baling water & ca        | 30  |      |       |
| <u>to answer</u>                                                      |     |      |       |
| 6574 Cubic yards of Earthwork for strengthening<br>the channel banks. | 10  | 642  | 6 4   |
|                                                                       |     | 1295 | 10 11 |
| Supplies and Superintendence                                          |     | 54   | 5 1   |

Total Amount of Estimate Rupees. 1350  
 Rupees One thousand three hundred & fifty only

Nº 1 Range Office S. A.  
 Shalimar, 22<sup>nd</sup> April 1871.

(Signed) R. C. Norford  
 Executive Engineer  
 Nº 1 Range, S. A.

*Shanti*  
 Collector of South Arcot.

*Shankar* Colonel S. A.  
 Superintending Engineer S. A.

No. 1159 P. D. D.  
 Proceedings of the Madras Govt.  
 From. Read the following  
 The Chief Engineer  
 for Irrigation (H. E. No. 1829 of Mar. 1873)

Sanctioned for execution  
 from the grant for minor  
 new works agricultural  
 for 1873. 74.

Wm. 25/3/73  
 Wm.

To The Chief Engt. for Irr.  
 Dist. Engt. South Arcot  
 Controller P. W. Accts.

Dec. 23-4-73.

50  
 4

Q. No. 2036/73.  
 Q. No. 1159 of 73.

Abstract (Contract)

for & rebuilding an & construct

with & & from & & &

road to & & & on the

& & & & &

5<sup>th</sup> Division, P. D. No. 1159  
 about 1/2 mile  
 - 1/2 mile -

Amount of Estimate 26 1/2 1350

H: 365-66  
-87-1027 Feb

62241/72-A.8.

Op 2036

Cab. of 1873

PUBLIC WORKS.

The Chief Engineer  
for  
Irrigation

Dated

Recd.

Encl. 6

G. O., 22 April No. 1159.

No. 8651266

Aqueduct with foot path  
over the supply channel  
of Alapankum, South  
West St. Revised  
estimate for its re-  
construction, sanc-  
tioned.