

Ferry Building

Construction Cost Estimates

HALLAM-EAMES & PARTNERS
QUANTITY SURVEYORS

HALLAM LAMES & PARTNERS

CONSULTING ENGINEERS
100 RANGITIKEI STREET, AUCKLAND 1
TELEPHONE 3641 1000

21 December 1981.

AUCKLAND FERRY BUILDING

Structural, Design and Mechanical
Consulting Engineers,
P.O. Box 47-000,
Franklin,
AUCKLAND 1.

Dear Sirs,

PROPOSED UPGRADING

of the Auckland Ferry Building

as detailed in the proposed architectural drawings for the proposed
structural and mechanical upgrading of the Auckland Ferry Building
and its related services.

CONSTRUCTION ESTIMATES

Yours faithfully,



HALLAM LAMES & PARTNERS

21 December, 1981.

HALLAM-EAMES & PARTNERS

QUANTITY SURVEYORS

8TH FLOOR GENERAL BUILDINGS 29 SHORTLAND STREET
P O BOX 5497 AUCKLAND NZ TELEPHONE 31-639, 796-042

21 December 1981.

Messrs. Gurley and Nicholls,
Consulting Engineers,
P.O. Box 47-215,
Ponsonby,
AUCKLAND, 1.

Dear Sirs,

PROPOSED UPGRADING OF AUCKLAND FERRY BUILDING - CONSTRUCTION ESTIMATES.

As requested we have prepared construction estimates for the proposed structural and non-structural upgrading of the Auckland Ferry Building and we enclose herewith our report.

Yours faithfully,



HALLAM-EAMES & PARTNERS.

Encl.

AQD/ads

BASIS OF COSTING

This estimate has been split basically into sections, as set out below.

The information upon which our estimates are based is covered mainly in Messrs Gurley and Nicholls reports, and in Dr Gibbons report but to some extent our estimates are based on assumptions that can only be clarified after further investigation and research, e.g. the likely rate of drilling into stone that is achievable in Auckland on a building such as The Ferry Building. In addition, our estimates are based on the assumption that The Ferry Building will be restored in its present configuration of offices and amenities, but to a modern standard of amenity. No allowance has been made for providing services for uses other than offices on the first, second and third floors.

a) Superstructure Structural Upgrading

Our research within New Zealand and Mr Nicholls report from his overseas observations and discussions has indicated to us that a conservative estimate should be allowed for drilling work at this stage. Our estimate for this section includes for :-

- (i) Set up and drilling.
- (ii) Reinforcing Steel.
- (iii) Grouting reinforcing steel.
- (iv) Shotcrete strengthening to internal walls.
- (v) Ring beam connections at floor levels.
- (vi) Diaphragm slab at roof and ground floor level.
- (vii) Exterior scaffolding to building.

Our estimate allows for drilling, on average, two 2 metre holes per day. Overseas observations indicate that this rate is easily achievable but with the current lack of skilled operators in New Zealand, it is our opinion that a conservative rate should be used.

b) Sub-structure Structural Upgrading

We have allowed in this section for the estimated cost of sub-structure work as indicated in the Engineers report.

c) Non-Structural Upgrading

This section includes estimates for Work which we consider necessary to upgrade the internal fabric and services of the building. As stated previously, the assumed use of the whole of the building is offices. Should the eventual use of the building be different, e.g. the incorporation of a Restaurant or Museum, then our estimates would need to be revised to cover the possible requirements of such uses, e.g. fire detectors, greater lift capacity, different fire egress requirements.

c) Non-structural Upgrading contd.

We have allowed in our estimates to restore the building internally to an average commercial quality. For example we have allowed for :-

- (i) 36oz Commercial grade loop pile carpet on underlay.
- (ii) Plaster and paint to internal masonry walls.
- (iii) Repaint to existing ceilings and cornices.
- (iv) Repaint/revarnish existing internal doors.
- (v) New 2 mm vinyl tiles to toilet floors.
- (vi) Paint to toilet walls.
- (vii) Formica toilet partitions.
- (viii) New plumbing services and fittings to toilets.
- (ix) New electrical services including power points and surface mounted fluorescent light fittings. Spot lighting in Colonade and to exterior of building.
- (x) Ease, repaint and reglaze and reputty external windows.
- (xi) New single car nine passenger lift with new enclosed lift shaft within existing stairwell.
- (xii) Fire hose reels (10 No.).

d) External Non-structural Work

- (i) Remove existing roof tiles and replace with new concrete tiles, underlay and battens. Renew internal box gutters and roof flashings, replace defective downpipes.
- (ii) External paving, planters and streetscape.
- (iii) Drainage.
- (iv) Replace canopy to East end, upgrade ground floor walls to East and West, reroof Annex.
- (v) Restoration work to stonework and brickwork on exterior facade, as outlined in Dr G. Gibbons report of December 1981.

e) Contract Overheads and Contingency

- (i) Preliminaries - permits, supervision, plant, scaffolding (other than to exterior of building), on-site administration, temporary power, water and toilets, insurances, protection.
- (ii) Profit Margin and off site overheads. This particular project will be a difficult project to detail, specify and document in order for Contractors to Tender especially as there are significant sections of restoration work, the extent of which will not be known finally until the Work is commenced.

e) Contract Overheads and Contingency contd.

Therefore this project may well suit a management type contract whereby the Auckland Harbour Board appoint a Project Manager to let and co-ordinate a series of separate contracts for the Work. Thought could perhaps be given to letting separate contracts for sub-structure strengthening, superstructure strengthening, and non-structural upgrading.

For budgetting purposes, we have allowed a Margin of approximately 10% to cover the contract administration including a Contractors Margin.

(iii) We have allowed a Contingency Sum.

f) Consultants Charges

While the engagement of Consultants may well be on an actual time and expense basis, it is, in our opinion, more realistic to establish a budget on a percentage fee basis at this stage. We have therefore allowed 12½% overall to cover preliminary investigation (including specialist investigation), pre-contract design and documentation and contract administration.

ESCALATIONS

(a) Pre-contract

Our budget estimates are based on current costs. Provision would therefore need to be made for escalation both over the pre-construction and construction periods.

From our own research, escalations on this type of work have been running at approximately 18 to 20 % per annum. It will depend therefore on the length of lead in time prior to construction as to what provision should be made for escalations prior to construction starting. We would consequently suggest that Mr Le Clerc allow for escalation in his budgets accordingly.

(b) Contract

In our opinion, a two year construction period should be budgetted for. On current trends we could expect therefore that over the construction period alone, costs will escalate some 40%. However, as construction proceeds, progress payments will be made and, as a result, the actual rate of escalation will decrease. Our research shows that the actual amount of escalation will usually equate to :-

$$\begin{aligned} \text{Escalation} &= \text{Contract Value} \times 20\% \text{ p.a.} \times \\ &\quad 2 \text{ years} \times 60\% \text{ rate of expenditure} \\ &\quad \times 80\% \text{ rate of recovery} \end{aligned}$$

SUMMARY OF CONSTRUCTION ESTIMATES

Note : Refer to Basis of Costing section of this Report.

a) Superstructure Structural Upgrading		3,624,000.00
b) Sub-structure Structural Upgrading		440,000.00
c) Non-Structural Upgrading		
(i) Internal Demolition	\$ 33,000.00	
(ii) Carpentry	250,000.00	
(iii) Stairs	17,000.00	
(iv) Lift	103,000.00	
(v) Floor coverings	118,000.00	
(vi) Electrical	100,000.00	
(vii) Plumbing	50,000.00	
(viii) Internal plastering and painting	198,000.00	
(ix) Fire hose reels	6,000.00	
(x) Interior of exterior windows	32,000.00	
	<u>\$ 907,000.00</u>	907,000.00
d) External Non-structural Work		
(i) Roofing	\$ 36,000.00	
(ii) Paving and Streetscope	37,000.00	
(iii) Drainage	12,000.00	
(iv) Canopy, East and West Ends	96,000.00	
(v) Exterior facade restoration	280,000.00	
(vi) Exterior windows including reglazing provision	37,000.00	
	<u>\$ 498,000.00</u>	498,000.00
e) Contract Overheads and Contingency		
(i) Preliminaries	\$ 165,000.00	
(ii) Margin	160,000.00	
(iii) Contingency Sum	150,000.00	
	<u>\$ 475,000.00</u>	475,000.00

f) Consultants Charges

743,000.00

CONSTRUCTION ESTIMATE

\$ 6,687,000.00

Note :- This estimate excludes Increased Costs from December 1981.

