blic Works (189) Department.

G.O., No. 714 I

DATED 17 August 1899

19/8/99

[Despatch Abstract.]

onolly's Canal, West Coast Dn. –

Sanctions, with remarks, an estimate of Rs 4,240 for improvements to —

110/4

P. W. 26.
300—1897-98.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

IRRIGATION.
ACCOUNT.

Government {1899} of Madras.
PUBLIC WORKS.

Recd. } 1899. *Enclosures*
Regd. *Spare copies*

G.O., No. 714 I., 17th August 1899.

AUGUST.

Conolly's Canal, West Coast Division

Sanctions, with remarks, an estimate of Rs. 4,240 for improvements to—.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers:—

From G. W. DANCE, Esq., I.C.S., Collector of Malabar, to the Secretary to the Commissioners of Land Revenue, dated Camp, Manjeri, 5th April 1898, Ref. on C. No. 2810—P.-97.

I have the honour to report that a remission, averaging Rs. 321, is annually granted to holders of lands along the Conolly canal in Calicut on account of damage caused to their fields by the influx of salt water. I therefore asked the Executive Engineer to favour me with his proposals for keeping the salt water out. I submit for perusal copies of my reference, of the petition therein mentioned, of the Executive Engineer's reply, and of a letter received from the District Engineer on the same subject.

2. When the canal was first opened, it is alleged that water gates were made to keep out the salt water, and high banks were constructed on both sides to protect the fields. The water gates have long since disappeared, and the banks have been allowed to fall into disrepair. Persons have been permitted to encroach on the canal thus reducing the waterway, and the discharge vent of the bridge at Pudiyara is only half what it should be. All these causes have combined to cause injury to an extensive area of wet land, and to endanger the safety of the bridge.

3. The Executive Engineer puts forward three alternative schemes: "The first provides", I quote from his letter, "for (1) building a new bridge at Pudiyara with increased waterway and with needle shutters to exclude the salt water after the rains have ceased; (2) the making up of the western bank of the canal from Pudiyara to Eranjikal to a height of 3 feet above maximum flood level with a top width of 6 feet covered with 4½ inches of gravel. If this scheme were adopted it would make a useful path and probably would not require attention for several years. (3) The construction of four new inlets in the western bank between Pudiyara and Eranjipalam to pass drainage water; they will also be provided with shutters to keep out flood water when the water in the canal is higher than the water in the fields. The cost of this scheme is—

		RS.
New bridge	... ...	6,700
Banking ...	... ...	10,160
Inlets ...	... ...	2,340
	Total ...	19,200

"The second alternative scheme provides for repairs to the western bank of the canal from Pudiyara to Eranjikal, and the construction of four new inlets. The dimensions of the bank have been cut down and the inlets designed on a more economical scale.

"The bank will be made up to 1½ above maximum flood level with a top width of 3 feet covered with 3 inches of gravel.

"The inlets will consist of 6 feet wide vents in a wall 3 feet thick. The cost of this scheme is—

		RS.
Bank	... ...	4,900
Inlets	... ...	770
	Total ...	5,670

"The third scheme is identical with the last, with the exception that it only provides for repairs to the bank at the Calicut end of the canal, that is, between the Pudiyara and Eranjipalam bridges. The cost will be—

		RS.
Bank	... ...	3,512
Inlets	... ...	728
	Total ...	4,240"

4. I recommend the adoption of the second scheme. A good interest in the shape of the assessment which is now being annually remitted will be obtained on the outlay.

5. I also think it would be a good thing to build a new bridge with needle shutters. If the Government will carry out the work, I will ask the District Board to contribute half the cost, viz., Rs. 3,350.

6. I am arranging for the removal of the encroachments.

Reference No. 493.

Forwarded to the Chief Engineer for Irrigation for favour of remarks.

(Signed) LIONEL DAVIDSON,
Acting Secretary.

2nd May 1898.

To the Superintending Engineer, IV Circle, dated 13th May 1898, No. IV./2 M.L.
Reference from the Board of Revenue, „ 11th Aug. „
To the Board of Revenue, „ 15th „ „ No. 258 M.
To the Superintending Engineer, IV Circle, „ 15th „ „ No. IV./4 M.L.
From the Board of Revenue, „ 28th Nov. „ No. 2898, Routine.
To the Superintending Engineer, IV Circle, „ 2nd Dec. „ No. IV./6 M.L.
Reference from the Board of Revenue, „ 20th Feb. 1899.
To the Superintending Engineer, IV Circle, „ 24th „ „ No. IV./1 M.L.

From A. H. GARRETT, Esq., Superintending Engineer, IV Circle, Coimbatore, to the Chief Engineer for Irrigation, dated Camp, Ootacamund, 15th May 1899, No. 110 I.

With reference to your No. IV./2 M.L., dated 13th May 1898, I have the honour to inform you that the Collector and Executive Engineer agree in considering it advisable to carry out the third of the alternative schemes submitted by Mr. Wood.

The Collector originally recommended the second scheme costing Rs. 5,670, but now abandons it in favour of the third, costing Rs. 4,240, as the area of land damaged by salt water north of the Eranjipalam bridge is very trifling.

The enclosures which accompanied your letter under reply are returned herewith.

To the Board of Revenue, dated 12th June 1899, No. 158 M.

To the Superintending Engineer, IV Circle, dated 12th June 1899, No. IV./2 M.L.

With reference to the Superintending Engineer's No. 110 I., dated 15th May 1899, the undersigned has the honour to observe that, in his letter No. 2810—P.-97, dated 5th April 1898, to the Commissioners, the Collector while recommending the second scheme of Rs. 5,670, said that he also thought that it would be a good thing to build a new bridge with needle shutters and that if Government would carry out this work he would ask the District Board to contribute half the cost, viz., Rs. 3,350. The bridge referred to formed one of the items of the first scheme, estimate Rs. 6,700. If the Superintending Engineer agrees with the Collector in thinking this bridge necessary he is requested to submit the plan to this office for sanction, the estimate having already been sent with his letter under reply.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

Proceedings of the Board of Revenue (Land Revenue), Mis. No. 2097, dated 4th July 1899.

Read—the following papers:—

From G. W. DANCE, Esq., Collector of Malabar, Ref. on C. No. 2810—P.-97, dated 5th April 1898; and the following reference thereon, dated 2nd May 1898, No. 493:—

Forwarded to the Chief Engineer for Irrigation for favour of remarks.

From the Chief Engineer for Irrigation, dated 12th June 1899, No. 158 M.

Resolution—Mis. No. 2097, dated 4th July 1899.

The Board approves of the scheme proposed for improving the Conolly canal at Calicut, Malabar district, at a cost of Rs. 4,240, viz., by constructing four new inlets for the passage of drainage water in the western bank between Pudiyara and Eranjipalam and providing them with shutters to keep out flood water. The papers will accordingly be transferred to the Chief Engineer for Irrigation for the necessary action.

(True Copies and Extract.)

(Signed) L. D. SWAMIKANNU,
for Acting Secretary.

No. 152 I.

Note by the Chief Engineer for Irrigation.

At the instance of the Collector of Malabar, the Executive Engineer, West Coast division, prepared three schemes, as noted in the margin, for improving Conolly's canal with a view to prevent the damage caused to the canal by the influx of salt water, and save the remission averaging Rs. 321 annually granted. The Superintending Engineer, IV Circle, reports that the Collector and the Executive Engineer agree in considering it advisable to carry out the third scheme which consists of raising the bank and gravelling it, and building four inlets. This scheme, which has been approved by the Board of Revenue, may be sanctioned.

				RS.
First	scheme costing	...	...	19,200
Second	„ „	...	...	5,670
Third	„ „	...	...	4,240

2. The Superintending Engineer has, in this office memo. No. 2 M.L., dated 12th June 1899, been instructed to submit a plan of the proposed new bridge at Pudiyara, if he agrees with the Collector in thinking it necessary. He should expedite the despatch of his reply to the memorandum.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

22nd July 1899.

ORDER—No. 714 I., dated 17th August 1899.

The following estimate is sanctioned:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.
Original Works.
West Coast Division.
Improving the Conolly's Canal.

	RS.
Estimate	4,240

2. This sanction is registered as No. 48 I. of 1899–1900.

3. The attention of the Superintending Engineer, IV Circle, is drawn to the remarks in paragraph 2 of the foregoing note by the Chief Engineer for Irrigation.

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ Superintending Engineer, IV Circle. with one estimate of Rs 4240-
„ Examiner, Public Works Accounts.

Exd. P. Seetharam.

BACK PAPE

Public Works (1898) Department.

CURRENT No. ~~4 M L~~ 196 M

SUPG. ENGINEER'S OFFICE, P.W.D.
No.
4 JUN. 98
Encl.
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY 1899

R 5 M L
11

EXECUTIVE ENGINEER'S OFFICE.
No. 1/325/10
10 JUN. 1898
P. W. D.
WEST COAST DIVISION.

EXECUTIVE ENGINEER'S OFFICE.
No. 1/21/10
26 MAY 1898
P. W. D.
WEST COAST DIVISION.

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 115
20 MAY. 98
Encl. 6
FOURTH CIRCLE.

From Board of Revenue
Land Revenue

No. $\frac{IV}{2 ML}$ d/13-5-98

~~Order~~

Forwarded in original to the Superintending Engineer 4th Circle for early report, on the Collector's recommendation

W. Hughes
13. 5. 98 S. I.
Chief Eng. for Irrign.

11/6
98

Ref. No. 493.

Dated 2d May 1898

Received
Registered } 3d May 1898

Enclosures 5.

Spare copies

SUBJECT.

Damage caused to the field along the Conolly Canal by the influx of salt water. Forwarding to D E I for favour of remarks letter from the Collector of Malabar reporting about the —

D. E. I.

16/7/85

Encls. No. 1 & letter No. $\frac{110}{I}$ d/15-5-99

D.W.E.I
66.74/99

9/5/85

P. L. 98

BACK PAPE

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

Dr. Coll. No 2810
P97

1748
17-4-99

18

Malabar Collectors Office
Camp Manjeri 5th April 1899

From
G. W. Dance Esquire I.C.S.
Collector of Malabar

To
The Secretary to the Commissioners of
Land Revenue,
Madras.

Sir,

I have the honour to report that a remission, averaging Rs 321 is annually granted to holders of lands along the Conolly Canal in Calicut, on account of damage caused to their fields by the influx of salt water. I therefore asked the Executive Engineer to favour me with his proposals for keeping the salt water out. I submit for ~~reference~~ perusal copies of my reference, of the petition therein mentioned, of the Executive Engineer's reply, and of a letter received from the District Engineer on the same subject.

2. When the Canal was first opened, it is alleged that water gates were made to keep out the salt water, and high banks were constructed on both sides to protect the fields. The water gates have long since disappeared, and the banks have been allowed to fall into disrepair. Persons have been permitted to encroach on the Canal, thus reducing the waterway, and the discharge vent of the bridge at Puduyara is only half what it should be. All these causes have combined to cause injury to an extensive area of wet land, and to endanger the safety of the bridge.

3. The

3. The Executive Engineer puts forward three alternative Schemes. The first provides" I quote from his letter, "for (1) building a new bridge t Pudiyara with increased waterway and with eedle shutters to Exclude the salt water after e rains have ceased (2) the making up of the estern bank of the Canal from Pudiyara to rayjikal to a height of 3' above maximum lood level with a top width of 6' covered with $4\frac{1}{2}$ inches of gravel. If this ~~section~~ scheme were dopted it would make a useful path and probably would not require attention for several years. (3) the Construction of four new inlets in the western bank between Pudiyara and Erayjipalam to pass drainage water; they will also be provided with shutters to keep out flood water when the water in the Canal is higher than the water in the fields. The Cost of this Scheme is

ENGIN No ...... 1- ENCLO FOURT

New Bridge	Rs 6,700.
Banking	" 10,160
Inlets	" 2340
	19,200

"The Second alternative Scheme provides for repairs to the western bank of the Canal from Pudiyara to Erayjikal, and the Construction of four new inlets. The dimensions of the bank have been cut down and the inlets designed on a more economical scale.

The bank will be made up to $1\frac{1}{2}$ above maximum flood level with a top width of 3' covered with 3 inches of gravel.

The inlets will consist of 6' wide vents in a wall 3' thick. The Cost of this Scheme is —

Bank	Rs 4,900
Inlets	" 770
	5,670

"The third Scheme is identical with the last with the Exception that it only provides for repairs to the bank at the Calicut end of the Canal, that is between the Pudiyara and Erayjipalam bridge. The Cost will be

Bank	Rs 3,512
Inlets	" 728
	4,240 "

4. I recommend the adoption of the second scheme. A good interest in the shape of the assessment which is now being annually remitted will be obtained on the outlay.

5. I also think it would be a good thing to build a new bridge with needle shutters. If the Government will carry out the work, I will ask the District Board to contribute half the cost viz Rs 3350.

6. I am arranging for the removal of the encroachments.

I have the honour to be
Sir
Your most obedient servant

Collector of Malabar

BOARD'S GEN. REG. No. 1523 OF 1898
LAND REVENUE

II A
19/4

EXECUTIVE ENGINEER'S OFFICE
No. 2/217/10
26 MAY. 1898
P. W. D.
WEST COAST DIVISION.

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 214 W.C.
1 APR. 99
Enclo. 12
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY. 1899
R 5 Md
10

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 115
20 MAY. 98
Enclo. 1
FOURTH CIRCLE.

From.

The Collector of Malabar

CHIEF ENGINEER
FOR IRRIGATION.
3 - MAY. 1898
~~4111~~
1

BOARD OF REVENUE,
18 APR. 98
MADRAS.

To,

196 M
1

The Secretary to the Commissioner of Land Revenue, Madras

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 3186
4 JUN. 98
Enclo. 6
FOURTH CIRCLE.

Dated 5 - 4 - 98.

Encl. 4

EXECUTIVE ENGINEER'S OFFICE
No. 1/325/10
10 JUN. 1898
P. W. D.
WEST COAST DIVISION.

Enclo: No 2 to letter No 110/9 d/15-5-99

Subject

Reporting about the damage caused to the fields along the Conolly Canal by the influx of Salt water

5/238 M.

To

His Excellency
The Governor of Madras.

May it please Your Excellency,

We the residents of Kasaba, Kottuli, Kasheri, Edakad and Maravur amsoms of Calicut Taluk, beg to welcome your Excellency to Calicut, and avail ourselves of this opportunity to represent to your Excellency the extensive loss, sustained by land owners in the said amsoms, owing to the influx of salt water through the Conolly Canal, which has rendered lands, on either side for miles, unfit for cultivation.

2. When the late Mr. Conolly projected the construction of the Canal, the then Zamorin remonstrated with him, and it was agreed between them that the Government should undertake to put up water gates at Iudiyara on the way to the Lunatic Asylum so as to keep off sea water. The agreement was carried out, and the gates existed until not very long ago. Mr. Conolly

had. Further constructed high roads on both sides to confine the salt water, flowing in. These banks have since been used as high roads, although they are for want of care & repair, broken in many places letting in salt water to the utter destruction of hopes of the ryots, cultivating the adjacent lands.

3. The Government have in time been reduced to the necessity of exempting vast areas from assessment, and the present picture of what was once rich with cultivation is nothing better than that of a dreary waste. It deserves in this connection to be mentioned that the advantages secured to the cause of trade at such terrible cost, are lamentably small, and the canal scheme carried into effect, remains a monument of failure, speaking audibly against itself.

4. We beg therefore to request that in the interest of the State & of the land owners, aforesaid, Your Excellency may be pleased to direct

the

---

the D.P.W to construct a water gate at Pudiyara so as to keep out water, daily rushing in & making lands around, a salt waste.

We beg &c.

Residents of

Calicut
30. 9. 96

1 Kottuli 2 Kuchari
3 Edakad 4 Karanur.

Sd. Thayyil Theyyunni Nair
& 22 others.

True Copy.

for Collector.

SUPG. ENGINEER'S OFFICE
No. 214 W.C
ENCLO 13

CHIEF ENGINEER FOR IRRIGATION.
16 MAY 1899
R5 m/9

EXECUTIVE ENGINEER'S OFFICE
No. 6/21 7/11
26 MAY 1898
P. W. D.
WEST COAST DIVISION.

SUPG. ENGINEER'S OFFICE P.W.D.
No. 115
20 MAY 98
ENCLO 2
FOURTH CIRCLE

CHIEF ENGINEER FOR IRRIGATION.
3-MAY. 1898
No. 4/11

196 M/2

SUPG. ENGINEER'S OFFICE P.W.D.
No. 3184
4 JUN. 98
ENCLO 5
FOURTH CIRCLE.

EXECUTIVE ENGINEER'S OFFICE
No. 5/325
10 JUN. 1898
P. W. D.
WEST COAST DIVISION.

Enclo: No. 3 to letter C.E. 110 X/15-5-99

1/238 m

Calicut
17-x-1896.

To

The Executive Engineer
West Coast Division
Calicut

Sir,

With referance to your letter dated 18th May 1893 No. 1590, I have the honour to enquire whether the reconotonetion of the lock at Pudiyara would relieve the grievances of the adjoining landholders who complain that, owing to the influx of salt water through the Conolly Canal lands, on either sede for miles, have been rendered unfit for cultivation.

I have &c
(Signed) V. Rajagopalachary
For Collector

True Copy

For Collector

D.S. III

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 214 W.E.
1 APR. 99
Encio 14
FOURTH CIRCLE.

EXECUTIVE ENGINEER'S OFFICE,
No. 4/2170
26 MAY. 1898
P.W.D.
WEST COAST DIVISION.

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY. 1899

R5Md
8

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 1153
20 MAY. 98
Encio 3
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
3 - MAY. 1898
No. 4 M

3

196 M
3

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 3184
4 JUN. 98
Encio 4
FOURTH CIRCLE.

EXECUTIVE ENGINEER'S OFFICE,
No. 4/1325
10 JUN. 1898
P.W.D.
WEST COAST DIVISION.

Enclo: No. 4 to letter No. 110/J d/15-5-1

2/238 M

No. 129 M.

Executive Eng ’s
West Coast
Calicut 29th 1898

To
The Collector of Ma

Sir,

In reply to your ~~letter~~ No. 2810/P.97 dat 25th November 1897 I have the honour to sub proposals for the improvements of the Cono Canal between Pudiyara bridge and Eranj

2. The object of the Scheme is to exclude water and to prevent as much as possi the submersion of the lands lying to the of the Canal between Pudiyara bridge an Eranjipalam bridge.

3. The state of affairs existing at Pudiya bridge first claims attention. There is amp evidence to show that the bridge has no sufficient waterway. A section through the Centre of the bridge shows the existence of deep scour hole below; and from the cracks the superstructure it is clear that the foun ations have been disturbed. The waterway of the bridge is 23' x 9' high from floor to Maximu flood level, that is, a vent area of 207. have taken the area of drainage to be 4½ square miles and to pass the discharge from this a vent area of 546 is necessary. Thu to start with it may be taken that the wa way of the Pudiyara bridge is less tha half what it ought to be.

4. Neither is the bridge provided with the mea of excluding salt water and it would be impos

if … bridge were strong to provide them
out further diminishing the waterway.
rover the bridge is badly Cracked and the East
tment has been tied together with iron rails.
The right bank of the Canal has been allowed
fall into utter disrepair and the means of
cing the drainage from the lands lying
ween the Canal and Calicut are not what they
ght to be.

I put forward three alternative schemes.
e first provides for (1) building a new bridge
Pudiyara with increased waterway and
h needle shutters to exclude the salt water
er the rains have ceased. (2) the making up
the western bank of the Canal from Pudiyara
Eranjikkal to a height of 3' above maximum
ght flood level with a top width of 6' covered
ith 4½ inches gravel. If this section were
opted it would make a useful path and
obably would not require attention for several
ears. (3) the construction of four new inlets in
western bank between Pudiyara and Eranji
lam to pass drainage water; they will also be
ovided with shutters to keep out flood water
en the water in the Canal is higher than
water in the fields. The Cost of this scheme is.

GINEER'S OFFI
No………
1 APR 89
Enclo………
OURTH CIR

New bridge.	Rs 6700
Banking	" 10160
Inlets	" 2340
	19,200.

The second alternative scheme provides for
pairs to the western bank of the Canal from
udiyara to Eranjikkal and the construction
four new inlets. The dimensions of the.
bank

bank have been cut down and the inlets des
on a more economical scale.

The bank will be made up to 1½ abo
maximum flood level with a top wid
Covered with
inches of gravel.

The inlets will consist of 6' wide ven
a wall 3 feet thick. The Cost of the scheme i

Bank	Rs 4900
Inlets	" 770
	" 5670.

8. The third scheme is identical with the
with the exception that it only provides f
repairs to the bank at the Calicut end of
Canal that is between Pudiyara and Eranjik
bridge. The Cost will be.

Bank	Rs 3512
Inlets	" 728
	" 4240

And this I think is the lowest figure at w
any material improvement can be obt
if it is considered necessary to maintain
bank above maximum flood level. Of co
if it is not considered objectionable that th
bank be overtopped in high floods, the heig
could be cut down another 2' or so and
cost of the bank considerably reduced, bu
I do not recommend this economy as t
bank would require constant attenti
and repairs in the monsoon. On the financ
aspect of the scheme I am not in a positio
to express any opinion as I have not befo
me the necessary details of area of cultivat
to be … , amount of remissi

as Ao … prov the water to spread over

When Considering the advisability of tructing a new bridge at Pudiyara, it ld not be unreasonable to take into deration the fact that the present bridge ht at any time fail, and the Cost of its nstruction might be taken as a set off uist the Cost of the first scheme.

I have &c.

(Sd) C. W. Wood

Executive Engineer

Engineer's Office
No. 214.W.C
1 - APR. 99
Enclo 17
Fourth Circle

Executive Engineer's Office
No. 5/187/W
26 MAY. 1898
P. W. D.
West Coast Division.

(True Copy)

Chief Engineer
for Irrigation.
10 MAY. 1899
R5ML

7

Chief Engineer
for
3 - MAY. 1898
No ~~4ML~~
~~4~~

For Collector

196 M
4

Ul

Engineer's Office, P.W.D.
No. 115
20 MAY. 98
Enclo 4
Fourth Circle.

Engineer's Office
3/325 Ml
10 JUN 1898
P. W. D.
Division.

Supg. Engineer's Office P.W.D.
No. 3184 C
4 JUN. 98
Enclo 3
Fourth Circle.

Cc: R.E.S to letter No. 110/9 d/15-5-99

3/238 M

Refer C. No. 389/D.B.C.D. of 98

Dt. Bd. Dt. Engineer's Office
Malabar, Calicut 27 January 1898

From,
W. Maylor Esqr. A. M. I. C. E.
Dt. Engineer. Dt. Bd.
Malabar

To,
The President Taluk Board
Calicut

Sir,

I have the honor to report I inspected the Pudiachera Bridge over Canolly's Canal on road No. 50 yesterday and found the Crack on the north side of the West abutment has increased. This is due to the foundation being undermined by the greater flow that now takes place at such a small opening and the original shutter sluice to the Canal, owing to the velocity of water through this channel being Considerably increased by ryots encroaching and reclaiming land that, I am aware, was one time under water north & south of the bridge, and which was the original back water as the road embankment will prove. I have the honor to request that this reclamation may be stopped at once and the obstruction cleared away so as to allow the water to spread over a greater area as previously before it flows through the opening at Bridge, and thereby reduce the velocity and scour, and ~~to~~ So protect the bridge whose stability is now endangered as the foundations are of no great depth. Otherwise it will soon Collapse and a new bridge of greater span & on well foundations must be built and will be an expensive work. Prevention is better than Cure - I think if it is not too late. 'At any rate, I have instructed the overseer to Submit estimate sharp for ~~tieing~~ bracing the abutment together with Iron rails and rods as done to the East abutment and further protecting the north side of West abutment and wing with laterite boulders.

I have &c

(Sd) W. Maylor

Dt. Engineer Dt. Bd.

Malabar

True Copy

For Collector

SUPG. ENGINEER'S OFFICE P. W. D.
115.J
20 MAY. 98
Enclo 5
FOURTH CIRCLE.

EXECUTIVE ENGINEER'S OFFICE.
No. 2/325 Mg
10 JUN. 1898
P. W. D.
WEST COAST DIVISION.

EXECUTIVE ENGINEER'S OFFICE.
No. 6/21 7/G
26 MAY. 1898
P. W. D.
WEST COAST DIVISION.

SUPG. ENGINEER'S OFFICE
No. 844 W
1 - APR. 99
Enclo 16
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
3 - MAY. 1898
No 4 M
5

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY. 1899
R 5 M L
6

196 M
5

SUPG. ENGINEER'S OFFICE P. W. D.
No. 3185 C
4 JUN. 98
Enclo 2
FOURTH CIRCLE.

Enclo: No 6 to letter No 110/J d/15-5-99

4/238 M

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	TOTAL.
1	2	3	4	5	6
		RS.		RS.	RS.
	Embankment.				
857025 838643	c.p. Earthwork with an extra lead of 20 yards —	5-4-0	C. ft. 1000	4499 4403	
12255 18302	c.p. Gravelling.	[illegible] 28-8-0	Do	172 515	
	Contingencies & Petty Supervision at 5%			229 242	

Compensation for land ?

Grand Total of Estimate .. 4900 ~~5160~~ Rs

STATION——
Date——189 .

Saldanha
Sub Engr.
24/11/98.

Executive Engineer.

C. W. Wood
29/11/98 Ex Engr

(28)

SUPG. [illegible] CIRCLE
No 214 W.O.
1-APR.99
Encl 17

[illegible] ENGINEER
[illegible]
19 MAY 1899

R 5 Md
4

No 2 Scheme

[illegible] ENGINEER'S OFFICE
22 JUN. 1898
P.W.D.
WEST COAST DIVISION.

(E. No. 123.)

50,000—6-1-96.

CIRCLE—

DIVISION—

DISTRICT—

TALUK (OR ESTATE IN CASE OF ESTATE WORKS.)

ESTIMATE FORM.—Abstract.

Financial Head—

Budget Head—

Departmental Head—

Main Head—

Sub-Head—

Project of which the work forms part— No 2

Section—

Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

8/238m

REFERENCES.

Bank.	Rs 4900
Indts	770
Total	5670

Data to accompany the Estimate for repairing the Conolly's Canal.

EXECUTIVE ENGINEER'S OFFICE
No.
22 JUN. 1898
P.W.D.
WEST COAST DIVISION.

Broken laterite soorkee concrete

		Rs.
100	C. ft As per Schedule item No. 74	10-0-0
100	C. ft stones 3 miles from Karaparamba @ Rs 3-9-0 per 100 c. ft.	3-9-0
17	c. ft lime carted from Karapuzah 7 miles @ Rs 4-11-6 per 100 cft.	.. 12-10
17	c. ft sand from sea-shore 1½ mile @ Rs 2-1-0 per 100 c. ft —	5-7
	Total	14-11-5
	Or say —	14-12-0

Laterite stone in mortar-soorkee

		Rs
100	c. ft As per Schedule item No 96-	14-0-0
	Add for soorkee —	1-0-0
100	c. ft stones carted 3 miles from Karaparamba @ Rs 4-7-0 per 100 cft	4-7-0
14	c. ft lime 7 miles @ Rs 4-11-6 per 100 cft —	.. 10-6
14	c. ft Sand 1½ mile @ Rs 2-1-0 per 100 cft.	0-4-7
		20-6-1
	Total. Or say	20-8-0

Archwork - Machine made bricks in Soorkee mortar.

		Rs
100	C. ft as per Schedule - item No. 81-	30-0-0
	Add for soorkee. item No 87	1-0-0
14	C. ft lime carted 7 miles @ Rs 4-11-6 per 100 cft.	10-6
14	c. ft Sand carted 1½ mile @ Rs 2-1-0 per 100 c. ft.	4-7
		31-15-
	Or say	32-0-

100. cft metalling with broken laterite stones

100 cft metal as per item No 28 — Rs 4-0-0

100 cft carted 3 miles @ Rs 3-9-0 per 100 c-ft — 3-9-0

Spreading & consolidating @ 2as 8ps per 100 cft — ~~1-10-6~~ 2-8

Total for 100 c-ft — ~~9-3-6~~ 7-11-8

say ~~9-4-0~~ 7-12-0 BMW

Cutstone work —

1 C.ft Quarried & delivered — Rs as ps 1-8-0

1 cft carriage to Shoranur Railway Station 3 miles @ Rs 6-3-0 per 100 cft = 0-1-0

Carriage to site including building &c — 2-0

Rs 1-11-0

Laterite blocks laid squared dry for apron

100. cft as per Schedule item No. 26 — Rs as ps 5-0-0

100 cft carted 3 miles @ Rs 4-7-0 per 100 cft — 4-7-0

Building — 0-9-0

Total 10-0-0

Earthwork —

1000 cft as per Schedule item No 59 — 4-6-0

Cartage ~~40~~ 20 yards extra lead @ as 7 ~~per~~ 10 yards — 0-14-0

Total — Rs 5-4-0

Gravelling 1000 cft.

1000 c.ft as per Schedule item No 60 — 6-4-0

1000 c.ft beating work ~~carted 1¼ miles @ Rs 2-1-0 per~~ — 6-0-0 ~~20-10-0~~

100 cft spreading & consolidating @ as 2-8 per 100 cft — ~~1-10-6~~

Wells of brick in mortar, 3 ft internal & 4½ ft external diameter, 6 ft deep & filled in with surkhi concrete. Curb of mango planks ~~2"~~ 3" thick.

~~70.68~~ 53.00 c.ft Archwork @ Rs 32 per 100 cft = Rs as ps 16-15-4

46.12 c.ft Concrete @ Rs 14-12-0 per 100 cft = 6-12-10

Mango wood curb — 1-~~0~~ 4-0

Sinking charges — 2-0-0

Total — ~~25-12-2~~ 27-0-2

say ~~25-12-0~~

Say Rs 27

B M W Arbuckle
Sub Engr.
18/1/98

~~Revetment of laterite blocks masonry~~

~~100 cft at quarry — 2-0-0~~

~~100 cft carted 3 miles @ Rs 4-7-0 per 100 cft — 4-7-0~~ BMW

~~Building~~ — ~~0-9-0~~

~~7-0-0~~

BMW

EXECUTIVE ENGINEER'S OFFICE
22 JUN 1898
P.W.D.
WEST COAST DIVISION

NUMBER
FOR ... GATION.

R5ML
3

SUPG. ENGINEER'S OFFICE P.W.D.
No 244 W.C.
1-APR 99
Encl 15
FOURTH CIRCLE.

9/238M

Pudiyarakal Bridge - Conolly's Canal

E. 120.
50,000—6-6-96.

9

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of Work.
1	2	3	4	5	6	7
Foundation: Wells, 3' internal 4½' Ex: dr., 6 ft deep & filled in with Soorkee Concrete (Brick in Soorkee mortar)	76	..	.	.	.	
Total No.						76
Soorkee Concrete. Under retaining walls	10	8	4¼	2	680	
floor —	5	8	14	2	560	
Total Concrete c ft						1240
Laterite in Soorkee mortar.						
Foundation. Retaining wall	10	8	1½	1	120	
Do	10	8	2¼	1	180	
Suptr. - Piers & the ~~correspon~~ding half of abutments	5	17	2½	11	2338	
Do - above springing line to top of platform	5	2	2½	3	75	
Abutments, remainder of	2	20	2½	11	1100	
Cutwaters to piers & abutments	10	1½	1¼	11	206	
Caps of cutwaters	10	1½	1¼	⅓	6	
Skew backs over abutments	2	15	3¼	½	49	
Do — over piers	4	15	1⅝	½	49	
Backing over abutments, rectangular part -	2	11	2¾	2⅝	159	
Do - triangular part	2	11	4	¾	66	
Spandrils	4	11	4¼	2½	467	
Face walls from skewbacks to blocking course —	2	61½	2	3⅝	892	
Returns of facewalls over abutts.	2	2				
	2	4	2	4⅛	51	
Blocking course over arches	2	61	1¾	¾	160	
					5918	

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
					5918	
Parapet walls -	2	60½	1½	2½	454	
Wing walls.	4	21¾	3¾	15⅛	4935	
Pilasters at ends of wings	4	2½	¼	15⅛	40	
Blocking course over wing walls & returns.	2 2	21¾ 23¾	1¾	¾	119	
Parapet walls — Do	2 2	21¾ 23¾	1½	2½	341	
Pedestals at ends of parapets	4	2	2	3½	56	
Cordon work along face of blocking course.	1 2	108 23¾	¾	¾	87	
Total -					11950	
Deduct. Segmental spaces from facewalls —	10	area 29½	2		590	
Total Laterite in surkhi mortar less deduction. cft						11360
Archwork. brick in mortar	5	12⅔	15	1⅛	1069	
Total archwork, brick in mortar - cft					=	1069
Plastering with cement.						
Face of abutments & piers	10	17	..	11	1870	
Cutwaters	10	4	..	11	440	
Caps of cutwaters	10	2	1¾	..	35	
Facewalls & returns to top of blocking course —	1 1	61½ 65½	.. ..	6⅜ 4⅞	392 319	
Projection of platforms above springing line -	8	2	..	3	48	
Wing walls to top of cordon	4	24½	..	9½	931	
Parapet walls, sides & top	1 1	104 108	..	7	1484	

E. 120.
50,000—6-6-96.

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Pedestals at ends of parapet walls	4	6½	..	2½	65	
Caps of pedestals	4	3½	3½	-	49	
Intrados of arches.	5	11	15	..	825	
Floor -	5	9	16	..	720	
Total.					7178	
Deduct - Segmental spaces from facewalls —	10	area 20	..		200	
Caps of cutwaters	12	2½	-	½	15	
Total deduction					215	
Total plastering less deduction - Sqft -					=	6963
Metalling - over arches	1	61	11½	½	351	
Between wings	2	22½	16½	½	371	
Total metalling c.ft -						722
Junglewood - Karimarudu. wrought & put up.						
Beams.	10	11½	⅔	⅚	63.89	
Needle shutters	5	9½	¼	15½	184.06	
Guide planks.	5	9½	⅛	2½	14.84	
Total junglewood - wrought & put up. cft						=262.79
Cutstone sill stones -	5	10½	1	½	27.50	
Total cutstone - cft					=	27.50
Excavating gravel & making it up & using bund & baling.		L.S.				
Centering - L.S.						
Holding down plates with rod.						
Anchor plates and bolts	6					No. 6.
Gravelling roadway.						
over arches	1	61	11½	¼		
bet. wings	2	22½	16½	¼	361	
Total gravelling. cft						361

SUPG. ENGINEER FOURTH CIRCLE.
No. 214 W.C
1-APR.99
ENCLO 19

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	Measurements in Feet.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	TOTAL.
1	2	3	4	5	6
		RS.		RS.	RS.
	Poodiyarkal Bridge—				
76	No. Wells of brick in soorkee mortar 3' internal & 4½' ex: do. and filled in with soorkee cement, 6 ft deep	27 ~~25-0-0~~	~~Each~~	2052 ~~1957~~	
1240	C.ft. Broken laterite soorkee cement	14-12-0	C.F 100	183	
11360	C.ft. Laterite in soorkee mortar	20-8-0	Do	2329	
1069	C.ft. Archwork, brick in soorkee mortar	32-0-0	Do	342	
6963	S.ft. Plastering with cement 2 coats	6-0-0	S.F 100	418	
722	C.ft. Metalling, laterite	7-12-0 ~~9-4-0~~	C.F 100	56	
262.79	C.ft. Karimarudu wood wrought and put up.	1-12-0 ~~2-0-0~~	C.F	460	
27.50	C.ft. Cutstone work.	1-11-0	C.F	46	
6	No. Holding down plates with rod, anchor plates & bolts.	12-0-0	Each	72	
	Excavating & making up bank ~~ring bund & baling~~—	L.S.		50	
	Centering —	L.S.		50	
	Dismantling the Existing Bridge—	L.S.		100	
361	C.ft. gravelling roadway	28-8-0	C.F 1000	10	
	Ring bunds.			100	
	Petty supts. & Contingencies @ 5%			332 ~~327~~	
	Baling			100	

Grand Total of Estimate .. 6700 ~~6500~~

STATION——————
Date—————————189 .

Sub Engr.
18/1/98

Executive Engineer.

C. W. Wood
29/1/98 Sg Engr

SUPG. ENGINEER'S OFFICE, P.W.D.
No. 214: W.C
1-APR.99
Encl 20
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY 1899

(E. No. 123.)

50,000—6-1-96.

CIRCLE—

DIVISION—

DISTRICT—

TALUK (OR ESTATE IN CASE OF ESTATE WORKS.)

ESTIMATE FORM.—Abstract.

Financial Head—

Budget Head—

Departmental Head—

Main Head—

Sub-Head—

Project of which the work forms part—

Section—

Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

REFERENCES.

10/238M

Inlets in Conolly's Canal.

E. 120.
50,000—6-6-96.

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of Work.
1	2	3	4	5	6	7
No. 1 Inlet at C. S. No. 2.						
Concrete in soorkee mortar.						
Foundations for Abutments, wings & returns	2	37	5	3	1110	
Under retaining walls	2	10	3½	1	70	
Flooring	1	4	6	1	24	
Do —	2	6	3	1	36	
Total					1240	
Deduct. Ends of retaining walls under the returns	4	2	1½	2	24	
Total concrete, less deduction c. ft.						1216
Laterite in soorkee mortar.						
Abutments, wings & returns	2	35½	2¼	7	1118	
Abutments, top portion	2	6	1½	2	36	
Wings do	4	5	1½	1	30	
Retaining wall, front	1	10½	1½	2½	39	
Do — ends	2	2	1½	2	12	
Do — rear	1	14½	1½	2	46	
Total laterite in soorkee mortar. c. ft.					=	1279
Pointing with Portland Cement.						
Abutments	2	6	..	9	108	
Wings	4	6½	..	8	208	
Returns	4	10½	..	7/2	147	
Top of abts., wings & returns	2	37	1½	..	111	
Tops of retaining walls	2	13	1½	..	39	
Front of front retaining wall	1	15	..	2	30	
Total pointing S. ft.						643
Junglewood, Karimarudu, wrought & put up.						
Planks.	1	7	8	1/6	9.33	

ENGINEER FOR IRRIGATION. 19 MAY 1899

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of Work.
1	2	3	4	5	6	7
Hand rails, top bar	2	8	4"	4"	1.78	
Bottom bar	2	8	6"	3"	2.00	
Center rib	2	8	2½"	1½"	.42	
Uprights	~~4~~ 8	3	4"	4"	~~1.33~~ 2.67	
Struts	8	3½	4"	4"	3.11	
Total Junglewood wrought & put up					Cft.	~~17.97~~ 19.31
Iron rails —	3	8			24	
Total iron rails			Rft			24
Bedplates under rails						
Split stones	2	6	1	4"	4	
Total split stone			cft			4
Laterite blocks ~~Rubblestone~~ dry. Apron	1	15	6	1½	135	
Total rubblestone dry			cft			135
Excavating foundation, baling, ring bund &c.					L.S	Rs 10

Sub Engr.
18/1/98

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	Total.
1	2	3	4	5	6
		RS.		RS.	RS.
	Constructing an Inlet at C.S. No 2.				
1216	C.ft Concrete in Soorkee mortar	14-12-0	C.F 100	179	
1279	C.ft Laterite in Soorkee mortar	20-8-0	Do	262	
663	S.ft Pointing with cement	3-0-0	S.F 100	19	
~~17.97~~ 19.31	C.ft Karimarudu wood, wrought & put up.	1-12-0	C.F	34	
24	Rft iron rails —	0-8-0	Rft	12	
4	C.ft Cutstone work —	1-11-0	C.F	7	
135	C.ft Laterite stone dry squared	10-0-0	C.F 100	14	
	Excavating foundation, baling, ring bund &c. L.S.			10	
	Petty supn & Contingencies @ 5%			~~26~~ 23	
	~~Total~~				560
	Inlets at C.S. No 5, 11 & 19. Same as above. 3 × 560				1680
	Improving the 2 Inlets at C.S. 38 & 39 to suit the proposed banks. L.S				100

Grand Total of Estimate ~~2240~~ 2340 Rs

STATION
Date 189

Sub Engr.
18/1/98

Executive Engineer.

C. W. Wood
Sr: Engr
29/1/98

(E. No. 123.)

50,000—6-1-96.

SUPG. ENGINEER'S OFFICE P.W.D.
No ....
1-APR.99
Endd ....
FOURTH CIRCLE.

CHIEF ENGINEER
FOR THE RAILWAYS
13 MAY 1899

CIRCLE—

DIVISION—

DISTRICT—

TALUK (OR ESTATE IN CASE OF ESTATE WORKS.)

ESTIMATE FORM.—Abstract.

Financial Head—

Budget Head—

Departmental Head—

Main Head—

Sub-Head—

Project of which the work forms part—

Section—

Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

REFERENCES.

11/238M

ESTIMATE FORM—Calculation Sheet.

Number of Section.	Area of present Section.	Area of proposed Section.	Difference.	Mean Area.	Length.	Cubical Contents.	REMARKS.
1	2	3	4	5	6	7	8
Earthwork. Embankment.							
0		0					
1		126		63	330	20790	
2		106		116	330	38280	
3		165		135.5	330	44715	
4		116		140.5	330	46365	
5		129		122.5	330	40425	
6		139		134	330	44220	
7		135		137	330	45210	
8		130		132.5	330	43725	
9		121		75.5	330	24915	
10		108		64.5	330	21285	
11		143		125.5	330	41415	
12		136		139.5	330	46695	
13		161		148.5	330	49005	
14		152		156.5	330	51645	
15		150		151	330	49830	
16		144		147	330	48510	
17		128		136	330	44880	
18		122		125	330	41250	
19		125		123.5	330	40755	
20		170		147.5	330	48675	
21		120		145	330	47850	
22		119		119.5	330	39435	
23		163		141	330	46530	
24		108		135.5	330	44715	
25		116		112	330	36960	
26		95		105.5	330	34815	
27		91		93	330	30690	
28		82		86.5	330	28545	
29		71		76.5	330	25245	
30		62		66.5	330	21945	

ESTIMATE FORM—Calculation Sheet.

Number of Section.	Area of present Section.	Area of proposed Section.	Difference.	Mean Area.	Length.	Cubical Contents.	REMARKS.	ount	TOTAL.
1	2	3	4	5	6	7	8		6
									RS.
31		54		58	330	19140			
End		0		27	200	5400			
0		0							
32		33		16.5	300	4950			
33		57		45	660	29700			
34		97		77	660	50820			
35		102		99.5	660	65670			
36		127		114.5	660	75570			
37		153		140	660	92400			
38		107		130	330	42900			
39		175		142	330	46860			
40		126		150.5	330	49665			
41		109		117.5	330	38775			
42		95		102	330	33660			
43		74		84.5	330	27885			
End		0		37	100	3700			
0		0							
44		43		21.5	230	4945			

Total [illegible]work. c.ft. 1781360

Deduct. gravelling as per gravelling. c.ft. 36765

Total Earthwork, less deduction c.ft. = 1744595

Gravelling c.fs. } 1 = 10430 × 6 × 3/8 = 23467
of bank } 1 = 5910 × 6 × 3/8 = 13298

Total gravelling. c.ft. 36765

Asst. Engr.
15/1/97

STATION

Dated 189 .

Executive Engineer,

Division.

Numbe
of
Sectio

1

Ea

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	TOTAL.
1	2	3	4	5	6
		RS.		RS.	RS.
	Bank.				
1744595	C. ft Earthwork, extra lead 20 ft.	5-4-0	C.F 1000	9159	
36765	C. ft gravelling —	~~28-0-0~~ 14-0-0	D°	~~1029~~ 515	
	Petty Supn & Contingencies @ 5%			~~512~~ 486	

Grand Total of Estimate .. ~~10700~~ 10160

STATION———

Date——— 189 .

Sub Engr.
18/1/98

Executive Engineer.

29/1/98

Sup. Eng.

No 1 Scheme

(E. No. 123.)

50,000—6-1·96.

SUPG. [illegible]ER'S O[illegible] W.D.
No 244 W.C
1-APR.99
Encl 21
FOURTH CIRCLE

EXECUTIVE ENGINEER'S OFFICE
22 JUN 1898
P.W.D.
WEST COAST DIVISION

R 5 ML
2

Encls: No 8 in 3 estes. & letter
No 110/2 d/15-5-99

CIRCLE—

DIVISION—

DISTRICT—

TALUK (OR ESTATE IN CASE OF ESTATE WORKS.)

ESTIMATE FORM.—Abstract.

Financial Head—

Budget Head—

Departmental Head— No 1

Main Head—

Sub-Head—

Project of which the work forms part—

Section—

Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

REFERENCES.

Bridge -	Rs	6700
Bank -	Rs	10160
Inlets -	Rs	2340
	Total	19,200

12'238M

Report to accompany the estimate for repairing the Conolly's Canal in Calicut Taluq West Coast Division

Amount of estimate. Rs { 19200 for I Scheme
5670 II do
4260 III do }

The canal connects the Kallai with the Elathur river and runs almost parallel to the Coast. The low level lands along it are submerged during the High Tides which renders them unfit for cultivation. Hence remissions are being granted every year. The banks for a length of 3 miles are much below M.F.L. 54.00 in some places being hardly a few inches above H.T.L. 50.00 (vide the accompanying levels sheet No 4). To exclude the high tide water from these low level lands it is proposed to raise the bank to 3 feet above M.F.L. with inlets to discharge the drainage water and to reconstruct the Pudiyarkal Bridge at the southern end with sufficient waterway and suitable arrangement to exclude the high tide during the cultivation season after the monsoon.

When

When the vents of this bridge are closed with needle shutters during the cultivation season to exclude the High Tide Navigation will be carried on through the existing 8 ft. vent culvert at the western end of the bridge.

Pudiyarkal Bridge. The existing bridge is of one vent 23 ft. by 9 ft. high from floor to M.F.L. This is quite insufficient to discharge the drainage of 4½ square miles and the consequence has been that the bed on both sides has been deeply scoured× by the high velocity and the foundations have been disturbed which is evident from the deep cracks in the walls. As the bridge is, therefore, deficient both in discharging capacity and wanting in stability it is proposed to build a new one as per accompanying design (Sheet No. 10).

D area = 4.5 S M.
D = $CM^{2/3}$
= $700 \times 4\frac{1}{2}^{2/3}$
= 1911
h = .5
∴ area of vent reqd:
= 546 sq. ft.
= 45+12

× vide sheet No.

The bridge is to be of 5 segmental arches of 9 feet span and is to be constructed at the site of the existing bridge on the road from Calicut to Chevayur. The channel bed is of soft

soft soil and the foundations are to be of wells of brick in surki mortar 3 ft. interval and 4½ ft. external diameter and filled with surki concrete. They will be 6 ft. in depth.

The ends of the piers are to be connected with each other, and with the abutments by retaining walls in front and rear, built with laterite in surki mortar over a bed of surki concrete and the flooring under the arches is to be of surki concrete 1 ft in thickness.

The piers are to be 2½ ft. thick and the abutments 3' 9" thick, raised to a uniform height of 11 feet. The arches will have a rise of 3 ft.

The superstructure is to be of laterite in surki mortar except the arches which will be built of brick in mortar. The thickness of the arches is to be 1' 1½". The whole structure is to be plastered with cement 1 coat.

The roadway over the bridge is to be level. Its clear width between the parapets will be 12 ft. and between the wing walls 17 ft.

The spandril spaces are to be built

up

up to the height of 3 feet. The face walls will be 2 ft. thick and the blocking course 1'9" by 9" high.

Inlets. These are to be built as per detailed drawing (vide sheet No. 11) They will be 4 in number at c sections Nos: 2, 5, 11 and 19. The drainage area is about 2/3 of a square mile with a discharge of 534 c. f. S. The vent will be 6 ft. broad and 6 ft. from sill level to M.F.L. 54.00. The sill will be kept at L.T.L. that is + 48.00.

Bank. The bank will be 3 ft. above M.F.L with a top width of 6 ft. and side slopes of 1½ to 1. The top will be covered with a layer of gravel. 4½" thick.

COAST DIVISION 22 JUN 1899

CHIEF ENGINEER FOR IRRIGATION. 19 MAY 1899

R 5 M L

SUPG. ENGINEER'S OFFICE P.W.D. No 214 N.C 1-APR.99 Encl 27 FOURTH CIRCLE

C. W. Wood
Executive Engineer
29-1-98

Encl: No 9 to letter No 110
d/15-5-99

H.

13/238 M

4

Reference on No. of 1898.
In replying the above should be quoted.

(LAND REVENUE.)

REVENUE BOARD OFFICE MADRAS

Read letter from the Collector of Malabar Ref on C No 2810 p-97 dated 5th April '98.

3

Reference No 493 dated 2nd May '98.

Forwarded to the Chief Engineer for Irrigation for favor of remarks.

Lionel Davidson
Acting Secretary

To
The Chief Engineer for Irrigation
with letter & 4 Enclos to be returned:

Exd JH

15-8-9

EXECUTIVE ENGINEER'S OFFICE
No. 1325 D.W.
16 JUN. 1898
P.W.D.
WEST COAST DIVISION.

SUPDG. ENGINEER'S OFFICE, P.W.D.
No. 214 W.C.
1-APR.99
Enclo. 16
FOURTH CIRCLE.

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY. 1899
R5 ML/5

SUPDG. ENGINEER'S OFFICE P.W.D.
No. 115 ...
20 MAY.98
Enclo. 6
FOURTH CIRCLE.

EXECUTIVE ENGINEER'S OFFICE
No. 7/217
28 MAY. 1898
P.W.D.
WEST COAST DIVISION.

CHIEF ENGINEER
FOR ...ON.
3-MAY. 1898
No.

196 M

SUPDG. ENGINEER'S OFFICE P.W.D.
No. 3186
4 JUN.98
Enclo. 1
FOURTH CIRCLE.

Enclosure No 7 to letter No 110 d/15-5-99

Public Works (1898) Department.

CURRENT No. 334 M

Order

From the Board of Revenue, Land Revenue

No.

Dated 11 — 8 — 98
Received 13 — Do —
Registered
Enclosures
Spare copies

SUBJECT.

Damage caused by the influx of salt water to the fields along the Conolly canal at Calicut, Malabar Dt.
— reqg an early reply to B of Rev reference No 493/1.5.98 regarding

6674/99

BACK PAPERS.

No.	Date.
R196 M	3. 5. 98
I 3 ML	16-7-98
R 5 ML	8-7-98
I 2 ML	13-5-98
I 1 ML	29-4-98

FURTHER PAPERS.

No.	Date.
I 258 M I 4 M 2	15-8-98
R 509 M	28-11-98
R 70 M	20-2-99
R 44 G	17-4-99
R 238 M	14-7-98

N.B.—The reply to this communication should be addressed to the Secretary to the Commissioners of Land Revenue.

Memorandum.

REVENUE BOARD OFFICE
(LAND REVENUE).

dated 11th August 1898

R196 M/98
8 Aug G.

The Chief Engineer for Irrigation is requested to favour the Board with an early reply to its reference No. 493 dated 2nd May last, regarding damage caused by the influx of salt water to the fields along the Conolly Canal at Calicut, Malabar District.

L D Swamikannu
12-8
Asst. Secretary.

To
The Chief Engineer for Irrigation

CB/4

The Chief Engineer for Irrigation [illegible]

[illegible] the Board's [illegible]

[illegible] dated

[illegible] damage caused

by the influx of salt water to the fields

along the Conolly Canal [illegible]

[illegible]

CHIEF ENGINEER
FOR IRRIGATION.
13 AUG. 1898
No. 334 M

Public Works (1898) Department.

IRRIGATION BRANCH.

ISSUE No. 258 M & $\frac{\text{th}}{4 \text{ M L}}$

To

The Secy, Bd. of Rev. Land Revenue
& Supdt. Engr. IV Circle

(Reply to letter No. , dated)

Dated 15th August 1898

Despatched

Enclosures *

* Particulars of Enclosures.

SUBJECT.

Damage caused by the influx of salt water to the fields along the Conolly Canal at Calicut, - Informs that the reply to the Board's Ref. on the - will be sent on receipt of a report from S. E. IV Circle

No. $\frac{\text{th}}{4 \text{ M L}}$. &

Requests S. E. IV Circle to expedite the report.

Indexed

$\frac{\text{M.R.3}}{6674/99}$

Note
File (D No. 3 M L/98 with papers) taken for R.No. 6 M L/98

E. I. Form No. 13—2,000—4-6-98.

BACK PAPERS.

No.	Date.
R 334 M	11-8-98

FURTHER PAPERS.

No.	Date.
R 509 M	28-11-98
R 70 M	20-2-99
R 84	17-4-99
R 238 M	14-7-98

Sent to Government with No. I.,
dated 189 .
Printed with G.O., No. I.,
dated 189 .

REMINDERS ISSUED.

No. 1, dated 189 .
" 2 "
" 3 "
" 4 "
" 5 "

KEEP-WITHS.

No 258 M

To

The Secretary to the
Board of Revenue
~~R.S.~~ L.R. ~~&c.~~
Madras

Sir,

With reference to Memorandum x dated 11th August 1898, I have the honour to inform you that a reply to the Board's reference, No. 493, dated 2nd May last, will be sent on the receipt of a report from the Supg. Engineer, IV Circle, to whom a reminder will be sent today on the subject.

15/8

x bears no number.

Send with fair for D.E. & expedition
NCV

$\frac{\text{IV}}{\text{No. 4. M}}$

Copy forwarded to the Supg Engr, IV Circle, with a request that the submission of the report called for in this office endorsement No. $\frac{\text{IV}}{2 \text{ M}}$ d/ 13th May, 1898, may be expedited.

NCV
15/8/98

Public Works (1898) Department.

CURRENT No. 509 M

500 M

[illegible]

From Board (Land Revenue)

Order

Reply

With reference to the Board's
Ref No. 2898 d/ 28 Nov 1898,
I have the honour to inform
you that the reference
quoted will be replied to
on receipt of the Dt. [illegible]
report which he has
been requested to submit
without further delay.

No. 2898 Routine

Dated 28 Nov 98
Received } 29 - do -
Registered }
Enclosures –
Spare copies –

SUBJECT.

Conolly Canal — Requesting to be favoured with an early reply to its Ref No. 493 dated 2-5-98 on the subject of the prevention of the influx of salt water into lands along the — in Calicut.

S.C.B.

[illegible] 29/11

Rec'd
6674/99

LCC 30/11/85

LCC 29/11/95

[illegible] 30/11

BACK PAPERS.

No.	Date.
R196M	2-5-98
D2 M.L.	13-5-98
D4 M.L.	15-8-98
D258 M	

FURTHER PAPERS.

No.	Date.
D6 M.L.	2-12-98
R70 M	20-2-99
R84	17-4-99
R238 M	14-7-98

EF ENGINEER
IRRIGATION.
29 NOV. 1898
509 M

Proceedings of the Board of Revenue

(Land Revenue).

No.2898 Routine,dated 28th November 1898

Read letter from G.W.Dance,Esquire,Collector of Malabar,Ref.on C.No.1076/P-98,dated 22nd November 1898,requesting the favour of early orders on letter Ref.2810/P-98,dated 5th April 1898 submitting proposals for preventing the influx of salt water into lands along the Conolly Canal in Calicut.

Resolution

The Chief Engineer for Irrigation is requested to favour the Board with an early reply to its Reference No. 193,dated 2nd May 1898.

R196M/98
flag G.

x x x x x x x

(True Extract)

Lionel Davidson

ag. Secretary.

To

The Chief Engineer for Irrigation(para 1 only)

The Collector of Malabar, (para 2 only)

Md.R.H.

1898.

Board of Revenue

(Land Revenue),

MADRAS.

To

The Chief Engineer
for Irrigation.

Pro.No.2898 Routine.

Dated 28th November 1898.

Subject.

Requesting the Chief Engineer for Irrigation to favour the Board with an early reply to its Reference No.493, dated 2nd May 1898 regarding proposals for preventing the influx of salt water into lands along the Conolly Canal in Calicut and informing the Collector of Malabar that the matter is under reference to the ~~Chif~~ Chief Engineer for Irrigation.

Items 23-24

Public Works (1898) Department.

IRRIGATION BRANCH.

ISSUE No. 6 M L / 10

To

The Supg Engineer 4th Circle.

(Re~~ply~~ fce S.E. on Bd's Refce to ~~letter~~ No. 2898 , dated 28/11/98.

Dated 2-12-98

Despatched 3-12-98

Enclosures *

* Particulars of Enclosures.

SUBJECT.

West Coast Canal - S.E. requested to arrange for the submission as soon as possible of his proposals and statement of establishment called for in connection with the improvements of of -

D.W.E.5 / 6674/99

Indexed

E. I. Form No 13—2,000—4-6-98.

BACK PAPERS.

No.	Date.
509 M.L.	28-11-98

FURTHER PAPERS.

No.	Date.
R 70 M	20-2-99
R 84	17-4-99
R 238 Ind	4-7-98

Papers.
R 509 M/98
I 258 M/98
I 4 ML/98
R 334 M/98
I 5 ML/98
R 6 ML/98
I 3 ML/98
R 5 ML/98
I 2 ML/98
R 196 M/98
I 1 ML/98
R 3 ML/98.
I 5 ML/98 and further papers marked thereon

Sent to Government with No. I., dated 189 .

Printed with G.O., No. I., dated 189 .

REMINDERS ISSUED.

No. 1, dated 189 .
„ 2 „
„ 3 „
„ 4 „
„ 5 „

KEEP-WITHS.

Copy for [illegible]

IV/No 6 ML dt. 2.12.98

Memo.

In continuation of this office No. IV/4 ML, dated 15th August 1898, and with refce to this office No. IV/5 ML dated 31st Aug 98 the undersigned has the honour to request that the Supg Engineer IV Circle will be good enough to arrange for the submission, as soon ~~without~~ as possible ~~further delay~~, of his proposals and state of establishment. ~~of the report~~ called for, the Board of Revenue having sent ~~[illegible]~~ another reminder ~~for it~~ on the subject.

2/12/98

x Read.
Please see also reply to the Board on R No 509 M/98.
MLS

To the S.E. IV

LCW 30/11/98

MLS 30/11/98

2502 w/84

Public Works (1899) Department.

CURRENT No. 70 M

Pwe 6
6634/99

soon

~~Urgent~~
~~Short~~

From Bd. Land Rev.

Order

IV
No 1 M.L. dt 24.2.99

Copy forwarded to the Supt Engr, IV Circle in continuation of this office Memo, No 6 M.L, dt 2 December 1898, with a request that he will be so good as to state when the report called for in this office Endt No 2 M.L, dt 13 May/98, may be expected to be submitted. It is requested that its submission may be expedited as much as possible.

S. C. B.

22/2

22/2

Recs
ICCS
22/2/99

Recd 4.45 Pm

No. -

Dated 20. 2. 99.

Received } 22. 2. 99.
Registered

Enclosures -

Spare copies -

SUBJECT.

Conolly Canal — Requesting an early reply to its Ref. No 493 dt 2.5.98 regarding proposals for preventing the influx of salt water into lands along the — in Calicut.

BACK PAPERS.

No.	Date.
R 196 M	3-5-98
R 334 M	13-8-98
R 509 M	29-11-98
A Mc	2-12-98

FURTHER PAPERS.

No.	Date.
I 1 M L	24. 2. 99
R 4 ML	23-3-99
R F4	17-4-99
R 238 M	24-7-98

N.B.—*The reply to this communication should be addressed to the Secretary to the Commissioners of Land Revenue.*

Memorandum.

REVENUE BOARD OFFICE
(LAND REVENUE).
20th February 1899.

CHIEF ENGINEER FOR IRRIGATION
22 FEB. 1899
70 M

2

The Chief Engineer for Irrigation is requested to favour the Board with an early reply to its Reference No. 493 dated 2nd May 1898 regarding proposals for preventing the influx of salt water into lands along the Canolly canal in Calicut.

+ The reply from S.E. is awaited. He has already been reminded on the subject

Lionel Davidson
ag. Secretary.

To
The Chief Engineer for Irrigation.

CEI
26/5/99

Public Works (189) Department.

CURRENT No. 5 M.L

F.G.I.

The Estimate has been checked + corrected. No plans were received with the Estimate – Please see pencil note in the detail Estimate of the inlet – Amount of Estimate is Rs 4240

[illegible]
1-6-99

Soon

From The Supdg. Engineer, 4th Circle.

Order ~~EI~~

May the 3rd scheme be sanctioned – This consists of raising the bank and gravelling it and building 4 inlets @ Rs 182 each –

[illegible]
22/5/99

approved
WH
23/5

~~CEI~~
to check & to issue draft sanct. order

[illegible]
23/5

KCB
26/5/99

Note
Complete file on the subject of West Coast Canal was sent to Dooley with R No 84/99 on 19/4/99

[illegible] 19/5/99

No. 272/W 110/I

Dated 15th May 1899

Received
Registered } 19-do-

Enclosures 9. 11

Spare copies. ✓

SUBJECT.

Conolly's Canal near Calicut

Reporting the advisability of carrying out the third of the alternative schemes submitted by Mr Wood costing Rs 4,240 for improving the ~~[illegible]~~ DE. [illegible]

KCB
19/5/99

BACK PAPERS. No.	Date.
I 2 Mis	13. 5 98

FURTHER PAPERS. No.	Date.
R 238 Mis	24-7-98
R 393 D	17-8-99
R 7 Mis	18-9-99
R 8 Mis	14-9-99
R 10 Mis	23-9-99

No. ~~272/46~~ 110/I

Office of the Superintending Engineer,
FOURTH CIRCLE,
Camp Ootacamund ~~Coimbatore~~ 15.5. 1899:

From
A. H. Garrett Esquire,
Superintending Engineer,
Fourth Circle, Coimbatore.

To
The Chief Engineer for Irrigation
Madras

58

Enclosures 9

Sir,

With reference to your No: IV/2 Mis dated 13.5.1898, I have the honour to inform you that the Collector and Exe Engineer agree in considering it advisable to carry out the third of the alternative schemes submitted by Mr. Wood.

The Collector originally recommended the second scheme costing Rs 5670, but now abandons it in favour of the third costing Rs 4240 as the area of land damaged by salt water north of the Erinjipalem bridge is very trifling.

The enclosures which accompanied your letter under reply are returned herewith.

I have the honour to be
Sir,
Your most obedt Servt
A H Garrett
Supdg Engr IV Circle

Camp Ottapalam d 15-5-1899

CHIEF ENGINEER
FOR IRRIGATION.
19 MAY 1899
5 M L

To
The Chief Engineer for Irrigation
Madras

With reference to your No. IV dated 13.5.1899, I have the honour to inform you that the Collector and the Executive Engineer [illegible] considering [illegible] the third of the alternative schemes submitted by Mr. Ward.

The Collector originally recommended the second scheme costing Rs 6570, but now [illegible] in favour of the third scheme [illegible] and the area of land [illegible] [illegible]

Public Works (1899) Department.

IRRIGATION BRANCH.

ISSUE No. 158 M

To

The Secy to the Commissioners of Land Revenue.

(Reply to letter No. , dated)

PWE 8
6674/99

Dated 12-6-99

Despatched 16-6-99

Enclosures * 1 Copy of SE's letter &c

* Particulars of Enclosures.

3 Estes
1 Collr's letter No $\frac{2810}{P.97}$ d 5-4-99
1 Petn d 30-9-96
1 Copy of Collr's letter to the E.E.
1. do E.E. to the Collr.
1. Data
1 Report
1 Copy of SE's letter.

Please say if the Estes &c received with RW 5 M L of 99 are to be returned to the Board.

Yes - but copy in return (to be returned)
MKy

SUBJECT.

Conolly's Canal near Calicut —
Forwards copy of letter from the S.E. IV approving his proposals to carry out the third of the schemes costing Rs 4,240 for the improvement of — and states that with the concurrence of the Commissioners, he proposes to sanction the Este of Rs. 4240 for the same of work.

Indexed

E. I. Form No. 13—4,000—7-1-99

BACK PAPERS.

No.	Date.
A5 M L	5-5-98

FURTHER PAPERS.

No.	Date.
1238 M	4-7-99

Papers
I2 M 4/99 & paper

Sent to Government with No. I., dated 189 .

Printed with G.O., No. I., dated 189 .

REMINDERS ISSUED.

No. 1, dated 189 .
,, 2 ,,
,, 3 ,,
,, 4 ,,
,, 5 ,,

KEEP-WITHS.

No 158 M

To
The Secy. Bd. of Rev:
Land Rev:

Sir

With refce to Boards refce No. 493 d. 2 May 1898 I have the honor to forward herewith a copy of a letter received from the S. E. IV. in which he informs me that the Collector and the Ex. Eng. ~~are~~ are now agreed in considering it advisable to carry out the third of the schemes, referred to in the Collectors letter to the Commissioners of Land Rev: No. 2810/P.27 d. 5 April 1898 instead of the second scheme for Rs 5670 originally recommended by the Collector with the concurrence of the Commissioner

Encs 10

Costing Rs 4240

This proposal has my approval and

I propose to submit the estimate for Rs 42460 for the sanction of Govt.

10/6
99.

The S.E. will be asked also to submit the plan of the new bridge proposed if he agrees with the Collector in thinking this necessary —

NH
12.6.99

Public Works (1899) Department.

IRRIGATION BRANCH.

IV

ISSUE No. 2 ~~..~~

To

The Supg Engineer 4th Circle

(Reply to letter No. , dated)

Dated 12.6.99

Despatched 16.6.99

Enclosures *

* Particulars of Enclosures.

R.O.E. 9
5674/99

SUBJECT.

Conolly Canal near Calicut — States that if the S.E. agrees with the Collector in thinking that the new bridge with needle shutters forming one of the items of the 1st Scheme Estimate of Rs 6700 for improvements to — is necessary, he is requested to submit the plan to this office for sanction.

Indexed

E. I. Form No. 13—4,000—7-1-99

BACK PAPERS.

No.	Date.
R 5 ML	15/5/99

Sent to Government with No. I., dated 189 .

Printed with G.O., No. I., dated 189 .

REMINDERS ISSUED.

No.	1,	dated	189 .
„	2	„	
„	3	„	
„	4	„	
„	5	„	

KEEP-WITHS.

FURTHER PAPERS.

No.	Date.
R 238 M	4-7-99

Papers
R 5 ML/99
I 2 ML/98
R 4 ML/98
R 152 M/99
I 1 ML/99 & papers

---

7 p

110
No 2 ML d/ 12 6 99

To S E IV

With ref. to his No. 110/9 d. 15. 5. 99 the Asst has the honour to state that in his letter No. 2810/897 d. 5. 4. 98 the Commissioner the Collector while recommending the second scheme of Rs 5670. said that he ~~also~~ thought that it would be a good thing to build a new bridge with regulator shutters and that if Govt. would carry out this work he would ask the District Board to contribute half the cost viz Rs 3350. The bridge referred to formed one of the items of the 1st scheme Estimate Rs 6700

Order

[illegible] E.E. agrees with the Collector in thinking this bridge necessary. He is requested to submit the plans to this office for sanction, the estimate having already been sent with his letter under reply.

MH
12.6.99

10/6
EE.

Public Works (1899) Department.

CURRENT No. 238 M.

From Board, Land Revenue

Order

No. 2097 mis.

Dated 4 July 99.
Received
Registered 7th July 99
Enclosures 13
Spare copies.

SUBJECT.

Conolly Canal, Calicut—
Approving the E.E.'s scheme for improving the —— at a cost of Rs 4,240 and transferring the papers for necessary action.

F. E. I.

PWE 10
6674/99

60

7/7/99

BACK PAPERS.

No.	Date.
ci 158 M	12. 6 — 99
S 2 ML	12-6-99
H 8 ML	18-6-99

FURTHER PAPERS.

No.	Date.

1,000
1-6-99

80

Proceedings of the Board of Revenue

(Land Revenue)

No.2097 Misc.Dated 4th July 1899.

238 M

Read letter from G.W.Dance Esq.,Collector of Malabar Ref.on C.No.2810-P.97,dated 5th April 1898;and the following reference thereon - No.493,dated 2nd May 1898:-

Forwarded to the Chief Engineer for ~~for~~ Irrigation - for favor of remarks.

Read also the following letter from W.Hughes Esq.,-- Chief Engineer for Irrigation,No.158 M,dated 12th June 1899:-

With reference to the Board's Reference No.493,dated 2nd May 1898,I have the honour to forward herewith a copy of a --- letter received from the Superintending Engineer,4th Circle,in --- which he informs me that the Collector and the Executive Engineer now agree in considering it advisable to carry out the third of -- the schemes costing Rs.4240 referred to in the Collector's letter to the Commissioners of Land Revenue No.2810-P.97,dated 5th April 1898 instead of the second scheme for Rs.5670 originally recommended by the Collector.This proposal has my approval and with the concurrence of the Commissioners I propose to submit the estimate for Rs.4240 for the sanction of Government.

2. The Superintending Engineer will be asked also to submit the plan of the new bridge proposed if he agrees with the - Collector in thinking this necessary.

Resolution

The Board approves of the scheme proposed for --- improving the Conolly Canal at Calicut,Malabar District at a cost of Rs.4240 viz.by constructing four new inlets for the passage of

drainage

drainage water in the western bank between Putiyara and Eranjipalam -- and providing them with shutters to keep out flood water. The papers will accordingly be transferred to the Chief Engineer for Irrigation - for the necessary action.

/True Copies & Extract/

L.D.Swamikannu

For Ag. Secretary.

To the Chief Engineer for Irrigation with papers in original.

Copy to the Collector of Malabar

Q.B.

1899.

Board of Revenue

(Land Revenue),

MADRAS.

To

The Chief Engineer for Irrigation

No.2097 Misc.Dated 4th July 1899

Subject

Approving the scheme proposed for the improvement of the Conolly Canal at Calicut,Malabar District and transferring the papers to the Chief Engineer for Irrigation for the necessary action.

Public Works (1899) Department.

7149

CURRENT No. 6674

Order

From

The Chief Engineer for Irrigation

No. 152 I

Dated 22nd July 1899

Received
Registered } 15-8-99.

Enclosures Plans: nil } Total.
others: 10 } 10

Spare copies.

SUBJECT.

Conolly's canal — Estimate of Rs 4240 for improvements to — Note recommending for sanction thro ——.

RS

CS/

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Note submitting estimate of Rs 4,240 for improving the Canolly's Canal at Calicut Malabar Dt.

Print with Collector's letter No. 2[illegible] d. 5.4.98

UNDER date the

READ the following

From the Board of Revenue (Land Revenue) No 493 dy 2nd May/98

To the Supg: Engineer 4th Circle — No $\frac{IV}{2.M.L.}$ dy 13th — do —

From the Board of Revenue — Ref: dated 11th August/98

To the — do — No 258 M. dy 15th — do —

To the Supg: Engineer 4th Circle — No $\frac{IV}{4 M.L.}$ dy 15th — do —

From the Board of Revenue — No 2898 Routine dy 28th Nov/98.

To ~~From~~ the Supg: Engineer 4th Circle — No $\frac{IV}{6 M.L.}$ dy 2nd Decr 1898.

From the Board of Revenue — Ref: dy 20th Feb: 1899.

To the Supg: Engineer 4th Circle — No $\frac{IV}{1.M.L.}$ dy 24th — do —

From the — do — Print No 110. I. dy 15th May 1899.

To the Board of Revenue — No 158 M. dy 12th June/99.

To the Supg: Engineer 4th Circle — No $\frac{IV}{2.M.L.}$ dy 12th — do —

From the Board of Revenue — No 2097 Mis: dy 4th July/99.

Print Revenue Resolution

Note by the Chief Engineer for Irrigation. No 152-I dy 22.7.99

At the instance of the Collector of Malabar, the Executive Engineer, West Coast Division, prepared three ~~alternative~~ schemes, as noted in the margin, for improving ~~the~~ Canolly's canal with a view to prevent the damage

Issue

8899 W.H. 90

		Rs
1st scheme costing		19,200.
2nd — do —	do —	5,670.
3rd — do —		4,240.

caused to the canal by the influx of salt water, and save the remission averaging Rs 321 annually granted. The Supg: Engineer, 4th Circle, reports that the Collector and the Executive Engineer agree in considering it advisable to carry out the third scheme which consists of raising the bank and gravelling it, and building four inlets. This scheme, which has ~~also~~ been approved by the Board of Revenue, may be ~~sanctioned~~.

2. The Supg: Engineer has in this office memo No. 2 I. d/ 12 June 1899, been instructed to submit a plan of the proposed new bridge at Pudiyara if he agrees with the Collector in thinking ~~that it is~~ necessary. He should expedite ~~the~~ despatch of his reply to the memo ~~submission~~.

Sam.
A.S.H.

Irrigation sent

Order thereon No 714 I. d/ 17-8-99

A.S.H.

The following estimate is sanctioned:—

Irrigation

43. Minor Works & Navigation

Minor [illegible] neither Capital nor Revenue Accounts are kept, P.W.D.

Original works.

West Coast Division.

Improving the Canally's canal

Estimate . . . . Rs 4,240.

2. This sanction is registered as No. 48 I. of 1899-1900.

3. The attention of the Supg: Engineer, 4th Circle, is drawn to the remarks in para 4 of the foregoing note by the Chief Engineer for Irrigation.

A.S.H.
7.8.99

10 P

W.B.
22-7-99

15/7

To

The Chief Engineer for Irrign: ✓
" Supg: —do— 4th Circle with one Estimate ~~Schedule~~ foll. ✓
" Examiner P.W. Accounts

D 4/1999

Rs 4,240 & 9 plans sent separately vide E. E.'s office No 4. Int d/ 6.9.99.

13-7-99

Order

E. I. Form No. 1 (a)—430—27-3-99.

E. 26.7.99 Rcd 8.8.9

H.E.

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

From the Board of Revenue (Land Revenue) No. 493 d/ 2d May/98
To the Supg: Engineer IV Circle, No. 2. M. L. d/ 13th —do—
From the —do—, No. 110. I. d/ 15th May 1899.
To the Board of Rev: (Settlement Land Records & Agriculture) No.

Note by the Chief Engineer for Irrigation.

	Rs
scheme costing	19,200.
nd scheme —do—	5,670.
rd —do— do—	4240.

At the instance of the Collector of Malabar the Executive Engineer West Coast Division, prepared three alternative schemes, as noted in the margin, for improving the Canolly's canal with a view to prevent the damage caused to the low lying lands along the canal by the influx of salt water, and save the remission averaging Rs 321 annually granted. The Supg: Engineer 4th Circle, reports that the Collector and the Executive Engineer agree in considering it advisable to carry out the third scheme which consists of raising the bank and gravelling it and building 4 inlets. This scheme may be sanctioned.

Order

Order thereon.
The following estimate is
sanctioned:—
Irrigation
43. Minor Works & Navigation
Minor works for which neither
Capital nor Revenue accounts
are kept. P.W.D.
— Original works.
West Coast Division
Improving the Canolly's canal.
Estimate . . . . Rs 4240.
2. This sanction is registered
as No of 1899-1900.

12655 M

To,
The Chief Engineer for Irrign.
" Supg. do 4th Circle
" Examiner P.W. Accounts

E. I. Form No. 1—100—27-3-11.

2
9.6.99.

D.S.I. for orders

The Member of Rev
Land Revenue originally
submitted the papers
to E.D. for remarks.
flag V & reminders
have been received
from it asking for
early reply. [illegible]
but the [illegible]
the sanction of Govt
without replying to
the Bd of Rev appears
to me to be out of
order [illegible]
[illegible]
the [illegible]
in para 5 of the
Collector's letter [illegible]
If the [illegible]
approved [illegible] circumstance
can [illegible] have
[illegible] Board. But it
seems better to
inform the R. Bd
opinion on the
canal, before going up
for formal sanction
the estimate recommended.

12/6/99

E. I.

You have approved of the D. G.'s remark that the "Draft order can lie "over till receipt of Concurrence of Board." Again you have initialled it, kindly say if the order should lie over or be circulated to H. E.

G. R. C.
12/6/99

11 8

To lie over. I understood before reading the draft

M.
12/6/99