Public Works (1897) Department.

G.O., No. 188 I

DATED 23 February 1897

2[illegible]/2/97

[Despâtch Abstract.]

Regulator: Revised Estimate of Rs. 21,080 for constructing a — with 7 vents in the Khan Sahib's canal, Lower Coleroon anicut system, sanctioned.

188/14

T.C. 23/2/97

[P.W. 28 / 500—30-11-96]

Indexed. 19/3/97

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 {1897} of Madras.
PUBLIC WORKS.

Recd. } 1897. *Enclosures*
Regd. *Spare copies*

G.O., No. 188 I., 23rd February 1897.

FEBRUARY.

Regulator

Revised estimate of Rs. 21,080 for constructing a — with seven vents in the Khan Sahib's canal, Lower Coleroon anicut system, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

From Lieutenant-Colonel C. C. RAWSON, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 25th January 1896, No. 17 E.I.

I have the honour to request that I may be permitted to make the following alterations in the Chidambaram drainage scheme, revised estimates being submitted for your sanction as soon as possible; the alterations are proposed by Lieutenant-Colonel Smart and I agree with him that they are advisable.

2. It is proposed to build the addition to the Rajah Voikal aqueduct across the old Coleroon as a separate work and not as an addition to the existing work; by making this change there will be much less trouble in keeping the channel supplied with water during the construction of the work than if the sanctioned plan be carried out.

3. The sanctioned plan for the regulator at the head of the Khan Sahib's canal has five vents of 15 feet span. It is proposed to put an additional two vents giving a lineal waterway of 105 feet instead of 75. The reason that Lieutenant-Colonel Smart gives for wishing for this addition is that he proposes to enlarge the Khan Sahib's canal as far as the surplus weir near Chidambaram, and use it as an additional drain in case of a heavy flood and much water passing over the Lalpet weirs.

4. It is possible that on further investigation it may be found that this addition is not absolutely necessary, but it will cost very little comparatively to make the addition now, as compared with the cost of an additional work if it be found hereafter that the sanctioned plan does not allow sufficient waterway.

5. I request that if you approve of these alterations being carried out, you will communicate your assent by telegraph as the foundations for both works have to be commenced at once.

From Lieutenant-Colonel C. C. RAWSON, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 27th January 1896, No. 20 E.I.

In continuation of my No. 17 E.I., dated 25th January 1896, I have the honour to forward copy of letter, No. 42 S.E., dated 21st January 1896, from the Executive Engineer, South Arcot, together with the tracing referred to, in original, and to request that you will be so good as to sanction the proposed alteration by telegraph.

Memo. No. V/10 S.A.

With reference to letters, Nos. 17 E.I. and 20 E.I., dated 25th and 27th January 1896, respectively, from the Superintending Engineer, V Circle, the undersigned has the honour to say that the Chief Engineer for Irrigation has no objection to raise to the construction of a new aqueduct, but is doubtful whether both channels will act uniformly and together during floods as well as when the flow is slack. This should be considered and the result reported.

(Signed) F. J. WILSON,
for Chief Engineer for Irrigation.

30th January 1896.

Memo. No. V/18 S.A.

In continuation of this office Memo. No. V/10 S.A., dated 30th January 1896, the undersigned has the honour to inform the Superintending Engineer, V Circle, that the proposals made in his letter, No. 20 E.I., dated 27th January 1896, are approved and the works may be proceeded with, a revised estimate being submitted for sanction as soon as possible.

(Signed) F. J. WILSON,
for Chief Engineer for Irrigation.

6th February 1896.

From Lieutenant-Colonel C. C. RAWSON, R.E., Superintending Engineer, V Circle, to the Chief Engineer for Irrigation, dated Chepâk, 21st January 1897, No. 19 E.I.

With reference to your Memo. No. V/18 S.A., dated 6th February 1896, I have the honour to submit, for sanction, the enclosed revised estimate of Rs. 21,080 in the form of a comparative statement for constructing a regulator with seven vents across the Khan Sahib's canal, in lieu of the regulator with five vents sanctioned in G.O., No. 1053 I., dated 22nd December 1894, for Rs. 10,540.

Enclosure.

Report to accompany the revised estimate for constructing a regulator with seven vents across the Khan Sahib's canal.

	RS.
Amount of revised estimate	21,080

The original estimate was sanctioned in G.O., No. 835 I., dated 8th October 1892, as part of the Chidambaram drainage scheme. The first revised estimate was sanctioned in G.O., No. 1053 I., dated 22nd December 1894; the revision of the present estimate has been found necessary on account of the following alteration in the design, as well as for reasons which are given on the remark column of the comparative statement :—

(1) Addition of two vents making seven against five originally sanctioned.

(2) Increases in depth of foundation under wings, returns and piers under orders of Superintending Engineer; also increased depth given to front retaining wall and increased thickness to floor under sills and between piers. Surki mortar was ordered to be used in the whole of the foundations. The amount of excavation for foundation was originally under-estimated, and the rate given was insufficient. The foundations are very wet, and the cost of baling was large.

(Signed) J. S. WILSON,
Ex. Engineer, South Arcot Divn.

14th December 1896.

No. 34 I.

Note by the Chief Engineer for Irrigation.

In the estimates for improving the drainage of the Chidambaram taluk, submitted by Mr. Davidson in 1892 and sanctioned in G.O., No. 835 I., dated 8th October 1892, provision was made for a regulator in the Khan Sahib's canal to cost Rs. 18,560.

2. In 1894 Mr. Larminie, as Superintending Engineer, revised the design for this work reducing its waterway and made other alterations which reduced the estimated cost to Rs. 10,540.

3. In January 1896 Colonel Smart having been placed on special duty in connection with the system to which this regulator belongs, made certain proposals to the Superintending Engineer, V Circle, amongst which was the addition of two additional vents to the Khan Sahib's canal regulator, and the Superintending Engineer asked * for permission to make this alteration which he approved and asked for orders by wire promising revised estimates as soon as possible.

* No. 17 E., dated 25th January 1896.

4. The revised estimate now submitted amounts to Rs. 21,080, or Rs. 2,520 more than the original estimate and about double that of Mr. Larminie's.

5. The excess is largely due to increased rates, extra foundations found necessary, diversion channel and other items not affected by the addition of two vents. Mr. Larminie's estimate appears to have been too low.

6. It is presumed that the work is finished or nearly so, and it can hardly be said that the revised estimate has been submitted as soon as possible as directed. It should have been prepared as soon as the foundations were completed. The increase in rates is explained in the comparative statement. The original estimate for the shutters should have been made or examined by the Superintendent of the Workshops before the estimate for the works was submitted to Government.

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

8th February 1897.

ORDER—No. 188 I., dated 23rd February 1897.

The following revised estimate is sanctioned in supersession of the estimate of Rs. 10,540, sanctioned in G.O., No. 1053 I., dated 22nd December 1894, the excess of Rs. 10,540 being met from the balance of the amount available for unforeseen works of the Lower Coleroon anicut system, which will then be reduced to Rs. 4,480:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which Capital and Revenue Accounts are kept.
Lower Coleroon Anicut System.
Capital Account.
I. Works.
2. Main Canals and Branches.
Khan Sahib's Canal.
3. Regulators.
Constructing a Regulator with seven vents.

	RS.
Estimate	21,080

2. This sanction is registered as No. 190 I. of 1896–97.

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
„ Superintending Engineer, V Circle, with three enclosures.
„ Examiner, Public Works Accounts.

Exd. A. F. Eccleston.

~~K.R.~~

A

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

No. 188 I of 23-2-97.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Print with Report

From the Supg: Engineer, V Circle, (H.E.No: 17 E.I.dated 25th January 1896)
Do.............Do......Do...... (H.E.No: 20 E.I.dated 27th January 1896)
To.............Do......Do....... (H.E.No: 10 S.A. dated 30th January 1896)
To.............Do......Do....... (H.E.No: 18 S.A. dated 6th February 1896)
From...........Do......Do...... (H.E.No: 19 E.I. dated 21st January 1897)
Note by the Chief Engineer for Irrgn: (H.E.No: 34 I dated 8th February 1897)

14 P.

2.54
15.2.97

Rs 15,020

I on tour

Issue

WH.
20.2.97

16/2/97

16.2.97

The following revised estimate is sanctioned in supersession of the estimate of Rs 10540, sanctioned in G.O.No: 1053 I, dated 22nd December 1894, the excess of Rs 10540 being met from the balance of the amount available for unforeseen works of the Lower Coleroon Anicut System, which will then be reduced to Rs 4480

be entered before issue

Irrigation

43 Minor Works and Navigation.

Minor Works for which Capital and Revenue Accounts are kept.

Lower Coleroon Anicut System

Capital Account

I Works.

2 Main canals and branches

Khan Saib's Canal

3 . Regulators

Constructing a regulator with 7 vents

Estimate.........Rs 21080

2. This sanction is registered as No:

1901. of 1896-97.

11/2/97

7.E.9 22/2/97

LCW 24/2/97

To,

The Chief Engr: for Irrigation

,, Supg: Engineer, Fifth Circle. with 3 Enclos.*

,, Examiner P.W.Accts:

* One of these, copy of S.A.Ex. Supg's letter No. 42-SE of 21-1-96 obtained from S.E.'s office & put up with the original file. 30/5/97

Regd 24/2/97

LCW 9/2/97

B.R.

E. I. Form No 1—1,000—27-11-95.

1+E.7.2/ R.1/1/21

Public Works (1896) Department.

CURRENT No. R145A

1

Order

From The Supdg Engineer 5 Circle

No. 17 E.I.

Dated 25 January 1896

Received

Enclosures

Spare copies

SUBJECT.

Chidambaram drainage Scheme Requesting that he may be permitted to make certain alterations in the — revised estimate proposed by Lt Coll Smart R.E.

BACK PAPERS.

No.	Date.	
R 14 SA	25 1 96	✓
R 16 SA	29 1 96	✓
I 10 SA	30 1 96	✓
I 18 SA	6 2 96	✓
R 1 SA	21 1 97	✓
G O 1053 I	22 12 94	✓
G O 835 I	8 10 92	✓

FURTHER PAPERS.

No.	Date.

250—31-10-94.

20

No. 17 EI

Superintending Engineer's Office,
V Circle, Madras,
Chepâk, 25th January 1896.

From
Lt. Col. C. C. Rawson R.E.
Superintending Engineer, V Circle,

To
The Chief Engineer for Irrigation,
Madras.

Sir,

Enclosures.

I have the honour to request that I may be permitted to make the following alterations in the Chidambaram drainage scheme, revised estimates being submitted for your sanction as soon as possible; the alterations are proposed by Lieut-Col. Smart and I agree with him that they are advisable.

2 - It is proposed to build the addition to the Rajah Voikal aqueduct ~~at~~ across the old Coleroon as a separate work and not as an addition to the existing work; by making this change there will be much less trouble in keeping the

channel supplied with water during the construction of the work than if the sanctioned plan be carried out.

3. The sanctioned plan for the regulator at the head of the Khan Sahib's canal has five vents of 15 ft span. It is proposed to put an additional two vents giving a lineal waterway of 105 feet instead of 75. The reason that Lieut-Col. Smart gives for wishing for this addition is that he proposes to enlarge the Khan Sahib's canal, as far as the surplus weir near Chidambaram, and use it as an additional drain in case of a heavy flood and much water passing over the Lalpet weirs.

4. It is possible that on further investigation it may be found that this addition is not absolutely necessary, but it will cost very little comparatively to make the addition now, as compared with the cost of an additional work if it be found hereafter that the sanctioned plan does not allow sufficient waterway.

5. I request that if you approve of these alterations being carried out, you will communicate your assent by telegraph as the foundations for both works have to be commenced at once.

I have the honour to be,
Sir,
Your Most Obedt. Servant.
Lt. Col. R.E.
25/1/96
Supdg: Engineer V Circle.

From

The Superintending Engineer,

V Circle,

To

The Chief Engineer for Irrigation.

CHIEF ENGINEER
FOR IRRIGATION.
27 JAN 96
No. 148a

Dated 25 } January 1896.
Recd.

Enclosures.

Pw. E.I/19/3/97

No. 17 E.I.

Chidambaram drainage scheme

Requesting that he may be permitted to make certain alterations in the revised Estimate proposed by Lt. Col. Smart R.E.

4

Public Works (1896) Department.

CURRENT No. R163A/96

Order

From The Suptg Engineer 5 Circle

No. 20 E.I.

Dated 27 January/1896

Received

Enclosures

Spare copies

SUBJECT.

Chidambaram Drainage Scheme Requests to sanction by telegraph the proposed alteration in the —

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

1889

From J. S. Wilson Esqre, Executive Engineer South Arcot Division, to the Supdg: Engineer I Circle, dated Cuddalore 21st January 1896, No. 42 S.E.

With reference to our conversation on the subject of the extension of the aqueduct and bridge over the Old Coleroon which forms part of the Chidambaram drainage scheme, I have the honour to forward a tracing of the site of the work shewing the proposed alteration - The present estimate provides for adding to the present aqueduct 5 new arches.

This involves -

(1) The demolishing of the whole of the left wing of the present aqueduct with the abutment.

(2) A diversion of the Raja Voikal to admit of the carrying out of the work - For this item a sum of Rs. 2000 is provided which may or may not be sufficient - The diversion would be carried out by running out a heavy bank on either side of the drain and bridging the gap which would have to be left, by a wooden or iron trough aqueduct - In the

event of much water being met within the foundation of the aqueduct, the completion of the work might be conceivably delayed ? till the bursting of the monsoon when the excess in cost caused by the necessary removal of the temporary work and the difficulty in sending a continuous supply of water down the Rajah Voikal would be very great -

(3) Another serious item would be the necessity for providing for the stability of the present work after the removal of the existing wings and abutment - This can no doubt be carried out by inserting centring under the last arch and lightening the superstructure, but great care will be necessary and the cost will be considerable. The advantages of the proposal to build an entirely separate aqueduct are the following -

(1) There will be no obstruction to traffic or irrigation, and the sum of Rs. 2000 for temporary aqueduct will not be required -

(2) The existing work will not be interfered with and the cost of demolishing the left wing will be saved -

(3) There will be no necessity for elaborate precaution to preserve the stability of the existing aqueduct -

(4) A flood in the Old Coleroon will not affect the progress of work except by increasing the percolation of water into the foundation pit, and as the concrete will all have been put in before the flood season, there need be no trouble from this source -

The probable increase on the masonry work of the separate aqueduct as compared with that at present proposed will be about Rs. 200, a sum which is very moderate when the advantages of the new scheme are considered -

In addition to the cost of the alterations in the position of the new work, there will be the earthwork involved in the cutting of the channels communicating with the course of the Old Coleroon, to be considered. The cost of these will be part of the Old Coleroon widening, and will be greater than that at present estimated for - The sub Divisional officer states that a channel 500 feet long would be necessary - The bed width might be the same as the waterway of the new aqueduc viz 5 × 27.5 = 137.5 ft; such a channel with side slopes of 1½ : 1 would cost at Rs. 4 per 1000 Rs. 4,800 - The earthwork now required will cost about Rs 2500, so that the excess on earthwork will be about Rs 2300 which is not prohibitive -

SUPERINTENDING ENGINEER'S OFFICE, V CIRCLE, P.W.D., MADRAS.
No. 1/73 E.9 / E.01
9 - MAR. 1897

C16 Sa / 1

The question of the land to be acquired is not a serious one as the increased cost will not be more than a few hundred rupees -

I have sketched roughly on the tracing the position I now propose for the acqueduct and the centre line of the leading channels, and request that the orders of Govt. may be obtained on the proposal - The excavation of that part of the foundation pits of the extension at present proposed which is common to the 2 proposals will be begun, and if early orders are given, the work can proceed at once, and permission may be given to proceed in anticipation of sanction being given to the revised estimate, as the proposal involves no radical alteration of design -

(True Copy)

C. Beeley
Manager, Office of Supdg: Engr
V Circle

P.W. E.2
1913/97

Urgent

5 P

No. 2083.

Supdg: Engineer's Office
V Circle Madras,
Chepauk, 27th January 1896

From,
Lt. Col. C. C. Rawson R.E.
Superintending Engineer, V Circle

To,
The Chief Engineer for Irrigation,
Madras

Sir,

In continuation of my No. 17E
dated 25th January 1896, I have the honour to forward copy of letter No. 42 S.E d/ 21st Jany
from the Executive Engineer South Arcot, together with the tracing referred to, in origina
and to request that you will be so good a
to sanction the proposed alteration by telegraph -

Enclo 2
1 Tracing
1 Copy of letter

I have the honour to be,
Sir,
Your most Obedt. Servant
C C Rawson
27.1.96 Lt. Col R.E.
Supdg: Engr. V Circle -

CHIEF ENGINEER
FOR IRRIGATION
28 JAN 96

From
The Supdg Engineer
5th Circle

To
The Chief Engineer
For Irrigation

Dated 27 } January 1896
Recd. }

Enclo 2

No. 20 E.I.

Chidambaram Drain-age Scheme.

Requests to sanction by Telegraph the proposed alteration in the —

P.W. E.3 / 19/3/97

6

Public Works (1896) Department.

CURRENT No.

Order

~~*From*~~ To

The Supdg Engineer 5 Circle.

No. V/10SA

Dated 30 January 1896
Received
Enclosures
Spare copies

SUBJECT.

Chedambaram Drainage Scheme. States that he has no objection to the construction of a new aqueduct in connection with the I and requests to consider the suggestion noticed within and report the result

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

30/1/96

7 P

No 10 S.A. d/ 30-1-96

Memo

With reference to letters No 17-E.I. and 20-E.I. dated 25 and 27 January 1896 respectively from the Superg. Engineer, Fifth Circle, the undersigned has the honor to say that the Chief Engineer for Irrign. has no objection to raise to the construction of a new aqueduct, but is doubtful whether both channels will act uniformly and together during floods as well as when the flow is slack. This should be considered and the result reported.

J.B.
30/1

Encl. 1
(Tracing.)

To
The Superg. Engineer,
Fifth Circle.

Dh 30.1.96 B

With reference to letter of P.W. [illegible] and [illegible] dated 25th and 27 January 1896 requesting from the Superintending Engineer Fifth Circle, the [illegible] be [illegible] to say that the Chief Engineer for Irrig. has no objection to pass to the construction of a new regulator, but [illegible] will not [illegible] during floods [illegible]. This should be reconsidered and the result reported.

HP despatched today 3/3/96

Sent to the Supdg Engineer Fifth Circle TRC for fair proposals today

Rev. E.G. 19/3/97

Public Works (1896) Department.

CURRENT No.

Order

To

~~*From*~~

The Suptg Engineer V Circle

No. $\frac{V}{18\,S\,A}$

Dated 6 February 1896

Received

Enclosures

Spare copies

SUBJECT.

Chidambaram Drainage Scheme. Informs that the proposals made in connection with the — are approved and the work may be proceeded with, a revised estimate being submitted for sanction as soon as possible.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

98

Urgent

No 1854 d/ 6-2-96

Memo

In continuation of this Office memorandum No 105A dated 30 January/96 the undersigned has the honor to inform the Supg. Engr. V Circle that the proposals made in his letter No 20 E.I dated 27th January/96 are approved and the works may be proceeded with, a revised Estimate being submitted for sanction as soon as possible

5/2

Rmedd
6/2

To. The S. E. V Circle

BR. 5.2.96

Pw. E.5
19/3/97

26-1-97

10

Public Works (1897) Department.

CURRENT No. R 1.S A

Order

From The Supg Engineer
5th Circle

No. 19 E.I.

Dated 21st January 1897.
Received 22-1-97
Enclosures 3.
Spare copies

SUBJECT.

Regulator with 7 Vents. across the Khan Sahib's Canal, —

Submitting for Sanction a revised Estimate of Rs 21,080, in the form of a Comparative Statement for constructing a —

Entered
26/1/97
BDE
22-1-97

23-1-97

BACK PAPERS.

G.O.	No.	Department.	Date.
J	18.SA–		6.2.96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

1,000—25-2-96.

---

11 P.

No. 19 E.I.

SUPERINTENDING ENGINEER'S OFFICE,
V CIRCLE, MADRAS,
Chepák, 21st January 1897.

From
Lieut-Colonel C.C. Rawson R.E.
SUPERINTENDING ENGINEER,
V CIRCLE,

To
THE Chief Engineer
for Irrigation

SIR,

With reference to your Memorandum No $\frac{V}{18.S.a}$ dated 6th February 1896, I have the honour to submit for sanction the enclosed revised estimate of Rs. 21,080/- in the form of a Comparative statement, for constructing a regulator, with 7 vents, across the Khan Sahib's canal, in lieu of the regulator with 5 vents Sanctioned in G.O. No. 1053.I dated 22nd December 1894 for Rs 10,540.

Enclosures.
1 Comparative statement
1 Report
1 Detail estimate

I have the honour to be,
Sir,
your most obedient Servant
C.C. Rawson
21.1.97
Lieut-Col R.E.
Superintending Engineer 5th Circle

B 20.1.97

From

THE SUPERINTENDING ENGINEER,

V CIRCLE,

CHIEF ENGINEER
FOR IRRIGATION.
21 JAN 97
No. 7 S A

To

THE

Dated
Recd. } 189

ENCLOSURES.

No.

PW E.S 1913/47

12 S.P.

Report to accompany the revised Estimate for constructing a regulator with 7 Vents across the Khan saib's Canal

Amount of revised Estimate Rs 21080

The original Estimate was sanctioned in G.O. No 835 I dated 8-10-92 as part of the Chidambaram drainage Scheme the first revised estimate was sanctioned in G.O. No 1053 I dated 22-12-94; the revision of the present estimate has been found necessary on account of the following alteration in the design as well as for reasons, which are given on the remark column of the Comparative statement (1) addition of 2 Vents making 7 against 5 originally sanctioned;

(2) Increases in depth of foundation under wings returns and piers under orders of Superintending Engineer, also increased depth given to front retaining wall and increased thickness to floor under sills and between piers. Surki mortar was ordered to be used in the whole of the foundations. The amount of excavation for foundation was originally underestimated, and the rate given was insufficient - The foundations are very wet & the cost of baling was large -

14th

Executive Engineer

South Arcot Division

Dated 14 December '96

CHIEF
FOR IRRIGATION
[illegible] JAN 97
No. 18 A

Ris. E.6 / 1913/97

Public works (1897) Department
No 34 I dy 8 2 97

1.30

Note by the Chief Engineer for Irrigation

Current No: 1913
Recd: 20.2.97 Enclos: 9

In the estimates for improving the drainage of the Chidambaram Taluk, submitted by Mr Davidson in 1892 and sanctioned in G.O.No: 835 I, dated 8th October 1892 provision was made for a Regulator in the Khan Sahibs canal to cost Rs: 18560.

2. In 1894 Mr Larminie as Superintending Engineer, revised the design for this work reducing its waterway and made other alterations which reduced the estimated cost to Rs 10,540.

3. In January 1896 Colonel Smart having been placed on special duty in connection with the system to which this regulator belongs, made certain proposals to the Superintending Engineer, Fifth Circle, amongst which was the addition of two additional vents to the Khan Sahib's canal regulator and the Superintending Engineer asked for permission to make this alteration which he approved and asked for orders by wire promising revised estimates as ... soon as possible.

*No: 17 E.I / 25-1-96

4. The revised estimate now submitted amounts to Rs 21080 or Rs2520 more than the original estimate and about double that of Mr Larminie

5. The excess is largely due to increased rates, extra foundations found necessary, diversion channel and other items not affected by the addition of two vents. Mr Larminie's estimate appears to have been too low.

6. It is presumed that the work is finished or nearly so and it can hardly be said that the revised estimate has been submitted as soon as ... possible as directed. It should have been prepared as soon as the foundations were completed. The increase. in rates is explained in the comparative Statement. The original estimate for the shutters should have been made or examined by the Superintendent of the Workshops before the estimate for

the work was submitted to Government.

11/2/97

W. Hughes.

Chief Engineer for Irrigation.

Chepauk.

8th February 1897.

To,

The Joint Secretary to Government, P.W.D. Irrigation Branch.