Archives I 10,006—16-8 77.

(1) Number of pages 28

15 (2) Date of repair 27.8.87

(3) Initials of the Referencer Lava

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No. / B.P. No.	1112 W	Press. / Mis.
Dated	5. 5. 1884	19 .

61

Not to be folded or roughly handled

14

1112/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

From Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 1st April 1884, No. 174 E.W.

I have the honor to submit herewith an estimate, amounting to Rs. 66,935, for an iron pipe sewer to convey the liquid sewage of the Ootacamund bazaar above the Willow bund, as well as that from Motoocherry, clear of the lake; and deposit it in the bed of the Kandal stream, at about 1,400 feet below the surplus sluice of the lake.

1 Copy of letter of the Executive Engineer, Nilgiri Division, No. 617, of 20th March 1884, with 16 enclosures.

2. The proposed pipe sewer will be of one foot interior diameter, commence above the Willow bund, at the last sump of the brick sewer now under construction, receive the sewage of Motoocherry about 280 feet from its head, and will run along the lake margin with a slope of 5·86 feet per mile, for a length of 6,300 feet, to the surplus sluice, beyond which to the Kandal stream it falls at a slope of 1 in 38.

3. The report gives briefly a history of the project up to date, from the year 1867, when it appears to have been first thought of; also the arrangements proposed for laying the pipe, the manholes, &c., provided along it, and the means of flushing.

4. It will be observed that the amount of this estimate, added to that already sanctioned, above the Willow bund, is greater than the amounts of either Captain Tulloch's or Mr. Walch's estimates.

The present estimates, however, include certain subsidiary works, such as the cut stone drains in the upper bazaar, which were not provided for in the former estimates. It is also probable that the cost of the upper portion of the brick sewer may be reduced by the substitution of glazed earthenware pipes. And the present scheme has the advantage of providing more efficient means of flushing than would have been possible with the great brick egg-shaped sewer previously proposed.

P.S.—Maximum water level in the lake being taken at + 90, that is 10 feet below the bench mark on the parapet of the escape sluice, and the head of the pipe near the Willow bund being + 88, the whole of the pipe will be submerged when the lake is full.

ENCLOSURE.

From J. C. LARMINIE, Esq., Executive Engineer, Nilgiri Division, to the Superintending Engineer, IV Circle, dated Ootacamund, 20th March 1884, No. 617.

With reference to your office letter, No. 452 W.C., of the 14th July 1882, I have the honor to submit a report and plans and estimates, as noted below, for that portion of the Ootacamund main sewer below the Willow bund.

2. Plans, estimates and a report have already been sent in for the upper portion of the sewer from the Willow bund, *vide* this office No. 507 of 28th January 1884; and the work, as you are aware, is in progress. Until such time as the sewer pipe is laid, the water in the lake must be kept down to about 89·00, to admit of the brick sewer discharging into the lake; the level of the brick sewer bed at this point being 89·5 (Datum 100 feet below the parapet of the lake sluice).

3. If this level had been designed higher, the fall available (1-600) for the brick sewer would have been reduced; if placed lower, the fall for the pipe would have been reduced; for, as explained in the report, the floor of the lake sluice has been taken as a tie point.

---

1 Tracing of Survey showing proposed line of sewer piping, Ootacamund lake.
1 Tracing of longitudinal and cross sections for the proposed line of sewer piping, Ootacamund lake.
1 Tracing of details of off-take of iron pipe sewer, &c.
1 Do. of receiving cistern and valve connections, Motoocherry.
1 Do. of manholes and iron sump.
1 Tracing Plan of flushing cistern and valve well on Jail Hill.

---

1 Detailed and Abstract Estimates of items for pipe sewer.
1 Do. do. for receiving cistern and valve connection at head of main pipe.
1 Do. do. for receiving cistern, &c., at Motoocherry.
1 Do. do. for manhole No. 1, with detail for iron-work also.
1 Do. do. for manhole No. 2.
1 Do. do. for manhole No. 3.
1 Do. do. for cistern, &c., on Jail Hill.
1 General Abstract in duplicate.
1 Specification.
1 Report.

ORDER—dated 5th May 1884, No. 1112 W., Public Works.

With his letter recorded above, the Superintending Engineer, IV Circle, submits plans and estimates, amounting to Rs. 66,935, for an iron pipe sewer at Ootacamund. This sewer is intended to convey, clear of the lake, the liquid sewage of the bazaar, and that brought down by the masonry sewer now being constructed above the Willow bund.

2. The project appears to have been drawn up with great care, and the estimates are sanctioned as supplemental to the drainage estimates already approved.

3. The total cost of the Ootacamund drainage works will now amount to Rs. 2,00,935, as shown below:—

	RS.
Bazaar drainage, sanctioned in G.O., No. 314 W., dated 29th January 1883	94,000
Masonry sewer above the Willow bund, sanctioned in G.O., No. 682 W., dated 13th March 1884	40,000
Iron pipe sewer below the Willow bund	66,935
Total ...	2,00,935

to which will have to be added the cost of the land acquired under G.O., No. 45 W., dated 10th January 1884.

4. This sanction has been registered as Provincial No. 12 W. of 1884-85, and classified "Miscellaneous Public Improvements, Original Works."

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle, with fifteen enclosures.
" Examiner, Public Works Accounts, with abstract estimate.
" Financial Department.

Exd. P. L. Pereira.
Spare Copies

1112/2

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated May, 5th.

Read. *Encl.*

G.O., 5th May 1884, No. 1112 W.

MAY.

Ootacamund Drainage Scheme

Estimates, amounting to Rs. 66,935, for an iron-pipe sewer in connection with the —, sanctioned.

Public Works Department, 1884-85.

1112/W/84

Current No. 2978
Letter No. 174 / 8.84.
Dated the 1st March 84
From the S.E. IV Circle

NOTE OF REMARKS.

1. The accompanying plans and estimate provide for the construction of the (iron pipe) Main Sewer at Ootacamund. The estimated amount is Rs. 66,935.

2. The plans and estimate have, evidently, been well and carefully prepared. The Report furnishes ample information regarding the various particulars of the Project. It also enters fully into details; and explains clearly the nature and cause of the various steps proposed to carry out the scheme. There is however one difficulty which does not appear to be satisfactorily

Budget 7/14/84

overcome. The difficulty alluded to, is the placing of the iron piping across the 'Lake Bay,' as it is termed. It is submitted that the pipes may be supported across the 'Bay' on wooden piles and frame work, but the author himself does not appear to be confident of the success of his proposal, for he writes "probably timber piles and frame work will answer well". A lump sum, Rs. 1,000, has been allotted for wooden piles &c. — (vide para. 24 et seq.)

7th April/84
B378

W. 1112/40/4

Main Sewer at Ootacamund.
Estimate Rs. 66,935.

The main point for consideration, and on which largely effects the cost of work, is the diameter to be given to iron pipes.

To carry off the sewage of a population of not 5000 souls, clearly a 12" pipe is, with the given fall, much in excess of requirements.

In the report, however, it is stated that a large pipe has been decided on, "for various practical considerations". I am not sure too that a much smaller pipe than the 6" pipe allowed for flushing from the cistern in fact will, could not be sufficient & cheaper, the fall being very considerable.

It might be well now to embody all the work connected with the scheme in one formal contract & sanction the project as a whole.

CJ.
8-4-84

112/14

These estimates seem to have been prepared with great care & may be laid before Govt. for sanction.

(1) In the report however (para 39) account seems to have been taken of the estimate last sanctioned (G.O. 13-3-84 - No. 682 W.) — not of the previous estimate (£4,000. G.O. 29-1-83 - No. 314 W.)

(2) Please look into this point.

(2) Please also seems to be a discrepancy in the amount of the estimate last sanctioned. In report, it is stated at £40,190, — whereas in the G.O. it is quoted as £40,000.

(3) Provision should also be made in this estimate for the cost of pieces of land which the Collector was authorised (in December or January last) to acquire for the purposes of the work.

(4) It will probably be advisable to return the papers with reference to above points.

D.M.
18-4-84

I.W.

(1) This is evidently an oversight on the part of the Executive Engineer.

overcome. The difficul

The amounts are correctly shown in the accompanying draft G.O.

(2) The Rs 190 have probably been omitted to reduce the estimate to round numbers. The difference comes to only .4 per cent on the estimate of Rs 40,000.

(3) This is provided for in the draft G.O.

(4) The order has been drafted for approval in the event of your considering it necessary to return the papers after consideration of the foregoing remarks.

C.S.

19.4.82.

Sirs—

Sirs Engineer's Office 4th Irrigation Circle
Coimbatore, 4th April 1882

No: 174/W

From

The Superintending Engineer
4th Circle.

To

The Chief Engineer
P.W. Department.

Sir,

I have the honor to submit herewith an Estimate, amounting to Rs. 66,935, for an iron-pipe sewer to convey the liquid sewage of the Ootacamund bazaar above the Willow bund, as well as that from Motoocherry, clear of the Lake; and deposit it in the bed of the Randal Stream at about 1400 feet below the Surplus Sluice of the Lake.

2. The proposed pipe sewer will be of one foot interior diameter, & commences above the Willow Bund, at the last Sump of the brick Sewer now under construction, receiving the

Enclosures 17.

1 Copy of letter of the Cy: Engr Irrigation No: 617 of 20th March 82 with 16 enclosures.

* By Bamber

the Sewerage of Motoochenny) about
280 Feet from its head; and will
run along the Lake margin with
a slope of 5.86 Feet per Mile, for
a length of 6300 Feet, to the Surplus
Sluices, beyond which to the Kandal
Stream it falls at a slope of 1 in 38.

3. The report gives briefly a
history of the project up to date, as
from the Year 1867; when it appears
to have been first thought of; also
the arrangements proposed for lay-
-ing the pipe; the man holes &c &c
provided along it; and the means
of flushing.

4. It will be observed that the
amount of this Estimate, added
to that already Sanctioned, above
the Willow Bund, is greater than
the amounts of either Captain Tul-
-loch's or Mr. Walch's Estimates.
The present Estimates, however,
include certain subsidiary works
such as the Cut Stone drains in the
Upper

Upper bazaar, which were not
provided for in the former Estimates.
It is also probable that the cost
of the Upper portion of the brick Sewer may be reduced by the sub-
-stitution of Glazed Earthen ware pipes.
And the present Scheme has the ad-
-vantage of providing more efficient
means of flushing than would have
been possible with the great brick
Egg-shaped Sewer previously pro-
-posed.

I have the honor to be
Sir
Your most obedient Servant
E. Beatty. Colonel R.E.
Superintending Engineer III Circle

P.S. Maximum water level in the
lake being taken at +90, that is 10 feet
below the bench mark on the parapet

of the Escape Sluice, and the head
of the pipe near the Willow Bund
being +88, the whole of the pipe will
be submerged when the Lake is full.

£112-

1112/54

Rec'd 2978

fo. No 4375. 2. 11. 67
- - 2227. 19. 9. 72
o/s No 270 N 3 11. 7. 81
301 E 22. 6. 82
fo. 314 W 29. 1. 83
- 45 W 10. 1. 84
410 11 C 19. 2. 84
fo. 682 W 13. 3. 84

From

The Supg. Engineer,
Fourth Circle.

(2)

Dated 1st }
Dep'd. 2d } April 1884.

No. 1764.
Ext.
Encs: 17+

Otacammnd Main Sewer

Submitting Estimates amounting to Rs. 66,935 for the — with his observations thereon.

Pr LS. 8/4
Civ. 21/4.

Oct 8/4/84

Enclosure

No. 617

Ootacamund,
Executive Engineer's Office,
20th March 1884.

From

The Executive Engineer,
Nilgiri Division.

To

The Superintending Engineer,
Fourth Circle.

Sir,

With reference to your Office letter No. 452 W.C. of the 11th July 1882, I have the honor to submit a Report and plans and estimates as noted below for that portion of the Ootacammnd Main Sewer below the Willow Bund.

2. Plans, Estimates and a Report have already been sent in for the Upper portion of the Sewer from the Willow Bund, Vide this Office No. 507 of 28th January 1884; and the work, as you are aware, is in progress. Until such time as the Sewer Pipe is laid, the water in the

the Lake must be kept down to about 89.00, to admit of the Brick Sewer discharging into the Lake; the level of the Brick Sewer bed at this point being 89.5 (Datum 100 feet below the parapet of the Lake sluice).

3. If this level had been designed higher, the fall available (1/600) for the Brick Sewer would have been reduced; if placed lower, the fall for the pipe would have been reduced; for as explained in the report, the floor of the Lake sluice has been taken as a tie point

I have, &c.,
(signed) J.C. Larminie
Executive Engineer.

---

1 Tracing of Survey showing proposed line of Sewer piping, Cotacamund Lake
1 Tracing of longitudinal and cross sections for the proposed line of do.
1 Tracing of details of off-take of iron pipe, Sewer, &c.,

1 Tracing

1112/19 8/6

1 Tracing of details of receiving cistern and valve connections, Metrocherry.
1 — Do — " Details of manholes and iron cump
1 — Do — Plan of flushing cistern and valve well on Jail Hill.

---

1 Detailed and Abstract Estimates of items for pipe Sewer.
1 — Do — Do — for receiving cistern and valve connection at head of main pipe.
1 — Do — Do — for receiving Cistern &c. of Metrocherry
1 — Do — Do for manhole No. 1 with detail for iron work also.
1 — Do — Do for manhole No. 2.
1 — Do — Do for manhole No. 3.
1 — Do — Do for Cistern &c. on Jail Hill
1 General Abstract in duplicate.
1 Specification.
1 Report.

True

(True Copy)

Lt Beatty - Col: R.O.,
Supg. Engineer, 4th Circle.

11-2-26 11

From

The Executive Engineer,
Nilgiri Division.

To

The Supdg. Engineer,
Fourth Circle.

Dated 20th
Despd. 5 March 1894.

No. 617

Encls. 16.

Otacamund Main Sewer.

Submits Report, Plans and Estimates for —.

Cir/A/

1112/12

By R
Cross

No. 1112 W

P.W. Department

Proceedings of the Madras Government under date the 5th May 94.
Read the following:-

Letter from the Supdg. Engr. IV. Circle N.E. No. 174/E.W. dt. 1st April 94.

Sent with letter

With his letter recorded above, the Supdg. Engineer IV. Circle submits plans and Estimates amounting to Rs. 66,935 for an Iron Pipe Sewer at Otacamund. This sewer is intended to convey, clear of the lake,

P.S.

But I think the water supply service through pipes should have taken precedence of the drainage below the Willow Bund. The sewage is very trifling although it does contain matter from the lake water in the immediate vicinity of the Bazaar it has been made there appears and when

the liquid sewage of the
Bazaar, and that brought
down by the masonry
Sewer now being construct-
=ed above the Willow
Bund.

2. The project ap-
=pears to have been
drawn up with great
care, and the estimates
are sanctioned as sup=
=plemental to the
Drainage Estimates
already approved.

3. The total cost
of the Potacamund

the outfall sewer
is complete the
lake waters will
still be depleted by
the drainage of b
Ots above the bay.
The water service
has always appeared
to me to be a far
more pressing
matter SRL
25/12

Both are no doubt
of great importance but
I do not see any
reference to the impro-
vement now proposed
SRL

With the sewerage & Water
Question at present
exact position of our impro-
vements around the Lake, what
is done & what has to be
done -

Drainage Works will now
amount to £ 2,09,935 as
shown below:-

11N2/13

Bazaar Drainage
Sanctioned in G.O. 314 W
dated 29th January 1883 ——— £ 94,000

Masonry Sewer above
the Willow Bund, sanctioned
in G.O. 682 W of 13th March 84 ——— " 40,000

Iron Pipe Sewer below
the Willow Bund ——— " 66,935

Total £ 2,09,935

to which will have to be
added the cost of the
land to be acquired
under G.O. 45 W of 10th
January 1884.

4. This sanction has
been registered as Provincial

No 12 W of 1884-85, and

classified "Miscellaneous

Public Improvements.

Original Works."

28 APR 84

21-4-84

F.C
a 1697 h 16.6 12

cy

This matter was this day discussed in Council and it was agreed that the order may issue as drafted.

30.4.84

L.E. III Circle with 15 enclosures
Ex: P.W. accts with abstract
Fin: Dept estimate

R.S.
Gal

Dft L.S. 8/4
Cir 21/4.

1112/14

17-3-13

2978

Govt. of (1884) Madras.

PUBLIC WORKS.

(147)

Dated

Read. Encl.

G.O., 5 May 1884, No. 1112 W

On the annexed drawings

Estimates amounting
to Rs 66,935 for
an iron pipe sewer
in connection with the
at Saidapet

Sanctioned.

Sd/ for Chief
Secy to Govt

80
4

Fo 8/5

Ag^re 8/5

Sd/ for Secy to Govt