1) Number of pages :- 58

2) Date of Repair :- 3-88

3) Initial of [illegible] :-

P. W. Deptt

C. no 2854 W

Date - 24.10.1887

24TH OCTOBER 1887, No. 2854 W., PUBLIC WORKS.

2854/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers :—

From J. W. BRASSINGTON, Esq., Consulting Architect to the Government of Madras, to the Chief Engineer, Public Works Department, dated Chepâk, 5th August 1887, No. 664.

With reference to your memorandum No. 2102 C., dated the 24th June 1887, I have the honor to state I directed Supervisor Sergeant Smith, R.E., of this division, who has been instructed in the method of testing and has received a certificate of competency, to test the lightning conductors of the Senate House.

2. In his report Sergeant Smith points out certain weak points, which will be seen in the report attached to the enclosed estimate, and I am of opinion that the conductors should be removed and refixed as soon as possible.

3. The estimate amounts to Rs. 410, to which should be added the usual departmental charges of 24½ per cent., making a total of Rs. 510, to be provided by the University.

From W. H. WILSON, Esq., Registrar of the University of Madras, to the Chief Secretary to Government, dated Madras, 30th September 1887, No. 318.

With reference to the Under Secretary's endorsement, dated 24th August 1887, I am directed by the Syndicate to inform you that they approve of the estimate, amounting to Rs. 510, for removing and refixing the lightning conductors of the Senate House, and to return the same countersigned along with the correspondence accompanying it.

Transferred to the Public Works Department with reference to their endorsement, No. 2744 C., dated 16th August 1887, together with estimate and correspondence received.

(By Order.)

OOTACAMUND,
7th October 1887.

(Signed) A. G. CARDEW,
Ag. Under Secretary.

ORDER—dated 24th October 1887, No. 2854 W., Public Works.

The estimate, amounting to Rs. 410, for removing and refixing the lightning conductors of the Senate House, Madras, is sanctioned.

	RS.
Works	410
Establishment	94
Tools and plant	6
Total ...	510

2. The Syndicate will be requested in the Educational Department to place Rs. 510, as shown in the margin, at the disposal of the Public Works Department.

3. This sanction has been registered as Excluded Local, No. 30 W. of 1887-88, and classified as Civil Buildings, Original Works.

(True Extract.)

Captain, R.E.,
Under Secy. to Govt., P.W.D.

To the Consulting Architect to Government, with one enclosure.
„ Examiner, Public Works Accounts, with the estimate for note and return to Consulting Architect.
„ Educational Department.

E. J.

Exd. J. Moses.
Spare Copies

2854/2

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1887) Madras.

PUBLIC WORKS.

Dated October, 24th.

Recd. *Encl.*

G.O., 24th Oct. 1887, No. 2854 W.

OCTOBER.

Senate House, Madras

Estimate of Rs. 410 for removing and refixing the lightning conductors of the—, sanctioned.

2854/3

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

Memo. by Chief Engineer, Public Works Department,			dated	9th July 1885,	No.	1174 C.
From the Superintending Engineer,		I Circle,	dated	3rd December	do.	334 G.L.
Do.	do.	I	do.	24th do.	do.	195 V.Z.
Do.	do.	II	do.	30th October	do.	257 G.L.
Do.	do.	III	do.	6th August	do.	988.
Do.	do.	IV	do.	7th September	do.	371 E.W.
Do.	do.	V	do.	20th October	do.	3110.
Do.	do.	VI	do.	19th September	do.	984 T.J.
Do.	Consulting Architect to Govt.,		dated	1st do.	do.	819.
Do.	do.		do.	11th November	do.	1166.

Order—dated 6th February 1886, No. 324 W., Public Works.

In July 1885 Superintending Engineers and the Consulting Architect were requested to submit a list of all public buildings in their respective Circles which were supposed to be protected by lightning conductors, and to report, with respect to each building, whether the recommendations of the Lightning Rod Conference and the provisions of the Code of Instructions on the subject had been fully met ; if not, in what respects the protection was deficient. Superintending Engineers were further asked to name any public buildings within their Circles which they considered should be provided with efficient conductors.

2. Replies have now been received from all the officers addressed, and the lists of buildings submitted show that a large number are at present without protection, whilst others are but imperfectly protected. To remedy these defects in all cases would involve so large an expenditure as to be prohibitive ; besides which, many of the buildings named are not of sufficient importance to require protection. The Government therefore desire that attention be first given only to buildings of the nature referred to in paragraph 1174* of the Public Works Code.

* 1174. "Powder magazines and all buildings "which, from their height or exposed situation, "are likely to be struck with lightning, should "be provided with lightning conductors on the "system laid down in the Code of Instruction for "the guidance of Public Works officers in the "erection and testing of lightning conductors."

3. In this view the undermentioned buildings have been selected from the lists, and Superintending Engineers will submit at an early date estimates for providing lightning conductors for such of the buildings mentioned as have not got them, and for altering those already provided, in order to bring them into accordance with the provisions of the Code of Instructions.

I Circle.

- * (1) Powder magazine, Sámalkót.
- * (2) Hope island light-house.
- * (3) Vakalapudi light-house.
- (4) Central tower of the Rajahmundry jail.
- (5) Chimney at the Dowlaishweram workshops.

*(6) Powder magazine, Vizagapatam.
*(7) Four powder magazines used by 16th Regiment, M.I., Vizagapatam.
*(8) Santapilly light-house.
*(9) Powder magazine, Parlakimedi.
*(10) Powder magazine, Russellkonda.
*(11) Powder magazine, Chatrapur.

II Circle.

(1) Christ church, Nellore.

IV Circle.

*(1) Lawrence Asylum (female branch), Lovedale.
(2) Combined post and telegraph office, Ootacamund.
(3) Goverment offices and Council Chamber, Ootacamund.
(4) Government House, Ootacamund.
*(5) Powder magazine, Ootacamund.
*(6) Police powder magazine, Coimbatore.
*(7) Powder magazine, Malapuram.
*(8) Powder magazine, Quilon.

V Circle.

*(1) Government House, Guindy.
*(2) Police powder magazine, Manjakuppam.
*(3) Powder magazine, Vellore.

VI Circle.

(1) District court-house, Tanjore.

Consulting Architect's Division.

*(1) Combined post and telegraph office.
*(2) Senate House.
*(3) Observatory.

Note.—Buildings marked with an *asterisk* are stated to be already provided with lightning conductors either useless or not in accordance with the Code of Instructions.

(True Extract.)

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

To Superintending Engineers.
To the Consulting Architect to Government.
" Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

2854/4

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated February, 6th.

Recd. *Encl.*

G.O., 6th Feb. 1886, No. 324 W.

FEBRUARY.

Lightning Conductors

Orders on letters from Superintending Engineers submitting lists of public buildings protected by — and of those unprotected.

2854/5

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated February, 6th.

Recd. *Encl.*

G.O., 6th Feb. 1886, No. 324 W.

FEBRUARY.

Lightning Conductors

Orders on letters from Superintending Engineers submitting lists of public buildings protected by — and of those unprotected.

2854/5

Syndicate
968

CURRENT NO. 609

1887.

Public Works Department.

Ootacamund
24th August/87

Referred to the Registrar for the opinion of the Syndicate & for countersignature of the plan & estimate, if approved.

(by order)
A. G. Cardew 20/8.
Under Secy.

No. 2744 C.
Dated 16th August 1887.
Despatched
Received

28544

SUBJECT.

CHIEF SECRETARY
18 AUG 87
GOVERNMENT OF MADRAS

Forwarding an estimate for removing & refixing the Lightning Conductors of the Senate House for the Countersignature of the Registrar of the Madras University.

To
The Registrar, Madras University.

Estimate No. 16 of 1887-88

2854/6

Financial Head— Excluded Local
Budget Head— Civil Buildings
Departmental Head— Original works
Main Head— University Act fund
Sub-Head—
Project of which the work forms part—
Section—
Name of Work— Providing additional Lightning Conductors to the Senate House, Madras
Amount of Estimate—
To be carried out by— P. W. D.

REFERENCES.

G. O. No. 324 W dated the 6th February 1886

REFERENCE TO MADRAS P. W. D CODE.
PARAS. 1074 TO 1076.

P. W.
No.

CIRCLE.

DIVISION— Architect

TALUK—

No. 1
P.W. 4528/87

ESTIMATE FORM—Wrapper or Outer-sheet.

Estimate for* Providing additional Lightning Conductors to the Senate House.

Amount of Estimate, Rs. 2653

Detailed Estimate, No. 16 of 1887-88.

* Here enter name and description of work in full.

Estimate No. 16 of 1887-88. 2837/7

Financial Head— Excluded Local

Budget Head— Civil Buildings

Departmental Head— Original works

Main Head— University Fee fund

Sub-Head—

Project of which the work forms part—

Section—

Name of Work— Providing additional Lightning Conductors to the Senate House

Amount of Estimate— Rs. (2653) Two thousand Six hundred and fifty three.

To be carried out by— Public works Department

N.B.—This space should not be written upon as it is required for filing.

REFERENCES.

G. O. No. 324 W dated the 6th February 1886

REFERENCE TO MADRAS P. W. D CODE.
PARAS. 1074 TO 1076.

P. W
No.

CIRCLE.

DIVISION— Architect

Ser. 1
PW 4538/87

TALUK—

ESTIMATE FORM—Wrapper or Outer-sheet.

Estimate for* Providing additional Lightning Conductors to the Senate House

Amount of Estimate, Rs. 2653

Detailed Estimate, No. 16 of 1887-88.

---

[*] Here enter name and description of work in full.

Estimate No. 16 of 1887-88.

2854/7

Financial Head— Excluded Local

Budget Head— Civil Buildings.

Departmental Head— Original works.

Main Head— University Fee fund

Sub-Head—

Project of which the work forms part—

Section—

Name of Work— Providing additional Lightning Conductors to the Senate House

Amount of Estimate— Rs (2653) Two thousand Six hundred and fifty three.

To be carried out by— Public works Department

N.B.—This space should not be written upon as it is required for filing.

REFERENCES.

G. O. No 324 W dated the 6th February 1886

Reference to Madras P. W. D. Code.

Paras.

P. W. D. Form.
No. M 203.

Circle.

Division— Architect

Taluk—

L. 2
PW4528/87

ESTIMATE FORM—Wrapper or Outer-sheet.

Estimate for* Providing additional Lightning Conductors to the Senate House, Madras

Amount of Estimate, Rs. 2653

Detailed Estimate, No. 16 of 1887-88.

---

* Here enter name and description of work in full.

20,000—30-7-86.

ESTIMATE FORM.—Abstract.

2858/18

Quantity.	Description of Work.	Rate.	Per	Amount	Total.
		RS.		RS.	RS.
388·8 lbs	Copper Rod 1¼" diameter	1·4·„	lb	486	
1666 Rft	Copper Tape 1¼" × ⅛" Conductor including fixing	1-„-„	Rft.	1666	
233·7 lbs	Copper Plate ⅛" thick	0·8·„	lb	117	
12 Cft	Teakwood wrought and put up	4-„-„	Cft	48	
8640 „	Excavating foundations	6-„-„	1000 Cft	52	
50 Paras	Charcoal for Earth connections	1·2·„	Para	56	
6 No.	Platinum terminals	7·3·6	Each	43	
	Petty supervision			62	
	Contingencies			128	

Grand Total of Estimate .. 2653 ✓

Station Madras
Dated 13th June 1887

~~Executive Engineer~~
Offg. Consulting Architect to Govt.

down, the Earth connections made with the

REFERENCE TO MADRAS P. W. D. CODE.
PARAS. 921, 932, &c., 949, 952—955, 962—964.

P. W. D. FORM.
No. M 207.

CIRCLE—
DIVISION— Architect

ESTIMATE FORM.—Abstract.

(To accompany the Detailed Estimate No.
of 188 -8 for * ______________.)

Providing additional Lightning Conductors to the Senate House

* Here enter the name and description of work in full.

Report to accompany the Estimate for providing additional Lightning Conductors to the Senate House.

2854/9

This building is at present furnishe with four Conductors, one to each of the large Towers about 105 feet above ground. They are formed of 3 telegraph wires twisted together and secured to the building with iron staples, at about 4 feet intervals. Their upper Ends, are attached to the Copper terminals of the towers. The Earth Connectio is formed by the wire rope being secured to a coppe plate buried about 8 feet below the ground.

The space protected by these Conductors, according to present ideas is tinted blue, on the accompanying tracing, which represents the plan of the roof, the tinted portio of the roof will fall within lines drawn at an angle of 45 degrees from the top of the terminals in the four towers, marked A, on the plan.

To protect the Entire building it is proposed to provide platinum terminals to the four angle turrets marked B (about 76 feet above ground) with Copper tape leading down, the Earth Connections made with the

iron

iron water supply piping. Two platinum terminals will also be fixed at C.C. – Copper tape will be laid along the ridge of the roof and Ends of the buildings and Connected with the Conductors on the towers, turrets &c so that the whole of the conductors will form one connection.

The details of the work will be Executed in accordance with Appendix A to Standard Specifications of the P.W. Department.

Lr: 3
PW 4528/87

J. W. Brassington
Offg. Consulting Architect
to Government.

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	Total.
		Rs.		Rs.	2836/0 Rs.
3888 lbs	Copper Rod 1/4" diameter	1-4-..	lb.	486	
1666 Rft	Copper Tape 1/4" × 1/8" conductor including fixing	1-..-..	Rft	1666	
233·7 lb.	Copper Plate 1/8" thick	0-8-..	lb	117	
12·Cft	Teakwood wrought and put up	4-..-..	Cft	48	
8640 ..	Excavating foundations	6-..-..	1000·Cft	52	
50 Parahs	Charcoal for Earth Connections	1-2-..	Parah	56	
6 · No.	Platinum terminals	7-3-6	Each	43	
	Petty supervision 2½ per cent			62	
	Contingencies 5 per cent			123	

Grand Total of Estimate ... 2653 ✓

Station Madras
Dated 13th June 1887

J. W. Brassington
~~Executive Engineer~~
Offg. Consulting Architect to Govt.

J.H.
14.6.87

Madras P. W. D. Code,
&c., 949, 952—955, 962—964.

P. W. D. Form.
No. M 207.

Circle—

Division— Architect

ESTIMATE FORM.—Abstract.

(To accompany the Detailed Estimate No.
of 188 -8 for * .)

Providing additional Lightning Conductors to the Senate House.

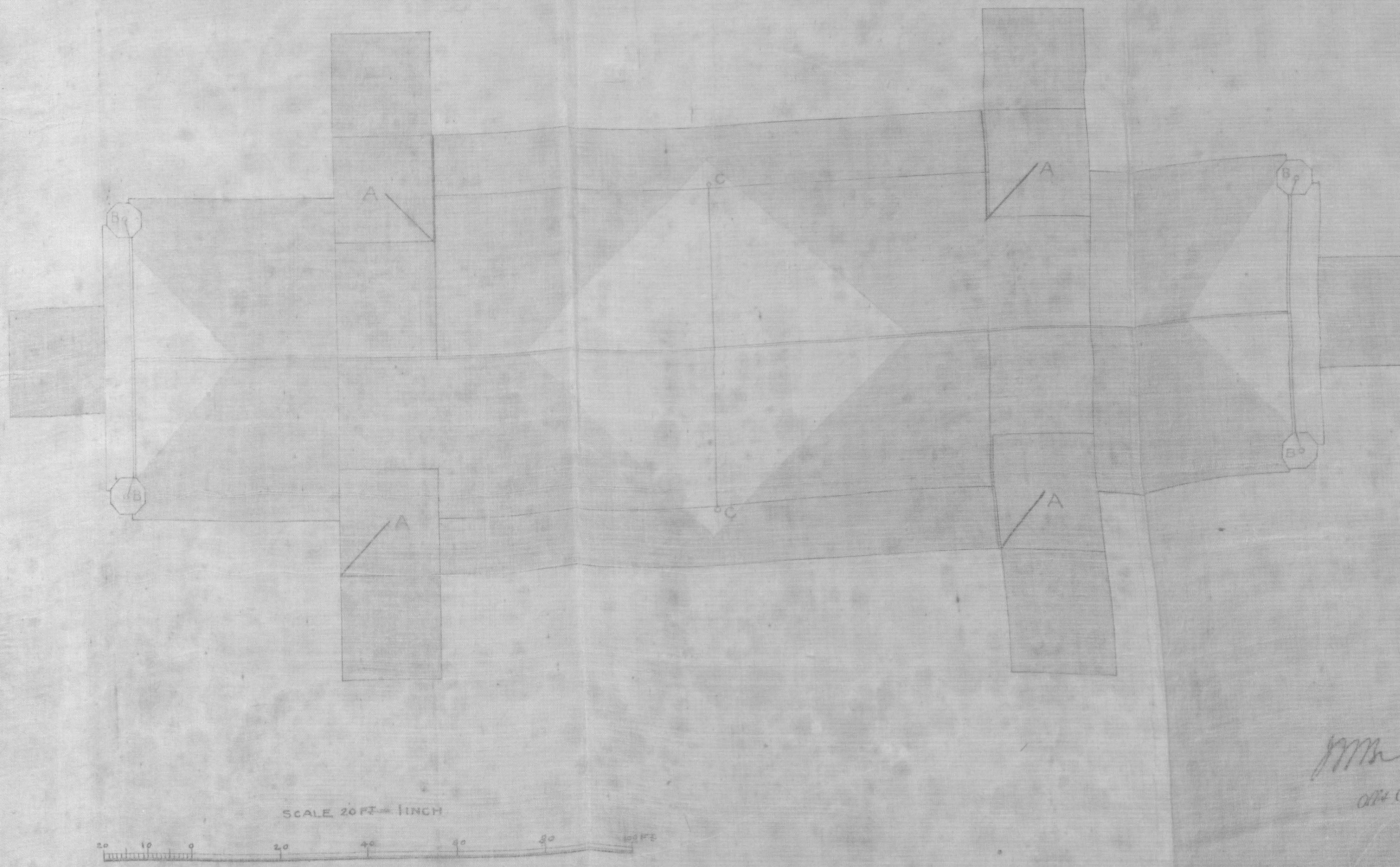
---

* Here enter the name and description of work in full.

SENATE HOUSE

PLAN OF ROOF SHEWING EXISTING LIGHTNING CONDUCTORS IN BLUE PROPOSED ADDITIONS IN RED

PORTIONS TINTED BLUE ARE CONSIDERED TO BE PROTECTED BY THE TERMINALS AT THE 4 TOWERS. A.A.A.A.



4

PW/4528/87

P. W. D.

2858/12

Consulting Architect's Office,
Chepauk, Madras,
13th June 1887

No 347

From J. W. Brassington Esqr
The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department.

Sir,

Enclosure.
1 abstract Estimate in Duplicate
1 Tracing

With reference to G. O. No 32 W dated the 6th February 1886, I have the honor to submit for the approval and sanction of Government an Estimate amounting to Rs 2,653 for additional Lightning Conductors to the Senate House. The work to be done is explained in the accompanying plan and Report attached to the Estimate.

I have the honor to be
Sir
Your Most Obedient Servant

J W Brassington

Offg Consulting Architect
to Government.

G.O. 324 W 87 6.2.86

P.W.C. No 4528

Public Works Department.

(3)

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D.

No. 347

Dated 13th June 1887
Received 14 – " –

No 2102 C of 24-6-87

NO. OF ENCLOSURES. ~~3~~ 4

(+ 1 plan)

Subject.

Submits an Estimate amounting to Rs 2653 for providing additional Lightning Conductors to the Senate House

The present arrangement is faulty — Let me have the pointer about L Conduct.

I

14-6-87

3.17.6.87 H. 24.6.87

Public Works Department.

Current No. 4528 2854/14

Letter No. 347

Dated the 13th June 1887

From the Consulting Architect to Government

NOTE OF REMARKS.

The plan and Estimate under review provides for additional lighting conductors to the Senate House at a cost of Rs 2653 –

The report shows that the building is at present partly protected by 4 Conductors each made up of 3 strands of telegraph wire and secured to the building by means of iron staples at intervals of 10 feet –

These conductors are attached to the copper terminal –

of the towers, the earth connection is made by connecting a copper plate to the lower end of the conductor which is carried 8 feet into the ground.

It is now proposed to protect the entire building by providing platinum terminals to the 4 angle turrets and to connect them by means of copper 1¼" × ⅛" which is to be carried along the ridges of the roof and the end of the building. The earth connection is to be formed with the iron pipes of the water supply

See sec VIII, page 11 of the G.P.O. "Code of Instructions" — the fastenings should be of the same material as the conductor, & the latter should not apparently be insulated —

Ca

The manner 2854 in which the existing conductors are secured to the building, viz by means of iron staples, appears to be objectionable as the current of electricity is likely to be carried into the walls by them. These staples are placed 4 feet apart and are in direct metallic contact with conductor itself so that when there is heavy charge of electricity passing down the conductor, particularly when the walls are damp

The probability is that a great portion if not the entire charge is conducted into the walls of the buildings by means of the staples. The matter becomes more serious when the efficiency of the conductor is in any way impaired by oxidation or from any other cause. It therefore seems necessary that the conductors should be at least a foot away from the building and properly insulated, this may be effected by brackets fitted with cylindrical

See Sec IV, page
4. fitting of S.
Code of Instructions
Ca

2854

porcelain insulators. The same objection applies to fixing the connecting tapes to the ridges of the roof, they should be supported on rests not less than 1 foot above the ridge & carefully insulated from the roof.

The necessity for making the earth connection with the iron pipes of the water supply is not apparent, it would be better to construct cisterns without floors & to connect the conductors to the coils of wire laid in them, the cisterns should always be kept filled with water –

In the Estimate provision is made for copper rods $1\frac{1}{4}$ inch in diameter and tapes $1\frac{1}{4} \times \frac{1}{8}$ inch. Appendix A of the Standard Specification allows $\frac{3}{8}''$ for the former $\frac{3}{4}'' \times \frac{1}{8}''$ for the latter as the minimum dimensions. It does not appear to be ~~necessary~~ desirable to question the increase in the dimensions as given in the Estimate as the greater the surface the better the conductor and the dimensions given do not appear excessive

2854/17

for a building like the Senate House.

Some of the rates agree with the Schedule but others cannot be checked for want of data.

Petty supervision and Contingencies are charged for separately at $2\frac{1}{2}$ & 5 per cent respectively.

16/6/89

PWC No 4528.

2454/18

The present arrangement of lightning conductors at the Senate house is very faulty. Copper terminals and copper earth plates, connected by iron wire rope, destructive galvanic action must set in, and probably at the present moment the whole arrangements is useless.

I think it would be advisable for CA to prepare an Estimate for copper terminals and copper earth plates connected by copper tape, to protect the entire building.

The tape should be fastened to the building by copper staples driven into blocks of wood.

As the water pipes are iron, the copper ~~bear~~ earth plates cannot be connected to them; but the subsoil in the neighbourhood of the Senate house, must be fairly damp at a good depth.

16.6.87

I dare say the building is, theoretically, insufficiently protected but the existing conductors are attached to the towers which are considerably the highest parts of the buildings & if they were [illegible] elevations, I do not think it would be advisable to spend so much money in supplementary conductors. I should say, in the first place, have the existing conductors tested and their [illegible] heights brought to light. [illegible] have officers & subordinates qualified to test lightning conductors & I would ask for a report on the existing conductors [illegible]

J.C.L.
21/6/87

Q. 17-6-87 Q. 74 6-5

P.W.D.

2854/19

Memorandum

Letter from the Consulting Architect No. 347 dated 13th June 1887 submitting an Estimate for providing additional lightning conductors to the Senate House

The undersigned has the honor to remark, that the present arrangement of lightning conductors at the Senate House ~~seems~~ is open to very serious objection. With copper terminals, and copper earth plates connected by iron wire rope, destructive galvanic action must necessarily set in, and at the present moment the whole arrangement is probably ~~appears to be~~ of little use.

The Consulting Architect, is therefore requested to prepare an Estimate

No 2102C - d/
24-6-87

(3)

Memo

Estimate providing for copper terminals, and Copper Earth plates, connected by copper tape, to replace the existing conductors, and afford sufficient protection to the entire building. The tape it is suggested should be fastened to the building by copper staples, driven into blocks of wood. As the water pipes are iron, ~~it does not seem advisable to connect them with the Copper earth plates~~ the copper earth plates, must not be connected with them, but the sub-soil in the neighbourhood ~~must be damp, and ought~~ is probably sufficiently damp to serve as a good conductor.

The early submission of the estimate called for is requested.

E.W.

Mem
17.6.87

F.B.
17.6.7

To
The Consg Architect
to Government

~~800~~ | W

O. 17.6.87 R. 24.6.87

Prod

2854/20

Memo

With reference to letter from the Consg. Architect, No 3247 of 13th June 1887, the undersigned has the honor to observe that although the Senate House may be, theoretically, insufficiently protected from lightning, yet the existing conductors are attached to the towers, which are considerably the highest parts of the building; and if they are effective, it does not seem advisable to spend so large a sum as Rs 2,653 on supplemental

mental Conductors.

The undersigned therefore considers that in the first place, the existing conductors should be tested, & their weak points brought to light. It is understood that there are in the Presidency Division, subordinates qualified to test lighting conductors, & the Cons. Architect should arrange with the S.E. V Circle & have the test carried out as early as practicable, & the result reported to this office.

Joll 21/6/87

No 2108 C 24-6-87

J Eng 24/6/87

C.A. Ofgt S.W 24/6/87

Id 27/6.

---

the Registrar, they will be returned to the S.E. for sanction by him as the amount is within his powers of sanction — with the E.E.'s remarks noted above.

W
13/8

Public Works Department.

Current No. 6129 2459/21

Letter No. 664

Dated the 5th August /87

From the Consulting Architect to Government

NOTE OF REMARKS.

1. The accompanying estimate provides for removing and refixing the Lightning Conductors of the Senate House. The amount of estimate is Rupees 410 to which the C.A. wishes the usual Departmental charge of 24½ percent to be added thus making a total of Rs 510 to be provided by the University.

2. Report is submitted.

3. The rates are fair.

4. The Petty Supervision & Contingencies are separately charged at 2½ & 5 percent respectively.

27.44C - 16-8-87

The Estimate may be sanctioned Rs 510 ~~At~~.

Note by E.W.

The terminals and earth plates should be of the same metal as the conductors -

In the case of the wire rope, ~~they~~ these can with advantage be attached to the Bell Metal water pipes; but the copper conductors should be provided with a copper terminal, and copper earth plate -

9. 8. 87

Note

B

When the Estimate & Plan are received with due Counter-signed

Sd/ H

24. 6. 87

1887

P. W. DEPARTMENT.

Current No. 6129 $\frac{2854}{22}$

From The Consulting Architect to Govt

ENCLOS.— 2

No. 664

Dated 5th August 87

Received 6 " "

SUBJECT.

Lightning Conductors of the Senate House — Est amounting to Rs 410 for renewing & refixing the —

DISPOSAL.

No. 2744 Dated 16 Aug

Forwarded to the Educational Dept for approval and with a request that the plan & estimate may be counter-signed by the Registrar of the University

By order

Capt R.E.

Under Secy to Govt

To the Educational Dept

No 1918

P. W. D

Consulting Architect's Office,
Chepauk, Madras,
5 August 1887

No 664

2859/23

From J. W. Brassington Esqr.
The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department.

Sir,

Enclosure.
1 Estimate.

With reference to your Memo: No 2102 C dated the 25th June 1887, I have the honor to state, I directed Supervisor Sergeant Smith R.E. of this Division, who has been instructed in the method of testing, and has received a certificate of Competency, to test the Lightning conductors of the Senate House.

In his report Sergt. Smith points out certain weak points which will be seen in the report, attached to the enclosed Estimate, and I am of opinion, that the Conductors should be removed & refixed as soon as possible.

The Estimate amounts to Rs 410 to which should be added the usual

P. W. D

Consulting Architect's Office,
Chepauk, Madras,
5 August 1887

No 664

2859/23

From J. W. Brassington Esqr.
The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department

Sir,

Enclosure.
1 Estimate.

With reference to your Memo: No 2102 C dated the 25th June 1887, I have the honor to state, I directed Supervisor Sergeant Smith R.E. of this Division, who has been instructed in the method of testing, and has received a certificate of Competency, to test the Lightning conductors of the Senate House.

In his report Sergt. Smith points out certain weak points which will be seen in the report, attached to the enclosed Estimate, and I am of opinion, that the Conductors should be removed & refixed as soon as possible.

The Estimate amounts to Rs 410 to which should be added the usual

usual Departmental charges of 24½ percent making a total of Rs 510 tobe provided by the university.

I have the honour tobe
Sir
Your Most obedient Servant

J W Brassington
Consulting Architect
to Government.

2854/24

No. 2744 C of 16th August 1887.

Forwarded to the Educational Department for approval and with a request that the plan and Estimate may be countersigned by the Registrar of the University —

(By Order)

W. C. Baddeley, Capt. R.E.
Under Secretary to the Govt. P. W. Dept.

Jd.
13/8/87.

To

The Educational Dept.

P.W.C. No. 5129
7/11/87

Public Works Department.

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D.

No. 664

Dated 5th August 1887
Received 6-8-87

No. of Enclosures. 2.

Subject.

Forwards an Estimate amounting to Rs 410 for Removing & refixing the Lightning Conductors of the Senate House

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No. 318 of 1887 — 1888

UNIVERSITY OF MADRAS,
The 30th September 1887.

2839/25

From

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

To

The Chief Secretary to the
Government of Fort St. George

Sir,

With reference to the Under Secretary's endorsement dated 24th August 1887, I am directed by the Syndicate to inform you that they approve of the estimate amounting to Rs. 510 for removing and refixing the lightning conductors of the Senate House and to return the same countersigned along with the correspondence accompanying it.

I have the honor to be,
Sir,
Your most obedt. Servt.
W. H. Wilson
Registrar

No. 2102 C d/ 24-6-87
" 2744 C " 16-8-87
G.O. 324 W - 6-2-86

Educl (1887) CURRENT NO. 7

FROM

THE REGISTRAR OF THE
UNIVERSITY OF MADRAS.

Ootacamund
7th Octr. 87

Transferred to the P.W.D., with reference to their endorsement No. 2744 C. dated 16th August 1887, together with estimate & correspondence received.

(By order)
A. G. Cardew. 4/8
Ag. Under Secy

No. 318

Dated } 30th September.
Received } 1st Oct 87

1 OCT 87

C. No. 6092

SUBJECT.

Informing that the Syndicate approve of the estimate amounting to Rs. 510/- for removing and refixing the lightning conductors of the Senate House and returning the same countersigned

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B & R
Works

PUBLIC WORKS DEPARTMENT.

No. 2854 W

2854/26

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 24th October/87

READ the following

From the Consulting Architect to Govt. H. E. No. 664 d/ 5th August 1887
From the Registrar of the University of Madras. H. E. No. 318 d/ 30th September 1887.
Endorsement by the Educational Department. d/ 7th October 1887.

× Works	Rs 410
Establishment	" 94
Tools and Plant	" 6
Total	Rs. 510

5

The estimate amounting to Rs. 410, for removing and refixing the lightning conductors of the Senate House, Madras, is sanctioned.

2. The Syndicate ~~Registrar of the University of Madras~~ will be requested in the Educational Department to place Rs 510 as shown in the margin× at the disposal of the P. W. Department.

3. This sanction has been registered as Excluded Local No. 30 W of 1887-88, and classified as Civil Buildings, Original Works.

11.10.87

3/11

To The Consg. Architect to Govt. with ~~[illegible]~~
" Examiner of P. W. Accts with the estimate for note & return to C. A.
" Educational Department

~~(To The Chief Secy for favor of counter-initials)~~

E. J.

11/10

16/10/87

rc. 21-10-87 R. 24-10-8

2836/27

7976.

Govt. of (1887) Madras

PUBLIC WORKS.

Dated 25/10

Recd. 28/10 - 9 am

Encl.

G.O., 24th Octr. 1887, No. 2854 W

Senate House, Madras

=

Estimate of Rs 410 for removing & refixing the lightning conductors of the turrets

$\frac{60}{5}$

[illegible] 25/10

JH 25/10