& Munl. (1915) Department.

~~Plague.~~

MISCELLANEOUS.

G.O., No. 183 Mun P.
(pp-11)

DATED 19—2—15.

63+15 = 78 [illegible]
—1

[Despatch Abstract.]

Wing grant. Recmdg grt
to G.O. no. 165 Edl., of 15.2.15,
from the D.P.I recommending
— for Mr. St. Joseph's College
[illegible]

C.F.—20.

Educational **DEPARTMENT.**

Received ..... 191 . *Registered* ..... 191 .

Subject.

Recommending a half grant towards the construction of an upper storey over the northern wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.

ENCLOSURES
No.
Spare copies

Ref. on Cur. **No.** 7931/14,

Station Madras, *Dated the* 11th November 1914

From (Name) The Hon. Mr. J.H. Stone, M.A., F.R.H.S., C.I.E.,

(Designation) Director of Public Instruction.

To The Secretary to the Government of Madras,

Educational Department.

Sir,

I have the honour to submit an application for building grant together with plans (bearing Nos. 174 (a) and 174 (b)) and estimates amounting to Rs.25,066 for the construction of an Upper Storey over the Northern wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly. The necessity for the proposal and the nature of work have been explained on page 5 of the application. I beg to recommend that a grant not exceeding

Enclosures.

1. Application for building grant.
2. Plan of the proposed upper storey (in triplicate)
3. Site plan (in triplicate)
4. Estimates in (duplicate)

one-half of the total estimated cost may be sanctioned, payable when funds become available.

2. The Correspondent requests that if the grant is sanctioned, the whole amount may be paid in advance relying for a precedent on the payment in advance of a grant for a hostel. The special grant for hostels was distributed in advance for our convenience and I see no reason in this case for payment of an advance before any work at all is done, and I do not therefore support the request. He may make an application for payment of an advance supported by a certificate from the Public Works Department when the work is partially completed.

I have the honour to be,

S i r,

Your most obedient servant,

for Director of Public Instruction.

P.V.S.

PUBLIC WORKS DEPARTMENT.

E.W N O T E. (5)

The Director of Public Instruction submits for sanction, through the Educational Department, plans and estimate amounting to Rs. 25066 for an upper storey over the northern wing of the Lawley Hall of St. Joseph's College, Trichinopoly.

II. The plans and estimates cannot be scrutinized for want of the following information:-

A. The sizes of the doors and windows of the existing north wing and the positions of the trusses in the Central hall are not marked on the plans.

B. The nature of the existing roofs should be described, whether Mangalore tiles over flat tiles with air spaces, Mangalore tiles imbedded in 1" mx mortar or plain Mangalore tiles.

C. The scantlings of the existing roof timbers should be marked on the plans with their spacing centre to centre.

D. There is no need of one additional truss as those removed from the existing roof are sufficient for the proposed first floor.

E. The thickness of the walls on the proposed first floor are marked 13 inches on the plan but the estimate shows 18 inches.

F. The weights per foot of Cast iron columns for 5½" and 3½" average diameters are given as 45.31 lbs. against an approximate weight of 34.95 and 20.22 lbs. per foot respectively.

With these remarks the plans and estimates are returned for resubmission with the required informations.

(Sd) S.B Murray.

[E. & L. 142.]
6,720—21-10-13.

Edl. DEPARTMENT.

(8)

Again G.O. No. , dated 191 .

Current No. 3521Edl from the D-P I , No. 7931 , dated 11-11-1914.

Current No. from the , No. , dated 191 .

SUBJECT.

Grant for the construction of an upper storey over the northern wing of the Lawley Hall attached to the St. Joseph's College, Trichinopoly.

—

Submitted that the plans and estimates may first be forwarded to the P.W.D. us. for scrutiny.

BG
17-11-14

P.W.D. U.O

Edl
17.11.14

Edl
19.11.14

P. W. D

Edl no 3521-1
20.11.14

H/A 3-4 CF.

Note by the Chief Engineer P.W.D. No. 394C dy 15-1-15

—

For the Deputy Secretary

The remarks of the Chief Engineer on the plans and estimate are contained in his note read above. Submitted that the file may now be returned to the Edl Dept with the request that the information required by the Chief Engr may be obtained

Edl
15.1.15

Edl no

Flag A.
(H/A 3-4 CF)

Noted in CD 18.1.15
Note H/A 4 CF.

P.W. no 2749 W.K.S. B-1
16-1-15

No. 2749 W. K. S. B
DATE. 21-11-1914

GOVERNMENT OF MADRAS
18 JAN 1915
EDUCATIONAL DEPARTMENT.

NOTES.

Ed. Dept

G.O. No. 165 Edl (N)
15.2.15.

This is one of the cases in which it has been decided that sanction for the building grant should be deferred. If sanction should be deferred it seems unnecessary at present to call for the additional information asked for by the P.W.D. A draft order recording the papers is submitted for approval.

LSS
17-2-15

TL
17.2.15

18/2

Sectt. II—10 (a).

Estt DEPARTMENT.

(11)

9

READ AGAIN G.O. No. ....., dated ..... 191 .

" " " " ....., " ..... 191 .

READ ALSO:—

C. No. 3521 Ed From the D.P.I, No. 7931/14, dated Thu 11-11- 1914

" " ....., " " ....., " ....., " 19

" " ....., " " ....., " ....., " 19

ORDER. No. 1838 Estt, dated 19-2- 19

Mic

Recorded with reference to Note 16 Estt, of the 15-2-15

(N)

HS
17-2-15

Ek
17.2.15.

To

The D.P.I (Rec)

KJRA
20-2-15

DPI
20/2/15

(12)

E 1
C 3521/13
13/4/14

APPENDIX M.

CHAPTER VIII, RULE 52.

Application for aid towards the cost of constructing an upper storey building on the North ~~the~~ ew wing of the Lawley Hall, ~~School~~ College St. Joseph's at Trichinopoly in the District of Trichinopoly

Number and date of the Proceedings or Memorandum recognizing the school under the Madras Educational Rules

11423 dated 28th. Sept. 1891.

Brief history of the institution from the date of its establishment to the date of application tracing its growth and development and furnishing among other things an accurate account of its financial condition.

Already furnished in our application for building grant No 49 dated 19-9-1912.

(13)

History of the Institution—cont.

NOTE.—(1) This need not be given if a reference to a history previously given can be furnished.

(2) The names and designations of the persons who form the committee of management should be specified.

The strength of the different classes or forms as it stood on the 31st March of every year for five years preceding the year in which the application is submitted.

	191 .	191 .	191 .	191 .	191 .	Number of pupils in each class on the date of application.	Number of pupils that can be accommodated in each class room.
VI Form ..							
V „ ..							
IV „ ..							
III „ ..							
II „ ..							
I „ ..							
IV Class ..							
III „ ..							
II „ ..							
I „ ..							
Infant ..							
Total ..							

Class room.	Area.	Class room.	Area.
a		k	
b		l	
c		m	
d		n	
e		o	
f		p	
g		q	
h		r	
j		s	

NOTE.—If there be any striking variations in the strength as shown above such variations should be accounted for.

(14)

Character of and necessity for the proposed work in detail.

We propose to build on the northern wing of the Lawley Hall, a storey which will contain six rooms.

Of these six rooms, 3 are to be used as class rooms, 2 as retiring rooms for Professors and one as a Reading room for the College Union. This new Reading room will feel one room downstairs, now used as Reading room, but to be turned to a lecture room, when the proposed building is completed.

The necessity for more rooms arises from several circumstances

i) Our lay staff has increased very much these last few years. Under the old system, we had no lay staff attached to the College beyond the Tamil, Malayalam and Sanskrit Pundits Our present staff includes fourteen Assistant Professors, Lecturers, Tutors, Demonstrators etc., and it is absolutely necessary to provide them with rooms where they may retire when they are not actually on duty. I believe the two rooms, detailed for that purpose, is a bare minimum, in fact insufficient, but we cannot afford to do more for the time being.

ii) The Courses in the various groups and for the various University Degrees have more reached their full extension; in fact have become more extensive than could have been forseen some years ago; and have given rise to unforeseen needs. I may particularly mention languages.

I must add that we ought to have built in May 1914, but were unable to do so owing to our architect being too ill to have the plans ready in time. The delay has increased our difficulties and we cannot wait any longer.

(i) Is a sketch plan of the proposed site and building attached? yes.

(ii) Does it show—

(*a*) The relation of the proposed building or extension to the existing buildings?

yes.

(*b*) Any alteration in existing buildings necessitated by it?

Removing roof, raising walls and changing columns of verandah.

(*c*) The purpose to which the existing buildings are now put?

Class rooms and one Reading Room.

(*d*) The purpose to which they will be put when the new building or extension is complete?

Class rooms.

NOTE—Any notes that cannot be conveniently inserted in the plan may be given under each of the above headings

15

(*a*) Probable cost of the proposed work.

Rs. 25066/—

(*b*) Whether the management has the necessary funds to complete the work in the event of the application being favourably considered.

yes.

(*c*) Whether the managing body has been registered under the Indian Companies Act of 1882 and if so, whether attested copies of the Memorandum of Association and the Articles of Association are submitted.

No.

(*d*) If the aid sought for is towards the cost of site, declaration that it is the cheapest suitable site.

Nil.

(*e*) Declaration that the management is prepared to execute the prescribed deed if required by the Director to do so.

The management is prepared to execute the prescribed deed if required.

(*f*) If the property is not owned by the correspondent, declaration that the owner or his or her legal representative will execute the deed or will be made a party to the deed.

The property is owned by the Society, St. Joseph's College, Trichinopoly.

The Procurator will execute the deeds.

(*g*) In the case of mission institutions the name and address in full of the person who holds a power of attorney on behalf of the mission to execute the prescribed deed.

Rev. H. Sauthier, S.J. is the Procurator, St. Joseph's College, Trichinopoly.

(*h*) Name, designation and qualification of the person by whom detailed plans and estimates and specifications will be prepared.

The Rev. Brother X. Antony, S.J.
College Architect.

(*i*) Whether the title to the property is clear and in order and by whom the title-deeds were examined.

yes. There is prescription as we have been in undisputed possession of the land for more than 30 years.

(*j*) The latest date on which the management wishes to (i) begin the work and (ii) complete the work.

(i) 1st. April, 1915.
(ii) As early as possible after 1st. July 1915.
N.B. College work should not be interfered with: hence building should be completed during vacation, if possible.

(*k*) Is the declaration with regard to encumbrance, alienation and the conditions of recognition and aid attached?

yes (c.f. Page. 10.)

(*l*) Amount of building grants drawn by the institution in previous years with the number and date of the sanction and the purposes for which given (Particulars should be given for 20 years).

Rs. 1000/- for the addition of a storey to the old Physics Class room. Pro. D.P.I. No. 4830 dt 19-6

Rs. 6400/- for the construction of a Hostel. Pro. D.P.I. No. Ref. on C. 7616 of '12 dt 24-2-1913.

(*m*) If the aid sought is towards the construction of a hostel, declaration that the hostel will be managed according to rules approved by the Director of Public Instruction.

Nil

(*n*) The treasury at which the grant if sanctioned is to be payable.

Trichinopoly.

(*o*) The annual expenditure incurred in the upkeep of the institution and how much of it is met from—

	Fees.			Government grant.			Other sources.			Manager's funds.			Total.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1910	21,820	10	3	15420	-	-	306	7	-	35277	-	2	72824	1	5
1911	22,048	9	9	15545	-	-	850	15	6	39201	-	5	77645	9	8
1912	41723	15	-	15145	-	-	250	-	-	49830	1	10	97949	-	10
1913	43,418	11	-	28,897	-	-	300	-	-	29365	1	7	1,01980	12	7
1914	53497	5	-	21,687	-	-	260	-	-	46308	14	-	121753	3	-
Total.	182,509	3	-	96,694	-	-	1967	6	6	193,713	2	-	474,883	11	6

Particulars for five years to be furnished.

(17)

Inspecting officer's remarks about accommodation from his inspection reports for the two previous years.

Director's review of such remarks

Declaration with regard to encumbrance, alienation and the conditions of recognition and aid.—"On behalf of the management of the school, I hereby declare that the property is unencumbered and that it will not be alienated or encumbered without the consent of Government within twenty years and that the conditions of recognition and aid laid down in the Madras Educational Rules and in the Grant-in-aid Code are being, and will continue to be, fully observed, excepting those rules from which the institution has been specially exempted by the Director's Proceedings, No. , dated , and that I am prepared to subject the institution together with its current, endowment and trust accounts, its establishment, time-table and registers to inspection and to furnish such returns as may be required by the department; and that I shall abide by the provisions of rule 55 of the Grant-in-aid Code in the event of the building being diverted, prior to the lapse of twenty years after the date of payment of grant, to other than educational purposes approved by Government."

Station, Trichinopoly
Dated 28-8-1914.

Correspondent.

(18)

(13)

Inspecting officer's remarks and recommendations.

(19)

General Specification.

Name of work: Constructing an upper storey over the Northern wing of the Lawley Hall attached to St, Joseph's College, Trichinopoly.

The plans and estimates have been prepared in accordance with the Chief Engineer's Circular No.116 C, dated 4th January 1913 and are signed by Brother Antony S.J., Architect, St. Joseph's College, Trichinopoly.

List of drawings.

Site survey plan: Scale 1 inch = 24 ft.

Building plan, section, side elevation and the front elevation etc. ..... Scale 1 inch = 8 ft.

Total amount of the estimate: Rs. 25066-0-0

Details of construction.

Nature of surface soil:	Hard earth to a height of 2 feet.
Nature of sub-soil:	Soft rock to a height of 3 feet and rock below.
Maximum pressure on soil:	Vide calculation attached. Calculation for Rolled steel girder is attached.
Description of foundation as existing	The concrete foundation stone jelly in mortar has been laid out to a height of 6 feet and 3½ ft. in breadth.
Description of basement:	The basement was constructed with brick in mortar, the height of basement 3 ft and the breadth 2½ ft.
Description of Superstructure:	The superstructure was constructed with brick in mortar and the proposed work w will be constructed with brick in mortar over the existing walls.
Name of timber which it is proposed to use for roof timbers.....	Teak.
Name of timbers which it is proposed to use for doors, windows and ventilators...	Teak.
Roofing materials.....	The roof will be of Mangalore tiles imbedded with one inch morter over country flat tiles & teak reepers. The existing Mangalore tiled roof will be removed and replaced with necessary new materials.
Flooring materials.....	The rooms will be paved with Portland cement ½" thick and watered for a week.

Plastering: The exterior and the interior walls of the building will receive 2 coats of fine chunam.

Painting : The replaced roof timbers will be painted with 2 coats of chocolate paint, hand railing with fine green paint 2 coats and the iron work will be painted with fine light blue, 2 coats.

Wood oiling: The joists and rafters will be painted with wood oil, 2 coats.

Varnishing : The doors , windows and ventilators will be varnished, 2 coats.

St. Joseph's College,
Trichinopoly,
14 - 3- 1914

Bn. Antony S.J
College Architect.

Calculation showing the maximum pressure on the foundation for the construction of an upper story building on the northern wing of the Lawley Hall, attached to St. Joseph's College, Trichinopoly.

Concrete foundation stone jelly in mortar ...	=	1 x 6 x 3½ x 145 lbs.	= 3045
Basement brick in mortar ..	=	1 x 3 x 2½ x 120 lbs.	= 900
Superstructure brick in mortar. ...	=	1 x 2 x 17½ x 120 lbs	= 4200
Girder (14" x 6") weighing 57 lbs per foot run .	=	1 x 12 x 57 lbs.	= 684
Terrace brick in mortar ..	=	1 x 10 x 173 lbs.	= 1730
Upper story superstructure brick in mortar ..	=	1 x 1¾ x 17½ x 120 lbs	= 3675
Terrace verandah brick in mortar	=	1 x 4¾ x 173 lbs	= 822
Mangalore tiled verandah .	=	1 x 5½ x 35 lbs	= 193
Mangalore tiled roofing .	=	1 x 16 x 35 lbs	= 560
		Total	15809

For 3½ ft. = 15809

∴ 1 Sq.ft = 15809 - 3½ = 2·01 tons.

As the existing building was built strongly on the rocky soil, the proposed structure will stand safely.

St. Joseph's College
Trichinopoly
14 - 3 - 1914.

Bn. Antony. S.J
College Architect

Calculation for the section of the rolled steel girder in the class room (24'x 18') clear span.

Divided by No.1 Rolled steel girder the area to be supported = 24'x 9' = 216 sft of the terrace roof.

The weight of 216 sft of terrace, at dead load 80 lbs and live load 70 lbs = 150 lbs per sft. $\frac{216 \times 150}{2240}$ = 14.91 tons.

According to the Rule of selecting beams for the span that the depth of the girder should not be less than 1/20 of the span

The depth of the girder required span $\frac{24' \times 12''}{20}$ = 14.4

Taking the depth of the girder is 14" the section required for calculated load of 14.91 tons = 14"x 6" at 57 lbs per foot run which will safely carry a load of 15 tons.

St. Joseph's College
Trichinopoly

Bn. Antony S.J
College Architect.

ESTIMATE FORM. Detail Measurements. (23)

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Estimate for constructing the North Wing of the Lawley Hall into an upper story building attached to St. Joseph's College at Trichinopoly.						
Lower floor.						
Concrete						
Staircase partition wall in passage ..	1	$22\frac{3}{4}$	$2\frac{1}{4}$	6	307	
Verandah staircase pillars ..	2	$3\frac{1}{2}$	$3\frac{1}{2}$	3	74	
Extending the existing walls in verandah for staircase ..	2	$5\frac{1}{2}$	$3\frac{1}{2}$	3	116	
				Total concrete work in cft.		497
Basement brick in mortar						
Staircase partion wall in passage ..	1	$23\frac{1}{2}$	$1\frac{3}{4}$	3	123	
Verandah walls in staircase .	2	$5\frac{1}{2}$	$1\frac{1}{2}$	8	132	
Pillars for staircase in verandah ..	2	2	2	8	64	
				Total basement brick in mortar ..... c.ft.		319
Superstructure brick in mortar						
Staircase partition wall in passage ..	1	24	$1\frac{1}{4}$	$17\frac{1}{2}$	525	
Building walls all round at 3 sides of the north wing ..	1	$217\frac{3}{4}$	2	$\frac{1}{2}$	218	
Building walls on the southern side of the north wing ..	1	$169\frac{3}{4}$	$2\frac{1}{4}$	$\frac{1}{2}$	191	
Pillars for staircase in verandah ..	1	$1\frac{1}{2}$	$1\frac{1}{2}$	$10\frac{1}{2}$	24	
Do. Do. ..	1	$1\frac{1}{2}$	$1\frac{1}{2}$	5	11	
				Total superstructure brick in mortar ..cft.		969

ESTIMATE FORM.—Detail Measurements. (24) 19

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Cutstone work.						
Bed plates under girders ..	22	1	1¾	½	19	
Total cutstone work ..... cft.						19
Iron girders						
Rolled steel girders (14" x 6") weighing 57 lbs per foot run in the main building ..	11	28 x 57 lbs			17556	
Rolled steel girders (7" x 4") weighing 16 lbs per foot run to be used as bressummers over the columns in the verandah ..	1	177 x 16 lbs			2832	
Total girders in lbs or say in Tons						9·1
Cast iron columns including brackets						
Columns in verandah top 5" Dr. and the bottom 6" Dr. thickness of metal ¾" (45·310) per foot run ..	23	average 5½" Dr		15½	16153	
Total columns in lbs.						16153
Terrace work						
Verandah ..	1	177¼	9½		1684	
Main rooms ..	1	158½	25		3963	
Portion of staircase ..	1	9	4		36	
Total terrace work ..... Sq.ft.						5683
Teak wood wrought and put up						
Joists in main rooms including overlapping ..	19	165	2½"	7"	380.98	
Joists in staircase passage .	4	9	2½"	7"	[illegible].57	
Joists in stair platform .	1	10	4"	8"	3.22	
Do. Do. ..	1	10	2½"	7"	1.21	
Planks for platform ..	1	8	4	1½	4.00	
carried over					392.78	

ESTIMATE FORM.–Detail Measurements.

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
	Brought forward				392.78	
Rain board in verandah	.. 1	175	1"	6"	7.29	
Joists in verandah	.. 140	9½	2½"	6"	138.54	
Beam in staircase	.. 1	7	4"	8"	1.55	
	Total wood wrought and put up ..... cft.					540
	D O O R S					
Teak panelled doors with frames in centre room	.. 2	4		9½	76	
	Total doors ..... Sq.ft					7
	Cement plastering ½" thick.					
Basement all round of the proposed extension of verandah	1	25	7½		188	
Do. Do. at top	1	11	1½		17	
Do. Do. pillars	2	8		7½	120	
	Total cement plastering ..... Sq.ft.					325
	Mangalore tiled roof					
Removing the existing tiled verandah	.. 1	170	10		1700	
Removing the existing main roof on both sides	.. 1 x 2	170	16		5440	
	Total roofing removing ..... Sq.ft.					7140
	Plastering with chunam, 2 coats.					
Plastering with chunam all round in and out for the raised portion	.. 1	772		¾	579	
Partition wall on both sides	1 x 2	24		17	816	
Sides and soffit of doors	.. 2	23	2⅜		96	
	Total plastering ..... Sq.ft.					1491

ESTIMATE FORM.—Detail Measurements. 26 - 27

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Wood ciling, 2 coats.						
Joists in main rooms ..	19	159	1 5/12		4279	
Joists in verandah ..	140	9	1¼		1575	
Staircase joists ..	4	8	1 5/12		45	
Joists in staircase platform .	1	8	1 ⅓		13	
Do. Do. ..	1	8	1 5/12		11	
Planks on both sides ..	1 x 2	8	4		64	
Beam in staircase ..	1	6½	1 ⅔		10	
Total wood ciling					Sq.ft.	5997
Varnishing, 2 coats						
Doors	76 x 2¼ times				171	
Total varnishing					Sq.ft.	171
Painting iron works.						
Columns with brackets ..	23	15½ x 17.278			513	
Girders ..	11	24 x 49			1078	
Bressummers girder ..	1	170 x 26			368	
Total painting					Sq.ft.	1959
Iron rail						
Iron rails to support the staircase					24	
Total S.I.R. rails					ft	24

ESTIMATE FORM.–Detail Measurements.

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Estimate for construction of an upper story building over the north wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.						
U P P E R F L O O R.						
Superstructure brick in mortar.						
Building up walls on southern side of the north wing ..	1	169¾	1½	8	2377	
Building up walls at 3 sides of the north wing ..	1	217¾	1½	18	6859	
Cross walls in main building .	6	24	1½	18	2808	
End walls of the main building	2	25¾	1¾	18	1622	
Gable of cross walls in centre	6	25¾	1½	4⅛	697	
Gable of end walls ..	2	27¾	1¾	6½	631	
Total					14994	
Deduct for doors ..	18	4½	1¾	9	1276	
Deduct for flat arch over doors	18	5⅝	1¾	1½	266	
Deduct for windows at ends	4	4	½	5	40	
Deduct for flat arch over windows at ends ..	4	5	1¾	1½	53	
Deduct for ventilators ..	19	4	1¾	4	532	
Deduct for flat arch over ventilators ..	19	5	1¾	1½	249	
Deduct for rectangular opening in staircase passage wall ..	1	7	1¾	5½	67	
Deduct for semi-circular space in staircase passage wall ..	1 x 7^2 x .7854 x 1¾ x 1½				50	
Deduct for circular arch work in staircase passage wall ..	1 x 8¾ x $\frac{3.1416}{2}$ x 1¾ x 1½				38	
carried over					2571	

ESTIMATE FORM.—Detail Measurements. 28

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Brought forward					2571	
Deduct for ventilators ..	19	4	$1\frac{3}{4}$	2	266	
Deduct for semi-circular opening in end walls ..	2 x 52 x ·7854 x $\frac{1}{2}$				20	
Deduct for circular arch work in end walls ..	2 x $6\frac{1}{2}$ x 3·1416 x $1\frac{3}{4}$ x $1\frac{1}{2}$				107	
Total deduction in cft.....					2964	
Total superstructure less deduction					cft.	1203
Flat arch work in mortar.						
Doors ..	18	5 5/8	$1\frac{3}{4}$	$1\frac{1}{2}$	266	
Windows ..	4	5	$1\frac{3}{4}$	$1\frac{1}{2}$	53	
Ventilators ..	19	5	$1\frac{3}{4}$	$1\frac{1}{2}$	249	
Total flat arch work in mortar .....cft.						568
Circular arch work in mortar.						
Circular arch in staircase opening ..	1 x $8\frac{3}{4}$ x $\frac{3·1416}{2}$ x $1\frac{3}{4}$ x $1\frac{1}{2}$				38	
Circular arches in end walls .	2 x $6\frac{1}{2}$ x 3·1416 x $1\frac{3}{4}$ x $1\frac{1}{2}$				107	
Total circular arch work ..... cft						145
Cutstone work.						
Lintel stones over ventilators	19	6	$1\frac{3}{4}$	$\frac{1}{2}$	100	
Steps	1	$4\frac{1}{2}$	$3\frac{3}{4}$	1	17	
Total cutstone work ..... cft.						117
Cast iron columns						
Columns in verandah top 3" Dr. & the bottom 4" Dr. thickness of metal $\frac{3}{4}$" (45·210) per foot run ..	23	Average $3\frac{1}{2}$" Dr.		9	9379	
Total columns in lbs.....						9379

29

ESTIMATE FORM.—Detail Measurements.

24

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Mangalore tiled roof.						
Verandah ..	1	170	11		1870	
Ridge ventilators on both sides	2	168	5½		1848	
Staircase passage ..	1	32	5		160	
Do. Do. ..	1	6	14		84	
Total Mangalore tiled roof					Sq.ft	3962
Re-roofing with Mangalore tiles &c.						
Re-roofing the main building on both sides ..	2	169	17½		5915	
Total re-roofing					Sq.ft.	5915
Teak wood wrought and put up						
Rafters in verandah ..	86	10½	2½"	5"	78.93	
Raw board in verandah ..	1	175	1"	6"	7.29	
Rafters in porch ..	8	5½	2"	4"	2.44	
Staircase rafters including overlapping	3	34	2½"	6"	10.62	
Purlins	3	6	3"	5"	1.87	
Post in staircase ..	3	9½	4"	4"	3.16	
Collar pieces	4	4	2"	3"	0.66	
Bressummers in staircase ..	2	9	4"	6"	3.00	
Do. Do. ..	1	6½	3"	5"	0.67	
Struts in Ridge ventilators on both sides ..	166	3	2"	3"	20.75	
Rafters on both sides of the ridge ventilators ..	166	4½	2"	3"	31.12	
Collar piece for Do. ..	83	5	2"	3"	17.29	
Total wood work					Sq.ft.	177.80

ESTIMATE FORM.—Detail Measurements. 30 V

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
	DOORS.					
Teak panelled doors	.. 18	$4\frac{1}{2}$		9	729	
	Total doors				Sq.ft.	729
	WINDOWS.					
Windows ..	.. 19	4		6	456	
	Total windows				Sq.ft.	456
	WINDOWS.					
Windows ..	.. 19	4		4		
	Total windows				Sq.ft.	304
	Ventilators					
Ventilators ..	.. 19	4		2	152	
	Total ventilators				Sq.ft.	152
	Cement plastering, $\frac{1}{2}$" thick					
Floor of class rooms	.. 1	$39\frac{3}{4}$	24		954	
Do. Do.	.. 1	$23\frac{1}{2}$	24		564	
Do. Do.	.. 1	14	24		336	
Do. Do.	.. 1	$18\frac{1}{2}$	24		444	
Do. Do.	.. 1	$18\frac{1}{2}$	24		444	
Do. Do.	.. 1	37	24		888	
Verandah floor	.. 1	176	10		1760	
Drain to pass off the rain water from the roof	.. 1	166	2		332	
Doorway sills	.. 18	$4\frac{3}{4}$	$1\frac{3}{4}$		150	
Archway sill	.. 1	7	$1\frac{3}{4}$		12	
Platform	.. 1	8	4		32	
	Total cement plastering				Sq.ft.	5916

ESTIMATE FORM.—Detail Measurements. 31

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Cornice work						
Cornice all round the main building, gable walls and porches etc. ..	1	432			432	
Total cornice work					R.ft.	432
Earthenware pipe 6" Dr.						
Earthenware pipe to be fixed in wall to run off rain water	9	9			81	
Total pipe					R.ft.	81
Galvanized iron gutter.						
Galv. iron gutter at eaves of the main roof with necessary iron fittings etc. ..	1	170			170	
Do. in staircase ..	1	6			6	
Total galvanized iron gutter.....					R.ft.	176
Teak hand railings						
Teak hand railings turned in verandah all round ..	1	183½		2½	459	
Do. Do. in staircase	1	32		3	96	
Do. Do. Do.	1	38		3	114	
Total hand railings					Sq. ft.	669
Plastering with chunam, 2 coats						
Union reading room all round inside ..	1	127 5/12		16½	2102	
Professors' room all round inside, large ..	1	94 5/6		16½	1564	
Do. Do. small .	1	76 1/6		16½	1257	
Staircase passage all round inside ..	1	64½		16½	1064	
Carried over						5987

ESTIMATE FORM.–Detail Measurements.

32

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Brought forward					5987	
Honours Mathematics room all round inside ..	2	84 5/8		16½	2799	
Intermediate Mathematics room all round inside ..	1	121 11/12		16½	2012	
Verandah front wall including top portion. ..	1	169¾		16	2716	
Rear wall of the building ..	1	169¾		5	849	
Side walls of the building ..	2	27½		16½	908	
Gable of cross walls ..	14	24		8	2688	
Gable of end walls ..	2	27½		9	495	
Sides of arch including soffit	1	19	1¾		33	
Sides and soffit of doors	18	22½	1¼		709	
Sides, soffit and sill of windows ..	4	18	½		36	
Sides, soffit and sill of ventilators ..	19	13	1¾		432	
			Total ...		19664	
Deduct for doors ..	18 x 2	4½		9	1458	
Deduct for ventilators ..	18 x 2	4		4	576	
Deduct for rectangular portion in arch-way ..	1 x 2	7		5½	77	
Deduct for semi-circular portion of the arch in staircase ..	1 x 2	[illegible]			24	
Total deduction ..... Sq.ft.					2135	
Total plastering less deduction ..... Sq.ft.						17529
Varnishing, 2 coats.						
Doors	729 x 2½ times				1823	
Windows	456 x 1¾ times				798	
Carried over					2621	

ESTIMATE FORM.–Detail Measurements. 33 17

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Brought forward					2621	
Windows	..	304 x 1½ times			456	
Ventilators ..	..	152 x 1½ times			228	
Total varnishing					Sq.ft.	3305
Painting iron works.						
Columns ..	.. 23	9 x 10.995			190	
Total painting iron work					Sq.ft.	19
Greenpaint, 3 coats						
Woodon hand railings in verandah all round	.. 1	459 x 1½ times			689	
Do. Do. in staircase	1	96 x 1½ times			144	
Do. Do, Do.	1	114 x 1½ times			171	
Total green paint					Sq.ft.	1004
Painting roof timbers with chocolate paint, 3 coats						
The existing bressummers to be removed and replaced in the upper floor verandah	.. 1	177	1¼		221	
Do. Do. purlins	1	177	¾		310	
Rafters	66	10½	2		1016	
Total painting					Sq.ft.	1547

ESTIMATE FORM.—Abstract.

3 34 v9

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Estimate for constructing an upper story building over the northern wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.				
	LOWER FLOOR.				
	Earth work				
497 cft	Excavating foundation and refilling in ..	10-0	1000cft	5	
	Concrete.				
497 "	Concrete broken stone jelly in mortar ..	20-0	100 cft	99	
	Brick work.				
319 "	Basement brick in mortar ..	24-0	Do.	77	
89 "	Superstructure brick in mortar ..	26-0	Do.	252	3
	Cutstone work.				
19 "	Cutstone work including dressing etc., ..	2-0	cft.	38	
	Iron work.				
9.10tons	Rolled steel girders ..	200-0	ton	1820	
Do.	Hoisting and setting charges ..	10-0	"	91	
16153 lb.	Ornamental cast iron columns including brackets etc. ..	0-2	lb.	2019	
24 Rft.	Iron rails for staircase supports S.I.R. ..	1-4	Rft.	30	3960
	Roofing.				
5683 sft	Best terracing with brick on edge 3" concrete 2 courses of flat tiles and plastering with chunam at bottom ..	31-0	100 sft	1762	
7140 "	Removing the existing Mangalore tiled roofing with the roof materials etc. ..	5-0	Do.	357	2119
			Carried over		6550

Grand Total of Estimate ...

Station _____

Date _____ 191

ESTIMATE FORM.–Abstract. 35 99

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Brought forward				655 0
	Wood work.				
540 cft	Best teak wood wrought and put up ..	5-8	cft	2970	2970
	Doors.				
76 sft.	Teak pannelled doors with frames and at top with glazed shutters and iron bars etc. ..	1-8	sft	114	1
	Finishing.				
325 sft.	Plastering with portland cement, ½" thick ..	10-0	100sft	33	
1491 "	Plastering with chunam, 2 coats ..	2-8	Do.	37	
5997 "	Wood oiling, 2 coats ..	1-8	Do.	90	
1959 "	Painting with light blue, 2 coats ..	3-0	Do.	59	
171 "	Varnishing, 2 coats ..	2-0	Do.	4	
	Miscellaneous.				
1	Teak wood staircase with necessary fittings etc., complete. ..			250	
	Railway freight for girders from Madras to Trichy Fort & cart hire to work spot etc.			150	40
	Total Rupees.....				10257

Br. Antony S.J
College Architect.

Grand Total of Estimate ...

Station _____

Date _____ *191*

ESTIMATE FORM.–Abstract. 36

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	U P P E R F L O O R.				
	Brick work.				
12030cft	Superstructure brick in mortar ..	27-0	100 cft	3248	
568 "	Flat arch work brick in mortar ..	28-0	Do.	159	
145 "	Circular arch work brick in mortar ..	29-0	Do.	42	344
	Cutstone work.				
117 cft	Cutstone work including dressing etc. ..	2-0	cft	234	
	Iron work.				
9379 lb.	Ornamental cast iron columns ..	0-2	lb.	1172	
1	Providing new wooden truss with iron bars as per existing one ..	75-0	each	75	
	Roofing.				
3962sft	Mangalore tiled roofing with flat tiles imbedded in mortar with teak reepers and iron nails etc., complete ..	30-0	100 sft	1189	
5915 "	Re-roofing with Mangalore tiles with new country flat tiles imbedded in mortar with teak reepers and iron nails etc. (available old materials will be used and the roof timber will be painted with chocolate colour ..	20-0	Do.	1183	2372
	Wood work.				
178.80cft	Teak wood wrought and put ..	5-8	cft	983	
669 sft.	Teak wood turned hand railings ..	1-0	sft	669	1652
	Doors				
729 sft	Teak pannelled doors with frames etc. glazed shutters at top with iron bars and iron fittings ..	1-8	sft	1094	1094
	Windows.				
456 sft.	Teak windows with frames and iron bars with glazed shutters and iron fittings ..	2-0	sft	912	
304 "	Teak windows with frames thick ribbed glass shutters with iron fittings etc. ..	2-0	Do.	608	
	Carried over.....			1520	10048

Grand Total of Estimate ...

Station _____

Date _____ 191

ESTIMATE FORM.—Abstract.

37 32

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Brought forward.....			1520	10048
152 sft	Teak ventilators with frames and glazed shutters with iron fittings ..	1-0	sft.	152	1672
	Flooring.				
5916 "	Paved with cement plastering, ½" thick ..	10-0	100sft	592	5
	Finishing.				
432 "	Cornice work in mortar ..	0-6	ft.	162	
17529 "	Plastering with chunam, 2 coats ..	2-8	100sft	438	
3305 "	Varnishing, 2 coats ..	2-8	Do	83	
190 "	Painting with light blue, 2 coats ..	3-0	Do.	6	
1004 "	Green paint, 2 coats ..	3-0	Do.	30	
1547 "	Painting with chocolate colour, 2 coats to roof timbers ..	2-8	Do.	39	
	Miscellaneous				
81 Rft	Earthenware pipe 6" Dr. 9' long fixing in cement etc., complete ..	1-0	Rft	81	
176 "	Galvanized iron gutter with supports and nails etc., complete ..	0-8	Do.	88	
	Providing teak staircase with necessary fitting s etc., complete ..			250	
	Preparation of Plans and estimate etc. ..			70	
	Clearing site and removing rubbish etc. ..			50	539
	Contingencies ..				600
	Petty supervision ..				600
	Total Rupees				14809

Br. Dufaux. S.J
College Architect.

Grand Total of Estimate ... 14809

Station ~~Trichinopoly~~
Date *191*

ESTIMATE FORM.–Abstract. 3 38

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
1	Lower Floor as per separate estimate ..				10257
2	Upper Floor as per separate estimate ..				148(
	Grand total of estimate Rupees ..				25

Br. Austaug. S.J
College Architect.

Grand Total of Estimate ... 25066

Station Trichinopoly
Date 18 August 1914.

Correspondent.

For Director of Public Instr

DIRECTOR OF PUBLIC INSTRUCTION
30 AUG 1914
MADRAS.

ESTIMATE for constructing an Upper story building on the northern wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.

Total amount of estimate. Rs. 25066-0-0

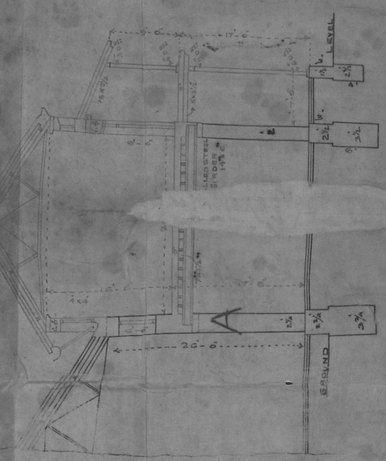
PLAN
OF
THE NORTH WING OF THE LAW
TO BE CONVERTED INTO AN UPPER STORY ST.
AT
TRICHINOPOLY
SCALE 8'-1 INCH

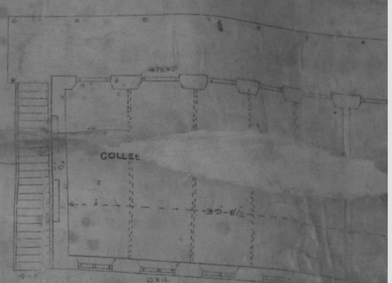
SIDE ELEVN F.F.

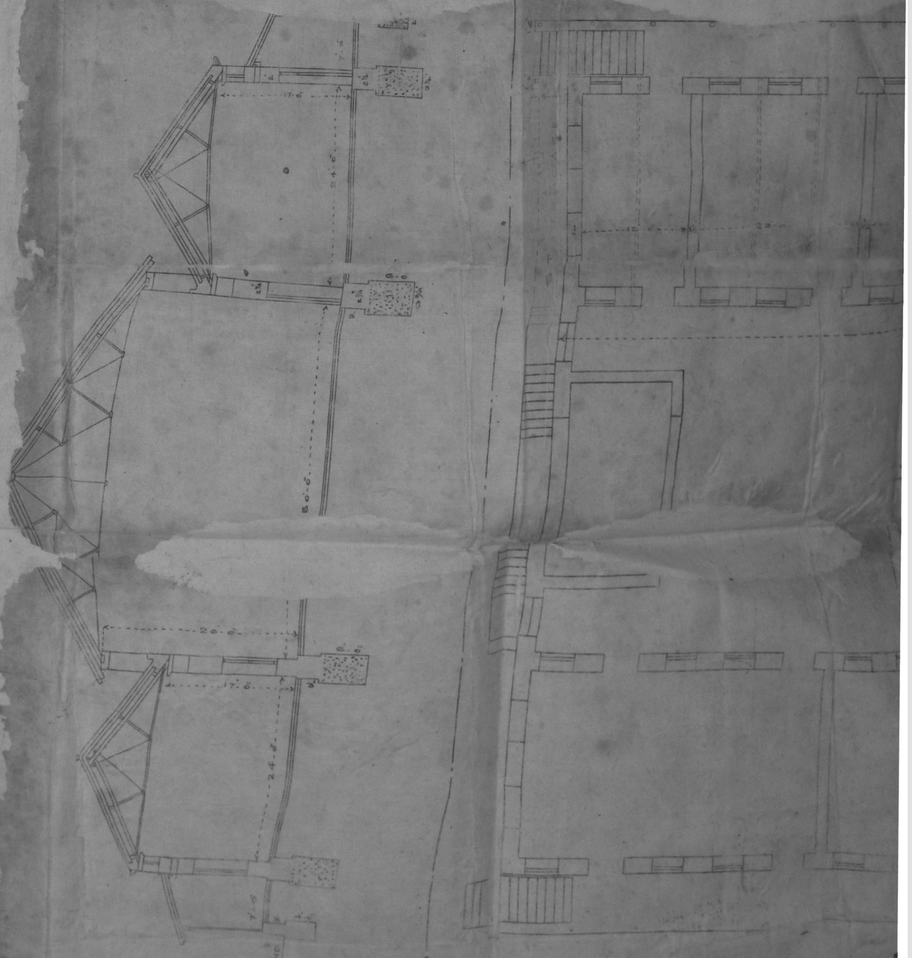
REFERENCE

DENOTES PI[illegible]DEDWORK
DE[illegible]EXISTING WORK

E LAWLEY HALL EXISTING BUILDING ON A.A.





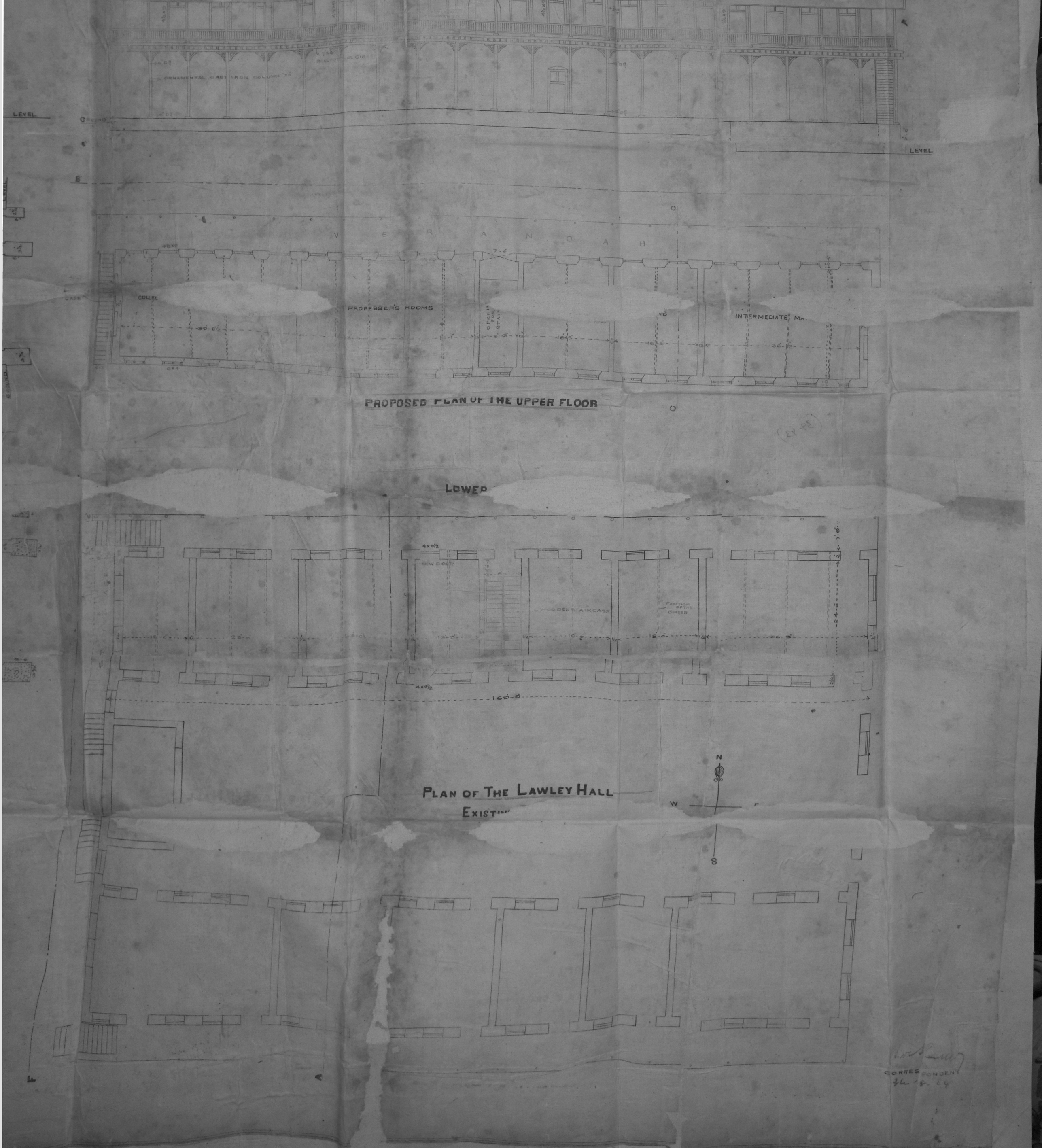


GROSS SECTION

PLAN
OF
E NORTH WING OF THE LAWLEY .....
TO BE CONVERTED INTO AN UPPER STORY ST JOSEPH'S COLLEGE
AT
TRICHINOPOLY
SCALE 8'—1INCH

D.P.L. No. 174 (cc)

FRONT ELEVATION ON A.B



CORRESPONDENT

General Specification.

Name of work: Constructing an upper storey over the Northern wing of the Lawley Hall attached to St, Joseph's College, Trichinopoly.

The plans and estimates have been prepared in accordance with the Chief Engineer's Circular No.116 C, dated 4th January 1913 and are signed by Brother Antony S.J., Architect, St. Joseph's College, Trichinopoly.

List of drawings.

Site survey plan: Scale 1 inch = 24 ft.

Building plan, section, side elevation and the front elevation etc. ..... Scale 1 inch = 8 ft.

Total amount of the estimate: Rs. 25066-0-0

Details of construction.

Nature of surface soil:	Hard earth to a height of 3 feet.
Nature of sub-soil:	Soft rock to a height of 3 feet and rock below.
Maximum pressure on soil:	Vide calculation attached.
	Calculation for Rolled steel girder is attached.
Description of foundation as existing	The concrete foundation stone jelly in mortar has been laid out to a height of 6 feet and 3½ ft. in breadth.
Description of basement:	The basement was constructed with brick in mortar, the height of basement 3 ft and the breadth 2½ ft.
Description of Superstructure:	The superstructure was constructed with brick in mortar and the proposed work will be constructed with brick in mortar over the existing walls.
Name of timber which it is proposed to use for roof timbers.....	Teak.
Name of timbers which it is proposed to use for doors, windows and ventilators...	Teak.
Roofing materials.....	The roof will be of Mangalore tiles imbedded with one inch mortar over country flat tiles & teak reepers. The existing Mangalore tiled roof will be removed and replaced with necessary new materials.
Flooring materials.....	The floors will be paved with Portland cement 2" thick and [illegible]

Plastering: The exterior and the interior walls of the building will receive 2 coats of fine chunam.

Painting : The replaced roof timbers will be painted with 2 coats of chocolate paint, hand railing with fine green paint 2 coats and the iron work will be painted with fine light blue, 2 coats.

Wood oiling: The joists and rafters will be painted with wood oil, 2 coats.

Varnishing : The doors, windows and ventilators will be varnished, 2 coats.

St. JosepH's College,
Trichinopoly,
14- 3- 1914

Bn. Antony. S.J.
College Architect.

Calculation showing the maximum pressure on the foundation for the construction of an upper story building on the northern wing of the Lawley Hall, attached to St. Joseph's College, Trichinopoly.

Concrete foundation stone jolly in mortar ...	=	x 6 x $3\frac{1}{8}$ x 145 lbs.	= 3045
Basement brick in mortar ..	=	1 x 3 x $2\frac{1}{2}$ x 120 lbs.	= 900
Superstructure brick in mortar. ...	=	1^{1} x 2 x $17\frac{1}{2}$ x 120 lbs	= 4200
Girder (14" x 6") weighing 57 lbs per foot run .	=	1 x 12 x 57 lbs.	= 684
Terrace brick in mortar ..	=	1 x 10 x 173 lbs.	= 1730
Upper story superstructure brick in mortar ..	=	1 x $1\frac{3}{4}$ x $17\frac{1}{2}$ x 120 lbs	= 3675
Terrace verandah brick in mortar	=	1 x $4\frac{3}{4}$ x 173 lbs	= 822
Mangalore tiled verandah .	=	1 x $5\frac{1}{2}$ x 35 lbs	= 193
Mangalore tiled roofing .	=	1 x 16 x 35 lbs	= 560
		Total	15809

For $3\frac{1}{8}$ ft. = 15809

∴ 1 Sq.ft = 15809 - $3\frac{1}{8}$ = 2·01 tons.

As the existing building was built strongly on the rocky soil, the proposed structure will stand safely.

St. Joseph's College
Trichinopoly
- 3 - 1914.

Br. Antony. S.J.
College Architect

Calculation for the section of the rolled steel girder in the class room (24'x 18') clear span.

Divided by No.1 Rolled steel girder the area to be supported .
= 24'x 9' = 216 sft of the terrace roof.

The weight of 216 sft of terrace, at dead load 80 lbs and live load 70 lbs = 150 lbs per sft. $\frac{216 \times 150}{2240}$ = 14.91 tons.

According to the Rule of selecting beams for the span that the depth of the girder should not be less than 1/20 of the span

The depth of the girder required span $\frac{24' \times 12''}{20}$ = 14.4

Taking the depth of the girder is 14" the section required for calculated load of 14.91 tons = 14"x 6" at 57 lbs per foot run which will safely carry a load of 15 tons.

St. Joseph's College
Trichinopoly

Br. Antony .S.J
College Architect.

ESTIMATE FORM.–Detail Measurements. 48 39

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Estimate for constructing the North Wing of the Lawley Hall into an upper story building attached to St. Joseph's College at Trichinopoly.						
Lower floor.						
Concrete						
Staircase partition wall in passage ..	1	22¾	2¼	6	307	
Verandah staircase pillars ..	2	3½	3½	3	74	
Extending the existing walls in verandah for staircase ..	2	5½	3½	3	116	
Total concrete work in cft.						497
Basement brick in mortar						
Staircase partition wall in passage ..	1	23½	1¾	3	123	
Verandah walls in staircase .	2	5½	1½	8	132	
Pillars for staircase in verandah ..	2	2	2	8	64	
Total basement brick in mortar ..... c.ft.						319
Superstructure brick in mortar						
Staircase partition wall in passage ..	1	24	1¼	17½	525	
Building walls all round at 3 sides of the north wing ..	1	217¾	2	½	218	
Building walls on the southern side of the north wing ..	1	169¾	2¼	½	191	
Pillars for staircase in verandah ..	1	1½	1½	10½	24	
Do. Do. ..	1	1½	1½	5	11	
Total superstructure brick in mortar ..cft.						969

ESTIMATE FORM.—Detail Measurements. 49 40

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Cutstone work.						
Bed plates under girders ..	22	1	1¾	½	19	
Total cutstone work .....cft.						7
Iron girders						
Rolled steel girders (14" x 6") weighing 57 lbs per foot run in the main building ..	11	28 x 57 lbs			17556	
Rolled steel girders (7" x 4") weighing 16 lbs per foot run to be used as bressummers over the columns in the verandah ..	1	177 x 16 lbs			2832	
Total girders in lbs or say in Tons						9--
Cast iron columns including brackets						
Columns in verandah top 5" Dr. and the bottom 6" Dr. thickness of metal ¾" (45·310) per foot run ..	22	average 5½" Dr		15½	16158	
Total columns in lbs.						16158
Terrace work						
Verandah ..	1	177¼	9½		1684	
Main rooms ..	1	158½	25		3963	
Portion of staircase ..	1	9	4		36	
Total terrace work ..... Sq.ft.						5683
Teak wood wrought and put up						
Joists in main rooms including overlapping ..	19	166	2"	7"	380.96	
Joists in staircase passage .	4	9	8½"	7"	4.37	
Joists in stair platform .	1	10	4"	8"	2.22	
Do. Do. ..	1	10	2½"	7"	1.21	
Planks for platform ..	1	8	4	1½"	4.00	
carried over					392.78	

ESTIMATE FORM.—Detail Measurements. 50 A1

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
	Brought forward				392.78	
EAVE						
~~Main~~ board in verandah	.. 1	175	1"	6"	7.29	
Joists in verandah	.. 140	9½	2⅝"	6"	136.54	
Boom in staircase	.. 1	7	4"	9"	1.83	
	Total wood wrought and put up ..... cft.					54
DOORS						
Teak panelled doors with frames in centre room	.. 2	4		9½	76	
	Total doors ..... Sq.ft					
Cement plastering ½" thick.						
Basement all round of the proposed extension of verandah	1	25	7½		188	
Do. Do. at top	1	11	1½		17	
Do. Do. pillars	2	8		7½	120	
	Total cement plastering ..... Sq.ft.					325
Mangalore tiled roof						
Removing the existing tiled verandah	.. 1	170	10		1700	
Removing the existing main roof on both sides	.. 1 x 2	170	16		5440	
	Total roofing removing ..... Sq.ft.					7140
Plastering with chunam, 2 coats.						
Plastering with chunam all round in and out for the raised portion	.. 1	772		¾	579	
Partition wall on both sides	1 x 2	24		17	816	
Sides and soffit of doors	.. 2	23	2⅛		96	
	Total plastering ..... Sq.ft.					1491

MATE FORM.—Detail Measurements.

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Wood oiling, 2 coats.						
Joists in main rooms ..	19	159	1 5/12		4279	
Joists in verandah ..	140	9	1¼		1575	
Staircase joists ..	4	8	1 5/12		45	
Joists in staircase platform .	1	8	1 1/3		13	
Do. Do. ..	1	8	1 5/12		11	
Planks on both sides ..	1 x 2	8	4		64	
Beam in staircase ..	1	6½	1 1/3		10	
Total wood oiling					Sq.ft.	599
Varnishing, 2 coats						
Doors	76 x 2¼ times				171	
Total varnishing					Sq.ft.	171
Painting iron works.						
Columns with brackets ..	23	15½ x 17.278			513	
Girders ..	11	24 x 49			1078	
Bressummers girder ..	1	170 x 26			368	
Total painting					Sq.ft.	1959
Iron rail						
Iron rails to support the staircase ..	4	6			24	
Total S.I.R. rails					R.ft.	24

ESTIMATE FORM.—Detail Measurements. 52 43

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2.	3	4	5	6	7
Estimate for construction of an upper story building over the north wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.						
U P P E R F L O O R.						
Superstructure brick in mortar.						
Building up walls on southern side of the north wing ..	1	169¾	1¾	8	2377	
Building up walls at 3 sides of the north wing ..	1	217¾	1¾	18	6859	
Cross walls in main building .	6	24	1⅛	18	2808	
End walls of the main building	2	25¾	1¾	18	1622	
Gable of cross walls in centre	6	25¾	1⅛	4 1/16	697	
Gable of end walls ..	2	27¾	1¾	6½	631	
Total					14994	
Deduct for doors ..	18	4½	1¾	9	1276	
Deduct for flat arch over doors	18	5⅝	1¾	1½	266	
Deduct for windows at ends	4	4	½	5	40	
Deduct for flat arch over windows at ends ..	4	5	1¾	1½	53	
Deduct for ventilators ..	19	4	1¾	4	532	
Deduct for flat arch over ventilators ..	19	5	1¾	1½	249	
Deduct for rectangular opening in staircase passage wall ..	1	7	1¾	5½	67	
Deduct for semi-circular space in staircase passage wall ..	$1 \times 7^2 \times .7854 \times 1\frac{3}{4} \times 1\frac{1}{2}$				50	
Deduct for circular arch work in staircase passage wall ..	$1 \times 8\frac{3}{4} \times \frac{3.1416}{2} \times 1\frac{3}{4} \times 1\frac{1}{2}$				38	
carried over					2571	

ESTIMATE FORM.—Detail Measurements. 53 44

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Brought forward					2571	
Deduct for ventilators ..	19	4	1¾	2	266	
Deduct for semi-circular opening in end walls ..	2 x 52 x ·7854 x ½				20	
Deduct for circular arch work in end walls ..	2 x 6½ x 3·1416 x 1¾ x 1½				107	
Total deduction in cft.....					2964	
Total superstructure less deduction					Sq.ft.	120
Flat arch work in mortar.						
Doors ..	18	5⅞	1¾	1½	266	
Windows ..	4	5	1¾	1½	53	
Ventilators ..	19	5	1¾	1½	249	
Total flat arch work in mortar .....cft.					568	
Circular arch work in mortar.						
Circular arch in staircase opening ..	1 x 8¾ x $\frac{3·1416}{2}$ x 1¾ x 1½				38	
Circular arches in end walls .	2 x 6½ x 3·1416 x 1¾ x 1½				107	
Total circular arch work ..... cft						145
Cutstone work.						
Lintel stones over ventilators	19	6	1¾	½	100	
Stops	1	4½	3¾	1	17	
Total cutstone work ..... cft.						117
Cast iron columns						
Columns in verandah top 3" Dr. & the [illegible] thickness of metal [illegible] per foot run ..	23	3¼" Dr. average		9	9379	
Total columns in lbs.....						9379

ESTIMATE FORM.—Detail Measurements. 52 45

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Mangalore tiled roof.						
Verandah ..	1	170	11		1870	
Ridge ventilators on both sides	2	168	5½		1848	
Staircase passage ..	1	32	5		160	
Do. Do. ..	1	6	14		84	
Total Mangalore tiled roof					Sq.ft	39
Re-roofing with Mangalore tiles &c.						
Re-roofing the main building on both sides ..	2	169	17½		5915	
Total re-roofing					Sq.ft.	591
Teak wood wrought and put up						
Rafters in verandah ..	86	10½	8½"	5"	78.98	
EAVE board in verandah ..	1	17	1	6"	7.29	
Rafters in porch ..	8	5½	2"	4"	2.44	
Staircase rafters including overlapping	3	34	8½"	6"	~~10.68~~	
Purlins	3	6	3"	5"	1.87	
Post in staircase ..	3	9½	4"	4	3.16	
Collar pieces	4	4	2"	3"	0.66	
Bressummers in staircase ..	2	9	4"	6"	3.00	
Do. Do. ..	1	6½	3"	5"	0.67	
Struts in Ridge ventilators on both sides ..	166	3	2"	3"	20.75	
Rafters on both sides of the ridge ventilators ..	166	4½	2"	3"	31.12	
Collar piece for Do. ..	83	5	2"	3"	17.29	
Total wood work					Sq.ft.	177.8

ESTIMATE FORM.—Detail Measurements.

55

Detail of Work.	Number.	Measurements in Ft. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
	DOORS.					
Teak panelled doors	.. 18	4½		9	729	
	Total doors				Sq.ft.	729
	WINDOWS.					
Windows ..	.. 19	4		6	456	
	Total windows				Sq.ft.	456
	WINDOWS.					
Windows ..	.. 19	4		4	304	
	Total windows				Sq.ft.	304
	Ventilators					
Ventilators ..	.. 19	4		2	152	
	Total ventilators				Sq.ft.	152
	Cement plastering, ½" thick					
Floor of class rooms	.. 1	39¾	24		954	
Do. Do.	.. 1	23½	24		564	
Do. Do.	.. 1	14	24		336	
Do. Do.	.. 1	18½	24		444	
Do. Do.	.. 1	18½	24		444	
Do. Do.	.. 1	37	24		888	
Verandah floor	.. 1	176	10		1760	
Drain to pass off the rain water from the roof	.. 1	166	2		332	
Doorway sills	.. 18	4¾	1¾		150	
Archway sill	.. 1	7	1¾		12	
Platform	.. 1	8	4		32	
	Total cement plastering				Sq.ft.	5916

ESTIMATE FORM.—Detail Measurements. 56 47

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Cornice work						
Cornice all round the main building, gable walls and porches etc. ..	1	432			432	
Total cornice work					Sq.ft.	432
Earthenware pipe 6" Dr.						
Earthenware pipe to be fixed in wall to run off rain water	9	9			81	
Total pipe					Rft.	81
Galvanized iron gutter.						
Galv. iron gutter at eaves of the main roof with necessary iron fittings etc. ..	1	170			170	
Do. in staircase ..	1	6			6	
Total galvanized iron gutter.....					Rft.	176
Teak hand railings						
Teak hand railings turned in verandah all round ..	1	183½		2½	459	
Do. Do. in staircase	1	32		3	96	
Do. Do. Do.	1	38		3	114	
Total hand railings					Sq. ft.	669
Plastering with chunam, 2 coats.						
Union reading room all round inside ..	1	127 5/12		16½	2102	
Professors' room all round inside, large ..	1	94 5/6		16½	1554	
Do. Do. small .	1	76 1/6		16½	1257	
Staircase passage all round inside ..	1	64½		16½	1064	
Carried over						5987

ESTIMATE FORM.—Detail Measurements. 57 W^b

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
Brought forward					5787	
Honours Mathematics room all round inside ..	2	84⅝		16½	2799	
Intermediate Mathematics room all round inside ..	1	121½		16½	2012	
Verendah front wall including top portion. ..	1	169¾		16	2716	
Rear wall of the building ..	1	169¾		5	849	
Side walls of the building ..	2	27½		16½	908	
Gable of cross walls ..	14	24		8	2688	
Gable of end walls ..	2	27½		9	495	
Sides of arch including soffit	1	19	1¾		33	
Sides and soffit of doors	18	22½	1¾		709	
Sides, soffit and sill of windows ..	4	18	½		36	
Sides, soffit and sill of ventilators ..	19	13	1¾		432	
			Total		19664	
Deduct for doors ..	18 x 2	4½		9	1458	
Deduct for ventilators ..	18 x 2	4		4	576	
Deduct for rectangular portion in arch-way ..	1 x 2	7		5½	77	
Deduct for semi-circular portion of the arch in staircase ..	1 x 2	12 area			24	
Total deduction ..... Sq.ft.					2135	
Total plastering less deduction ..... Sq.ft.						17529
Varnishing, 2 coats.						
Doors	729 x 2½ times				1823	
Windows	456 x 1¾ times				798	
Carried over					2621	

ESTIMATE FORM.—Detail Measurements. 58

Detail of Work.	Number.	Measurements in Feet. Length.	Breadth.	Depth.	Area or Contents.	Total Quantity of each description of work.
1	2	3	4	5	6	7
	Brought forward				2621	
Windows ..	..	304 x 1½ times			456	
Ventilators ..	..	152 x 1½ times			228	
	Total varnishing				Sq.ft.	330
	Painting iron works.					
Columns ..	.. 23	9 x 10.995			190	
	Total painting iron work				Sq.ft.	19
	Greenpaint, 3 coats					
Wooden hand railings in verandah all round	.. 1	459 x 1½ times			689	
Do. Do. in staircase	1	96 x 1½ times			144	
Do. Do. Do.	1	114 x 1½ times			171	
	Total green paint				Sq.ft.	1004
	Painting roof timbers with chocolate paint, 2 coats					
The existing bressummers to be removed and replaced in the upper floor verandah	.. 1	177	1¼		221	
Do. Do. purlins	1	177	¾		310	
Rafters	.. 86	10½	1⅛		1016	
	Total painting				Sq.ft.	1547

ESTIMATE FORM.—Abstract. 59

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Estimate for constructing an upper story building over the northern wing of the Lawley Hall attached to St. Joseph's College, Trichinopoly.				
	LOWER FLOOR.				
	Earth work				
497 cft	Excavating foundation and refilling in ..	10-0	1000cft	5	
	Concrete.				
497 "	Concrete broken stone jelly in mortar ..	20-0	100 cft	99	
	&Brick work.				
319 "	Basement brick in mortar ..	24-0	Do.	77	
969 "	Superstructure brick in mortar ..	26-0	Do.	252	
	Cutstone work.				
19 "	Cutstone work including dressing etc., ..	2-0	cft.	38	3
	Iron work.				
9.10tons	Rolled steel girders ..	200-0	ton	1820	
Do.	Hoisting and setting charges ..	10-0	"	91	
16153 lb.	Ornamental cast iron columns including brackets etc. ..	0-2	lb.	2019	
24 Rft.	Iron rails for staircase supports S.I.R. ..	1-4	Rft.	30	3960
	Roofing.				
5683 sft	Best terracing with brick on edge 3" concrete 2 courses of flat tiles and plastering with chunam at bottom ..	31-0	100 sft	1762	
7140 "	Removing the existing Mangalore tiled roofing with the roof materials etc. ..	5-0	Do.	357	2119
	Carried over				6550

Grand Total of Estimate ...

Station _____

Dated _____ *191*

ESTIMATE FORM.—Abstract.

60 41

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Brought forward				655 0
	Wood work.				
540 cft	Best teak wood wrought and put up ..	5-8	cft	2970	297
	Doors.				
76 sft.	Teak pannelled doors with frames and at top with glazed shutters and iron bars etc. ..	1-8	sft	114	
	Finishing.				
325 sft.	Plastering with portland cement, ½" thick ..	10-0	100sft	33	
1491 "	Plastering with chunam, 2 coats ..	2-8	Do.	37	
5997 "	Wood oiling, 2 coats ..	1-8	Do.	90	
1959 "	Painting with light blue, 2 coats ..	3-0	Do.	59	
171 "	Varnishing, 2 coats ..	2-0	Do.	4	
	Miscellaneous.				
1	Teak wood staircase with necessary fittings etc., complete. ..			250	
	Railway freight for girders from Madras to Trichy Fort & cart hire to work spot etc.			150	400
	Total Rupees.....				10257

Bn. Antony. S.J
College Architect.

Grand Total of Estimate ...

Station.....
Date..... 191

ESTIMATE FORM.—Abstract.

61

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	UPPER FLOOR.				
	Brick work.				
12030cft	Superstructure brick in mortar ..	27-0	100 cft	3248	
568 "	Flat arch work brick in mortar ..	28-0	Do.	159	
145 "	Circular arch work brick in mortar ..	29-0	Do.	42	34
	Cutstone work.				
117 cft	Cutstone work including dressing etc. ..	2-0	cft	234	
	Iron work.				
9379 lb.	Ornamental cast iron columns ..	0-2	lb.	1172	
1	Providing new wooden truss with iron bars as per existing one ..	75-0	each	75	
	Roofing.				
3962sft	Mangalore tiled roofing with flat tiles imbedded in mortar with teak reepers and iron nails etc., complete ..	30-0	100 sft	1189	
5915 "	Re-roofing with Mangalore tiles with new country flat tiles imbedded in mortar with teak reepers and iron nails etc. (available old materials will be used)and the roof timber will be painted with chocolate colour ..	20-0	Do.	1183	2372
	Wood work.				
178.80cft	Teak wood wrought and put ..	5-8	cft	983	
669 sft.	Teak wood turned hand railings ..	1-0	sft	669	1652
	Doors				
729 sft	Teak pannelled doors with frames etc. glazed shutters at top with iron bars and iron fittings ..	1-8	sft	1094	1094
	Windows.				
456 sft.	Teak windows with frames and iron bars with glazed shutters and iron fittings ..	2-0	sft	912	
304 "	Teak windows with frames thick ribbed glass shutters with iron fittings etc. ..	2-0	Do.	608	
	Carried over.....			1520	10048

Grand Total of Estimate ...

Station _____

Date _____ 191 .

ESTIMATE FORM.—Abstract.

62 5

Quantity.	Description of Work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
	Brought forward.....			1520	10048
152 sft	Teak ventilators with frames and glazed shutters with iron fittings ..	1-0	sft.	152	167
	Flooring.				
5916 "	Paved with cement plastering, ½" thick ..	10-0	100sft	592	
	Finishing.				
432 "	Cornice work in mortar ..	0-6	Rft.	162	
4529"	Plastering with chunam, 2 coats ..	2-8	100sft	438	
3305 "	Varnishing, 2 coats ..	2-8	Do	83	
190 "	Painting with light blue, 2 coats ..	3-0	Do.	6	
1004 "	Green paint, 2 coats ..	3-0	Do.	30	
1547 "	Painting with chocolate colour, 2 coats to roof timbers ..	2-8	Do.	39	
	Miscellansous				
81 Rft	Earthenware pipe 6" Dr & 9' long fixing in cement etc., complete ..	1-0	Rft	81	
176 "	Galvanized iron gutter with supports and nails etc., complete ..	0-8	Do.	88	
	Providing teak staircase with necessary fitting s etc., complete ..			250	
	Preparation of Plans and estimate etc. ..			70	
	Clearing site and removing rubbish etc. ..			50	539
	Contingencies ..				600
	Petty supervision ..				600
	Total Rupees				14809

Jr. Antony. S.J.
College Architect.

Grand Total of Estimate ... 14809

Station Trichinopoly
Date ..... *191* .

ESTIMATE FORM.–Abstract.

63 54

Quantity.	Description of Work.	Rate.	Per	Amount.	Total
1	2	3	4	5	6
1	Lower Flor as per separate estimate ..				
2	Upper Flor as per separate estimate ..				
	Grand total of estimate Rupees				

C52
C352/80
16/1/14

Br. Antony. S.J
College Architect.

Station Trichinopoly.
Date 19. August 1914.

Correspondent.

Grand Total of Estimate

Director of Works