D

Public Works (1899) Department.

G.O., No. 2272 W

DATED 20 August **1899.**

[Despatch Abstract.]

Observatory Buildings at Kodaikanal

Directing the Cons. Archt. to report for the information of Govt. when the whole of the including the additional works sanctioned by the Govt. of India are quite completed

NB

File contains no current

1/9

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	1013D		29-8-99				

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

His Excellency the Governor

Flag XX

No: 2272 W 30.8.99

The Consulting Architect will report for the information of Government when the whole of the Observatory buildings including the additional works recently sanctioned by the Government of India are quite completed.

AM 6/8
D.W.

P.K.S.

To the C.A. to Govt ✓ D 31/8/99

Flag B

[illegible] on the last page [illegible]
[illegible] 25.8.99

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Flag C

R 25/8 R 26/8

Note on the construction of Kodaikanal Observatory.

1. January, 1894. Orders issued to prepare plans and estimates.

2. Owing to much correspondence and discussion about details, cost, etc., between Consulting Architect, Chief Engineer, Govt. Astronomer, Meteorological Reporter to the Govt. of India, and also with the Govt. of India, the latter's provisional sanction to the estimate was only received in January, 1897. At the same time, the Govt. of India observed that before beginning work, it should be considered whether any modification in design was necessary, in view of the proposed re-organisation of Indian Observatories.

3. Discussion on these modifications took ~~x~~ some months, and in June, 1897, India's orders were received restricting all expenditure on account of famine.

Flag XXIV

4. In December, 1897, the plan and estimate was transferred, for execution, to the Consulting Architect, the S.E., VI Circle, having professed his inability to obtain a contractor at the estimate rates. The work was commenced in January, 1898, and Rs. 5,500 were spent before end of March.

5. In May, 1898, India stopped work, except on the 2 domes, under instructions from the Secy. of State "until the nature of the work to be done was finally settled". This was the result of the visit to Kodaikanal of Sir. N. Lockyer and the Astronomer Royal.

6. In October, 1898, India's orders to proceed were received. Labour, which had dispersed, had to be re-collected; and it was the wet season. However, work was star

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at once, but had to await the arrival of domes from England, which, although promised by Sir. F. Grubbe about Christmas , did not arrive till March, orApril 1899. When they did arrive, great difficulty was experienced in putting them together, because they were not properly marked, and owing to faulty packing, some of the bed castings were broken and had to be re-cast.

7. The Observatory, as originally designed , is now complete, with the exception of one tower, which is delayed owing to the above difficulties about the domes.

8. Owing to Mr. Harris, the Consulting Architect's admirable management, a saving of Rs. 13500 was effected on the original estimate, from which additional works to the Observatory and Astronomer's Residence have been sanctioned by India, and are now in course of construction.

9. So far from there being avoidable delay, I consider that Mr. Harris has done exceedingly well to bring the buildings to their present condition in the face of delays for which he was in no way responsible, and of the difficulties of transport and labour which beset all work in such an inaccessible place as Kodaikanal.

I presume the complaint emanated from Mr. Michie Smith, and I consider it most ungenerous and absolutely without foundation.

L Bell

W. 22-8-99

In carrying out the orders issued in Jan. 1894, for the preparation of plans and Estimates, there was excessive and unpardonable delay. There was also undue delay on the part of the Government of India, in sanctioning provisionally, those Estimates and Plans.

But, since the work was, in December 1897, entrusted for execution to Mr. Harris, Consulting Engineer, – I consider that skill, good management, economy and despatch have been conspicuously shown, in bringing the work to its present stage.

I notice that the completion of one tower is still delayed. The completion of this part of the work, as well as that of the additional works sanctioned by the Govt. of India, and to be paid for out of savings, – will, I hope, be very shortly consummated. I should like to be told when the whole work is quite finished.

A.E.H.

24.8.99

+ Flagged R

With reference to the first part of His Excellency's Note, I beg to submit a note concerning the delay, which was prepared in the Office, but which I withheld in favour of the shorter one prepared by me dated 22-8-99.

It will be seen from the first 8 paras thereof that the delay, so far as this Dept was concerned, was no more than necessary to prepare & scrutinize the plans & estimates for such a special building as an Observatory.

L Bell

25-8-99

I have read the longer Note, and it contains no information which I was not in possession of when I wrote my Note of yesterday. I hold the same opinion as

I said yesterday, of the dawdling and delay, which took place between Jan. 1894 and Dec. 1897.

A.S.H.
25.8.99

Recorded - CA will report for the informn of H.E. when the ~~Observatory~~ whole of the Observatory buildings are completed

26.8

Very Urgent

P.W.D

Note re. the delay in the construction of Observatory buildings at Kodaikanal

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In January 1894, orders were issued to the Consulting Architect for the preparation of plans and estimates for Observatory buildings at Kodaikanal which were submitted by that Officer to the Government Astronomer on 5.9.94. What took place during the interval is fully explained in the Consulting Architects statement flagged II.

x G.O. no 185 W dy 20.1.94 at Madras

2. These plans and estimates were forwarded to Government (Public Department) on 7.1.95 by the Government Astronomer, who explained the delay to have been due to his having sent the documents to the Meteorological Reporter to the Government of India. They were then sent to the P.W.D for revision with G.O. no. 39 Public dy 18.1.95. which was received in this Office on the 24th idem.

1 Flag III

Flag IV

3. The plans and estimates then underwent regular professional scrutiny in the Chief Engineers Office, which they left on the 9th March 1895. During the interval, Colonel Pennycuick had to go on a tour of inspection, and this caused

Flag V

Indexed.

P. W.
2,000—29-3-99.

caused a slight delay which would not otherwise have occurred. It may in this connection be remarked that the work of examining plans and estimates for special works such as Observatories is of such a nature that it cannot be rushed through.

They were certainly not rushed thro' in this instance.
A.S.H.

4. The plans and estimates were resubmitted to the Chief Engineer on 31-5.95. After re-examination in this Office, they were forwarded to the Public Department on 30.7.95. They came back on the 5th September with an order stating that a separate plan and estimate for the Astronomer's residence should be prepared on the lines suggested and submitted in the first instance, and that any design for the Observatory could only be provisionally approved: Moreover orders* had been received from the Public Department to the effect that the Astronomer's residence should be completed before the building of the observatory is taken in hand. These orders were cancelled so late as May 1897 vide Flag VIII. Thus the question of Astronomer's residence was given priority of attention.

Flag VI

Flag VI

θ Flag VII

5. Revised plans for the Astronomer's residence were submitted by the Consulting Architect on 1-10-95, which were at once forwarded to the Public Department. One of them was approved subject to certain remarks. The Consulting Architect was then on 15-11-95 directed to submit detailed estimate. This was received through the Government Astronomer on

‡ Flag IX

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Flag XI

* G.O. No 1 Public d/ 4-1.94 (GG185 W / 20-1.94 at Madras.)

on 22-1-96 and was after scrutiny forwarded to the Public Department on 16.3.96 for approval. The sanction of the Government of India to the construction of the residence at an estimated cost of Rs 31.360 was applied for in May 1896.

Flag XII

Flag XIII

Flag XIV

6. In Memo No 414D d/ 11-6.96, the Consulting Architect was directed to expedite the submission of the estimate for the Observatory building. This was received in the Public Department in July 1896 and transferred to the P.W.D in the following month. The details of the Observatory formed the subject of correspondence and discussion for a long time. Such correspondence and discussion were inevitable owing to the special nature of the work. In September 1896 the estimate was, after examination in the Chief Engineer's Office, forwarded for the approval of the Government of India. India's sanction to the construction of quarters for the Astronomer's establishment was applied for ~~in~~ on 29-9-96 ~~October 1896~~.

Flag XV

Flag XVI

Flag XVII

7. India's letter observing that the estimate of Rs 31.360 was too high for the Astronomer and sanctioning the construction of the building for at a cost not exceeding Rs 20.000 was subseq received and communicated to the Consulting Architect for the submission of fresh The Gov trac and estimate.

Flag XVIII

at once, but had to

8. In December 1896, the sanction of the Govt of India to the construction of quarters for the Astronomer's establishment was communicated to the Officers concerned.

Flag XIX

9. In its letter dated 7.1.97, India communicated the provisional sanction to the estimate of Rs 35.060 for the Observatory and observed that before beginning work, it should be considered whether any modification in design was necessary in view of the proposed reorganisation of Indian Observatories. The Opinion of the Government Astronomer that no modification was necessary was received and communicated to the Suptg Engineer on 30.3.97. Thus passed the Official Year 1896-97, while the construction of the Observatory and the Astronomer's residence was not even commenced.

Flag XX

Flag XXI

10. The question of designing a suitable residence for the Astronomer within the limit of Rs 20,000 was under correspondence between the Public and P.W. Depts and an estimate of Rs 19.663 was finally sanctioned in August 1897.

Flag XXII

11. The orders of the Government of India restricting cash outlay, which were issued in June 1897, were in force for some time; and the Suptg Engineer was then authorised to proceed with the works rapidly. The Officer found it impossible to obtain a contractor to undertake the construction of the buildings

Flag XXIII

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at the rates provided in the sanctioned estimates and submitted revised estimates on the tendered rates which were in excess of the sanctioned amounts. In G.G No 3460W dated 10th December 1897, the works were transferred to the charge of the Consulting Architect for execution departmentally.

Flag XXIV

12. The sanctioned estimate for the Observatory required certain alterations and a revised estimate embodying them was sanctioned in G.G No 117W dated 17.1.98 for Rs 35.850. This was 2½ months before the close of the Official Year 1897-98. The following outlay was incurred to end of 1897-98:

Flag XXV

	Amount of Estimate Rs	Expenditure incurred Rs
(1) Observatory building —	35.850 -	5.546
(2) Astronomer's residence	19.663 -	8.183
(3) Quarters for the Estabt —	11.570 -	5.715

13. In May 1898, the Government of India communicated copy of a telegram from the Secretary of State stating that work on the Observatory buildings should be stopped excepting the two domes, until the nature of work to be done therein was finally settled. The Consulting Architect at once asked for orders whether he might proceed with the bo of the Observatory as otherwise labour arrangements would be entirely upset. The Gov

Flag B

Flag C

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Indexed. 3/1

Note re. the construction of Kodaikanal Observatory

of India was addressed. In reply that Government stated that "in the absence of any information "as to the progress and present state of the buildings "and of any professional engineering opinion as "to the suspension of work upon them the Govt of "India are not prepared to issue any instructions "at variance with those that have been received "from the Secretary of State" and called for a detailed report on the present state of progress of the buildings: This report was furnished^α to the Govt of India in August 1898. Work on the body of the Observatory was meanwhile stopped. Permission of the Government of India to proceed with the work was received in October 1898: The work was resumed and labourers had to be procured. Kodaikanal is a place where it is very difficult to procure labour.

Flag A

& Flag D

Flag E

14. Owing to the great care and indefatigable energy bestowed on the works by the Consulting Architect the Astronomer's residence and quarters for the Establishment were practically completed^θ before December 1898; the Observatory was complete except work connected with the domes which had not been received from England.

15. Certain additional works connected with the Observatory and the Astronomer's residence were sanctioned in January and February 1899 and must have been completed ere long. The buildings are believed to be complete^α in all respects and the Consulting Architect has been able to effect large savings to the extent of Rs 13,500^θ on the sanctioned estimates.

Flags F & G

16. It will thus be seen that there was no avoidable delay on the part of the P.W.D in the construction of Observatory buildings at Kodaikanal; but on the other hand Mr Harris deserves praise for the rapidity with which he carried out the works. Considerable time was taken up in correspondence and discussion re. the details of the Observatory and the revision of designs for the Astronomer's residence. It must also be remembered that the works, while in good progress were twice stopped, for which the P.W.D or the Madras Government was in no way responsible.

P.K.S

25.8.99

α There is no means of verifying this here, as the Progress Reports are at Madras. Mr Harris may probably be consulted

θ The amount is also quoted from memory. The paper containing the information has been put up with the recent telegram from Mr Michie Smith, which was referred to C.A. yesterday.

θ This statement is from memory. I remember the C.A. so reported in the Progress Reports for December 98 & January 99, which are at Madras.

Seen. A.G.H.
25.8.99

.... DEPARTMEN

READ the following :—

Urgent.

Note on the construction of Kodaikanal Observatory

Circulated to

FOR ORDERS

1. January 1894 orders issued to prepare plans & estimates
2. Owing to much correspondence & discussion about details of cost &c, between Consulting Architect, Chief Eng., Govt. Astronomer, Meteorological Reporter to Govt. of India, & also with the Govt. of India, the latter's provisional sanction to the estimate was only received in January 1897. At the same time the Govt. of India observed that before beginning work, it should be considered whether any modification in design was necessary, in view of the proposed reorganisation of Indian Observatories.
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k some months, & in June 97 India's orders were received restricting all expenditure on account of famine.

In December 1897 the plan & estimate was transferred for execution to the Consulting Architect, the Depty. Supt. VI Circle having professed his inability to obtain a contractor at the estimated rates. The work was commenced in January 1898, & Rs 5500 were spent before end of March.

5. In May 1898, India stopped work, except on the 2 domes, under instructions from the Secy of State "until the nature of the work to be done was finally settled". This was the result of the visit to Kodaikanal of Sir N. Lockyer & the Astronomer Royal.

In October 1898, India's orders to proceed were received. Labour, which had dispersed, had to be re-collected, & it was

Note re. the construction of Kodaikanal Observatory

ms' DW

Please see H.E's remarks dy 24.8.99.

2. H.E observes that "in carrying out the orders issued in January 1894 for the preparation of plans and estimates, there was excessive and unpardonable delay". In reply to this observation, the detailed explanation furnished in my note flagged R (Paras 1-11), may perhaps be submitted to H.E.

P. K. S
25/8/99

To W. I think that this may be done

ACC

DEPARTMENT

READ the following:—

2.

Circulated to

FOR ORDERS

the wet season. However, work was started at once but had to await the arrival of domes from England, which, although promised by Sir H. Grubb about Xmas did not arrive till March or April 1899. When they did arrive great difficulty ~~was~~ was experienced in putting them together, because they were not properly marked, & owing to faulty packing some of the bed castings were broken, & had to be re-cast.

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P. W. 43.
1,000—28-2-99.

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9. So far from there being avoidable delay I consider that Mr Harris has done exceedingly well to bring the buildings to their present condition in the face of delays for which he has in no way responsible, & of the difficulties of transport & labour which beset all work in such an inaccessible place as Kodaikanal –

7 I presume the complaint emanated from Mr Michie Smith, & I consider it most ungenerous & absolutely without foundation

L Bell 22. 8 [illegible]

P

H.C. Let me have a report within a week – if you have not got the file write for it

17 8 [illegible]

W ~~thro' Dir~~

Report submitted.

2. It may be thought that the note is too long; but it is submitted that His Excellency may not probably be satisfied without full and detailed explanation ~~without~~ showing the various stages thro' which the works passed.

3. The papers were received from Madras yesterday. The current

Sir.

I think it best to go at once to Kodai & submit report after consultation with Mr [illegible] this I will do after I have seen round the Madras work &c I must examine first.

I cannot understand where 'delay' comes in :- The Astronomer's Qrs. the Asstt. 3 Qrs. – in prov. lines &c &c ~~there~~ were practically complete June/July 98 – & the Observatory was up to window level – I am writing here from memory, but there were ~~considerable~~ changes in design of Observatory, & about April/May a telegram from G of I. was forwarded me to stop work on Observatory – at that time I had all doors, windows, trusses, iron roofing, tiles &c &c ready to put into work. –

This order naturally caused dispersal of labour – about Oct/Nov. 98 – orders to resume work were received. the cold wet time of the year – however work started, & I was promised

P. W. 2
9,000—29-3-99.

Indexed. 31/8