M.R.O. 1—77,005—8-6-31.

(1) Number of pages 47

(2) Date of repair 23/4/57

(3) Initials of the Reference

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Rec 28/4/57

G.O. No. 979 Press Mis.

99.100 Dated 28—4— 1857.

Not to be folded or roughly handled

No. 99. Read the following letter from Colonel C. E. FABER, Chief Engineer ; to J. D. BOURDILLON, Esq., Secretary to Government, dated 30th March 1859, No. 9148.

SIR,

The Government in Extract Minutes Consultation No. 565, dated 29th March 1858, were pleased to accord sanction for the construction of three Transport Carriages for the use of the D. P. W. at an estimated cost of Rupees (900) nine hundred. The work was entrusted to the Acting Garrison Engineer, who has lately finished one of the three Carriages, at an expenditure of Rupees (531-14-11) five hundred and thirty-one, annas fourteen, and pice eleven, or Rupees (231-14-11) two hundred and thirty-one, annas fourteen and pice eleven, in excess of the amount sanctioned for each carriage, as will be seen from the comparative Statement herewith forwarded. The Superintendent of the Gun Carriage Manufactory was then requested to furnish an Estimate of what he considered to be the probable amount required for constructing a similar one in his yard. In compliance with this requisition, he has kindly forwarded an Estimate, amounting to Rupees 345-3-10 or Rupees 45-3-10 only above the original Estimate sanctioned by Government.

1 Letter from the Acting Garrison Engineer No. 584, dated 21st January 1859.
1 Comparative Statement.
1 Memo. by Conductor Hill, dated 24th November 1858.
1 Letter from Colonel Maitland No. 175, dated 28th February 1859.
1 Original Estimate for Rupees 345-3-10.

2. It is evident from the above circumstances that the increase reported by the Garrison Engineer has arisen mainly from his not having experienced men or proper means and appliances for works of this description at his command, I would therefore beg to recommend that the remaining two Carriages be constructed at the Gun Carriage Manufactory, at the aggregate cost of Rupees (690-7-8) six hundred and ninety, annas seven and pice eight, and that the balance of Rupees (322-6-7) three hundred and twenty-two, annas six and pice seven, after deducting the expenses already incurred by the Garrison Engineer for one carriage, out of the sanctioned amount of Rupees (900) nine hundred, be authorized in addition to the latter sum for the completion of the remaining two Carriages.

	Rs.	A.	P.
Already sanctioned	900	0	0
Cost of Carriage already constructed	531	14	11
Balance remaining	368	1	1
Cost of two new Carriages as per Colonel Maitland's Estimate	690	7	8
Sum for which sanction is now required	322	6	7

Letter from Captain H. L. PRENDERGAST, Acting Garrison Engineer ; to the Chief Engineer, dated 21st January 1859, No. 584.

SIR,

With reference to your Resolution No. 8897 of the 10th April 1858, I have the honor to report, that one of the 3 Transport Carriages has been constructed, according to the plan furnished to me, the Estimate for which, provides only 300 Rupees, whereas the actual cost has amounted to Rupees 531-14-11, a comparative Statement is forwarded, shewing the amount of material and labour, according to the Estimate, and what has been required for the work.

2. The excess in expenditure is caused by a large additional quantity of square Swedish Iron, but principally in the Smith's cooly-hire, further particulars are given in the report enclosed, which I called on Conductor Hill, in charge of the work yard, to make, in explanation of the expenditure.

3. I have not commenced the other 2 Carriages, as I see no prospect of reducing the cost, the work being of a heavier description than we are accustomed to undertake, and perhaps it would be done cheaper at the Gun Carriage Manufactory. If it is necessary that I should proceed with the other two, I have to request you will be good enough to obtain sanction for the requisite amount as shewn in the Statements now submitted.

Memorandum

Regarding the construction of a Transport Carriage for weighing Machines.

In making the Transport Carriage a difficulty was experienced in getting good and able Smiths and Hammermen willing to work at it, for the usual rates of wages allowed in this De-

partment, in consequence of its great weight, as they had not been accustomed to work so large a mass of Iron for such small wages.

The Iron bands to fix round the Axle tree were the most difficult part of the work, particularly in making the double bend, in consequence of their great weight (each weighing 26lbs) it required the aid of tackle to lift them on, and off the fire, each time they had to be heated: the other portions of the work although heavy, was comparatively easily accomplished.

In framing the Estimate there has only been allowed Rupees fifty for Cooly hire, Coals and Paddy husk, which is at the rate of Rupees 16-10-8 per Candy, whilst it appears from information, the general price that would have been charged in the Bazar for a similar work, would have been about (40) Rupees per Candy, independant of the cost of Coals, &c. It will also be seen by the reports furnished daily to the Office, that the expenditure of Coal, &c., has exceeded the whole amount provided in the Estimate, and has left nothing for Cooly hire. Again in the item of the two Venny wood Naves for the wheels, these are put down at Rupees five, whilst those used could not be got for less than Rupees 9-10, considerable time was lost in procuring them, as this kind of wood was scarce in the market and very dear, and could not be purchased of the size we required for a less sum than the one stated above.

There is also another item which has caused a little increase to the Estimated amount, namely, the making of Tools that were found necessary, as we had none in Store suitable for such heavy work, these took up time and required about 120lbs of Iron to make them. These instruments are now in Store and available for similar work whenever they may be required.

Garrison Engineer's work yard,
21th November 1858.

(Signed) JOHN HILL,
Conductor.

Letter from Lieutenant-Colonel J. MAITLAND, Superintendent Gun Carriage Manufactory; to the Officiating Superintending Engineer, Central Circle, dated 28th February 1859, No. 175.

SIR,

I have the honor to acknowledge your letter No. 7830, dated 12th February 1859, with its accompaniments as per margin, and I herewith forward an Estimate prepared in my Department to the amount of Rupees 345-3-10, for the construction of a Transport Carriage similar to the one sent to be reported upon.

1 Plan of the Transport Carriage.
1 Estimate for the same. Rupees.. 300-0-0
1 Letter from the Ag. Garrison Engr. No. 584, dated 21st January 1859.
1 Comparative Statement.
1 Memo. by Contractor Hill.

2. The Acting Garrison Engineer's probable Estimate for the constructian of the Carriage is Rupees 300, but the actual cost of its construction by the Garrison Engineer is Rupees 531-14-11, which shews a difference of Rupees 186-11-1, between my Estimate and what it cost the Garrison Engineer.

3. I do not consider this difference to be a heavy charge on the following grounds.

4. The price of the Iron in the Engineer's Estimate is about 50 Rupees per Candy, but the English Iron charged in my Estimate is only Rupees 31-12-2 per Candy.

5. The cost of the labor and fuel in the Engineer's Estimate is Rupees 194-9-7, but mine is only Rupees 67-14-2.

6. Although in the cost of the labor and fuel there is a great difference between them both, I however consider it a fair charge, because at the Gun Carriage Manufactory, I have qualified workmen who could from their experience in Wood and Iron work and the ready means and appliances, turn out work in less time than it could be done elsewhere. Besides this, the construction of such kind of work being a new one to the Engineer Department, it accounts for the increased cost of the labor and fuel.

No. 100. ORDER THEREON, No. 979; dated 28th April 1859.

Under the circumstances represented by the Chief Engineer the Governor in Council sanctions the sum of Rupees (531-14-11) five hundred and thirty-one, annas fourteen and pice eleven,

the amount expended in the construction of one of the Transport Carriages authorized in Extract Minutes Consultation 29th March 1858 No. 565; and grants authority for the construction of the remaining two Carriages at the estimated cost of Rupees (690-7-8) six hundred and ninety, annas seven and pice eight, at the Gun Carriage Manufactory.

2. This sanction cancels the former sanction of 900 Rupees above quoted, for the three Carriages.

(Signed) J. D. BOURDILLON,
Secretary to Government.

No 584. Garrison Engineer's Office. 5

From, Captain H. L. Prendergast
Acting Garrison Engineer

To, The Chief Engineer D. P. W.
Fort Saint George.

Sir,

With reference to your Resolution No 8897 of the 10th April 1858, I have the honor to report, that one of the 3 transport carriages has been constructed, according to the plan furnished to me, the Estimate for which, provides only 300 Rs whereas the actual cost has amounted to Rupees 531—14—11 a Comparative statement is forwarded, shewing the amount of material and labour, according to the estimate, and what has been required for the work.

2 The excess in expenditure is caused by a large additional quantity of Square and Swedish iron, but principally in the Smith's coolly hire. further particulars are given in the Report enclosed, which I called on Conductor Hall, in charge of the work yard, to make, in explanation of the expenditure.

3 I have not commenced the other 2 carriages, as I see no prospect of reducing the cost, the work being of a heavier description than we are accustomed to undertake, and perhaps it would be done cheaper at the Gun Carriage Manufactory. If it is necessary that I should proceed with the other two I have to request you will be good enough to obtain Sanction for the requisite amount as shewn in the Statements now submitted.—

I have &c
(Sd) H. L. Prendergast Capt
Actg Garrison Engineer

Fort Saint George
21st January 1859

A True Copy
(Sd) [illegible] Capt.
Supt Engr in Ch. of Ts.

Madras 28th February 1859

Supt. Gun Carr. Manufy

Encloseure in a letter from the
Chief Engineer
to the Secretary to Government
of India.

Dated 31st March 1859
Rec'd 5th April 1859

No 918
Civil 777/59.

Copy of a letter from the
Secretary to Government
forwarding for perusal & Comment
by this office a report & Drawing of the carriage
lately constructed at Allahabad
for a 32 pdr Gun
Estimate for constructing one of the
3 Transport Carriages & Limbers
sanctioned for the other two Carriages

Gun Carriage Manufactory
Kanpur 28th February 1859

No 1745

From Lieutenant Colonel J. Kaitland
Supt. Gun Carriage Manufactory

To The Officiating Superintending Engineer &
Central Circle

Fort Saint George

Sir

I have the honor to acknowledge your letter
dated 12th February 1859 with its accompaniments as
per margin, on the subject of Rupees 345-3-10
in my Department to the amount of Rupees 3745-3-10
for the construction of a Transport Carriage similar
to the one sent to the Presidency upon
which my estimate was submitted to the Garrison Engineer
Garrison Engineer in Rupees 531-14-11 which
sent a difference of Rupees 186-11-1 between
but the actual cost of its construction by the
for the construction of the Carriage is Rupees 300
I am of opinion Rupees 1584 would suffice for
I comprehend the statements
I have by current Post
the same to be deposited upon
2 The Acting Garrison Engineer probable Estimate
3 I do not consider this difference to be a heavy
charge

Allahabad 28th February 1859

Lieut. Gun Carriage Manufactory

Central Office of Ordnance
Fort Saint George
30th March 1859

No 9118

From The Chief Engineer

To The Secretary to Government F.W.D.

Sir,

I have the honor to forward for the information of Government a Letter from the Superintendent Gun Carriage Manufactory No 777/59 dated 29th instant with its enclosure, reporting on the construction of a Transport Carriage similar to the one sent to be reported on.

I have the honor to be
Sir
Your most obedient Servant
(Signed) J. Fraser
Colonel
Chief Engineer

Enclosure in a letter from the Chief Engineer.

To The Secretary to Government F.W.D.

Dated 30 March 1859
Rec'd

No 9118
No 777/59

Copy of a letter from the Superintendent Gun Carriage Manufactory forwarding an Estimate prepared in his Dept for the construction of a Transport Carriage similar to the one sent to be reported on.

Gun Carriage Manufactory
Fort St George
29th March 1859

Sir,

I have the honor to forward herewith, for the information of Government, a detailed Estimate of the cost of a Transport Carriage for the use of the Artillery Department, which has been prepared in this Office, in accordance with the Letter from the Chief Engineer No 9118 dated 21st instant.

2. The Estimate amounts to Rupees (900) Nine hundred and Rupees (2321—14—11) Two thousand three hundred and twenty one Rupees and fourteen annas and Pie eleven in words as per margin.

3. The Engineer who has lately finished one of the three carriages at an expenditure of Rupees (531—14—11) five hundred and thirty one Rupees fourteen annas and Pie eleven in words as per margin.

I have the honor to be
Sir
Your most obedient Servant
(Signed) J. Hall
Superintendent
Gun Carriage Manufactory

Estimate of the cost of a Transport Carriage for the use of the Artillery Department.

	Rupees	Annas	Pie
1 Axle tree complete	100	0	0
2 Trail Plates	20	0	0
2 Bolts for Trail Plates	2	0	0
2 Bolts for Axle tree	2

was then requested to furnish an Estimate of what he considered to be the probable amount requisite for constructing a similar one in his Yard. In compliance with this requisition, he has duly forwarded an Estimate, amounting to Rupees 3,1,5—3—10 or Rupees 1,5—3—10, only above the original estimate, sanctioned by Government.

2 It is evident from the above circumstances that the increase reported by the Garrison Engineer has arisen mainly from his not having experienced men or proper means and appliances for works of this description at his command. I would therefore beg to recommend that the remaining two Carriages be constructed at the Gun Carriage Manufactory at the aggregate cost of Rupees (690—7—8) Six hundred and Ninety — annas Seven and Pies eight and that the balance of Rupees (322—6—7) Three hundred and twenty two annas Six and Pies seven, after deducting the Expenses already incurred by the Garrison Engineer for one Carriage out of the sanctioned amount of Rupees (900) Nine hundred

Already sanctioned Rupees 900—

Cost of carriages already constructed 531-4-1

Balance remaining 368-1-15

Cost of two carriages as per Estimate 691-7-8

Sum for which sanction is now required 322-6-7

be authorized in addition to the latter sum for the completion of the remaining two Carriages.—

I have the honor to be,
Sir,
Your most Obt Servt
A.C. Fisher Colonel
Chief Engineer.

Central Office of P.W.
Fort Saint George,
30th March 1859.

To, The Secretary to Government P.W.D.

Madras 28th February 1859 } Supdt Gun Carriage Manufy

15

Memorandum

Regarding the construction of a Sandboot
Carriage for weighing machines.

Carriage for weighing machines.

In making the Sandboot Carriage a
difficulty was experienced in getting good and able
smiths and Hammermen willing to work at it,
for the usual rates of wages allowed in this department,
in consequence of its great weight, as they had not
been accustomed to work so large a mass of iron
for such small wages.

The iron bands to fit round the axle tree were
the most difficult part of the work, particularly
in making the double band, in consequence of
their great weight (each weighing 2 Cwt 1 qr 16 lbs)
and of having to fit them on, and off the
Road of Carriage to fit the Axle tree, and off the
five, each time they had to be heated, the other
portions of the work although heavy was
comparatively easily accomplished.

In framing the Estimate three load only
been

Cond: 3rd March 15th Mond:

Date: 1st April 1859 for Comm
Do Cons 29th March 1859.
from The Chief Engineer
To The Secretary to Govt NWP.

Dated 30th March 1859
Rec'd April 1

No 948

Enclosures 5

No 979. 28th April 59.
Informs that one of the 3 Carriages
Carriages ordered in Endorsement No 386
dated 29th March 1858 has been completed
at a higher expenditure than was
sanctioned. Recommends that the
remaining 2 Carriages may be
constructed at the Agra Carriage Manufactory. Requests sanction for the
sum of Rupees 332-6- for excess
of the sanctioned amount for reasons
stated within.

No 99

Cg 6 April 21st

been allowed Rupees fifty for cooly hire, coals and Paddy husk, which is at the rate of Rs 16-11-8 per Candy, whilst it appears from information the general price that would have been charged in the Bazaar for a similar work, would have been about (40) Rupees per Candy, independant of the cost of coals &c. It will also be seen by the Reports furnished daily to the Office, that the expenditure of coal &c has exceeded the whole amount provided in the Estimate, and has left nothing for cooly hire; again in the item of the two rennywood naves for the wheels, these are put down at Rupees five, whilst these could not be got for less than Rupees 7—10—.. considerable time was lost in procuring them, as this kind of wood was scarce in the market and very dear, and could not be purchased of the size we required for a less

Sum

Sum than the one stated above.

There is also another item which has caused a little increase to the Estimated amount, namely, the making of tools that were found necessary, as we had none in store suitable for such heavy work, these took up time and required about 120 lbs of iron to make them. These instruments are now in store and available for similar work whenever they may be required.

Garrison Engineer's Work Yard,
24th November 1858.

/s/ John Hill
Conductor

/s/ A True Copy /
/s/ W L Prendergast Captain
A/ Garrison Engineer

/s/ A True Copy /

Capt. &c. Captain
Supt Engr in Ch: of F.G.

Madras 28th February 1859.

Supt. Gun Carriage Manufy

Enclosure in a letter from
the Chief Engineer.
To The Secy. to Govt. C.W.D.
Date 30
Rec'd } March 1859
No 9118
C.W. 777-/59
Copy of a Memo: by
Conductor John Bell on
the subject of the
construction of Handspoot
Carriages for weighing
machines. ———

Comparative statement shewing the Quantity of Materials and labours p
Carriage with the amounts actually expended by the Garrison Engin
decrease between the Estimate and the actual cost

Amount of Materials and labours provided for in the sanctioned Estimate				Amount of Materials and labours actually incurred by the Garrison Engineer's Department				A
Description of works	Quantity	Rs	A P	Description of works	Quantity	Rs	A P	Des
Teak wood wrought and fashion	6ft 1.8 9-2-9	32.	10	Teak wood wrought and fashion	12lbs 53.	3.	7	Tea
Square Iron	lbs 1500	150	. .	Square Iron	lbs 200½	201	.	10 Sq
Flat Iron	lbs 360	30	3. 10	Flat Iron — D: 240	18	13	2	—
				Swedish Iron	do. 376	47	6	. Sw
				Steel —	do. 7¾	3	1	7 St
Four Stems of Iron fixtures	13	9.	8	—	—	—	—	—
Tenny wood Braces	2	5	. .	Tenny wood Braces	2	9	10	. Ten
Smiths Cooly hire &c &c &c	.	50	. .	Smiths Cooly hire &c &c &c	.	194	9	7 Sm
Paintings and Sundries	.	22	15 4	Paintings & Sundries	.	4.	2.	2.
Total Rupees		300	. .	—	.	531	14	11 —

Items ×

Amount of Actual cost	—	531 14 11
Do of Estimate	—	300 . .
Amount of net Excess Rupees	—	231 14 11

True C
Captain
Supd Engineer

Garrison Engineers Office
Fort St George
21st January 1859

provided for in the Estimate sanctioned for the construction of Transport
ers Department for the same, together shewing the increase and

Amount of Increase of materials & labours in the Estimate				Amount of decrease of materials & labours in the Estimate				Remarks.
cription of works	Quantity	Rs	A P	Description of works	Quantity	Rs	A P	
Sh wood wrought and fashion	4-6-9	20	14 9	—	—	—	—	1 Pillow for wheel & 12 spokes are omitted in the Estimate
ware Iron	lbs 310½	51	. 10	—	—	—	—	—
—	—	—	—	Flat Iron	lbs 120	11	6	8
nedish Iron	lbs 376	47	6 .	—	—	—	—	—
teel —	do. 7¾	3	1 7	—	—	—	—	—
—	—	—	—	—	—	—	—	These articles are not provided for in the actual cost
—	—	—	—	Four Stems of Iron fixtures	13	9	8 .	—
ny wood braces	.	4	10 .	—	—	—	—	—
ths Cooly hire &c &c	.	144	9 7	—	—	—	—	Rupees 68-8-. is expended for the use of coal, charcoal, Paddy husk & Brat ties
—	—	—	—	Paintings & Sundries	.	18.	13.	2
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

Estimate for the construction of a Transport Carriage for Weighing Machine

					Rs	As	Ps	Rs	As	Ps
24-9-1/2	Cub. ft.	Timber Teak Pegue	—	1	9	5	pr. Cubic ft.	39	6	4½
6-8-—	do	— Satin	—	1	5	10	"	9	1	"
-8-5½	do	— Trincamallie	—	"	15	9	"	11	1	"
2306½	lbs	Iron	—	31	12	2	pr. Candy	146	8	"
		Steel Old in files	—	10	8	7	pr. Cwt			6
¼	"	Chalk	—	"	1	6	pr. lb			1
1	Oz	Thread sewing Cotton Country	—	1	4	2	pr. lb			2
⅛	"	Coal for borne Europe	—	1	2	8	pr. Cwt	17	5	6
1665	lbs	Husks Paddy	—	"	"	10	pr. Bushel	2	7	11½
46⅜	Bushels	Bratties, hands 150	—	"	4	2	pr. Cwt	"	12	6½
337½	lbs	Dung Cow	—	"	"	6	pr. Basket	"	"	6
1	Basket	Lead paint	—	"	3	3	50 pr. lb	1	"	5½
5	lbs	Black paint	—	"	3	3	pr. lb	"	1	7½
½	"	Paper Portfire Europe	—	"	12	3	pr. Line	"	"	6
1	No.	Glue Country	—	"	4	6	pr. lb	"	1	1½
¼	lbs									
				"	4	9	60 Each	1	12	9½
1		Sawyers	—	"	7	5	60 "	10	4	3¼
22		Carpenters	—	"	6	4	80 "	2	6	5
6		Filers	—	"	8	"	" "	2	2	5
4 9/10		Turners	—	"	7	5	60 "	15	12	"
33¾		Smiths	—	"	3	8	80 "	7	14	"
33¾		Hammermen	—	"	1	7	20 "	3	6	"
33¾		Bellows Boys	—	"	5	5	60 "	1	13	8
22		Painters	—	"	3	8	80 "	3	8	"
15		Coolies	—							
										217 9 5
										47 15 7
										265 9 "
								Centage for Superintendence		79 10 10
								Total Rupees		345 [illegible]

Gun Carriage Manufactory
Madras 28th February 1859

[illegible] Lieutt Colo
Supdt Gun Carriage Manufy

P.W. Depart.

No 929.

Extract from the Minutes of Consultation
Under date the 28th. april 1859.

Read the following letter
from the Chief Engineer

(Here enter 30th March 1859
No 9145)

Under the circum-
stances represented by
the Chief Engineer the
Governor in Council sanc-
tions the sum of Rupees
(531-14-11) Five hundred and
thirty one annas fourteen
and pice eleven, the
amount expended in
the construction of one of
the Transport carriages
authorized in Ex. Mins
Cons 29th March 1858
No 565; and grants au-
thority for the construc-
of

Estimate for Construction of a Transport Carriage for the Artillery

Rupees 711/15

Estimate for a Transport Carriage,

Mulpad 365-10

of the remaining two Carriages at the estimated cost of Rupees 1690-4-8 Sixhundred and ninety Rupees seventy five eight & at the Gun carriage Manufactory

2 This sanction cancels the former sanction of 900 Rupees above quoted for the three Carriages.

[signature]

10 Copies to the Chief Engr. Madras 2 Gs
1 — " — " Accountant "
1 — " — " Cash "

Public Works 65 Dept
Dr to Date 29th April

No 979.

Extract Minutes of Com:
Dated 28th April 59.

£551-14-11 for the
construction of one of the
3 Transport Carriage ordered
sanctioned and the construction
of the remaining 2, authorized
at the Board of the 6th May - and
the Five Carriages Stamps
Keys &c. to be renewed and
£1150 for the 2 Carriages
Cancelled.

No 994 100.