

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers :—

From Brigadier-General R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 28th May 1885, No. 1197 B :—

I have the honor, by order, to forward, for sanction and transfer to the Public Works Department for disposal, the estimate, plan, &c., below mentioned, which have been approved by the Commander-in-Chief. The plan and estimate have been countersigned :—

I. Estimate, amounting to Rs. 2,300, for remodelling the fronts, &c., of the three coast batteries at Madras, in accordance with G.O., dated 1st April 1885, No. 1786.

II. Plan.

III. Report, dated 21st April 1885, by the Executive Engineer, Presidency division.

2. His Excellency is of opinion that the work is of a very urgent nature, and desires me to express a hope that Government will see fit to issue the necessary orders in view to its being taken in hand as soon as possible.

3. The Commander-in-Chief understands that the thickness of earthwork in front of the Napier and Lighthouse batteries is 38 feet, which is so near that laid down by the Inspector-General of Fortifications in his memorandum, dated 6th December 1884, that His Excellency does not see the necessity for further increasing its thickness in the case of these two batteries.

4. Sir Frederick Roberts considers that the screen of trees proposed by the Executive Engineer should be extended along the coast line, so as to give no indication of the position of the batteries from the sea, and likewise that the bamboo screens, proposed to be erected before the trees have grown, should be placed on other points of the shore besides those where batteries have been erected.

5. I am also desired to invite the attention of Government to the timber lying on the shore referred to by the Executive Engineer in his report, and to suggest that, under the orders of Government, it may be either removed or utilised on the work under reference.

No. 2907, Military.

Approved and transferred to the Public Works Department for disposal.

(By Order.)

OOTACAMUND,
29th May 1885.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
Offg. Secretary to Government.

From Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, V Circle, to the Chief Engineer, Public Works Department, dated Chepāk, 18th July 1885, No. 1651.

With reference to your memorandum, No. 1059 C., dated 15th June 1885, I have the honor to submit plans and estimate, amounting to Rs. 8,240, for modifying the coast batteries at Madras, as suggested by the Quartermaster-General in his letter, No. 1197 B., dated 28th May 1885, now returned.

2. Regarding the removal of timber lying on the shore and referred to by the Quartermaster-General in paragraph 5 of his letter, a separate report has been sent in Colonel Burton's letter, No. 1143, dated 19th June 1885.

ORDER—dated 14th August 1885, No. 1877 W., Public Works.

The estimate, amounting to Rs. 8,240, for alterations in the coast batteries at Madras, is sanctioned, and the amount is allotted by transfer from the current year's grant for public buildings for a regiment of native cavalry at Bangalore (item No. 2 in G.O., dated 10th July 1885, No. 1595 W.).

2. This sanction has been registered as Imperial, Ordinary, No. 32 W. of 1885-86, and classified as Military, Original Works.

3. Separate orders will issue on the subject referred to in paragraph 5 of the Quartermaster-General's letter.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, V Circle, with four enclosures.
„ Examiner, Public Works Accounts, with general abstract estimate.
„ Military Department.

Exd. J. Henricus.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of (1885) Madras.

PUBLIC WORKS.

Dated August, 14th.

Recd.

Encl.

G.O., 14th Aug. 1885, No. 1877 W.

AUGUST.

Coast Batteries, Madras

Estimate for alterations in —, sanctioned
with remarks.

11TH SEPTEMBER 1885, No. 2126 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Brigadier-General R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 24th August 1885, No. 2006 B. :—

I have the honor, by order, to forward, for sanction and transfer to the Public Works Department for disposal, the estimate, plan, &c., below-mentioned, which have been approved by the Provincial Commander-in-Chief. The plan and estimate have been countersigned :—

- I. Estimate (Rs. 6,025) for constructing guard-rooms, cook-houses and latrines for each of the coast batteries at Madras.
- II. Plan with specification and report.

2. In explanation of the necessity for the buildings mentioned, I am desired to state that—

- (a) The guard-rooms are required for the protection of each of the batteries, as the native guards which necessarily mount over them are at present insufficiently sheltered ;
- (b) The cook-houses are for the use of the gun detachments, Royal Artillery, which in time of war will have to be located in the batteries ; and
- (c) The latrines are for the use of the native guards over the batteries.

Endorsement on the above.

No. 4687, Military.

Approved and transferred to the Public Works Department for disposal.

(By Order.)

OOTACAMUND,
25th August 1885.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
Offg. Secretary to Government.

ORDER—dated 11th September 1885, No. 2126 W., Public Works.

The estimate, amounting to Rs. 6,025, for constructing guard-rooms, kitchens and latrines for the coast batteries at Madras, is sanctioned as supplemental to the estimate of Rs. 8,240 sanctioned in G.O., No. 1877 W., dated 14th August 1885.

2. This sanction has been registered as Imperial Ordinary No. 37 W. of 1885-86, and classified as Military, Original Works.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, V Circle, with four enclosures.
" Examiner, Public Works Accounts, with general abstract estimate,
" Military Department.

Exd. J. Henrious.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of (1885) Madras.

PUBLIC WORKS.

Dated September, 11th.

Recd.

Encl.

G.O., 11th Sept. 1885, No. 2126 W.

SEPTEMBER.

Coast Batteries, Madras

Estimate for guard-rooms, kitchens and
latrines for the —, sanctioned.

No. 1173

SUPERINTENDING ENGINEER'S OFFICE,

V CIRCLE, MADRAS,

Chepak, 20th June 1885

From

THE SUPERINTENDING ENGINEER,

V CIRCLE,

To

THE

Chief Engineer
D. P. W.

SIR,

Enclosures.

In reference to General orders
No. 101 dated Adjutant General's Office
Cotacamund 11th December 1884, I
have the honor to report that I
attended the practice of the Royal
Artillery and Madras Volunteer
Artillery with the 9" M. L. R.
guns in the three Coast Batteries
at this place on the 5th and 6th Inst.
when 3 rounds with full service
charges with an elevation of about 5°
were fired from each gun; as
also on several previous occasions
when Royal Artillery Gun De-
tachments were at drill in the
Light House Battery.

2. It appeared to me on these occasions that the convenience of the arrangements provided for the service of the ammunition (with the undermentioned exception) the working of the shell lifts, the state of the paved and broken ways &c.

left nothing to be desired; that the cartridge and projectile were readily and easily (the latter on the usual shell carriage) brought from the shell & cartridge stores under the muzzles of the guns in all six cases.

Owing however to the absence of any loading stage & sometimes 6 of each of the gun detachments were, whilst placing cartridge and projectile in the gun and ramming home, exposed to much risk of accident by slipping and falling, and were also much delayed and hampered

hampered in ramming home. In order to meet this difficulty I explained to the officers of the Ordnance Department how I believe the evil may be best remedied viz by means of a special loading stage attached to and traversing with the flat form and the Superintendent Gun Carriage Factory is making such a loading stage as an experiment which, when ready is intended to be fixed to the breast of traversing flat form and to rest on a single tram rail which can be fixed in the parapet wall by the O.D. Department.

3. The effect of the blast of the guns on the Portland cement concrete glacis was as follows.

to Portland Concrete.			
Area	Depth		

Napier	1	7fs	2"
	2	21fs	2"
Light House	1	3fs	2"
	2	12fs	2"
Shives	1	nil	-
	2	1b	2"

M.B.
The guns were fired from same position each round: of course the damage would have been much greater with more rounds than 3 fired

More or less damage must I believe take place in this part of a barbette battery, when as is invariably the case if the glacis is made of Portland Cement Concrete. I know from experience of no substance which being free from objection in such a position, will stand the blast of the 9" M.L.R. or heavier guns without damage; well selected moulded bricks set on end in asphalt, or mortar, is much less likely to suffer than does Portland Cement Concrete & damage done to it could be more easily made good again than is the case.

damage to Portland Cement concrete. The cement used in these Batteries was all carefully tested and used with the specified proportions of granite chips & sand viz: 1 cement to 3 granite chips & 2 sand & 4. No damage ensued to the doors of the shell and cartridge stores nor to the glasses of the lamp recesses: as no lamps were lighted, the practice taking place by day light, I am unable to say any thing about the efficiency of the lighting arrangements in the interior of shell stores and powder chambers. It would be well that a lamp-man be appointed and 3 lamps issued with oil, and tried after dark during a 6 hours burning.

5. That it will be

tubes in either of the Batteries -
there being but 2 guns in each
the Officer in Command is
necessarily always near either
gun so none are probably required.

I think the Special load-
ing stage suggested would
and the brick in asphalt
surface to glaze might
greatly increase the general
efficiency of the Batteries.

I have sent the Brigadier
General Commanding East-
ern District a copy of this
Report.

I have the honor to be
Sir

Yours Most Obedt. Servt

W. H. Thurston. Coll. P.E.

Offg. Supg. Eng. &
5 Fire.

No. 1545 Way 3 July 85

Ordered that a
copy of the foregoing
letter be furnished
to H.E. the C. in - C
through the Military Dept.

CD.
29.6.15

US
25.6.83

Not [redacted] Dept. ✓

Desad
2/7/85

ms. 106/6

(157) Incl 5502

From

The Chief Engineer
5th Circle

To
The Chief Engineer
S. P. Dept.

MS. 1173.
No. 1545 Way 2-7-85

Dated 20th June 1885
Recd. 22nd

The Royal Engi
- neer Officer's
Report on Gun
Practice in the
Coast Batteries
Madras on 5th & 6th
June 1885.