

19th December, 1961.

NI/GP/62/5

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

Rutherford Laboratory Restaurant

Note by the Secretary

1. The Committee will recall approving at a cost of £85,500 a proposal for a Restaurant at the Rutherford Laboratory as set out in paper NI/GP/60/23. The estimate was made up as follows:-

	£
Architects	46,000
M. and E. Services	24,000 (including £3,000 for external services)
	70,000
Fees	10,500
Furniture	5,000
	£85,500

2. The above estimate was dated April, 1960, and Treasury approval was given on the 14th December, 1960. The construction has not proceeded to programme and the delays coupled with the recent steep rises in cost of labour and material have undoubtedly affected the total cost. A re-estimate has taken place taking into account this factor, additional requirements of the client, and the more accurate estimate of the cost now that working drawings are completed.

3. The revised figures are as follows:-

	£
Architects	59,500
M. and E.	31,500
Increase in cost of labour and material	10,000
	101,000
Fees	19,150
Furniture	5,000
	£125,150

4. The "breakdown" of the increased cost is as follows:-

	£
Increased cost of labour and materials	10,000 <i>Chapter Vane</i>
Changes to clients specification	9,600 " " "
Underestimating - Architects	8,100
Underestimating - M. and E. Services	3,300
Increase in fees	8,650
	<u>£39,650</u>

5. Comments on the increases are as follows:-

5.1 Increased costs £10,000

The original estimate was prepared in April, 1960, and the increase of 14% covers additional contractual payments and rises in prices between the estimate and contract dates. No account has been taken of possible future price increases.

5.2 Changes to specification £9,600

Arising from a special investigation into the operation of the canteen, it was found that a further 800 sq. ft. was necessary for storage space (£4,400). In addition, it was decided to recommend a revolving door to prevent draughts in the foyer and servery; this with minor changes is estimated at £4,000. The revised siting has increased the cost of external services by £1,200. All these changes are essential for the proper functioning of the Restaurant, and were errors of omission in the preliminary plans.

5.3 Underestimating - Architects and Engineers

An underestimate by the architects of £8,100 is approximately a 15% error on the original estimate plus the increase in cost of labour and materials. An underestimate by the engineers of £3,300 is approximately a 11% error on the original estimate plus the increase in cost of labour and materials.

It is claimed by the Southern Works Organisation of the U.K.A.E.A. that the estimates previously submitted were only "token" estimates based upon preliminary drawings. They admit to being remiss in not having made a timely revision of the estimate so that approval could be obtained before building work started. On the basis of the S.W.O. statement, the deviations from previous figures are close to the 25% error normally associated with "token" estimates. In consequence of this, "control" estimates will in future be requested before work starts on any scheme. This may take longer to execute preliminary works but in the long run will minimise waste effort and financial difficulties.

5.4 Increased Fees £8,650

This increase is made up of:-

- (a) charges on a pro-rata basis as the fees of Quantity Surveyors, Supervision of Works, etc. will all be charged on a percentage of cost basis (£4,650).
- (b) costs of drawings subsequently discarded due to changes in design (£4,000).

6. Changes in the internal seating arrangements in the cafeteria, mainly brought about by the repositioning of the licensed bar, have resulted in an increase of capacity to approximately 300. An analysis of the actual cost devoid of external services, costs of abandoned design and increased costs of labour and materials gives the cost per seat as £356 as compared with £330 previously, i.e. an 8% increase on cost per seat basis. 177

Consideration has been given to see whether economies could be justified by stopping the work and replanning, but the work is in an advanced state, and with the increased complement of staff and visitors compared with the complement when planned, the added capacity will be necessary. The present complement including Atlas and all visitors is 1,100, compared with the 750 estimated early in 1960.

7. The scheme is being reviewed and already an appreciable saving has been made by changing the roof design. Further analysis may effect minor economies but no further substantial saving can be foreseen.

8. Approval is therefore sought for an increase of the full £39,650 in the cost of this scheme making a new total of £125,150.

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