Archives I—10,006—16-8 77

(1) Number of pages 22

(2) Date of repair 01. 8. 86

(3) Initials of the Reference Cond

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works. DEPARTMENT

G O. No. / B P.-No.	3587-W	Press. / Mis.
Dated	24. 8. 1878	-197-.

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GOVERNMENT OF MADRAS

PUBLIC WORKS DEPARTMENT.

24th August 1878, No 3,387 W.

Buildings and Roads

Military Works.

Read the following paper —

No 277 From Major ROSS THOMPSON, R E, District Engineer, Presidency, to the Chief Engineer, Buildings and Roads, dated Fort St George, 8th August 1878, No 2,771

	Rs
Constructing Light-house and Napier Bridge Batteries on the Sea Beach	48,270
Work done towards building four platforms for batteries .	3,950
Total	52,220

With reference to your memorandum, No 2,394, dated 1st June 1878, I have the honor to submit a plan and two estimates for the works as per margin, and to request the sanction of Government and allotment of funds for the same

---

No 278. ORDER THEREON, 24th August 1878, No. 3,387 W.

The plans and estimates are sanctioned so far as they are in accordance with the instructions issued in G O. No 3,189 W, dated 9th August 1878, and funds are provided by transfer as shown below —

	Rs
From Budget Item 2—Hospital Serjeant's quarters for 3rd Pavilion, Race Course, Bangalore	*5,700
From the Reserve at the disposal of Government under Military	*46,520
Total .	52,220

2. This sanction has been registered as Imperial and numbered as follows —

	Rs	Register No.
Estimate	48,270	68 B }
Estimate . ..	3,950	69 B } of 1878-79
Total ..	52,220	

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* Subject to the approval of the Government of India.

(True Extract)

(Signed) E A FOORD, Colonel, R E,
Secretary to Govt, P.W D.

(True Copy)

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

To the District Engineer, Presidency
" " Bangalore
" Examiner of Public Works Accounts
" Military Department

Endt T D Rom
Spare Copies

No 2771

3382/2

From,

The District Engineer,
Presidency

Encls 4
1 Plan
2 Estes
1. Specification

To,

The Chief Engineer,
Roads & Buildings
Calcutta

Sir,

With reference to your Memo No 2394 d/ 1 June 1875, I have the honor to submit a plan and two Estimates for the works as per margin, and to request the sanction of Government and allotment of funds for the same.

+Rs 47,940

I have the honor to be
Sir,
Your most obedient servt

W Turnbull Major R.E.
Executive Engineer
Presy

Lighthouse towards Saugor Island & Pilot Station — 3,950
On the Sea beach — Rs 43,270
Constructing Light House and Keepers Quarters, Fisher Bridge, Batteries &c.

Ent St Jerge 3
D "dugt 30. 3

Encls.

C.E. 2394 of 1.8.78
— 3726 — 22.8.78.

P.W. 1878 &c.

C 15-9.511

Roads & Buildings.

From.
The District Engineer,
Presidency.

C.E. 3726 of 22-8-78
No 2771.
Dated 8th
Recd 26th Augt. 1878

No. of Enclosures. 4
2 Estimates and
Batteries. 4-9-78

A. Limit plan
2 Estimates prepared
&c. —

Ckd 21.8.78 Ckd 21.8.78
A. Executive

P.W. Ao 1836 of 1878-79 Dated 8th August 1878

Report and Specification to accompany Plan and Estimate for constructing a Battery on the Sea beach Madras.

Amount of Estimate Rupees 48,270

The Battery will consist of 2 gun platforms, 1 Shell room and Magazine in accordance with plan The platforms to consist of sand from the sea beach, having a breadth of 45 ft at top with a slope of 3 to 1 on the outside, covered over with 6" of clay planted over with creepers, the inside being protected by a masonry wall.

Gun platforms These should be built of Concrete 6 ft in depth. The concrete will be laid in layers of 6 inches well pavioned and composed of 6 parts of broken laterite or brick, 1 of lime and 2 of sand &c. The platforms when finished will be 30 ft long and 17 ft broad at top according to Drawing.

Shell rooms & Magazine— The Shell rooms and Magazine will be built as per dimensions in the plan with concrete for the foundation and on top of roof of the preparation of laterite and sand for the concrete will be the same as already stated the floor of the rooms and the verandah in front of Shell rooms will be asphalted.

The asphalte should be mixed in proportion of 4 measures of asphalte to 3 of sand, and laid ½" thick and rubbed and pavoted off with wooden floats.

Verandah Verandah in front of Shell rooms to be built with teakwood posts, and rafters with planking 1" thick for &c.

the post, the wood work to be painted with 3 Coats of lead color.

Trestles— The proportions for placing trestles in the magazine are shewn in the plans, they are to be made of seasoned and the main wood for fixing planks &c. pivoted to of Cojjier. The feet of the trestles to be covered with copper sheet to a height of 6" from floor.

Doors and windows— The doors and windows for the shell rooms and Magazine should be made of teak, and faced with Copper with &c fixed as the position shewn on the plans, they should be painted with 3 Coats of lead color

Fence— All round the Battery there shall be a fence made of teak wood with masonry foundations under posts as per plans it will be painted with 3 Coats of lead color, the fence will be 10 ft from the slope of sand parapet as per, and at the same distance from the road as Sentry box is to be a gate as per plans

Road— A road as per &c Gate shall be 12 ft wide will be laid out and formed as the plans and 12 ft wide &c 6" of Laterite gravel and 3" of gravel the whole to be well watered and rammed until complete

Masonry— The walls will be built of Laterite stone in lime mortar pointed in the best manner as per plans under to the dotted line. All the joints between the dotted line and Coats of Portland Cement, the dotted line to be composed of Cement to the level as shewn in the plans after the walls have been plastered and finished

Fort Saint George
3 August 1878

Lieutenant Colonel Eastaan RC
Executive Engineer in charge of the Batteries.

Thompson
Major RE
Dist. Engr, Penang

6 AUG 78

thoroughly washed. The second coat consisting of fine cement to be laid on as thin paste immediately after 1st Coat is dry and proceed to smoothed and polished. The plaster should be kept moist by sprinkling water for a week.

Measurements					Description of Work.	Rate			Per	Amount			Total		
No	L	B	D	Area or Contents		Rupees	Annas	Pies		Rupees	Annas	Pies	Rupees	Annas	Pies
					Brought forward								525	3	3430
1	35	2½	11½	1006¼	Side walls Verandah										
3	2½	2	6	90	Buttresses										
1	55½	2	15½	1720½	Front wall										
1	45	2	8	720	Do at Plinth										
3	2	2	1½	17	Do to buttresses										
1	10½	2½	11½	302	Do front of Store Room										
		Total		4033	Deduct for doors	-	3	10	Cft	1195	4	6			
		Brought forward													
1	36	-	11½	378	Side walls Bathroom										
1	13	-	7	133	Do										
1	45	-	13	455	Front wall (Godown wall)										
1	58½	-	17½	1023¾	Do										
		Total		1989¾	Deduct for doors Windows										
					Cement & Coat	10	-	-	Cft	199	5	5			
					Sundries	-	-	-		101	3	1			
					Total for Side & Front Room								2020	-	-
					For one Platform										
		Same as													
1	20	20	3	1200	Bed										
1	30	12	3	1080	Above do										
		Total		2280	Deduct entire platform										
					Jetty and pontics Cft	-	4	-	Cft	720	-	-			
		Brought forward													
1	35	2½	3	262½	Steps										
1	32½	2½	7¼	552 13/16	Pontoons										
1	7	2⅜	1½	30 3/16	Small piles										
1	34	4	4½	612	Platform for steps										
		Total		1456¾	Deduct Number for Jetties	-	3	10	Cft	347	3	1			
					Carried over Cft					1069	3	1	5450	-	-

Measurements No	L.	B	D	Area or Contents	Description of Work	Rate Rupees	Annas	Pies	Per	Amount Rupees	Annas	Pies	Total Rupees	Annas	Pies
					Brought forward								1328	13	4
1	45	2	16½	1485	Front walls										
6	2	2½	6	180	Buttresses										
6	2	1	3	36	Do										
5	1½	2	16½	247½	Do										
1	30	2	16½	990	Front walls										
1	4	3½	1	14	Steps at the doorway in front										
1	3	3½	1	10½	Do Do										
1	20½	3	4	246	Side walls										
1	35	2½	11½	1006¼	Do										
1	45	2	8	720	Front wall (Cloister)										
				11194¾	Brick work										
					Deductions										
2	7½	3	1⅛	59⅝	Circular arch door										
1	6¾	3	1⅛	22¾	Door										
1	4½	3	1⅛	15⅙	Light										
2	4	3	7½	180	Dadoes for doorways										
1	3	3	7½	67½	Do Do										
1	2	3	2	12	Do Do										
				348											
				10846¾	Remaining brick work in Courses										
				90½	Circular Arch work	Do				4			22	10	
					Circular Arches										
1	21	16	2	672	Arch work										
1	20	9	1½	648	Passages										
1	14	6¾	1½	141¾	Do										
		Total		1461¾	Arch work					4			365	7	
					Centring for Magazine 1/3 the Cost of Arch work								121	13	
					Carried over								4437	8	2

Measurements No	L.	B	D	Area or Contents	Description of Work	Rate Rupees	Annas	Pies	Per	Amount Rupees	Annas	Pies	Total Rupees	Annas	Pies
					Brought forward								10310		
					Basement Story										
					Cornice										
1	35	2	1½	105	Room										
11	3	3	1½	148½	Buttresses										
1	45	3	1½	202½	Front walls										
1	29	3	1½	130½	Side walls										
1	19	29	6¼	3325	Over Store										
1	45	2½	1½	143¾	Do Cross wall (Cloister)										
		Total		5315¼	Cornice with Cross stone jetty & Coarses										
					Arch work										
2	34	3	16½	3366	Side walls										
2	17	3	16½	1851	Do										
1	21	3	6	378	Do										
1	21	1½	½	47¼	Side Cross wall Passage & Room										
2	12	3	1¼	522	Side walls of Room										
1	3	3	1¼	65¼	End walls of Room										
					Do Do										
					Carried over					1328	13	4	10310	4	0

Measurements No	L.	B	D	Area or Contents	Description of Work.	Rate Rupees	Rate Annas	Rate Pies	Per	Amount Rupees	Amount Annas	Amount Pies
					Carried Forward					4431	8	2
					Flooring							
1	33	.	19½	643½	Office Verandah							
1	25	.	19½	487½	Do							
1	45	.	18½	832½	Do							
1	25	.	18	450	Do (Flooring)							
1	19	.	7	133	Do							
1	35	.	10½	367½	Do							
2	15	.	6	180	Varandah							
2	12	.	7¾	186	Do							
2	12	.	5½	132	Do							
2	3	.	7¾	45½	Do							
1	95	.	6	570	Passage							
2	4	.	7¼	58	Do							
1	15	.	14	210	Verandah of Arch							
1	12	.	5	60	Do Do							
1	60	.	7	350.	Do Do							
	Total			4691½	Long Passage with portion Verandah	10	—		Rft	470	—	
Flooring Asphalte												
1	15	.	12	180.	Room							
1	50	.	4	200	Varanda							
1	12	.	3	36	Do							
2	4	.	2½	20	Room &							
1	3	.	2½	7½	Do							
	Total			443½	Flooring	20	—		Rft	34	4	10
Doors												
1	4	.	6½	26.	Front							
1	4	.	7½	30	Room							
1	3	.	6¾	20¼	Front							
	Total			76¼								
					Carried over Rs					4991	13	—

Measurements No	L.	B	D	Area or Contents	Description of Work.	Rate Rupees	Rate Annas	Rate Pies	Per	Amount Rupees	Amount Annas	Amount Pies	Total Rupees	Total Annas	Total Pies
					Brought Forward					4991	13	—	10310	—	—
				76¼	Earthwork about for Flooring, Level with Floor & ramm with Cotchin & Puttings Complete	1	12	—	Rft	138	7	—			
1	2	.	3	6	Excavation in Trenches and Refilling Complete	—	14	—		5	4	—			
					Doors										
1	8½	.	1	5½	Door										
1	8½	.	8	68	Do										
1	6½	.	7	45½	Do										
1	4½	.	3	13½	Window for Office										
				186½	Panelled Doors and Wood Work complete with Frames with 3 Coats of Linseed Oil Colour Painting complete	2	6	6½	Rft	477					
										250	—	5			
					Carried over Rs								5385	—	—
					Plain and Plastic										
					Basti										
12	6	.	4	48	Asphalt										
9	8	.	2½	42	1. 13. 6 Rough Stone										
12	4	.	2½	12	1 — Do										
				102	Total 11. 1. 6										
3	8	4	.	96	Stamp rammed Plinth										
					1st Coat with clean sand										
					12 Coat in Lime & Surkhi										
					Do with										
					Carpenters Coat hair for										
					Plain Work										
					Carried over Rs								15695	—	—

Measurements No	L.	B	D	Area or Contents	Description of Work	Rate Rupees	Annas	Pies	Per	Amount Rupees	Annas	Pies	Total Rupees	Annas	Pies
					Brought forward								15695	"	"
					Carried					467					
					Earth Work										
					Earth Excavation					90	"	"			
					Do. Filling								180	"	"
					Masonry Foundation										
	225				Cubic Contents										
9	2	1½			Pier Masonry	106	"	"	C.t	189	13	"			
9	2	1			Abutment Masonry	109	"	"	C.t	45	2	"			
					Coping and Plinth				C.t	63	"	"			
					Cubic Contents of Coping										
					Cutter and Chamfering										
					Stones					17	"	3			
													285	"	"
					Earth Work										
					Earth excavation										
1	248½	42	15	156345	Approach										
1	133½	33	17½	77526¼	Do.										
1	197	42	4½	38542½	Do. in Abutment Magazine and Store Godown										
1	293½	45	8½	111535	Steps. front										
2	77	45	8½	58432½	Do.										
1	248½	60	5	74550	Do. Wing										
					Total										
				522302	or 19345 C.t Cubic Yards		2	6	C.t	3226	6				
					Masonry Arch										
1	248½	42	½	5218½	Crown										
1	133½	33	½	2201½	Springing										
1	248½	30	½	3612½	Skew.										
2	77	30	½	2310	Face										
				13403½	or 669 C.t Cubic Yards		12	"		4551	0	"			
					Sundries					171	11	6	3650	"	"
													19890	"	"

Measurements No	L.	B	D	Area or Contents	Description of Work.	Rate Rupees	Annas	Pies	Per	Amount Rupees	Annas	Pies	Total Rupees	Annas	Pies
					Brought forward								19890	"	"
					Road.										
1	186	12	"	2232	From Centre of Each Road										
1	248½	12	"	2982	Cross the Earth Slopes										
				5214	Total Metalled and Gravelled	6	12	"	C.t	251	14	6			
					Sundries					19	1	6	370	4	"
					Railing										
101	2	2	2	1248	Masonry Foundation										
					Cube Contents	0	3	10	C.t	299					
					Brackets										
104	1	0	6	162	Each										
216	12	"	4	3456	Long Square for Pattern										
624	6	"	3	375	Plain										
				723.2	Total Square Feet	3	1	"	C.t	2216	3	8			
1	10	"	5	50	Cube Contents of Earth Filling and Plinth and Foundation and Steps Complete	1	11	"	C.t	62	8	"			
					Railing										
104	6	2	"	1248	Each										
208	12	2½	"	5526	Long Square										
124	6	1½	"	2232	Plain										
				11924½	or 120 Cubic Yards Contents and 2 Cent. for Contingencies	2	6	6	C.t	288	13	8			
104	3	3	3	2808	or 104 Cubic Yards Earthwork from Sundries	"	2	"		13	4	"	3020	"	"
				371	Square Feet Standard	"	12	"		278	4	"			
					Sundries					11	12	"	290	"	"
					Total								23570	"	"
					Carried Over								23570	"	"

Measurements					Description of Work	Rate			Per	Amount			Total		
No	L	B	D	Area or Contents		Rupees	Annas	Pies		Rupees	Annas	Pies	Rupees	Annas	Pies
					Carry Forward								23570	-	-
17	4	3/4		51											
33	6½	1¼		226 25/32	Construction for Landing Ghat										
4	3	2		67½	Steps in Brick for Ghat										
8	6½	1¼		180 [illegible]	[illegible]										
	Deduct			531											
						-	1	6	Cft	149	12	6			
122	10	-		1220	Ditto Earth										
						-	-	6	"	381	2	-			
6					Carriage for 1 Mile for 381 Cft	-	3	-	Cent	33	12	-			
					Sundries					3	5	6	125	-	-
6	3	1½		24											
6	1½	1½		13	Brick Soling										
	Deduct			34											
						1	14	9½		63	12	-			
30				1	Cast Iron Hooks					20	-	-			
42	6	1½		63¾	Sundries					6	4	-	90		
7	2¼	1½		24½											
	Deduct			35	Brick Soling										
						2	2	-	Cft	189	12	-			
50				1	Cast Iron Hooks					23	-	-			
					Sundries					11	6	-	215		
					Ghat No 1 Landing Pakka								24000	-	-
					Ghat No 2 Landing Pakka								23570	-	-
16	2½	1		110											
20	1½	1		85											
4	1½	1		1											
	Deduct			166	Brick Soling	4	-	-	Cft	83	8	-			
					Sundries					30	-	-	700	-	-
					Ghat No 3 Landing Pakka								24270	-	-
					Grand Total								48270	-	-

Examined Measured and Entered
Calculated
Checked

Major Engrs. Executive Engineer

Measurements					Description of Work.	Rate			Per	Amount			Total		
No	L	B	D.	Area or Contents		Rupees	Annas	Pies		Rupees	Annas	Pies	Rupees	Annas	Pies

Measurements					Description of Work	Rate			Per	Amount			Total	
No	L	B	D	Area or Contents		Rupees	Annas	Pies		Rupees	Annas	Pies	Rupees	Annas Pies
					From									
					Add 5% Contingencies									
					Deduct Exchange									
					Add 5% Establishment									
					Deduct Saving

been registered as Special and annulled as follows.

Cert. No 4,270. Regd No 18 B.
Cert. No 3950 Regd No 69 B } of 1878/79
5,220

9511

Stat. of [1870] [illegible]

PUBLIC WORKS

[illegible] N. Riley

[illegible] 16 U. 24 Aug. [illegible] 338

Light House and Lapier Bridge Batteries

Sanctioning plans and Estimates & providing funds for the — on the Ohio —