Public Works

Marine (1899) Department.

G.O., No. 557/W

DATED 22nd Feby 99

241 2/2/9

[Despatch Abstract.]

Light House at Havelock Point

Supplemental Estimate of Rs 1200 for a Compound Wall round the ——, Kistna District, Sanctioned.

11/6

7/B/CS

Sd 23/2

[M. S.
800—23-8-97.]

BACK PAPERS.

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

FURTHER PAPERS.

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

20|30 of 99

BUILDINGS AND ROADS.
CIVIL WORKS.

Government {1899} of Madras.
PUBLIC WORKS.

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

G.O., No. 557 W., 22nd February 1899.

FEBRUARY.

Lighthouse at Havelock Point

Supplemental estimate of Rs. 1,200 for a compound wall round the —, Kistna district, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From the Superintendent of Works, Lighthouse Division, dated 3rd Dec. 1898, No. 1449.

From F. W. ASHPITEL, Esq., Superintendent of Works, Lighthouse Division, Madras, to the Chief Engineer, Public Works Department, dated 4th January 1899, No. 1968.

With reference to your memo., No. 5651 C., dated 14th December 1898, I have the honour to forward, for favour of early sanction, an estimate for Rs. 1,200 for a dwarf wall referred to in paragraph 15 of my inspection notes on Havelock Point Divi, No. 1449, dated 3rd December 1898.

From the Superintendent of Works, Lighthouse Division, dated 1st February 1899, No. 2078.

Order—No. 557 W., dated 22nd February 1899.

The estimate, amounting to Rs. 1,200, for a compound wall round the lighthouse at Havelock Point, Kistna district, is sanctioned as supplemental to the estimates, aggregating Rs. 1,17,420, sanctioned in the following G.Os. :—

No. 670 W., dated 8th March 1897.
No. 2217 W., dated 30th August 1898.
No. 464 W., dated 13th February 1899.

2. This sanction has been registered as Excluded Local No. 36 W. of 1898-99 and classified as Miscellaneous Public Improvements—Original Works.

(True Extract.)

Under Secretary to Government.

To the Superintendent of Works, Lighthouse Division,
with two enclosures.
„ Examiner, Public Works Accounts.
„ Marine Department.

Exd. T. K. Narayana Aiyangar.

No 130 of 99

P.W. DEPARTMENT.

Read the following :—

1 Quote

From the Supt of Works. Light House Division. No 1449 dy 3rd December 1898. quote
From —Do— . —Do— . No 1968 dy 4th January 1899. Press
From —Do— —Do— . No 2078 dy 1st February 1899 quote

3 quote

Circulated to ~~[illegible]~~

ORDER. No: 557 W d/ 22.2.99

The estimate, amounting to Rs 1.200. for a compound wall round the Ligh house at Havelock Point, Kistna District, is sanctioned as supplemental to the estimates, aggregating Rs 1.17.420, sanc 899 in the following G. Os :-

No 670 W, dated 8th March 189
No 2217 W dated 30th August 189
No 464 W. dated 13th February 1899

2. This sanction has been registere as Excluded Local No 36 W of 1898-99, and classified as Miscellaneous Public Improvemento Original Works.

ASK 16.2.99.

16/2/99 W.

Not. In G.O No 2217 W. dated 30th August 1898 the proposal to construct a compound wall ro the Light house at Havelock Point was disall It is now reported that if no wall is provide high

4 P

A.S.H. 19.2.99

Flag H
Flag A

To the Press

D.W. For perusal 20/2/99

I this ASK 21.2.

~~Flag A~~

P. W. 4
1,000—14-11-98.

igh tides will damage the platform and that
ere will be constant expense in maintenance
t is therefore proposed to sanction the estimate.

A.G.H.
16.2.99.

14/2/99
W.

Mai

A.G.H

23/2/99

To
the Supt of Works L.H.D[illegible] ...ercks.
" Exam. P.W.A
" Marine Dept

3/3/99

Public Works (1899) Department.

CURRENT No. 993

557W

From the Supdt. of Works
Light House Dn
Madras

Order

No. 2078

Dated 1st February 1899
Received
Registered 2.2.99
Enclosures Inspectn Notes - 1.
Spare copies

SUBJECT.

Havelock Point –
Returning the
inspection notes on
—.

HC

BACK PAPERS.

No.	Date.
625C	30.1.99 ✓
5657C	14.12.98 ✓
2217W	30.8.98 ✓
670W	8.3.97 fe ✓
245M	8.4.96 ✓
1707W	6.7.98 ✓
986W	26.4.95 ✓
2806W	7.10.92 ✓
1787W	15.6.92 ✓

FURTHER PAPERS.

No.	Date.

OFFICE OF THE SUPT. OF WORKS, LIGHT-HOUSE DIVN.,
Egmore, Madras,
Dated 1st February 1899.

No. 2078

From
F. W. ASHPITEL, Esq.,
SUPERINTENDENT OF WORKS,
LIGHT-HOUSE DIVISION,
Madras,

To
THE Chief Engineer,
P. W. Department.

SIR,

With reference to your Memo No. 625C dated 30th January 1899 I have the honor to return the Inspection notes called for therein.

I have the honor to be,
Sir,
Your most obedt. servant,
B. O.

Manager,
for Superintendent of works.
Light House Division.

C 1.2.99.

No. 625 C d/ 30-1-99 P.W.D

C/

Memo

With reference to his letter No 1968 dated 4th January 1899, submitting for the sanction of Government an estimate for a dwarf wall at Havelock Point, Kistna district, the Supt of Works, Light house Division, is requested to be so good as to return the inspection notes returned to him with this Office memo No. 565/c dated 14th December 1898.

ASK
26-1-99
D. E. W.

Mas

Ino
9/3

To the S. W. L. H. D. √

D 31/1/99

Dw

31/1/99

No 130 of 99

R.K.

Please have the Inspection notes of the Supt. of Works on the Light-house at Hawsbeck Point put up.

5574

6/1/99

HC

The Inspec[illegible]ion Notes do not appear to have returned as yet

7.1.99

R.K.

Please say if the Inspection notes have now been returned, and if so have the paper put up.

18/1/99

HC

The Inspection Notes have not yet been received.

18.1.99

R.K.

Please say whether the Inspection notes have now been returned.

26/1/99

HC

No.

26/1/99

H. C.

There are 2 matters which either are being delayed in your branch or T branch.

(1) Lowering of compound wall at Point Divi lighthouse. I ordered lowering the [illegible] long ago.

(2) Recent reference from S.E. III Circle about price of Ar-[illegible] tiles. I drafted a Circular 9 months ago on the subject, & I believe it has never issued.

Memo

With reference to our letter No. 1969 dated 4th January 1899 submitting for the sanction of Government an estimate for a [illegible] well at Hamlock Point [illegible] District the [illegible] [illegible] as requested [illegible] [illegible] the [illegible] [illegible] [illegible] with the [illegible] No. [illegible] dated [illegible] December 1898

Public Works Department.

---

be without further delay to the disposal of both of these matters. Send up files sharp.

ACK

16-2-99

D.W.

(1) The disposal of this estimate has been held over pending issue of G.O. No. 464W d/13 February 1899 which is now in press. A draft order is however submitted herewith; but when it goes in Circulation the G.O. will have to be put up. I have asked the Press to expedite the printing of the G.O.

(2) I has submitted the file to you, a few minutes ago.

May
16/2/99

No. 625C d/30-1-99 P.W.D

Memo

With reference to his letter No 1968 dated 4th January 1899, submitting for the sanction of Government an estimate for a dwarf wall at Havelock Point, Kistna district, the Supt of Works, Light house Division, is requested to be so good as to return the inspection notes returned to him with this office memo no 565/c dated 14th December 1898.

ASK
26-1-99
D. E. W.

To the S. W. L. H. D.

D 31/1/99

DW

31/1/99

Public Works (1898~~9~~) Department.

CURRENT No. 130

From the Supdt of works
Light House Dn
Madras.

Order

No. 1968

Sanction estimate. The dwarf wall is sufficient in thickness
ASK
5.1.99.

Dated 4 January '99
Received } 5-1-99
Registered }
Enclosures ~~1 Estimate~~ 2
Spare copies

T
For early scrutiny
DW

SAW

SUBJECT.

Havelock Point Divn

Forwarding for favour of sanction an estimate for Rs 1200 for a dwarf wall at –

BACK PAPERS.

No.	Date.
5651C	14.12.98
2217W	30.8.98
1670W	4.7.98 (SC)
670W	8.3.97 (SC)
245 Mar	8.4.96 (SC)
1701W	6.7.98 (SC)
986W	26.4.95 (SC)
2806W	7.10.92 (SC)
1787W	15.6.92 (SC)

FURTHER PAPERS.

No.	Date.

OFFICE OF THE SUPT. OF WORKS, LIGHT-HOUSE DIVN.,
Egmore, Madras,

Dated 4: January 1899.

28

No. 1968

print

From

F. W. ASHPITEL, Esq.,
SUPERINTENDENT OF WORKS,
LIGHT-HOUSE DIVISION,
Madras,

To

THE Chief Engineer,
Public Works Department.

SIR,

With reference to your Memo No. 5651C dated 14: December 1898 I have the honor to forward for favour of early sanction an estimate for Rs. 1200/- for a dwarf wall referred to in para 15 of my inspection notes on Havelock Point Divi No. 1449. dated 3d December 1898.

I have the honor to be,
Sir,
Your most obedt. servant,

F. W. Ashpitel
Superintendent of works.
Light House Division

4.1.99.

Public Works (1898) Department.

CURRENT No. 10066

No: 5651C d/ 14-12-98
C/

From The Supdt. of works
Light House Dn. Madras

Order In returning the Inspection Notes on Havelock Point Divn, by Supt of Works, the Chief Engr. has the honor to request that the estimate for the Compound Wall, alluded to in para 15, may be sent to the office for sanction
ACK
12.12.98.

DW
Please see remarks against item (15)
RW
12.12.98.

No. 1449

Dated 3d December 1898

Received
Registered 5-12-98

Enclosures one plan.

Spare copies

To
The Supdt. of Works, L.H. Divn.
Sd 15/12/98

SUBJECT.

with inspection notes for perusal & return
Havelock Point Divn —

W
For orders
ACK
7.12.98.
DW.

Forwarding inspection notes on —

T
B

INDEXED.

16/12/98

BACK PAPERS.

No.	Date.
2217w	30.8.98
1670w	4.7.98(SC)
670w	8.3.97(SC)
245 Mar:	8.4.96(SC)
1701w	6.7.98(SC)
986w	26.4.95(SC)
2806w	7.10.92(SC)
1787w	15.6.92(SC)

FURTHER PAPERS.

No.	Date.

Inspection Notes. Havelock Point.

Please write in half margin

The light-house is now 23 feet above basement level and the work is excellent: the blocks in the various courses, the moulds for which have to be altered every four courses, fit exactly; and the concrete spiral stair case works in well and true to curve. Every thing shows that the greatest care has been taken in manufacturing these blocks which are of excellent quality, the mortar appearing to be as hard as the stone.

Very creditable to Mr. Smith

9.12.87

(2) Further progress will be at the rate of 20 courses or say 24 feet per month which will complete the tower to cornice level by the 31st of March. Some of the cement in store is being sieved and used for block making and building but its use for the tower work will be discontinued directly the fresh supply arrives from Madras. The mortar with this cement will be mixed in the proportion of 2 sand to 1 cement so as to run no risk of inferior work but the usual proportion of 3 sand to 1 cement will be reverted to when the new cement× has been received.

× It is now at Adipolliam.

ceived. The concrete with the sieved cement will e in the proportion of 6½ stone, 2½ sand, and ¼ cement.

3 & 4) × × × ×

(5) The masonry of one set of quarters has been completed and terrace bricks laid to roof and floors. The wells for another set have been sunk and are being tested in accordance with the instructions given in my inspection notes for April. The work has been much delayed owing to the cyclone and to the exceptionally high tides which completely stop work on foundations. This is ~~the~~ one reason why it is difficult to show proportional expenditure in each month. Mr. Smith assures me that he will complete all the quarters and other buildings before the 31st March.

Light Keepers quarters

(6) The great difficulty is fresh water of which upto date there has been but little in the river, and consequently it has had to be fetched from Adipolliam, distant 10 miles.

Briquettes have been made of the following proportions

Please write in half margin

Inspection Notes. Havelock Point.

The light-house is now 23 feet above basement level and the work is excellent: the blocks in the various courses, the moulds for which have to be altered every four courses, fit exactly; and the concrete spiral stair case works in well and true to curve. Every thing shows that the greatest care has been taken in manufacturing these blocks which are of excellent quality, the mortar appearing to be as hard as the stone.

Very creditable to Mr Smith
9. 12. 90

(2) Further progress will be at the rate of 20 courses or say 24 feet per month which will complete the tower to cornice level by the 31st of March. Some of the cement in store is being sieved and used for block making and building but its use for the tower work will be discontinued directly the fresh supply arrives from Madras. The mortar with this cement will be mixed in the proportion of 2 sand to 1 cement so as to run no risk of inferior work but the usual proportion of 3 sand to 1 cement will be reverted to when the new cement× has been received.

proportions of lime, surki, and sand.-

4 lime 1 surki 7 sand
× 4 lime 2 surki 6 sand
4 lime 4 surki 4 sand.

and concrete blocks of

2½ stone to 1 mortar

composed of 1 lime to ¼ surki 1¾ sand
× 1 lime ½ surki 1½ sand
1 lime ¾ surki 1¼ sand.

The proportions marked thus × will probably be best
9. 12. 90

Some of the briquettes have been mixed with fresh and some with salt water and some have been immersed in salt water after 3 days. At the end of a fortnight or whenever foundation work commences Mr. Smith will test the briquettes and examine the concrete blocks and use whichever mixture appears to give the best results for concrete for foundations and mortar for superstructure with bricks now at site. Owing to the purchase of brick jelly in lieu of stone the rate will not be exceeded by using surki.

I shall be glad of a report of the results, especially as to rapidity of setting in fresh & salt water respectively
9. 12. 90

110 Cft. broken stone at Rs 4.8.. per 100 Cft.	4	15	3
20 Cft. lime at 0-2-6 per Cft.	3	2	"
15 Cft. Surki at 0-3-0 per C. ft.	2 "	13 ~~15~~	0 "
25 ~~35~~ Cft. sand at "-"-8 per Cft.	1 ~~1~~	0 ~~7~~	8 ~~4~~
Labour	3	4	"
40 Cft. grinding mortar at "-"-6 per Cft.	1	4	"
Sundries baskets etc.	"	4 ~~6~~	1
Total Rs	~~15~~ 17	~~8~~ 0	" 0

× It is now at Adipolliam.

f, as it probably will, it turns out that with brick jelly the mortar can be mixed in the proportion of ~~[illegible]~~; 4 lime, 2 surki and 6 sand or 4 lime, 1 surki, 7 sand the saving from the above rate will be annas 12, and rupees 1/8 ~~and rupees 2/4~~ respectively per 100 cubic feet; but the best setting mixture should be adopted, which is not necessarily the mixture containing most surki especially in the case of concrete with brick jelly.

(7) For the Superstructure lime mortar to be used with fresh water except for bricks now at site which have been thoroughly soaked with salt water and with which a small proportion of surki must be used with fresh water. say 4 lime to 1 surki & 7 sand

Quite so – I have seen experiments which seem to prove that increase of surki means increase of strength up to 1 lime 2½ surki but I doubt it

9.12.[illegible]

(8) For brick work the rate works out as follows.–

Basement.

1690 bricks at Rs. 8/8 per 1000	14	5	10
16 cft. lime at " – 2 – 6 per cft.	2	8	"
32 cft. sand at " – " – 8 " "	1	5	4
4 bricklayers " " – 12 – " each	3	"	"
32 cft. grinding mortar at " – " – 6 per cft.	1	"	"
2½ men coolies at " – 5 – " each	"	12	6
5 women or boys at " – 3 – 3 each	1	"	3
Sundries	"	8	1
Rs.	24.	8.	"

For Superstructure add.

1/2 bricklayer	0 – 6 – 0
1 man cooly	0 – 5 – 0
2 Women or boys at 0.3.3	0 – 6 – 6
Total Rs	1 – 1 – 6 per 100 cubic feet

or per 100 cubic feet Superstructure say Rs. 25 – 8 – 0

(9) If surki is used in the proportion of 4 lime to 1 surki & 7 sand the rate must be further increased by say annas 10 per 100 cubic feet making the total rate say Rs. 26 – 4 – " . This increased rate for brickwork and the fact that owing to the indifferent bricks procurable the lower story walls have been built 1'6" thick, may entail slight excess on foundations and Superstructure but it will be very small owing to the purchase of brick jelly at a cheap rate.

(10) The points which should be attended to in completing the lightkeepers quarters are as follows.–

(a) Concrete in surki mortar to be used for foundations the proportion of surki used being determined according to the result of the experiments made.

(b) Brickwork with bricks now at site to be in surki

mortar

mortar 4 lime to 1 surki and 7 sand or as fixed by the sub divisional officer, mixed with fresh water but with bricks brought to site after the cyclone to be in lime mortar as before.

(c) Floors to lower story to be Cuddapah slab on 4 inches concrete. The excess will be about Rs. 70. per building and can be met from contingencies. This change is made as per orders conveyed in Government Order No. 1670 W. dated 4th July 1898 and is ~~necessary~~ advisable as there is 4'-6" filling under floors and slight settlement, quite sufficient to crack cement plaster, will be unavoidable with the soil available.

+ 70s –
approved

(d) The inside of the building will be plastered with cement plaster 1/2" thick (including joints). The top will be finished with a suitable mould and a skirting 8" high and 1" thick of cement plaster to be run round all rooms. Lime plaster is expensive at Divi and is almost sure to perish.

net 2/8".

(e) When I was on the West Coast the District Forest Officer brought to my notice that his department collects natural wood oil and sells

it

it at Rs. 5 per gallon. This wood oil is said to be and appears to be much superior to the ordinary bazaar product which consists of linseed oil with a small quantity of ~~gum~~ gum dammer and red ochre, and I propose to give it a trial at lighthouse stations. This seems advisable because (1) Government supplies the oil and therefore it costs little or nothing (2) if light keepers are to carry out petty repairs they will find no difficulty in sand papering and wood oiling wood work (3) if this natural wood oil is as superior as it is said to be, it will be as durable as paint. The sub divisional officer should find out whether this natural wood oil is procurable from the District Forest Officer Kistna and, if not, should report the quantity required and it will be procured for him. The wood oil will be used for all work, not directly exposed to the weather.

approved. It is to the ordinary wood oil of commerce that I object for external work. This natural oil may be equal to paint

9.12.98

(f) In the quarters already built the damp proof course has been omitted by an oversight

a

A damp proof course of cement mortar 3/4" thick and 1 cement to 2 ~~mortar~~ sand should be provided or one course of bricks built in cement mortar.

(11 & 12 & 13) × × × ×

(14) The survey showing the position of this tank is sent herewith×. So soon as the well has been sunk to the required depth a sufficient quantity of quick setting cement will be despatched by rail to Bezwada to plug the bottom of the tank. The sub divisional officer should give ample notice regarding the quantity and the date on which it is required as this quick setting cement must be used fresh.

Underground tank.

× to 300 only.

(15) Government in G. O. No. 2217 W. dated 30th August 1898 decided that a compound wall is unnecessary at Havelock Point but from recent experience ~~by~~ of high tides (not during the cyclone) it is evident that it will never do to leave the raised platform round the tower without some sort of retaining wall. If no wall is provided very high tides will damage the platform and there will be constant expense in maintenance. Under the circumstances I request permission to build a dwarf wall as per plan and estimate× forwarded herewith.

× Reg - A

Compound wall.

Apparently not. The estimate for dwarf wall while asking for sanction. W.H.L.

Dr. works

Estimate includes raising the W. amounts to Rs. 1200. but is not forwarded.

L.H.
3/12/98

(16) × × × ×

(17) I have been through the estimates and according to the programme laid down the tower (to cornice level) and all out buildings should be completed by the 31st March. I estimate the total expenditure to the end of March at Rs. 74.000 or deducting the expenditure of the previous year at Rs. 41,668/. The work will then be ready for the apparatus.

(18) × × × ×

Extract
~~Copy~~ to the Chief Engineer Public Works Department with special reference to paras 10 (c) & (e) and 15

Superintendent of Works.
Light House Division

1449
3. 12. 98.

Vide remarks above

G. O. Gr. Madras.
30th Nov 98.

To
The Supdt. of Works, L.H. Division, for note & favour of return