

Public Works (1898) Department.

G.O., No. 2054 W
A

DATED 12th August 1898

✓
7/11/98
7/11/98
7/11/98

7/11/98

[Despatch Abstract.]

Negapatam Harbour. Estimate of Rs 3000
for providing hurdle groynes to protect the
nose of the Spit in the ——— sanctioned
with remark, for immediate execution.

110

Indexed.

Public Works DEPARTMENT.

2

2

Government {1898} of Madras.
PUBLIC WORKS.

Enclosures

{ 1898.

Spare copies

G.O., No. $\frac{2054}{A}$ W., 12th August 1898.

AUGUST.

Estimate of Rs. 3,000 for providing hurdle groynes to protect the nose of the spit in the —, sanctioned, with remark, for immediate execution.

No. ²⁰⁵⁴_A W., 12TH AUGUST 1898.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Colonel A. W. SMART, R.E., Officiating Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepāk, 23rd May 1898, No. 351 W.

With reference to your No. 1901 C., dated 21st March 1898, I have the honour to submit an estimate, amounting to Rs. 2,03,700, for a jetty wall at Negapatam as shown in the tracing in a yellow line.

The estimate provides for a stone wall in portland cement as directed by you; a wall of brickwork faced with cut stone in surki mortar pointed with portland cement would cost Rs. 1,42,700. A further reduction might be made by placing the wells say 6 feet apart and arching over the intervals.

It is noted that a sea opening of 250 feet only has been allowed. Even if the least costly of the above estimates is not considered prohibitive, I would wish to observe with regard to the design that on the sea face it appears to offer too little and yet too much resistance to storm waves. If the wall on the sea face is to withstand waves, it should, in my opinion, be at least 6 feet higher than designed and be protected on its outside by wave-breaker blocks of 12 to 15 tons weight.

As designed it will allow waves to break over it and the filling of sand between the two walls must be speedily washed out and the destruction of the wall would almost necessarily follow.

As a rule, spits of the kind at Negapatam are best protected by low raking groynes on the sea face placed say 200 to 300 feet apart, which offer little resistance to storm waves but yet cause deposits between them during calm or fairly calm weather. It is true that such spits are breached in exceptional storms, but the breaches are easily repaired and at small cost.

If either of the estimates is passed, it may be returned for the necessary specifications to be drawn up.

Telegram from the Officiating Superintending Engineer, V Circle, dated 28th May 1898.

From Colonel A. W. SMART, R.E., Officiating Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepāk, 3rd June 1898, No. 370 W.

With reference to your telegram, dated 27th May 1898, and my telegram of 28th May 1898, I have the honour to inform you that an estimate for extending the semi-circular groyne at Negapatam was sent to the Presidency Port Officer, through the Port Officer at Negapatam, for approval and return to me. On its being received, it will be forwarded to you.

The estimate for the proposed jetty wall was submitted to you with my No. 351 W., dated 23rd May 1898.

No. ²⁰⁵⁴_A W., 12TH AUGUST 1898.

Memo. to the Superintending Engineer, V Circle, dated 20th June 1898, No. 507 D.

The Chief Engineer has the honour to observe that the experimental timber groyne which was built out from the end of the spit and breached in November last proved, as long as it remained intact, most efficacious in keeping the bar open and if it can be made permanent, would probably fulfil most requirements at Negapatam. The great objection to a pier is that it would certainly be severely damaged in stormy weather and might be wrecked.

2. The estimates now submitted are prohibitive in cost, and the proposal to fix the inner mouth with a masonry jetty must, it is feared, be abandoned. The Superintending Engineer is requested to be so good as to suggest the cheapest method of securing stable conditions at the river mouth. To replace the temporary groyne which was breached in November by a timber groyne made of ainee (*Artocarpus hirsuta*) wood piles and waling pieces of suitable dimensions to withstand a heavy sea might answer the purpose. This wood can be obtained from A. Brown & Co., Calicut, for Rs. 1-11-0 per cubic foot cut into scantlings, and loaded on trucks at Kallai station and can be railed to Negapatam at the rate of 5 pies per mile per ton of 40 cubic feet. Salt water is said to have no effect on it; or a palisading of this timber might be built from A to B on the plan. It is useless putting up anything that will not stand rough weather, because if it breaches, the port becomes almost inaccessible.

(Signed) W. B. DEWINTON,
Chief Engineer.

From Colonel A. W. SMART, R.E., Officiating Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepāk, 6th August 1898, No. 511 W.

With reference to your memo., No. 507 D., dated 20th June 1898, I have the honour to submit, for sanction, the enclosed plans and estimate of Rs. 3,000 for providing hurdle groynes to protect the nose of the spit in Negapatam harbour. I have the honour to ask that the sanction of this work may be treated as urgent.

ORDER—No. ²⁰⁵⁴_A W., dated 12th August 1898.

The estimate, amounting to Rs. 3,000, for providing hurdle groynes to protect the nose of the spit in the Negapatam harbour is sanctioned for immediate execution.

2. The cost of the work will be met from the provision of Rs. 15,000 made in the current year's budget for permanent groynes at Negapatam.

3. This sanction has been registered as Excluded Local No. 16 W. of 1898-99 and classified as Miscellaneous Public Improvements—Original Works.

(True Extract.)

Under Secretary to Government.

To the Superintending Engineer, V Circle,
with seven enclosures.
" Examiner, Public Works Accounts.
" Marine Department.

Papers to be read in Proceedings:—

Very urgent

Again G.O., dated

189 , No.

Again G.O., dated

189 , No.

Current No. *11463* of 1898, dated *23rd May 1898*, from *the S.E. I Circle*
" " *4723* " 1898, " *28th do* " *do* " *do*
" " *4804* " 1898, " *3rd June 1898* " *do* " *do*
" " *6556* " 1898, " *6th August 1898* " *do* " *do*

ORDER.

No 2054 W 8/12.8.98
A

Approved -

The work fit in that this work won't do much, if anything, to increase the scour in the basin

As
11/8/98

The estimate amounting to Rs 3000 for providing hurdle groynes to protect the nose of the spit in Negapatam Harbour is sanctioned for immediate execution.

2. The cost of the work will be met from the provision of Rs 15000 made in the current year's budget for permanent groynes at Negapatam.

3. This sanction has been registered as Excluded Local No 16 W of 1898-99 and classified as Miscellaneous Public Improvements Original Works.

The S.E. I Circle with 7 enclos.
" Examiner P.W. Accts.
" Marine Department

11.8.98

P.T.O for note

W.H. 11.8.98

N/A.

This estimate was called
for in Memo No 507 D of
20-6-98 Fly F., and is
referred to in para 5 (6)
of my note printed with
No 577 Mar. of 5.7.98.
Sanctions is urgently required
because, with any delay,
the progress of the work
before the N.E. monsoon sets
in. I think they will effect
their purpose.

L. B. S.
11.8.98

Public Works (1898) Department.

CURRENT No. 6556

Order

ask S. J. Duttonman
to check the anticipated
accuracy of this estimate
and see that it provides for
all the work shown in
plan. today. I want
to get it sanctioned before
I go.

From The Supt Engineer
5 Civil.

No. 628

Dated 6th August 1898.

Received 8.8.98

Enclosures (3 plans)

Spare copies

Sir,

The estimate has
been checked & found
correct.

11/8/98

SUBJECT.

Nagasaki Harbour.

Submitting for sanction
the plans & estimates of
Rs 3000 for providing
groynes to protect the
moor of the Spit in —

Submitted for order.
This estimate was called for in
Memo. 507 D of 20 June 1898 (Fly F.)

it is marked
L. B. S.
11.8.98

0.23275
11/8/98

Chepâk.

189 ♂

~~July~~ 1898.
6. V. August 1898.

From

Colonel A.W. Smart Q.C.

SUPERINTENDING ENGINEER.

V CIRCLE.

To

THE Chief Engineer,
P. W. Department.

SIR,

With reference to your memorane

Enclosures. 7

dem No. 507. & dated 20 June 1898, I have

1 Plan showing the position of groynes

the honour to submit for sanction, the

1 Enlarged plan of
groynes

enclosed plans and estimate of Rs 3,000/-

1-d hexagonal
nose to ground

for providing hurdle groynes to protect

1 Report

the nose of the spit in Negapatam

1. Specification

Harbour. I have the honour to ask
that the sanction of your Council be

1 Defraud habe

be treated as urgent.

1 abstract de

I have the honour to be,
 Sir,
 Yours faithfully,
 J. H. P.

7

Sir,
your most obedt servant

Amherst

~~Colonel R.R.~~

Offg Siebzugene 5 Cms.

Cue 48021

I

Please say when
the estimate are likely
to be disposed of.

C₂

7.6.98

Saw

Submitted with note

876.98

Port Office, Negapatam,

23-5-1898

My Dear De Winton

I write to let you
know that the breach in the
dyke is filled up with sand
now, & that there is a good broad
channel to north of it, carrying
off at low & 3 3/4 low. with 4 ft
& 1 3/4 on the bar. I think it
would be a good thing to send the
stone down as soon as possible
to fix the dyke, & if one could
only get on a course down the
river it would clear away

a lot of the sand
that is inside the river
as it would have a straight
run out to sea where the
current would catch it &
carry it north.

Yrs Conf

[Signature]

C. W.

I asked Mr. V. Fine
how far to estimate
at Megapata -
Please submit him
by wire that the
are urgent -

L. W.

26-5-98

D/

Telegram

From Madras Works

To Superintending Engineer
Fifth Circle - Madras.

No. 3652, d/27-5-98 May 1898

Estimates for Megapata
groynes already called for
urgently required - Please
expedite them.

L. W.

Recd
27-5-98

A. K.
27-5-98.
D. W.

Public Works (1898) Department.

CURRENT No. 4804

Order

From *The Supt Engineer*
5 miles

No. 3717.

Dated 3^d June 1898.

Received 6.6.98

Enclosures

Spare copies

SUBJECT.

Seminaricular groyne at
Negapatnam
Surveys that an Estimate
for extending the same
sent to the Presidency Port
Officer for approval & when
the Estimate for the prop-
osed jetty wall was submitted
on 28th May/98.

BACK PAPERS.

No. Date.

FURTHER PAPERS.

No. Date.

OFFICE.

SUPERINTENDING ENGINEER'S OFFICE,

V CIRCLE, MADRAS,

Chepak, 32 June 1898.

From

Colonel A.W. Smart R.E.

SUPERINTENDING ENGINEER,

V CIRCLE,

To

THE Chief Engineer
P. W. Department.

SIR,

With reference to your telegram dated 27 May 1898 and my telegram of 28 May 1898, I have the honour to inform you that an estimate for extending the semicircular quay at Negapatam, was sent to the Presidency Port Office through the Port Office at Negapatam, for approval and return to me. On its being received, it will be forwarded to you.

The estimate for the proposed jetty wall was submitted to you with my No. 3572 dated 23 May 1898.

I have the honour to be
Sir,
Your most obedient servant

A. Smart Colonel R.E.
offg. Supg. Engineer to the

to 3652
27-5-98
Cao
4723
with J
Enclosures

No. 4463
with J

1.98.
2.6.98

Specimen in 100, 100, 100

Public Works (1898) Department.

CURRENT No. 4723

Telegram

From

The Suptg. Engineer
V. Kircle

No.

Dated 28th May 1898

Received } 30th — 30th
Registered — 3. 6. 98

Enclosures

Spare copies

SUBJECT.

Negapatam groyne. Stating
that the estimate for the —
was submitted on the 26th
instant

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Code
Class.

INDIAN



TELEGRAPHS

Monthly
Number.To
(Office)

Cotacamund

From
(Office)

Madras Super

Words.

Day.

Hour.

Minute.

Official
Instructions.

21-2

28

18

47

To
(Person)Chief Engineer
P. W. D.From
(Person)Superintending
Engineer
5th Circle

Estimate for Negapatnam
Groyne submitted on
21st inst.

32 Word Form.

Submitted
Information
S. J. 30 Mar 98
into file

ask to
as agent

Sent to

LN.

At

Hrs.

Mts. by

Mason
Telegraph Master.

COTACAMUND 28-5-98

O & P-No 494 T-27 4 16-24000000

S. A. W.

Please see his instructions above & connect this file with that
now under scrutiny by T. S. J. 1 June 98.

I Please keep with this file and write down
the plan submitted. Should be considered
urgent.

2/6/98

B

The

For order
 Please see
 from the Bureau
 within limit of
 surplus this matter
 is considered as
 urgent

Cir
 20/6/98

Current No. 4463
 Letter No. 551 W
 Dated 23 May 1898

From the Chief Engineer of Cutch

NOTE BY TECHNICAL SECTION.

Name of work Constructing a jetty wall
 at hegapatam.

With reference to this office
 Memo No. 1901 C dated 20 March
 1898 the S.E. & Circle submits the
 alternative estimates for construct-
 ing a jetty wall at hegapatam.
 In the report accompanying
 the estimate it is stated that
 the harbor at hegapatam has
 a cause of great anxiety
 public interested in the por-
 t owing to the shifting in the co-
 of the current at every change
 of the monsoon winds espe-
 during the months of June
 & March & to keep the har-
 clear for boat traffic sev-
 attempts it is reported, have
 made by erecting groynes but
 were not considered satis-
 owing to repeated damage to
 temporary works.

The Chief Engineer has
 specified the Port has been

The drawing is to protect
the river. It shows on tracing plan,
colored yellow. The SE thereupon
submitted two alternative estimates,
one amounting to \$2,027,000
which provides for a somewhat
semicircular wall to be built
of stone in Portland cement for
a length of 1600 feet.

This stone wall will be built
on square well foundations, of
brick in Portland cement and
filled in with cement concrete,
the walls towards the curves of
the promontory will be 11 in 10
feet square & 12 feet deep &
one on either side of the curve.
The lining of the wells will
be 1.6" thick laid over jingle wood
6" thick & 1 1/2" wide and
laid to the masonry by 3/4" dia.
rods with washers & complete
shown on section plan.

The jett wall will be built of
stone in Portland cement
to width at top and raised up
the top of the wall with a
of 1 in 4 for the front face &
on face stepped. The top &
surface of the wall will be
the cut stone & pointed with
Portland

Portland cement. 11 ab

ing 58 masonry piers for
with both ends fixed in center
on the river face. The top of the
jetty wall will be 5.89 feet above
m. s. l.

The alternative estimate of
\$1,427,000, (reduced to \$1,42,500
in this office owing to error in
calculations) provides for the
wall of the same dimensions &
the same number of wells except
that the wall will be built of
brick in Portland cement in lieu of
stone in Portland cement & that
the wells ~~are~~ filled partly with
cement concrete at bottom, sand
between & concrete in lime mortar
at top instead of full cement
concrete.

The SE in submitting the es-
timate states that a reduction
in the amount of the estimate can
be effected by sinking the walls
about 6 feet apart and arching
over the intervals instead of
almost butting them, he further
states that if the wall on the
sea face is to withstand waves
it should in his opinion be at
least 6 feet higher than designed
& be protected on its outer face

was broken blocks of
12 to 15 tons in weight
as the waves would probably
break over it and the sand
filling between the two walls
worked out & undermine the
foundations.

The S.E. states that if any
of the estimates he approved
it may be returned for the
necessary specifications.

The ratios are fair, vide details
submitted.

The plans & estimates should
be countersigned by the Presiding
Port Officer & approved in the
main office before sanction
is accorded.

[Signature]
8/6/98.

The experimental timber
boogie which has built
up from the end of the
spit, & reached in
some part proved
as long as it remained

intact, most efficacious
in keeping the bar open.
& if he can make it
permanent, I think he
will have done all that
is left at Neg.

The best objection to a
pier is that it will
certainly be useless
& unsafe in stormy weather
& might be wrecked.

2. The estimate now sub-
mitted are prohibitive
in cost; the proposal to
fix the pier mouth with
a narrow jetty wall, &
leave it abandoned, would
be a better method of
the cheapest method of

W
? to gate for jetty wall at
Negapatam
Without inspection
without knowledge of the pre-
vious history of the pier at
Negapatam, it is difficult
to offer any sound opinion
on the expediency of construct-
ing the proposed jetty.

2. If its object is to
prevent the bar siltage, I do
not think it will succeed,
unless the spit of sand ^{already} ab-
solutely complete protection
from on-shore waves.

3. I think the S.E. is
correct in his opinion that
the nature of the jetty as
the same sea face is not
of sufficient strength. It
should be much more
massive to withstand the
impact of storm waves.
This would bring the
cost of the estimate to over
2 1/2 lakhs.

4. The cost of the pre-
viously proposed (Flag A)
together with other improve-
ments, was estimated at

No. 5070

Government of Madras,

Public Works DEPARTMENT.

MEMORANDUM.

Obtained

Dated Madras, 20th June 1898.

From the Superintending Engineer, V Circle, No. 351 W, dated 23rd May 1898.

The Chief Engineer has the honour to observe that the experimental timber groyne which was built out from the end of the spit and breached in November last --- proved, as long as it remained intact, most efficacious in keeping the bar open and that if it can be made permanent, all that is required at Negapatam may be considered as having been done. The great objection to a pier is that it would certainly be severely damaged in ~~strong~~ ^{stormy} weather and might be wrecked.

2. The estimates now submitted are prohibitive in cost, and the proposal to fix the inner mouth with a masonry jetty must, it is feared, be abandoned. The Superintending Engineer is requested to be so good as to suggest the cheapest method of securing stable conditions at the river mouth. To replace the temporary groyne which was breached in November

Lower and return to H.C.

Securing stable conditions at the river mouth by a timber groyne which has been breached in Nov. by a timber groyne made of pine (or to Casuarina) wood piles & having pieces of suitable dimensions to withstand a heavy sea but the best course - this would be the same as the one proposed for the Barrow & Chittagong. The 1.11.0 is the cost of the groyne, a small number of the Committee's estimate is sent to Negapatam at the rate of 5 paise per unit per line of 50 ft. The salt water is said to be no effect as it is a halosiding of the timber might be built from A to B in the plan is useless butting of anything that will not stand up because if it breaks the pier will become almost inaccessible. 19-6-98. 13-6-98.

Public Works (1898) Department.

CURRENT No. 4463

Order

From The Supg Engineer
V Circle

No. 3574

Dated 23rd May 1898

Received 25.5.98

Enclosures # 18 (3 plans)

Spare copies

SUBJECT.

Jetty Wall at Kega-
patam —Submits an esti-
-mate of Rs. 2,0370.
for a — and another
estimate of Rs. 142.
for a stone wall in
-land Cement —November by a timber groyne made
of ainee (Artocarpus hirsuta) woodpiles and ^{waling} ~~pieces~~ pieces of suitable

dimensions to withstand a heavy

sea ^{might answer the purpose} ~~would be the best course.~~ This

wood can be obtained from A. Brown

& Co. Calicut for Rs. 1.11.0 per

C. Ft cut into scantlings, and load-

ed on trucks at Kallai station

and can be railed to Negapatam at

the rate of 5 pies per mile per

ton of ⁴⁰ ~~50~~ C. Ft. Salt water is saidto have no effect on its ^{weight} ~~balli-~~sading of this timber ~~ought to~~

be built from A to B on the plan.

It is useless putting up anything

that will not stand rough weather,

because if it breaches, the port

becomes almost inaccessible.

E. W. 16.6.98

The Supt. Engineer V Circle
with enclosures.

He. after review

17.6.98

o. l. s. 169.

BACK PAPERS.

FURTHER PAPERS.

SUPERINTENDING ENGINEER'S OFFICE,

V Circle, Madras,

Чепакъ, 23^{го} May 1898.

No. 357 W

From

Colonel A. W. Smart R.E.

offg: SUPERINTENDING ENGINEER,

V CIRCLE.

To

THE Chief Engineer

Public Works Department.

SIR,

SIR,
With reference to your No. 1901.C. dated
21st March 1898, I have the honour to submit an estimate
amounting to Rupees 2,03,700 for a jetty wall at Rega-
-patam as shown in the tracing in a yellow line.

The estimate provides for a stone wall in Portland cement as directed by you; a wall of brickwork faced with cut stone in surkhin mortar pointed with Portland cement would cost Rupees, 142,700. A further reduction might be made by placing the walls say 6 feet apart and arching over the intervals.

It is noted that a sea opening of 250 ft
only has been allowed.

Even if the least costly of the above estimates is not considered prohibitive I would wish to observe

Enclosures. 10.

1. Survey plan.
 2. Sections in tracing.
 - 1 Report.
 - 2 Data.
 - 2 Detailed estimates.
 2. Approximate estimates.
-
- 10.

regard to the design that on the sea face it appears to offer too little and yet too much resistance to storm waves. If the wall on the sea face is to withstand waves it should in my opinion be at least 6 feet ^{higher} ~~than~~ than designed and be protected on its outside by wave breaker blocks of 12 to 15 tons weight.

As designed it will allow waves to break over it and the filling of sand between the two walls must be speedily washed out and the destruction of the wall would almost necessarily follow.

As a rule spits of the kind at Negapatam are best protected by low raking groynes on the sea face placed say 200 to 300 feet apart, which offer little resistance to storm waves but yet cause deposits between them during calm or fairly calm weather. It is true that such spits are breached in exceptional storms but the breaches are easily repaired and at small cost.

I have the honour to be,

Sir,

Your most obedient servant,

Arthur Leonard R. B.

Offg. Superintending Engineer, Madras.

700 in at
Pass
The estimate is passed & may
be turned for the necessary specifications
to draw of.