From: Oct 83

To: July 1986 . 458

1987 328.244

FILE WORK SHEET

SUBJECT Bean Rocks Lighthouse.

BRING UP	REMARKS	BRING UP	REMARKS
DATE FOR	REMARKS	DATE FOR	REMARKS

CONTRACT NO. 2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

PAYMENT NO. 5 FINAL

	CONTRACT AMOUNT	AMOUNT PAID
Establishment	25,000-00	25,000-00
Disconnect House	5,800-00	5,800-00
Demolish Tower	11,400-00	11,400-00
Construct Tower	63,700-00	63,700-00
Foundations	75,000-00	75,000-00
Replace Lighthouse	10,000-00	10,000-00
Contingency Sum	30,000-00	
Original Contract Value	220,900-00	190,900-00
V.O. 1 Extra depth on footings		2,175-00
V.O. 2 Misc. items on Tower		287-50
V.O. 3 Misc. Credits		(2,760-71)
TOTAL VALUE OF WORK DONE		\$190,601-79
LESS Previous Payments	151,982-22	
Readimix account	10,282-78	
Liquidated Damages	1,000-00	\$163,265-00
		\$ 27,336-79

COMPILED BY Albanas

CHECKED BY Albanas

ble 11/86

AUCKLAND HARBOUR BOARD

THE	AU	HARBOUR BOX 1259	BOARD
	P.O.	SUX 1259	

Dr. to

DATE: 2 JULY 1986

(Name of Claimant) Precast Construction Ltd
PO Box 58107, East Tamaki

***************************************	ngineers'	Department	(Name of Cla			t Construc 58107, Ea				
Order No. Date Supplied	Franc	PARTICULARS IN FULL		Signature (A.H.B.)	Rate			ТОТА	NL	
	5th and Fi of Contrac above in a	Lighthouse F nal Payment of t No. 2500A f ccordance wit 5, dated 2/7/	n account or the h Engineers'		Edgio	o D (Pin		27,		79
	(p.27 , 3				end con	nts only struction 7/5/86				
	DUF	PLICATE	cluding var Bilbnsi			s 100,	601,	19		
Signa Claim	ture of ant			151,912			\$			
Addre	·ss	Acceptance	22 1			NET TOTAL	\$	27,	33 6	79
	/ Am	nunt now cortilled	REDITORS CO			,	336,	79		,
Order Ref.	Cost Code/ Job Number	Amount \$\$\$\$\$.cc	Narration (REMARKS COLUMN WILL APPI REPORT DATA)	INSERTED IN				A/C Po	Order I Partial	
2500A	J 7322 (CC 659)	\$27,336.79	PLICATE						C	
the sum	e countersigned		19	, from the	Treasu		land H	Ď	ollars	



2/7/86 Date: To: From: Progress Payment Certificate No. 5 (Final) Contract No. 2500A For Bean Rocks Lighthouse Reconstruction I hereby certify that the sum of Twenty seven thousand three hundred and thirty six dollars and seventy nine cents only (\$27,336.79)is due to Messrs Precast Construction Ltd on account of work completed to 27/5/86 \$ 190,601.79 Value of work completed (including variations) Less Retention 151,982.22 \$ Less Previous Payments Less Liens Act Retention Less Liquidated Damages Less Readymix Account 1,000.00 10,282.78 \$ 163,265.00 \$ 27,336.79 Amount now certified

DUPLICATE



E 758

Memorandum

TO: THE CHIEF ENGINEER

Date:

1 July 1986

From: THE CONSTRUCTION ENGINEER

re : CONTRACT 2500A - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

I hereby certify that the maintenance work accrued up to the maintenance period ending 22 February 1986 was completed to my satisfaction on 27 May 1986.

D. U. Goord CONSTRUCTION ENGINEER

DLG: REW

un Can Cert please. flac



- Reference

Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

2 July 1986

Messrs Precast Construction Ltd P.O. Box 58-107 EAST TAMAKI

Dear Sirs

CONTRACT 2500A : BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Please find enclosed herewith copy of the Maintenance Certificate related to the above contract.

Yours faithfully

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

RNC:pac

CONTRACT NO. 2500A BEAN ROCKS LIGHTHOUSE RECONSTRUCTION MAINTENANCE CERTIFICATE

I hereby certify that the maintenance work accrued up to the maintenance period ending 22 February 1986 was completed to my satisfaction on 27 May 1986.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

Secretary - for your records Precast Construction Ltd Construction Engineer



Memorand

To:

GENERAL MANAGER

19 JUNA

CHIEF ENGINEER From:

BEAN ROCKS LIGHTHOUSE MODEL

Now that the model has been completed and put on display in the lobby of Level 5, it has been favourably commented upon.

It has been sought for display in Shed 21 for Japan Week.

Because it is built mostly of balsa and is not protected, there is a possibility of damage. Dust has begun to collect on the model and, as it is fragile and intricate it is hard to clean without damage.

A clear plastic hood could be provided at a cost of \$160.00 to protect the model and prevent dust accumulation.

The attraction of the model is partly due to the working light installed which mimics the actual light in colours, phase and segments. Batteries, value \$90.00, are presently used from the Electrical Section's test facility, which are rechargeable. It would be more appropriate to provide a mains connection and a small transformer to provide 12 volts.

A suitable "plug pack" costs \$54.94.

With your concurrence, I propose to obtain the hood and

plug pack.

B.R. Le Clerc

CHIEF ENGINEER TO THE BOARD

JW: pac

cc: Electrical Engineer

ROBERT COOPER GENERAL MANAGER

24 June 186

Code 929.886. Ids Regner &



Memorandum

To: GENERAL MANAGER

Date: 19 JUNE 1986

From: CHIEF ENGINEER

BEAN ROCKS LIGHTHOUSE MODEL

Now that the model has been completed and put on display in the lobby of Level 5, it has been favourably commented upon.

It has been sought for display in Shed 21 for Japan Week.

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A suitable "plug pack" costs \$54.94.

With your concurrence, I propose to obtain the hood and plug pack.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

JW: pac

cc: Electrical Engineer

CONTRACT NO. 2500 A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

RECONCILIATION

ITEM	CONTRACT	ACTUAL	PLUS	MINUS
1	25,000-00	25,000-00		_
2				_
3	5,800-00	5,800-00		_
4	11,400-00	11,400-00	_	
5	63,700-00	63,700-00)		
5 V.O. 3.3		- 2,000-00)		2,000-00
7	75,000-00	75,000-00)		
7 V.O. 1		2,175-00)	2,175-00	_
8	10,000-00	10,000-00		_
9	30,000-00)		
9 V.O. 2		287-50)	-	29,712-50
	\$220,900-00	191,362-50	2,175-00	31,712-50
EXTRAS				
V.O. 3.1) V.O. 3.2)		- 760-71		760-71
Liquidated Da 4 weeks @ \$29	amages 50/week -	- 1,000-00		1,000-00
	\$220,900-00	189,601-79	2,175-00	33,473-21

COMPILED BY. Makes....

CHECKED BY P.E. Polo.

Her Leutell of.



Reference Yr Ref 54/1/851

Auckland Harbour Board Princes Wharf Quay St., Auckland, New Zealand P-O. Box 1259, Auckland Telephone 795-950, Telex: NZ 2705 Telegrams: Habord, Auckland

12 February 1986

Ministry of Transport Private Bag AUCKLAND 1

Dear Sir

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

... Please find enclosed completion certificate related to the above works.

Yours faithfully

B R Le Clerc CHIEF ENGINEER TO THE BOARD

Encl. Completion Certificate

CERTIFICATE OF COMPLETION

I,B.R.Le Clerc
(name)
of Auckland Harbour Board, PO Box 1259, Auckland
(company, organisation and address)
hereby certify that the work approved on plan MD (N) 1204
being Lighthouse Reconstruction - Bean Rocks
(type of work)
has been completed in accordance with that plan and the stated
intentions of the application.
(Signed)
(Position) Chief Engineer
(M.O.T. Reference54/1/851)



IISTRY of TRANSPORT

OUSE PRIVATE BAG, AUCKLAND 1 TELEPHONE: 773 400 To: EET D AND Date: 10 . 2 PLEASE ACKNOWLEDGE PLEASE REPLY DIRECT 851 Harbours & Foreshores SUBMITTING COPY TO HEAD OFFICE Section PLEASE REPORT FOR YOUR INFORMATION AND RETURN PLEASE FOR NECESSARY ACTION PLEASE NO HARBOUR RUCTION : BEAN ROCK 1985 advising approval pursuant to Section for the above structure. GENERAL MANAGER ; structure has been completed. If it has, J4038/6 impleted Completion Certificate to this

If it is not completed could you please advise when it is proposed that this structure will be completed.

Yours faithfully

W. Lyall

for Regional Secretary for Transport





MINISTRY of TRANSPORT

CUSTOM HOUSE QUAY STREET AUCKLAND NEW ZEALAND PRIVATE BAG, AUCKLAND 1 TELEPHONE: 773 400

Harbours & Foreshores

MO HARBOUR OF

Section

WHEN REPLYING PLEASE QUOTE

Our Ref: 54/1/851

The Secretary Auckland Harbour Board P.O. Box 1259 AUCKLAND

Dear Sir

COMPLETION: LIGHTHOUSE RECONSTRUCTION: BEAN ROCK

Further to our letter of 5 July 1985 advising approval pursuant to Section 178(b) of the Harbours Act 1950 for the above structure.

Could you please advise if this structure has been completed. If it has, could you please forward the completed Completion Certificate to this office.

If it is not completed could you please advise when it is proposed that this structure will be completed.

Yours faithfully

V. Lyall for Regional Secretary for Transport



CERTIFICATE OF COMPLETION

I, B R Le Clerc
(name)
of . Auckland Harbour Board, PO Box 1259, Auckland
(company, organisation and address)
hereby certify that the work approved on plan MD (N) .1204
being Lighthouse Reconstruction - Bean Rocks
(type of work)
has been completed in accordance with that plan and the stated
intentions of the application.
Bar
(Signed)
(Position) Chief Engineer
(M.O.T. Reference54/1/851)



Reference

Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

28 JAN 1986

27 January 1986

The Manager Contractors Bonding Ltd 6 Raroa Road LOWER HUTT

Dear Sir

AUCKLAND HARBOUR BOARD CONTRACT 2500A: BEAN ROCKS LIGHTHOUSE RECONSTRUCTION: PRECAST CONSTRUCTION LTD

Substantial completion of work in respect of the above contract has now been advised and the related Performance Bond is released and returned herewith.

Yours faithfully

G.J. Bissell SECRETARY

cc: Chief Engineer

Treasurer Contract File

Copy sent to: The Manager

Precast Construction Ltd

60 Taipoa Road

TE ATATU

Sec 28/1



Memorandum

TO: THE CHIEF ENGINEER

Date: 21 January 1986

From: THE CONSTRUCTION ENGINEER

re: BEAN ROCKS LIGHTHOUSE RECONSTRUCTION - CONTRACT 2500A

Attached are $V.O.s\ 1,\ 2,\ 3$ and 4 for the above contract for your signature.

 $\underline{\text{V.O. 1}}$ is to cover the extra excavation required for the footings over that allowed for in the contract. The rate of \$150/m³ was submitted by the Contractor prior to acceptance of the contract.

V.O. 2

- 2.1 is to cover the cost to have s.s. banding placed around a bad split in one of the tower legs.
- 2.2 is to cover the cost of the use of the Contractor's cherry picker to install electrical equipment in the house after it was installed on the tower in the Buoys and Beacons yard.
- 2.3 is to cover modifications necessary to the end plates for the stairs to enable them to fit the new deck beams under the balcony.
- 2.4 is to cover the cost to have paintwork under the house touched up after it was installed on the legs.

V.O. 3

- 3.1 is a charge on the Contractor for opening the yard on a week
 -end at his request.
- 3.2 is a charge on the Contractor for sealing holes in the ridge capping which were cut to install the lifting bolts.
- 3.3 is an agreed credit for deleting the turnbuckles on the steel rod crossbracing to the tower. These were no longer necessary due to a modified construction detail.
- $\underline{\text{V.0. 4}}$ is an extension of time agreed due to late completion of the house renovations by the A.H.B. The revised completion date is one week after the house was made available to the Contractor to lift onto the towerstructure. One week was considered a reasonable time to allow the contractor to install the house on the legs and return it to its site on Bean Rocks.

D.A. Goord CONSTRUCTION ENGINEER

AKH: REW Attach.

Sec.



VARIATION ORDER No. 1

Contract No. 2500A

TO Precast Construction Ltd

P.O. Box 692, AUCKLAND

Contract Title Bean Rocks
Lighthouse Reconstruction

I hereby order, under Clause of the General Conditions of Contract, the following variation in the works:-

References

Rate for extra excavation as per Precast Construction's letter dated 24 April 1985.

Description of Works and Basis of Payment

Extra Excavation required in footings above the $60\,\mathrm{m}^3$ allowed in the Contract.

14.5m³ @ \$150-00

\$2175-00

DUPLICATE

Contract Period No Change

EMERORIAR CONCERNATION OF THE STATE OF THE S

2B(i)

126C

Chief Engineer to the Board



VARIATION ORDER No.

Contract No. 2500A

Contract Title Bean Rocks
Lighthouse Reconstruction

TO Precast Construction Ltd

P.O. Box 692, AUCKLAND

I hereby order, under Clause 13 of the General Conditions of Contract, the following variation in the works:-

References

Precast Construction "Schedule of Variations" that accompanied their November progress claim.

Description of Works and Basis of Payment

2.1 Banding split in leg with s.s. banding strap \$ 50-00

2.2 Hire of Cherry Picker to install electrical equipment in lighthouse - 6 hrs @ \$16-67 100-00

2.3 Modification to stairway fixing brackets 112-50

2.4 Touch up paint of lighthouse 25-00

DUPLICATE

Contract Period No Change

EMENDENTRECKINE NO NEW XXXXXXXVV PEKX

28/1/86

Chief Engineer to the Board

Date _



1	1	A	RI	A	T	10	N	0	RD	FR	No.	
				# 1	A 81	R -	N 40		E E Sand	C-1 1		

3

Contract No. 2500A

TO Precast Construction Ltd

P.O. Box 692, AUCKLAND

Contract Title Bean Rocks Lighthouse Reconstruction

I hereby order, under Clause /3 of the General Conditions of Contract, the following variation in the works:-

References

Description of Works and Basis of Payment

Credits For :

3.1 Wages to keep yard open on Saturday November 16 Sunday 17 November.

Saturday 4 hrs $@ 1\frac{1}{2}$) 4 hrs @ 2) 24 hrs @ \$22-49 539-76

Sunday

5 hrs @ 2)

3.2 Plumbers to seal holes in ridge capping

2 December 2 plumbers @ 4½ hrs

9 hrs @ 24.55

220-95

3.3 Deletion of turnbuckles

AHB letter 16 October 1985

2000-00

\$2760-71

Contract Period No Change

Date_

20/1/86

Chief Engineer to the Board



VARIATION ORDER No. 4 Contract No. 2500A Contract Title Bean Rocks Lighthouse Reconstruction TO Precast Construction Ltd P.O. Box 692, AUCKLAND

I hereby order, under Clause 13 of the General Conditions of Contract, the following variation in the works:-

References

Description of Works and Basis of Payment

Extension of time of 29 days (due to late completion of renovation work on house by A.H.B.) Making the revised completion date 25 October 1985.

Contract Period NXXXXX

Extended/XXXXX by 29 XXXXX Days

28/1/86 Date -

Chief Engineer to the Board

PAY BEFORE 20.12.85

AUCKLAND HARBOUR BOARD FILE 758

KLAND HARBOUR BOARD P.O. BOX 1259

DATE: 10.12.85

Dr. to

(Name of Claimant) PRECAST CONSTRUCTION LTD P.O. BOX 58107, EAST TAMAKI ENGINEERS Department
For the undermentioned:

Order No. Date Supplied		PARTICULARS IN FULL		Signature (A.H.B.)	Rate			TOTAL	
	construct 4th progr	s Lighthouse ion ess payment o	on account.						
	above in Engineers	accordance w Certificate 12/85 attache	ith No. 4					42,946.	25
	Dl	UPLICATE						,	
Signat Claima	ure of					reference de la companya de la comp	\$	42,946.	25
Addres	58					NET TOTAL	\$		
		C	REDITORS CO	DING FO	12 % /i	CHARLES WHILE SECURITIES OF THE SECURITIES OF TH	ences enemers d	Securities of the design of control of the following the	озваниет Оры Ско
Creditors	No.() Inv. No	CONTRACTOR OF A PART OF STATE OF	· · · · · · · · · · · · · · · · · · ·	v. Date			A/C Period	()
Order Ref.	Cost Code/ Job Number	Amount \$\$\$\$\$.cc	Narration (REMARK) COLUMN WILL APP REPORT DATA)	S INSERTED II	N THIS	Expension on a security of security and security as a security of the security		Reg'n Order	
C2500A	J7322 (CC659)	\$42,946.25							
1000 21 ²⁰ 14			to the best of my very particular	CHIEF	ENGIN		E BO	ARD	



To: Date: 10.12.85

From:

Progress Payment Certificate No. 4

Contract No. 2500A For BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Thereby certify that the sum of Forty two thousand, nine hundred and forty six dollars 25 cents

(\$ 42,946.25)is due to Messrs Precast Construction Ltd
on account of work completed to 25.11.85

Value of work completed (including variations)

\$190,900.00

Less Retention 28,635.00 \$

Less Previous Payments 109,035.97 \$

Ready Mixed Concrete A/c

\$147,953.75

Amount now certified \$ 42,946.25



THE CHIEF ENGINEER To:

Date:

6 December 1985

From:

THE CONSTRUCTION ENGINEER

CONTRACT NO. 2500A BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Herewith Progress Claim No. 4 from the Contractor, Precast Construction Ltd, for the above works in the sum of \$51,425-00.

I certify that the total value of work completed by 25 November 1985 is \$190,900-00 (One Hundred and Ninety Thousand Nine Hundred Dollars Only).

Total	value	of	work	to	25.11.85	
Less	Retenti	ions	15%	of	\$190,900-00	

\$190,900-00

28,635-00

162,265-00

119,318-75 109,035.97

10,282.78

PROGRESS PAYMENT NO. 4

Less Previous Payment

\$ 42,946-25

D.V. Goord CONSTRUCTION ENGINEER

PEM: REW Attach.

Monday but april 85

Contract	BEAN ROCK LIGHTHOUSE	File No.
9	CONTRACT 2500 A	Claim No
		05.4405

RECEIV

ED 26 NOV 1985	Period Ending 25.1185
20 ~	Prepared By I D Mellsop

			(Quantities			11-1	
Item	Description	Unit	Previously	Period	To Date	Rate	Value to	Date
1.	Establishment						25000	00
2.	Remove house to waterfront					/	5800	00
3.	Demolish Legs & Foundations					~	11400	00
L.	Construct Tower					V	63700	00
5.	Piles						75000	00
6.	Replace Lighthouse Ground top leg	P.S.	brout M	renal		V	10000	00
	Variations as enclosed Hald pen						9975	00
	Value Work to 30/11/85 190 900 V Leins eket 15% 28635 V						\$200875	00
	162265 V		Previousl	y Paid			\$119318	7.5
	Less Paid to Dote \$ 119318.75 Ammount Poyable \$42946.25	/	Now Due				\$ 81556	25
			Liens Rti	ns 15%			\$ 30131	2.5
			Now Due				\$ 51425	00

AUCKLAND HARBOUR BOARD

THE AL ND HARBOUR BOARD BOX 1259

ENGINEERS

DATE: 10 December 1985

Dr. to

(Name of Claimant) . HOLMES COOK HOGG & CARDIFF,

For the undermentioned: P.O. BOX 5377, AUCKLAND Signature (A.H.B.) Date PARTICULARS IN FULL Rate TOTAL Supplied New Office Premises -Superstructure Preparing valuation for progress Payments, measuring works in Progress, measuring and agreeing Variations, attending project control and site meetings and Providing financial reports on Contract 2452 to the New Office Premises on Princes Wharf, Auckland for the Auckland Harbour Board. 6,000.00 Fee for November DUPLICALE Signature of Claimant 6,000.00 NET TOTAL CREDITORS CODING FORM Inv. No.) A/C Period (Creditors No. () Inv. Date (Narration (REMARKS INSERTED IN THIS Order Cost Code/ Req'n Amount Order Line COLUMN WILL APPEAR ON COMPUTER Ref. Job Number \$\$\$\$\$\$.00 No. Partial/Cple REPORT DATA) JS (00699) \$6,000.00 Cheque countries anned I CERTIFY, that to the best of my belief and knowledge the foregoing account is true

Cheque No.

16/9 27 November 1985 The General Manager Dulux New Zealand Ltd P.O. Box 1009 AUCKLAND Dear Sir BEAN ROCKS LIGHTHOUSE I am pleased to be able to advise that Bean Rocks Lighthouse is now back in position and will soon be fulfilling its function of guiding ships and boats in and out of the Waitemata Harbour. The restoration has been a wonderful team effort and I would like to take this opportunity on behalf of the Board to thank your firm for their part in the restoration. The paint you have supplied plays an important part in the appearance and preservation of the house. Your further contribution of \$1,000 to assist with the application of the paint has also been appreciated by the Board in this rather expensive exercise of maintaining this harbour mark of such great public and historic interest. Again, thank you for your support. Yours faithfully Cooper GENERAL MANAGER js/RC c.c. Chief Engineer

THE GENERAL MANAGER
THE CHIEF ENGINEER

22 November 1985

BEAN ROCKS LIGHTHOUSE - PAINT SUPPLY

Paint for the house renovations was supplied free of charge to the Board from Dulux. In addition to this, Dulux have paid the Board \$1000 towards labour costs for applying the paint.

The Board has stated that low key advertising by Dulux in return for the paint supply and \$\ddot\delta000\$ would be acceptable.

I would like to suggest that acknowledgement of their efforts in assisting with the project of restoring the Bean Rocks Lighthouse be forwarded on behalf of the Board. A suggested draft letter is attached.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

DLG: REW Attach.

THE CONSTRUCTION ENGINEER
Copy for information.

CHIEF ENGINEER

The General Manager
Dulux New Zealand Ltd
P.O. Box 1009
AUCKLAND

Dear Sir

re : BEAN ROCKS LIGHTHOUSE

I am pleased to be able to report that Bean Rocks Lighthouse is now back in position and will soon be fulfilling its function of guiding ships and boats in and out of the Waitemata Harbour.

The restoration has been a wonderful team effort and I would like to take this opportunity on behalf of the Board to thank your firm for their part in the restoration. The paint you have supplied plays an important part in the appearance and preservation of the house. Your further contribution of \$1000 to assist with the application of the paint has also been appreciated by the Board in this rather expensive exercise of maintaining this harbour mark of such great public and historic interest.

Yours faithfully

COPY

AUCKLAND HARBOUR BOARD

THE AUCKLAND HARBOUR BOARD

DATE: 24/10/85

Dr. to

	gineer's rthe undermentione	Department	(Name of CI	aimant) Box 58-	Precas 107, E	t Constru ast Tamak	ctio	n Ltd		
Order No. Date Supplied		PARTICULARS IN FULL		Signature (A.H.B.)	Rate		-	TOTA	L	
	Bean Rocks	Lighthouse	Reconstructi	on						
	Contract N in accorda	ess Payment o No. 2500A for ance with Eng ce No. 3 date	the above ineer's	All				39,	250	97
			- Marty De	an Dent						
				Erm						
			on statement of a		48					
	*									
		NIPLICAT	TE							
to make appear to the desired because		JUPLIVA			1.21		A Thomas	Three parts of the		100 A 200 A
Signa Claim	nture of nant			M _P 7			\$			
Addre	9SS		**********	* * * * * * * * *		NET TOTAL	\$	39,	250	97
		C	REDITORS CO	DING FO	RM					
Creditors	s No. () Inv. No) In	v. Date () A/C P	eriod ((N) SCHOOL OF THE
Order Ref.	Cost Code/ Job Number	Amount \$\$\$\$\$\$.cc	Narration (REMARK COLUMN WILL APP REPORT DATA)	EAR ON COM	N THIS PUTER	ess althorness on agreement of replacement on		Regin No.	Order L Partial/	
C2500A	J.7322 (CC 659)	\$39,250.97							P	

Chaque countersigned

I CERTIFY, that to the best of my belief and knowledge the foregoing account is true and correct in every particular

Cheque No.

CHIEF ENGINEER TO THE BOARD

Auckland HarbourBoard

To:	Date: 21	4 Octo	ber 1985
From:			
Progress Payment Certi	ficate No	. 3	
Contract No. 2500A For Bea		thouse	Reconstruction
hereby certify that the sum of \$39,250.97	7 (Thirty Nin	e Thou	sand Two Hundred
and Fifty Dollars Ninety Seve			
(\$ 39,250.97) is due to Messrs	Precast Co	nstruc	tion Ltd
on account of wo	rk completed to1	0/10/8	5
•			
Value of work completed (including variations)		\$	140,375.00
Less Retention	21,056.25	\$	
Less Previous Payments	69,785.00	\$	
Less Liens Act Retention	×	\$	
	1 x 1 x 1 x 2 x 1 x 1 x 1 x 1 x 1 x 1 x	\$	90,841.25
		\$	49,533.75
			, , , , , , , ,
Less Ready Mixed Concrete Accou	unt Paid	\$	10,282.78
		\$	39,250.97
		-	

DUPLICATE

Controle Dolo 24/10/85

AD TIMESHEET											
	TIME				FOR OFFICE USE ONLY COSTING						
	FROM	то	HOURS	Meals	DEPT.	CLASS		HOURS			
H	7.30	Sero	9{	1	HVI RSI	WES	FL	33			
					R51	153	弘	9			
	7:30	5:0e	9	1							
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7.30	500	92	1							
	7.30	Sec	9	1							



Memorandun

TO: THE CHIEF ENGINEER

Date: 14 October 1985

From: THE CONSTRUCTION ENGINEER

CONTRACT NO. 2500A - BEAN ROCK LIGHTHOUSE RECONSTRUCTION

Herewith Progress Claim No. 3 from the Contractor, Precast Construction Ltd, for the above works in the sum of \$57,555-72.

I certify that the total value of work completed by 10 October 1985 is \$140,375-00 (One Hundred and Forty Thousand Three Hundred and Seventy Five Dollars only).

Total value of work to 10 October 1985	\$140,375-00
Less Retentions 15% of \$140,375-00	21,056-25
Less Ready Mixed Concrete A/C Paid	10,282-78
	109,035-97
Less Previous Payment	69,785-00
PROGRESS PAYMENT NO. 3	\$ 39,250-97

Althopus

D.L. Goord CONSTRUCTION ENGINEER

AKH: REW Attach

Mountain best.

-3-	
West Haven	
WOMEN TO SERVICE STREET	

With Compliments

1200181°

17/608K 62500 A

Unit Previously

File No.

Claim No 3

Period Ending $12\alpha i85$

Prepared By 10MERSAD

To Date Rate Value to Date

TONY HOLIMES.

CLAIM - PLETER

PROCESS

JAN

90% 25000 22500 00 5800 5800 00 USE

Quantities

Period

11. WRIGHT SIT WORK TIM PURDARAN	ıs.		100%	11400	11,400	00
5. PROVIDE MATES I CONSMICT TOWER			80%	63700	50,960	00
7. FOUNDATIONIS.			95%	75000	71,250	00
70TM TO	DATE.			A,	161,910	00
	ranis.	15	/		37623	
PREVIOUS PA	110			6	69 785	00
	BALAN		02000		7838	50
		DIRECT MIX			0,282	78
		w Du		4 5	7,555	72
1 Est	25,000		To date		75-00	
3 Remove House. 4 Denalih Touer	5,800	1	1.000		00-00	
5 Construct Tower	63.700	0.250	0.500	31,8	50-00	1
7 Foundation. 8 Return House.	10,000	0.400	0.930	69,	-	
9 Conting, Sur	30,000		_	140 3	- 75-00	
Les 15% Retentions Previous Poyners.				21,0	785-00	5/

Form 2

RECEIVED 10 OCT 1985 Ready Mixed Carried to Summary / Forward

BLAN ROCK LIGHTHOUSK RECONSTRUCTION 62500 A

File No. Claim No 3 Period Ending $12\alpha i 85$

Prepared By 10MERSON

				Quantities				
Item	Description	Unit	Previously	Period	To Date	Rate	Value to	Date
1.	ESTABLISHMENT				90%	25000	22500	00
								1
3.	DISCONNETTI & REMOVE 140USE				100%	5800	5800	00
4.	DEMOCISIA TOWER + PILE POINDA	tar "	3.		100%	11400	11,400	00
		-	-	-	0.1/			+
5.	PAQUIDE MATES I CONSMICT TOWN	N			80%	63700	50960	2 0
_		-			0,-01		-1	
7.	FOUNDATIONIS.	-		-	75/0	75000	71,250) 00
								-
	75TM TO		205			A	16/9/0	CH
		-	18416.				101,410	
	1238 Pts.	24/2	Zanis	15'	0/	\$1	37623	5
	The second	1		/ 3	0		5/023	0
	PREVIOUS A	021	0				69785	- 00
			BALAN	VCE			67838	50
			188	DIRECT	PAYMO	IT		
					CONCRE		10,282	78
		-				1		
		-	10	w DV.	1 1		57,555	72
		-	-		To date			
1	Est	-	/	0.038			575-0	
3	Perove House.		5,800	-	1.000	1	800-00	
4	Denalish Tower			1.000			400-00	
5	Construct Tower		-	0.250			850-00	
7	Robus House			0.400	0.930	69	750-00	-
9	Conting, Sur		30,000		-			1
	Value of No-KTO Fate		30,000			140	375 -a	2/
	Les 15% Retention					-	056-2	
	? Previous Payment	- ·					785-0	

RECEIVED 10 OCT 1985 Roady Mixed Carried to Summary Forward 10, 282-78

PLEASE REFER TO ENGINEERS

MICROFICHE NO. ENG. 472

FOR PREVIOUS 100 DOCUMENTS

AUCKLAND HARBOUR BOARD

AND HARBOUR BOARD O. BOX 1259 THE AU

Engineers

Dr. to

DATE: 15 August 1985

(Name of Claimant) Precast Construction Ltd PO Box 58-107, EAST TAMAKI

For	the undermention	Department	PO Bo	x 58-107	, EAS	T TAMAKI	1.0.nl	4T.Q		
Order No. Date Supplied		PARTICULARS IN FULL		Signature (A.H.B.)	Rate			TOTA	AL.	
	2nd Progre Contract N in accorda No. 2 date	ess Payment on 2500A for ance with Engled 15 August	n account of the above ineer's Cert 1985 attacker	2				\$50,	405.	:
Signat Claima	ture of ant					Make a supply country and a supply supply and a supply sup	\$			g Manual Marine (no
Addre	ss					NET TOTAL	\$	50,405.		00
		C	REDITORS CO	DING FO	RM	Battinis (1942-) Ani, siriji (1920-) Perakki (1944-) Anii (1904-) Perakhiri	***************************************	Anna Paris de Anguerra	M752.340 (CHANGA ME)	and the second
Creditors	No.) Inv. No	. () in	v. Date	(A/C P	eriod (_	
Order Ref.	Cost Code/ Job Number	Amount \$\$\$\$\$.cc	Narration (REMARK COLUMN WILL APP REPORT DATA)	S INSERTED IN EAR ON COMI	N THIS PUTER	Antonio de Companio de Compani		Req'n No.	Order L Partial/	
C2500	J7322 (CC 659)	\$50,405.00							p	
45.500	countersigned		t to the best of my every particular			11/2	*********		591 W	

Auckland HarbourBoard

То:	Date: 15	August 1985
From:		
Progress Paymen		
I hereby certify that the sum of Fi	fty Thousand, Four Hu	undred and Five dollars
(\$ 50,405.00)is d		struction Limited.
Value of work completed (including	g variations)	\$ 82,100.00
Less Retention	12,315.00	\$
Less Previous Payments	19,380.00	\$
Less Liens Act Retention	*	\$
		31,695.00
Amount now certified		\$ 50,405.00

DUPLICATE



THE CHIEF ENGINEER To:

Date:

14 August 1985

From: THE CONSTRUCTION ENGINEER

CONTRACT NO. 2500A -BEAN ROCK LIGHTHOUSE RECONSTRUCTION

Herewith Progress Claim No. 2 from the Contractor, Precast Construction Ltd, for the above works in the sum of \$81,366-25.

I certify that the total value of work completed by 8 August 1985 is \$82,100-00 (Eighty Two Thousand One Hundred Dollars Only).

Total Value of Work to 8 August 1985	\$82,100-00
Less Retentions	
15% of \$82,100-00	12,315-00
	69,785-00

19,380-00 Less Previous Payment \$50,405-00

PROGRESS PAYMENT NO. 2

Goord Oc CONSTRUCTION ENGINEER

PEM: REW Attach.

Nourte best 15/8/8/



Reference

Auckland Harbour Board

1 Queen Street, Auckland, New Zealand
P.O. Box 1259, Auckland
Telephone 795-950, Telex: N Z 2705
Telegrams: Haboard, Auckland

13 August 1985

The Manager Précast Construction Limited 60 Taipoa Road Te Atatu AUCKLAND 8

Attention: Mr I Melsop

Dear Sir

BEAN ROCK'S LIGHTHOUSE - CONTRACT 2500A

Your application for approval to use the Tamaki Yacht Club carpark for helicopters to fly concrete to the lighthouse foundations has been referred to the General Manager.

Your operation is understood to involve 2 helicopters, with one every three minutes over a period of five hours picking up a hopper of concrete at the Yacht Club, starting at 9 am on Friday 16 August or a similar period on Monday or Tuesday if weather forces a postponement.

You have stated that Tamaki Yacht Club permission has been obtained.

Approval for the operation is given provided you have obtained approvals from the Civil Aviation Department and Auckland City Council.

Yours faithfully

B R Le Clerc CHIEF ENGINEER TO THE BOARD

BLeC: SAW

Contract	BEAN	ROCK	LIGHTHOUSE.
		SMUCIT	

File No. Claim No 2.
Period Ending 8 Aug 85

Prepared By IOM.

				Quantities	-			
Item	Description	Unit	Previously	Period	To Date	Rate	Value to I	Date
1.	ESTABLISHMENT				100%		25,000	00
2	REMONE LIGHT HOUSE				100%		5800	00
3.	CONSTRUCTION OF TOWER				50%		31850	00
7.1	REMOVE PACKED ROCK.			60m ³	60 m ³	900	54000	00
7.2	SUPPLY & REPLACE RED.			50%	50%	3750	1875	00
							118525	00
			DEDUCT	15%			100,746	
	•		DEDUCT	PRETIO	IS PAID		19,380 1,366 -	
	Est. Allew 75's to Start 15'h this	co	troot	10%	Finish			
1	Est		25,000		0.825		20625	00
3	Renove Hose		\$5,800		1.000		5800.0	0
5	Benolish town		63,700		0.250		15925.0	no v
7	Foundations		75,000		0.530		39750.	oe oe
	Less Retartion 15% of \$82,100 -		12315				31695	- 00
	√					5	0,405	00
							1	1

Form 2 Legs Lodders brockets

Carried to Summary / Forward

7:0 Conc 427,100 RECEIVED - 8 AUG 1985

c.c. Treasurer
Chief Engineer
Contract File



Blet

9 Mikasa Place, Mangere, AUCKLAND, 16th July, 1985

The Chief Engineer, Auckland Harbor Board, P.O. Box 1259, AUCKLAND, 1

Dear Sir,

I would like to enquire about obtaining a visitor's permit to photograph the restoration work of the Bean Rock Lighthouse cottage, which is presently at your Board's slipway in Beaumont Street.

The Historic Places Trust magazine have asked me to compile an

update story on the reconstruction of Bean Rock, following an article I presented about its history last year.

I was out on the harbor last month photographing the Hikunui at

work dismantling the old tower, and would certainly like to photograph some stages of the refurbishing, while the cottage is still ashore.

Yours faithfully, Paul W. Shirley Please arrange. Advise him hat is required of him. B



ministry of Trans

CUSTOM HOUSE QUAY STREET AUCKLAND NEW ZEALAND

PRIVATE BAG, AUCKLAND 1 TELEPHONE: 773 400

WHEN REPLYING

PLEASE QUOTE Our Ref: 54/1/851



Harbours and Foreshores Section

5 July 1985

The Secretary Auckland Harbour Board P.O. Box 1259 AUCKLAND

Dear Sir

LIGHTHOUSE RECONSTRUCTION : BEAN ROCK

I am pleased to advise that plans of the above proposal have been approved pursuant to Section 178(b) of the Harbours Act 1950.

A copy of the approved plan marked "Copy of M.D. (N) 1204" is attached for your records.

Approval is subject to the following conditions:-

- Construction of the work shown on the approved plan is to be supervised 1. by a suitably qualified person.
- The work shall not be altered or extended from that shown on the 2. approved plan M.D.(N) 1204 without having first sought and obtained approved in terms of the provisions of the Harbours Act 1950.
- The applicant or his successors or assigns shall be responsible for the 3. continued maintenance of the work in accordance with plan M.D.(N) 1204.
- The applicant shall upon completion of the works complete the attached 4. certificate, certifying that the work has been completed in accordance with the approved plan and stated intentions.

This approval is given for the purposes of and in relation to the Harbours Act 1950 only, and is not to be taken as any representation or assurance by the Crown that the works are otherwise in order, whether in terms of engineering, planning, use or otherwise.

Yours faithfully

P. D. Spackman

for Regional Secretary for Transport

Encl 0012M

MOT 19

1

nole

CERTIFICATE OF COMPLETION

I,
(name)
of
(company, organisation and address
hereby certify that the work approved on plan MD.(N).1204
being BEAN ROCK LIGHTHOUSE RECONSTRUCTION
(type of work)
has been completed in accordance with that plan and the stated
intentions of the application.
(signed)
(position)

(M.O.T. Reference ..54/1/851....)

6 28/6/85 C.E. Bean Rocks advertising of medicate 1. Brownbutt have foulled out 2 The only offers now me for point numeral application for wells S. 1. Paint Remend.

Red-away wish to use their products of
the der is for us to purchase (\$3,000) and

they had apply supply all labour. use Att Blaban > (his for her product) as there is more than 15 roots involved, we are been by the producer. to accept this offer. 2.2. Point application to Walls Offers have been received from Somson, Dulax a Healings (a possibly others) Dulux is best Aler: Free point + \$1000 towards application Un peres. Please avange for acceptance of The best star for paint removal and paint supply provided they are compatible vocesses, the and union acceptable! 28/6/85 3. Offens one conditional on the compounds

being able to mention Bean Rocks bythhouse

(4 possibly include photographs) in trade magazines

ite. It is not mention to allow them

to have signs on the structure.

Mono

AUCKLAND HARBOUR BOARD

File 758

THOUCHAND HARBOUR BOARD D. BOX 1259

Dr. to

DATE: 24/6/85

Engineer's Department
For the undermentioned:

(Name of Claimant) Precast Construction Ltd PO Box 58107, East Tamaki

Order No. Date Supplied	. P.	ARTICULARS IN FULL		TICULARS IN FULL Signature (A.H.B.)					L	
Зоррієс	1st Progress of Contract in accordance No 1 dated	ess Payment No. 2500A f	or the above neer's Cert.					19,	380	00
Signature of S Claimant NET TOTAL S							19,3	380	00	
			REDITORS CO	WITH MACHINE COME SANDERS AND ADDRESS OF THE PARTY OF THE	EN-VERTICAL STREET					
Creditors		Inv. No	Narration (REMARK		v. Date (1) A/C P	1)
Order Ref.	Cost Code/ Job Number	Amount \$\$\$\$\$.cc	COLUMN WILL APP REPORT DATA)	EAR ON COM	PUTER			Req'n No.	Order I Partial/	ine Cplete
C2500	J7322 (C.C. 659)	\$19380-00							P	
Cheque countersigned I CERTIFY, that to the best of my belief and knowledge the foregoing account is true and correct in every particular Cheque No. Cheque No.										



TO: THE CHIEF ENGINEER

Date:

21 June 1985

From: THE CONSTRUCTION ENGINEER

CONTRACT NO. 2500A BEAN ROCKS LIGHT HOUSE - RECONSTRUCTION

Herewith Progress Claim No. 1 from the Contractor, Precast Construction Ltd, for the above works in the sum of \$24,220-00.

I certify that the total value of work completed by 15.6.85 is \$22,800-00 (Twenty Two Thousand Eight Hundred Dollars Only).

Total Value of Work to 15.6.85 Less Retentions 15% of \$22,800-00 \$22,800-00

3,420-00

PROGRESS PAYMENT NO. 1

\$19,380-00

D.L. Goord CONSTRUCTION ENGINEER

PEM: REW Attach.



THE ADMINISTRATION MANAGER ENGINEERS DEPARTMENT

Date: 20 June 1985

From: THE CONSTRUCTION ENGINEER

re : CONTRACT 2500A - BEAN ROCKS LIGHTHOUSE - RECONSTRUCTION

Please find attached the following for the above Contract.

- 1 copy of Schedule 3 Form of Bond duly signed by the Contractor.
- 2. 2 signed copies of the Specification.
- 3. 2 signed copies of each of the following drawings -

E 2653 Sheets 1 to 6 E 1643 Sheet 1 K 814 Sheet 1

- 4. 2 copies of Second Schedule "Form of Agreement".
- 2 copies of each Tender Form, Schedule of Quantities, Schedule of Dayworks Rates.
- 6. 2 copies of Precast Construction Ltd's letter to A.H.B. dated 24 April re Plant Hire Charges.
- 7. 2 copies of A.H.B. letter to Precast Construction dated 30 April regarding the hire of the "Hikinui".

Items 6 and 7 should be bound into the Contract documents.

All documents appear to be in order.

P.L. GOODA CONSTRUCTION ENGINEER

AKH: REW Attach

fran G.

Mr. hulerand for Bound.



To THE GENERAL MANAGER 19 June 1985

THE CHIEF ENGINEER From:



BEAN ROCKS LIGHTHOUSE

Messrs Samson Paints Ltd have made an approach offering to supply paint and technical advice on painting of the renovated lighthouse so that it can be used for their advertising purposes similar to what was done some years ago.

The value of the paint is about \$1,000.

Could I please have your ruling on whether to accept the offer.

evided it is for whole

CHIEF ENGINEER TO THE BOARD

BRLeC: JARW

Copy to : CONSTRUCTION ENGINEER

Copy has been sent to Cont. Eng.

1 The 9/E I will be guiden by your Deft Samson Pains; are used. Reach track in history I do believe the Sort of aungenes to tongois

Therefore does not create present e Mean aways acceptance for

19 JUN 1985



4-14 Patiki Road, Avondale. P.O. Box 71-092, Rosebank, Auckland, 7. Phone 883-116.

14 June 1985

GM to see 6 RECEIVED 1.9 JUN1985

THE CONSTRUCTION ENGINEERS DIVISION AUCKLAND HARBOUR BOARD P.O. BOX 1259 AUCKLAND

ATTENTION: MR HOLMES

RECEIVED REC

DEAR SIR

THANK YOU FOR YOUR TELEPHONE CALL RE "BEAN ROCK" LIGHT-HOUSE AND OUR CONVERSATION ON SITE TODAY.

We wish to convey to your Board Members this offer -

WE OF SAMSON PAINTS WOULD LIKE TO DONATE THE PAINT MATERIALS REQUIRED TO REFURBISH THE HOUSE STRUCTURE OF THE "BEAN ROCK" LIGHTHOUSE. ALONG WITH THIS WE WOULD ALSO SUPPLY A WRITTEN SPECIFICATION FOR THE PROCEDURES NECESSARY TO REFINISH THE BUILDING SO AS TO GIVE A SIMILAR LIFE SPAN AS IT DID WITH ITS LAST COATING.

WE WOULD ALSO OFFER TO VIEW AND SUPERVISE THE WORK WHILE IT IS IN PROGRESS.

FOR THIS WE WOULD LIKE TO BE ABLE TO USE "BEAN ROCK" LIGHTHOUSE IN SOME FORM OF LOW KEY ADVERTISING SAY IN THE HARDWARE AND PAINT JOURNALS PROBABLY IN EDITORIALS.

THANK YOU FOR THIS OPPORTUNITY TO CONTINUE OUR LONG ASSOCIATION WITH THE AUCKLAND HARBOUR BOARD.

Yours FAITHFULLY SAMSON GOLD-X COATINGS

J. SMART SALES DEVELOPMENT MANAGER

A unit of JAMES HARDIE IMPEY LIMITED

THE GENERAL MANAGER
THE CHIEF ENGINEER

19 June 1985

BEAN ROCKS LIGHTHOUSE

Messrs Samson Paints Ltd have made an approach offering to supply paint and technical advice on painting of the renovated lighthouse so that it can be used for their advertising purposes similar to what was done some years ago.

The value of the paint is about \$1,000.

Could I please have your ruling on whether to accept the offer.

CHIEF ENGINEER TO THE BOARD

BRLeC: JARW

Copy to : CONSTRUCTION ENGINEER

:for information

CHIEF ENGINEER TO THE BOARD

PRECAST Construction Ltd.

PHONE: AK 530-8471 P.O. BOX 58107 EAST TAMAKI

CIVIL ENGINEERS - AUCKLAND, NEW ZEALAND

15 June 1985.

The Chief Engineer, Auckland Harbour Board, Box 1259, AUCKLAND.

> Bean Rock Light House Contract 2500 - A

Dear Sir,

We enclose our claim no. 1 for work completed to date.

Refering to our schedule we provide the following breakdown of costs associated with our establishment item:

*	provide	boats,	barges,	vehicles	and	small	tools	\$15,000.00
---	---------	--------	---------	----------	-----	-------	-------	-------------

- * provide bond, insurances and planning \$ 5,000.00
- * remove all plant and equipment from site at completion.

\$ 5,000.00

\$25,000.00

Yours faithfully.

A.D. Mellsop

Recorded 18/0/85

1 19		18						
Contract	Bean Rock Lighthouse				File No.			
	Contract 2500 A				Claim No		1	
					Period En	ding 15	5 June 1	198
					Prepared I	Зу		
				Quantities				
Item	Description	Unit	Previously	Period	To Date	Rate	Value to	Date
1	Establishment			0-64	17,	000	20,000	0
3	Remove house to shore					×	5,800	
				TOTAL	-	184	25,800	Of
				Less 1	5	420	23,220	
					ontract			
			d	eposit			1,00	0.0
				NOW DU	E		\$24,220	0
						1	9,380	00
								+
								+
						1	-	
								-

Form 2

Carried to Summary / Forward



TO: THE GENERAL MANAGER

Date: 13 June 1985

From: THE CHIEF ENGINEER

BEAN ROCKS LIGHTHOUSE - RECONSTRUCTION

CONTRACT 2500 A

Attached is a copy of the proposed works programme for the above Contract. Lifting off the house was carried out by the "Hikinui" on 12 June 1985.

The work of refurbishing the house will commence when the house has been installed in its temporary position at the Board's Buoys and Beacon area in Beaumont Street.

As indicated on the programme the installation of the refurbished house, on its new legs, will take place towards the end of September which is the end of the Contractor's sixteen week Contract Period.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

BRL: SR

Endaying)

Copy of proposed works programme

Design Engineer Construction Engineer

30-5-85 To Construction Engineer From Assistant Design Ergicei BEAN ROCKS LIGHTHOUSE- HIKIMIN MOORINGS With regards to your enemo of the 28th May 85. obscursions took flace dung march 85 letween L. Jones P. Wells-Gred R. Walker R. Bidwell T. Dale and the defuty skiffer of the Hukumi. It was agreed that the takenini could left off the Bean Pocks historiese weeking affirmately a hours leach side of high water in the fortion shown on Dawy £1643/01.

Subsequently the bat R. Tradale and N. Hudsd shifter of the Hukumi lave sequested that an additional file the flacest in a heatern shown on Dawy £1643/01/1 41 metres nowth west of the sisting elastion how full. how full. The Harbour Master has affroned the flacing of the additional full but has requested that at he a navigational lay good for as short a ferred as fossible 1.e. but is removed after lifting the house and reducer when the house is due to be reflaced. Ken Dallen C.C. L. Jan. P. Wello-Greek.

THE DESIGN ENGINEER 28 May 1985 THE CONSTRUCTION ENGINEER BEAN ROCKS LIGHTHOUSE - HIKINUI MOORINGS Possible difficulties have arisen with the use of Hikinui for removing the light house. Could you please provide details of discussions that took place with the Master, the people involved and the agreement reached, so that negotiations can be taken up where left off without covering further ground. As it is anticipated the house removal will be required within a week of M.O.T. advice and any further work required at this site in preparation for Hikinui is dependent upon the weather. Your urgent reply is requested. D.L. Goord CONSTRUCTION ENGINEER DLG: REW THE CHIEF ENGINEER information. CONSTRUCTION ENGINEER

REPORT OF THE BEAN ROCKS LIGHTHOUSE SUB-COMMITTEE 6 MAY 1985

The Committee considered the report of 6 May 1985 of the Sub-Committee which had been appointed at the 26 March 1985 Board Meeting to evaluate and accept a new tender for the restoration of the lighthouse.

The Sub-Committee had considered the report of the Chief Engineer of 3 May 1985 which recommended that subject to all relevant statutory approvals the tender of Precast Construction Limited for \$220,900 be accepted. The Chief Engineer advised that the total cost of the restoration would be \$378,400 of which approximately \$350,000 would be spent in this financial year whereas only \$280,000 had been provided in the programme.

The Acting General Manager's report of 6 May 1985 had advised the Sub-Committee that he endorsed the Chief Engineer's report and added that the additional \$70,000 should be made available from Reserves. The Sub-Committee had unanimously resolved that the reports be adopted and that Management take every necessary step to keep the cost of the project to a minimum.

It was RESOLVED to recommend that the report of the Sub-Committee be received.

ADOPTED BY BOARD 2.8 MAY 1985

Design Engr: To instruct bonstr. Engr to supervise the work.

Electrical Engra Const Engr. To note Works Mgr & To note

Electrical Engr: To finalise details re navigation light and fog horn equipment. Issue works order for light and requisition for solar panels and batteries.



Auckland Harbour Board

16/9

ITEM 7

REPORT OF

BEAN ROCKS LIGHTHOUSE SUB-COMMITTEE

MONDAY 6 MAY 1985 AT 2.15 P.M.

PRESENT: Sir Lloyd Elsmore (Chairman) and Messrs L.A. Manning (co-opted) and M.R. Mason (co-opted).

Messrs R.W. Carr and H.L. Julian were on leave of absence.

Your Committee has the honour to report as follows:

BEAN ROCKS LIGHTHOUSE

The Sub-Committee considered the report of the Chief Engineer dated 3 May 1985 which referred to the Board's decision at its 26 March 1985 meeting to reject all tenders for the Bean Rocks Lighthouse restoration. The Chief Engineer was authorised to re-examine the Contract documents and recall tenders with the objective of obtaining a more satisfactory offer. The Board also appointed a Sub-Committee comprising the Chairman of the Board, the Deputy Chairman and the Chairman of the Works and Traffic Committee to evaluate and accept a tender.

The Chief Engineer's report detailed the tenders subsequently received since the Contract had been readvertised based on revised Contract conditions.

The Contract included:

- 1. Removing the lighthouse to the Buoys and Beacons yard.
- 2. Replacement of the foundation piles and tower.
- 3. The reinstallation of the lighthouse on the new tower.

The floating crane "Hikinui" was offered free for two eight hour periods to the successful tenderer.

The lowest tender was submitted by Precast Construction Ltd and was for \$220,900 with a 16 week completion period.

...

The Chief Engineer advised that using Precast Construction Ltd's tender price the total cost of the restoration would be \$378,400 which would be \$98,400 or 35% more than the original estimate of \$280,000.

Of the \$378,400 approximately \$350,000 would be spent in this financial year. A sum of \$280,000 was included in the 1984/85 Programme of Works with \$160,000 at Items 57.110 and 57.130 ex capital sources, and \$120,000 in the Maintenance Programme. Therefore, an additional \$70,000 would need to be provided to enable the works to proceed this financial year. the works to proceed this financial year.

The Chief Engineer also advised that the Waitemata Harbour Maritime Planning Authority approval had been received and that an application to the Ministry of Transport for approval under the Harbours Act had been made.

He concluded by recommending that -

- Subject to the receipt by Board of all relevant statutory approvals the tender of Precast Construction Ltd for the sum of \$220,900 subject to escalation be accepted.
- Financial provision be made in the 1984/85 Works Programme for an additional expenditure of \$70,000 in the Maintenance Programme.

The Acting General Manager's report of 6 May 1985 endorsed the Chief Engineer's recommendations and added that the work needed to be progressed and that the additional \$70,000 required should be made available from Reserves.

The Sub-Committee expressed concern at the variance between the original estimate and the amount now considered necessary to complete the lighthouse restoration. Nevertheless it considered that the work should proceed as soon as possible because of the historical and architectural significance of the work.

The Sub-Committee unanimously RESOLVED

(a)

That the reports be adopted. That Management take every necessary step to keep the (b) costs of the project to a minimum.

As the Sub-Committee was empowered to act this report is submitted for information only.

> (sgd) Sir Lloyd Elsmore ACTING CHAIRMAN



Auckland Harbour Board

. BUSINESS PAPER

SUB-COMMITTEE RE BEAN ROCKS

LIGHTHOUSE - CONTRACT NO.2500A

MONDAY 6 MAY 1985 AT 2.15 P.M.

MEMBERS OF SUB-COMMITTEE Mr H.L. Julian (Chairman), Sir Lloyd Elsmore and Mr R.W. Carr

Messrs L.A. Manning and M.R. Mason (co-opted)

Bean Rocks Lighthouse - Contract No.2500A

Reports of Acting General Manager and Chief Engineer thereon



Auckland Harbour Board

6 May 1985

The Chairman Sub-Committee Re Bean Rocks Lighthouse AUCKLAND HARBOUR BOARD

BEAN ROCKS LIGHTHOUSE - CONTRACT NO. 2500A

The attached report of the Chief Engineer dated 3 May 1985 lists and appraises eight tenders received following the re-advertising of the Contract based on revised Contract conditions.

The report identifies a shortfall of \$70,000 in finance already programmed within this financial year for the Project. However, the work needs to progress and provision should be made from Reserves.

I endorse the Chief Engineer's recommendations.

R. Cooper

ACTING GENERAL MANAGER

THE CONSTRUCTION ENGINEER

15 May 1985

THE CHIEF ENGINEER

BEAN ROCKS RECONSTRUCTION CONTRACT NO. 2500A

- 1. This Contract has been let to Precast Construction Ltd for \$220,900. When the Design Engineer advises you of Board's receipt of Ministry of Transports approval, would you please arrange the following:-
 - (a) A starting date with the Contractor.
 - (b) To supervise the work and administer the contract.
- 2. Enclosed are 6 sets of the working documents including a priced Schedule of Quantities. Please issue two sets of these documents to the Contractor. Enclosed also are copies of the following relevant letters:-
 - (a) Board to Contract dated 30 April 1985. Confirming hire periods for Floating Crane "Hikinui".
 - (b) Contractor to Board dated 24 April 1985. Confirming material and plant hire charges.
- 3. This amount allowed for renovating the house is \$26,000 plus a contingency of \$4,000. Every effort must be made to stay within this budget. If this proves impossible a report will be required before the over-expenditure occurs in order that the General Manager can be informed.

 Maintenance within the building must be kept to a bare minimum that ensures safe access to the light for maintenance purposes.

Please ensure that the Officer in Charge keeps a log detailing all the work that is carried out.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

RHW: JMH

c.c. Electrical Engineer
 Harbourmaster
 Traffic Manager



Reference

16/9

Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

The Manager Wiri Construction Limited P.O. Box 76-267 MANUKAU CITY 7 May 11985

Dear Sir

CONTRACT NO. 2500A - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

I have to advise that your tender in respect of the above contract is declined with thanks, the successful tenderer being Precast Construction Limited.

... Your tender deposit cheque is returned herewith.

Yours faithfully

J.M. Halling
CHIEF ADMINISTRATIVE OFFICER
AND SECRETARY

c.c. CHIEF ENGINEER
TREASURER
CONTRACT FILE

Also to the Managers

- 1. Eatson and Francis Contractors Ltd
 P.O. Box 14-173
 PANMURE
- 2. McConnell Dowell Constructors Ltd Private Bag Newmarket AUCKLAND
- Green and McCahill (Contractors) Ltd P.O. Box 12-443 PENROSE

 Energy Construction Ltd P.O. Box 12-784 AUCKLAND

- 4. Union Engineering Ltd P.O. Box 58-215 AUCKLAND
- 5. R.M. Myers 18 Vienna Place Birkenhead AUCKLAND 10



Blec



Reference

Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

The Manager
Precast Construction Limited
P.O. Box 42021
Orake1
AUCKLAND

7 May 11985

Dear Sir

CONTRACT NO. 2500A - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

The Board at a meeting on 6 May 1985 gave consideration to tenders received for the above Contract. I am pleased to advise that your tender for the sum of \$220,900, subject to escalation and a completion time of 16 weeks, was accepted.

... Formal documents (in duplicate) are now enclosed for your abtention. Would you please arrange to have the Form of Agreement for Fulfilment of Contract signed attaching thereto the Seal of your Company and the Specifications initialled on each page. On completion of these formalities the documents should be returned for execution by the Board.

Your attention is also drawn to the requirement for Bonds and Sureties as set out in clauses under 3.1 and 3.2 of the Special Conditions of contract and these matters together with all matters of details in respect of the Contract will be dealt with by the Chief Engineer to the Board.

J.M. Halling
CHIEF ADMINISTRATIVE OFFICER
AND SECRETARY

What commute

Contract File

Contract File

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The distribution as yellow pages and yellow pages





MINISTRY of TRANSPORT

HARBOURS & FORESHORES SECTION

PRIVATE BAG AUCKLAND

TELEPHONE: 773-400

CUSTOM HOUSE
-QUAY STREET
AUCKLAND

Reference:54/1/851	
Your rof :	(e) I le I le
Date: 6 May 1985	PECEIVED A
The Secretary	10MAY 1983
AUCKLAND	TAND HARROW
Dear Sir	N. a. W. a.
LIGHTHOUSE RECONSTRUCTION : BEAN ROCK	

Receipt of yourapplication for your proposed ...

reconstruction of the Bean Rock Lighthouse

is acknowledged . Technical reports will be obtained on the proposal. This will take some little time, but as soon as a decision has been reached, you will be advised.

Yours faithfully

P.P. Spackman

for Regional Secretary for Transport

Copy to DE lold

the love Den





Auckland Harbour Board

3 May 1985 Engr's file 758

The General Manager AUCKLAND HARBOUR BOARD

BEAN ROCKS LIGHTHOUSE CONTRACT NO. 2500A

The Board at its March 1985 meeting rejected all tenders for the Bean Rocks Lighthouse restoration and authorised the Chief Engineer to re-examine the Contract Documents and recall tenders with the objective of obtaining a more satisfactory offer.

The following alterations were made to the Contract Documents:-

- 1. An alternate foundation design was offered.
- 2. The Auckland Harbour Board Floating Cráne "Hikinui" together with mooring piles and anchors was offered free for two eight hour periods to the successful tenderer.

Tenders were then recalled for:-

- 1. Removing the Lighthouse to the Buoys and Beacons yard.
- 2. Replacement of the foundation piles and tower.
- 3. The reinstallation of the lighthouse on the new tower.

The following eight tenders have now been received:-

TENDERER	TIME	ALTERNATIVE 1	ALTERNATIVE 2
Precast Construction Ltd Eatson and Francis Contract	16 weeks		\$220,900.00
Ltd	10 weeks		\$225,724.13
Wiri Construction Ltd	26 weeks		\$252,284.00
(Non Conforming alternative	ve)		(\$238,284.00)
Union Engineering Ltd	13 weeks		\$240,000.00
R.M. Myers	30 weeks	\$269,923.00	\$247,626.00
Green and McCahill			
Contractors Ltd	26 weeks		\$265,065.00
McConnell Dowell Constructo	ors		
Ltd	23 weeks	\$336,585.00	\$278,690.00
Energy Construction Ltd	30 weeks		\$286,862.50

The lest tenderer, Precast Construction Ltd, has been in business for several years and has recently satisfactorily completed the construction of the Kelly Tarlton Aquarium and the assembly of the southern piers of the Westhaven Marina.

Finance

The estimate for the restoration of the lighthouse and the installation of a solar powered light and foghorn was \$200,000. With the hardwood for the tower purchased and using Precast Construction Ltd's tender price, this estimate is revised as follows:-

Hardwood Supply	\$ 16,500
Contract 2500A	220,900
"Hikinui" free hire and mooring piles	15,000
Renovate house by Board's staff	30,000
Navigation light and foghorn	65,000
Design, Supervision etc.	31,000

\$378,400

This is 35% more than the original estimate. Of this \$378,400 approximately \$350,000 would be spent in this financial year.

A sum of \$280,000 has been included in the 1984/85 Programme of Works with \$160,000 at Items 57.110 and 57.130 ex Capital sources, and \$120,000 in the Maintenance Programme. An additional \$70,000 will need to be provided to enable the works to proceed this financial year.

Approvals

Approval from the Waitemata Harbour Maritime Planning Authority has been received. Application to the Ministry of Transport for approval under the Harbours Act has been made.

Recommendation

- I therefore recommend that:-
- 1. Subject to the receipt by the Board of all relevant statutory approvals the tender of Precast Construction Ltd for the sum of \$220,900 subject to escalation be accepted.
- 2. Financial provision be made in the 1984/85 Works Programme for an additional expenditure of \$70,000 in the Maintenance Programme.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

16 May 1985 The Manager Precast Construction Ltd P.O. Box 42-021 AUCKLAND Dear Sir CONTRACT NO. 2500A - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION Further to the letter of acceptance of this Contract from the Board's Secretary I have to advise you that the work cannot proceed until the Board is in receipt of Ministry of Transport approval, under Clause 178 of the Harbours Act. This approval is expected within approximately two weeks. The advice to proceed with the work will be conveyed to you by my Construction Engineer, Mr Goord. He will supervise the work, administer the Contract and will be the "Engineer's Representative" in terms of Part 6.1 of the General Conditions. Please make all future communications in the normal course of the Contract through him. Would you please now submit for approval the names of any Sub-Contractors you wish to employ during the course of the work. Two sets of the working documents are available from Mr Goord at his office in Tinley Street. Yours faithfully B.R. Le Clerc CHIEF ENGINEER TO THE BOARD RHW: JMH c.c. Design Engineer: to advise Construction ENgineer when M.O.T. approval is obtained. Construction Engineer: to notify Contractor to commence work when advised by Design Engineer.



BUSINESS PAPER

SUB-COMMITTEE RE BEAN ROCKS

LIGHTHOUSE - CONTRACT NO.2500A

MONDAY 6 MAY 1985 AT 2.15 P.M.

MEMBERS OF SUB-COMMITTEE Mr H.L. Julian (Chairman), Sir Lloyd Elsmore and Mr R.W. Carr

> Messrs L.A. Manning and M.R. Mason (co-opted)

Bean Rocks Lighthouse - Contract No. 2500A

Reports of Acting General Manager and Chief Engineer thereon

1. Copy to D.E. plus 2. (F.)



6 May 1985

The Chairman Sub-Committee Re Bean Rocks Lighthouse AUCKLAND HARBOUR BOARD

BEAN ROCKS LIGHTHOUSE - CONTRACT NO. 2500A

The attached report of the Chief Engineer dated 3 May 1985 lists and appraises eight tenders received following the re-advertising of the Contract based on revised Contract conditions.

The report identifies a shortfall of \$70,000 in finance already programmed within this financial year for the Project. However, the work needs to progress and provision should be made from Reserves.

I endorse the Chief Engineer's recommendations.

R. Cooper

ACTING GENERAL MANAGER



3 May 1985 Engr's file 758

The General Manager AUCKLAND HARBOUR BOARD

BEAN ROCKS LIGHTHOUSE CONTRACT NO. 2500A

The Board at its March 1985 meeting rejected all tenders for the Bean Rocks Lighthouse restoration and authorised the Chief Engineer to re-examine the Contract Documents and recall tenders with the objective of obtaining a more satisfactory offer.

The following alterations were made to the Contract Documents:-

- 1. An alternate foundation design was offered.
- The Auckland Harbour Board Floating Crane "Hikinui" together with mooring piles and anchors was offered free for two eight hour periods to the successful tenderer.

Tenders were then recalled for:-

- 1. Removing the Lighthouse to the Buoys and Beacons yard.
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- 3. The reinstallation of the lighthouse on the new tower.

The following eight tenders have now been received:-

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R.M. Myers Green and McCahill	30 weeks	\$269,923.00	\$247,626.00
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Ltd	23 weeks	\$336,585.00	\$278,690.00
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The estimate for the restoration of the lighthouse and the installation of a solar powered light and foghorn was \$280,000. With the hardwood for the tower purchased and using Precast Construction Ltd's tender price, this estimate is revised as follows:-

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"Hikinui" free hire and mooring piles	15,000
Renovate house by Board's staff	30,000
Navigation light and foghorn	65,000
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This is 35% more than the original estimate. Of this \$378,400 approximately \$350,000 would be spent in this financial year.

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Approvals

Approval from the Waitemata Harbour Maritime Planning Authority has been received. Application to the Ministry of Transport for approval under the Harbours Act has been made.

Recommendation

I therefore recommend that:-

- 1. Subject to the receipt by the Board of all relevant statutory approvals the tender of Precast Construction Ltd for the sum of \$220,900 subject to escalation be accepted.
- Financial provision be made in the 1984/85 Works Programme for an additional expenditure of \$70,000 in the Maintenance Programme.

B.R. Le Clerc

CHIEF ENGINEER TO THE BOARD

\$378,400

PLEASE REFER TO ENGINEERS

MICROFICHE NO. ENG. 47/

FOR PREVIOUS 100 DOCUMENTS

3 May 1985

Regional Secretary of Transport Ministry of Transport Marine Division Private Bag AUCKLAND

ATTENTION: REGIONAL MARINE OFFICER

Dear Sir

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Approval is required under Section 178 of the Harbours Act 1950 for the reconstruction of Bean Rocks Lighthouse.

Accordingly I enclose 3 sets of Drawings E.2653/1 to 6, K.814/1 and E.1643/01 which have been approved by the Waitemata Harbour Maritime Planning Authority, the Board's Harbourmaster and Chief Engineer.

Your early consideration would be appreciated.

Yours faithfully

J.M. Halling

CHIEF ADMINISTRATIVE OFFICER
AND SECRETARY

AM: JMH

3 sets Drawings E.2653/1 to 6

K.814/1 E.1643/01

Cheque for Processing Fee

Copy To: CHIEF ENGINEER DESIGN ENGINEER





Reference

Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

30 April 1985

Precast Construction PO Box 58107 .EAST TAMAKI

Dear Mr Melsop

BEAN ROCKS LIGHTHOUSE - RECONSTRUCTION CONTRACT 2500A

Confirming telephone conversation between yourself and Assistant Chief Engineer (Civil) of 30/4/85.

The crane hire periods for the "Hikinui" are from the time the crane leaves the berth to the time it returns to the berth. The two 8 hour periods that the Board provides free of charge are on the same basis.

Yours faithfully

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

LWJ: VLH

Memorandum

Waitemata Harbour Maritime Planning Authority

To:	CHIEF ENGINEER	Date: 18 APRIL 1985	
From:	CHIEF PLANNING OFFICER	60/26/202	

TOWN AND COUNTRY PLANNING ACT 1977
MARITIME PLANNING APPLICATION UNDER
SECTION 102A

Site Location:

Bean Rocks, Waitemata Harbour

Proposal:

Removal and renovation ashore of the Bean Rocks Lighthouse and subsequent repositioning on new foundations.

At its meeting on 26 March 1985 the proposals illustrated on Drawings E2653 and described in the Design Engineer's explanation dated 16 January 1985 were considered by the Authority and it was resolved that the works proposed would not require a notifiable application in terms of Section 102A of the Town and Country Planning Act 1977.

I enclose one copy of the plans stamped accordingly.

J.M. Halling

CHIEF ADMINISTRATIVE OFFICER

AND SECRETARY

RECEIVED ESTATES

Chief Engineer

Please arrange preparation of letter and plans for progression of this matter now to Ministry of Transport for approval under Section 178 of the Harbour Act 1950.

J.M. Halling

CHIEF ADMINISTRATIVE OFFICER

AND SECRETARY

18 April 1985

CHIEF ENGINEER 18 APRIL 1985 CHIEF PLANNING OFFICER 60/26/202 TOWN AND COUNTRY PLANNING ACT 1977 MARITIME PLANNING APPLICATION UNDER SECTION 102A Bean Rocks, Waitemata Harbour Site Location: Proposal: Removal and renovation ashore of the Bean Rocks Lighthouse and subsequent repositioning on new foundations. At its meeting on 26 March 1985 the proposals illustrated on Drawings E2653 and described in the Design Engineer's explanation dated 16 January 1985 were considered by the Authority and it was resolved that the works proposed would not require a notifiable application in terms of Section 102A of the Town and Country Planning Act 1977. I enclose one copy of the plans stamped accordingly. J.M. Halling CHIEF ADMINISTRATIVE OFFICER AND SECRETARY RSG: tw Enc. Chief Engineer Please arrange preparation of letter and plans for progression of this matter now to Ministry of Transport for approval under Section 178 of the Harbour Act 1950. J.M. Halling CHIEF ADMINISTRATIVE OFFICER AND SECRETARY 18 April 1985

F Bean Rails Contract 758 In spational Credit Services Ld. Roports 17:4.85 PRECAST CONSTRUCTION HICL Private Company, Incorporated 18.7.79.
Capital 1 \$10,000 being \$1.00 Pully paid shares. Main Sharehoder: Ian Donald Melsop Nothing adverse recorded about the company. LOS+ Engury - 1981. MI meloop. previously involved in : VADNJAL & MELLSOP CONSTRUCTION LAD. Registered 1974, company placed in liquidation 38.4.79. Had been judgements resorded against the company. cutso previously involved in : South Auck PRECASTING LTD Registered 1975, company placed in liquidation 28.4.79 Had been judgements recorded against the company. Private Company, Incorporated 20.7.59
Reggiered Office Carbine Rd. Mt. wellington.
Capital: \$12,000 being \$2 shares fully paid. Shareholders r Directors: WILLIAM L. GATSON MURRAY B. FRANCIS Some collections recorded to prior to 1977 but none since. Nothing adverse since 1977.

Head Office: Wellington
fructe Company, Incorporated 11.1.80
Capital \$50,000
Main Shareholder, Union Shipping Group Little
Heast enquiry 1983
Norwing adverse on record.





Auckland Harbour Board 1 Queen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

Reference

The Manager Wiri Construction Limited P.O. Box 76-267 MANUKAU CITY

17 April 1985

Dear Sir

CONTRACT NO. 2500A - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

I have to acknowledge receipt of your tender for the above consideration and to advise you that the tender will be considered by my Board in due course.

Yours faithfully

J.M. Halling CHIEF ADMINISTRATIVE OFFICER AND SECRETARY

akb/GJW

- 1. Eatson and Francis Contractors Ltd P.O. Box 14-173 PANMURE
- 2. McConnell Dowell Constructors Ltd Private Bag Newmarket AUCKLAND 2
- 3. Green and McCahill (Contractors) Ltd 7. Precast Construction Ltd P.O. Box 12-443 PENROSE
- 4. Energy Construction Ltd P.O. Box 12-784 AUCKLAND

5. Union Engineering Ltd P.O. Box 58-215 AUCKLAND

c.c. Chief Engineer Treasurer Contract File

- 6. R.M. Myers 18 Vienna Place Birkenhead AUCKLAND 10
- P.O. Box 42021 Orakei AUCKLAND 5

3. BEAN ROCKS LIGHTHOUSE: PROPOSED RENOVATION

In his report of 19 March 1985 the Chief Planning Officer referred to the proposal by the Auckland Harbour Board to renovate Bean Rocks Lighthouse in a manner that maintained the appearance of the original structure with only minor variations caused by the need to use modern materials and building techniques.

Because of the architectural and community significance of the lighthouse its permanent removal would be likely to detract from the amenities of the harbour. However, as it was proposed that the removal be only temporary in order to facilitate renovation of the structure it was considered that the work would not detract from the amenities of the harbour.

The work proposed would not result in any permanent interference with navigation or have any significant effect upon ecological or hydraulic conditions in the harbour.

Having regard to the criteria set out in Section 102A of the Town and Country Planning Act 1977 and the purpose of the application it was concluded that provided that the works were carried out in the manner proposed they would not be likely to detract from the amenities of the harbour.

The Chief Planning Officer therefore recommended that the proposal not require the consent of the Authority.

The Chairman moved, Mr O'Dwyer seconded -

That the report of the Chief Planning Officer be adopted.

CARRIED

Infones 6 see place



BEAN ROCKS LIGHTHOUSE - CONTRACT No. 2500

The Chief Engineer in his report of 13 March 1985 advised the details of tenders received for the contract. He commented on contractual difficulties which could arise with one of the tenders in respect of the condition requiring the Board to provide the HIKINUI.

In the circumstances it was felt that tenders should be sought again using slightly modified documents to clarify crane conditions, alternatives for foundations, and to offer more flexibility to the Contractor. Depending on the tenders received, consideration should be given to the Board carrying out the work with its own forces.

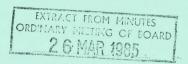
He recommended that:

- 1. The contract specification be re-examined with the objective of obtaining a more satisfactory offer.
- 2. The Chief Engineer be authorised to recall tenders for Bean Rocks Lighthouse restoration.

The General Manager reported that in view of the tendered prices and the unsatisfactory proviso by the lowest tenderer, along with the opportunity that may be available to improve the cost of achieving these works, he endorsed the Chief Engineer's recommendations.

It was RESOLVED to recommend -

- (a) That the report be received.
- (b) That a Sub-Committee comprising the Chairman of the Board, the Deputy Chairman and the Chairman of the Works and Traffic Committee be authorised to accept a suitable tender as soon as practicable.



In reply to a query from the Chairman on Item 7 Bean Rocks Lighthouse - Contract No. 2500, the Chief Engineer advised that he expected to readvertise for tenders shortly.

A/c/E (livil): le arrange for revision of designs à douventation, call tenders à report as soon as possible for acceptance by special Aut. Committee appointed, preferably by early may.

ADOPTED BY BOARD

26 MAR 1985



13 March 1985 Engr's File 758

16/9

The General Manager AUCKLAND HARBOUR BOARD

ITEM 7

BEAN ROCKS LIGHTHOUSE - CONTRACT NO.2500

The Board at its October 1984 meeting approved the restoration of Bean Rocks Lighthouse at an estimated cost of \$280,000. This comprised replacing the foundation piles and leg structure, renovating the house and replacing the navigation light and fog signal.

The Chief Engineer was authorised to complete working drawings and to carry out the renovation of the structure. Accordingly, tenders were invited for removing the house to Buoys and Beacons yard, replacing the foundation piles and leg structure and then installing the house (renovated by others) on the new tower.

The tenders received are as follows:-

Green & McCahill \$188,166 with tag 26 weeks

R.M. Myers \$310,879 30 weeks

Engineer's Estimate \$182,000

Green & McCahill's tender was conditional on the Board providing the "Hikinui" and necessary mooring piles. This condition was considered to be unacceptable as it was too indefinite and could easily lead to contractual complications over crane availability. Green & McCahill were therefore given the option of either negotiating a maximum number of hours that the "Hikinui" would be provided free, above which normal hire rates would apply, or removing the tag and providing a price which allowed for all crane hire. As a result they have now revised their tender to \$247,950 accepting full responsibility for the use of "Hikinui" but are not willing to negotiate on the first option.

The increase in tender price is equivalent to approximately 16 days crane hire. 5 days is considered realistic.

In the circumstances it is felt that tenders should be sought again using slightly modified documents to clarify crane conditions, alternatives for foundations and to offer more flexibility to the Contractor. Depending on the tenders received, consideration should be given to the Board carrying out the work with its own forces.

Works and Traffic Committee Item 7

- 2 -

Recommendation

It is recommended that:

- 1. The contract specification be re-examined with the objective of obtaining a more satisfactory offer.
- 2. The Chief Engineer be authorised to recall tenders for Bean Rocks Lighthouse restoration.

B.R. Le Clerc CHIEF ENGINEER TO THE BOARD

The Chairman Works & Traffic Committee AUCKLAND HARBOUR BOARD

In view of the tendered prices and the unsatisfactory proviso by the lowest tenderer along with the opportunity that may be available to improve the cost of achieving these works, I endorse the Chief Engineer's recommendations.

13 March 1985

R. T. Lorimer GENERAL MANAGER

AUCKLAND HARBOUR BOARD

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Index Sheet :

The General Conditions of Tender and Contract for this Contract shall be the New Zealand Standard Specification "Conditions of Contract for Building and Civil Engineering Construction", N.Z.S. 623:1964 and amendments thereto, except as amended or extended in the First Schedule - Special Gonditions of Contract.

CONTENTS OF BOUND DOCUMENTS

- 1. Index Sheet.
- 2. First Schedule Special Conditions of Contract.
- Second Schedule Form of Agreement for Fulfilment of Contract.
- 4. Third Schedule Form of Bond.
- 5. Insurance Contract Works Policy.
- 6. Specification.
- 7. Tender Form.
- 8. Schedule of Quantities.
- 9. Schedule of Daywork Rates.
- 10. Schedule of Current Market Prices.

DRAWINGS

The above documents to be read in conjunction with Auckland Harbour Board Drawings No.E.2653/1-6, K.814, E.1643/01.

Drawings of existing lighthouse are available on request.

TENDERERS TO NOTE:

Tenderers are requested to return documents 7, 8, 9 and 10 with their tender.

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

First Schedule - Special Conditions of Contract

Amendments and/or extensions to the General Conditions of Contract N.Z.S. 623 (paragraph numbers refer to the appropriate Clause).

DEFINITIONS

1.1. "Engineer" shall mean the person who is for the time being Chief Engineer to the Board.

"Board" shall mean the Auckland Harbour Board.

TENDER

2.1.1. Submission of Tender

Tenders will close at the office of the Secretary, Auckland Harbour Board, 9th Floor, Air New Zealand House, 1 Queen Street, at noon on Tuesday, 16 April 1985. Tenders shall be enclosed in a sealed envelope addressed to the Chairman, Auckland Harbour Board and marked on the outside "Tender for Contract No.2500A Bean Rocks Lighthouse Reconstruction."

2.1.5. Type of Contract and Schedule of Quantities

This Contract is for a lump sum price and except for the piles is not subject to remeasurement and Part 2.1.5 of the General Conditions applies. For the purpose of Progress Payments however, Tenderers shall complete the attached Schedule showing how the lump sum is made up.

. . . .

. . .

- 2.3.1. Deposit with Tender shall be \$1,000.00.
- 2.7. The lowest or any tender will not necessarily be accepted. No tender will in any event be accepted until the Principal is in receipt of all necessary statutory approvals authorising the project to proceed.
- 3.1. A surety is required and shall be a recognised Trading Bank or Insurance Company.
- 3.2 Bond shall be executed for 10% of the Contract Sum.



General Obligation

The Contractor will be required, as soon as practicable after acceptance of his Tender, to submit to the Engineer for his approval, a programme showing the order in which, and the methods by which he proposes to carry out the works.

INSURANCES

The Principal at his own cost has effected Contractors All Risks and Public Liability Insurance

Any excesss or deductibles under these policies shall be borne by the Contractor. The Contractor may at his sole discretion obtain other or additional insurance but the cost of same shall be borne solely by the Contractor.

In effecting Contractors All Risks and Public Liability Insurance the Employer is not to be taken as:-

(a) Warranting or representing that it has insured the Contractor against liability or against loss or damage other than to the extent that any claim in terms of the Policies may be paid by the Insurer thereof.

and

(b) Relieving the Contractor of any responsibility, duty or obligation imposed under this Contract.

COMMENCEMENT TIME AND DELAYS

- 11.3. Tenderers shall nominate on the Tender Form the time, in weeks, within which they are prepared to guarantee completion of the works.
- 11.6.1 Liquidated damages shall be \$250.00 per week

MAINTENANCE

12.1. The period of maintenance for the work carried out by the Contractor shall be three months.

CONTINGENCY SUM

16.3. The amount of the Contingency Sum which must be included in the Tender is \$30,000 as set out in the Schedule of Quantities.

CERTIFICATES AND PAYMENTS

- 17.2.1. Retention in addition to Liens Act requirement shall be at the rate of 5%.
- 17.3.1. Plant advances shall not be made.

COST FLUCTUATIONS

- 22.1. Cost fluctuations 'shall apply provided a Schedule of Current Market Rates is submitted with the Tender.
- 22.2 This clause shall not apply to this Contract.

AUCKLAND HARBOUL BOARD

SINTIND BUILDING					
FO. OF AGREFMENT FOR FULFILM	NT OF CONTRACT				
Contract No for					
AGREFMENT made this	day of	19			
the Contractor) of the one part the Board) of the other part a	rt and the Auckland Harbou	(hereinafter called ur Board (hereinafter called			
WHEREBY it is agreed as follow	x:-				
maintain all and singular the annexed documents which shall	The Contractor shall do, execute, provide, deliver, construct, finish and intain all and singular the works supplies services and things mentioned in the nexed documents which shall be deemed to form and be read and construed as part this agreement and shall comprise the following:-				
 (a) the Tender, the letter of (b) the Drawings. (c) General Conditions of Cor (d) the Specification. (e) Bill of Quantities. (f) Schedule of Current Market (g) the Special Conditions of (h) the Bond. (i) Schedule of Daywork Rates 	ntract. et Rates. Contract.	r relevant letters.			
2. The Board shall at the tiditions and stipulations contains	mes, in the manner and su ained in this agreement pa	ubject to the terms con-			
dollars (\$) or agreement shall become payable IN WITNESS whereof these presents above written.		tractor.			
Contractor (Reg. Company) The Common Seal of was hereto affixed in the pres	sence of				
* 2					
Contractor (Individual) Signed by the said					
Address					
Signature in the presence of (Witness)					
Address					
Occupation	•				
Signature	•				
The Common Seal of the Aucklar hereto affixed by order of the of the Board held on the in the presence of	e Board at a meeting day of				
	Chairman				
	. Member				

Secretary

AUCKLAND HARBOUR BOARD

I SCHEDULE
FORM OF BOND
Contract No for
KNOW ALL MEN BY THESE PRESENTS that
of (hereinafter called the Contractor)
and
of (hereinafter called the Surety)
are jointly and severally bound to the Auckland Harbour Board (hereinafter called the Board) in the sum of dollars (\$
Executed and dated this day of 19
WHEREAS the Contractor by an Agreement made between the Board of the one part and the Contractor of the other part has entered into the Contract described above (hereinafter called "the said Contract") for the construction completion and maintenance of certain works as therein mentioned in conformity with the provisions of the said Contract.
NOW THE CONDITION of the above-written bond is such that if the Contractor shall duly perform and observe all the terms provisions conditions and stipulations of the said Contract on the Contractors part to be performed and observed according to the true purport intent and meaning thereof prior to the commencement of the period of maintenance or if on default by the Contractor the Surety shall satisfy and discharge the damages sustained by the Board, thereby up to the amount of the above written Bond then this obligation shall be null and void but otherwise shall be and remain in full force and effect but no alteration in terms of the said Contract made by Agreement between the Board and the Contractor or in the extent or nature of the Works to be constructed and completed and maintained thereunder and no allowance of time by the Board or the Engineer under the said Contract nor any forbearance of forgiveness in or in respect of any matter or thing concerning the said Contract on the part of the Board or the said Engineer shall in any way release the Surety from any liability under the above written Bond.
Contractor (Reg. Company) The Common Seal of was hereto affixed in the presence of
was nereto arrived in the presence of
Contractor (Individual) Signed by the said
Address
Signature
In the presence of (Witness)
Addresss
Occupation
Signature
Surety (Reg. Company) The Common Seal of was hereto affixed in the presence of



CHIEF ENGINEER To:

Date: 1 March 1985

CHIEF ADMINISTRATIVE OFFICER AND SECRETARY

CONTRACT 2500 - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

The following tenders received in respect of the above Contract are referred for your further action:

X

Green & McCahill Ltd \$188,166 + CRANE

2. R. M. Myers \$310,879

J. M. Halling CHIEF ADMINISTRATIVE OFFICER AND SECRETARY

C.E. Blec. 15/2

4 MAR 1985

Reference

Auckland Harbour Board 1 Oueen Street, Auckland, New Zealand P.O. Box 1259, Auckland Telephone 795-950, Telex: N Z 2705 Telegrams: Haboard, Auckland

4 MAR 1985

1 March 1985

The Manager Green & McCahill (Contractors) Ltd P.O. Box 12-443 AUCKLAND

Dear Sir

CONTRACT No. 2500 - BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Receipt of your tender in respect of the above contract is acknowledged. You will be advised further once the Board has given consideration to all tenders received.

Yours faithfully

J. M. Halling CHIEF ADMINISTRATIVE OFFICER AND SECRETARY

Also to: R. M. Myers

13 Vienna Place Birkenhead

AUCKLAND 10

GJW:ml

Copy for! Chie

Blec



GREEN & McCAHILL (CONTRACTORS) LTD.

374 CHURCH ST, PENROSE, P.O. BOX 12-443, N.Z. PHONE 595-005, TEL. GREENMAC, TELEX 2559.

28 February 1985

The Chairman Auckland Harbour Board AUCKLAND

Dear Sir,

ref: Contract No 2500 - Bean Rock Lighthouse Reconstruction Conditions of Tender

We submit the following conditions of tender to qualify the tender form and schedule of quantities.

1) Hire of A.H.B Floating Crane 'Hikinui'

We have been unable to accurately estimate the precise number of hours the 'Hikinui' will be required to remove the lighthouse and replace the tower and lighthouse on the new foundations. Thus, we have assumed that the Auckland Harbour Board will provide the 'Hikinui' free of charge. Our estimated usage is 16 hours. We have assurances from your Traffic Manager that 'Hikinui' can remove and replace the lighthouse.

2) A.H.B. supplied materials

We assume the Australian hardwood supplied will comply with clause 13.4 and that the surface of the timber will need no treatment to receive the specified paint finish.

3) Use of A.H.B. property

We have assumed an area in the Buoys and Beacons yard will be available for the purpose of assembling the new lighthouse tower, free of charge.

4) Contract Period

We believe a 16 week contract period will be sufficient time to complete this work. This period is dependent, however, on the time required by A.H.B. staff to refurbish the lighthouse and on the availability of specialist equipment. We have assumed the contract would be awarded by the end of March 1985. Any delays to this award date may also affect the contract period.

5) A.H.B. services

We assume that all services on the lighthouse will be disconnected and re-connected by A.H.B. staff.

We thank you for this opportunity to tender for this project.

Yours faithfully, GREEN & McCAHILL (CONTRACTORS) LTD

A.A. Winwood

Contracts Manager

all winword.

AUCKLAND MARBOUR BOARD CONTRACT NO.2500

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION



Tender Form

To: The Chairman
AUCKLAND HARBOUR BOARD

Sir,

Having examined the Specification, Drawings, Schedule of Quantities and Conditions of Contract for the abovenamed works we offer to execute and perform the several works described and alluded to for the sum of One hundred. & eighty-eight thousand, one hundred & sixty-six dollars. or such other sum as may be ascertained in accordance with the Conditions of Contract.

We annex hereto the Schedule of Quantities upon which this Tender is based and calculated, and a letter setting out the conditions of this tender.

We undertake to complete the works within ..16... calender weeks of the date of the Engineer's order to proceed, subject to A.H.B completion of lighthouse refurbishment and availability of specialist equipment.

Should this Tender be accepted we undertake to execute a Contract and Bond embodying the aforesaid Specification and Conditions within 28 days of receipt of the same from the Board.

We acknowledge that unless and until a formal Contract Agreement is prepared and executed, this Tender together with the written acceptance thereof shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Tender you may receive.

We enclose herewith a cheque payable to the Auckland Harbour Board for \$ 1,000.00. Our surety will be Westpac, Penrose Branch.

Signed: MUM word GREEN & McCAHILL
Name of Company: (CONTRACTORS) LTD
Address: P. D. BOX 12-443.

AUCKLAND

Date: 28.2.85 Telephone: .595-005

GREEN & MCCAHILL CORTECTORS 110 P.O. BOX 12443 PENKOSE.



AUCKLAND HARBOUR BOARD CONTRACT NO.1500

X

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION



Tender Form

To: The Chairman AUCKLAND HARBOUR BOARD

Sir,

We annex hereto the Schedule of Quantities upon which this Tender is based and calculated.

We undertake to complete the works within .3.6... calender weeks of the date of the Engineer's order to proceed.

Should this Tender be accepted we undertake to execute a Contract and Bond embodying the aforesaid Specification and Conditions within 28 days of receipt of the same from the Board.

We acknowledge that unless and until a formal Contract Agreement is prepared and executed, this Tender together with the written acceptance thereof shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Tender you may receive.

We enclose herewith a cheque payable to the Auckland Harbour Board for \$

Signed: Augen.
Name of Company: R M MYERS
Address: 18 VIENNA PLACE
13 IR KEN 14 EAO.

Date: 28-2-85 Telephone: 487314.

CONTRACT WORKS POLICY

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

CONTRACTOR CONCESSORS IN THE PROPERTY AND SERVICE OF

Prepared By:

Bowring Burgess Marsh & McLennan Ltd

Auckland

February 1984

AUCKLAND HARBOUR BOARD

CONTRACTOR OF THE PROPERTY OF

THE SCHEDULE

Insurers will indemnify the Insured in the manner and to the

INSURED

AUCKLAND HARBOUR BOARD AS PRINICIPAL ALL CONTRACTORS SUBCONTRACTORS AND SUPPLIERS TO THE PRINCIPAL

for their respective rights and interests.

extent hereinafter provided.

PREMIUM

Rate as agreed.

CONTRACT

All supply, dismantling, removal, construction, erection, repair, rebuilding and other activities arising in connection with Bean Rocks Lighthouse Reconstruction as generally defined in the Contacts between the Insured and including all works not described in the Contracts but which are deemed necessary by any of the Insured.

PERIOD OF COVER

The liability of the Insurers shall commence on and continue to and then to be followed by period of maintenance of months.

The attachment of this Policy is directly the Insured becomes responsible for property forming part of or to be incorporated in the Contract whether at the Contract site or elsewhere in New Zealand including whilst in transit and shall continue until the whole of the Contract is completed and handed over to the Principal, the cover and consequently the liability then ceases except in so far as liability arising during the period of maintenance.

-2-The Insurance shall expire on the dates specified to the Insurers, but if the Contract or maintenance operations included in the Insurance are not completed within the time specified, the Insurers agree to extend the period upon payment of additional premium appropriate to any additional risk which the Insurers have thereby assumed at a rate to be agreed. SECTION (1) PROPERTY AND SUMS INSURED Sum Insured The Contract including Temporary Works, and all materials and goods used or to be used in) connection therewith (which shall include existing property of the Principal), the Property of the Insured or whilst in the possession of the Insured or for which the Insured are responsible on or adjacent to) site of works or in temporary storage offsite,) or whilst in transit all within New Zealand)

THE DEDUCTIBLE

The amount of deductible applicable to destruction loss or damage arising from any cause except fire, lightning or explosion is \$2,000 however any loss or damage arising during any one period of 72 hours caused by earthquake, storm, tempest or flood shall be deemed to be a single event and therefore to constitute one loss with regard to the sum insured and the deductible.

SECTION (2)

Limit of Liability any one occurrence \$5,000,000

Deductible \$ 2,000

(b) Removal of Debris

All costs and expenses incurred in removing debris and/or wreckage, consequent upon loss of or damage to the property insured including the cost of dismantling or demolition of any of the property insured no longer useful for the purpose of the contract, and costs incurred in shoring up or propping and regaining access to original working conditions.

(c) Expediting Expenses

Additional expenses including but not limited to extra charges, express carriage, air freight and travel by insured employees and/or additional labour where necessarily incurred to rectify or contain loss or damage arising from any perils insured herein.

(d) Plans and Documents

The costs incurred in re-writing or redrawing of plans drawings or other contract documents lost destroyed or damaged as a result of a peril insured hereunder wherever or whenever such loss destruction or damage shall occur.

-4-EXCLUSIONS The Insurers shall not, however, be liable for:-(1) The deductible stated to be borne by the Insured in any one occurrence; (2) Consequential financial loss of any kind or description whatsoever including penalties, losses due to delay, lack of performance, loss of contract; (3) Loss or damage caused by (a) normal wear and tear (b) defective workmanship material or design. Provided always that this exclusion shall be limited to that part of the machine structure or works immediately affected and shall not extend to other parts of the machine structure or works lost or damaged in consequence thereof. And provided further that this exception shall not apply where fire or explosion ensues. (4) Loss of or damage to currency, stamps, deeds, evidence of debt, notes, cheques, securities for money, or registered motor vehicles. (5) Loss discovered only at the time of taking a normal inventory. (6) Loss of or damage to contractors plant, machinery, tools and equipment. (7) This policy shall not cover "Earthquake Damage" but this exclusion shall not apply to: Any damage other than "Earthquake Damage" resulting a) from or arising from earthquake or "Earthquake Fire". Any damage (whether accidental or not) occurring as b) the result of measures taken to avoid the spreading or otherwise to mitigate the consequences of any damage other than "Earthquake Damage". The costs of demolition and removal of debris for c) which indemnity is provided herein. Damage to the following types of Property forming d) part of the work as described under the Schedule:

occurrence of the damage provided such cost does not exceed the replacement value,

OR

(b) in the case of a total loss, the actual replacement value of the property will be paid, provided always that the provisions, and conditions have been complied with.

The cost of any temporary repairs will be borne by the Insurers where reasonably and necessarily incurred.

All damage which can be repaired shall be repaired but if the cost of repairing any damage equals or exceeds the value of the insured item immediately before the occurrence of the damage the settlement shall be made on the basis provided for in (b) above.

The Insurers will not be liable for the cost of any alterations additions and/or improvements where the effect of these alterations, additions and/or improvements increases the cost of repair or replacement except where such additional costs are necessary to comply with any Act of Parliament or any Regulations under or framed in pursuance of any such Act or with requirements of any Municipal or Local Authority.

2. If during the Period of Insurance the actual total Contract price shall be in excess of the original Contract price then the sum insured shall be deemed to be increased by the amount of such excess but not exceeding 20% of the sum insured as shown in the Policy.

The Insured shall within a reasonable time after the completion of the Contract to which the Insurance applies, furnish to the Insurers a declaration of the total Contract price as finally measured (including the cost of service buildings and facilities).

Premium shall be finally adjusted on this basis after taking into account the deposit premium paid at inception.

REINSTATEMENT OF DAMAGE AUTHORISATION APPLYING TO SECTION I

In the event of a claim arising and the Insured completing procedures set out in General Condition (4), repairs or replacement of any minor damage may be carried out up to \$10,000. In all other cases a representative of the . Insurers shall have the opportunity of inspecting the loss or damage before any repairs or alterations are effected. Nothing herein shall prevent the Insured from taking such steps as are necessary for the progress of the Contract.

-7-SECTION II THIRD PARTY LIABILITY The Insurers will, subject to the exceptions and conditions hereinafter mentioned: -Indemnify the Insured or pay on behalf of the Insured any sum or sums which the Insured shall be obligated to pay by reason of liability: imposed upon the Insured by law, or (b) assumed under contract or agreement for damages on account of: (i) Personal injuries (ii) Property Damage caused by an occurrence happening during the Period of Insurance. Defend in the name of and on behalf of the Insured any claim or suit against the Insured to recover damages on account of such bodily injuries and/or damage to or . destruction of property as aforesaid. Pay, in addition to the limits of liability expressed (i) All expenses incurred by or with the permission of Insurers for investigation, negotiation and defence of claims and suits; (ii) All expenses incidental to the appeal from any judgement against the Insured subject to the consent of Insurers and all costs taxed against the Insured in any suit for damages on account of any judgement in such suit resulting from such appeal. LIMIT OF LIABILITY \$5,000,000 any one occurrence/unlimited in the period of insurance. DEDUCTIBLE The amount of the deductible applicable in respect of each accident or series of accidents arising out of one event \$2,000.

The Insured shall co-operate with the Insurers in the defence of claims suits and in prosecuting appeals and upon the Insurers' request shall attend hearings and trials, and shall assist in effecting settlements, securing and giving evidence, obtaining the attendance of witnesses, and in the conduct of suits. The Insured shall not, except at his own cost, voluntarily make any payment, assume any obligation nor incur any expense.

The Insured shall not repudiate liability, negotiate or make any admission, offer, promise or payment in connection with an occurrence or claim without the written consent of the Insurers.

2. THE INSURED

The word "Insured" shall be deemed to include any Partner, Director, Executive Officer or any employee thereof active within the scope of his duties as such as related to the Insured Contract.

3. CROSS LIABILITIES

This Indemnity extends to indemnify each of the Insured separately in the same manner and to a like extent as though separate policies had been issued in their separate names. In particular (but without limiting the generality of the foregoing) the indemnity shall subject to the terms, conditions and exceptions of the policy indemnify each of the insured in respect of claims made by the other or by servants or agents of the However, each Insured shall be separately subject to the terms exceptions and conditions of the Policy in the same manner and to a like extent as though separate policies had been issued to each of the said Insured and the Insurers hereby agree to waive all rights of subrogation or action which they may have or acquire against any of the aforesaid Insured's arising out of any event or occurrence in respect of which any claim is made hereunder.

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· MEMORANDA '

Memo 1 Destruction of Sound Property

It is understood and agreed that in the event of total or partial damage or destruction to the Property Insured, the destruction of sound property necessary for the replacement and reinstatement of the building or structure is covered.

Memo 2 Partial Occupation

Notwithstanding anything contained in the Policy to the contrary this insurance shall continue at premium and terms to be agreed should the Principal or any Tenant or other persons authorised by the Principal enter into occupation of any stage of the works or any portion thereof before completion of the Contract.

Memo 3 Automatic Reinstatement of Loss

It is understood and agreed that in the event of loss or damage by any of the perils insured against to the property within described and in the absence of written notice by the Insurers or the Insured to the contrary, the amount of insurance cancelled by loss is to be automatically reinstated as and from the date of loss the Insured undertaking to pay such premium as may be required for such reinstatement from that date.

Memo 4 Deductible Sections I and II

It is understood and agreed that in the event of a claim under Section I and II arising from one source or original cause the amount of the Deductible shall be limited to the higher of the Deductibles under Section I and II otherwise applicable.

Memo 5 Sue and Labour

In the case of any loss or misfortune it shall be lawful for the Insured, their Factors, Servants and Assigns to sue, labour and travel for, in and about the Defence and safeguard of their interests and to incur any expenses in efforts to avert or minimise a loss which may fall under this policy, the charges whereof will constitute a recovery under this Policy.

- -12-Representatives of the Insurer's shall at any reasonable time have access to the site or premises and to all pertinent data, documents, drawings etc., and shall have the right to inspect any property insured. In the event of any occurrence which might give rise to a claim under the Policy, the Insured shall:-Notify the Insurers as soon as possible by telephone as well as in writing, giving an indication as to the nature and extent of loss or damage; b) take all steps within his power to minimise the extent of the loss or damage; preserve the damaged parts and make them available for inspection by the Adjusters/Insurers; d) furnish all such information and documentary evidence as the Adjusters/Insurers may require; inform the Police authorities in case of loss or e) damage due to theft or burglary. The Insured shall at the expense of the Insurers do and 5) concur in doing the permit to be done all such acts and things as may be necessary or required by the Insurers in the interest or any rights or remedies, or of obtaining relief or indemnity from parties (other than those insured under this Policy) to which the Insurers shall be or would become entitled or subrogated upon their paying for or making good any loss or damage under this Policy, whether such acts and things shall be or become necessary or rquired before or after the Insured's indemnification by the Insurers. This Policy shall in all respects be read and construed and shall operate as a New Zealand Policy in conformity with the laws of New Zealand. If a claim is in any respect fraudulent, or if any false declaration is made or used in support thereof, or if any fraudulent means or devices are used by the Insured or anyone acting on his behalf to obtain benefit under this Policy all benefit under this Policy shall be forfeited. A breach of any Conditions contained herein by one of the named Insured shall not prejudice any other Insurea's interests in this policy provided notice in writing by given to Insurers immediately upon such breach coming to the knowledge of any other Insured.

9) This Policy shall not be cancelled except in the event of termination of the Contract by the Principal. In which case coverage will cease and a pro-rata return premium shall be effected. However, the above shall in no way effect settlement of any circumstances which have resulted in a claim or claims or otherwise which occurred before the cancellation date.

IN WITNESS WHEREOF I being a representative of the Leading Office which is duly authorised by the Insurers have hereunto subscribed my name on their behalf this day of one thousand nine hundred and eight four.

Examined

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Specification

1. EXTENT OF CONTRACT:

The Contractor shall supply all labour, material, (except for the Australian hardwood for the tower), plant and other things necessary for the carrying out and completion of the works as shown on the accompanying Drawings and as described herein, in accordance with this Specification, the General Conditions of Contract and to the entire satisfaction of the Engineer.

2. GENERAL CONDITIONS

The General Conditions of Contract N.Z.S. 623:1964 shall be read with and included in this Specification.

3. TENDERERS TO INSPECT SITE

The Contractor shall be held to have satisfied himself before tendering, by personal inspection of the site, as to the accuracy of the Specification, Drawings, Schedules etc., or any other information of the kind supplied to Tenderers. He shall also be held to have satisfied himself as to the feasibility of constructing works of the kind and in the manner specified and as to all other matters which can in any way influence his Tender, as no allowance will be made or compensation paid on account of any incorrect or insufficient information on any point and he is further required to inform himself completely of every circumstance connected with the work and to provide in his Tender for every contingency that may arise.

4. MAINTENANCE OF WORKMANSHIP

All works included in this Contract shall be maintained at the specified standard of finish for a period of three months from the date of issue of the Engineer's Certificate of Substantial Completion.

5. STANDARD OF WORKMANSHIP

All construction and maintenance shall be carried out in a workmanlike manner to the entire satisfaction of the Engineer and any minor work not specified, but necessary to the completion of the Contract in accordance with the letter and spirit of the Specification, shall be carried out by the Contractor as if it had been so included.

6. SUPERVISION

The Contractor shall employ a competent and experienced foreman to supervise the work on his behalf and to whom, in the Contractor's absence, instructions may be given by the Engineer.

7. SURVEYING AND SETTING OUT

The Contractor shall be responsible for all setting out of the work in accordance with information supplied by the Engineer and/or shown on the Drawings. The provisions and stipulations set out in Clause 8.10.1 to 8.11 inclusive, of the General Conditions of Contract N.Z.S. 623, shall apply.

8. DESCRIPTION OF WORK

The work to be carried out in this Contract includes the following:-

- The removal of the lighthouse by water transport to the Board's Buoys and Beacons site at Beaumont Street. Renovation of the lighthouse shall be carried out by others.
- 2. The demolition and disposal of existing tower and piles.
- 3. The construction of pile foundation.
- 4. The construction of a new tower.
- 5. The transportation and installation of the renovated house on new tower.

9. ALTERNATIVE DESIGN

The Contract may submit alternate designs, for the construction of the foundation structure, for consideration.

10. WORKS AREAS

All enquiries for works area on Board property are to be directed to the Traffic Manager, Ferry Building, Quay Street.

11. ELECTRICITY SUPPLY AND TOILETS

The Contractor shall make his own arrangements with the Auckland Electric Power Board for any electricity supply he may require. He shall be responsible for the supply of all materials for and the installation of all cables, switchgear etc., from the point of supply to where power is required.

...

... 3 ...

12. FLOATING CRANE

The Auckland Harbour Board Floating Crane "Hikinui" will be available, subject to port commitments, for two 8 hr periods free of charge. The necessary mooring piles and anchors for these 2 periods will also be placed at Board's cost.

Drawing E.1643/01 indicates the closest position that the "Hikinui" can come to Bean Rocks Lighthouse. At this reach the crane is capable of lifting 82.5 tonnes at the centre of the lighthouse.

Any further use of the floating crane will be in accordance with the Traffic Manager's conditions of hire.

The present hire rates are:-

\$392 per hr Ordinary Time \$418 per hr Time and a Half \$455 per hr Double Time \$492 per hr Double Time and a Half \$527 per hr Treble Time

Further information concerning additional tackle etc., may be obtained by calling A.H.B. Traffic Department on 795-950 Ext. 799.

13. SUPPLY OF TIMBER

1. Australian Hardwood

The Contractor shall take delivery of Australian hardwood timber at the Principal's Halsey Street Store. The timber will be loaded into the Contractor's vehicles free of charge. The Contractor shall transport to site, protect, store and install the Australian hardwood timber for the tower.

2. Radiata Pine

All Radiata Pine for the landings shall be provided by the Contractor.

14. MATERIAL STANDARDS

All materials shall be the best of their respective kinds and more particularly shall conform as follows:

14.1 Steel

All steel plate and rolled section shall be grade 43A steel and shall conform with B.S.4360:1972 except that dimensions and tolerances for rolled sections shall be in accordance with B.S.4.

...

14.2 Bolts

- (i) The 1 1/8" dia. bolts and nuts shall have B.S.W thread and conform with N.Z.S.1067.
- (ii) All other bolts and nuts shall conform with A.S. 1111 and A.S. 1112 respectively,

. 11 ...

14.3 Galvanising

All steel work is to be hot dip galvanised to produce a zinc coating not less than 0.09mm thick. The bolts are to be galvanised after threading. The nuts and turnbuckles shall be retapped after galvanising to remove the zinc layer on the threads and shall be oiled to prevent rust.

14.4 Australian Hardwood

Australian hardwood shall be free from defective inner heart and shall comply in every respect with N.Z.S 485 Part 5.

14.5 Radiata Pine

The Radiata Pine shall be pressure treated to N.Z. Timber Preservation Authority Commodity Specification C3 (13.5 kg/cubic metre).

The minimum standard of timber quality shall be No.1 Framing Grade, in accordance with N.Z.S. 3631:1978. All timber shall be rough sawn, except the deck planks, which shall be thicknessed to 46 mm with one face and both edges remaining rough sawn and the handrails and posts which shall be shaped to the details shown on the drawings.

15. STEEL FABRICATION AND WORKMANSHIP

The preparation and fabrication of all steel plates and sections shall conform with the best trade practice, shall be carried out only by experienced tradesmen and comply with relevant parts of N.Z.S. 1900, Chapter 9, Division 9.4:1965, Sections 9.4.54 to 9.4.75 inclusive.

Wherever possible the steel shall be cut to length by sawing and prepared for welding by milling or grinding. Where cutting is necessary, edges must be ground off to the required shape free of inclusions. All sharp edges shall be de-arissed. Weld splatter, slag etcetera shall be removed and all delamination ground out if practical, or seal welded.

Welding shall be carried out in strict accordance with B.S. 5135:1174. All stressed welds in main structural members, shall be full penetration welds, capable of developing the full strength of the members being joined. In the case of butt

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welds in rolled sections, where single side welding is used, the back of the weld shall be gouged and a sealing run applied.

In addition, tabs shall be provided at the edges of flanges, to ensure completeness at the start and finish of runs. Tabs shall be removed and the weld ground back to shape when the welding is completed.

In all situations, welds shall be continuous around the perimeter of joints and effectively seal off the meeting

The Contractor shall make all necessary provision for protection of work against adverse weather on the site. No welding shall be undertaken when the steel surfaces are wet or when the air flow over the work exceeds 1 metre per second.

Welding electrodes shall conform with B.S. 639:1972.

Electrodes shall be stored in their original bundles or cartons in a dry place adequately protected from the weather. Any electrodes which have areas of flux covering broken away shall be discarded.

Welding operators shall hold current certificates in accordance with N.Z.S 4711:1973 - Qualification Tests for Manual Metal Arc Welders. Notwithstanding the holding of a certificate, the Engineer may require any operator to undertake further qualification tests for the weld positions in which he proposes to operate. In the event of failure of the tests, such operators would not be acceptable to the Principal. All welding shall be carried out under the continuous supervision of an experienced shop foreman or welding supervisor, who himself is qualified as an operator.

Inspections and checks appropriate to the location of the weld will be carried out by the Engineer as the work proceeds. All welds may be examined for cracking using a dye penetrant. Any cracked weld shall be cut out and made good. All welds will be subjected to visual inspection and shall be generally sound and free from defects to the satisfaction of the Engineer. The cost of all non-destructive testing shall be borne by the Principal.

All bolt holes shall be drilled to the sizes shown on the Drawings. The threaded portion of each bolt shall project through a nut at least one thread and washers shall be of sufficient thickness to ensure that the unthreaded length of the bolt extends for the full thickness of the parts bolted together. Washers shall be of the type denoted on the Drawings.

Brackets: Minimum diameter of bends shall be five times the plate thickness.

...

16. TIMBER CONSTRUCTION AND WORKMANSHIP

All timber construction shall be carried out by experienced tradesmen in accordance with best trade practice.

Deck planks shall be fixed to the stringers with two 125mm x 4.5 mm galvanised flat head nails at each stringer. Nails at ends of planks shall be through pre-drilled holes. The rough sawn side of the planks shall face upwards.

17. PAINTING

17.1 Exposed Steel Work

On completion of galvanising where specified exposed steel shall be degreased and then given one coat of Devran 201 (or similar) then two coats of Devshield 235 (or similar) followed by a finishing coat of white Devthan 239 (or similar) to the manufacturers specifications.

17.2 Timber

Where specified timber shall be given one coat of Devshield 235 (or similar) followed by a top coat of White Devthan 239 (or similar) in accordance with the manufacturers specifications.

18. REMOVAL OF HOUSE

The existing house is to be removed from its tower intact, transported by water and unloaded on the landing at the Board's Buoys & Beacon area, Beaumont Street, Freemans Bay (see Drawing E.2653/1). The weight of the existing house including one metre of legs of tower is approximately 27 ± 3 tonnes.

19. DEMOLITION OF EXISTING TOWER

The existing timber legs and beams, steel stairway, bracing and piles are to be demolished and removed from the site. With the exception that the Principal reserves the right to retain two samples each of the metal brackets and bracing.

FOUNDATION ALTERNATIVE 1

20. PILING

The new piles to support the lighthouse shall be reinforced concrete encased in circular mild steel casings. They shall be constructed to the dimensions and details shown on the Drawings.

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20.1 Bore Data

Copies of logs of boreholes taken at the site are included in the Drawings for the information of the Contractor. The data shown presents a factual description of the samples obtained at the various depths and positions indicated, but the Contractor must make his own assumptions and draw his own conclusions from the data.

20.2 Unsuitable Strata

It is not anticipated that unsuitable strata will be encountered during drilling operations. However, if this is not the case, further investigation may be required at the direction of the Engineer, at rates to be agreed.

20.3 Setting Out

The Contractor shall be responsible for all setting out of the work in accordance with information supplied by the Engineer and/or shown on the drawings. The provisions and stipulations set out in Clauses 8.10.1 to 8.11 inclusive, of the General Conditions of Contract, N.Z.S. 623, shall apply.

20.4 Steel Casings

The steel casings shall be manufactured from mild steel plate, being Grade 43A and complying with B.S.4360:1972, spirally wrapped and welded. The plate thickness and casing diameter shall be shown on the Drawings. Should the Contractor consider that the casing as shown, is not adequate to withstand water and soil pressures likely to be encountered, then he shall say so at the time of tendering and shall submit with his tender, his alternative design for consideration by the Engineer. Welding shall be carried out in accordance with N.Z.S. 1646 (B.S.1856:1964) and all welding operators shall hold current certificates in accordance with N.Z.S. 4711-1973. Accuracy in manufacture shall be such that the circumferential weld between one length of casing and the one adjoining it shall be completely watertight. The whole length of casing shall be completely watertight, when in its final position, prior to concreting and shall be cut off at the level shown on the Drawings.

It shall be the responsibility of the Contractor to ensure that each casing can penetrate any materials likely to be encountered and to ensure that this can occur without buckling, he shall securely fix, to the lower edge of the first section, whatever reinforcing or cutting device he may consider necessary, at his own expense. Before undertaking the manufacture of the casing, he shall advise the Engineer of the cutting edge, if any, proposed to be used.

20.5 Reinforcement

The steel reinforcing for each pile shall be as shown on the Drawings. The spiral wire binding shall be securely fixed, by spot welding, to every second vertical bar to form a rigid cage. Laps in the vertical bars shall be as shown on the Drawings. Mild steel spacer hoops or rings and lifting hoops shall be provided to the reinforcing cage as and where required by the Contractor. After fabrication, the first individual cage shall be introduced into the steel casing and the next cage welded securely to it and so on, until all separate cages have been joined to form one complete cage, within the casing. Care shall be taken to ensure that the specified cover to the steel bars is maintained throughout the entire length of the pile.

20.6 Concrete

All concrete used for the piles shall be Special Grade with a compressive strength of not less than 35 MPa at 28 days and shall conform with the General Specification for Reinforced Concrete. The minimum cement content shall be 370 kg/cubic metre. The maximum water cement ration shall be 0.50 and the maximum aggregate size shall be 20mm.

20.7 Drilled Holes for Piles

Holes for founding piles shall be located in the positions shown on the Drawing. The drilling rig shall be capable of maintaining a satisfactory rate of progress and shall be manned by fully experienced operators. The steel casings and concrete piles shall penetrate a minimum of 1 metre and 2.5 metres respectively in solid rock. All material taken from the holes shall be recovered by the Contractor and dumped where directed by the Engineer not more than 250 metrs distant.

20.8 Concreting

A tremie method shall be used for placing the concrete. The function of the tremie shall be that of placing the fresh concrete within or under the previously placed charge of concrete and under no circumstances shall concrete be allowed to fall or drop through water.

21. FOUNDATION ALTERNATIVE 2

21.1 Allowable Bearing

Base of foundation pads to bear on either the existing man placed rock or bedrock with an allowable bearing value greater than 50 KPa.

...

21.2 Payment

Rock Excavation and Concrete

Horizontal Direction

Payment shall not be made for extra rock excavation or concrete placed outside the horizontal limits of the foundations shown on the Drawings.

Vertical Direction

Payment shall be made for extra rock excavatin or concrete placed below level - 0.45 C.D. ordered by the Engineer at rates shown in the Schedule of Quantities.

21.3 Concrete

Concrete for the foundation shall have a compressive strength of not less than 35 MPa at 28 days.

22. Other foundation alternatives will be considered.

23. TOWER

23.1 Construction

The tower is to be reconstructed in accordance with the Drawings and Specifications in Australia Hardwood (supplied by the Principal) and galvanised steel joints and bracings.

The timber legs and beams are to be painted in accordance with clause 16.2. The steel brackets, bracing and turnbuckles shall be painted in accordance with clause 16.1 above.

23.2 Stairway

Provide and install the stairway as detailed in the Drawings. Stringers shall be hot dipped galvanised after attachment of all brackets. Treads to be from treated Radiata Pine.

Handrails shall be fabricated from galvanised steel water pipe fastened together with galvanised "A" clamps. Stringers and handrails are to be painted in accordance with clause 16.1.

23.3 Landing

The landing shall be constructed from treated Radiata Fine to details on Drawings. Bolts and nails to be galvanised. Handrails shall be painted in accordance with Clause 16.2.

23.4 Ladders

Steel ladder shall be provided and fixed as detailed in the Drawings. Ladders shall be hot dip galvanised after fabrication and then painted in accordance with clause 16.1.

24. INSTALLATION OF RENOVATED HOUSE

On completion of the renovation of the house, which will be within four months of its removal, the Contractor shall return it to the Bean Rocks Lighthouse site and re-erect it on the new tower in accordance with the Drawings and Specifications.

25. CONTINGENCY SUM

A contingency sum of \$30,000 shall be included in the Tender Price as Gross Sum Allowance for such unforseen work, materials or alterations as may be considered necessary or desirable by the Engineer during construction work. Any portion of this sum not authorised for use in writing by the Engineer, will be deducted from the final account.

26. GENERAL

The whole of the work shall be carried out and completed to the entire satisfaction of the Engineer. All materials used shall be the best of their respective kinds and the use of faulty or sub-standard materials will not be tolerated. The Contractor shall, at all times, maintain the site in a tidy, sanitary condition and shall, on completion, leave same in a condition satisfactory to the Engineer.

GENIRAL SPECIFICATION FOR REINFORCED CONCRETE

SECTION 1, SITE MIXED CONCRETE

- CEMENT: Cement shall be either Portland cement or rapid-hardening Portland cement and shall comply in every respect with the requirements of N.Z.S. 3122. Special cement shall be used only with the written consent of the Engineer.
- 2. AGGREGATES: Fine and coarse aggregates shall comply with the requirements of N.Z.S. 3121. The nominal maximum size of coarse aggregate shall generally be 20mm but, in any event, shall not exceed three quarters of the specified cover or three quarters of the clear lateral distance between adjacent reinforcing bars. Where slab reinforcement is required to have a 20mm cover, the nominal maximum size of aggregate may be 20mm. If the nominal maximum size of aggregate is greater or less than 20mm, the cement content per cubic yard of mixed concrete shall be subject to the approval of the Engineer.
- 3. WATER: Water shall comply with the provisions of N.Z.S. 3121.
- 4. STORAGE OF AGGREGATES: The storage and handling of aggregates shall be such as not to result in segration or contamination by foreign materials. Aggregates of each specified size range shall be brought separately to the place of mixing and shall be stored in such a way as to prevent the materials intermixing. Washed sand shall be allowed to drain to a stable moisture content.
- 5. STORAGE OF CEMENT: Cement shall be so stored and handled on the site as to be protected against deterioration or contamination and to be capable of being inspected at all times. Any cement which does not comply with the requirements of N.Z.S. 3122 shall be removed from the site of the works.
- 6. ADMIXTURES: Chemical or air-entraining admixture shall not be used in site mixed concrete without the prior consent of the Engineer.
- 7. MIX DESIGN: Site mixed concrete shall be either Ordinary Grade or High Grade and shall comply in all respects with the relevant requirements set out in N.Z.S. 1900, Chapter 9, 3A: 1970.
- 8. MANUFACTURE: Unless otherwise approved by the Engineer, the mixing of concrete shall be done in a batch mixer complying with the provisions of N.Z.S. 3105, or other approved type which will.ensure the thorough mixing of all materials. The volume of the mixed material for each batch shall not exceed the manufacturer's rated capacity of the mixer. The entire batch shall be discharged before recharging. The mixing time shall be measured from the time when all the materials are in the mixer drum. The minimum time of mixing shall be 1½ minutes for mixers of 0.75m or less capacity and mixers of larger capacity shall have the time of mixing increased by 15 seconds for each additional 0.375m capacity or fraction thereof. The drum shall rotate at a peripheral

speed of approximately 60 methos per minute at a point on the widest section of the drum, or up a speed of 12 r.p.m.

SECTION 2, READY MIXED CONCRETE

- 1. MIX DESIGN: Ready mixed concrete shall be either High Grade or Special Grade and shall conform in all respects with the relevant requirements set out in N.Z.S. 1900, Chapter 9.3A:1970.
- 2. MANUFACTURE: Ready mixed concrete shall be produced and delivered to the site of the works in the manner set out in N.Z.S. 2086. Results of tests carried out by the manufacturer shall, if required, be made available to the Engineer on request.
- 3. ADMIXTURE: Should the manufacturer intend to use chemical or air-entraining admixtures in the Ready Mixed Concrete, this must be made known to the Engineer prior to delivery.

SECTION 3, REINFORCEMENT

- 1. REINFORCING STEEL: Reinforcing bars shall comply with the provisions of N.Z.S. 3402P:1973. All reinforcing used in stirrups shall comply with the bend test requirements of N.Z.S. 3402P. Welded wire fabric reinforcing shall comply with the relevant requirements of N.Z.S. 3422:1972.
- 2. STORAGE AND CLEANING: Reinforcement shall be maintained at all times free from damage and contamination, shall be clean and free from all loose mill scale, dust and loose rust, and coatings such as paint, oil or anything which may reduce bond.
- 3. EXPOSED REINFORCING: Exposed reinforcing bars intended for bonding with future extensions shall be adequately protected from corrosion.
- 4. COVER TO REINFORCING: The minimum concrete cover to reinforcing steel measured from the outside of the bar shall be as follows unless otherwise specified:

Foundations:	a) against natural ground	75mm
	 b) against approved boxing and back-fill or similar 	50mm
Beams & Columns:	Principal Reinforcement.	
	a) against natural ground b) against approved boxing and	75mm

b) against approved boxing and
back-fill or similar 50mm
c) exposed to weather and
unplastened 50mm
d) exposed to weather and
plastered 40mm
e) not exposed to weather 4,0mm

COVER TO REINFORCING: (Cont.)

Beams & Columns: Secondary Reinforcement.

All 12mm less than for Principal Reinforcing.

Slabs:		against natural ground against approved boxing back-fill or similar	and	50mm
	c) d)	exposed to weather and .unplastered		30mm
		exposed to weather and plastered not exposed to weather		20mm · 20mm
Walls:	a) b)	against natural ground against approved boxing back-fill or similar	and	5 0 mm 4 0 mm
	c) d)	exposed to weather and unplastered exposed to weather and		4 0mm
	e)	plastered not exposed to weather		25mm 25mm

- 5. Hooks on bars shall be formed with the point parallel to the shank and with a semi-circular curve having an inner diameter of at least four times the diameter of the bar, except that when a hook fits over a main bar, the inner diameter of the curve may be equal to the diameter of such bar. The length of the straight part beyond the end of the curve shall be at least four times the diameter of the bar forming the hook.
- 6. LAPS: Hooked bars shall be lapped for a distance of 40 diameters.

 Bars without hooks shall be lapped for a distance of
 54 diameters.

FORMWORK

2. DESIGN AND CONSTRUCTION: Formwork shall be designed in accordance with recognised principles and constructed so that it may be removed without damage to the concrete. All formwork shall be adequately braced and supported to prevent sagging or bulging during the placing of concrete and all joints shall be sufficiently tight to prevent undue leakage of liquid from the concrete. All forms shall be fixed to proper line and level and trued up immediately prior to concreting. Strutting shall be carried down to construction sufficiently strong to afford the required support without permissible stresses being exceeded.

Bolts and other fittings used inside the forms for tying them together during concreting shall be constructed so as to permit their easy removal to a depth necessary to provide the required cover over the reinforcement without injury to the concrete and so that, upon their removal, the cavities can be filled with mortar and the surface left sound, smooth, even and uniform in colour.

DESIGN AND CONSTRUCTION (Cont.)

Washout ports shall be provided at the bottom of all concrete lifts and each column; and shall be of adequate size and spacing for their purpose.

2. REMOVAL OF FORMWORK: Formwork shall be removed without shock or vibration and in such a manner as to permit the concrete to take the imposed stresses gradually. After concrete has been placed formwork shall, unless otherwise approved by the Engineer, not be removed until the minimum periods set down below have elapsed. Concrete members shall not be assumed capable of supporting any superimposed loading when the minimum stripping time has elapsed and the construction supports have been removed, nor capable of supporting the design live load until the concrete has reached its design strength, taking due account of frame continuity in both cases.

Minimum removal times are as follows:-

		Very Cold	Tem	perate
a) b)	beam sides and walls columns and slabs in beam and	6: days	2	days
	slab construction-props to be		**	
	left under slabs of span			
	over 1.5m	10 days	. 5	days
c)	props from slabs of span	•		
	over 1.5m in beam and slab			
	construction	14 days	7	days
d)	beam soffits and slab spans			
	exceeding 4.5m	28 days	16	days

CONCRETING

- 1. ADVERSE CONDITIONS: No concrete shall be placed under unfavourable weather or other undesirable conditions, except with such precautions as the Engineer may approve in writing. Unfavourable conditions shall be deemed to include excessively low air temperatures (i.e. below 4.5 degrees C with temperature descending or below 2.5 degrees C with temperature ascending), excessively hot dry conditions, wet conditions or any other condition making it impossible to work the concrete adequately.
- 2. CLEANING OF FORMWORK: Immediately before any concreting is commenced, all formwork shall be carefully examined to ensure that all dirt shavings, sawdust and other refuse has been removed by brushing or washing with a hose or other approved means.
- 3. WETTING FORMS: The inside of timber forms shall be wetted with clean water immediately prior to the placing of concrete unless the forms have been coated with an approved form of dressing. No form dressing other than water, shall be applied after placing reinforcement in the forms. In all cases, surplus liquid shall be removed before concrete is placed

CONCRETE PLACING UNDER WATER: Where it is necessary to place concrete under water, the contractor shall notify the Engineer in writing, outlining his intended method for placing such concrete. The Engineer may, at his discretion, impose such conditions and control as he

considers necessary.

DIMENSIONAL TOLERANCES: . Where tolerances are not stated in 11. the specifications, as shown on the drawings, permissible deviations from established lines, grades and dimensions shall be determined by the appropriate consideration of the tolerances suggested in N.Z.S. 1900, Chapter 9.3A:1970, Table 8.

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Tender Form ·

To: The Chairman AUCKLAND HARBOUR BOARD

Sir,

We undertake to complete the works within calender weeks of the date of the Engineer's order to proceed.

Should this Tender be accepted we undertake to execute a Contract and Bond embodying the aforesaid Specification and Conditions within 28 days of receipt of the same from the Board.

We acknowledge that unless and until a formal Contract Agreement is prepared and executed, this Tender together with the written acceptance thereof shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Tender you may receive.

We enclose herewith a cheque payable to the Auckland Harbour Board for \$500.00.

	Signature
	Name of Company
	Address
Date	Telephone

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Schedule of Quantities

	Description	Unit .	Quantity	Rate	Amount
1.	Provide for all establishment and disestablishment charges. Itemise hereunder and price				
		Item			
2.	Specify and allow for any work to be done, materials and plant to be provided or any special risk, liability or obligation to be undertaken by the Contractor for which no separate item is provided in the Schedule	Item			
		•			
			*		
3.	Provide for disconnecting house from tower and transporting it to and unloading on site specified.	Item			

	Description	. <u>Unit</u>	Quantity	Rate	Amount
4.	Provide for demolition of existing tower and pile foundations and disposal of demolition material.				
5.	Provide for supply of all materials for (except Australian hardwood) and construction of tower in accordance with Drawings and Specifications. Include landing, stairway, ladder and holding down bolts.	Item			
FOU	JNDATION ALTERNATE 1				
6.	<u>Piles</u>				
	Supply all materials for and construct to details and positions shown on Drawings.				
6.1	Allow for removal and replacement of packed rock, and disposal of surplus material.	cu. m	40		
6.2	Allow for supply and installation of steel casing	m	42		
6.3	Allow for drilling 600 mm dia hole into foundatino rock including disposal of excavated material	m	17.5		
6.4	Allow for supply and placement of reinforcing cage.	m m	52.5		
6.5	Allow for supply and placement of concrete in 600 dia. pile	m	52 . 5		
FOU	UNDATION ALTERNATE 2 .				
7.	Foundation				

Supply all materials for & construct to details and positions shown on Drawing K.814.

	Description	Unit	Quantity	Rate	Amount
7.1	Allow for removal and replacement of packed rock, and disposal of surplus material.	eu. m	60		
7.2	Allow for supply and placement of reinforcing.	1.s.			
7.3	Allow for supply and placement of concrete.	cu.m.	69		
8.	Provide for transporting renovated house from Buoys and Beacon Site to Bean Rocks and fixing it in position on new tower in accordance with Drawings and Specification, include the supply and fabrication of the fastenings.	Item			
9.	Contingency Sum				\$30,000
	TOTAL AMOUNT OF TENDER	ALT	ERNATE 1		

ALTERNATE 2

AUCKLAND HARBOUR BOARD .

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Schedule of Daywork Rates

Tenderers shall set out below hourly rates for skilled and unskilled men and for machines, which will be used for carrying out unscheduled work as directed by the Engineer. All rates shall be all-inclusive and shall be deemed to cover all costs to the Contractor including supervision, overheads and profit. Only hours actually worked shall be paid for.

LABOUR

Type of Worker

Rate per hour
(State days and times applicable)

100 hours

100 hours

100 hours

PLANT

Type of Machine

Rate per hour (inclusive of Operator)

MATERIALS

(Nominate percentage addition to cost price%)

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Schedule of Current Market Prices

For the purposes of Clause 22. 2. 2 of the General Conditions of Contract, the Tenderer shall detail in this Schedule any materials and the ruling market price prevailing in New Zealand, at the date of Tendering, of such materials to which such Clause shall apply.

Any materials not priced in this Schedule will not be subject to the provisions of Clause 22.

Unless otherwise described all rates shall be construed as being ${\tt ex}$ Merchants' store at Auckland.

ITEM MATERIAL

UNIT RATE

R.M. Myers 18 Vienna Place Green & McCahill Limited PO Box 12-443 BIRKENHEAD AUCKLAND 4 March 1985 Dear Sir CONTRACT 2500 BEAN ROCKS LIGHTHOUSE ALTERNATE DESIGN You are invited to submit a price for an Alternate Design for the Reconstruction of Bean Rocks Lighthouse as shown on Drawing K.814 enclosed with this letter. I would appreciate it if the completed Schedule of Quantities and Tender Form for Contract No. 2500, Bean Rocks Lighthouse Reconstruction Alternate, enclosed, be delivered to the Chief Engineers Clerk, 8th Floor, Air New Zealand Building by 12 noon Thursday 7 March 1985. Yours faithfully B.R. Le Clerc CHIEF ENGINEER TO THE BOARD Enc. Copy K. 814 Tender Form Schedule & Quantiles Alternate Specification

758 BEA 21 February 1985 Mr P.W. Shirley 9 Mikasa Place Mangere AUCKLAND Dear Sir BEAN ROCKS LIGHTHOUSE - RECONSTRUCTION With reference to your letter of 14.2.85, I enclose a set of contract documents (Contract 2500) for the reconstruction of the lighthouse. It is proposed to award the contract at the next Board meeting on 26.3.85 and a tentative completion date is October this year. Yours faithfully B.R. Le Clerc CHIEF ENGINEER TO THE BOARD LWJ: JMH Enc.





F 758 BEA

9 Mikasa Place, Mangere, AUCKLAND, 14th February, 1985

What the specifications will entail, for buse?

rching the history of this early beacon, _84, I compiled an article on Bean Rock, uich was later reprinted in the Royal NZ pard must be commended in their decision, : form.

available, concerning the new lighthouse and completion dates of this project,

ithfully,

- *O* Shirley



J4038/6

The Secretary, Auckland Harbor Board, P.O. Box 1259, AUCKLAND, 1



758 BEA

9 Mikasa Place, Mangere, AUCKLAND, 14th February, 1985

Dear Sir,

Could you please advise me, what the specifications will entail, for

the reconstruction of Bean Rock Lighthouse?

I have been involved in researching the history of this early beacon, over a number of years; and during 1984, I compiled an article on Bean Rock, for the "Historic Places" magazine, which was later reprinted in the Royal NZ Yacht Squadron's journal. The Harbor Board must be commended in their decision, to rebuild the old tower in its present form.

Any information which is now available, concerning the new lighthouse replica, and the likely commencement and completion dates of this project, would certainly be appreciated.

Yours faithfully,

P. W. Shirley

Paul W. Shirley



AUCKLAND HARBOUR BOARD

CONTRACT NO. 2500

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Index Sheet

The General Conditions of Tender and Contract for this Contract shall be the New Zealand Standard Specification "Conditions of Contract for Building and Civil Engineering Construction", N.Z.S. 623:1964 and amendments thereto, except as amended or extended in the First Schedule - Special Conditions of Contract.

CONTENTS OF BOUND DOCUMENTS

- 1. Index Sheet.
- 2. First Schedule Special Conditions of Contract.
- Second Schedule Form of Agreement for Fulfilment of Contract.
- 4. Third Schedule Form of Bond.
- 5. Insurance Contract Works Policy.
- 6. Specification.
- 7. Tender Form.
- 8. Schedule of Quantities
- 9. Schedule of Daywork Rates.
- 10. Schedule of Current Market Prices.

refe! news

DRAWINGS

The above documents to be read in conjunction with Auckland Harbour Board Drawings No.E.2653/1-6.

Drawings of existing lighthouse are available on request.

TENDERERS TO NOTE:

Tenderers are requested to return documents 7, 8, 9 and 10 with their tender.

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

First Schedule - Special Conditions of Contract

Amendments and/or extensions to the General Conditions of Contract N.Z.S. 623 (paragraph numbers refer to the appropriate Clause).

DEFINITIONS

1.1. "Engineer" shall mean the person who is for the time being Chief Engineer to the Board.

"Board" shall mean the Auckland Harbour Board.

TENDER

2.1.1. Submission of Tender

Tenders will close at the office of the Secretary, Auckland Harbour Board, 9th Floor, Air New Zealand House, 1 Queen Street, at noon on Thursday, 28 February 1985. Tenders shall be enclosed in a sealed envelope addressed to the Chairman, Auckland Harbour Board and marked on the outside "Tender for Contract No.2500 Bean Rocks Lighthouse Reconstruction."

2.1.5. Type of Contract and Schedule of Quantities

This Contract is for a lump sum price and except for the piles is not subject to remeasurement and Part 2.1.5 of the General Conditions applies. For the purpose of Progress Payments however, Tenderers shall complete the attached Schedule showing how the lump sum is made up.

- 2.3.1. Deposit with Tender shall be \$1,000.00.
- 2.7. The lowest or any tender will not necessarily be accepted. No tender will in any event be accepted until the Principal is in receipt of all necessary statutory approvals authorising the project to proceed.
- 3.1. A surety is required and shall be a recognised Trading Bank or Insurance Company.
- 3.2 Bond shall be executed for 10% of the Contract Sum.

...

8.9 General Obligation

The Contractor will be required, as soon as practicable after acceptance of his Tender, to submit to the Engineer for his approval, a programme showing the order in which, and the methods by which he proposes to carry out the works.

INSURANCES

The Principal at his own cost has effected Contractors All Risks and Public Liability Insurance

Any excesss or deductibles under these policies shall be borne by the Contractor. The Contractor may at his sole discretion obtain other or additional insurance but the cost of same shall be borne solely by the Contractor.

In effecting Contractors All Risks and Public Liability Insurance the Employer is not to be taken as:-

(a) Warranting or representing that it has insured the Contractor against liability or against loss or damage other than to the extent that any claim in terms of the Policies may be paid by the Insurer thereof.

and

(b) Relieving the Contractor of any responsibility, duty or obligation imposed under this Contract.

COMMENCEMENT TIME AND DELAYS

- 11.3. Tenderers shall nominate on the Tender Form the time, in weeks, within which they are prepared to guarantee completion of the works.
- 11.6.1 Liquidated damages shall be \$250.00 per week

MAINTENANCE

12.1. The period of maintenance for the work carried out by the Contractor shall be three months.

CONTINGENCY SUM

The amount of the Contingency Sum which must be included in the Tender is \$30,000 as set out in the Schedule of Quantities.

CERTIFICATES AND PAYMENTS

17.2.1. Retention in addition to Liens Act requirement shall be at the rate of 5%.

17.3.1. Plant advances shall not be made.

COST FLUCTUATIONS

22.1. Cost fluctuations shall apply provided a Schedule of Current Market Rates is submitted with the Tender.

22.2 This clause shall not apply to this Contract.

AUCKLAND HARBOUL BOARD

SECOND SOMEDULE .		
FORM OF AGREEMENT FOR FULFILMENT	r of contract	
Contract No for	- x	
AGRIPANT made this	day of	. 19
the Contractor) of the one part the Board) of the other part and	and the Auckland Har	(hereinafter called bour Board (hereinafter called
WHEREBY it is agreed as follows:	:-	
1. The Contractor shall do, exmaintain all and singular the wo annexed documents which shall be of this agreement and shall comp	orks supplies service e deemed to form and	s and things mentioned in the be read and construed as part
 (a) the Tender, the letter of a (b) the Drawings. (c) General Conditions of Control (d) the Specification. (e) Bill of Quantities. (f) Schedule of Current Market (g) the Special Conditions of (h) the Bond. (i) Schedule of Daywork Rates. 2. The Board shall at the time ditions and stipulations contain 	Rates. Contract. es, in the manner and	subject to the terms con-
		pu) the com of
dollars (\$) or su agreement shall become payable b		sum as according to this ontractor.
IN WITNESS whereof these present above written.	ts have been signed b	y the parties the day and year
Contractor (Reg. Company) The Common Seal of was hereto affixed in the preser	nce of	
<u>:</u>		
Contractor (Individual) Signed by the said		
Address		
Signature in the presence of (Witness)		
Address		
Occupation		
Signature		
The Common Seal of the Auckland hereto affixed by order of the Board held on the in the presence of	Board at a meeting Tiday of	
	Chairman Member	
	· renuel	

AUCKLAND HARBOUR BOARD

THIRD SCHÉDULE
FORM OF BOND
Contract Nofor
KNOW ALL MEN BY THESE PRESENTS that
of (hereinafter called the Contractor)
and
of(hereinafter called the Surety)
are jointly and severally bound to the Auckland Harbour Board (hereinafter called the Board) in the sum of dollars (\$
themselves, their successors and assigns jointly and severally by these presents. Executed and dated this
WHEREAS the Contractor by an Agreement made between the Board of the one part and the Contractor of the other part has entered into the Contract described above (hereinafter called "the said Contract") for the construction completion and maintenance of certain works as therein mentioned in conformity with the provisions of the said Contract.
NOW THE CONDITION of the above-written bond is such that if the Contractor shall duly perform and observe all the terms provisions conditions and stipulations of the said Contract on the Contractors part to be performed and observed according to the true purport intent and meaning thereof prior to the commencement of the period of maintenance or if on default by the Contractor the Surety shall satisfy and discharge the damages sustained by the Board, thereby up to the amount of the above written Bond then this obligation shall be null and void but otherwise shall be and remain in full force and effect but no alteration in terms of the said Contract made by Agreement between the Board and the Contractor or in the extent or nature of the Works to be constructed and completed and maintained thereunder and no allowance of time by the Board or the Engineer under the said Contract nor any forbearance of forgiveness in or in respect of any matter or thing concerning the said Contract on the part of the Board or the said Engineer shall in any way release the Surety from any liability under the above written Bond.
Contractor (Reg. Company)
The Common Seal of was hereto affixed in the presence of
Contractor (Individual) Signed by the said
Address
Signature
In the presence of (Witness)
Addresss
Occupation
Signature
Surety (Reg. Company) The Common Seal of was hereto affixed in the presence of

CONTRACT WORKS POLICY

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Prepared By:

Bowring Burgess Marsh & McLennan Ltd

Auckland

February 1984

AUCKLAND HARBOUR BOARD

CONTRACT WORKS INSURANCE

Whereas the Insured named in the Policy hereto has made to the Insurers a written proposal.

Now this Policy of Insurance witnesseth that in consideration of the Insured having paid or agreed to pay to the Insurers the agreed premium and subject to the exclusions provisions and conditions contained hereon or endorsed hereon the Insurers will indemnify the Insured in the manner and to the extent hereinafter provided.

THE SCHEDULE

INSURED

AUCKLAND HARBOUR BOARD AS PRINICIPAL ALL CONTRACTORS SUBCONTRACTORS AND SUPPLIERS TO THE PRINCIPAL

for their respective rights and interests.

PREMIUM

Rate as agreed.

CONTRACT

All supply, dismantling, removal, construction, erection, repair, rebuilding and other activities arising in connection with Bean Rocks Lighthouse Reconstruction as generally defined in the Contacts between the Insured and including all works not described in the Contracts but which are deemed necessary by any of the Insured.

PERIOD OF COVER

The liability of the Insurers shall commence on and continue to and then to be followed by period of maintenance of months.

The attachment of this Policy is directly the Insured becomes responsible for property forming part of or to be incorporated in the Contract whether at the Contract site or elsewhere in New Zealand including whilst in transit and shall continue until the whole of the Contract is completed and handed over to the Principal, the cover and consequently the liability then ceases except in so far as liability arising during the period of maintenance.

-2-

The Insurance shall expire on the dates specified to the Insurers, but if the Contract or maintenance operations included in the Insurance are not completed within the time specified, the Insurers agree to extend the period upon payment of additional premium appropriate to any additional risk which the Insurers have thereby assumed at a rate to be agreed.

SECTION (1)

PROPERTY AND SUMS INSURED

Sum Insured

The Contract including Temporary Works, and all materials and goods used or to be used in connection therewith (which shall include existing property of the Principal), the property of the Insured or whilst in the possession of the Insured or for which the Insured are responsible on or adjacent to site of works or in temporary storage offsite, or whilst in transit all within New Zealand

THE DEDUCTIBLE

The amount of deductible applicable to destruction loss or damage arising from any cause except fire, lightning or explosion is \$2,000 however any loss or damage arising during any one period of 72 hours caused by earthquake, storm, tempest or flood shall be deemed to be a single event and therefore to constitute one loss with regard to the sum insured and the deductible.

SECTION (2)

Limit of Liability any one occurrence \$5,000,000

Deductible \$2,000

-3-SECTION I MATERIAL DAMAGE The Insurers hereby agree with the Insured that if at any time during the period of insurance or during any further period of extension thereof, the property or any part thereof described shall suffer any physical loss or damage from any cause, other than those specifically excluded, in a manner necessitating repair or replacement, the Insurers will pay or make good all such loss or damage up to an amount not exceeding the total sum expressed. The Indemnity by this Section shall extend to include: -(a) Professional Fees All Architects, surveyors, legal, consulting engineers and all other fees and similar costs (which shall include Clerk of Works and Inspectors salaries and wages) for the replacement and/or reinstatement of loss and/or damage. (b) Removal of Debris All costs and expenses incurred in removing debris and/or wreckage, consequent upon loss of or damage to the property insured including the cost of dismantling or demolition of any of the property insured no longer useful for the purpose of the contract, and costs incurred in shoring up or propping and regaining access to original working conditions. (c) Expediting Expenses Additional expenses including but not limited to extra charges, express carriage, air freight and travel by insured employees and/or additional labour where necessarily incurred to rectify or contain loss or damage arising from any perils insured herein. (d) Plans and Documents The costs incurred in re-writing or redrawing of plans drawings or other contract documents lost destroyed or damaged as a result of a peril insured hereunder wherever or whenever such loss destruction or damage shall occur.

The cost of any temporary repairs will be borne by the Insurers where reasonably and necessarily incurred.

All damage which can be repaired shall be repaired but if the cost of repairing any damage equals or exceeds the value of the insured item immediately before the occurrence of the damage the settlement shall be made on the basis provided for in (b) above.

The Insurers will not be liable for the cost of any alterations additions and/or improvements where the effect of these alterations, additions and/or improvements increases the cost of repair or replacement except where such additional costs are necessary to comply with any Act of Parliament or any Regulations under or framed in pursuance of any such Act or with requirements of any Municipal or Local Authority.

-6-2. If during the Period of Insurance the actual total Contract price shall be in excess of the original Contract price then the sum insured shall be deemed to be increased by the amount of such excess but not exceeding 20% of the sum insured as shown in the Policy. The Insured shall within a reasonable time after the completion of the Contract to which the Insurance applies, furnish to the Insurers a declaration of the total Contract price as finally measured (including the cost of service buildings and facilities). Premium shall be finally adjusted on this basis after taking into account the deposit premium paid at inception. REINSTATEMENT OF DAMAGE AUTHORISATION APPLYING TO SECTION I In the event of a claim arising and the Insured completing procedures set out in General Condition (4), repairs or replacement of any minor damage may be carried out up to \$10,000. In all other cases a representative of the Insurers shall have the opportunity of inspecting the loss or damage before any repairs or alterations are effected. Nothing herein shall prevent the Insured from taking such steps as are necessary for the progress of the Contract.

-7-SECTION II THIRD PARTY LIABILITY The Insurers will, subject to the exceptions and conditions hereinafter mentioned: -Indemnify the Insured or pay on behalf of the Insured any sum or sums which the Insured shall be obligated to pay by reason of liability: imposed upon the Insured by law, (b) assumed under contract or agreement for damages on account of: (i) Personal injuries (ii) Property Damage caused by an occurrence happening during the Period of Insurance. Defend in the name of and on behalf of the Insured any claim or suit against the Insured to recover damages on account of such bodily injuries and/or damage to or destruction of property as aforesaid. Pay, in addition to the limits of liability expressed (i) All expenses incurred by or with the permission of Insurers for investigation, negotiation and defence of claims and suits; (ii) All expenses incidental to the appeal from any judgement against the Insured subject to the consent of Insurers and all costs taxed against the Insured in any suit for damages on account of any judgement in such suit resulting from such appeal. LIMIT OF LIABILITY \$5,000,000 any one occurrence/unlimited in the period of insurance. DEDUCTIBLE The amount of the deductible applicable in respect of each accident or series of accidents arising out of one event \$2,000.

DEFINITIONS

- A. The terms "Property Damage" wherever used herein shall mean loss of or direct damage to or destruction of tangible property (other than property owned by the Named Insured).
- B. The term "Damages" includes damages for death and for care and loss of services resulting from personal injury and damages for loss of use of property resulting from property damage.
- C. The term "Vehicle", wherever used herein, shall mean a land motor vehicle, trailer or semi-trailer.
- D. The term "Occurrence" wherever used herein shall mean an accident or a happening or event or a continuous or repeated exposure to conditions which unexpectedly and unintentionally results in personal injury or property damage during the policy period. All such exposure to substantially the same general conditions existing at or emanating from one premises location shall be deemed one occurrence.

EXCLUSIONS TO SECTION II

The indemnity granted by this Section shall not apply to nor include:-

- Liability for bodily injury sustained by any person arising out of and in the course of employment by the Insured under a contract of service or apprenticeship with the Insured.
- 2. Liability for claims in respect of loss of or damage to property owned, leased, occupied or used by, or in the care, custody or control of the Insured, provided that where the Contract works consist of alterations and/or extensions, repairs replacements or additions, servicing or the like whether wholly or in part, then this exclusion shall be deemed not to apply to the existing structure or any other Third Party Property (other than the Contract works described in the Schedule) on or about the Contract site.
- Liability caused by vehicles registered for general road use except whilst such vehicles are in use on the Contract site for the purposes of this Contract or prior agreement of the Insurers having been obtained.

SPECIAL CONDITIONS APPLYING TO SECTION II

1. NOTICE OF LOSS

The Insured shall, upon the happening of any occurrence likely to give rise to a claim under this section of this insurance, and/or upon receipt by the Insured of any notice of any claim or any other subsequent proceedings, give notice in writing with full particulars to the Insurers as soon as possible.

The Insured shall co-operate with the Insurers in the defence of claims suits and in prosecuting appeals and upon the Insurers' request shall attend hearings and trials, and shall assist in effecting settlements, securing and giving evidence, obtaining the attendance of witnesses, and in the conduct of suits. The Insured shall not, except at his own cost, voluntarily make any payment, assume any obligation nor incur any expense.

The Insured shall not repudiate liability, negotiate or make any admission, offer, promise or payment in connection with an occurrence or claim without the written consent of the Insurers.

2. THE INSURED

The word "Insured" shall be deemed to include any Partner, Director, Executive Officer or any employee thereof active within the scope of his duties as such as related to the Insured Contract.

3. CROSS LIABILITIES

This Indemnity extends to indemnify each of the Insured separately in the same manner and to a like extent as though separate policies had been issued in their separate names. In particular (but without limiting the generality of the foregoing) the indemnity shall subject to the terms, conditions and exceptions of the policy indemnify each of the insured in respect of claims made by the other or by servants or agents of the other. However, each Insured shall be separately subject to the terms exceptions and conditions of the Policy in the same manner and to a like extent as though separate policies had been issued to each of the said Insured and the Insurers hereby agree to waive all rights of subrogation or action which they may have or acquire against any of the aforesaid Insured's arising out of any event or occurrence in respect of which any claim is made hereunder.

MEMORANDA

Memo 1 Destruction of Sound Property

It is understood and agreed that in the event of total or partial damage or destruction to the Property Insured, the destruction of sound property necessary for the replacement and reinstatement of the building or structure is covered.

Memo 2 Partial Occupation

Notwithstanding anything contained in the Policy to the contrary this insurance shall continue at premium and terms to be agreed should the Principal or any Tenant or other persons authorised by the Principal enter into occupation of any stage of the works or any portion thereof before completion of the Contract.

Memo 3 Automatic Reinstatement of Loss

It is understood and agreed that in the event of loss or damage by any of the perils insured against to the property within described and in the absence of written notice by the Insurers or the Insured to the contrary, the amount of insurance cancelled by loss is to be automatically reinstated as and from the date of loss the Insured undertaking to pay such premium as may be required for such reinstatement from that date.

Memo 4 Deductible Sections I and II

It is understood and agreed that in the event of a claim under Section I and II arising from one source or original cause the amount of the Deductible shall be limited to the higher of the Deductibles under Section I and II otherwise applicable.

Memo 5 Sue and Labour

In the case of any loss or misfortune it shall be lawful for the Insured, their Factors, Servants and Assigns to sue, labour and travel for, in and about the Defence and safeguard of their interests and to incur any expenses in efforts to avert or minimise a loss which may fall under this policy, the charges whereof will constitute a recovery under this Policy.

-11-GENERAL EXCLUSIONS - APPLICABLE TO ALL SECTIONS OF THIS POLICY The Insurers will not indemnify the insured in respect of loss, damage or liability directly or indirectly caused by or arising out of:-(a) War, invasion, act of foreign enemy, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection, mutiny, military or usurped power, or malicious persons acting on behalf of or in connection with any political organisation, confiscation, commandeering, requisition or destruction of or damage to property by or order of the government de jure de facto or by any public authority. Loss of or damage to any property whatsoever or any loss or expenses whatsoever resulting or arising therefrom or consequential loss; (ii) any legal liability of whatsoever nature; directly or indirectly caused by or contributed to by or arising from nuclear weapons material or ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion or nuclear fuel. (b) wilful act or wilful negligence of the Insured. Notwithstanding the above it is agreed that wilful act or wilful negligence by employees of an Insured shall not be deemed within the above exclusion except in so far as such acts or negligence are with the Insured's knowledge or consent. GENERAL CONDITIONS The due observance and fulfilment of the terms of this Policy insofar as they relate to anything to be done or complied with by the Insured shall be a condition precedent to any liability of the Insurers to make any payment under this Policy. 2) The Insured shall promptly notify the Insurers in writing of any material change in the risk insured hereunder; the scope of cover and/or the premium shall, if necessary, be adjusted accordingly.

-12-3) Representatives of the Insurers shall at any reasonable time have access to the site or premises and to all pertinent data, documents, drawings etc., and shall have the right to inspect any property insured. In the event of any occurrence which might give rise to a claim under the Policy, the Insured shall:-Notify the Insurers as soon as possible by telephone as well as in writing, giving an indication as to the nature and extent of loss or damage; b) take all steps within his power to minimise the extent of the loss or damage; preserve the damaged parts and make them available c) for inspection by the Adjusters/Insurers; furnish all such information and documentary d) evidence as the Adjusters/Insurers may require; inform the Police authorities in case of loss or e) damage due to theft or burglary. The Insured shall at the expense of the Insurers do and concur in doing the permit to be done all such acts and things as may be necessary or required by the Insurers in the interest or any rights or remedies, or of obtaining relief or indemnity from parties (other than those insured under this Policy) to which the Insurers shall be or would become entitled or subrogated upon their paying for or making good any loss or damage under this Policy, whether such acts and things shall be or become necessary or rquired before or after the Insured's indemnification by the Insurers. This Policy shall in all respects be read and construed and shall operate as a New Zealand Policy in conformity with the laws of New Zealand. If a claim is in any respect fraudulent, or if any false declaration is made or used in support thereof, or if any fraudulent means or devices are used by the Insured or anyone acting on his behalf to obtain benefit under this Policy all benefit under this Policy shall be forfeited. 8) A breach of any Conditions contained herein by one of the named Insured shall not prejudice any other Insured's interests in this policy provided notice in writing by given to Insurers immediately upon such breach coming to the knowledge of any other Insured.

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9) This Policy shall not be cancelled except in the event of termination of the Contract by the Principal. In which case coverage will cease and a pro-rata return premium shall be effected. However, the above shall in no way effect settlement of any circumstances which have resulted in a claim or claims or otherwise which occurred before the cancellation date.

Examined

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Specification

1. EXTENT OF CONTRACT:

The Contractor shall supply all labour, material, (except for the Australian hardwood for the tower), plant and other things necessary for the carrying out and completion of the works as shown on the accompanying Drawings and as described herein, in accordance with this Specification, the General Conditions of Contract and to the entire satisfaction of the Engineer.

2. GENERAL CONDITIONS

The General Conditions of Contract N.Z.S. 623:1964 shall be read with and included in this Specification.

3. TENDERERS TO INSPECT SITE

The Contractor shall be held to have satisfied himself before tendering, by personal inspection of the site, as to the accuracy of the Specification, Drawings, Schedules etc., or any other information of the kind supplied to Tenderers. He shall also be held to have satisfied himself as to the feasibility of constructing works of the kind and in the manner specified and as to all other matters which can in any way influence his Tender, as no allowance will be made or compensation paid on account of any incorrect or insufficient information on any point and he is further required to inform himself completely of every circumstance connected with the work and to provide in his Tender for every contingency that may arise.

4. MAINTENANCE OF WORKMANSHIP

All works included in this Contract shall be maintained at the specified standard of finish for a period of three months from the date of issue of the Engineer's Certificate of Substantial Completion.

5. STANDARD OF WORKMANSHIP

All construction and maintenance shall be carried out in a workmanlike manner to the entire satisfaction of the Engineer and any minor work not specified, but necessary to the completion of the Contract in accordance with the letter and spirit of the Specification, shall be carried out by the Contractor as if it had been so included.

6. SUPERVISION

The Contractor shall employ a competent and experienced foreman to supervise the work on his behalf and to whom, in the Contractor's absence, instructions may be given by the Engineer.

7. SURVEYING AND SETTING OUT

The Contractor shall be responsible for all setting out of the work in accordance with information supplied by the Engineer and/or shown on the Drawings. The provisions and stipulations set out in Clause 8.10.1 to 8.11 inclusive, of the General Conditions of Contract N.Z.S. 623, shall apply.

8. DESCRIPTION OF WORK

The work to be carried out in this Contract includes the following:-

- The removal of the lighthouse by water transport to the Board's Buoys and Beacons site at Beaumont Street. Renovation of the lighthouse shall be carried out by others.
- 2. The demolition and disposal of existing tower and piles.
- 3. The construction of pile foundation.
- 4. The construction of a new tower.
- The transportation and installation of the renovated house on new tower.

9. WORKS AREAS

All enquiries for works area on Board property are to be directed to the Traffic Manager, Ferry Building, Quay Street.

10. ELECTRICITY SUPPLY AND TOILETS

The Contractor shall make his own arrangements with the Auckland Electric Power Board for any electricity supply he may require. He shall be responsible for the supply of all materials for and the installation of all cables, switchgear etc., from the point of supply to where power is required.

11. FLOATING CRANE

The Auckland Harbour Boards floating crane "Hikinui" is available for hire. Conditions of hire are available at the Traffic Manager's Office, Ferry Building, Quay Street.

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12. SUPPLY OF TIMBER

1. Australian Hardwood

The Contractor shall take delivery of Australian hardwood timber at the Principal's Halsey Street Store. The timber will be loaded into the Contractor's vehicles free of charge. The Contractor shall transport to site, protect, store and install the Australian hardwood timber for the tower.

2. Radiata Pine

All Radiata Pine for the landings shall be provided by the Contractor.

13. MATERIAL STANDARDS

All materials shall be the best of their respective kinds and more particularly shall conform as follows:

13.1 Steel

All steel plate and rolled section shall be grade 43A steel and shall conform with B.S.4360:1972 except that dimensions and tolerances for rolled sections shall be in accordance with B.S.4.

13.2 Bolts

- (i) The 1 1/8" dia. bolts and nuts shall have B.S.W thread and conform with N.Z.S.1067.
- (ii) All other bolts and nuts shall conform with A.S. 1111 and A.S. 1112 respectively.

13.3 Galvanising

All steel work is to be hot dip galvanised to produce a zinc coating not less than 0.09mm thick. The bolts are to be galvanised after threading. The nuts and turnbuckle shall be retapped after galvanising to remove the zinc layer on the threads and shall be oiled to prevent rust.

13.4 Australian Hardwood

Australian hardwood shall be free from defective inner heart and shall comply in every respect with N.Z.S 485 Part 5.

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13.5 Radiata Pine

The Radiata Pine shall be pressure treated to N.Z. Timber Preservation Authority Commodity Specification C3 (13.5 kg/cubic metre).

The minimum standard of timber quality shall be No.1 Framing Grade, in accordance with N.Z.S. 3631:1978. All timber shall be rough sawn, except the deck planks, which shall be thicknessed to 46 mm with one face and both edges remaining rough sawn and the handrails and posts which shall be shaped to the details shown on the drawings.

14. STEEL FABRICATION AND WORKMANSHIP

The preparation and fabrication of all steel plates and sections shall conform with the best trade practice, shall be carried out only by experienced tradesmen and comply with relevant parts of N.Z.S. 1900, Chapter 9, Division 9.4:1965, Sections 9.4.54 to 9.4.75 inclusive.

Wherever possible the steel shall be cut to length by sawing and prepared for welding by milling or grinding. Where cutting is necessary, edges must be ground off to the required shape free of inclusions. All sharp edges shall be de-arissed. Weld splatter, slag etcetera shall be removed and all delamination ground out if practical, or seal welded.

Welding shall be carried out in strict accordance with B.S. 5135:1174. All stressed welds in main structural members, shall be full penetration welds, capable of developing the full strength of the members being joined. In the case of butt welds in rolled sections, where single side welding is used, the back of the weld shall be gouged and a sealing run applied.

In addition, tabs shall be provided at the edges of flanges, to ensure completeness at the start and finish of runs. Tabs shall be removed and the weld ground back to shape when the welding is completed.

In all situations, welds shall be continuous around the perimeter of joints and effectively seal off the meeting

The Contractor shall make all necessary provision for protection of work against adverse weather on the site. No welding shall be undertaken when the steel surfaces are wet or when the air flow over the work exceeds 1 metre per second.

Welding electrodes shall conform with B.S. 639:1972.

Electrodes shall be stored in their original bundles or cartons in a dry place adequately protected from the weather. Any electrodes which have areas of flux covering broken away shall be discarded.

Welding operators shall hold current certificates in accordance with N.Z.S 4711:1973 - Qualification Tests for Manual Metal Arc Welders. Notwithstanding the holding of a certificate, the Engineer may require any operator to undertake further qualification tests for the weld positions in which he proposes to operate. In the event of failure of the tests, such operators would not be acceptable to the Principal. All welding shall be carried out under the continuous supervision of an experienced shop foreman or welding supervisor, who himself is qualified as an operator.

Inspections and checks appropriate to the location of the weld will be carried out by the Engineer as the work proceeds. All welds may be examined for cracking using a dye penetrant. Any cracked weld shall be cut out and made good. All welds will be subjected to visual inspection and shall be generally sound and free from defects to the satisfaction of the Engineer. The cost of all non-destructive testing shall be borne by the Principal.

All bolt holes shall be drilled to the sizes shown on the Drawings. The threaded portion of each bolt shall project through a nut at least one thread and washers shall be of sufficient thickness to ensure that the unthreaded length of the bolt extends for the full thickness of the parts bolted together. Washers shall be of the type denoted on the Drawings.

Brackets: Minimum diameter of bends shall be five times the plate thickness.

15. TIMBER CONSTRUCTION AND WORKMANSHIP

All timber construction shall be carried out by experienced tradesmen in accordance with best trade practice.

Deck planks shall be fixed to the stringers with two 125mm x 4.5 mm galvanised flat head nails at each stringer. Nails at ends of planks shall be through pre-drilled holes. The rough sawn side of the planks shall face upwards.

16. PAINTING

16.1 Exposed Steel Work

On completion of galvanising where specified exposed steel shall be degreased and then given one coat of Devran 201 (or similar) then two coats of Devshield 235 (or similar) followed by a finishing coat of white Devthan 239 (or similar) to the manufacturers specifications.

16.2 Timber

Where specified timber shall be given one coat of Devshield 235 (or similar) followed by a top coat of White Devthan 239 (or similar) in accordance with the manufacturers specifications.

17. REMOVAL OF HOUSE

The existing house is to be removed from its tower intact, transported by water and unloaded on the landing at the Board's Buoys & Beacon area, Beaumont Street, Freemans Bay (see Drawing E.2653/1).

18. DEMOLITION OF EXISTING TOWER

The existing timber legs and beams, steel stairway, bracing and piles are to be demolished and removed from the site. With the exception that the Principal reserves the right to retain two samples each of the metal brackets and bracing.

19. PILING

The new piles to support the lighthouse shall be reinforced concrete encased in circular mild steel casings. They shall be constructed to the dimensions and details shown on the Drawings.

19.1 Bore Data

Copies of logs of boreholes taken at the site are included in the Drawings for the information of the Contractor. The data shown presents a factual description of the samples obtained at the various depths and positions indicated, but the Contractor must make his own assumptions and draw his own conclusions from the data.

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19.2 Unsuitable Strata

It is not anticipated that unsuitable strata will be encountered during drilling operations. However, if this is not the case, further investigation may be required at the direction of the Engineer, at rates to be agreed.

19.3 Setting Out

The Contractor shall be responsible for all setting out of the work in accordance with information supplied by the Engineer and/or shown on the drawings. The provisions and stipulations set out in Clauses 8.10.1 to 8.11 inclusive, of the General Conditions of Contract, N.Z.S. 623, shall apply.

19.4 Steel Casings

The steel casings shall be manufactured from mild steel plate, being Grade 43A and complying with B.S.4360:1972, spirally wrapped and welded. The plate thickness and casing diameter shall be shown on the Drawings. Should the Contractor consider that the casing as shown, is not adequate to withstand water and soil pressures likely to be encountered, then he shall say so at the time of tendering and shall submit with his tender, his alternative design for consideration by the Engineer. Welding shall be carried out in accordance with N.Z.S. 1646 (B.S.1856:1964) and all welding operators shall hold current certificates in accordance with N.Z.S. 4711-1973. Accuracy in manufacture shall be such that the circumferential weld between one length of casing and the one adjoining it shall be completely watertight. The whole length of casing shall be completely watertight, when in its final position, prior to concreting and shall be cut off at the level shown on the Drawings.

It shall be the responsibility of the Contractor to ensure that each casing can penetrate any materials likely to be encountered and to ensure that this can occur without buckling, he shall securely fix, to the lower edge of the first section, whatever reinforcing or cutting device he may consider necessary, at his own expense. Before undertaking the manufacture of the casing, he shall advise the Engineer of the cutting edge, if any, proposed to be used.

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19.5 Reinforcement

The steel reinforcing for each pile shall be as shown on the Drawings. The spiral wire binding shall be securely fixed, by spot welding, to every second vertical bar to form a rigid cage. Laps in the vertical bars shall be as shown on the Drawings. Mild steel spacer hoops or rings and lifting hoops shall be provided to the reinforcing cage as and where required by the Contractor. After fabrication, the first individual cage shall be introduced into the steel casing and the next cage welded securely to it and so on, until all separate cages have been joined to form one complete cage, within the casing. Care shall be taken to ensure that the specified cover to the steel bars is maintained throughout the entire length of the pile.

19.6 Concrete

All concrete used for the piles shall be Special Grade with a compressive strength of not less than 35 MPa at 28 days and shall conform with the General Specification for Reinforced Concrete. The minimum cement content shall be 370 kg/cubic metre. The maximum water cement ratio shall be 0.50 and the maximum aggregate size shall be 20mm.

19.7 Drilled Holes for Piles

Holes for founding piles shall be located in the positions shown on the Drawing. The drilling rig shall be capable of maintaining a satisfactory rate of progress and shall be manned by fully experienced operators. The steel casings and concrete piles shall penetrate a minimum of 1 metre and 2.5 metres respectively in solid rock. All material taken from the holes shall be recovered by the Contractor and dumped where directed by the Engineer not more than 250 metrs distant.

19.8 Concreting

A tremie method shall be used for placing the concrete. The function of the tremie shall be that of placing the fresh concrete within or under the previously placed charge of concrete and under no circumstances shall concrete be allowed to fall or drop through water.

NOTE: Payment for concreting is per lin. metre.
Contractor to make his own allowance for 'overbreak'.

20. TOWER

20.1 Construction

The tower is to be reconstructed in accordance with the Drawings and Specifications in Australia Hardwood (supplied by the Principal) and galvanised steel joints and bracings.

The timber legs and beams are to be painted in accordance with clause 16.2. The steel brackets, bracing and turnbuckles shall be painted in accordance with clause 16.1 above.

20.2 Stairway

Provide and install the stairway as detailed in the Drawings. Stringers shall be hot dipped galvanised after attachment of all brackets. Treads to be from treated Radiata Pine.

Handrails shall be fabricated from galvanised steel water pipe fastened together with galvanised "A" clamps. Stringers and handrails are to be painted in accordance with clause 16.1.

20.3 Landing

The landing shall be constructed from treated Radiata Pine to details on Drawings. Bolts and nails to be galvanised. Handrails shall be painted in accordance with Clause 16.2.

20.4 Ladders

Steel ladder shall be provided and fixed as detailed in the Drawings. Ladders shall be hot dip galvanised after fabrication and then painted in accordance with clause 16.1.

21. INSTALLATION OF RENOVATED HOUSE

On completion of the renovation of the house, which will be within five months of its removal, the Contractor shall return it to the Bean Rocks Lighthouse site and re-erect it on the new tower in accordance with the Drawings and Specifications.

22. CONTINGENCY SUM

A contingency sum of \$30,000 shall be included in the Tender Price as Gross Sum Allowance for such unforseen work, materials or alterations as may be considered necessary or desirable by the Engineer during construction work. Any portion of this sum not authorised for use in writing by the Engineer, will be deducted from the final account.

23. GENERAL

The whole of the work shall be carried out and completed to the entire satisfaction of the Engineer. All materials used shall be the best of their respective kinds and the use of faulty or sub-standard materials will not be tolerated. The Contractor shall, at all times, maintain the site in a tidy, sanitary condition and shall, on completion, leave same in a condition satisfactory to the Engineer.

AUCKLAND HARBOUR BOARD

GENI'RAL SPECIFICATION FOR REINFORCED CONCRETE

SECTION 1, SITE MIXED CONCRETE

- 1. CEMENT: Cement shall be either Portland cement or rapid-hardening
 Portland cement and shall comply in every respect with
 the requirements of N.Z.S. 3122. Special cement shall be used
 only with the written consent of the Engineer.
- 2. AGGREGATES: Fine and coarse aggregates shall comply with the requirements of N.Z.S. 3121. The nominal maximum size of coarse aggregate shall generally be 20mm but, in any event, shall not exceed three quarters of the specified cover or three quarters of the clear lateral distance between adjacent reinforcing bars. Where slab reinforcement is required to have a 20mm cover, the nominal maximum size of aggregate may be 20mm. If the nominal maximum size of aggregate is greater or less than 20mm, the cement content per cubic yard of mixed concrete shall be subject to the approval of the Engineer.
- 3. WATER: Water shall comply with the provisions of N.Z.S. 3121.
- 4. STORAGE OF AGGREGATES: The storage and handling of aggregates shall be such as not to result in segration or contamination by foreign materials. Aggregates of each specified size range shall be brought separately to the place of mixing and shall be stored in such a way as to prevent the materials intermixing. Washed sand shall be allowed to drain to a stable moisture content.
- 5. STORAGE OF CEMENT: Cement shall be so stored and handled on the site as to be protected against deterioration or contamination and to be capable of being inspected at all times. Any cement which does not comply with the requirements of N.Z.S. 3122 shall be removed from the site of the works.
- 6. ADMIXTURES: Chemical or air-entraining admixture shall not be used in site mixed concrete without the prior consent of the Engineer.
- 7. MIX DESIGN: Site mixed concrete shall be either Ordinary Grade or High Grade and shall comply in all respects with the relevant requirements set out in N.Z.S. 1900, Chapter 9, 3A: 1970.
- MANUFACTURE: Unless otherwise approved by the Engineer, the mixing of concrete shall be done in a batch mixer complying with the provisions of N.Z.S. 3105, or other approved type which will ensure the thorough mixing of all materials. The volume of the mixed material for each batch shall not exceed the manufacturer's rated capacity of the mixer. The entire batch shall be discharged before recharging. The mixing time shall be measured from the time when all the materials are in the mixer drum. The minimum time of mixing shall be 1½ minutes for mixers of 0.75m or less capacity and mixers of larger capacity shall have the time of mixing increased by 15 seconds for each additional 0.375m capacity or fraction thereof. The drum shall rotate at a peripheral

speed of approximately 60 metres per minute at a point on the widest section of the drum, or at a speed of 12 r.p.m.

SECTION 2, READY MIXED CONCRETE

- 1. MIX DESIGN: Ready mixed concrete shall be either High Grade or Special Grade and shall conform in all respects with the relevant requirements set out in N.Z.S. 1900, Chapter 9.3A:1970.
- 2. MANUFACTURE: Ready mixed concrete shall be produced and delivered to the site of the works in the manner set out in N.Z.S. 2086. Results of tests carried out by the manufacturer shall, if required, be made available to the Engineer on request.
- 3. ADMIXTURE: Should the manufacturer intend to use chemical or air-entraining admixtures in the Ready Mixed Concrete, this must be made known to the Engineer prior to delivery.

SECTION 3, REINFORCEMENT

Foundations:

- 1. REINFORCING STEEL: Reinforcing bars shall comply with the provisions of N.Z.S. 3402P:1973. All reinforcing used in stirrups shall comply with the bend test requirements of N.Z.S. 3402P. Welded wire fabric reinforcing shall comply with the relevant requirements of N.Z.S. 3422:1972.
- 2. STORAGE AND CLEANING: Reinforcement shall be maintained at all times free from damage and contamination, shall be clean and free from all loose mill scale, dust and loose rust, and coatings such as paint, oil or anything which may reduce bond.
- 3. EXPOSED REINFORCING: Exposed reinforcing bars intended for bonding with future extensions shall be adequately protected from corrosion.
- 4. COVER TO REINFORCING: The minimum concrete cover to reinforcing steel measured from the outside of the bar shall be as follows unless otherwise specified:

a) against natural ground

75mm

	• • • • • • • • • • • • • • • • • • • •	b) against approved boxing and back-fill or similar	50mm
Beams &	Columns:	Principal Reinforcement.	
		a) against natural groundb) against approved boxing and	75mm
		back-fill or similar c) exposed to weather and	50mm
		unplastered d) exposed to weather and	50mm
		plastered peather	4 Omm

TOVER TO REINFORCING: (Cont.)

Beams & Columns: Secondary Reinforcement.

All 12mm less than for Principal Reinforcing

Slabs:		against natural ground against approved boxing	and	50mm
		back-fill or similar	ca	30mm
*	e)	exposed to weather and		
		unplastered		30mm
	d)	exposed to weather and		
		plastered		20mm ·
	e).	not exposed to weather		20mm
Walls:	a)	against natural ground		50mm
•	b)	against approved boxing	and	
		back-fill or similar		4 0mm
	c)	exposed to weather and		
		unplastered		4 Omm
	d)	exposed to weather and		•
- Anal		plastered		25mm
N	e)	not exposed to weather		25mm

- 5. Hooks on bars shall be formed with the point parallel to the shank and with a semi-circular curve having an inner diameter of at least four times the diameter of the bar, except that when a hook fits over a main bar, the inner diameter of the curve may be equal to the diameter of such bar. The length of the straight part beyond the end of the curve shall be at least four times the diameter of the bar forming the hook.
- 6. LAPS: Hooked bars shall be lapped for a distance of 40 diameters.

 Bars without hooks shall be lapped for a distance of
 54 diameters.

FORMWORK

2. DESIGN AND CONSTRUCTION: Formwork shall be designed in accordance with recognised principles and constructed so that it may be removed without damage to the concrete. All formwork shall be adequately braced and supported to prevent sagging or bulging during the placing of concrete and all joints shall be sufficiently tight to prevent undue leakage of liquid from the concrete. All forms shall be fixed to proper line and level and trued up immediately prior to concreting. Strutting shall be carried down to construction sufficiently strong to afford the required support without permissible stresses being exceeded.

Bolts and other fittings used inside the forms for tying them together during concreting shall be constructed so as to permit their easy removal to a depth necessary to provide the required cover over the reinforcement without injury to the concrete and so that, upon their removal, the cavities can be filled with mortar and the surface left sound, smooth, even and uniform in colour.

2. DESIGN AND CONSTRUCTION (Cont.)

Washout ports shall be provided at the bottom of all concrete lifts and each column; and shall be of adequate size and spacing for their purpose.

2. REMOVAL OF FORMWORK: Formwork shall be removed without shock or vibration and in such a manner as to permit the concrete to take the imposed stresses gradually. After concrete has been placed formwork shall, unless otherwise approved by the Engineer, not be removed until the minimum periods set down below have elapsed. Concrete members shall not be assumed capable of supporting any superimposed loading when the minimum stripping time has elapsed and the construction supports have been removed, nor capable of supporting the design live load until the concrete has reached its design strength, taking due account of frame continuity in both cases.

Minimum removal times are as follows:-

		Very Cold	Temperate
a) b)	beam sides and walls columns and slabs in beam and	6 days	2 days
	slab construction-props to be		•
	left under slabs of span		•
	over 1.5m	10 days	. 5 days
c)	props from slabs of span		
	over 1.5m in beam and slab		
	construction	14 days	7 days
d)	beam soffits and slab spans		
	exceeding 4.5m	28 days	16 days

CONCRETING

- 1. ADVERSE CONDITIONS: No concrete shall be placed under unfavourable weather or other undesirable conditions, except with such precautions as the Engineer may approve in writing. Unfavourable conditions shall be deemed to include excessively low air temperatures (i.e. below 4.5 degrees C with temperature descending or below 2.5 degrees C with temperature ascending), excessively hot dry conditions, wet conditions or any other condition making it impossible to work the concrete adequately.
- 2. CLEANING OF FORMWORK: Immediately before any concreting is commenced, all formwork shall be carefully examined to ensure that all dirt shavings, sawdust and other refuse has been removed by brushing or washing with a hose or other approved means.
- 3. WETTING FORMS: The inside of timber forms shall be wetted with clean water immediately prior to the placing of concrete unless the forms have been coated with an approved form of dressing. No form dressing other than water, shall be applied after placing reinforcement in the forms. In all cases, surplus liquid shall be removed before concrete is placed.

- CONCRETE PLACING UNDER WATER: Where it is necessary to place concrete under water, the contractor shall notify the Engineer in writing, outlining his intended method for placing such concrete. The Engineer may, at his discretion, impose such conditions and control as he considers necessary.
- 11. DIMENSIONAL TOLERANCES: Where tolerances are not stated in the specifications, as shown on the drawings, permissible deviations from established lines, grades and dimensions shall be determined by the appropriate consideration of the tolerances suggested in N.Z.S. 1900, Chapter 9.3A:1970, Table 8.

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

To: The Chairman AUCKLAND HARBOUR BOARD

Sir,

Having examined the Specification, Drawings, Schedule of Quantities and Conditions of Contract for the abovenamed works we offer to execute and perform the several works described and alluded to for the sum of TOO. HOLDER. THE THE THE THEORY OF THE PARTY TOWNS. HOLDERS or such other sum as may be ascertained in accordance with the Conditions of Contract:

the date of the Engineer's order to proceed.

Should this Tender be accepted we undertake to execute a Contract and Bond embodying the aforesaid Specification and Chditions within 28 days of receipt of the same from the Board.

We acknowledge that unless and until a formal Contract Agreement is prepared and executed, this Tender together with the written acceptance thereof shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Tender you may receive.

We enclose herewith a cheque payable to the Auckland Harbour Board for \$500.00.

Name of Company PRECEST CONSIDERCEN LTD. BOX 42021 OKRALET.

Telephone \$80603.....

Matistle late for extra oversations

165 4786 one depris k Intrido

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Schedule of Quantities

	<u>Description</u> .	Unit	Quantity	Rate	Amount
1.	Provide for all establishment and disestablishment charges. Itemise hereunder and price				*
		Item		•	
		Item			~ -
		Item	>		25,000
		Item			
		Item			
2.	Specify and allow for any work to be done, materials and plant to be provided or any special risk, liability or obligation to be undertaken by the Contractor for which no separate item is provided in the Schedule	Item			

		٠	•		
				*	
3.	Provide for disconnecting house from tower and transporting it to and unloading on site				
	specified.	Item			5800 cg.

	Description	Unit.	Quantity	Rate A	mount
4.	Provide for demolition of existing tower and pile foundations and disposal of demolition material.	Item		\$ 11,	400°0
5.	Provide for supply of all materials for (except Australian hardwood) and construction of tower in accordance with Drawings and Specifications. Include landing; stairway, ladder and holding down bolts.	Item	•	¢ 63	,70000
FOU	UNDATION ALTERNATE 1				
6.	Piles				
	Supply all materials for and construct to details and positions shown on Drawings.				
6.1	Allow for removal and replacement of packed rock, and disposal of surplus material.	cu. m	40		
6.2	Allow for supply and installation of steel casing	m	42		/
6.3	Allow for drilling 600 mm dia hole into foundatino rock including disposal of excavated material	m .	17.5		
6.4	Allow for supply and placement of reinforcing cage.	m	52.5		
6.5	Allow for supply and placement of concrete in 600 dia. pile	m	52.5		
FC	UNDATION ALTERNATE 2				

FOUNDATION ALTERNATE 2

7. Foundation

Supply all materials for & construct to details and positions shown on Drawing K.814.

	- /						
1		Description	. Unit.	Quantity	Rate	Amount	
/	7.1	Allow for removal and replacement of packed rock, and disposal of surplus material.	cu. m	60			
	7.2	Allow for supply and placement of reinforcing. •	1.s.		}	75,000 co	
		Allow for supply and placement of concrete. (Size mixed) Provide for transporting renovated house from Buoys	cu.m.	69	a)		
and Beacon Sit and fixing it new tower in a with Drawings Specification,		and Beacon Site to Bean Rocks and fixing it in position on new tower in accordance with Drawings and Specification, include the supply and fabrication					
		of the fastenings.	Item			10,000	
	9.	Contingency Sum				\$30,000	
		TOTAL AMOUNT OF TENDER	AL	TERNATE 1	_		
	3		ALT	TERNATE 2	\$ 2	20,900 °C	

AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

. Schedule of Daywork Rates

Tenderers shall set out below hourly rates for skilled and unskilled men and for machines, which will be used for carrying out unscheduled work as directed by the Engineer. All rates shall be all-inclusive and shall be deemed to cover all costs to the Contractor including supervision, overheads and profit. Only hours actually worked shall be paid for.

LABOUR

Type of Worker

CARPENTER LABOURER.

Rate per hour (State days and times applicable)

100 hours 25/112.
100 hours 420/1111.
100 hours \$22/1112.

PLANT

Type of Machine

Rate per hour (inclusive of Operator)

to be advised

MATERIALS

· AUCKLAND HARBOUR BOARD

CONTRACT NO.2500A

BEAN ROCKS LIGHTHOUSE RECONSTRUCTION

Schedule of Current Market Prices

For the purposes of Clause 22. 2. 2 of the General Conditions of Contract, the Tenderer shall detail in this Schedule any materials and the ruling market price prevailing in New Zealand, at the date of Tendering, of such materials to which such Clause shall apply.

Any materials not priced in this Schedule will not be subject to the provisions of Clause 22.

Unless otherwise described all rates shall be construed as being ex Merchants' store at Auckland.

ITEM MATERIAL UNIT RATE

to be adoised.

ns: LSOP NZ.I.E., C.ENG. GGS

PHONE: AK 530-8471 P.O. BOX 58107 EAST TAMAKI

CIVIL ENGINEERS

AUCKLAND, NEW ZEALAND

24 April 1985

The Secretary Auckland Harbour Board P.O. Box 1259 AUCKLAND

ATTN. Mr L. Jones

CONTRACT 2500A - BEAN ROCK LIGHTHOUSE

Dear Sir

We advise the following rates as requested at recent meeting Mellsop/AHB Engineers.

- (1) Extra excavation below levels on drawings \$150/m up to a maximum of 1m in depth extra.
- (2)Extra concrete to above excavation \$400/m3
- (3)
 - Plant hire charges a. Barge \$200/day (or part of)
 - b. Work boats Arran Bee (jet barge) \$300/day Tug \$160/hour plus \$28/hour deck hand on barge if towed
 - c. Crane \$80/hour
 - d. Helicopter \$1000/hour
 - e. Any other plant or small equipment at current Airhire price list plus 20%
- (4) Concrete as per Ready Mix Concrete Ltd published price list effective at date of tender.
- (5) Labour rates as construction workers award 18.2.85.

Yours faithfully Jan Mellsop



