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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No.	1476	Press
		Mis.
527-28		
Dated	31-5-	1871.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
31st May 1871.*

No. 527. Read the following letter from the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Public Works Department, dated Dowlaishweram, 5th May 1871, No. 360:—

I HAVE the honour to forward herewith two plans and an estimate, amounting to Rupees 4,630 for constructing masonry works on Trunk Road No. VI., and copy of a report from the Executive Engineer in charge of No. II. Range, Vizagapatam, on the immediate necessity for these works being taken in hand at an early date.

2. In the event of the estimate being sanctioned, I request that the requisite funds may be placed at my disposal from the Reserve of the current year; if not, that the transfer proposed in paragraph 4 of Lieutenant Dorward's letter may be sanctioned; as, until sanction is accorded to the revised estimates for the road from Vizagapatam to Cassipore, the Budget grant* for the current year cannot be utilized.

* Item No. 99, Rupees 9,000.

3. After a tour of inspections in Vizagapatam, I am of opinion the trunk road in this district should be completed as soon as possible, and extended into the Godavery District as far as Kathepoody, to which point we are bringing the road from Cocanada to Samulcottah *via* Pittapore and Gollaprolle. The extension of the trunk road in this district to Rajahmundry is a questionable measure, for, as soon as Samulcottah and Bedapoody road is completed, the canal will afford facilities of access, north and south, at far less cost than any road could do.

From Lieutenant J. F. DORWARD, R. E., Executive Engineer, Vizagapatam, to the Superintending Engineer, 1st Division, dated Camp at Chodaveram, 26th April 1871, No. 64.

WHEN accompanying you in your inspection of Trunk Road No. VI., from Toonee to Anakapilly,

2 Plans.
1 Estimate.

I had the honour to point out the necessity for two small relieving bridges to pass off the overflow of the Rangabole Geddu and of the

Anakapilly river which spread from some distance over the fields, and which at present find their way over the road to its detriment and by the heading up to the danger of the bridges over the main streams. You stated your opinion that three arches of nine feet would be sufficient in both cases, and directed me to estimate for them.

2. Also to estimate for a culvert of fifteen feet span to carry the road over an irrigation channel near the town of Anakapilly, the former culvert, a very old one, having been blown up by the heavy floods of last October, (*vide* this office letter, No. 571, dated 31st October 1870).

3. And I also asked and obtained permission to estimate for five arches of six feet to be built between Soobarum and Penduru in a place where the embankment is breached during every monsoon by the overflow of the Mighadri Geddu and Boramma Geddu, combined with other land waters.

4. These plans and estimates I have now the honour to submit, and to request that you will make an immediate grant of at least Rupees 900 to enable me to bridge the irrigation channel near Anakapilly; the trunk road is at present carried across on a temporary palmyra bridge, which might give way during the monsoon which breaks in June.

Should there be no other source from which funds can be obtained, a transfer might be made from the Budget grant of Rupees 9,000 for the road from Vizagapatam to Cassipore, which I will

Rs. 9000

T. Dorward (see this office letter No 571 dated 31st October 1870)

*Proceedings of the Madras Government, Public Works Department,
31st May 1871.*

be unable to expend until sanction is accorded to the revised estimates which are now under preparation.

5. I have sent up no specification, as the works will be built according to the specification already submitted for the numerous masonry works entered in the estimate for the improvement of the great northern trunk road.

No. 528.

ORDER THEREON, 31st May 1871, No. 1,476.

CIVIL WORKS, No. 47.

UNDER the circumstances explained in these papers, the Government approve of the estimates for the under-mentioned

masonry works on the portion of Trunk Road No. VI from Toonce to Penduru in the Vizagapatam District at an aggregate cost of Rupees 4,630:—

	RS.
Two bridges of three arches of nine feet span each	... 2,670
One bridge of one arch of fifteen feet span	... 925
One tunnel of five vents of six feet span each	... 1,035
Total...	4,630

2. The question of providing funds will be referred to the Local Fund Board in Vizagapatam for consideration in connection with the appropriation made from "Provincial Services" for roads.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Superintending Engineer, 1st Division.
" Controller of Public Works Accounts.

Encl. E. C. Shunker.

SUPERINTENDING ENGINEER'S OFFICE, 1st DIVISION

DOWLAISHWARUM,

5th May 1871.

No. 360

From

Major J. F. Fisher R.E.
Acting Superintending Engineer

1st Division

To

Colonel C. A. Cor R.E.

Secretary to Government D. P. W.

MADRAS

SIR,

I have the honor to forward herewith two Plans and an Estimate amounting to Rs. 4630 for Constructing Masonry works on Trunk Road No. VI and Copy of a Report from the District Engineer in charge North Range, Vizagapatam, on the immediate necessity for these works being taken in hand at an early date.

2 In the event of the Estimate being sanctioned, I request that the requisite funds may be placed at my disposal from the Reserve of the Current Year, if not that the transfer proposed in para 4 of Lieut. Dowling's letter, may be sanctioned, as, until sanction is accorded to the Revised Estimates for the Road, from Vizagapatam to Cassipore, the Budget grant for the Current Year cannot be

* Item No 99
Rs. 9000

* To be (see this office letter No 571 dated 31st October/70)

be utilized.

3 After a tour of inspection in Vizagapatnam I am of opinion, the Trunk Road in this District should be completed as soon as possible and extended into the Godavari District as far as Hattapoor, to which point we are bringing the Road from Cocanada to Simulacotta via Pittapoor and Gollapole; the extension of the Trunk Road in this District to Rajahmundry is a questionable measure, for, as soon as Simulacotta and Bendapoor Road is completed, the Coast will afford facilities of access, North and South, at far less cost than any Road could do.

I have the honor to be
Sir,

Your most obedt servant

W. T. S. S. S. S. S.

W. T. S. S. S. S. S.

Estimate No 4 of 1871-72
Estimate of the probable Cost of Construction
of the proposed Road from Hattapoor to Rajahmundry

5

3

Op. 527
622 May 11 a. 2.2 w

6 area
3 6
6 3 1/2

2. Cohen (via this office letter No 571 dated 2nd October 70)

2 76 $\frac{13}{4}$ 1
 2 18 $\frac{1}{4}$ $\frac{3}{4}$
 2 18 $\frac{2}{4}$ $\frac{3}{4}$
 3 18 12 $\frac{1}{2}$
 3 13 21 $\frac{1}{2}$
 2 21 " 6 2 52
 14 16 " 10 $\frac{1}{2}$ 6 72
 2 43 " 4 $\frac{1}{2}$ 3 87
 2 75 " 6 $\frac{1}{2}$ 9 75
 3 9-21 5-67
 3 11 66 21 7-34
 35-87
 1 26
 34 61

266 Blocking Course
 32 $\frac{3}{4}$ Thew Backs to Piers
 60 $\frac{3}{4}$ do do Abutments
 360 $\frac{1}{2}$ or 13 $\frac{19}{2}$ Cyd of Brick Work
 in Chumand } 2 14 Cyd $\frac{386}{272}$
 324 or 12 Cyd of Concrete Work
 in Chumand } 1 8 do 18
 1228 $\frac{1}{2}$ or 45 $\frac{1}{2}$ Cyd of Arch Work
 in Chumand } 4 13 do 218 $\frac{156}{1}$

Sides of Piers & Abutments
 Wing walls out side
 Face walls
 Parapet walls both sides
 Top of flooring
 Soffits of Arches

Deductions
 Sps of plastering with
 3 coats of Chumand } 3 5 Sqr 114 10 3
 Rft of Plain Cornice Work 1 2 Rft 10 15
 Guard Stones 1 8 Each 12
 Centerings 15 do 45
 Excavating foundations
 & Baling Water } 50
 Filling Wings & Approaches } 30
 1212 6 7
 122 9 5
 1335

Contingencies & Superintendence
 Total for 1 Bridge
 do for two-do

Constructing a Bridge
 of one Arch of 15 feet
 span as per plan Fig. II

1272 Foundation to Abutments
 480 do Wing Walls
 (next to abutment)
 880 do do (Remainder)
 270 Retaining Wall
 441 Flooring

2 25 $\frac{4}{4}$ 4
 4 5 $\frac{4}{2}$ $\frac{3}{2}$
 4 10 4 $\frac{3}{2}$
 4 5 $\frac{3}{4}$ 7
 4 10 3 7
 2 26 2 $\frac{6}{2}$
 2 56 $\frac{1}{2}$ $\frac{2}{2}$
 2 21 $\frac{2}{2}$ 3
 2 21 5 $\frac{3}{4}$

2 3 1 4
 2 3 1 $\frac{1}{2}$

2 56 $\frac{13}{4}$ 1
 2 21 $\frac{3}{4}$ $\frac{3}{4}$

1 17 $\frac{1}{2}$ 14 $\frac{1}{2}$
 1 21 $\frac{1}{4}$ 21 $\frac{1}{2}$

2 21 " 4 1 68
 2670 4 15 " 10 $\frac{1}{2}$ 6 30

2 19 " 6 $\frac{1}{2}$ 2 47
 2 52 " 6 $\frac{1}{2}$ 6 76

15-21 3 15
 17 21 3 99
 24 35
 1 10
 23 25

204
 8
 -1

850 Abutments above
 315 Wing Walls do (bottom portion)
 560 do do do
 455 do do do (upper portion)
 840 do do do
 676 Face Walls
 420 Parapet Walls
 315 Backing to abutment
 (Rectangular part)
 157 $\frac{1}{2}$ do (Triangular do)

793 $\frac{1}{2}$
 165 $\frac{1}{2}$ Deductions for segmental
 spaces & Luvies of cutwaters
 7766 or 287 $\frac{17}{2}$ Cyd of Rubble
 Masonry in Chumand } 1 12 Cyd 503 5 8

24 Cutwaters
 3 Caps of do
 27 or 1 Cyd of Cut Stone
 Work } 10 do 10

196 Blocking Course
 102 $\frac{3}{8}$ Thew Backs to abutments
 2983 $\frac{3}{8}$ or 11 $\frac{13}{8}$ Cyd of Brick
 in Chumand } 2 14 do 31 12 4

122 $\frac{1}{2}$ or 4 $\frac{14}{2}$ Cyd of Concrete
 Work } 1 8 do 6 12 10
 669 or 24 $\frac{7}{9}$ Cyd of Arch Work
 in Chumand } 4 13 do 119 $\frac{3}{10}$

Sides of abutments
 Wing walls out side
 Face walls
 Parapet walls both sides
 Top of flooring
 Soffit of Arch

Deductions
 Sps of plastering with
 3 coats of Chumand } 3 5 Sqr 770 3
 Rft of Plain Cornice Work 1 2 Rft 79 4
 Guard Stones 1 8 Each 12
 Centering 30

1000 (see this office letter No 571 dated 3rd October 1900)

Excavating foundations
& Baling Water } 30
Filling Wings & approaches } 15
Contingencies & Superintendence } 842 1/4 3
Total Rupees 925

Constructing a Tunnel
of 5 Vents of 6 feet span
each as per plan Fig
III

2 21 4 1/2 4
4 24 1/2 3 4
4 8 1/4 3 3/4 4
2 40 1/2 1 3/4 4
5 21 5 1/2 1/2
2 37 1/2 1 1/2 1/2
2 21 3 3 3/4
4 21 1/2 3 3/4
4 8 1/4 2 7
4 17 1 1/4 1
2 17 4 1/2 2
2 42 2 3
2 42 1 1/2 2

756 Foundations to abutments
1176 Do to Piers
495 Wing Walls
567 Retaining Walls
787 1/2 Flooring under arches
731 1/4 Do between Wings
472 1/2 Abutments above
472 1/2 Piers Do
462 Wing walls above
85 Spandrels
76 1/2 Backing to abutment
504 Face walls
252 Parapet walls
653 1/2 Deductions
6439 or 238 13 1/2 Cys of Rubble
Masonry in Chumam } 1 12. Rs 417 6
147 Blocking course
117 1/4 Plumb lines to Piers
78 3/4 do to abutments
273 or 10 5/9 Cys of Brick
work in Chumam } 2 14. do 291 1
22 1/2 Cutwaters
2 Caps to do
24 1/2 or 24 1/2 Cys of Cut stone
work } 10 do 91 2
350 or 12 26/27 Cys of Concrete
work in Chumam } 8 do 19 7 1

2 42 1 3/4 1
4 21 3/4 3/4
2 21 2 1/2 3/4
8 3/4 1 3 3/4
8 3/4 1 1/3

5 1 1/2 8 1/2

21 1 1/2 1338 1/4 or 49 7/12 Cys of Arch work 4 13. Rs 238 9 11
33 1/2 7 8 1/2 Sides of abutments & Piers
5 1/2 2 30 1/4 Wing walls outside
2 3 2 52 Face walls
2 5 1/2 4 62 Parapet walls both sides
6 6 30 Flooring under arches
8 1/4 6 43 1/2 do between Wings
7 7 35 Soffits of arches

37 26 1/4 Deductions
36 8 2/3 Sps of plastering with
3 coats of chumam } 3 5. Rs 127 10 8
Rft of plain Carnic work 120 ft 6 2
Guard stones 18 each 6
Centerings 5 do 25

Excavating foundations
& Baling Water } 40
Filling Wings & approaches } 30

Contingencies & Superintendence } 942 5 1/2
Total Rupees 1035

Grand Total Rupees 4630

Executive Engineer's office
Camp Chodavaram
26 April 1871
Major R. E.
Lieut. R. E.
Executive Engineer Vijayapattanam
This letter No 571 dated 3rd October 1870

Executive Engineer's Office
Camp Chovavaram
26 April 1872

No 64

From

The Executive Engineer
Vengalpetam

To

The Superintending Engineer
1st Division

Sir

Encls 3
2 Plans
1 Estimate

When accompanying you in your inspection of Trunk Road No. 57 from Sinner to Anakapilly I had the honor to point out the necessity for two small relieving bridges to pass of the overflow of the Rangaboli Grown and of the Anakapilly river, which spread from some distance over the fields, and which at present find their way over the Road, to its detriment and by the leading up to the danger of the bridges over the main stream. You stated your opinion that three arches of 9 ft would be sufficient in both cases, and directed me to estimate for them.

Also to estimate for a culvert of 15 ft span to carry the road over an irrigation channel near the town of Anakapilly, the former Culvert, a very old one, having been blown up by the heavy floods of last year. This Office letter No. 571 dated 3rd October (70)

Estimate No. 4 of 1871-72

Will in Nagapattanam
Range Nagapattanam
District

Communications Non-Work

Constructing four

Masonry Works

on the Trunk Road No. 57

No. 57

Estimate No. 4630

P. M. 2132/71

Enclosure in a

Letter No. 360 to the

5th Division from

the Superintending

Engineer to the

Secretary to Govt

3. And I also asked and obtained permission to estimate for 5 Arches of six feet to be built between Soobaram and Pandurn in a place where the embankment is breached during every monsoon by the overflow of the Mighaori Gissa and Baramma Gissa, combined with other land waters.

3. These plans and estimates I have now the honor to submit, and to request that you will ^{make} an immediate grant of at least Rs 900-00, to enable me to bridge the irrigation channel near Anakapilly. The Junk Road is at present carried across on a temporary palmyra bridge, which might give way during the monsoon which breaks in June. Should the

Should there be no other source from which funds can be obtained, a transfer might be made from the Budget grant of Rs 9,000 for the Road from Viragapatam to R. aperiore, which will be available to expend until sanction is accorded to the revised estimates which are now under preparation.

5 I have sent up no specification; as the works will be built according to the specification already submitted for the numerous masonry works entered in the Estimate for the improvement of the Great Northern Trunk Road.

Proceedings of the Ind. P.H.S.

I have etc etc. 15

1251 J. F. Forward Limb. R.E.
Executive Engineer
Trigopalan

/ True copy /

Mortimer May or R.E.
Ag. Superintendent Engineer
1st Divison

1476 P.H.S.
Proceedings of the Madras Government.

Read the following

From

The Deputy Engineer
1st Div.

(H. E. No. 360 of 5 May 1871)

N.
Under the circumstances,
explained in these papers
the Govt approve of the
estimates for the under-
mentioned masonry
works on the portion
of Trunk Road No. VII
from Toonee to Penduram
in the Vizagapatnam
District at an aggregate
cost of Rs 4630.

To

P. M. 2132/71

Enclosed in a letter
No. 160 of 5 May 1871
from the Deputy Engineer
1st Division to the
Secretary to Govt.

Two bridges of three arches of Rs
 nine feet span each — 2670
 one do of one arch of fifteen
 feet span — 925
 One tunnel of five vents of
 six feet span each — 1035
Total 4630

The question of pro-
 -viding funds will be
 referred to the Local
 Fund Board in Vizagapa-
 -tam for consideration
 in connection with
 the appropriation made
 from "Provincial Services"
 for roads.

[Signature]

To The Sub-Engineer (P. & L.)
 "Controller"
 "President of the E. & W. in Vizagapa-
 -tam"
 Desps 1/6/71

Govt of (1871) Madras.

PUBLIC WORKS.

To *Mr. H. J. Superintendent Engrs*
1st Division

Dated

Recd.

E. S. 4
Ch. Secy

G. O. *31 May* 1871 No. 1476.

Nos. *127 1528*

Superseded by G.O. No. 1528

For the purpose of the
Public Works Department
the following is the
list of the works
which are to be
executed during the
year 1871-72.

11/6/71

Recd -