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(2) Date of repair 30.11.87

(3) Initials of the Referencer 2

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W.

DEPARTMENT

G.O. No.
B.P. No.

1009

Press.
Mis.

Dated

17.4.1886

198

Not to be folded or roughly handled.

17TH APRIL 1886, No. 1009 W., PUBLIC WORKS.

1009 W
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers :—

From Major S. C. CLARKE, R.E., Acting Superintending Engineer, I Circle, to the Chief Engineer, Public Works Department, dated Dowlaishweram, 27th March 1886, No. 293 V.Z. :—

With reference to paragraph 2 of G.O., No. 748 W., dated 20th March 1886, I have the honor to forward, herewith, for the sanction of Government, a statement showing the proposed temporary establishment required in the Vizagapatam division for the year 1886-87.

Office note from the Examiner, Public Works Accounts, dated 9th April 1886, No. 32.

ORDER—dated 17th April 1886, No. 1009 W., Public Works.

The proposition statement of temporary establishment required in the Vizagapatam division during 1886-87 is sanctioned.

2. This sanction has been registered as Provincial No. 6 W. of 1886-87, and classified as Establishment, Temporary.

(True Extract.)

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

To the Superintending Engineer, I Circle.
" Examiner, Public Works Accounts.

Est A Aubert.
Spare Copies

1009
3

GENERAL
ESTABLISHMENT.

Gobt. of 1886 Madras
PUBLIC WORKS.

Dated April, 17th.

Recd.

En

G.O., 17th April 1886, No. 1009 W.

APRIL.

Temporary Establishment

The proposition statement of — required
the Vizagapatam division during 1886-1
sanctioned.

10TH OCTOBER 1885, No. 2365 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Lieutenant-Colonel P. MONTGOMERIE, R.E., Superintending Engineer,
I Circle, to the Chief Engineer, Public Works Department, dated Waltair,
26th May 1885, No. 64 C.

I have the honor to submit, for the approval and sanction of Government, the plans, estimates, and other documents connected with the construction of the Potinghi-Koraput road, together with plans and estimates for two iron girder bridges required for the Potinghi ghât in the Vizagapatam district.

2. The estimates for the Potinghi-Koraput road amount to Rs. 2,72,700, and those for the two bridges on the Potinghi ghât to Rs. 31,190. The latter, it is understood, were ordered by Colonel Sankey, R.E., C.B., the late Chief Engineer of the department, and will be required for crossing the Sunki and Rallagedda streams, which at present are passed by means of roughstone causeways. The Potinghi-Koraput road is a work urgently required for opening out the Jeypore country and the districts beyond, and is absolutely necessary to enable the Potinghi ghât, which has lately been completed at some considerable cost, being properly utilised.

3. As these estimates have been urgently called for by you, I have thought it advisable, in order to save further delay, to submit to you direct the whole of the documents with my corrections noted on them, instead of returning them once more to the divisional officer for revision.

4. The hydraulic information regarding the streams to be bridged has been arranged in the accompanying tabular statement, from which you will observe that the waterway allowed is in proportion to the areas drained; the discharges being calculated by allowing a co-efficient of 700 in the formula $D = C.M^{\frac{2}{3}}$. This method is considered the safest in ascertaining the maximum flood discharges from small hill streams when there is very great difficulty in observing accurately the highest flood level. The co-efficient of 700 gives a discharge approximating to the observed discharges in the larger streams, and may be accepted as a safe margin to be allowed in the smaller nullahs.

5. Owing to the great difficulty in constructing masonry bridges of any size on the Jeypore plateau, I have thought it advisable to allow iron girder bridges for the four largest streams. The designs for those which are submitted by Mr. Harris are similar to the bridges which he has already constructed in the Wynaad and Western Coast, and which, it is understood, have answered well. The details of the girders have been furnished by Mr. W. Maylor, of the firm of Messrs. Peirce, Leslie, and Company of Calicut, who supplied the bridges for the Wynaad and Western Coast. The design seems suitable for the Jeypore plateau, but before sanctioning them it might be as well to have the details checked at the Government Workshop, Madras.

Note by the Chief Engineer, Public Works Department.

The estimate for the Potinghi-Koraput road, submitted by the Superintending Engineer, I Circle, amounts to Rs. 2,72,700, or Rs. 9,128 per mile.

2. In addition, an estimate of Rs. 31,190 for two bridges on the Potinghi ghât is submitted. It is recommended that the latter be sanctioned as supplemental to the

original estimate for the Potinghi ghât. For this work the total sanction accorded will then stand as follows:—

	RS.
G.O., No. 3255 W., of the 16th November 1883	4,25,391
The two bridges now proposed	31,190
Total ...	4,56,581

3. *New Road.*—The new line from Potinghi to Koraput, the second link in the line of communication between the plains of Vizagapatam and the interior of the Jeypore plateau, apparently follows a track already opened out as a pack-bullock road by the Agency authorities; the first 2 miles or so only of this track being superseded by a favorable diversion 3 miles 2 furlongs in length.

4. The conversion of the existing pack-bullock track into a metalled road, in preference to an altogether new trace, is apparently adopted for the sake of economy. Labor and earthwork will be saved thereby, while the survey and estimating have probably been much easier; but it seems doubtful whether, in a country such as that described, some improvements on the exact alignment of the old track could not have been discovered. The gradients, however, are easy throughout, the steepest being 1 in 20. The Superintending Engineer approves the project as prepared by Mr. Harris, and the alignment may perhaps be accepted without further inquiry.

5. *Width.*—The formation width of the new road is to be 15 feet, of which 12 feet will be metalled. In the opinion of the undersigned, for a first-class metalled and bridged road, a width of 18 feet should be adopted. In the open and on the level, a width of 18 feet will add but a small amount to the cost, and for the tops of high embankments and approaches to bridges, 15 feet is hardly a safe width.

6. *Bridges.*—The iron bridges, four for the new road and two for the ghât, are from designs by Mr. Maylor, of the firm of Peirce, Leslie, and Company of Calicut. They are of the Warren girder type, and similar bridges are said to have answered satisfactorily in Wynad and on the West Coast. It is apparently intended that this firm should supply them, but the undersigned considers the better course would be to indent on the India Office for Warren girder trusses of the spans required, to have a planked road of given width (15 feet) and to carry a specified load. If this course be adopted, it will not be necessary to have the calculation for these designs checked in the Public Works Workshops, as suggested by the Superintending Engineer.

7. The stone masonry should certainly *not* be plastered, for to plaster stonework simply means to conceal bad work.

8. Splayed wings seem preferable to the long return wings designed for all the bridges, and would be more economical.

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Chief Engineer.

25th September 1885.

ORDER—dated 10th October 1885, No. 2365 W., Public Works.

The undermentioned estimates are sanctioned:—

	Amount of Estimate.	Register Number.	Classification.
(1) Road from Potinghi to Koraput.	RS. 2,72,700	Provincial No. 142 W. of 1885-86.	} Communications, Original Works.
(2) Two bridges on the Potinghi ghât.	31,190	Provincial No. 143 W. of 1885-86.	

2. The second estimate is supplemental to the estimate for the Potinghi ghât, which will now stand at Rs. 4,56,581.

3. The current year's budget grant of Rs. 20,000 for the Potinghi-Koraput road was surrendered in G.O., No. 1533 W., dated 1st July 1885, and no allotment of funds can be made for the work at present. If possible, however, provision for it will be made in the Provincial budget of 1886-87.

4. The Chief Engineer's remarks should receive attention.

(True Extract.)

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

To the Superintending Engineer, I Circle, with 26 enclosures.
" Examiner, Public Works Accounts, with general abstract estimates.
" Financial Department.
" Revenue "

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of 1885 Madras.

PUBLIC WORKS.

Dated October, 10th.

Recd.

Encl.

G.O., 10th Oct. 1885, No. 2365 W.

OCTOBER.

Road from Pottinghi to Koraput
and Bridges on the Pottinghi
Ghat

Estimates for —, sanctioned with remarks

22ND FEBRUARY 1886, No. 429 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT

General.
Establishment.

ORDER—dated 22nd February 1886, No. 429 W., Public Works.

In supersession of previous orders sanctioning temporary upper subordinate establishment, the following temporary upper subordinate establishment is provisionally sanctioned for the circles and divisions of the Presidency for the year 1886-87:—

			RS.
I Circle (Central Godavari division) ...	1 Sub-Engineer ...	250	
	2 Overseers ...	100	
	2 Do. ...	80	
I Circle (Rushikulya division) ...	1 Sub-Engineer ...	250	
	4 Overseers ...	80	
I Circle (Wards' estates) ...	1 Overseer ...	80	
	1 Do. ...	60	
I Circle (Vizagapatam, Pottinghi Ghat). 1	Do. ...	60	
II Circle (Gudivada division) ...	1 Sub-Engineer ...	250	
	2 Overseers ...	80	
	2 Do. ...	100	
II Circle (Buckingham Canal division). 4	Do. ...	80	
	1 Supervisor ...	200	
II Circle (Pennér Anicut system) ...	1 Overseer ...	80	
	1 Supervisor ...	150	
IV Circle (Barur division) ...	2 Overseers ...	80	
IV Circle (Calicut-Vayitri road) ...	1 Overseer ...	100	
	1 Supervisor ...	200	
V Circle (Tank work) ...	2 Overseers ...	60	
	2 Do. ...	60	
V Circle (Chingleput division) ...	1 Overseer ...	100	
V Circle (Pálár Anicut) ...	1 Sub-Engineer ...	250	
VI Circle (Cauvery and Vennar Regulators division). 2	Overseers ...	80	
	4 Do. ...	80	
VI Circle (Lower Coleroon project) ...	1 Overseer ...	60	
VI Circle (Tank work) ...	2 Overseers ...	80	
VI Circle (Wards' estates) ...	1 Overseer ...	60	
VI Circle (Vedarniem canal) ...	1 Do. ...	80	
VI Circle (Cumbum-Gudalur road) ...	1 Do. ...	100	
	1 Sub-Engineer ...	300	
Tank system, I division ...	1 Supervisor ...	150	
	4 Overseers ...	80	
	1 Sub-Engineer ...	300	
Tank system, II division ...	1 Supervisor ...	150	
	4 Overseers ...	80	
	1 Sub-Engineer ...	300	
Tank system, III division ...	1 Supervisor ...	150	
	4 Overseers ...	80	
	1 Sub-Engineer ...	300	
Tank system, IV division ...	1 Supervisor ...	150	
	4 Overseers ...	80	

(True Extract.)

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

To the Examiner, Public Works Accounts.
Exd. P. L. Pereira.
Spare Copies

GENERAL.
ESTABLISHMENT.

Gobt. of {1886} Madras.
PUBLIC WORKS.

Dated February, 22nd.

Recd.

Encl.

G.O., 22nd Feb. 1886, No. 429 W.

FEBRUARY.

Temporary Upper Subordinate
Establishment

Orders sanctioning — for 1886-87.

FROM,

THE SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DOWLAISHWARAM, 27th March 1886.

SIR,

With reference to para 2 of G.O.
No. 48, W dated 20th March 86, I have
the honor to forward herewith for the
sanction of Government a statement
showing the proposed temporary es-
tablishment required in the
Vizagapatam Division for the year
1886-87.

I have the honor to be

Sir

Your most obed^t Serv^t.

By Order
Major R. B.

Adj. Suptg. Engr. 1st Circle

1009
8

appointments being fixed, the
entry of mean pay in the statement
is incorrect; the necessary
correction has been made by this
Office.

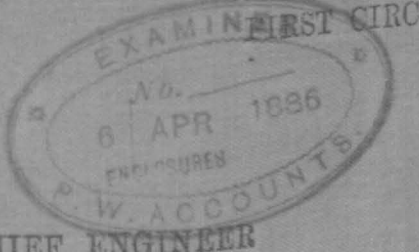
gc2

C.

8/4

23. 748 W. 20. 3. 86
 9. 0. 429 W. 22. 2. 86
 1133 W. 13. 5. 83
 2365 W. 10. 10. 83
 Files not
 news in book
 22/6/86
 A.O. at 11 of 6. 4. 86

FROM,
 THE SUPERINTENDING ENGINEER
 EXAMINER FIRST CIRCLE.
 TO,
 THE CHIEF ENGINEER
 PUBLIC WORKS DEPARTMENT.



DATED 27th
 DESPATCHED 27th March 1886
 RECEIVED

No. 293VZ

ENCLOSURES. one

No. 1372 C.d/5 April 1886.

To C.

For favor of
 check as regards
 present scale, and
 return.

3/4/86 D.H.
 No. 3279. 4. 86
 To W.

The entries in Column
 "Present Scale" of the proposition
 statement checked and found correct.
 It is for Govt. to decide whether
 the temporary Upper Subordinates
 applied for should be sanctioned
 in addition to scale sanctioned in
 G.O. No. 429 W. dated 22nd. February
 1886.

Statement shewing
 the proposed tempo-
 rary Establishment
 required in the Vizaga-
 patam Division for
 the year 1886-87.
 Forwards for sanction
 a —

2. The pay of all temporary

6. 13. 4. 86

1009
 9

Please verify
 C.A.W's note in
 the margin of
 Draft.

HB

The Note is
 Correct

H.C.
 Issue 174

(10) $\frac{1009}{10}$
 Cancel my note, &
 note money that
 the order will be
 can be made on
 on the note to be
 called at in return

—

See C.C. to post
 3 paper dollars
 against P.S. & deposit
 them to No. 1 Cash

—

12/6/86

B
 Draft order accordingly

E
 For necessary action taken
 J.B. Action taken
 12/6/86

Note
L. J. O. No. 1133
of 13th May 1885
certain scale of ^{tenancy} ~~of~~ ~~the~~
for functions for the
Vijayawada Division.

S. P. I. Manubhai &
Superintendent of the
an million as the
function of

- 1 Officer per year
- 1 Officer 1st year
- 1 Sub Officer per year
- 2 Inspectors
- 4 Clerks

The P. M. can't
know whether the
called up the ~~inspector~~
should be ~~in~~ ~~the~~
in addition to the
1 function in J. O. No. 1133
29th Feb 1886

The year of the year

3. The pay of all temporary

Q. 13. 4. 86

for the road in ¹⁰⁰⁹ 1847
As above & the cost
of the temporary works
appears for - about
As 12848 This seems
for too high and I
think by that the
estimated cost
is more ample

Done
11/4/86

Cot

2. The pay of all temporary

Q. 13. 4. 86

C No 2796

To One

1009
13

For orders written
reference to the car
clubbing position of parcel
of C's Mail note no 32
of 5-4-86.

The same time scale
provides 1 messenger
only on the 60 for the
short roads. The pro-
position statement
now submitted provides
for 2 messengers on Rs 100
each + one on Rs 50.

W
10/4.

JB

1009
Please return the
with order for
Ketchikan
Under the water
my attention on
the attention
before then my
attention.

Dr. W.
10/4/86

Please see for no. 23654
of 10th October 1886 account
paying.

The allotment for
1886-87 is \$30,000 -

A further 3000 is provided
for the bridges on the Great
Road which forms a separate
work on which also
the Upper Subordinate Estate
is proposed to be
placed

by W. W.

1009
15

Venagapatam Division
 Proposition Statement of Temporary Establishment required in the Venagapatam Division during
 the Official year ending 31st March 1884.

		Nature of Charge		Proposition		Remarks by Executive Engineer	
		Present scale	Proposed scale	Amount per month	Temporary Increase per month	Decrease per month	
No.	Date of sanctioning present establishment.	Designation	Designation	Amount	Period	Amount	
1133	13 th May 1875	1 Surveyor inclusive of Ghat allowance	1 Surveyor inclusive of Ghat allowance	200	12	50	The Services of this Surveyor are required for taking Survey and levels of the Road from Koraput to the frontiers of Central Provinces.
			3 Overseers 1 st Grade each at Rs 100 Ghat allowance at Rs 50 per Cent	200	12	200	These overseers are required for the Road from Polinghi to Koraput.
1133	13 th May 1875	1 Overseer 3 rd Grade (Sanctioned but not employed)	1 Overseer 2 nd Grade Ghat allowance at Rs 50 per Cent	80	12	20	For the Polinghi Ghat Road.
			4 Total Upper Subordinates	680		470	
			<u>Lower Subordinates Establishment</u>				
		1 Suboverseer 1 st Grade	1 Suboverseer 1 st Grade	60	12		Provision made for two Sub-

Udagapatam Division

Sri Nagapatam Division
 Proposition Statement of Temporary Establishment required in the Sri Nagapatam Division during
 the Official year ending 31st March 1884.

Nature of Charge										Proposition					Remarks by Executive Engineer
Present scale					Proposed scale					Permanent		Temporary			
No	Rate	Office to which proposed section refers.	Designation	Pay		Designation	Day		Amount per month	Amount per month	Period	Amount	Period	Amount	
				Minimum	Maximum		Minimum	Maximum							
			0 1 Suboverseer 1 st grade ghat allowance at 50 percent	50	70	60					12	60			Overseers for the Road from Pothinghy to Koraput.
								60			12	60			1009 17
			100 2 Total Lower Subordinate Estab.									120			
			Petty Establishment												
1133 N May 1885			6 Lascars incl five of ghat allowance each at Rs 9.	54				54			12				This establishment is required for the Surveyor applied for above.
Do Do			1 Lascar (sometimes do but work same place do.)	6				24			12	21			These lascars are required for the Overseers applied for above.
Do 2 nd 2902 25 th Nov 1884			10 Mirani Lascars each at Rs 4 1/2	45				45			7				usual provision from 1 st July 1886 to 31 January 1887.
			105 19 Total Petty Establishment										21		

Proposition Statement of Temporary Establishment required in the Vinagapatam Division during the official year ending 31st March 1884.

Proposition

Proposed seal

Permanent Temporary

Increase per month Decrease per month

Remarks by Executive Engineer

No order sanction-
ing present beta
• attachment.
Late Govt of Madras
P.W.D.
Office to which propo-
sition refers.

1133 13
W May
1885

Supdy. Reg^d Office N. York
Donalsonmercan
27th March 1886

John Smith
Majors R. 6.
Adj. Sup. Adj. Surg. 1st Field

3/1



No. 1009 W

Gentl
Estab

PUBLIC WORKS DEPARTMENT.

1009
19

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 17 April 1886

READ the following

From the Suptg. Engineer I Circle. H. G. No. 293 V. Z. d/27 March 1886.
Office Note from the Examiner of P. W. Accts. H. G. No. 32 d/9 April 1886.

The proposition statement
of temporary establishment required
in the Vizagapatam Division
during 1886-87, is sanctioned.

2. This sanction has been regis-
tered as Provincial No. 6 Wof 1886-87,
and classified as Establishment,
Temporary.

note. the three overruns are
assumed to be posted from
the eleven temporary men
separately recommended
for appo. by the
Ct.

72/4/86

Decd
30/4/86

To The Suptg. Engr. I Circle
" Examiner of P. W. Accts

15.4.86

13.4.86

May

213-

1009
20

15 $\frac{17}{14}$
12 $\frac{11}{19.4}$
bed. 4.50 P.M.

Ass. 30/4.
Q. 13. 4.86

C/

2563
2796

Govt. of Madras.
PUBLIC WORKS.

Dated *18/4/86*

Recd. Encl.

G.O., 17 April 1886, No. 1009

Tramway Station

The proposed station
of — required in
Vizagapatnam
during 1887-88, Sanitary

40
—
3

Sanitary