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- (2) Date of repair _____
- (3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	4	Press
B.P. No.		Mis.
Dated	4 - 1 - 1875	195

Original

Not to be folded or roughly handled

Read the following —

No. 947-B

No. 8. *Note by the Chief Engineer for Irrigation*

WHEN the Godavery Eastern Delta was visited by me at the end of 1870, it was

* *Vide* Memorandum of Inspection, paragraph 21, Proceedings of Madras Government, No 1,077, dated 18th April 1871.

considered* to be desirable that certain modifications of the works to be constructed at the head of the Coringa canal should be made, so as first to

avoid dropping an unnecessary quantity of water into this canal below the Alamur lock, and, secondly, to provide means of discharging the surplus of this and of the Bank Canal directly into the Takee drain, which has its head at this point.

2 With a letter, No 1,801, of the 3rd September last, the District Engineer submitted plans and estimates for the revised works, showing that an increased expenditure to the extent of Rupees 6,160 would be required to carry out these arrangements, but on further consideration, as detailed in Major Beatty's letter, No 2,256, of the 13th October, it has been found that Rupees 1,616 may be deducted from the estimate for the Alamur lock weir, and the excess thus becomes Rupees 4,544. Much of this excess is attributable to the revision of the original designs to accord with the improved arrangements which have been introduced at all works of this class which have recently been constructed.

The works provided for are—

	RS
Alamur Lock Weir—Revised Estimate	7,966
Original do.	7,120
Excess	846

this work appertains to the Coringa canal, for which the sanctioned estimate amounts to Rupees 74,300, so that the alteration involves an increased charge of 1 per cent on the total, but of rather more than 10 per cent. on the estimate for the particular work

3. The other work belongs to the Takee drain surplus weir, at head of Takee main drain.

	RS
Revised Estimate	7,400
Original Estimate	3,700
Difference	3,700

the total sanction for the drain is Rupees 2,66,300, and the excess is therefore under 1½ per cent. The original work was to have two bays of 10 feet, the present weir has four bays of the same dimensions

4 The rear wings of these weirs have somewhat too great a splay, which adds to the extent of apron and length of retaining wall without corresponding advantage, and in the case of the lock weir, which has not yet been commenced, this can be modified

5. It is satisfactory that a saving on the masonry works of the Bank Canal is anticipated, but it is not necessary or desirable to consider that the funds of

finished with neat cut stone coping
Reed

distinct canals and works are available to meet excesses, though it would perhaps be in this case not objectionable, seeing that the excess on the surplus weir is principally due to the extended capacity provided for the relief of the Bank Canal.

(Signed) JOHN MULLINS, Lt. Col., R.E.,
CAMP, WURKULLAY BARRIER WORKS,
19th November 1874. Chief Engineer for Irrigation.

No 9. ORDER THEREON, 4th January 1875, No 4.

IRRIGATION, No. 2

THE revised designs and estimates
for the following works in the Eastern
Delta, Godavery, are sanctioned —

Coringa Canal — Estimate Rupees 74,300 — Alamur lock weir, original estimate
Rupees 7,120, revised Rupees 7,966

Takee Main Drain — Estimate Rupees 2,66,300 — Surplus weir at head, original
estimate Rupees 3,700, revised Rupees 7,400.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Godavery
,, Chief Engineer for Irrigation
,, Controller of Public Works Accounts.

Exd S T Aus'in
Spare Copies

Specification for the balingulab to be built at the
head of Takee main Drain - 4 bays 10' span each.

Concrete - To be laid under foundations of abutments,
piers, wings, body & cushion walls and under
floor 2 ft. deep throughout.

Foundations - of abutments to be 9 ft. wide at bottom
and 8'6" at top and 4 ft. deep - of piers 3 ft.
wide and 2 ft. deep - of front wings to be 6'2"
wide at bottom & 5'2" at top and 4 ft. deep -
of rear wings to be 8 ft. wide at bottom
& 7 ft. at top near abutments & tapered
to 5'9" at the end at bottom and 4'9" at
top and 4 ft. deep - of returns to be 6'3"
wide at bottom and 5'1" at top and 4 ft.
deep - of body wall to be 9' wide and 2 ft.
deep & of cushion wall to be 4 ft. wide and
2 ft. deep.

Abutments } To be 8 ft. wide at bottom and 3'9" at
above } the springing line and 19'2" high.

Piers above - To be 3 ft. wide to a height of 7' and
2'6" wide to top of body wall and then
reduced to 2 ft. - Cyclopean stone course
1 ft. thick to be placed at every footing.

Front wings } To be 4'2" wide to a height of 10'8"
above - } and then reduced to 2 ft. at top by
having 2 steps 6 inches wide each and 8"
batter on the outside - the ends of these
wings to be formed into pillars and
finished with neat cut stone coping.
Done

Rear wings } To be 7 ft. wide at bottom near abut-
above - } ments and tapered to 4:9" at the end
and 2:6" wide near abutments at top and
2 ft. at the end with batter on both sides
and 22:8" high near abutments and sloped
down to 9 ft. at the end.

Returns above. To be 4:9" wide at bottom and 2 ft. at
top and 9 ft. high.

Cushion wall. To be 3 ft. wide at bottom & 2 ft. at
top & 3 ft. high & covered with cut stone
1 ft. thick.

Body wall } To be 8:6" wide at bottom and 3 1/2 ft. at top
above } & 15:8" high and covered with cut stone
1 1/2 ft. deep.

Floor - To be of cut stone 2 ft. deep for a width of
12 1/2 ft. and the rest 1 ft. deep.

Arches. To be segmental 2 ft. rise and 1 1/2 ft.
thick.

Parapets. To be of cut stone 1:3" wide & 2 ft. high
above roadway which is to be 6 ft. wide
within the parapets.

Plastering The soffit of arches to be plastered with
2 coats of Chuanam.

Rough stone } To be 10 ft. wide & 3 ft. deep
apron.

Rough stone } The banks to be revetted with rough
revetment } stone 1 1/2 ft. thick.

Shutters

Madras, 25th Nov. 1874.

Mr. J. S. Escher Esq.
District Engineer of
Madras

I have the honor to acknowledge the receipt of your
letter of the 24th of 11th inst. and to
assure you that I have given full consideration
of the report of my late father Mr.
J. S. Escher.

The enclosed submitted to the
Commissioner of the Public Works
Department, and as his illness has been
very protracted, I am unable to report
to him at this time, and as he is unable to
write, I am sending you the enclosed
in the hope that it will be of service to you.

I am, Sir, very respectfully,
Yours truly,
J. S. Escher

2000

100

Smith

Cub

No. Range Off

21st August 1874

Shutters.

To be constructed of Teak wood 3" thick.
and 3'.9" high & worked by a screw
as shown in plan.

Foundations & Superstructure to
be of rough stone in churam - arches
brick in churam faced with cut stone

Nelsonman Captain P. E.

Executive Engineer No. 1 Range

L. Peatty - Major R. E.
District Engineer G. 27

At Range Office }
Dowlaiswarand }
21st August 1894 }

The Office In charge No 1 or
Eastern Delta Range,
Colony District
To
The District Engineer Colony
Dorchester,
187 .
Dated
Despatched
Received
Estimate for
P. M. 44.875/44
5

Specification for the balinguloh to be built at
Alamoer Lock on Boringa Canal.

This balinguloh is to contain 5 bays 10 ft span each.

Concrete.

To be laid under foundations of abutments, piers, wings, body wall, cushion wall and under floor 2 ft. deep throughout.

Foundations.

Of abutments to be 9 ft. wide at bottom and 8' 6" at top and 4 ft. deep. Of piers 3 ft. wide and 2 ft. deep. Of front wings to be 6' 3" wide at bottom and 5' 3" wide at top and 4 ft. deep. Of rear wings to be 8' wide near abutments at bottom and 7' at top and tapered to 6 ft. at bottom & 5' at top at the end and 4 ft. deep. Of returns to be 6' 5" wide at bottom and 5' 5" at top and 4 ft. deep. Of body wall to be 9 ft. wide and 2 ft. deep and of cushion wall to be 4 ft. wide and 2 ft. deep.

Abutments above

To be 8 ft. wide at bottom and 3' 9" at the springing line and 19' 2 1/2 high.

Piers above.

To be 3 ft. wide to a height of 7 ft. and 2' 6" wide to top of body wall and there reduced to 2 ft. - Cyclopean stone courses 1 ft. thick to be placed at top of every footing as shown in plan.

Front wings above

To be 4' 3" wide to a height of 11' 2 1/2 and there reduced to 2 ft. at top by having 2 steps 6 inches wide each and 8 inches battered on the outside. the

Specification for the
balinguloh to be
built at the head
of the Boringa
Canal.
E. H. 71487/711.
10/11/16 30/11/16

ends of these wings to be formed into pillars and finished with neat cut stone coping.

Rear wings } To be 7 ft. wide near abutments at bottom
above- } and tapered to 6 ft. at the end and reduced to 2 1/2 ft. at top near abutments and 2 ft. at the end by having batter on both sides.

Returns above. To be 4' 11" wide at bottom and reduced to 2 ft. at top by having 2 ft. batter on the inside and 11 inches on the outside. and to be coped with cut stone 9" deep. the ends to be supported by buttresses 2 1/2 ft. wide and 4 ft. long.

Cushion wall. To be 3 1/2 ft. wide at bottom and 2 ft. at top and 3 ft. high and covered with cut stone 1 ft. deep.

Body wall } To be 8 1/2 ft. wide at bottom and 5 1/2 ft. at top with 6" step on the back and 4 1/2 ft. batter on the lower side and to be coped with cut stone 1 1/2 ft. deep.

Floor. To be of cut stone 2 ft. deep for 15 1/2 ft. in width and the rest 1 ft. deep.

Arches. To be segmental 2 ft. rise or 1 1/2 ft. thick.

Parapets. To be of cut stone 1' 3" wide and 2 ft. high above roadway - which is to be 12 ft. wide within the parapets.

Plastering. The soffits of arches to be plastered with 2 coats of chunam.

Teak wood shutters } To be 3 inches thick and 3' 3" high and worked

worked by a screw as shown on plan.

Rough stone } To be 15 ft. wide and 3 ft. deep.
apron- }

Rough stone } The banks to be revetted with rough stone 1 1/2 ft.
revetment } thick for a length of 15 ft.

Foundations and superstructure to be rough stone in chunam. arches to be of brick in chunam.

P. K. Mahindran Captain R. E.

No. 1 Range Officer
Dowlatabad
21st August 1874

Executive Engineer M. S. Rang

L. Beatty Major R. E.
District Engineer Co. 24.

No 1801. District Eng^r Office Godavery.
Sowlaishivaram September 1874

From,

Major J. Reatty R. E.

District Engineer Godavery.

To

Lieutenant Colonel J. Mullins R. E.

Chief Engineer for Irrigation
Madras.

Sir,

I have the honor to submit herewith
for sanction the plans and estimates
of the new surplus weir at the head
of the Takee drain and the weir at
Alampur Lock, prepared in accordance
with the instructions conveyed in your
Memo No. 84 of 26th January last.

2. The Takee Calingulah, on the
plan now forwarded, is making good
progress, the body wall and wings having
been raised to a height of 6 feet.

3. The comparative Statement shows
an excess of Rs 3700 on the revised plan
of that Calingulah, and Rs 2460 on the
one at Alampur. The excess on these
works may be met from the large savings
considered

ES 9/16/74

R. N. 74-84/74

Specification for
the building of the
to be built at the
= second Lock and
Gowrie Canal

considered certain on the masonry
works of the Bank Canal of the Eastern
Delta. Captain Brockman expects
to effect a saving of 2500 Rupees, or
more, on the Choppella Lock alone.

I have the honor to be,
Sir,

Your most obedient Servant
J. Beatty, Major, R.E.
District Engineer Godavery

No. 2258 District Eng^r's Office Godavari
Camp Chintapilly 13th October 1874
Dist^r 17th 1874

From,

Major J. Beatty R.E.
District Engineer Godavery

To,

Lieutenant Colonel J. Multistock
Chief Engineer for Irrigation

Sir,

In reply to your Memo No. 715 of
14th ultimo, I have the honor to inform you
that it is expected that Rs. 500 will be
sufficient for the alterations and improve-
ments at the Alampur Lock, and that the
balance Rs. 1200 will be required to meet
the cost of fitting screw gearing to the
Tallah and Munjair Locks, for which
plans and estimates are under preparation.
2. The cost of the Angara Aqueduct
appears to have been included in the
original estimate of the Lake drain
surplus weir, and never separately esti-
mated. The original sanctioned design
for that surplus weir, now in your Office,
includes

included an aqueduct for supplying the Angura irrigation channel.

3. The Range officer estimates the value of the rough stone that may be got out of the old weir at Alamin Lock at about Rs. 366-12-0, which is also the cost of the rough stone apron and re-vetments proposed for the new weir, and a deduction to that extent may therefore be made. Besides this, a small quantity of cut stone, valued at Rs. 100, will be got out of the old weir, and be available for the new work, which will thus be further reduced.

4. As pointed out in para 5 of your Memo there appears to be no reason for making the roadway over that weir more than 6 feet wide. The Range officer explains that the width of 12 feet was adopted at the Alamin Lock weir, as the original plan allowed that width, and all the roadways of lock weirs on the Cocanada Canal have been built of that width. But in now again revising

revising the estimate the width has been reduced from 12 to 6 feet, as it will be merely a pathway for foot passengers and no District road of any class is ever likely to be made over it. This reduces the estimate still further by Rs. 1150.

5. In resubmitting the comparative statements, I have therefore deducted Rupees 466-12-0 + Rs. 1150 = Rs. 1616-12 from the revised estimate of the Alamin lock weir, but I have not been able to make any alteration in the case of the Lakee drain surplus weir.

6. The total excess on the two works then becomes Rs. 3700 + Rs. 843-4 = Rs. 4543-4-0; and as reported in my letter No. 1801 of 3rd September 1874 it is proposed to meet this from the large savings considered certain on the masonry works of the Bank Canal.

I have the honor to be,
Sir,
Your most obedient Servant,
L. Seatty - Major
District Engineer Godavary

No 947B

Enclosure Note by the Chief Engineer for Irrigation

When the Godavery Eastern Delta was visited
 * this became a subject of discussion at the end of 1870 it was considered to be
 desirable that certain modifications of the works
 to be constructed at the head of the Corniga Canal
 should be made, so as first to avoid dropping an
 unnecessary quantity of water into this Canal
 below the Alampur lock, and secondly to provide
 means of discharging the surplus of this and
 of the Bank Canal directly into the Lake
 drain, which has its head at this point.

2 With a letter No 1801 of the 8 September last
 the District Engineer submitted plans and estimates
 for the revised works, showing that an increase
 expenditure to the extent of Rs 6000 would
 be required to carry out these arrangements,
 but on further consideration, as detailed in
 Major Batty's letter No 2256 of the 13 October,
 it has been found that Rs 1616 may be
 deducted from the estimate for the Alampur
 lock weir, and the excess thus becomes Rs
 4544 - Much of this excess is attributable to
 the revision of the original designs to accord
 with the improved arrangements which have
 been introduced at all works of this class
 which

2080 94738 19 11 1/2

10/11/1998

Chief Engineer
 Godavery

To the Chief Engineer
 for Irrigation

Dated 13/10/1974
 Recd 23/10/1974

10/22/56
 Enclosure 2
 Reconstructing the
 comparative state-
 ments of Alampur
 lock weir, and
 Lake drain can-
 -has been 3/11

which have recently been constructed.

The works provided for are

Alamur lock weir - revised estimate Rupees 7,966

Original " " 7,120

Excess Rupees 846

this work appertains to the Coringa Canal, for which the sanctioned estimate amounts to Rupees 74,300, so that the alteration involves an increased charge of 1 per Cent on the total, but of rather more than 10 per Cent on the estimate for the particular work.

3. The other work belongs to the Takee drain
Surplus weir at head of Takee drain

Revised Estimate Rs. 7,100

Original - do - 3,700

Difference - 3,400

the total sanctioned for the drain is Rupees 266,300 and the excess is therefore under 1½ per Cent. The original work was to have 2 bays of 10 feet, the present weir has 4 bays of the same dimensions.

4. The rear wings of these weirs have somewhat too great a display which adds to the extent of apron and length of retaining wall without corresponding advantage, and in the case of the lock weir which has not yet been commenced, this can be modified.

5. It is satisfactory that a saving on the masonry

Masonry works of the Bank Canal is anticipated, but it is not necessary or desirable to consider that the funds of distinct canals and works are available to meet excesses, and though it would perhaps be in this case not objectionable, seeing that the excess on the surplus weir is principally due to the extended capacity provided for the relief of the Bank Canal.

done at
in Kullay Barrage
works
7 November 1871,
W. H. Miller, Esq. C.E.
Chief Engineer for Irrigation

To
The Secretary to Govt Mr D

Q. W. 1874. Adjutant
Chas. G. Goff for duty
82-9484

W 94713

From
The Chief Engineer
to
The Secretary &
Government
W. B.

4th Dec 1874
Peters 19th November 1874
Peters 28th November 1874

C. G. No. 4. 4-1-75

Note on the re-
vision of the estimate and
comparative statement
of the various stock
water in the various
of the various
in the various

Chas.

1874-75

L. O. L. Soderberg
d 16th 7/74

To Govt 9476. 19. 11. 74

C. N. 1678.
From, Recd

Encl District Eng^r
Godanery.

Secy The Chief Engineer
for Irrigation
Mauras.

Dated 3rd September 74
Recd 9th

P. N. 7484/74.
No 1801

Enclosure two

Submitting for
sanction Plans
of weirs at head
head of Eaker Drain
and at the Gla-
river Lock.

12/9/74

Public Works Department
 Proceedings of the Madras Government.
 Read the following
 From the Chief Engineer for Irrigation. { H.E. No. 947 B of 19th Nov 1874

M 4 15
 The revised designs & estimates for the following works in the Eastern Delta Co. survey are sanctioned

Coringa Canal, Estimate Rs 74,300
 Harmer lock weir original estimate 7120 revised 7966
 Lake main drain, Estimate Rs 266,300
 Surplus weir at head original estimate 3700 revised 7400

By 24/11/74

[Signature]

To The Lt Governor
 - Chf Engr. for Irrigation
 - Contd. Mr. ...
 10/11/75

x 4 Decs. 2 Est. & 2 Comparison statements subd 8/11/75 subd to the Govt

P. N. 1874
 of ...
 No. 7682
 The ...
 ...

The Secretary to Government
 ...

Dated 1st 3rd December 1874
 ...

Report to the ...
 of ...
 ...
 for his daughter

Dec 18. 12. 74
 Dec 1. 12. 74
 ...

7484

Com. of U.S. Engineers
PUBLIC WORKS.

The Dist. Engr.
Godavery

100

100

100 8-

100 100 20 4

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Eastern Delta Works - Godavery

The revised designs and
estimates for the Alamuri
rock weir in the Comiga
canal and for a surplus
weir at head of Sahel
main drain in the Eastern
Delta Godavery watershed.