

18TH MAY 1895, No. 1185 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

Proceedings of the Board of Revenue (Land Revenue), dated 21st January 1895, Mis. No. 221.

Read—the following letter from G. S. FORBES, Esq., Collector of the Chingleput District, to the Secretary to the Commissioners of Land Revenue, dated Saidapet, 29th December 1894, Ref. on No. 4235-Eng. :—

I have the honour, as required in paragraph 2 of G.O., No. 1319 W., dated 25th May 1894, communicated with Board's Proceedings, Land Revenue, Mis. No. 3304, dated 15th June 1894, to submit, for the sanction of Government, an estimate amounting to Rs. 23,800, together with plans, for the construction of combined offices for the Deputy Collector and Stationary Sub-Magistrate at Tiruvallūr. The design has been prepared in communication with the Consulting Architect as directed by Government. The plans and the estimate have my approval.

2. The original proposal was to construct the building at the back of the taluk cutcherry, but the Superintending Engineer suggested that a more appropriate site should be found (presumably between the public road and the taluk cutcherry, as that is the only other site available). He thought that with the site as decided the taluk cutcherry would "completely shut out from view the much more ornate building now proposed." I have personally inspected the ground and agree with Mr. Thomson that the original site is preferable. There would, no doubt, be just room for the new offices between the road and the taluk cutcherry, but as they will be lofty buildings they would seriously deprive both the cutcherry and the sub-jail of light and air. Accordingly I recommend that the original site behind the taluk cutcherry should not be altered.

Resolution—dated 21st January 1895, Mis. No. 221.

Submitted for the sanction of Government with reference to G.O., dated 25th May 1894, No. 1319 W., communicated with G.O., dated 9th June 1894, No. 2276, Revenue.

2. The Board agrees with the Collector in the views expressed by him in paragraph 2 of the letter read above.

(True Extract.)

(Signed) L. M. WYNCH,
Secretary.

Mis. No. 490, Revenue.

The plans and estimates are approved and will be transferred to the Public Works Department.

The offices should be constructed at the back of the taluk cutcherry as originally proposed.

FORT ST. GEORGE,
4th February 1895.

(Signed) R. C. C. CARR,
Under Secy. to Government.

From D. MARSHALL, Esq., Executive Engineer, Chingleput Division, to the Superintending Engineer, V Circle, dated 2nd May 1895, No. 370.

With reference to your endorsement No. 83 C.N. of the 2nd March 1895 on the Chief Engineer's memorandum of the 2nd idem, I have the honour to report that three trial pits have been sunk to a depth of 8 feet at the proposed site of the Deputy Collector's cutcherry at Tiruvallūr. The surface soil is found to be white clay and sub-soil ordinary clay to the bottom of the pits.

The ground level of the proposed site is from 2 to 3 feet above the surrounding paddy fields.

No. 159 W.

Copy to the Chief Engineer, Public Works Department, for information, with reference to his No. 794 C., dated 2nd March 1895.

5th May 1895.

(Signed) C. C. RAWSON, Lt.-Col., R.E.,
Superintending Engineer, V Circle.

Note by the Chief Engineer, Public Works Department.

As the girders proposed for the undermentioned rooms are weak, the sections have been altered as shown below:—

2nd story.		Proposed sections.	Altered sections.
(a) Court room (girder supported) ...	...	8" x 6"	12" x 5"
(b) Private and clerks' room (girder supported) ...	...	8" x 5"	10" x 5"
3rd story.			
(c) Record room (girder supported) ...	...	8" x 5"	10" x 5"

The amount of the estimate has consequently been raised from Rs. 23,800 to Rs. 23,940.

2. No provision has been made in the estimate for record racks. The Superintending Engineer should submit a supplemental estimate to supply the omission.

(Signed) J. PENNYCUICK, Colonel, R.E.,
Chief Engineer, P.W.D.

ORDER—dated 18th May 1895, No. 1185 W., Public Works.

The estimate, amounting to Rs. 23,940, as altered by the Chief Engineer, Public Works Department, for constructing a combined office for the Deputy Collector and the Stationary Sub-Magistrate at Tiruvallūr in the Chingleput district, is sanctioned for execution when funds are available.

2. Attention is drawn to the Chief Engineer's note recorded above.

3. This sanction has been registered as Provincial No. 18 W. of 1895-96 and classified as Civil Buildings, Original Works.

(True Extract.)

Under Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle, with seven enclosures.
" Examiner, Public Works Accounts.
" Revenue Department.

Exd. C. A. Munisawmy.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated May, 18th.

Recd.

Encl.

G.O., 18th May 1895, No. 1185 W.

MAY.

Office

Estimate of Rs. 23,940 for constructing a combined — for the Deputy Collector and the Stationary Sub-Magistrate at Tiruvallūr, Chingleput district, sanctioned with remarks.

No. 4235
Reference on No. 1004
Enc.

Chingleput District,
COLLECTOR'S OFFICE,
SAIDAPET, 29 December 1894.

29 Dec 94

BOARD'S GEN. REG. NO. 2 OF 1895
LAND REVENUE.

From

G. S. Forbes Esquire,

Collector of the

Chingleput District.

To

The Secretary to the Commissioner

of Land Revenue,
Madras.

Sir,

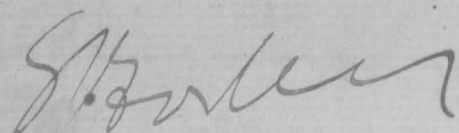
I have the honour, as required in para 2 of Government order no 13194, dated 25th May 1894, communicated with Board's Proceedings, Land Revenue, No 3304 mis, dated 15th June 1894, to submit for the sanction of Government, an estimate amounting to Rs 23,800 together with plans for the construction of combined offices for the Deputy Collector and Stationary Sub Magistrate at Tiruvallūr. The design has been prepared in communication with the Consulting Architect as directed by Government.

Yours

The plans and the estimate have my approval.

2. The original proposal was to construct the building at the back of the Taluk Cutcherri, but the Superintending Engineer suggested that a more appropriate site should be found (presumably between the public road and the Taluk Cutcherri, as that is the only other site available.) He thought that with the site as decided, the Taluk Cutcherri would "completely shut out from view the much more ornate building now proposed." I have personally inspected the ground and agree with Mr. Thomson that the original site is preferable. There would, no doubt, be just room for the new offices between the road and the Taluk Cutcherri, but as they will be lofty buildings, they would seriously deprive both the Cutcherri and the Subjail of light and air. Accordingly, I recommend ^{that} the original site behind the Taluk Cutcherri should not be altered.

I have the honour to be,
Sir
Your most obedient servant.


Acting Collector

Both sides shown
in plan marked A.

Proceedings of the Board of Revenue.
(Land Revenue.)

Dated 21st Jan 1895.
N^o 221 Iris.

Read letter from G. S. Forbes Esq^r, Collector
of Chingleput, dated 29th Decr 1894,
N^o 4235^{Eng}, to the Secretary to the
Commissioners of Land Revenue, Madras.

Resolution - Dated 21 Jan 1895. No. 221

Submitted for the sanction
of Government with reference to G. O.
dated 25th May 1894, N^o 1319 W. Com-
-municated with G. O. 9th June 1894, N^o.
2276 Revenue.

2. The Board agrees with the
Collector in the views expressed by
him in para 2 of the letter read
above.

[True Extract]
[Signed] L. M. Wynch
Secretary.

To, The Secretary to Govt - R. D.
with Plans & Sketches
and Letter to be read.

OWE 1
200/95

To be returned
to Revenue Board
with reply.

1895

REVENUE DEPARTMENT.

Enclosure No. 5

Current No.

(1895.)

REVENUE DEPARTMENT.

Current Number 589

ABSTRACT.

22 2984 w 8 12-11-93
1319 w 9 25-5-94.

From

The Board of Revenue.
Land Revenue.

Decr. 7-95

Dated 21st 2 Larry/95.
Received 24th 3

Enclosures 5. 8 (4 plans)
No. 221/95.

SUBJECT.

Submitting for the sanction of Government plans & estimates for the construction of combined offices for the Deputy Collector and Stationary Sub Magistrate at Tiruvallur, Chingleput

20
Indt No. 490 Indt.

The plans and estimates are approved and will be transferred to the Public Works Dept -

2. The offices should be constructed at the back of the Taluk Cutcherry as originally proposed.

W. C. Carr
Under Secy to Govt.

For Mr. George
4th Feb 1895

To the Board of Revenue. L.R.

P. H. De M. with plans & estimates

10. 815. 72 2/1895

No. 370 d/2nd May 1895

From - D. Marshall Esqre. Executive Engineer
Chingleput Division
To. The Supg. Engineer V Circle

Sir,

With reference to your Endorsement No. 83 of the 2nd March 1895 on the Chief Engineer's Memorandum of the 2nd idem, I have the honour to report that 3 trial pits have been sunk to a depth of 8 feet at the proposed site of the Deputy Collector's Kutcheri at Tiruvallur. The surface soil is found to be white clay and sub soil ordinary clay to the bottom of the pits.

The ground level of the proposed site is from 2 to 3 feet above the surrounding paddy fields.

I have &c
Signed - D. Marshall
Executive Engineer

No. 159 M.

Copy to the Chief Engineer P.W. Department for information with reference to his No. 794 of 2nd March 1895

5th May 1895
d/2nd 7/5/95

C. L. Carr
5/5/95
Lt Colonel R. E.
Supg. Engineer V Circle

From

The Superintendant
5th Circle

To

The Chief Engineer
P. W. Dept.

No. 15911

Date 15th May/95
Despatch 7th May/95
Recd

Site of the Deputy
Collector's Hutchery
at Trivellone. —

Reporting on the
proposed —

Recd. 8.5.95

15/5 7²
12/5

P. W. D.

Chos 900 P. W. D.
3551

Note by the Chief Engineer P. W. D.

As the girders proposed
for the undermentioned rooms
are weak their sections have
been altered as shown below.

2nd Story

	Proposed Sections	Altered Sections
(a) Court room (girders supported)	8" x 6"	12" x 5"
(b) Private and Clerks' room (do.)	8" x 5"	10" x 5"

3rd Story

(c) Record room (girders supported)	8" x 5"	10" x 5"
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The amount of the estimate
has consequently been raised
from Rs 23,800 to Rs 23,940.

2. No provision has been
made in the estimate for to
record.

record racks. The Suptg. Engineer should submit a supplemental estimate to supply the omission.

S
147 E.W.

C.M.S.
13 55
8

Plastering or Pointing ^{the interior faces of rooms} to be plastered with 2 coats of chunnam & polished & the exterior parts with tar & asphalt.

Flooring of the basement floor to be of 8" square paving bricks laid on 4" of concrete throughout except the record room which is to be of 3/4" asphalt over 4" of concrete.

Roofing is to be lined throughout with brick on edge & completely supported on teak joints & rolled steel girders.

Doors and Windows are to be of teakwood as per descriptions entered in the spec. & painted with 3 coats of silicate chocolate paint.

Roof timbers to be of teakwood & woodrilled 3 coats.

Scantlings are correct for woodwork but for rolled steel girders a separate note is attached.

Rates The rates are fair.

The plinth area of the main building is 5755 square feet, and the cost per square foot will be Rs. 4.2.2.

The plans and estimates have been countersigned by the Collector & Dist. Magistrate and approved in the Revenue Department with the remark that the Office should be built at back of the Taluk Office as originally proposed.

Remarks

This estimate has been framed with reference to G.O. No. 1319 in date 25th May 1894 & provides for construction of a combined office for the Stationary Sub-Magistrate & the Deputy Collector at Tirunelveli in the Chingleput Dist. as per design prepared in consultation with the Consulting Architect to Govt. as directed in para 2 of the G.O. under reference.

The building is to be three stories. The basement floor is to accommodate the office of the Stationary Sub-Magistrate, the first floor that

floor the Deputy Collector's record room which is to be situated over the stair case room in order to improve the appearance of the building, the entrance to this record room will be through a circular tower 5 feet in diam. Corbelled from the first floor as per plan.

The accommodation proposed is as follows:-

Basement floor

Stationary Sub-Magistrate's Court 30' x 16'
do do private room 18' x 16'
Stair case room 15 1/2' x 15 1/2'
Head Clerk's room 16' x 16'
Clerk's room 30' x 16'
Record room 26' x 16'

with a porch 13'6" x 15' & verandahs all round 6'6" wide.

First floor

Deputy Collector's Court 30'4 1/2" x 18'4 1/2"
do do private room 16'4 1/2" x 18'4 1/2"
Stair case room 15'7 1/2" x 15'7 1/2"
Head Clerk's room 16'4 1/2" x 16'4 1/2"
Clerk's room 30'4 1/2" x 16'4 1/2"

with a circular turret 5 feet in diam. & with verandah all round 6'8 1/4" wide.

Second floor

Deputy Collector's record room 16'4 1/2" x 16'4 1/2" above the stair case room.

The following sections of joists are unnecessary heavy & may be reduced as follows:-

Basement floor No. Clerk's room from 3" x 6 1/2" to 3" x 5"
do do Record room do 3" x 6" to 3" x 4"

First floor stair case room from 3'x6" to 3'x5"
 Second floor Record room - do - 3'x6" to 3'x5 1/2"

From the accompanying calculation sheet on the strength of rolled steel girders it will be observed that the following sections are weak & may be substituted by stronger ones thus.

Const room wof 1st floor for 8'x6" substituted 12'x5"
 Clerks room - do - do - 8'x5" - do - 10'x5"
 Record room do - 2nd floor - 8'x5" - do - 10'x5"
 The above sections have been calculated as per Dorman Long & Co. Hand book of steel sections taking the girders as merely supported & not fixed.

The weights of girders for both have also been correctly calculated. Hence Dorman Long & Co. give the weights thus:-
 For a section 10'x5" 38 against 35
 do 8'x6" 17 do 16

No provision has been made for record racks & as these come under fixtures, they may under para 2 Chap XI of the P. W. Code, Vol I be provided for under a supplementary estimate.

Revised notes & account
 SE's Report regarding details of soil - note in each case whether the piles are taken as being fixed or supported
 C.E. M.
 1/55

Public Works Department.
 No 1185 to go to go May 1895
 Current No. 900.
 Letter No. 490 Hrs.
 Dated 4th February 1895
 From the Revenue Department.

NOTE BY TECHNICAL SECTION.
 Name of Work Constructing a combined office for the Stationary Sub-Magistrate & the Deputy Collector at Tiruvallur, Chingleput Dist.
 Amount of Estimate, Rs. 23800.

PARTICULARS OF ESTIMATE.

Main Building	Rs. 21682
Subsidiary Buildings	" - - -
Providing lightning conductor	400
Contingencies 5%	1107
Petty Supervision 2 1/2 %	551
Land compensation (Govt. land)	nil.
Metalling around the building &c.	60
Total Rupees ...	23800.

PARTICULARS OF CONSTRUCTION.

Surface soil } not stated
 Sub soil }
 Foundations are to be carried to a depth of 6'6" & laid with concrete to a depth of 6 feet, the remaining 6 inches to be built of brick in chumam.
 Basement is to be raised 2 feet & built of brick in chumam (country bricks)
 Walls of the basement floor are to be raised 16 feet to top of terrace, 1st floor & 2nd floor 12 feet & built of stock bricks in chumam with archwork over voids.

Note on strength of Girders provided
 Work - Combined Office for the Deputy Collector & Stationary Sub-Magistrate at Tiruvallur in the Chingleput District

Const room. Load on first floor girders
 Terrace 18' x 10' x 3/4 x 120 = 16200
 Decking 13' x 10' x 3' x 6 1/2 x 46 = 810
 Live load 18' x 10' x 168 = 30240

Total weight on girders this 47250
 or 21.09 Tons.

R = moments of resistance = $\frac{W \cdot L}{C \cdot K}$
 W = Load in tons on the whole span
 L = Clear span in inches
 C = Constant = 12 for girders fixed at ends & uniformly loaded
 K = Coefficient of safety = $\frac{32}{3} = 10.66$
 $\therefore R = \frac{21.09 \times 18 \times 12}{12 \times 10.66} = \frac{379.62}{10.66} = 35.61$ tons

according to Table a section of 10'x5" is ample against 10'x6" as per estimate
 Const room. Load on roof girders.

Terrace 18'4 1/2' x 10'1 1/2' x 9' x 120 = 16744
 Joists - 13 x 10'1 1/2' x 3' x 6 1/2 x 46 = 820
 accidental load 18'4 1/2' x 10'1 1/2' x 120 = 22325

Total weight on girders this 39889
 or 17.81 Tons.
 as per above formulae with constant as 8 owing to the girders being merely supported & uniformly loaded. R = $\frac{17.81 \times 18.37 \times 12}{8} = 46.5$

46.04 sq inches. a section of 12"x5" weighing 45 lbs per foot run should be provided instead of a section 6"x8" as per estimate. This latter section appears to be considerably weak.

Clubs room, load on first floor girders

Demising $16 \times 10 \times 9 \times 120 = 14400$

Joists $12 \times 10 \times 3 \times 6 \frac{1}{2} \times 46 = 748$

Live load $16 \times 10 \times 168 = 26880$

Total weight on girders 42028

or 18.76 Tons.

$R = \frac{18.76 \times 16 \times 12}{12 \times 10.66} = 28.15$ square inches

taking the girders as fixed. a section of 8"x6" will be sufficient but the estimate provides for a section 5"x10" which is slightly in excess & may be allowed to stand.

Clubs room, load on roof girders

Demising $16 \frac{1}{2} \times 10 \frac{1}{2} \times 9 \times 120 = 14922$

Joists $12 \times 10 \frac{1}{2} \times 3 \times 6 \frac{1}{2} \times 46 = 788$

Accidental load $16 \frac{1}{2} \times 10 \frac{1}{2} \times 120 = 19896$

Total weight on girders 35606

or 15.89 Tons.

$R = \frac{15.89 \times 16 \frac{1}{2} \times 12}{12 \times 10.66} = 36.60$ sq inches

taking the girders as supported.

a section of 10"x5" weighing 38 lbs per foot will be required as a guide a section of 8"x5" which appears to be weak.

Recess room, load on roof girders ground floor

Demising $16 \times 6 \times 9 \times 120 = 8640$

Joists $12 \times 6 \times 3 \times 6 \times 46 = 414$

Accidental load $16 \times 6 \times 120 = 11520$

weight on girders 20574

12"x5" correct

8"x6" correct

10"x5" correct

or 9.19 Tons.

$R = \frac{9.19 \times 16 \times 12}{12 \times 10.66} = 20.69$ sq inches

taking constant as 8 owing to the girders being supported. a section of 8"x5" weighing 28.5 lbs per foot run will suffice but the estimate provides a section of 5"x10" which is slightly stronger & may be allowed to stand.

Stair case room, load on girders 2nd floor.

Demising $15 \frac{1}{2} \times 7 \frac{3}{4} \times 9 \times 120 = 10986$

Joists $11 \times 7 \frac{3}{4} \times 3 \times 6 \times 46 = 495$

Live load $15 \frac{1}{2} \times 7 \frac{3}{4} \times 168 = 20508$

Total weight on girders 31989

or 14.28 Tons.

$R = \frac{14.28 \times 15 \frac{1}{2} \times 12}{12 \times 10.66} = 20.94$ sq inches

a section of 8"x5" weighing 28.5 lbs will be ample but the estimate provides a section 5"x10" weighing 35 lbs per foot which is much stronger & may be allowed to stand as this girder will have to support second floor joists.

Recess room, load on 2nd floor roof girders

Demising $16 \frac{1}{2} \times 8 \frac{1}{2} \times 9 \times 120 = 12066$

Joists $12 \times 8 \frac{1}{2} \times 3 \times 6 \times 46 = 578$

Accidental load $16 \frac{1}{2} \times 8 \frac{1}{2} \times 120 = 16457$

Total weight on girders 29101

or 13.12 Tons.

$R = \frac{13.12 \times 16 \frac{1}{2} \times 12}{12 \times 10.66} = 25.55$ sq inches

a section of 10"x5" weighing 34.5 lbs should be allowed against the estimate.

10"x8"

8"x5" correct

10"x5"

the two weeks.

~~No.~~
22.4.95.

No 1185 W d/18 May 1895

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Proceedings of the Board of Rev. (Land Rev.) No. 221 Mis. d/21 Jan'y: '95.
Endorsement thereon in the Revenue Dept. No. 490 Mis. d/4 Feb'y: 1895.
From the Suptg. Engineer, V Circle, No. 159 W. d/5 May 1895.
Note by the Chief Engineer, P.W. Dept., dated May 1895.
50

W
15 May

The estimate, amounting
to Rs. 23,940, as altered by
the Chief Engineer, P.W. Dept.,
for constructing a com-
bined Office for the Dy.
Collector and the Stationary
Sub Magistrate at Tiruvallur
in the Chingleput district,
is sanctioned for execution
when funds are available.
2. Attention is drawn
to

to the Chief Engineer's Note
recorded above.

3. This sanction has
been registered as Provincial
No. 18 W. of 1895-96 and
classified as Civil Buildings,
Original Works.

Cum

13/95

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Estimate for a combined
Office for the Deputy Collector
and the Stationary Sub-
Magistrate at Tiruvallur,
Chingleput Dt.

T. Ho
BCN

The S.E. Circle, with 7 En
" Enr. P.W. Accounts
" Rev. Dept.

Cu

3551

Govt. of (1895) Madras.

PUBLIC WORKS.

Dated

Recd.

Encl.

G.O. 18. May 1895 No. 11854

Office

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Estimate of Rs. 23,940 for
constructing a Combined
- for the Deputy Collector
and the Stationary Sub-
Magistrate at Tiruvallur,
Chingleput District, sanctioned
with remarks.

9.9/6

20/8/95