M.R.O. 1—77,006—8-6-37.

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(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Work DEPARTMENT.

G.O. No. 613 Press Mis.

459-460.

Dated 23 - 2- 1870.

Not to be folded or roughly handled

Proceedings of the Madras Gov *ernment, Public Works Department,*
23rd Fe *bruary* 1870.

No. 459. Read the following l tter from the Officiating Superintending Engineer, 8th Division, to the Acting Chief Engineer for Irrigation, dated Madura, 1st February 1870, No. 2,529 :—

WITH reference to your Memorandu n, No. 215, of the 23rd June 1869, I have the honour to submit for sanction a revised plan, with estimate of Rupees 19,530, and specification report, for the North Head Sluice, Strevygoontum Anicut. Two

1 Plan.
1 Estimate.
1 Specification Report.

vents have been added to the four origin lly proposed; and the platform for working the shutters is raised as shown in elevat ion to the level of excessive flood, or a foot higher than the disastrous flood of last November.

2. The difference of cost from en arging the head sluice is Rupees 7,010; this excess will be brought to notice again when the modifications and alterations are reported, in accordance with paragra ph 18 of your note No. 311, dated 27th November 1869, (G. O., No. 198, of 18t h January 1870.)

No. 460. ORDER THEREON, 2 3rd February 1870, No. 613.

IRRIGATION, No. 27.

Vide G. O., No. 2,004, 20th June 1869.

THE Government observe that the revised design for the head sluice of the North Channel from the Strivygoontum Anicut has been prepared in accordance with the suggestion made by the Governm ent of India, and as the cost, Rupees 7010, of the alteration is within the competen ce of this Government to sanction, the estimate, Rupees 19,530, submitted by the Superintending Engineer is sanctioned.

2. The Government hope to rece ive the revised estimates for the whole project at an early date.

(True Extract.)

Major, R.E.,
Acti ng Joint Secretary to Government.

To the Superintending Engineer, 8th Division.
,, Controller of Public Works Accounts.
,, Accountant-General.
,, Revenue Department.
,, Chief Engineer for Irrigation.

Exd. J. Wright.

November.

3c.

Madura

No. 2529

1st February 1870

From

Captain H. L. Prendergast R.E.

Offg. Superintending Engineer

8th Division

To,

Major J. Mullins R.E

Offg. Chief Engineer for Irrigation

Madras

Sir,

With reference to your Memo No. 215 of the 23rd June 1869, I have the honor to submit for sanction a revised plan, with Estimate of Rupees 19530, and Specification Report, for the North Head Sluice, Strengthening Ancient - Two vents have been added to the four originally proposed; and the platform for working the Shutters is raised as shewn in elevation to the level of excessive flood or a foot higher than the disastrous flood of last November.

Enclosures 3.
1. Plan.
1. Estimate
1. Specification Report.

The

The difference of cost from enlarging the Head Sluice is Rupees 7010 : this excess will be brought to notice again when the modifications and alterations are reported, in accordance with para 18 of your Note No 311 dated 27th November 1869 (G. O. No 198 of 18th January 1870)

I have &c

Chas Spencer Jr Captain R.E.

Offg Superintending Engineer

8th Division.

Specification to accompany the Estimate
of Rupees 19530 for constructing a Head Sluice
at the Head of the Northern Channel from
Shemigum Lagoon Egmore
The Abutments and Piers are to be
built on a foundation 50½ feet in length
26½ feet in breadth & 7 feet deep (inclusive
of the quoins and Plinth covering) The Sluice is
to contain Six Vaults each 4 feet in width
The thickness of the Abutments above the
4 feet at top, 5 feet at bottom and the Piers
of 2 feet 8 inches each and effectually bonded
each. The piers will be 3 feet thick and
rowed to a height of 8 feet. The front and
rear Piers which are 3 feet thick are
Rockeries by retaining walls 3 feet thick
and 7 feet deep.
The foundations of the wing walls
both in front & rear of the Sluices are to be
8½ feet in breadth and 7 feet deep. The front
wing walls to be rowed above to a height
of 20 feet, the top thickening off 3 feet to the
carried down uniformly for the first 4 feet

3

No 159

Dated 1st February 1870
Read 4 — " — "
Wks 6
Quoins 3
No 613-23 Feby 4/70
Submitted for sanction
& Revised Plan and
Estimate of Rs 19530.
for the North Head
Sluice Shemigum
Aimeer.

Dupt
Exec Engr
Asst
The Offg Sr Sy Engr
& Examiner
Sr
The Sy Chief Engineer
for Irrigation

c 14 Feby 1870 A-18

e. 14. Feb 1900 R-167

4 with steps of 2 feet and offsets of 6 inches the thickness at bottom is 7 feet. The rear wing wall is 20 feet high for a length of 12 feet and from thence for a length of 18 feet it slopes down to a height of 10 feet. the front face of these wing walls on the river side will be faced with cut stone 9 inches thick. The Head Sluice will be connected with the culvert by a curve of 30 feet radius for a length of 47 feet. A flight of four steps is made in the wing wall. each step 1 foot in breadth & 3 feet in length. A stone plat form is laid in front above the piers 4 feet in breadth and 9 feet thick; for working the shutters of the Sluice. Iron bars are provided for the six vents. 2" & 2½" square and 5½ feet in length. The shutters are each 4 feet in breadth 4 inches thick and 18½ feet in length. The wing walls of the road-way will be built on a foundation 9½ feet in breadth and 7 feet deep. The height of walls above is 27¾ feet and the average breadth 5¼ feet.

The Buttress is to be 6½ feet in length and 3 feet in breadth and 7 feet in depth at the foundation, and above up to level of 2 feet, 5 feet in length 3 feet in breadth and from thence up to level of 14 feet 5 feet in length 3 feet in breadth at bottom and 5 feet in length and 1 foot in breadth at top.

The versed sine of the arches over the vents will be 2 feet giving a total height of 10 feet to the soffits.

The face walls above the arches are to be 6 feet broad at bottom and 2½ feet broad at top with offsets of 6" to a total height of 16¼ feet.

The blocking course is to be 2 feet thick and 1½ feet deep over which the parapet walls are 1½ feet in thickness and 3 feet in height with pedestals 2 feet square at each end and protected by 12 guard stones each 9 inches square.

The thickness of the arch will be 1½ feet and the breadth 18 feet. The road-way will have a clear width of 15 feet between parapets and 24 feet between the wing walls. With the exception

exception of the cut stone facing and
apron, the work is to be constructed
of brick in chunam.

Alex Brendrigg Captain R.E

Madura Off. Superintending Engineer
1st February 8th Division.
1870

Enclosure No 3 in letter
No. 2529 dt 1st February 1870
from the Offg. Supt. Engr.
8th Dn., to the Offg. Chief
Engineer for Irrigation

P.W. 5-16/70

Rec. 25 Feby 1870 L.A. 459

Specification to accompany the Estimate of Rupees 19530 for Constructing a Head Sluice at the Head of the Northern Channel from Strengnatum Anicut. Tinnevelly District

Detailed Estimate No. of 1869.70.

District Tinnevelly. Taluk Shenkaras.

Work Constructing a Head Sluice at the Head of the Northern Channel from Strengnatum Anicut.

Particulars of work	No.	Length of each	Total Length	Breadth	Depth	Contents
General foundation to Body	1	57½	57½	26½	7	10666¼
Do Do Wing walls in rear	2	9¼	18½	8½	7	1100 3/4
Do Do Do	2	18	36	6¾	7	1701
Do Side wall in front	1	49¼	49¼	8½	7	2930 3/8
Do Piece of Side wall	1	11	11	2¾	7	211 3/4
Connecting wall in front	1	27¾	27¾	8½	7	1651 1/8
Wing walls of road way	4	17½	70	9½	7	4655
Retaining wall in front apron	1	68¼	68¼	3	4	819
Retaining wall in rear apron	1	54½	54½	3	4	654
Flooring to front apron	1	56½	56½	28½	3	4830 3/4
Do to rear apron	1	47½	47½	27½	3	3918 3/4
Buttresses	4	6½	26	3	7	546
Piers and half piers including Cutwaters	6	23½	141	3	8	3384
Abutments above	2	18	36	3	8	864
Side walls above in front	1	60½	60½	5¼	16	5082
	1					

Side walls above in front	1	62¼	62¼	3	4	7[illegible]7	
Returns to side walls	1	3	3	1	6	18	
Do Do above	1	3	3	2	4	24	
Pilasters	4	1¼	5	¾	4	15	
Wing walls in rear	2	11½	23	5¼	16	1932	
Do Do	2	12	24	3	4	288	
Remaining wing walls in rear	2	2⅞	5¾	5	11	402½	
Do Do Do	2	2⅞	5¾	4¾	12	327 ¾	
Do Do Do	2	2⅞	5¾	4½	10	258 ¾	
Do Do Do	2	2⅞	5¾	4¼	8	195½	
Do Do Do	2	2⅞	5¾	4	6	138.	
Do Do Do	2	2⅞	5¾	3¾	4	86¼	
Do Do above	2	18	36	3	6	648.	
Connecting wall above	1	¾	¾	5¼	16	2856	
Do Do Do	1	34	34	3	4	408.	
Supporting wall to Steps	1	7	7	1½	10	105	
Do Do	1	7	7	3	4	84	
Wing walls of road way	4	21	84	7½	9	5670.	
Do Do Do	4	20½	82	6	6¾	3321	
Do Do Do	4	19½	78	3¾	12	3510	
Face walls including Circular portions	2	48	96	6	5¾	3312	
Do Do Do	2	48	96	4	14	5376.	
Backing to arches including Circular portions	1	42	42	6	3½	882	

Pilasters	4	4	16	¾	12¼	147.	
Do Do	1	4	4	¾	16¼	45 ¾	
Platform for Shelters	1	42	42	4	9	1512	
Buttresses above	4	5	20	3	2	120.	
Do Do	4	5	20	2	14	560	
Blocking Courses	2	86	172	2	1½	652	
Parapet walls	2	81½	163	1½	3	733½	
Arch pedestals	4	2	8	2	3	48.	
Total brick in chunam Cubic feet						76838¼	
Deductions							
Semicircular portions	6	18	108	area 19¼		513.	
Steps	1	5½	5½	3	3	49½	
Pier including Cutwaters	5	49½	24½	¾	8¾	1604 3/16	
Pier including Cutwaters	2	26¼	52½	¾	8¾	344 8½/16	
Pedestals	2				¾	396	
Pier	6	22	132	4	¾		
Pier	12	5½	66	1½	¾	374¼	
Between Cutwaters	1	42¾	42¾	29¼	¾	937 13/16	
Front apron	1	15	15	29½	¾	329 1/16	
Do Do	1	28¼	28¼	50½	¾	1069 15½/16	
Rear apron	1	38½	38½	¾	20	877 ½	
Side wall in front	1	28½	28½	¾	20	427½	
Connecting wall	1	45	45	¾	3	101 ¼	
Face wall in front	1	6¼	12½	¾	3	28⅛	
Arches of face wall	2	43½	43½	13	¾	424 ⅛	
Platforms	1						

Under the platform	6	5½	33	4½	8/4	111 3/8
Near the platform	1	3	3	4½	3/4	10 1/8
Above Cutwaters	2	1½	3	3/4	9	20 1/4
Total Deductions						7338 9/16
Remaining Cubic feet of brick in Chunam						6749 9/16
Being equal to Cubic yards						254 13/16
						27
Arch work	6	8⅝	5¼	18	1½	1397 1/4
Total Cubic feet of arch work						1397 1/4
Being equal to Cubic yards						51 3/4

Cut Stone work.

Casing to Piers including Cutwaters	5	49½	24½	3/4	8 3/4	1624 3/16
Do side piers	2	26¼	52½	3/4	8 3/4	344 8/16
Do for Vents	6	22	132	4	3/4	396
Do Between Cutwaters	12	5½	66	1½	3/4	74 1/4
Do front apron	1	42¾	42¾	29¼	3/4	937 13/16
Do Do	1	15	15	29¼	3/4	329 1/16
Casing to rear apron	1	28¼	28¼	50½	3/4	1069 15/16
Do side wall in front	1	58½	58½	3/4	20	877½
Do Connecting wall	1	28½	28½	3/4	20	427½
Do face wall in front	1	45	45	3/4	3	101 1/4
Do at the side of face wall	2	6¼	12½	3/4	3	28⅛
Do to Platform	1	43½	43½	13	3/4	424 1/8
Casing under the platform	6	2½	33	4½	3/4	111 3/8
Do at the ends of platform	1	3	3	4½	3/4	10 1/8
Do above Cutwaters	2	1½	3	3/4	9	20 1/4
Caps to Cutwaters	12	1½	18	1½	½	13½
Steps	4	3	12	1	3/4	9
Total Cut Stone in Chunam Cubic feet						6798 9/16
Being equal to Cubic yards						251 9/16
						27

Plastering

Extrados of Arches	6	6¼	3½	"	18	675
Front face wall above	1	42½	42½	"	7¾	329 3/8
Rear face wall	1	42	42	"	18¾	787½
Road wing walls	4	22	88	"	6	528
Parapet wall on both sides	2	8½	163	"	½	1222½
End Pedestals	4	6½	26	"	3½	91
Wing walls in rear	2	12	24	"	20	480
Do Do Do	2	21	42	"	15	630
Do at top	2	30	60	3		180
Total plastering Square feet						4923 3/8

Running feet of Cornice work in chunam 172

Do of Cut stone Coping 98

Wood Work

Wooden Shutters	6	4¼	25½	⅓	18½	157¼
Total Cubic feet of wrought jungle wood						157¼
Iron bars for Shutters	12	5½	66	2½	Square	
Do Do	12	5½	66	2"	Do	
Guard Stone	12	4	48	¾	¾	
Raising approaches	2	185	370	30 9/16	4 3/8	4947 3¼/16
Do Do	1	27¾	27¾	27¾	3½	2374 5½/16
Total Cubic feet of earth						51847 6½/16
Being equal to Cubic yards						1920 7 6½/16/27

Metalling

Over the Head Sluice	1	48	48	14	"	672
Between wings	2	17	34	18½	"	629
Over approaches	2	185	370	24	"	8880
Total Metalling Square feet						10181

Abstract Estimate No. of 1869-70

Circuit Tinnevelly — Taluq Tenkarai

Work — Constructing a Head Sluice at the head of the Northern Channel from the Anicut

Streevegunteum

Quantity	Description of work	Rate	Amount	Total
2574 15/16/27	Cubic yards of brickwork in chunam per cubic yard at	5	12870	4 10
573¼	Cubic yards of Arch work per cubic yard at	6	3108	"
251 21 9/16/27	Do of Cut Stone in chunam per cubic yard at	12	3021	9 8
4923 3/8	Sqre feet of plastering per 100 Square feet at	3	147	11 2
172	Running feet of Cornice work in chunam per foot at	" 6	64	8 "
	Do	1	98	" "
98	Do of Cut Stone coping Do	3 8	550	6 "
157¼	Cubic feet of wrought jungle wood per foot at	" 2	240	" 8
1920 7 6½/27	Cubic yds of earth per cub yard at	3	305	6 10
101.81	Sqre feet of metalling 6 inches thick per 100 feet	" 12	9	" "
12	Guard Stones each	" 1	141	3 3
			17758	10 5
2259¼	lbs of Iron bar per lb at	"	1771	5 7
	Excavating foundation baling & sundries at about 5 per cent		19530	" "
	Amount of Estimate			

Chas Sweney Captain R.E.
Offg Superintending Engineer
8th Division

Madura
1st February
1870

Enclosure No. 2 in letter
No 2529 d/ 1st Feby. 1870
from the Offg. Supt. Engr.
8th Division, to the Addl.
Chief Engineer for
Irrigation

P.W. 676/71.
From 15th Feb/70 to 2 Leaves

Estimate for constructing
a Head Sluice at the Head
of the Northern Channel from
Strengnatum Ancient
Tinnevelly District

Amount of Estimate Rs 19530

P.W.D.

No 613 61

Proceedings of the Madras Govt.
dated the 23rd Feby/70
read the following:-

From the Offg. Supt. Engr.
8th Divn. } No. 2529 d/ 1st Feb/70.

Vide G.O. No 2004, 20th June/69

The Government observe that the revised design for the head sluice of the North Channel from the Strengnatum anicut which has been prepared in accordance with the suggestion made by the Govt. of India, and as the estimate, Rs 7010. of the alteration is within the competence of this Govt. to sanction, the estimate, Rs 19,530, submitted by the Supt. Engineer is sanctioned.

2. The Govt. hope to receive the revised estimate

For

for the whole project a run early
Lake.

Ltt. 8/2/70

L. S. Engr. 8.. Dft.
Contractor's Accts.
Accts Genl.
Rev. Dept.

Despd 25/2/70

C. 14. July 1870 Ch 18

Que 516

Govt. of 1870 Madras.

PUBLIC WORKS.

The Superintending Engr
8th Circle

Dated

Read.

G. O. 23rd Feb, 1870 No 613

Nos. 459-460

Stream of fountain Anicut

Revised Estimate for Rs 19530 for the head Sluice of the Koda Channel from the Streami-fountain Anicut in the Tinnevelly Dist, Sanctioned with Remarks.