



## Code Compliance Certificate

Section 43(3), Building Act 1991

### Application

D & C SAXTON	No.	000003
14 ALLEN ROAD	Issue date	19/08/02
RAUMATI BEACH	Overseer	BOB OLIVER

### Project

Description	Alterations, Repairs or Extensions Being Stage 1 of an intended 1 Stage ADDITION TO DWELLING
Intended Life	Indefinite, but not less than 50 years
Intended Use	RESIDENTIAL
Estimated Value	\$60,000
Location	14 ALLEN ROAD, RAUMATI BEACH
Legal Description	LOT 84 DP 14034 CT 545/169
Valuation No.	1528215500

This is a final Code Compliance Certificate issued in respect of all the building work under the above building consent.

The property owner must follow and carry out the manufacturers prescribed maintenance procedures.

COPY

Signed for and on behalf of the Kapiti Coast District Council:

Name:

*Simon Giff*

Date:

*19/8/02*

*No scanned  
File  
BC 00003***DESIGNSCAPE** SHARK BAIT LTD298 ROSETTA ROAD  
SUNNY RAUMATI

## FACSIMILE TRANSMITTAL SHEET

THIS MESSAGE IS CONFIDENTIAL TO PERSON NAMED, AND SUBJECT TO LEGAL PRIVILEGE.  
YOU MUST NOT COPY OR USE THIS INFORMATION OR MESSAGE.

TO:	FROM:
Bob Oliver	Allan Pullenger
COMPANY:	DATE:
Kapiti Coast District Council	7/02/2001
FAX AND PHONE NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER:
04 902 8528	2
SUBJECT	REFERENCE NUMBER
14 Allan Road	1460

☐ URGENT ☐ IN REPLY ☐ PLEASE ACTION ☐ PLEASE REPLY ☒ YOUR INFORMATION

NOTES/COMMENTS:

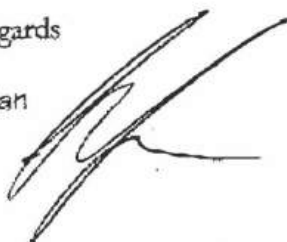
**Saxton Additions**

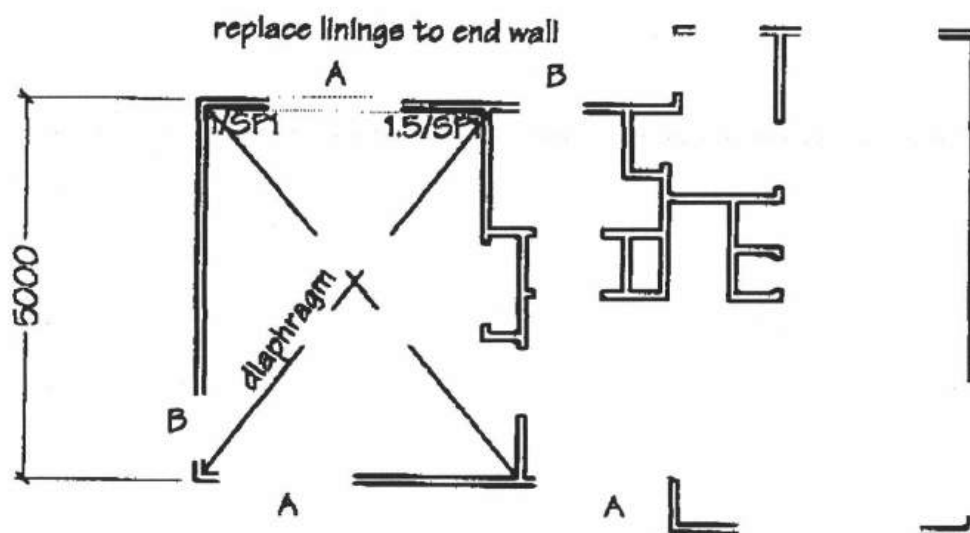
The builder has asked for the floor joists to be altered to 200 x 50, so the floors and ceilings remain in the same levels / planes as the existing. I have site measured the span involved and have specific designed the joists to these dimensions. The joists will be altered to 200 x 50 at 350 centres, this allows deflection maximum to 9 mm being less than allowable of 11 mm.

Please find attached the calculations for these joists.

Regards

Allan





Lintels A=1800 wide 200 x 100 or 250 x 50

B=1000 wide 150 x 50

NOTE: walls to diaphragm shall be nailed to  
glb bracing systems G1b1

the contractor shall check and verify dimensions before construction

# Designscape

Plans for Civil, Structural and Building work  
Ph 04 299 9999 Mob 025 420 486

BRACING TO LOWER FLOOR  
FOR MR AND MRS SAXON

Allan Pullenger REA, TMNZIE  
298 Rosetta Road - Raumati

scale 1:100  
date april 2000  
drawn allan pullenger  
survey pullenger

plan number  
1460  
1

COUNCIL COPY

8000003

PROPOSED ADDITION  
FOR D & C SAXTON  
14 ALLEN RD  
LOT 84  
RAUMATI BEACH

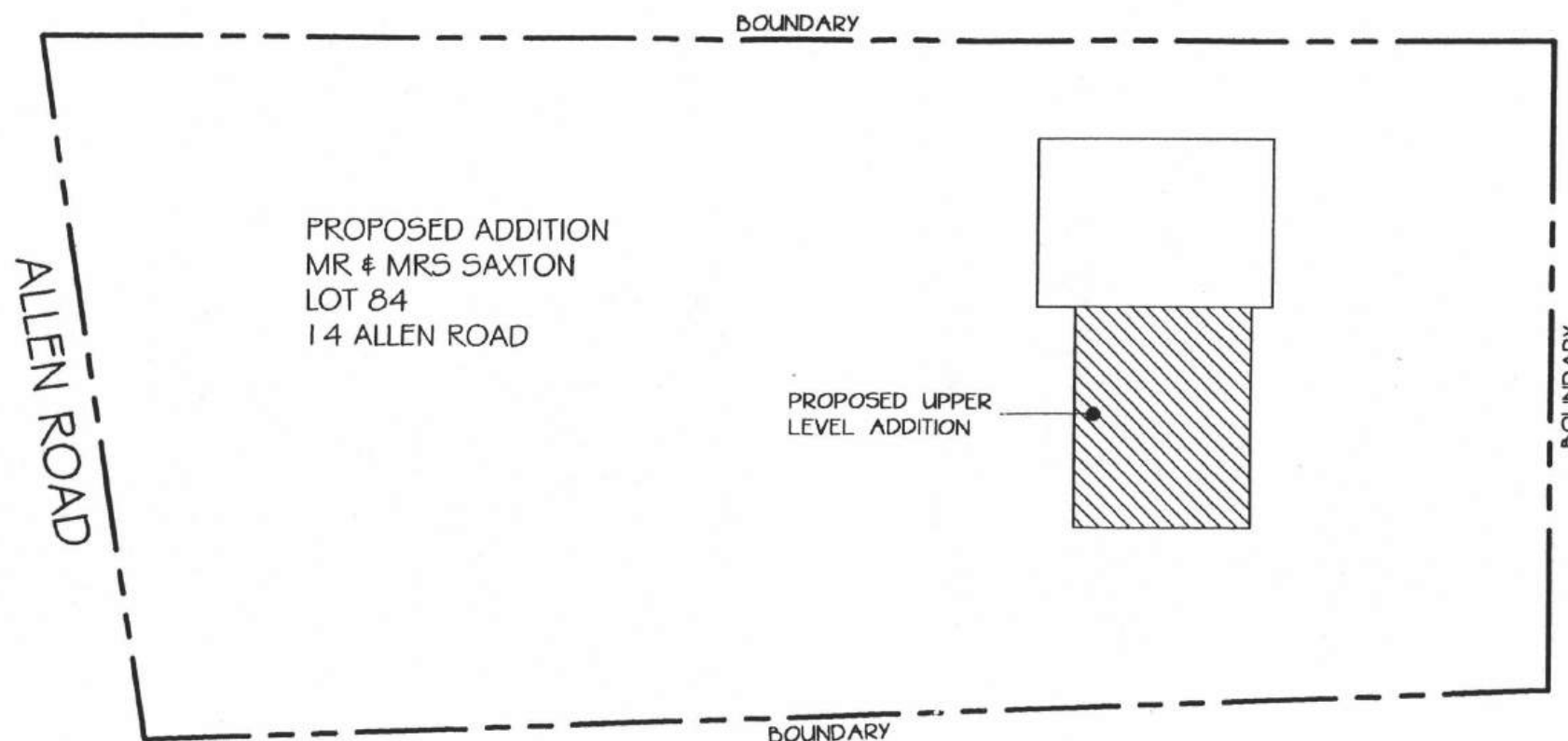


COUNCIL COPY

**MD** DESIGN & DRAUGHTING  
SERVICES  
P.O.BOX 2061 RAUMATI BEACH, PH 025 201 1123



SEVERE COASTAL ZONE  
All proprietary or bolted  
fixings exposed to air plus  
cladding fixings to be  
STAINLESS STEEL



SITE PLAN SCALE 1:200



EXISTING LOWER LEVEL  
ROOF TO BE REMOVED  
& RELOCATED TO UPPER  
LEVEL WHERE POSSIBLE

EXISTING WINDOW TO  
BE RELOCATED TO NEW  
POSITION IN LOUNGE

BLACKENED WALLS  
DENOTES WALLS TO BE  
REMOVED OR ALTERED

RELOCATE  
TO LOUNGE

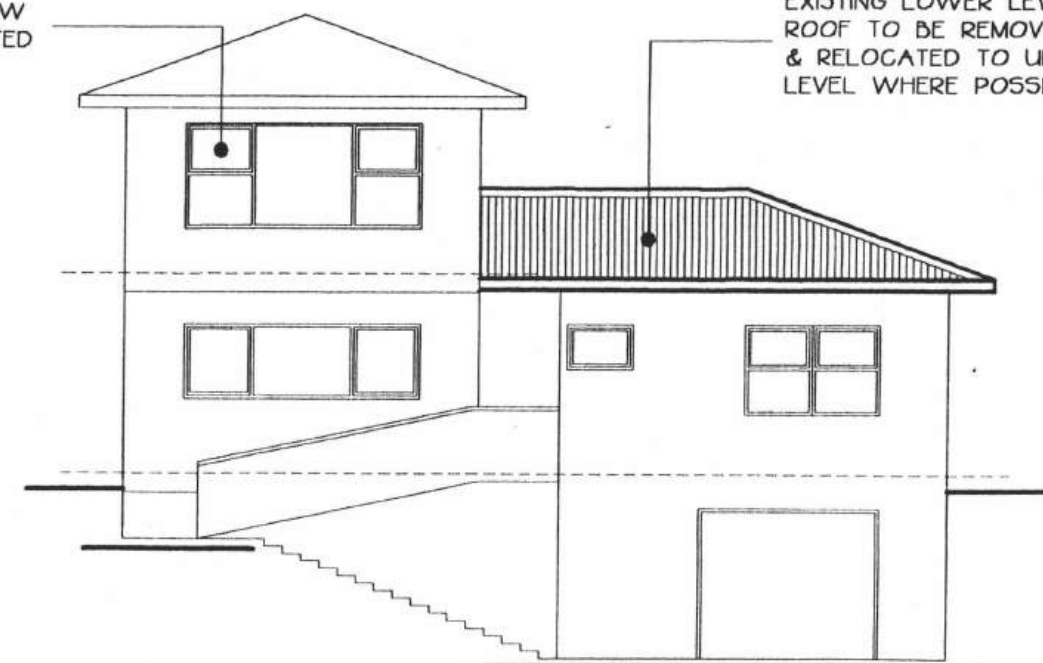
EXISTING SIDE WINDOWS  
TO BE RELOCATED TO  
NEW POSITION IN LOUNGE

KEY  
— EXISTING WALLS  
— NEW 90 x 45mm FRAMING

FLOOR PLAN SCALE 1:100

EXISTING WINDOW  
TO BE RELOCATED

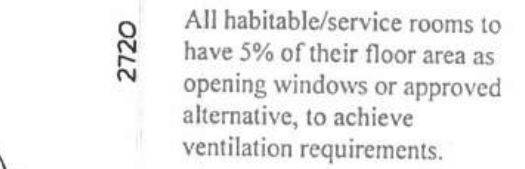
EXISTING LOWER LEVEL  
ROOF TO BE REMOVED  
& RELOCATED TO UPPER  
LEVEL WHERE POSSIBLE



EXISTING FRONT  
ELEVATION SCALE 1:100

# PROPOSED ADDITION FOR D & C SAXTON

If hot water is connected to the hand basin then a tempering valve is to be installed.



Main Private Stair, DI-NBSC-  
280mm treads, 190mm risers.  
Fit handrail.

EXISTING WALLS
NEW 90 x 45 FRAMING

SCALE 1:50

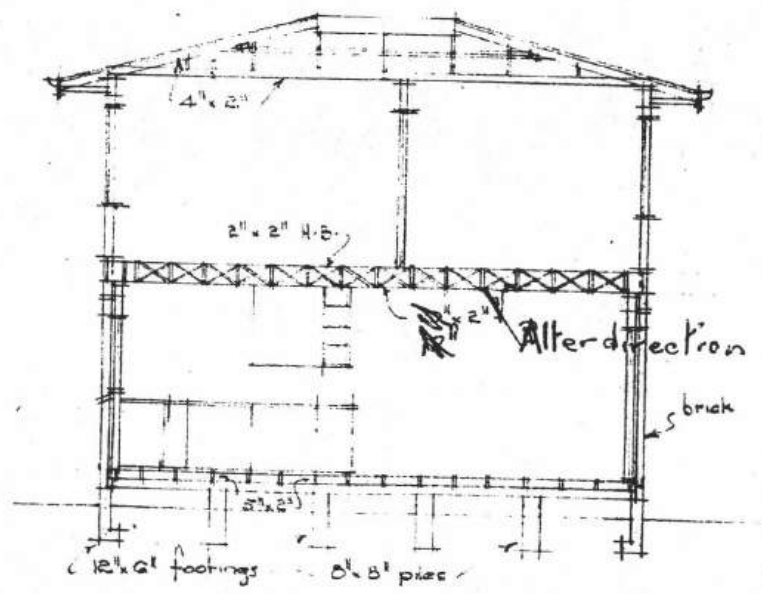
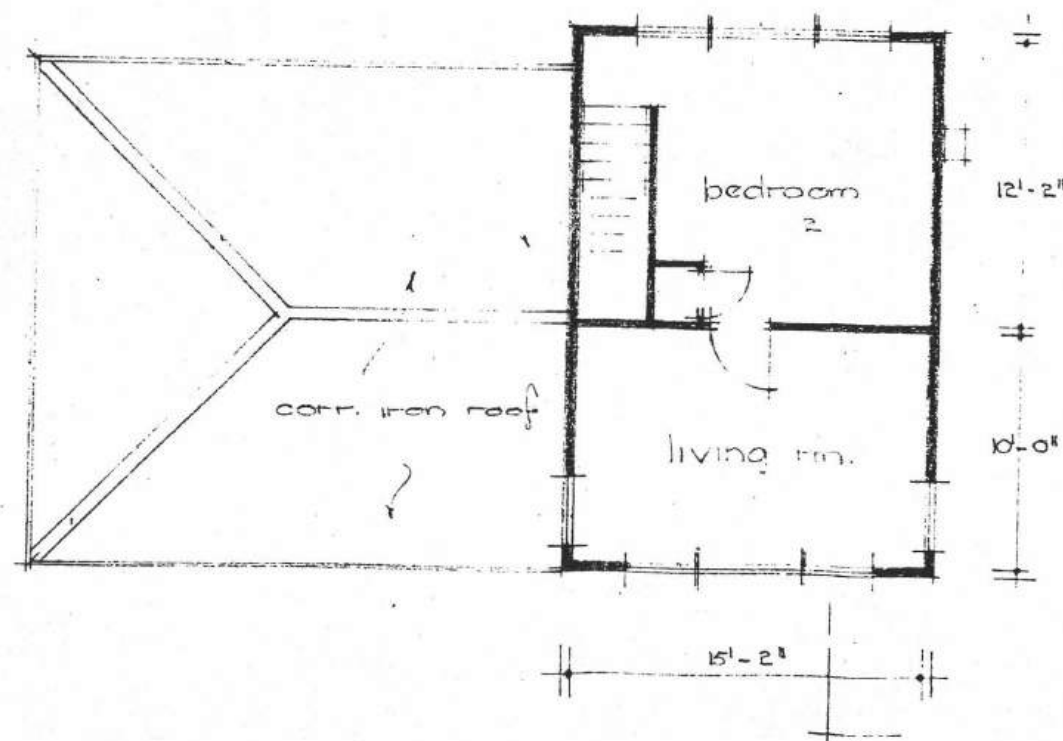
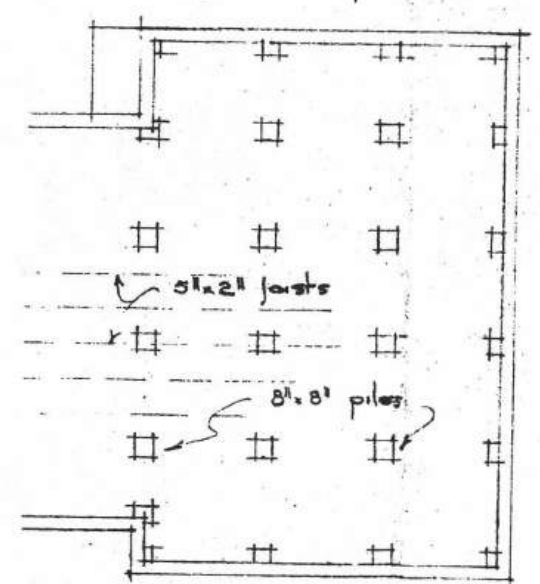
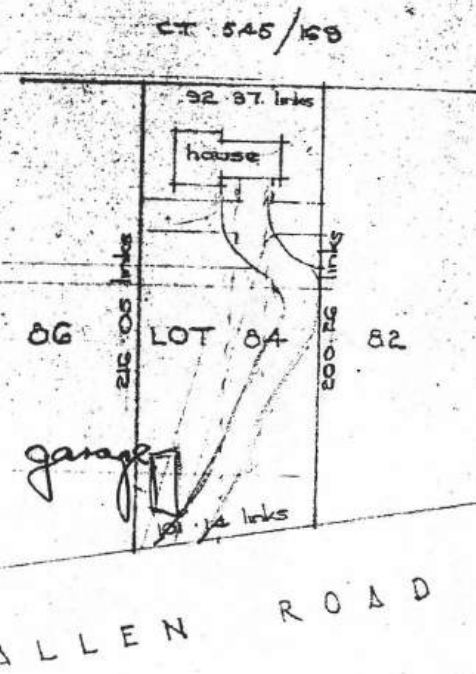
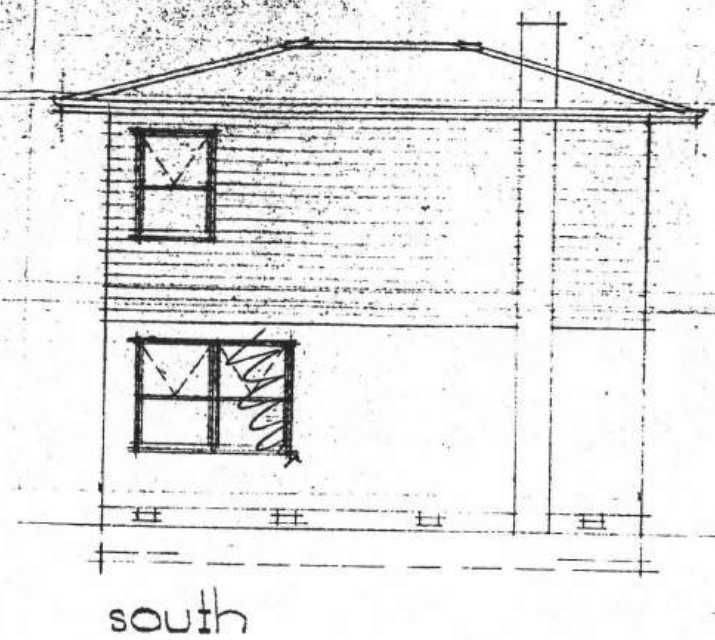
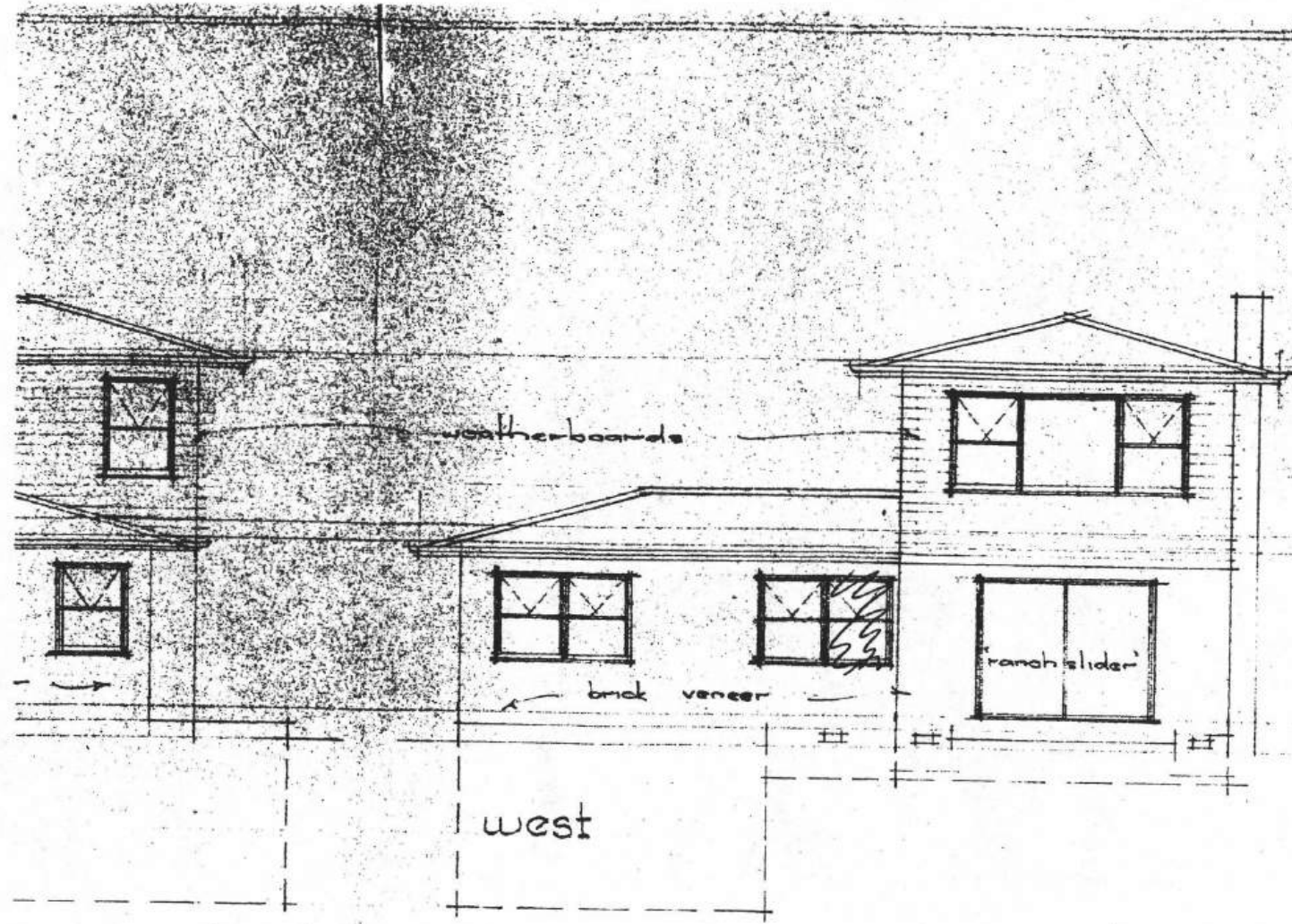
FOR D & C SAXTON

PAGE 2







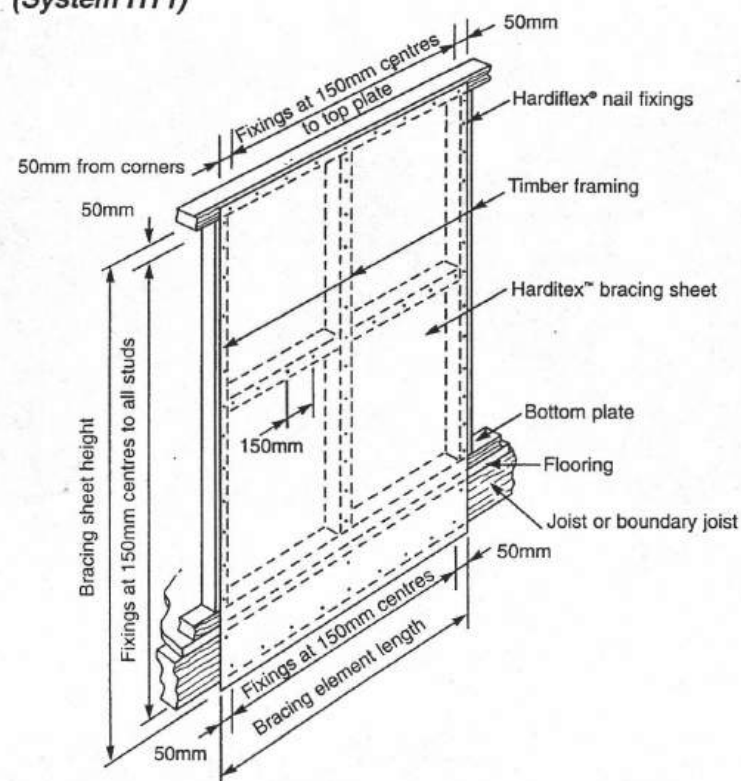


LOCALITY PLAN  
Scale 80'

plan  
first floor plan  
section  
E ALLEN ROAD RAUMATI BEACH

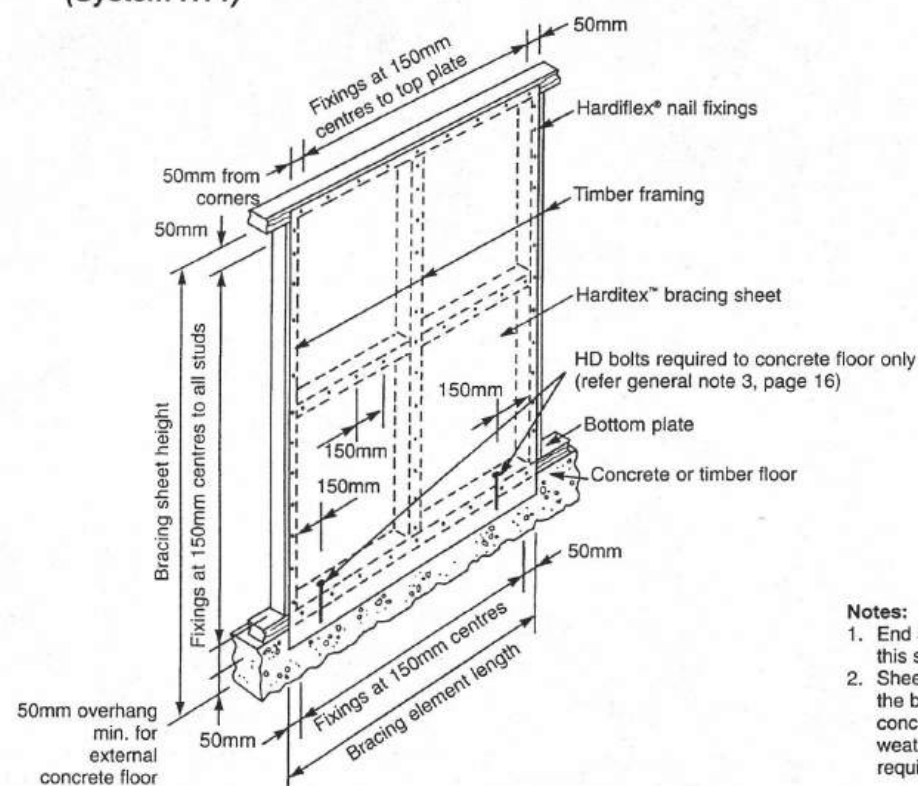


**Fig. 36 HARDITEX™ TO TIMBER JOISTS WITHOUT END STRAPS  
(System HT1)**



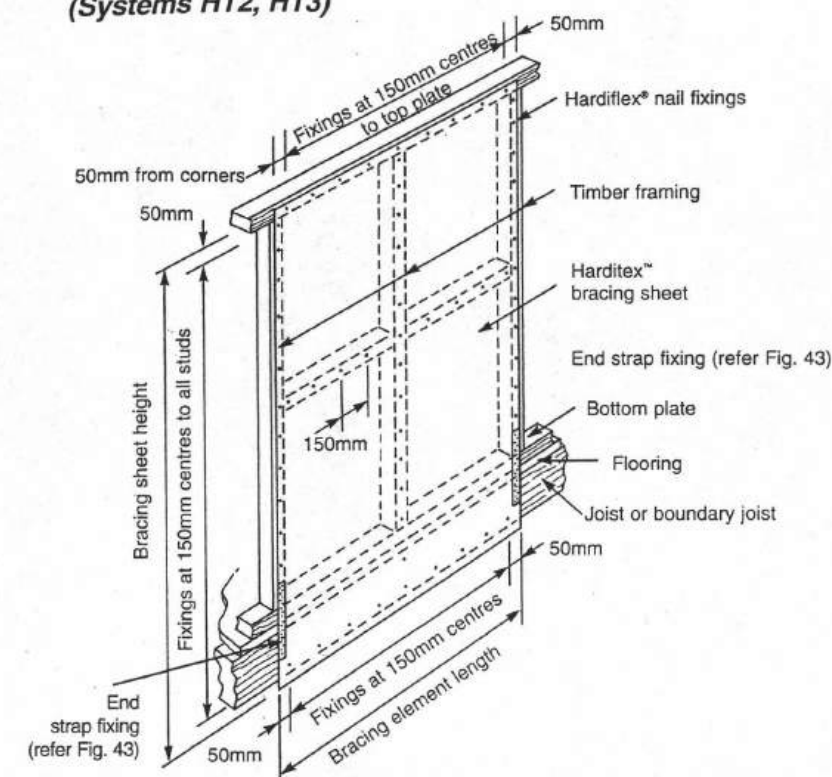
**Note:** End strap fixing between studs and joists is not required for this system.

**Fig. 37 HARDITEX™ TO TIMBER OR CONCRETE FLOORS WITHOUT END STRAPS  
(System HT1)**



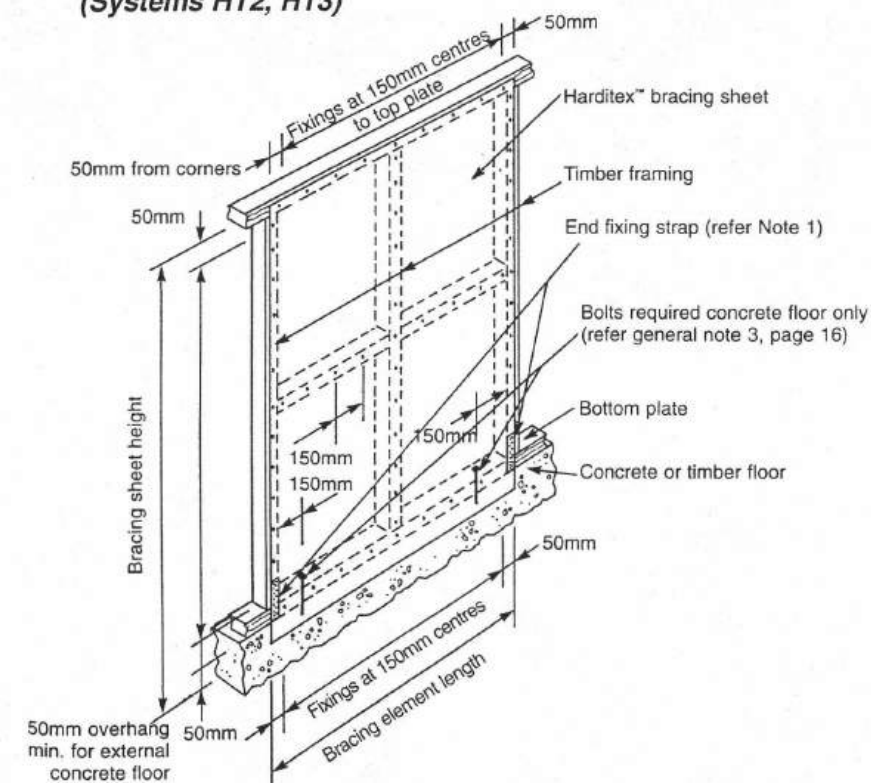
- Notes:**
1. End strap fixing to studs is not required for this system.
  2. Sheet can finish flush with underside of the bottom plate for timber floors or for concrete floors when the 50mm external weathering overhang is not required.

**Fig. 38 HARDITEX™ TO TIMBER JOISTS WITH END STRAPS  
(Systems HT2, HT3)**



**Note:** Galvanised-steel end fixing straps to be as detailed in Fig. 43.

**Fig. 39 HARDITEX™ ON TIMBER OR CONCRETE FLOORS WITH END STRAPS  
(Systems HT2, HT3)**



- Notes:**
1. Galvanised-steel end fixing straps must be used as detailed in Fig. 43 for timber floors and Fig. 47 for concrete floors.
  2. Sheet can finish flush with underside of bottom plate for timber floors or for concrete floors when the 50mm external weathering overhang is not required.

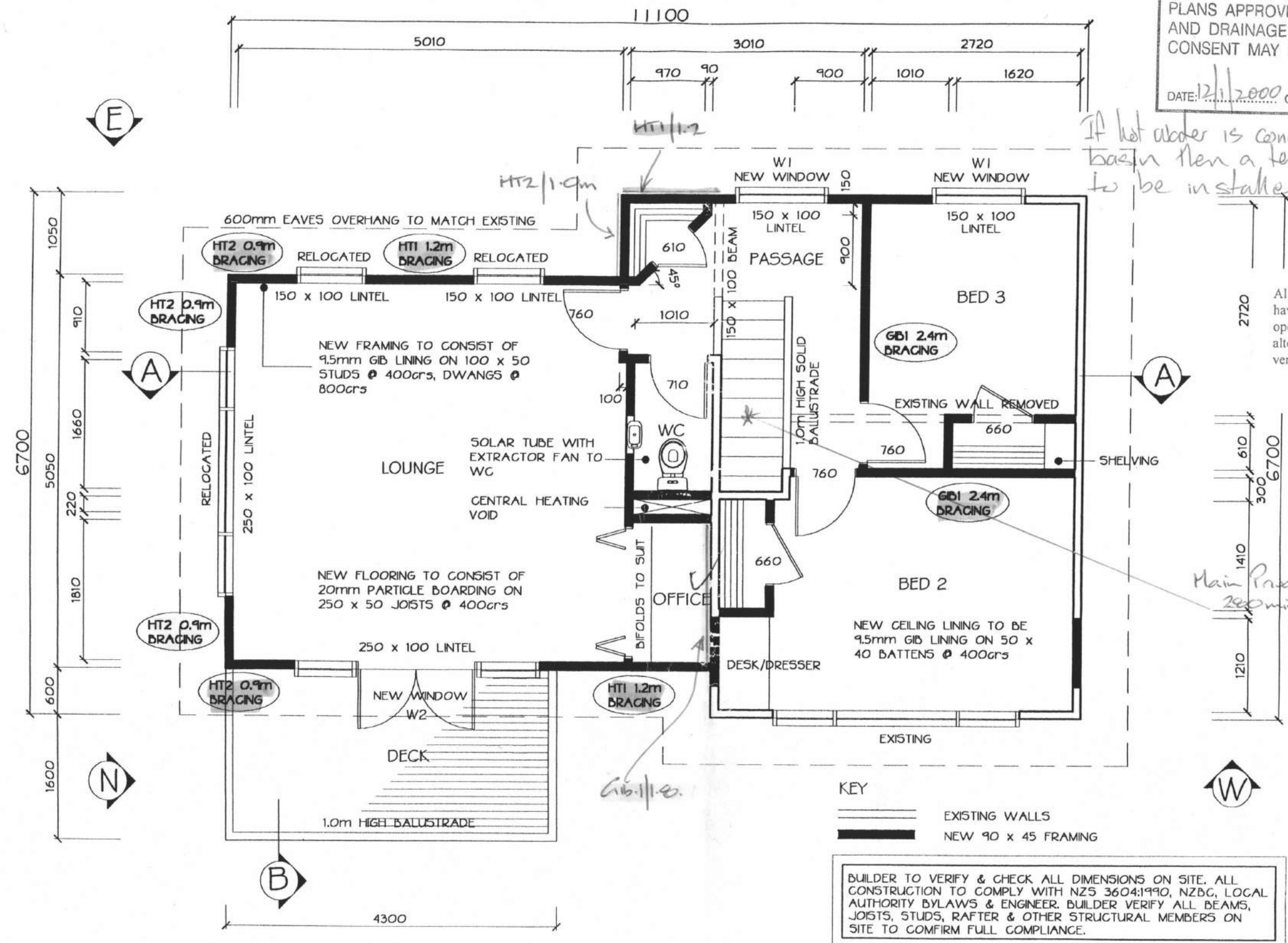


KAPITI COAST DISTRICT COUNCIL  
 PLANS APPROVED PLUMBING  
 AND DRAINAGE  
 CONSENT MAY BE ISSUED.  
 DATE: 12/1/2000 OFFICER: [Signature]

*If hot water is connected to the hand basin then a tempering valve is to be installed.*

All habitable/service rooms to have 5% of their floor area as opening windows or approved alternative, to achieve ventilation requirements.

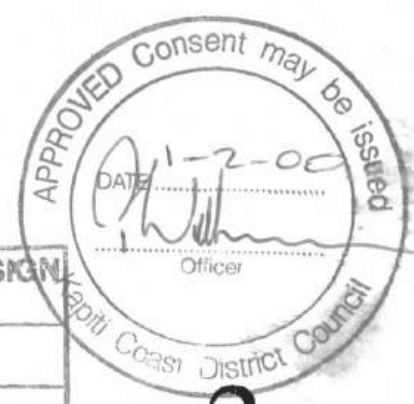
*Main Private Stair, D1-NZBC-200min treads, 190max risers. Fit handrail.*

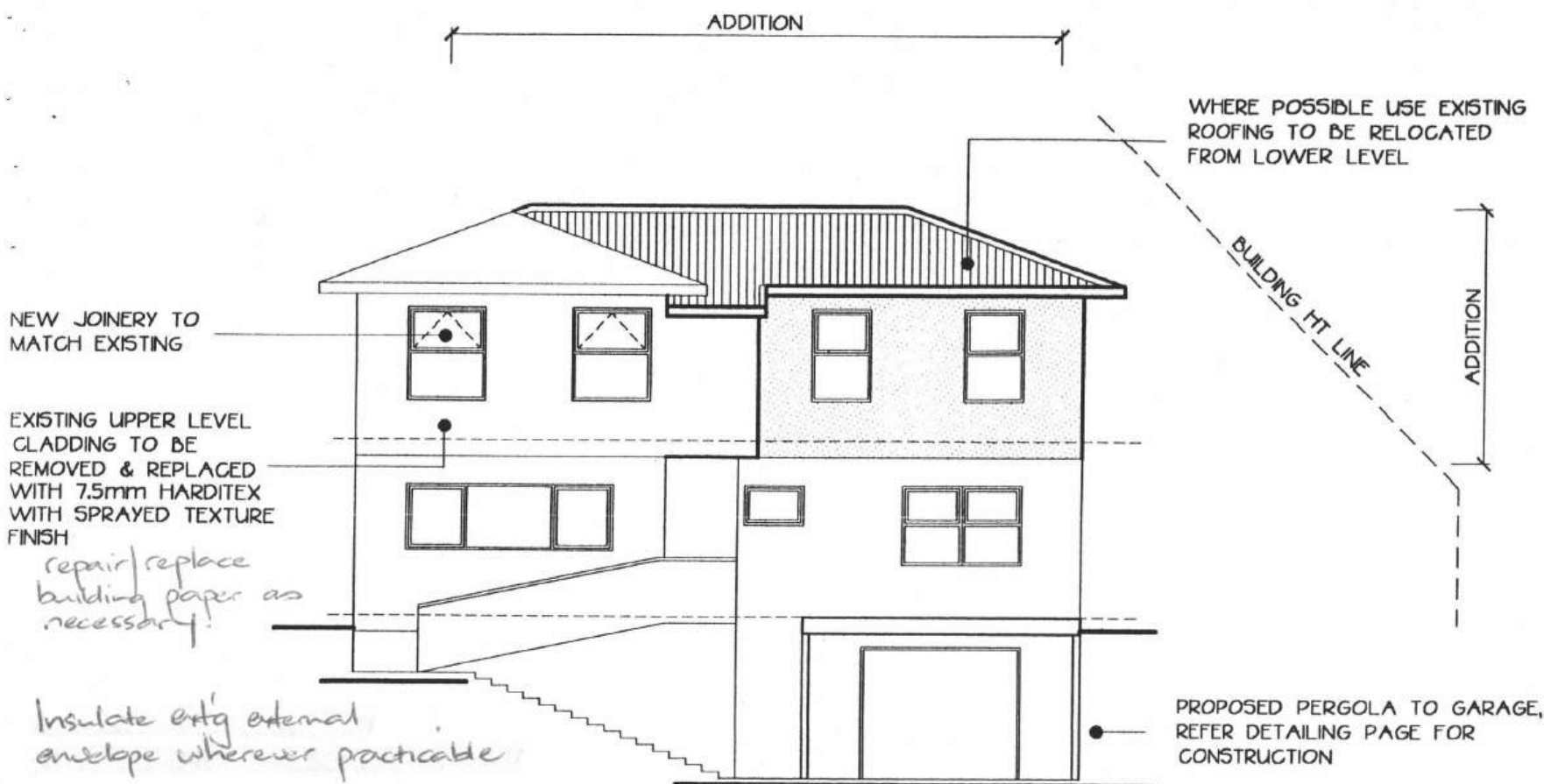


# PROPOSED UPPER FLOOR PLAN PROPOSED ADDITION FOR D & C SAXTON

BUILDER TO VERIFY & CHECK ALL DIMENSIONS ON SITE. ALL CONSTRUCTION TO COMPLY WITH NZS 3604:1990, NZBC, LOCAL AUTHORITY BYLAWS & ENGINEER. BUILDER VERIFY ALL BEAMS, JOISTS, STUDS, RAFTER & OTHER STRUCTURAL MEMBERS ON SITE TO CONFIRM FULL COMPLIANCE.

ENGINEER STRUCTURAL DESIGN TAKES PRECEDENCE	
SUPPLY CALCULATIONS AND DETAILS TO COUNCIL	
RECEIVED	✓
FORWARD (URGENT)	





EAST ELEVATION

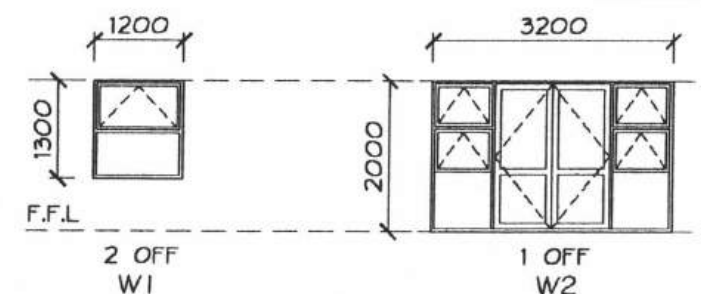
SCALE 1:100

Claddings to be installed to manufacturers requirements in particular, fixing and ground clearance.

NB. 3602 : 1995.  
3631 : 1988.  
3619 : 1979.

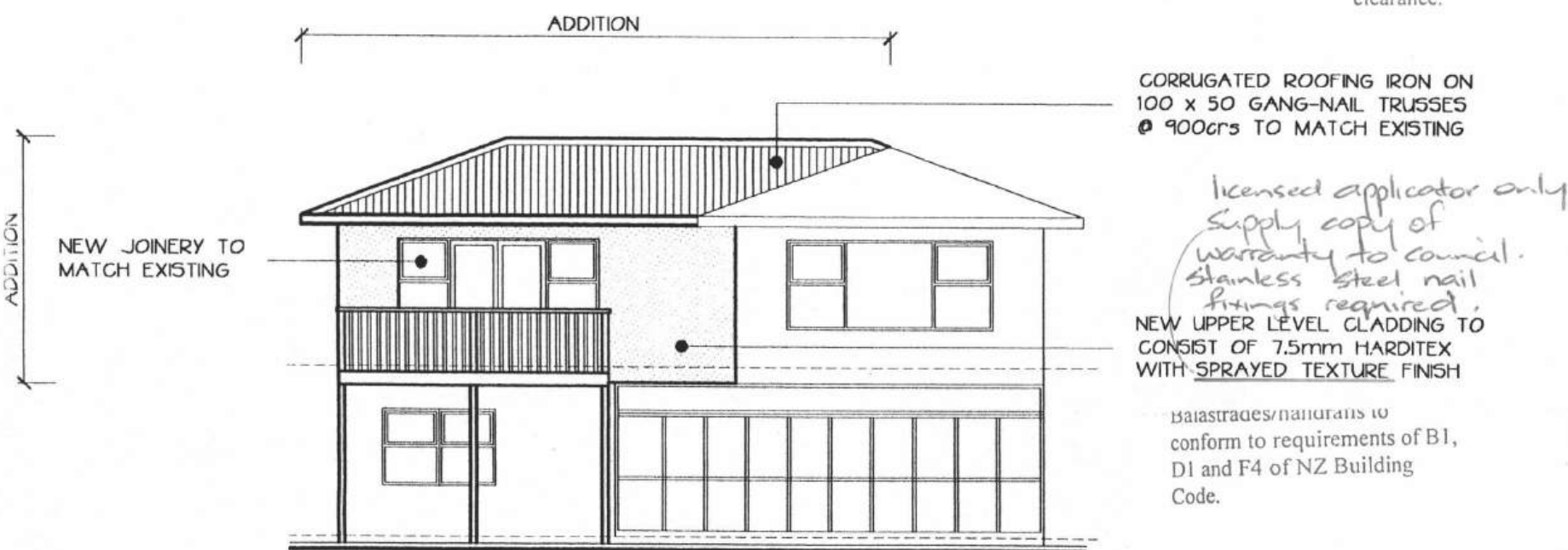
NOTE :  
JOINERY MANUFACTURER TO  
MATCH NEW TIMBER JOINERY  
WITH EXISTING, VERIFY ON SITE

GLAZING CONFORM NZS 4223 PARTS 1, 2, 3	
FIT SUITABLE FLASHINGS, ETC.	
JOINERY NZS. 4211.	
HIGH WIND	1100pa DWP
VERY HIGH	1550pa DWP



JOINERY SCHEDULE

SCALE 1:100



WEST ELEVATION

SCALE 1:100



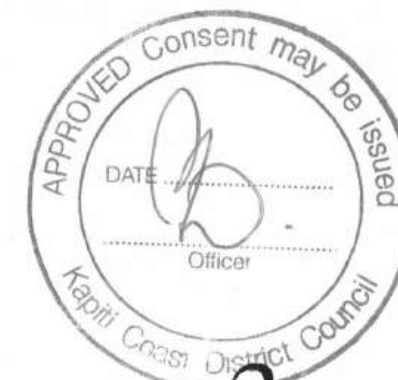
NORTH ELEVATION

SCALE 1:100

PROPOSED ADDITION

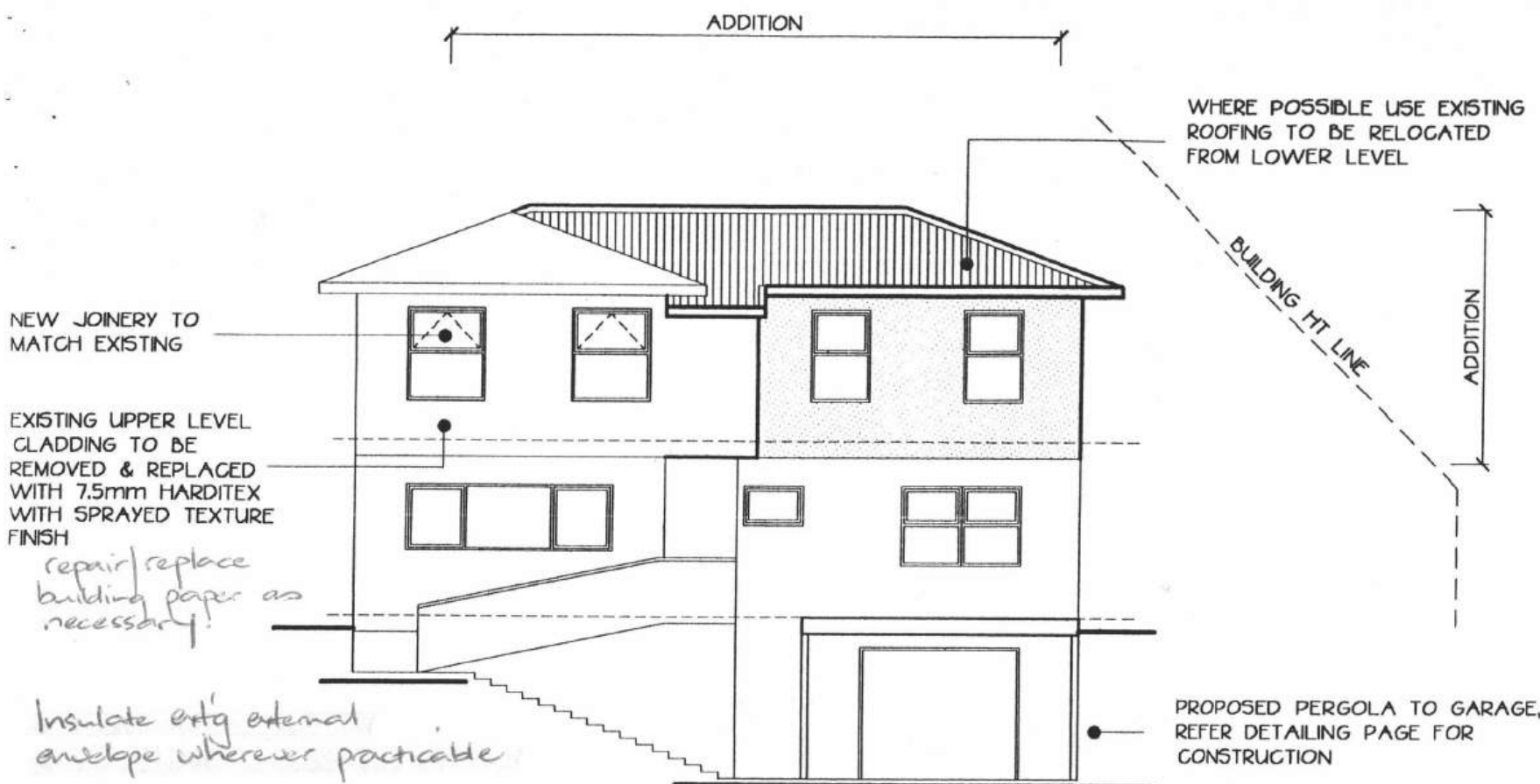
FOR D & C SAXTON

posts to engineers requirements.









## EAST ELEVATION

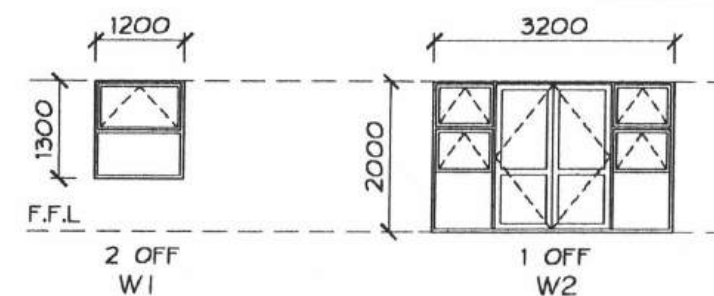
SCALE 1:100

Claddings to be installed to manufacturers requirements in particular, fixing and ground clearance.

NB. 3602 : 1995.  
3631 : 1988.  
3619 : 1979.

NOTE :  
JOINERY MANUFACTURER TO  
MATCH NEW TIMBER JOINERY  
WITH EXISTING, VERIFY ON SITE

GLAZING CONFORM NZS 4223 PARTS 1, 2, 3	
FIT SUITABLE FLASHINGS, ETC.	
JOINERY NZS 4211.	
HIGH WIND	1100pa DWP
VERY HIGH	1550pa DWP



## JOINERY SCHEDULE

SCALE 1:100



## WEST ELEVATION

SCALE 1:100



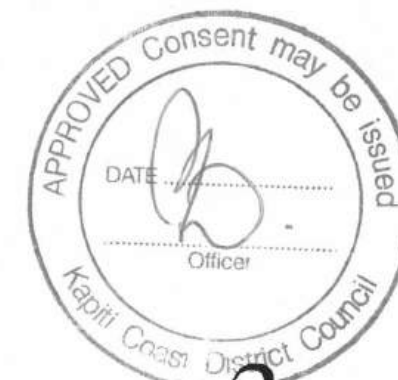
## NORTH ELEVATION

SCALE 1:100

# PROPOSED ADDITION

FOR D & C SAXTON

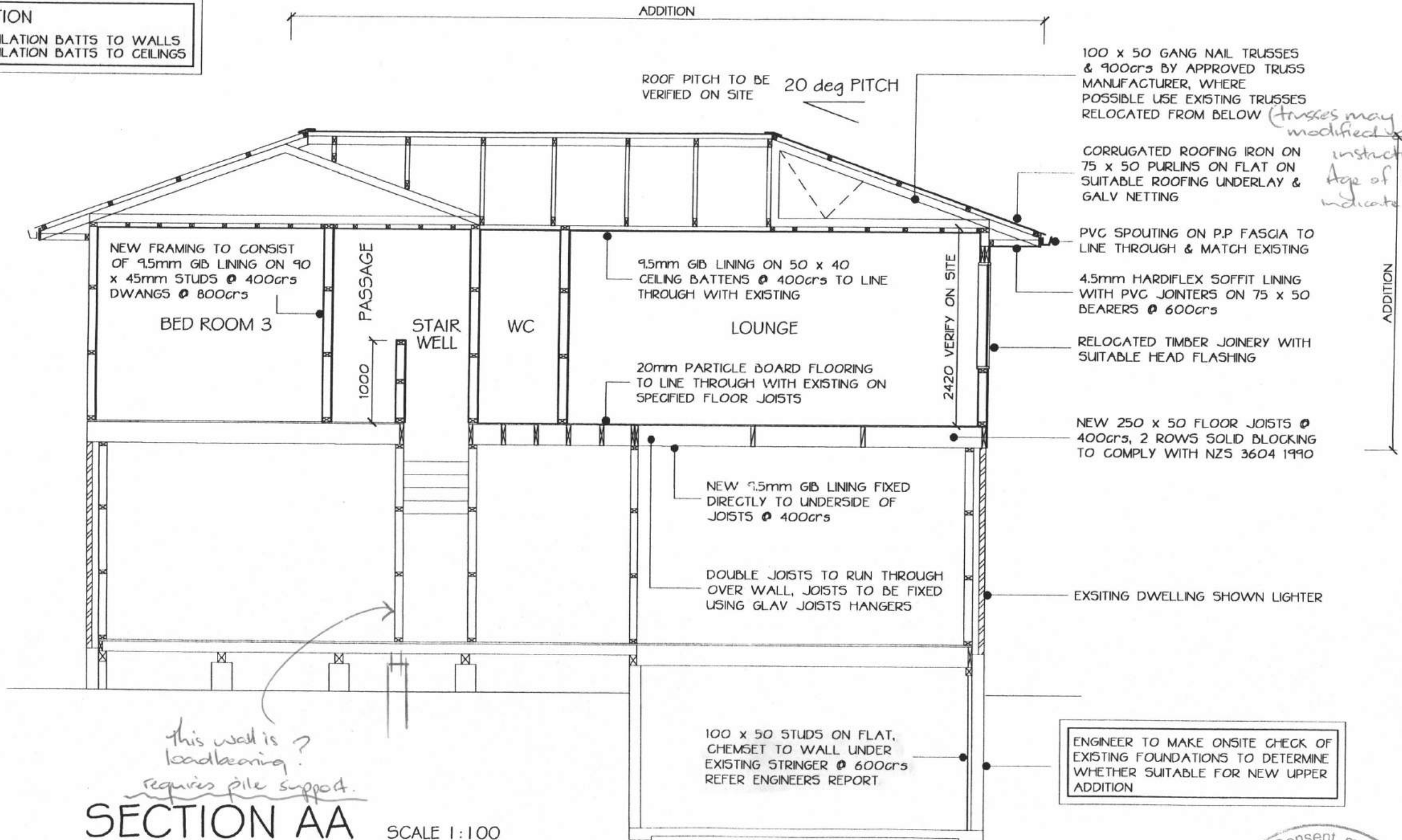
posts to engineers requirements.



BUILDER TO VERIFY & CHECK ALL DIMENSIONS ON SITE. ALL CONSTRUCTION TO COMPLY WITH NZS 3604:1990, NZBC, LOCAL AUTHORITY BYLAWS & ENGINEER. BUILDER VERIFY ALL BEAMS, JOISTS, STUDS, RAFTER & OTHER STRUCTURAL MEMBERS ON SITE TO CONFIRM FULL COMPLIANCE.

#### INSULATION

R1.8 INSULATION BATTS TO WALLS  
R2.6 INSULATION BATTS TO CEILINGS



# PROPOSED ADDITION

FOR D & C SAXTON



CORRUGATED ROOFING IRON ON 75 x 50 PURLINS @ 900crs ON ROOFING UNDERLAY & GALV NETTING TO MATCH EXISTING

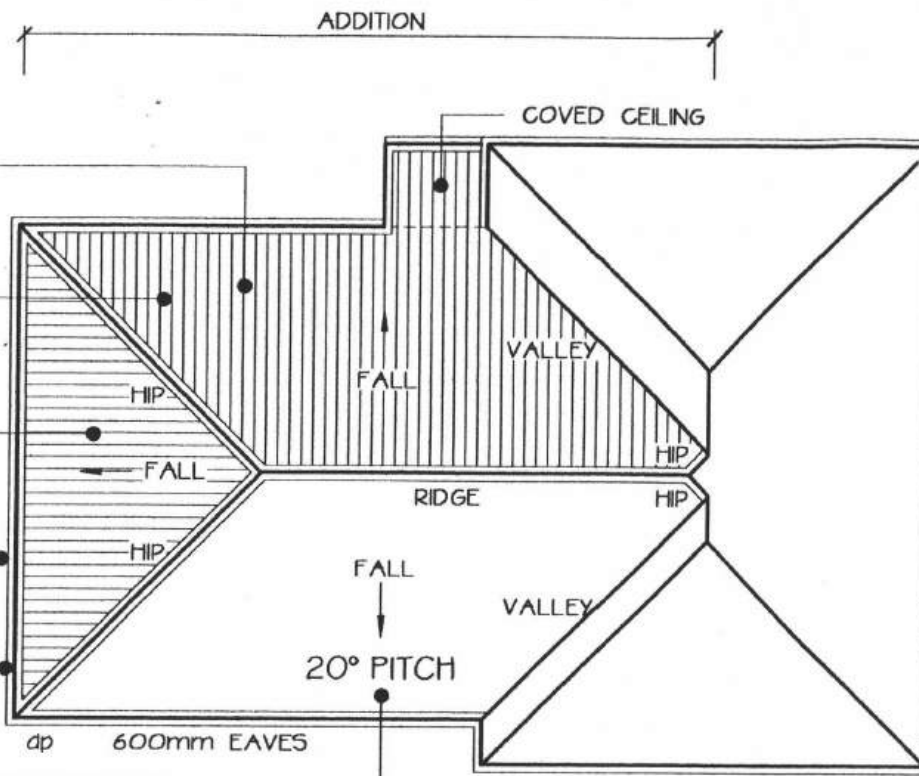
WHERE POSSIBLE USE EXISTING ROOF TRUSSES TO BE RELOCATED FROM LOWER LEVEL

NEW ROOF TRUSSES WHERE REQUIRED TO BE 100 x 50 GANG-NAIL TRUSSES @ 900crs BY APPROVED TRUSS MANUFACTURER

PVC SPOUTING ON P.P FASCIA TO MATCH & LINE THROUGH WITH EXISTING

600mm EAVES OVERHANG LINED WITH 4.5mm HARDIFLEX WITH PVC JOINTERS ON 75 x 50 BEARERS @ 600crs

NOTE : VERIFY ROOF PITCH ON SITE

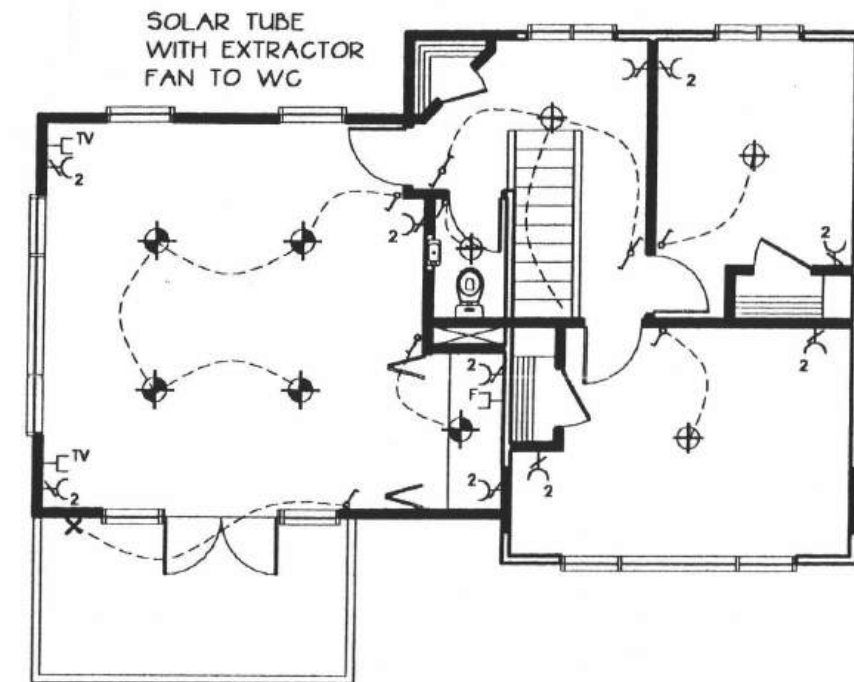


ROOF PLAN

SCALE 1:100

*Verify roof loads on cantilever with truss manuf.*

Roofing material to be installed to manufacturers requirements, in particular, fixing and min pitch reference also Table 1 of E2 (NZ Building Code).



ELECTRICAL PLAN

SCALE 1:100

JOISTS FIXED @ ENDS WITH GALV JOIST HANGERS TO 2/250 x 50 JOISTS

DOUBLE JOISTS

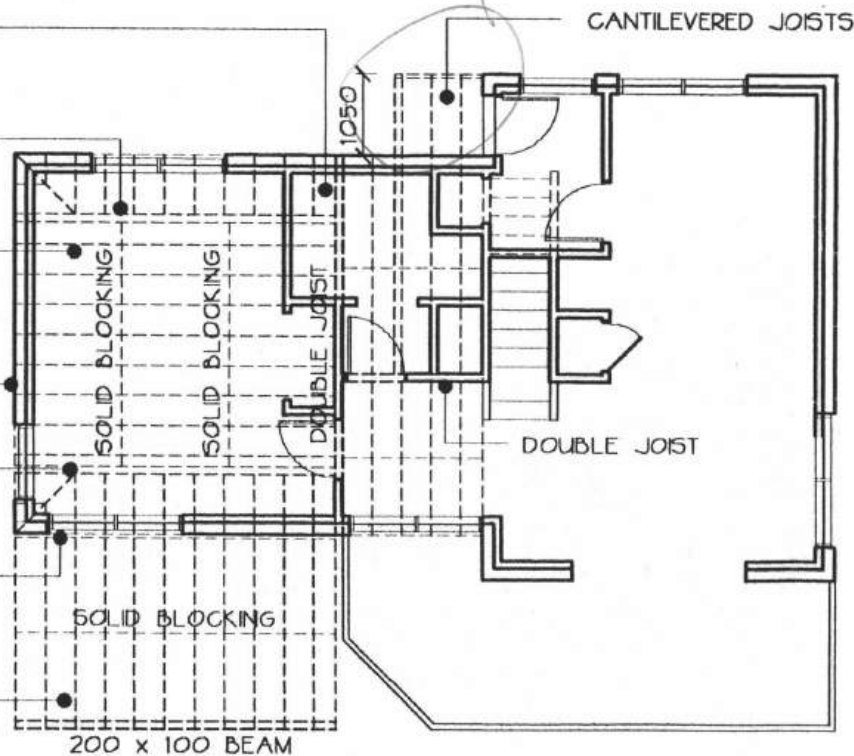
20mm PARTICLE BOARD FLOORING ON 250 x 50 JOISTS @ 400crs WITH 2/ROWS SOLID BLOCKING TO COMPLY WITH NZS 3604 1990

250 x 50 CONTINUOUS BOUNDARY JOIST AROUND PERIMETER

DOUBLE JOISTS

JOISTS FIXED @ ENDS WITH S.S. STEEL JOIST HANGERS TO 150 x 50 STRINGER FIXED @ 600crs

100 x 30 EXTERIOR TREATED DECKING 100 mm BELOW F.F.L. ON 150 x 50 JOISTS @ 400crs, 1/ROW SOLID BLOCKING



JOIST PLAN

SCALE 1:100

The Truss manufacturer must confirm the minimum size requirement of all Lintels or Beams supporting Girder Truss point loads. Provide in writing to Council and Contractor.

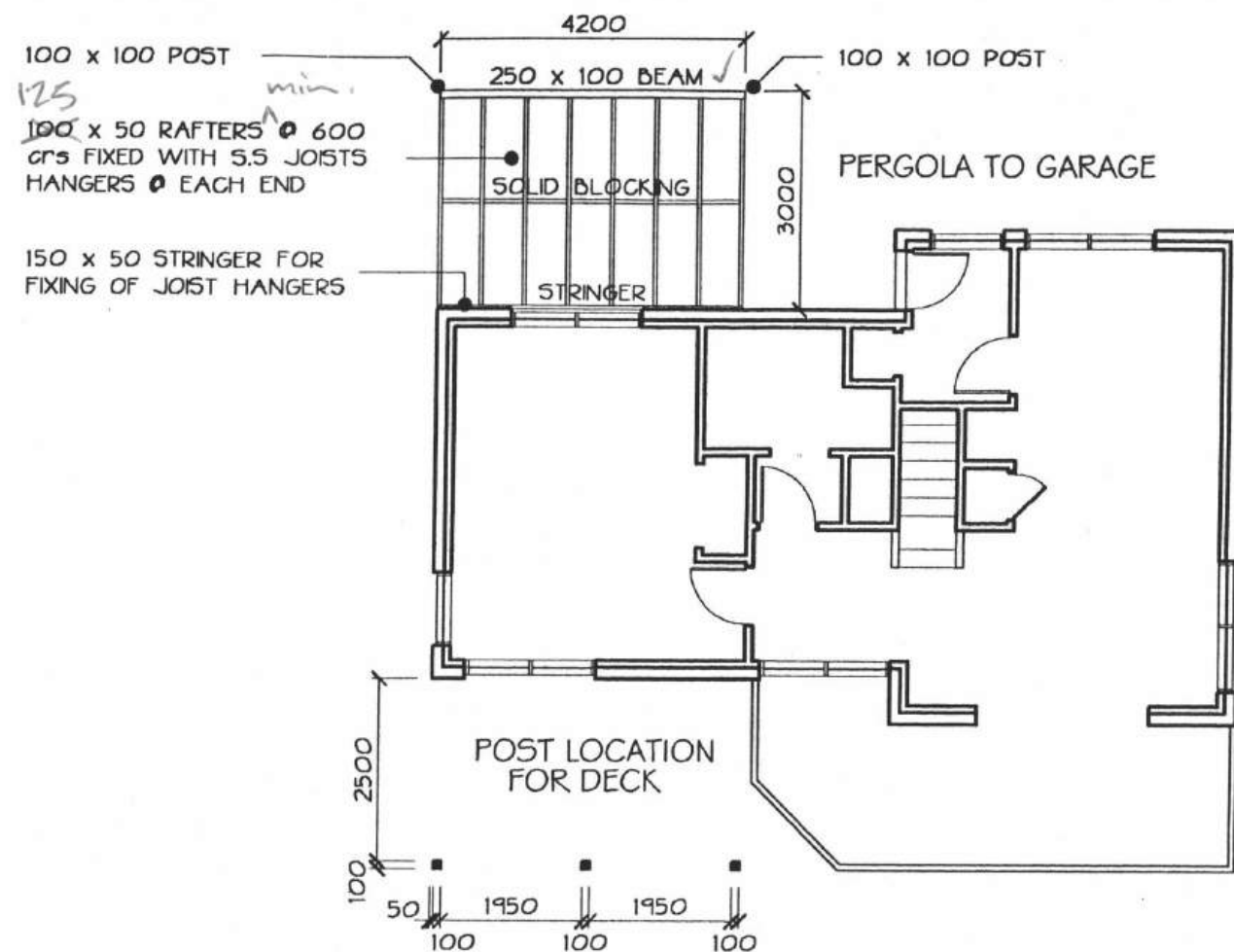
*All internal loadbearing walls must be pile supported directly or not more than 200mm offset.*

ELECTRICAL LEGEND

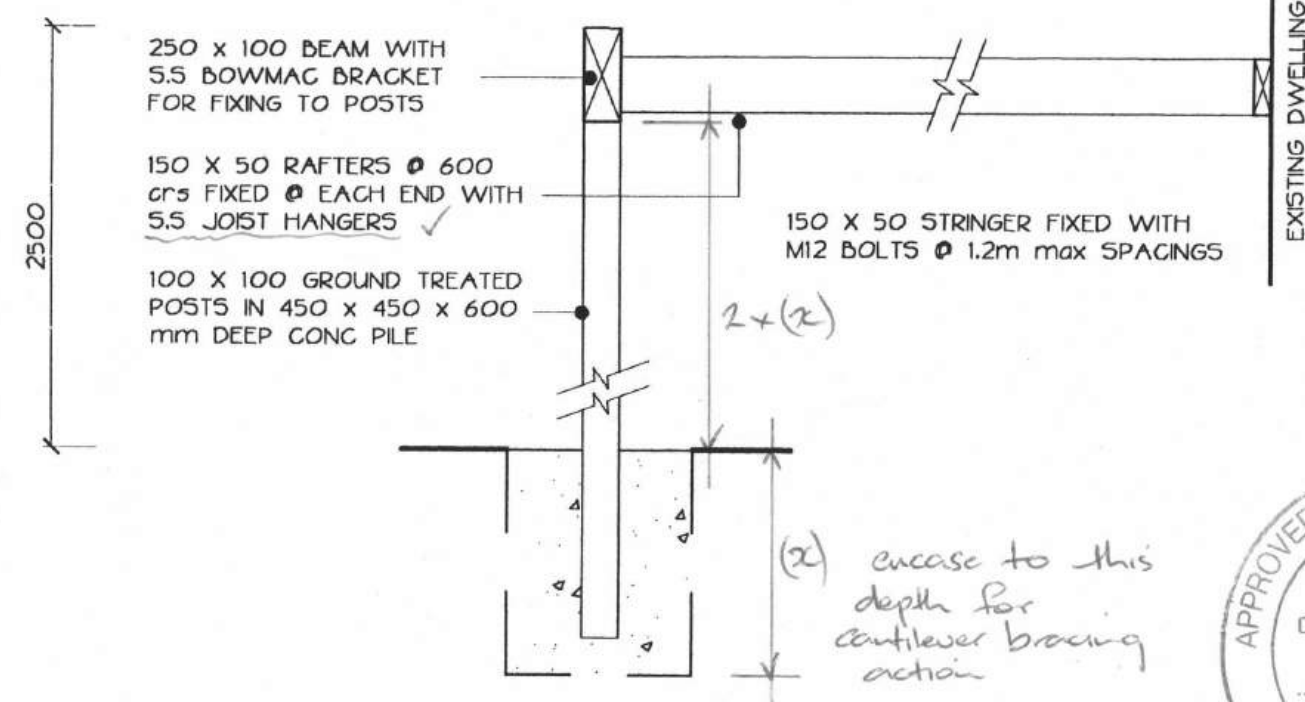
- ⊕ CEILING MOUNTED LIGHTING POINT
- ⊙ RECESSED DOWNLIGHT
- × WALL MOUNTED LIGHTING POINT
- ⌋ ONE-WAY SWITCH
- ⌋ TWO-WAY SWITCH
- ⌋ POWER POINT ( 2 DENOTES DOUBLE )
- TV TELEVISION POINT
- ☎ TELEPHONE POINT



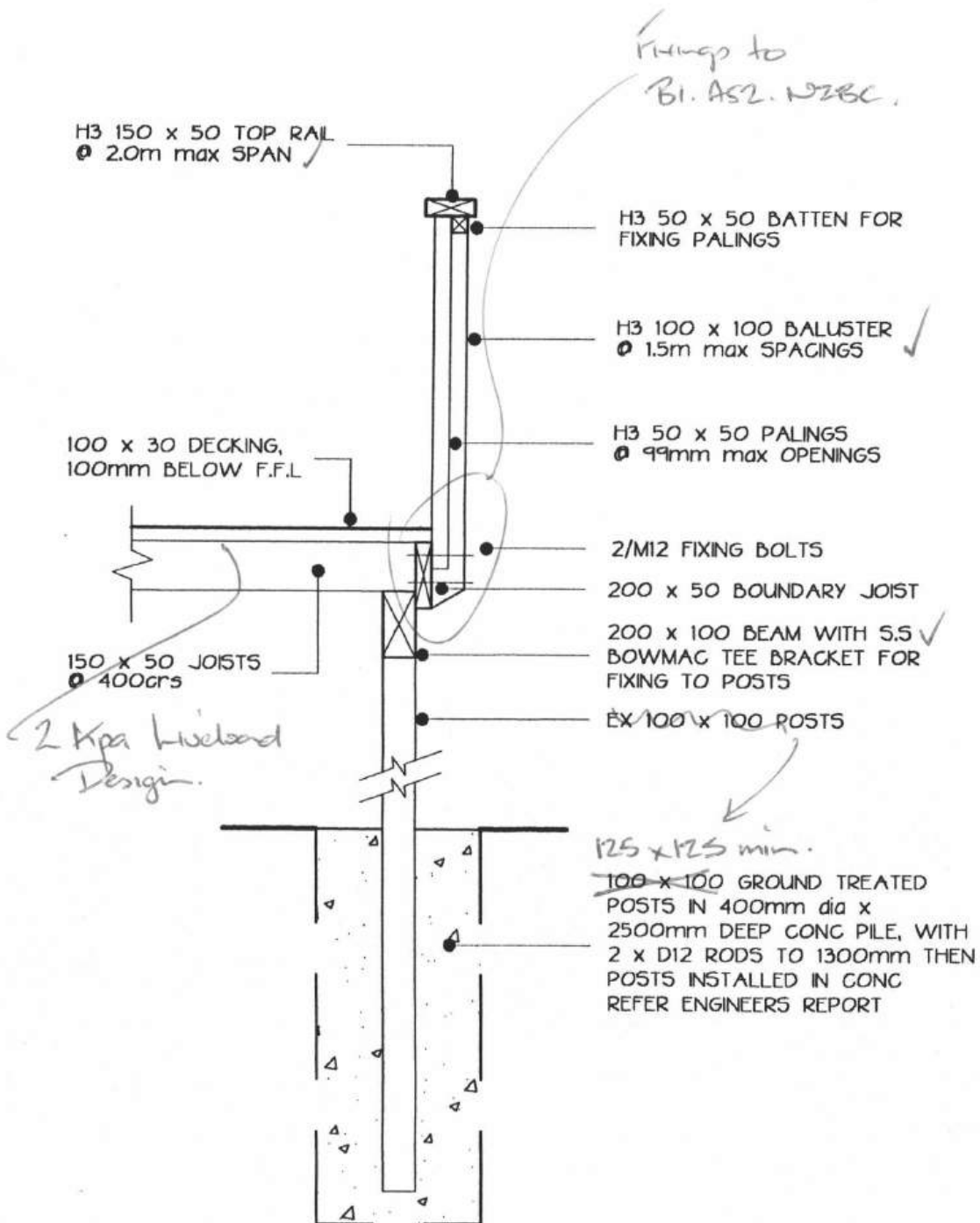




PERGOLA & DECK POST LOCATION  
SCALE 1:100



PERGOLA DETAIL  
SCALE 1:20



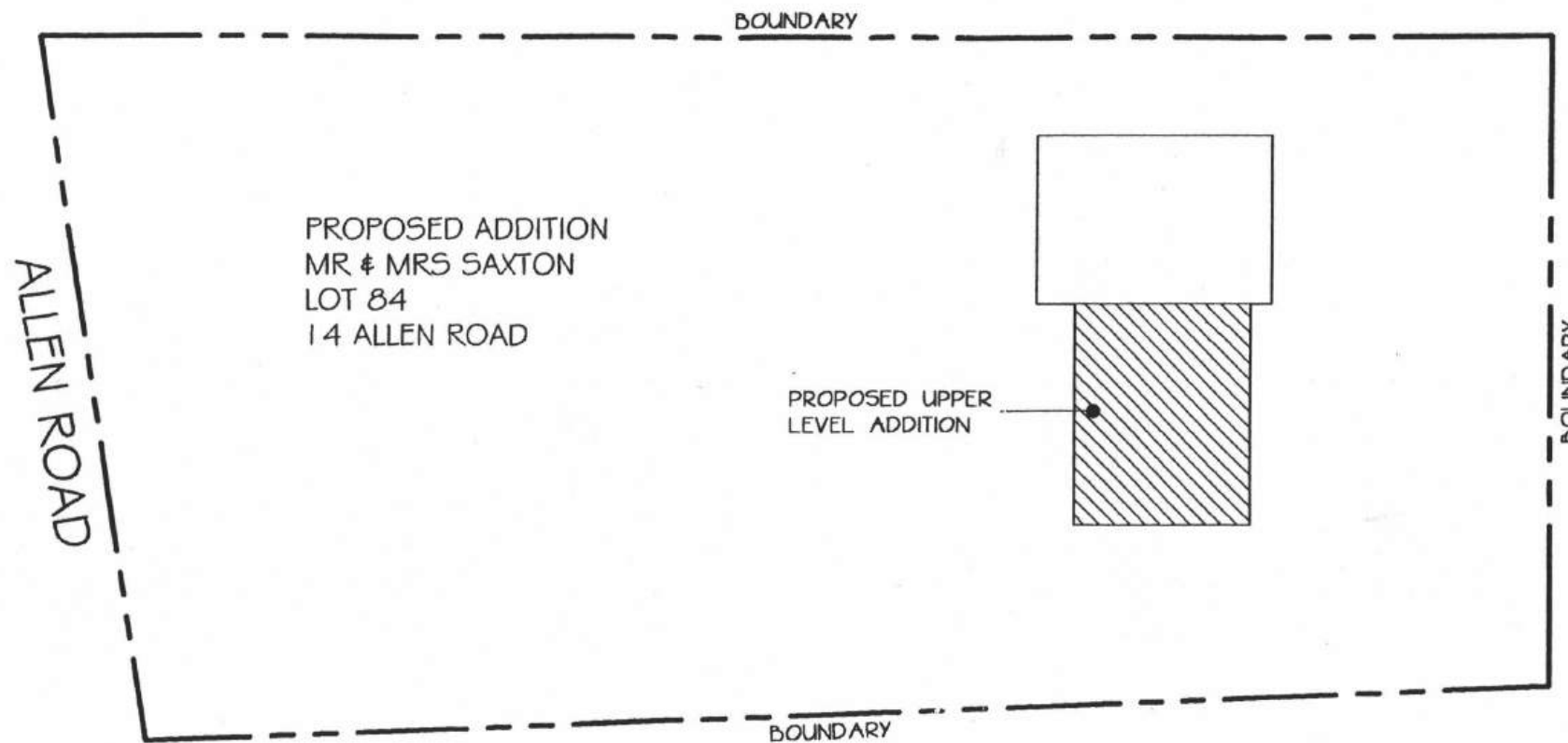
SECTION B (DECK DETAIL)  
SCALE 1:20

PROPOSED ADDITION

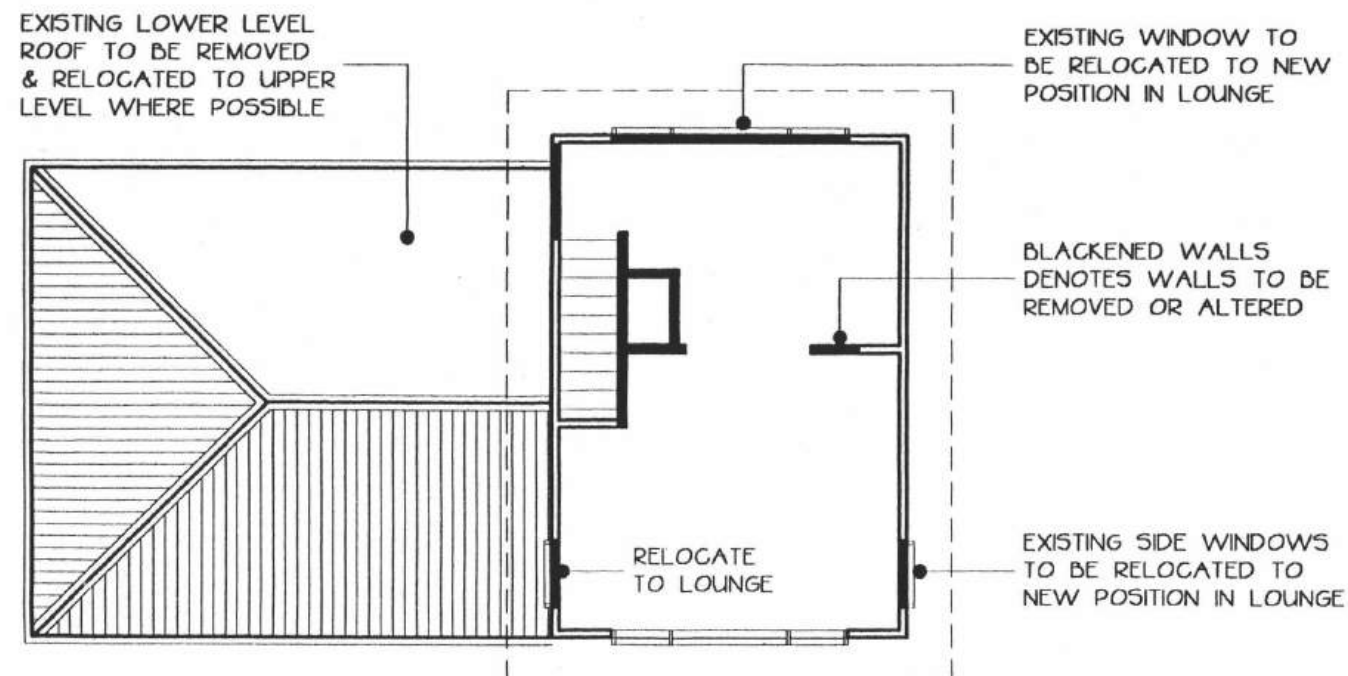
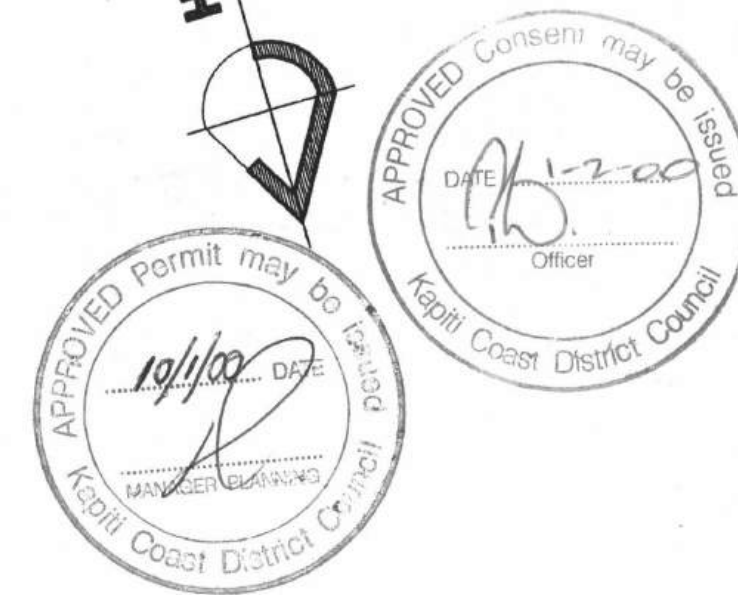
FOR D & C SAXTON



SEVERE COASTAL ZONE  
All proprietary or bolted  
fixings exposed to air plus  
cladding fixings to be  
STAINLESS STEEL

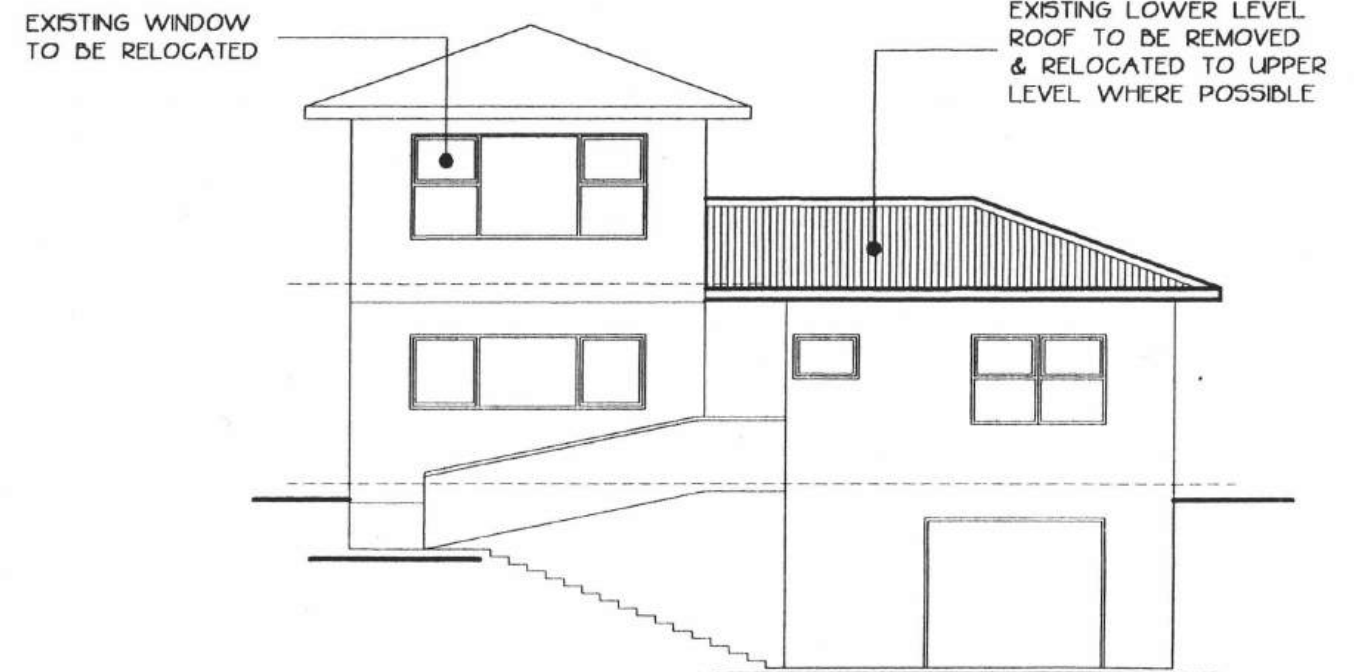


SITE PLAN SCALE 1:200



KEY  
— EXISTING WALLS  
— NEW 90 x 45mm FRAMING

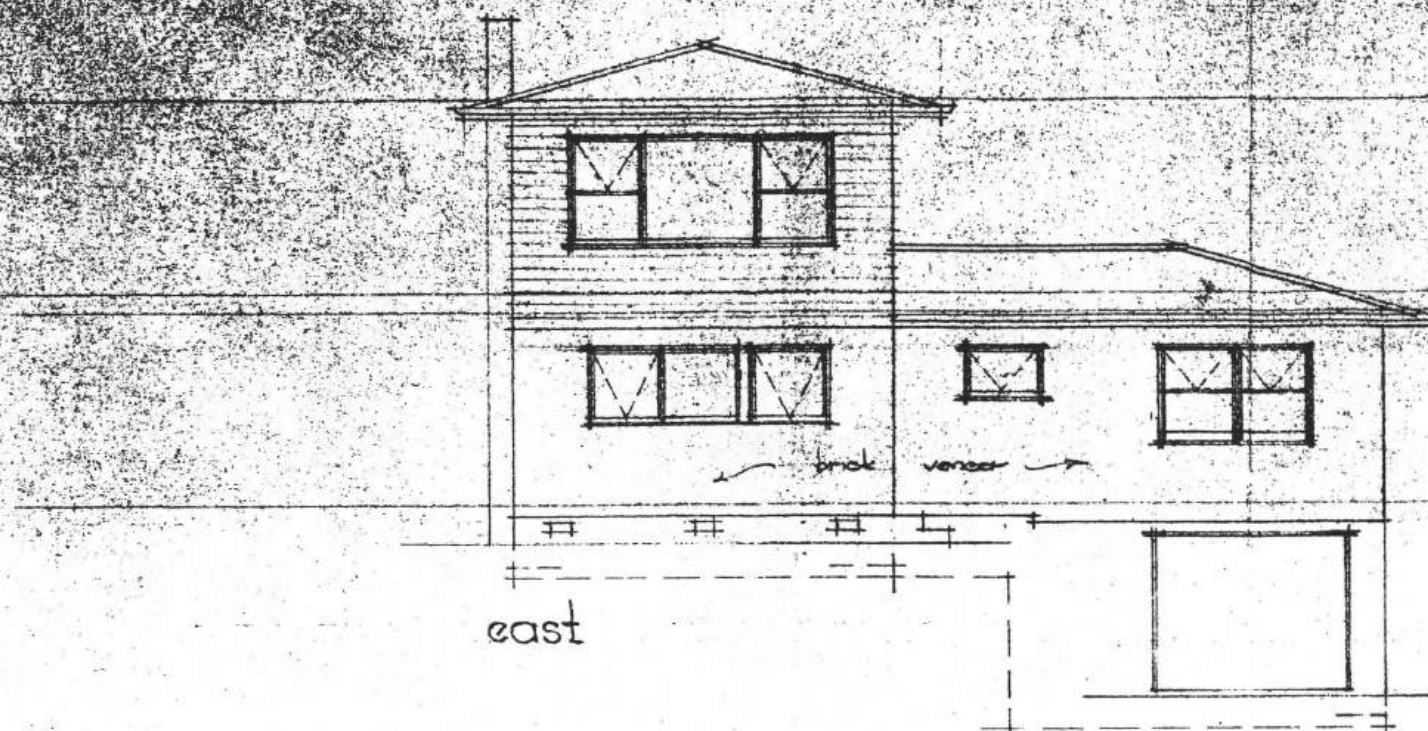
FLOOR PLAN SCALE 1:100



EXISTING FRONT  
ELEVATION SCALE 1:100

# PROPOSED ADDITION FOR D & C SAXTON





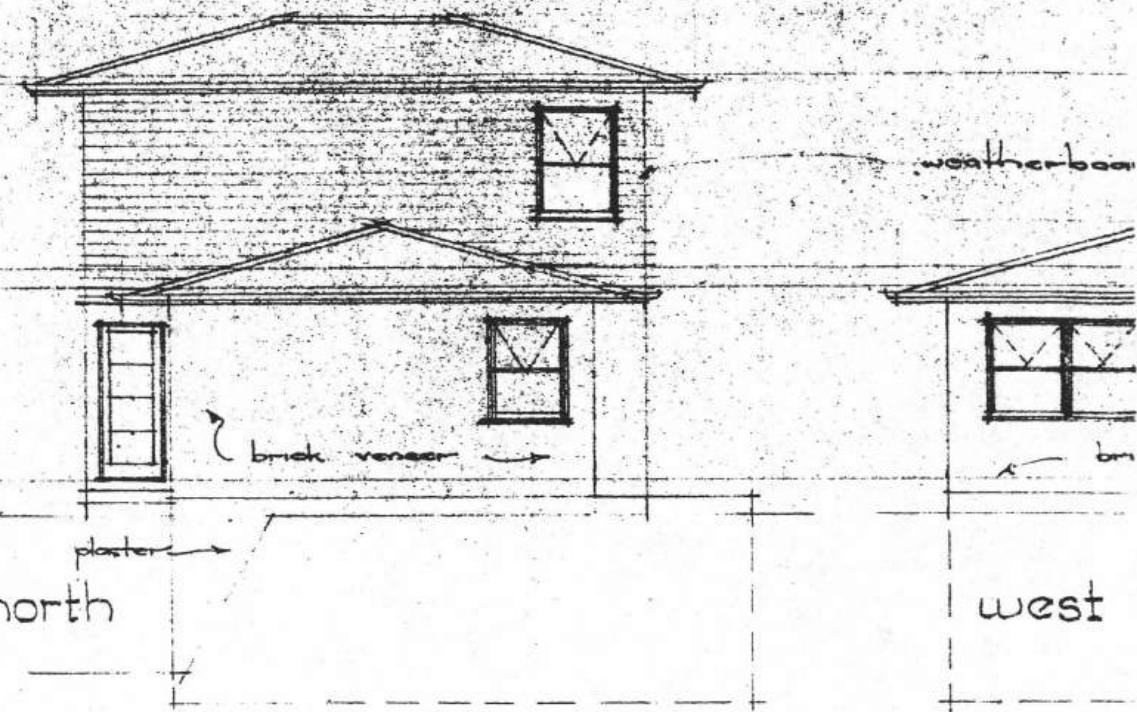
ceiling joists

6'-11/2"

10' floor joists

3'-11/2"

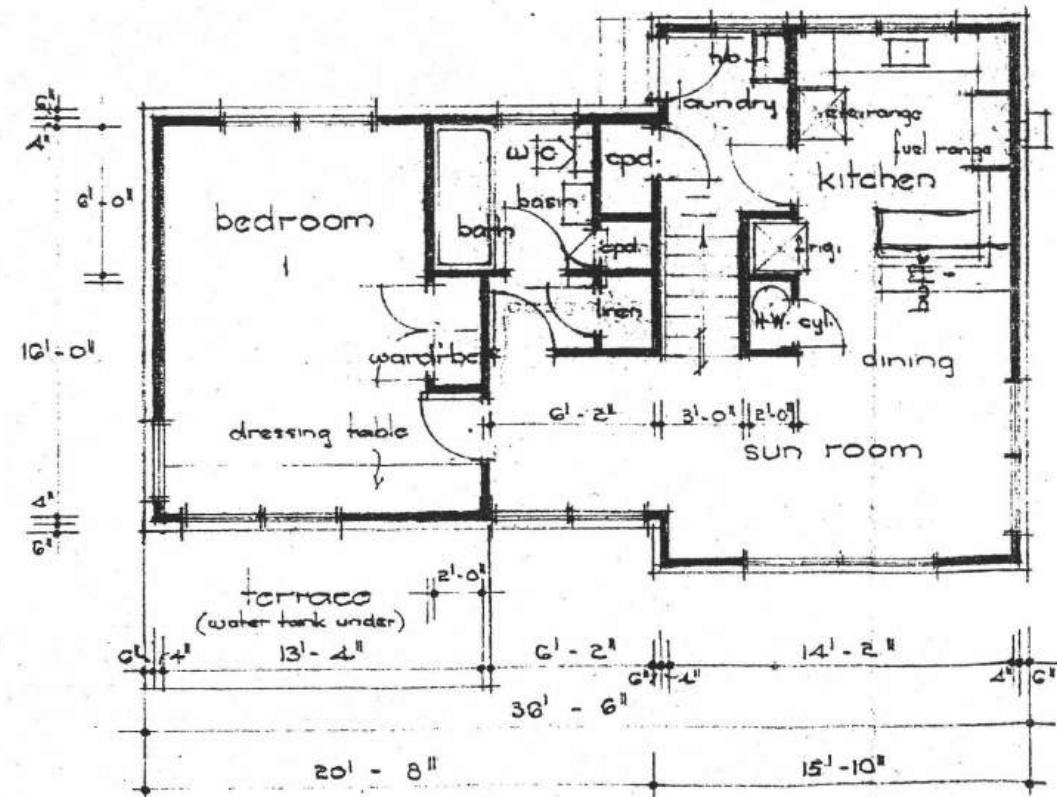
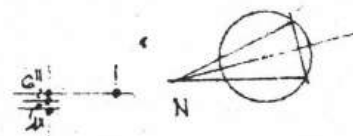
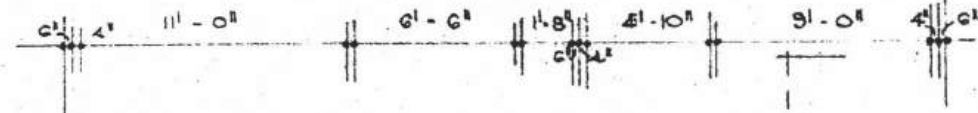
floor joists



weatherboard

brick veneer

plaster

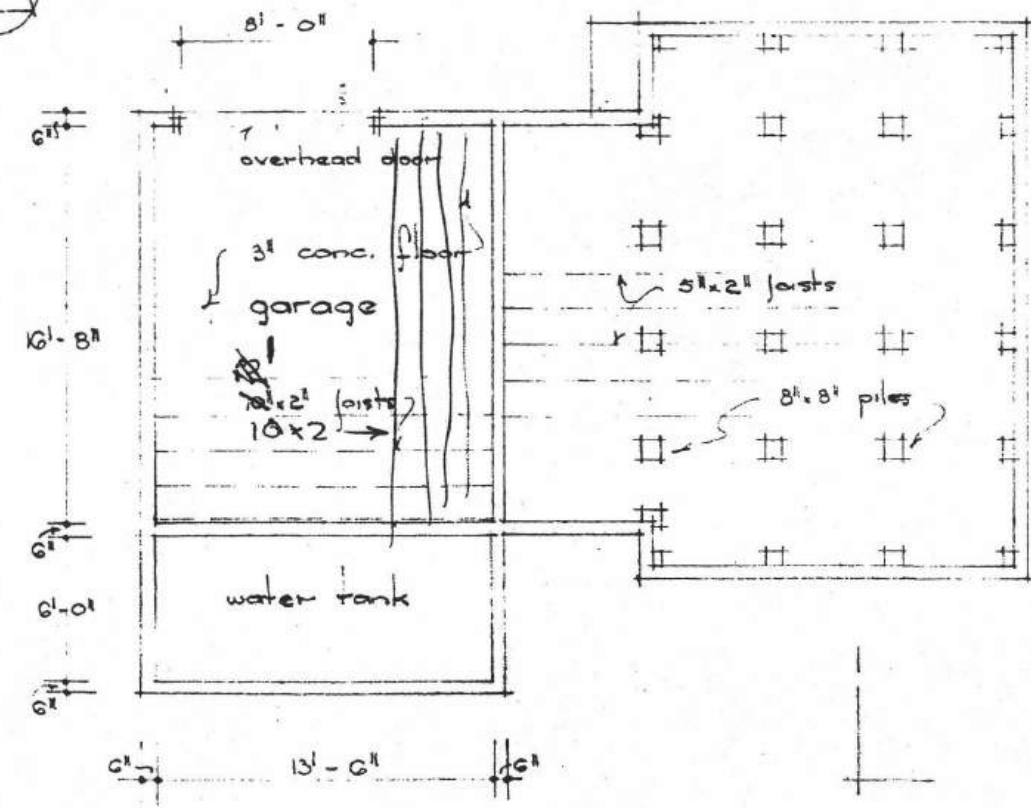


19'-0"

23'-2"

12'-6"

4'-0"



6'-0"

6'-0"

6'-0"

6'-0"

6'-0"

6'-0"

floor plan

foundation plan

PROPOSED

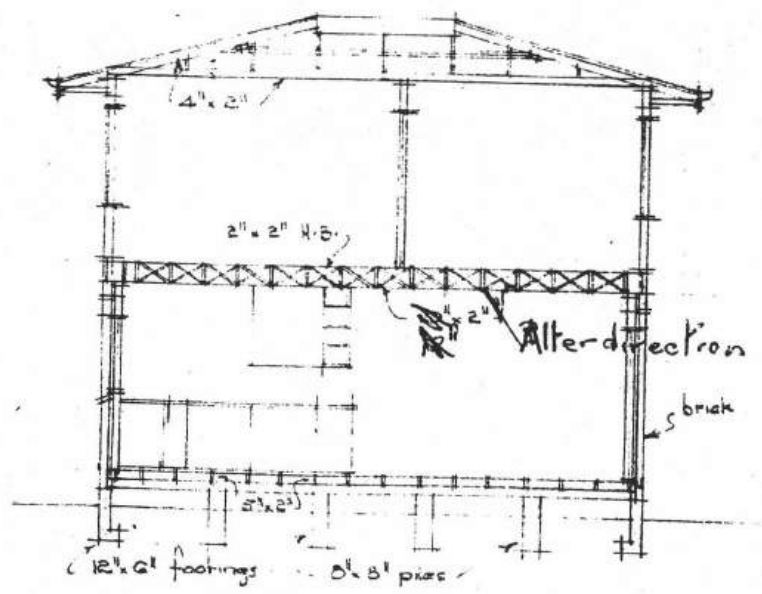
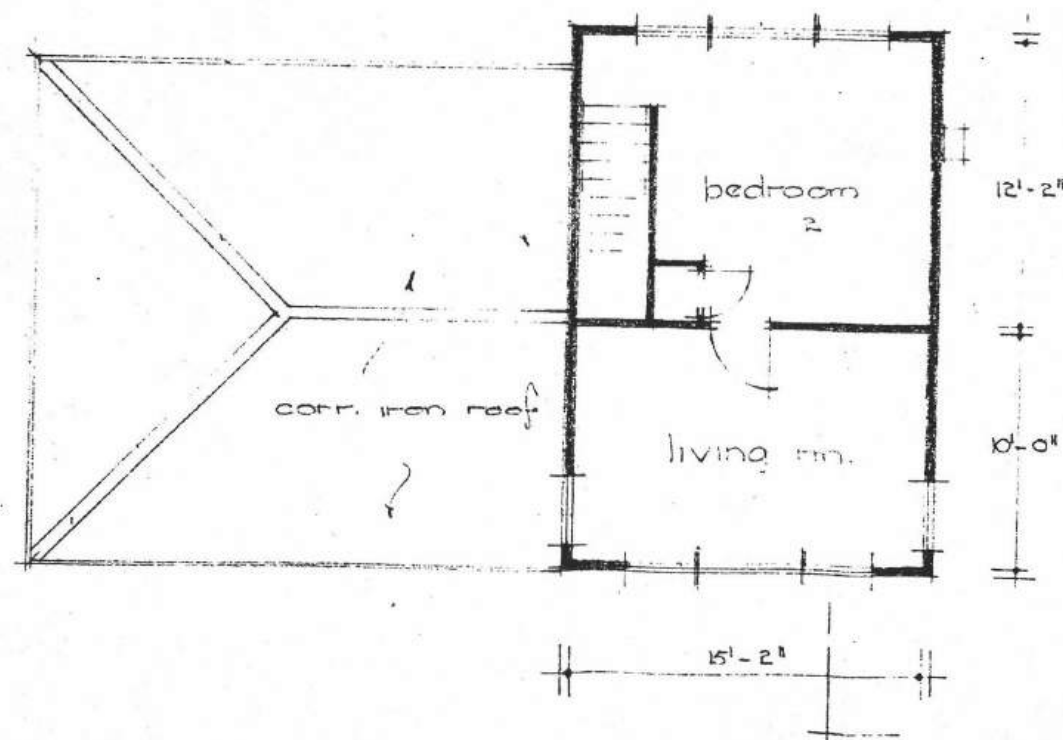
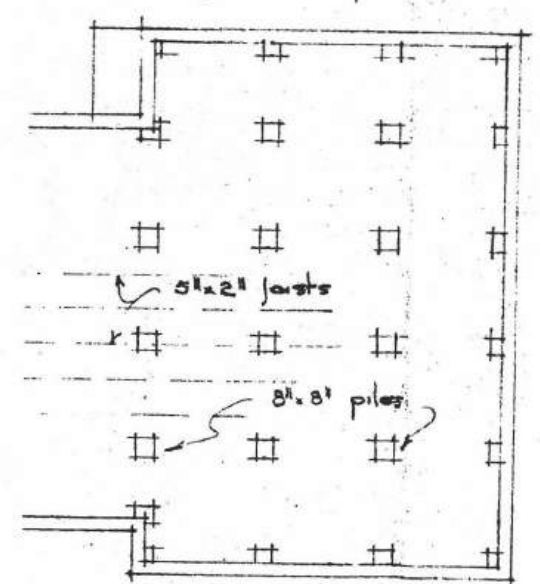
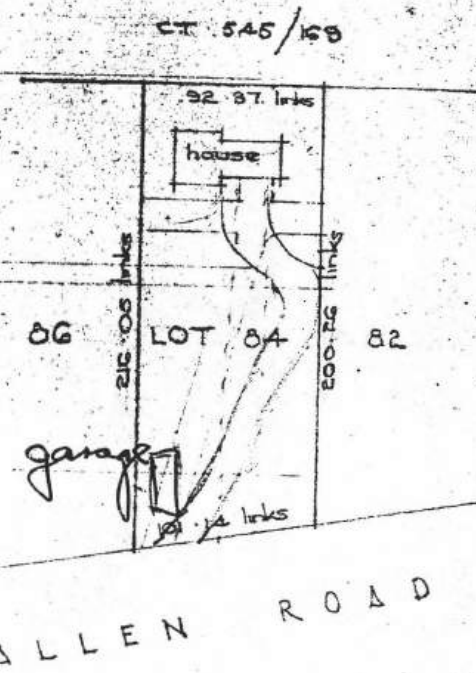
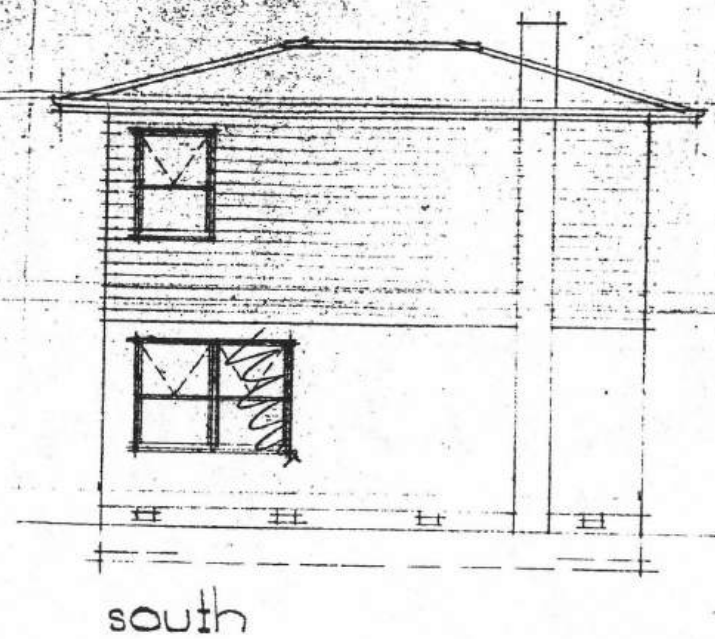
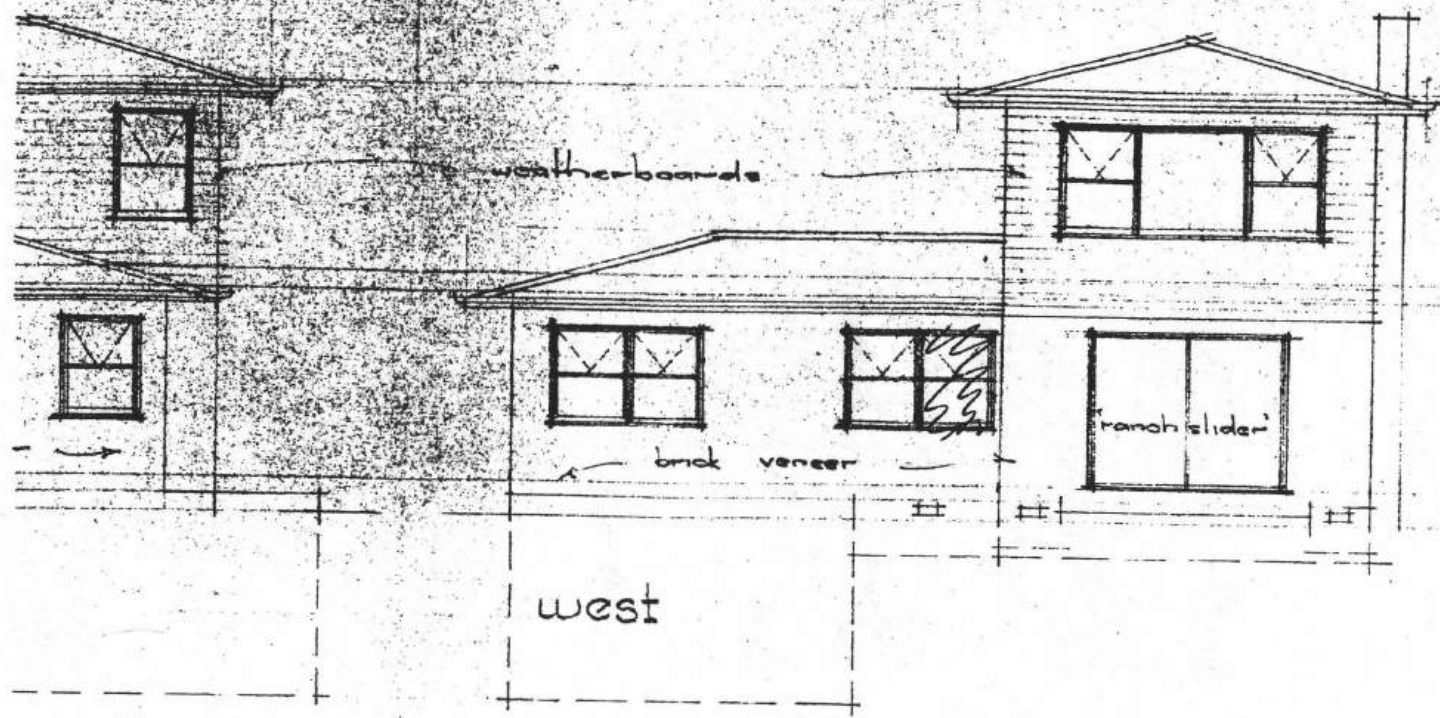
RESIDENCE

&

GARAGE

ALLEN

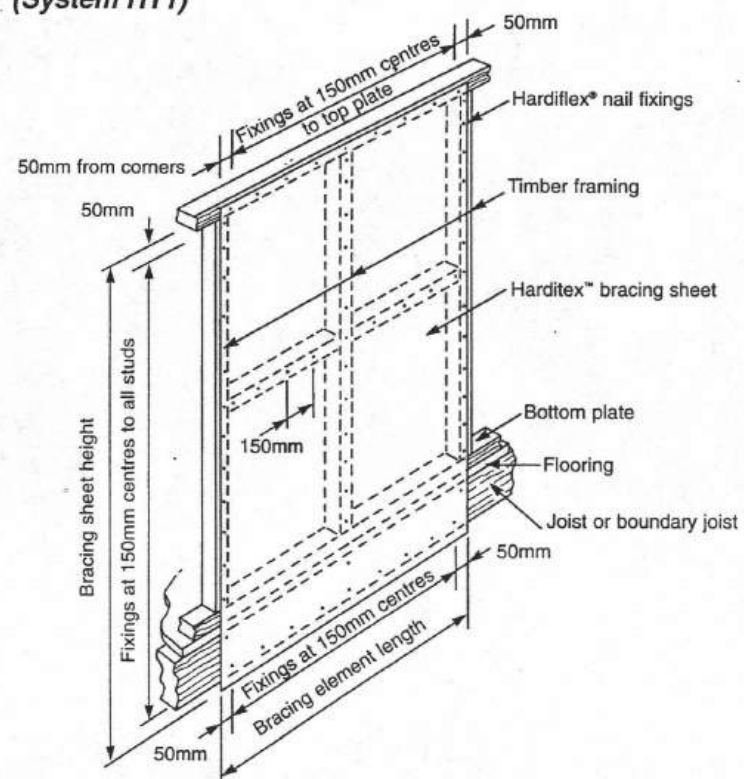




plan  
 first floor plan  
 section  
 E ALLEN ROAD RAUMATI BEACH

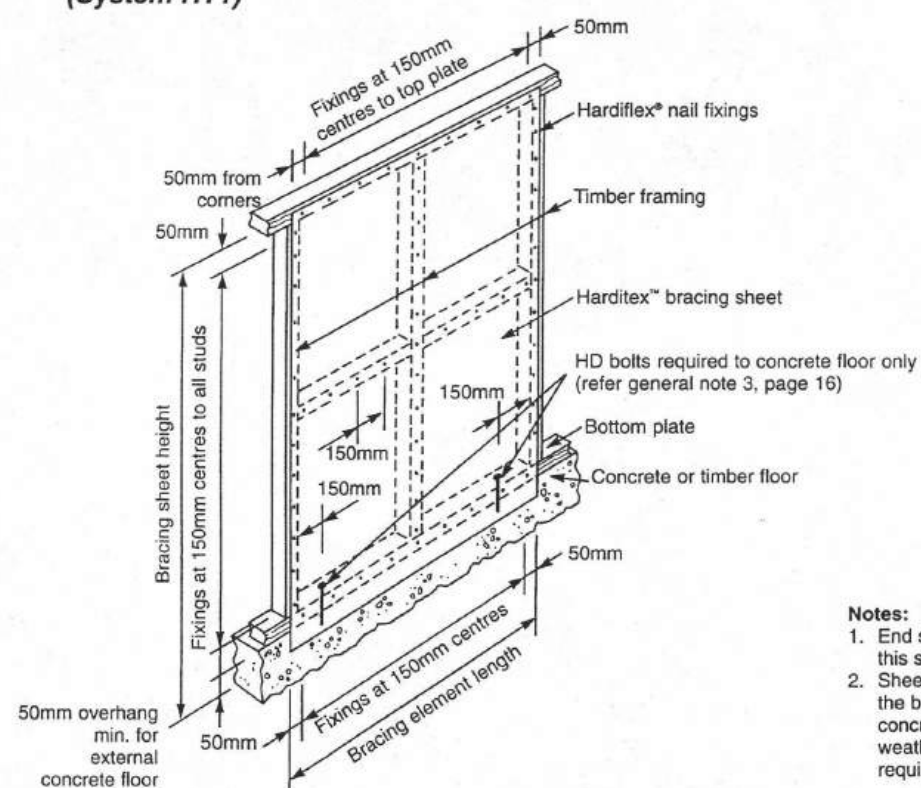


**Fig. 36 HARDITEX™ TO TIMBER JOISTS WITHOUT END STRAPS  
(System HT1)**



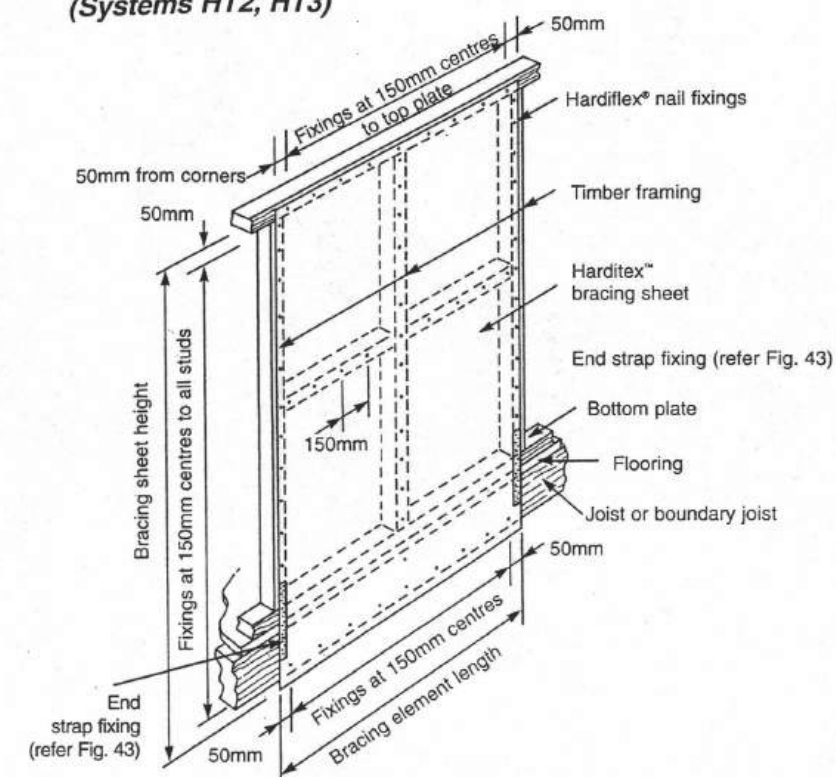
**Note:** End strap fixing between studs and joists is not required for this system.

**Fig. 37 HARDITEX™ TO TIMBER OR CONCRETE FLOORS WITHOUT END STRAPS  
(System HT1)**



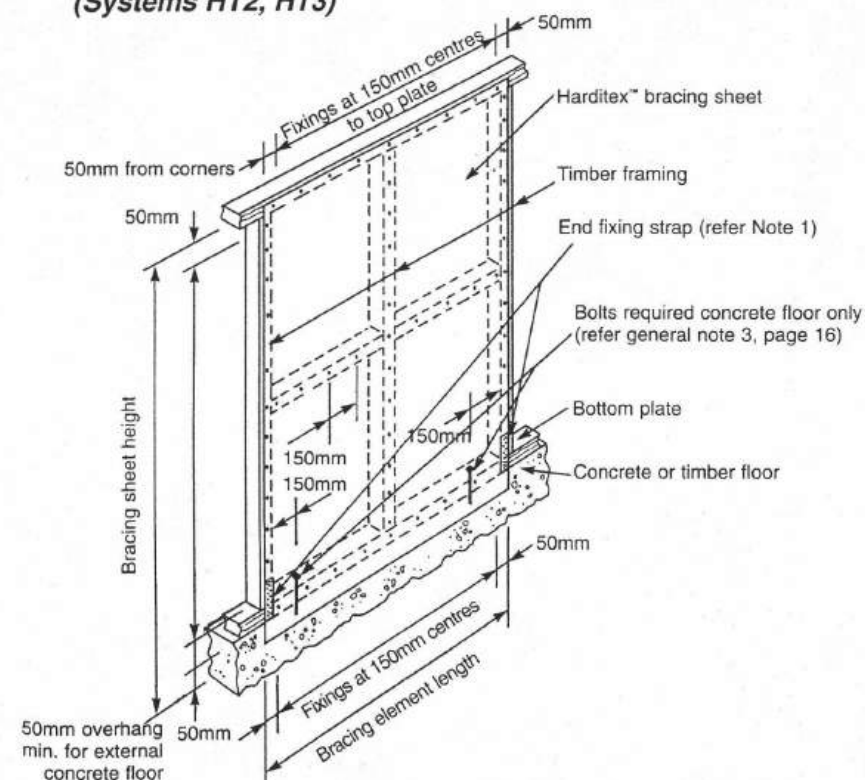
- Notes:**
1. End strap fixing to studs is not required for this system.
  2. Sheet can finish flush with underside of the bottom plate for timber floors or for concrete floors when the 50mm external weathering overhang is not required.

**Fig. 38 HARDITEX™ TO TIMBER JOISTS WITH END STRAPS  
(Systems HT2, HT3)**



**Note:** Galvanised-steel end fixing straps to be as detailed in Fig. 43.

**Fig. 39 HARDITEX™ ON TIMBER OR CONCRETE FLOORS WITH END STRAPS  
(Systems HT2, HT3)**



- Notes:**
1. Galvanised-steel end fixing straps must be used as detailed in Fig. 43 for timber floors and Fig. 47 for concrete floors.
  2. Sheet can finish flush with underside of bottom plate for timber floors or for concrete floors when the 50mm external weathering overhang is not required.



# DESIGNSCAPE

298 rosetta road  
telephone 04 902 8528

allan pullenger  
rea tm.iperiz

**Mr and Mrs Saxton**  
**LINTELS AND BEAMS**

**Job 1460**

**DATE**

**7/02/2001**

joists under upper storey

**BEAM NUMBER**

**Floor joists**

## LOADING

Span	L =	4.05	m
Load width		0.38	0.76 m
Load LL + DL		2.00	kpa
Load per metre	W =	0.76	kn/m

## BENDING MOMENT

BM = $WL^2/8$	M =	1.56	knm
---------------	-----	------	-----

## BEAM SIZE

Depth	D =	0.2	m
Width	W =	0.05	m

## STRESS

Fw = $MY/I$	Y =	0.1	m
I = $BD^3/12$	I =	3.33E-05	m <sup>4</sup>
	Fw	4680	kpa

## DEFLECTION

E	8000000	
Deflection is $5WL^4/384EI$	0.0100	m
Allowable $L/360$	0.0113	m

## REACTION

End Reaction is $L \times W/2$	1.54	KN
--------------------------------	------	----

## SITE CHECK SHEET

NAME: Sutton  
 SITE ADDRESS: 14 Allen Road LOT: 84 DP: 14034  
 PROJECT: Dwelling Add & Alt CONSENT NO: 800003  
 BUILDER: ..... CONTACT NO: .....

**WORK CANNOT PROCEED PAST EACH STEP UNTIL THAT STEP HAS BEEN INSPECTED,  
 APPROVED AND THIS FORM SIGNED BY THE RELEVANT INSPECTOR**

### FOUNDATIONS

Date: ..... Officer: .....

Approved building consent documents on site: YES / NO

#### SITING:

Front yard	<input type="checkbox"/>	Left hand side yard	<input type="checkbox"/>	Conforms with approved plan	YES / NO
Rear yard	<input type="checkbox"/>	Right hand side yard	<input type="checkbox"/>	If no, has new site plan been requested	YES / NO
Minimum floor level	<input type="checkbox"/>	Footing size	<input type="checkbox"/>	Foundation wall reinforcing	<input type="checkbox"/>
Pile hole size	<input type="checkbox"/>	Footing reinforcing	<input type="checkbox"/>	Foundation wall size	<input type="checkbox"/>
Anchor pile size	<input type="checkbox"/>	Subfloor vents	<input type="checkbox"/>	Specific design	YES/NO
Pile hole spacing	<input type="checkbox"/>	Steps/stairs	<input type="checkbox"/>	If yes, has Engineer inspected	YES/NO

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

Labels in place? Yes/No Producer Statement Yes/No/NA

#### COMMENTS

---

---

---

---

---

---

---

---

---

---

## PRE-SLAB

**PLUMBING AND DRAINAGE:** Date: ..... Officer: .....

### UNDERSLAB PLUMBING

Pipe sizes ☐  
Falls ☐  
Pipe protection ☐

### UNDERSLAB DRAINAGE

Pipe sizes ☐  
Falls ☐  
Pipe protection ☐

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

Labels in place? Yes/No Producer Statement Yes/No/NA

### COMMENTS

---

---

---

---

---

---

---

---

### BUILDING

Date: ..... Officer: .....

Minimum floor level ☐  
DPC ☐  
Joints taped ☐  
Penetrations ☐  
Specific design Yes / No  
If yes, has Engineer inspected Yes / No

Mesh ☐  
Mesh chairs ☐  
Slab thickening ☐  
Bottom plate fixings ☐

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

Labels in place? Yes/No Producer Statement Yes/No/NA

### COMMENTS

---

---

---

---

---

---

---

---

## SUBFLOOR

Date: .....Officer: .....

Ord pile fixings  
Anchor pile bolts  
Brace pile bolts and washers  
Timber treatment  
Subfloor framing  
Subfloor beams/bearers


Subfloor bracing  
Joists - size/spacing/fixing  
Cant. Joists - lth/size/spc  
Solid blocking - spacing  
Notching, holes etc  
Proprietary connections


Has a Site Instruction been issued? Yes/No

Instruction No: .....

Is a reinspection required? Yes/No

Proposed date of follow up inspection.....

Labels in place? Yes/No

Producer Statement Yes/No/NA

### COMMENTS


## EXTERIOR CLADDING

Solid Plaster/Textured Finish: Date: .....Officer: .....

Rigid backing  
Non rigid backing  
Building paper  
Battens (non rigid)  
Cavity (non rigid)  
Sheet set out (Hardies)


Reinforcement  
Spacers  
Nailing (Hardies)  
Flashings  
Control joints


Has a Site Instruction been issued? Yes/No

Instruction No: .....

Is a reinspection required? Yes/No

Proposed date of follow up inspection .....

Producer Statement Yes/No/NA

### COMMENTS


## PRELINE

**PLUMBING AND DRAINAGE:** Date: .....Officer: .....  
Plumber: .....



**Instruction No:** .....

Proposed date of  
follow up inspection .....

Producer Statement	Yes/No/NA
--------------------	-----------

## COMMENTS

Date: ..... Officer: .....

[illegible]

--	--	--	--	--	--	--	--

**%**

**Instruction No:** .....

Proposed date of follow up inspection .....

Producer Statement	Yes/No/NA
--------------------	-----------

## COMMENTS

**Cross (x) inspections not approved**

Strike out inspections not applicable

## POSTLINE

Date: ..... Officer: .....

Sheets nailed as per your schedule

☐

Insulation to walls

☐

Has a Site Instruction been issued? Yes/No

Instruction No: .....

Is a reinspection required? Yes/No

Proposed date of  
follow up inspection .....

Postline Label in place? Yes/No

### COMMENTS

---

---

---

---

---

---

---

## DRAINS

Drainlayer: ..... Date: ..... Officer: .....

Drain depth


Subsoil drains

Pipe material

Disposal field

Drains under building

Connection to main

Pipe supports

Manhole - structure

Lamp holes

Drain test

Gully traps

Granular bedding

Terminal vents

Even gradient/line

Soil stack

Manhole - haunching

Inspection/bends

SW to kerb

Sumps


Has a Site Instruction been issued? Yes/No

Instruction No: .....

Is a reinspection required? Yes/No

Proposed date of  
follow up inspection .....

Producer Statement Yes/No/NA

### COMMENTS

---

---

---

---

---

---

---

## MISCELLANEOUS INSPECTIONS

Blockfill: ..... Date: ..... Officer: .....

Reinforcing ☐  
Engineers design Yes/No  
If yes, has engineer checked Yes/No

Cavities cleared ☐

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

Producer Statement Yes/No/NA

COMMENTS

### Retaining Walls

Siting ☐  
Stretchers ☐  
Deadmen ☐  
Poles/posts ☐  
Footing ☐  
Engineers design/supervision ☐

Subsoil drainage ☐  
Post Holes ☐  
Retaining components ☐  
Tie bars ☐  
Headers ☐

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

Producer Statement Yes/No/NA

COMMENTS

### Solid Fuel Heaters

Chimney Check ☐  
Seismic fixing ☐  
Flue flashing ☐  
Flue ☐  
Mantel shelf ☐

Flue height ☐  
Hearth ☐  
Clearances ☐  
Ceiling plate ☐

Has a Site Instruction been issued? Yes/No Instruction No: .....

Is a reinspection required? Yes/No Proposed date of follow up inspection .....

COMMENTS

## FINAL INSPECTION

Building Interior		CHECK FITTINGS			
Service area floors & walls	<input type="checkbox"/>	Fire wall check	<input type="checkbox"/>	Water temperature	<input type="checkbox"/>
Stair design	<input type="checkbox"/>	Nat. ventilation	<input type="checkbox"/>	Infinity Hot Water Unit	<input type="checkbox"/>
Handrails	<input type="checkbox"/>	Mech. Ventilation	<input type="checkbox"/>	Supply tank	<input type="checkbox"/>
Barriers	<input type="checkbox"/>	Insulation	<input type="checkbox"/>	Trap seals & AA Valves	<input type="checkbox"/>
Lightings	<input type="checkbox"/>	Hot water cylinder flues	<input type="checkbox"/>	Cistern flushing	<input type="checkbox"/>
Laundering	<input type="checkbox"/>	Hot water cylinder valves	<input type="checkbox"/>	WC pan connection	<input type="checkbox"/>
Cooking facilities	<input type="checkbox"/>	Hot water cylinder rest	<input type="checkbox"/>	Windows - labels	<input type="checkbox"/>
Solid Fuel Heater	<input type="checkbox"/>	Tempering valve	<input type="checkbox"/>	Safety glass	<input type="checkbox"/>

Building Exterior		CHECK PLANS	
Subfloor - ventilation	<input type="checkbox"/>	Flashings - roof penet	<input type="checkbox"/>
Decks - structure	<input type="checkbox"/>	hips	<input type="checkbox"/>
Balustrades - design	<input type="checkbox"/>	valleys	<input type="checkbox"/>
height	<input type="checkbox"/>	gables	<input type="checkbox"/>
Steps/Stairs - design	<input type="checkbox"/>	flues	<input type="checkbox"/>
handrail	<input type="checkbox"/>	Cladding (ground clearance)	<input type="checkbox"/>
Flashings - windows	<input type="checkbox"/>	Roofing & Fixings	<input type="checkbox"/>
		(roofing warranty)	(engineers inspc report)
		Gulley dishes	<input type="checkbox"/>
		Wastes to gullys	<input type="checkbox"/>
		Terminals vents	<input type="checkbox"/>
		Spouting - Downpipes	<input type="checkbox"/>
		Landscaping & ground levels	<input type="checkbox"/>
		Texture Coating Warranty	<input type="checkbox"/>
		Septic Tank	<input type="checkbox"/>
			<input type="checkbox"/>

Footpath crossing installed	Yes/No	Berm damaged	Yes/No
Refund crossing deposit	Yes/No	Engineering site reports required	Yes/No
Stormwater & site drainage appear satisfactory	Yes/No	Engineering site reports received	Yes/No

Has a Site Instruction been issued?	Yes/No	Consent & NRL No. ....
Is a reinspection required?	Yes/No	Proposed date of follow up inspection .....

Officer	Insp Date	Officer	Re-Insp Date
OK to issue final code compliance certificate.		Yes/No	

If an interim certificate is issued please list proposed limitations on the reverse of this form.

**Comments and Items for Rectification:**

[illegible]

Tick (✓) approved inspections

**Cross (x) inspections not approved**

Strike out inspections not applicable





## Building Consent

### Section 35, Building Act 1991

#### Application

D & C SAXTON	No.	000003
14 ALLEN ROAD	Issue date	17/03/00
RAUMATI BEACH	Application date	11/01/00
	Overseer	BOB OLIVER

#### Project

Description	Alterations, Repairs or Extensions Being Stage 1 of an intended 1 Stage ADDITION TO DWELLING
Intended Life	Indefinite, but not less than 50 years
Intended Use	RESIDENTIAL
Estimated Value	\$60,000
Location	14 ALLEN ROAD, RAUMATI BEACH
Legal Description	LOT 84 DP 14034 CT 545/169
Valuation No.	1528215500

#### Charges

The Council's charges paid on uplifting this Building Consent, in accordance with the attached details are:

	\$	1,297.50
Building Research Levy	\$	60.00
Building Industry Authority Levy	\$	40.00
Total	\$	1,396.50

**PAID**

This building consent is a consent under the Building Act 1991 to undertake building work in accordance with the attached plans and specifications so as to comply with the provisions of the building code. It is not a consent under the Resource Management Act and does not affect any duty or responsibility under any other Act nor permit any breach of any other Act.

Signed for and on behalf of the Council:

Name: 

Date: 17.3.00

## Addenda to Application

### Application

D & C SAXTON  
14 ALLEN ROAD  
RAUMATI BEACH

No.

000003

### Project

Description	Alterations, Repairs or Extensions Being Stage 1 of an intended 1 Stage ADDITION TO DWELLING
Intended Life	Indefinite, but not less than 50 years
Intended Use	RESIDENTIAL
Estimated Value	\$60,000
Location	14 ALLEN ROAD, RAUMATI BEACH
Legal Description	LOT 84 DP 14034 CT 545/169
Valuation No.	1528215500

Builder:

SEAN CHRISTIAN

### General Requirements

- a) The District Inspector is to be given 24 hours' notice before carrying out the following inspections:
1. INITIAL INSPECTION - PREVIOUSLY COMPLETED
  2. FOUNDATION INSPECTION
  3. PRELINING INSPECTION, MOISTURE TEST, CHECK BRACING
  4. PRELINING INSPECTION OF PLUMBING
  5. POST-LINING INSPECTION, LININGS, FIXED AS PER BRACE DESIGN
  6. FINAL INSPECTION BUILDING
  7. FINAL INSPECTION OF PLUMBING
- b) To arrange for any of the above required inspections by the District Inspector, please contact the building inspectorate on (04) 298 5139 between the hours of 8.00am and 4.30pm.

1. LAPSE AND CANCELLATION OF BUILDING CONSENT. A building consent shall lapse and be of no effect if the building work concerned has not been commenced within 6 calendar months after the date of issue. Or within such further period as the territorial authority allows.
2. The inspection of all specific design components of the building is the responsibility of the Design Engineer who is also required to supply a written report to Council.
3. Work to comply with NZS3604-1990 or 1999 as indicated on approved plans.
4. Metal head flashings required over all exterior joinery.
5. As this building is located within the Very High Wind Zone all Exterior load bearing walls require 100 x 50 studs at 480mm centres maximum, and light roofs require 16 kN cyclone ties to rafters and trusses. Purlins to light roofs require 1 - 'Z' nail additional securement, top and bottom edge
6. Note and comply with endorsements on approved plans.
7. Roof stormwater to be connected to existing water disposal system.
8. Deck & stair balastrades with a greater drop than 1.0m require min 1.0m high balastrade measured from floor or tread. max 150mm bottom rail to floor. max 100mm space or hole between vertical rails. CERTAIN OTHER DECK CONFIGURATIONS MAY REQUIRE SAFETY BARRIERS. CONFER INSPECTOR
9. Provide Texture Coating Warranty from your licensed coating applicator.
10. As this site is located in the Severe Coastal Corrosion Zone, all exposed thin plate type fixings and cladding fixings need to be stainless steel.
11. Window sashes on upper levels less than 760 mm above floor, to have restrictor stays installed for 100 mm maximum opening.
12. If hot water is connected to new hand basin then a tempering valve is to be installed.
13. Fit additional braces as endorsed on plans to upper floor level.
14. Engineer verification is required for adequacy of the lower level wall bracing design or necessary upgrading to accommodate the upper level additions. Similarly existing lintels are to be confirmed as suitable or upgraded to the Engineer's direction.
15. Posts to the new suspended deck shall be not less than 125 x 125 mm square and treated to H5 retention.
16. Ensure all internal loadbearing walls are pile supported.

I have read the foregoing requirements, and the Owner/Builder/Authorised Person hereby agrees to comply with them.

OWNER/BUILDER/  
AUTHORISED PERSON



Date:

16/03/80



## Project Information Memorandum

### Section 31, Building Act 1991

#### Application

D & C SAXTON  
14 ALLEN ROAD  
RAUMATI BEACH

No.	000003
Issue date	1/02/00
Application date	11/01/00
Overseer	BOB OLIVER

#### Project

Description	Alterations, Repairs or Extensions Being Stage 1 of an intended 1 Stage ADDITION TO DWELLING
Intended Life	Indefinite, but not less than 50 years
Intended Use	RESIDENTIAL
Estimated Value	\$60,000
Location	14 ALLEN ROAD, RAUMATI BEACH
Legal Description	LOT 84 DP 14034 CT 545/169
Valuation No.	1528215500

This project information memorandum is confirmation that the proposed building work may be undertaken, subject to the provisions of the Building Act 1991, and any requirements of the building consent.

This project information memorandum includes:

- ☐ Information identifying relevant special features of the land concerned
- ☐ Details of relevant utility systems
- ☐ Details of authorisations which have been granted

Signed for and on behalf of the Council:

Name:

Date: - 1 FEB 2000



## PROJECT INFORMATION MEMORANDUM

### Planning Requirements

APPLICANT: Saxton

MAILING ADDRESS: \_\_\_\_\_

SITE ADDRESS: 14 Allen Road

LOT NO: 84 DP: 14034

PROJECT: New Building

Alteration

Removal/Demolition

Relocated Building

(approx. age \_\_\_\_\_ years)

INTENDED USE:

Dwelling

ZONING: DISTRICT PLAN:

Residential

USE PERMITTED:

Permitted activity

RESOURCE CONSENT GRANTED:

None listed

DESIGNATIONS ON PROPERTY:

None listed

EASEMENTS:

None listed

SITE SUBJECT TO INUNDATION:

N/A

COASTAL BUILDING LINE RESTRICTION:

N/A

RELOCATABLE ZONE:

N/A

MINIMUM FLOOR LEVEL: (50 year event)

1 Metres above mean sea level

RECOMMENDED MINIMUM:

1

FLOOR LEVEL: (100 year event)

1 Metres above mean sea level

YARD & HEIGHT REQUIREMENTS:

Comply

TREE/BUILDING PRESERVATION:

None listed

OTHER COMMENTS:

1

Note: Minimum floor levels must use Mean Sea Level Wellington Datum 1953. Certification that the floor level complies with the minimum floor level will be required from a Registered Surveyor prior to foundation inspection.

### SPECIAL FEATURES OF THE ABOVE LAND

Information is attached identifying the following special features of the land concerned that are known to Council:

Potential Erosion .....  
Potential Avulsion .....  
Potential Subsidence .....  
Potential Slippage .....  
Potential Alluvion .....  
Potential Inundation .....  
Presence of Hazardous Contaminants .....

**Other feature(s) or characteristic(s) likely to be relevant to the design or construction of the proposed buildings and not apparent from the District Scheme or District Plan:**

---

---

---

(Plumbing & Drainage)

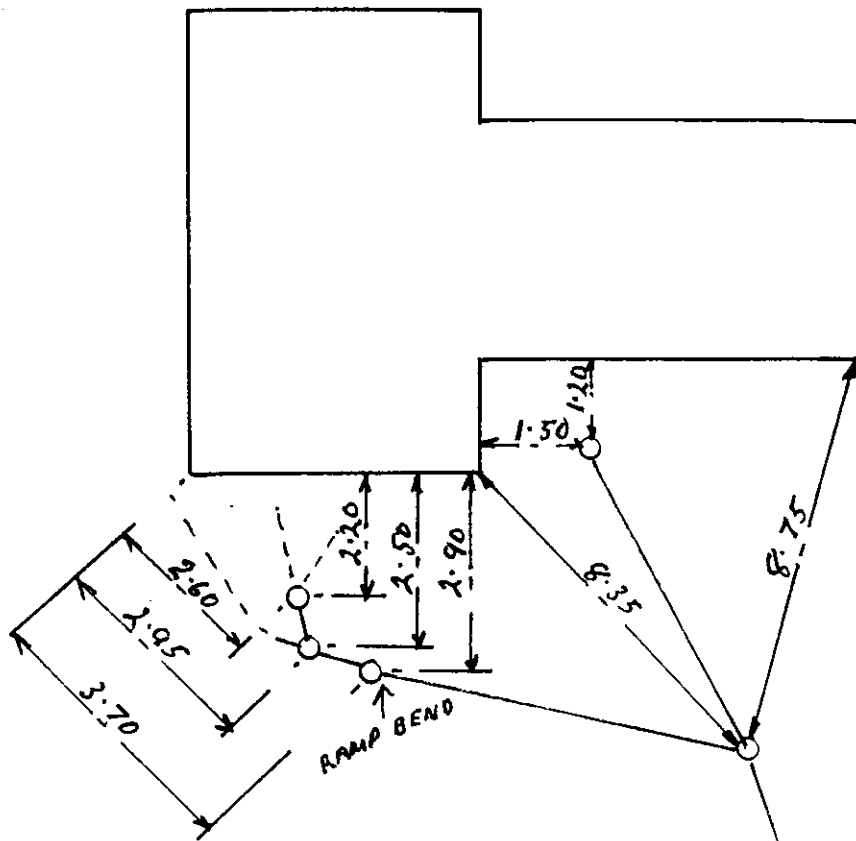
SEWER ~~AVAILABLE~~/CONNECTED \_\_\_\_\_  
WATER ~~AVAILABLE~~/CONNECTED \_\_\_\_\_  
SITE PLAN OF EXISTING SERVICES (IF ANY) plan supplied  
LOCATION OF SEWER LATERAL plan supplied  
LOCATION AND SIZE OF WATER TAP plan supplied 20mm  
LOCATION OF EASEMENTS (IF ANY) none known  
LOCATION OF PUBLIC DRAINS (IF ANY) none known  
STORMWATER DISPOSAL TO  
CHANNEL ☒  
DRAIN ☒  
ON SITE ☒

ADDITIONAL COMMENTS

---

---

---

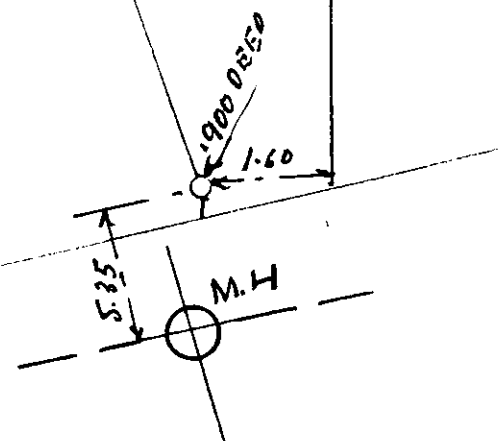


100 $\phi$  P.V.C. IN SAND

TESTED 25- 8- '87

*[Handwritten signature]*

BOUNDARY



14 ALLEN RD.

D MARSH DRAINLAYER.

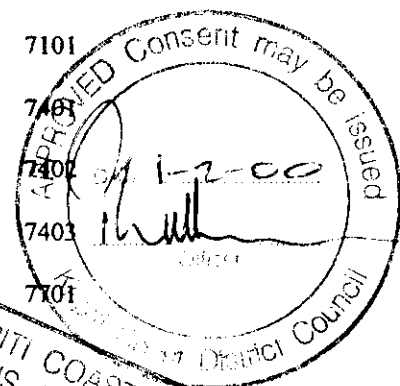
# GENERAL SPECIFICATION

## CONTENTS

## REF

Preliminary & General	1201
Demolition	2101
Preparation & Groundwork	2201
Concrete	3101
Carpentry	3801
James Hardie Cladding	4201H
Roofing	4301
Timber Windows & Doors	4501
Lining	5101
Joinery Fittings	5501
Carpeting	6501
Painting & Paperhanging	6601
Water	7101
Rainwater Plumbing	7401
Sanitary Plumbing	7402
Drainage	7403
Electrical	7101

All references to standards and codes etc, shall be taken as reference to latest version, including amendments.



KAPITI COAST DISTRICT COUNCIL  
PLANS APPROVED PLUMBING  
AND DRAINAGE  
CONSENT MAY BE ISSUED.  
DATE 12/12/2000 OFFICE

PLANS & DOCUMENTS PREPARED BY

**MD** DRAUGHTING SERVICE

P.O. BOX 2061, RAUMATI BCH. TELEPHONE 025 201 1123



## 1201 PRELIMINARIES AND GENERAL

### 1. THE PROJECT

#### 1.1 DESCRIPTION

The scope of the works to be as described in this specification and as shown on the drawings.

#### 1.2 SITE

The site of the works, the site address and the legal description are shown on the drawings. Confine access and work to the area of the site indicated.

### 2. DOCUMENTATION

#### 2.1 SPECIFICATION SECTIONS

The designation and numbering of individual specification sections follows the CBI (Association for Co-ordinated Building Information in New Zealand) system for the co-ordination and classification of construction information. Sections are for reference and convenience only and do not constitute individual trade sections or work elements.

Read all sections together and read 1201 PRELIMINARIES AND GENERAL with all other sections.

#### 2.2 INTERPRETATIONS

Required:	Required by the documents, or by a statutory authority.
Proprietary:	Identifiable by naming the manufacturer, supplier, installer, trade name, brand name, catalogue or reference number.
Approval:	Approval in writing.
Direction:	Direction in writing.

#### 2.3 MANUFACTURER'S RECOMMENDATIONS

Manufacturer's recommendations means manufacturers recommendations, instructions, directions, specifications, or details issued by them for their particular material, product or component and are the latest edition.

#### 2.4 DEFINED WORDS

Words defined in the conditions of contract, New Zealand Standards, or other reference documents, to have the same interpretation and meaning when used in their lower case, title case or upper case form in the conditions of contract and in the specification text.

#### 2.5 ABBREVIATIONS

The following abbreviations are used throughout the specification sections:

NZBC	New Zealand Building code
NZS	New Zealand Standard
NZMP	New Zealand Miscellaneous Publication
AS/NZS	Joint Australian/New Zealand Standard
NZS/AS	Joint New Zealand/Australian Standard
AS	Australian Standard
BS	British Standard
CSA	Canadian Standards Association
HERA	Heavy Engineering Research Association

#### 2.6 REFERENCED DOCUMENTS

Throughout this specification, reference is made to various New Zealand Building Code (NZBC) acceptable solutions and verification methods for criteria and/or methods used to establish compliance with the Building Act.

Reference is also made to various Standards produced by Standards New Zealand (NZS, NZMP, AS/NZS, NZS/AS), Transit New Zealand specifications, overseas standards (AS, BS, CSA) and to listed Acts, Regulations and various industry codes of practice and practice guides. The latest edition

(including amendments and provisional editions) at the date of this specification applies unless stated otherwise.

It is the responsibility of the contractor to be familiar with the materials and expert in the techniques quoted in these publications.

Documents cited both directly and within other cited publications are deemed to form part of this specification. However, this specification takes precedence in the event of it being at variance with the cited documents, with the resolution of any variance being confirmed by the owner in writing and then notified to the territorial authority for consent prior to any further work proceeding.

## 2.7 DOCUMENTS REFERRED TO

Documents referred to in this section are:

Building Act 1991  
Building Regulations 1992  
Health and Safety in Employment Act 1992  
Smoke Free Environments Act 1990

## 2.8 CODE COMPLIANCE

It is an offence under the Building Act 1991 to carry out any work not in accordance with the building consent. The resolution of matters concerning code compliance to be referred to the owner for a direction in writing and then to the territorial authority for consent.

## 2.9 BUILDING CONSENT

Obtain the original or copies of the building consent form and documents from the owner and keep on site. Liaise with the territorial authority for all notices to be given and all inspections required during construction to ensure compliance. Return the consent form and documents to the owner on completion.

## 2.10 PRODUCER STATEMENTS

When producer statements verifying construction are required, provide copies to both the territorial authority and the owner.

## 2.11 COMPLIANCE SCHEDULE

Obtain from the owner the list of all systems and features agreed as comprising the compliance schedule when application was made for building consent. Liaise with the owner and supply any further information on each system or feature of the building, as required by the territorial authority prior to their issue of the building consent.

## 2.12 PROVIDE GUARANTEES

Provide guarantees in favour of the owner and executed by the contractor/subcontractor in respect of, but not limited to, materials, components, service, application, installation and finishing called for in that specified section of work. The terms and conditions of the guarantee in no case negate the minimum remedies available under common law as if no guarantee had been offered.

Provide two copies of all completed guarantees to the owner.

## 2.13 OVERALL WEATHERTIGHTNESS AND WATERTIGHTNESS

A guarantee is required from the contractor for a minimum period of 2 years, covering the weathertightness of the complete building envelope and the watertightness of all liquid supply and disposal systems and fittings. This general guarantee is in addition to any specific guarantees required.

## 2.14 TRADE GUARANTEES AND WARRANTIES

Where specific trade guarantees/warranties are offered covering materials and/or execution of proprietary products or complete installations, provide copies of all such guarantees/warranties to the owner.

## 2.15 FORM OF GUARANTEE

Conform with the form of guarantee included in this specification.

- 2.16 **WORDING OF GUARANTEE**  
The wording of the guarantee to conform with the form of guarantee attached.
- 2.17 **FAILURE**  
Failure to provide guarantees does not reduce liability under the terms of the guarantee called for in that specified section of the work.
- 2.18 **COMMENCE**  
Commence all guarantees from practical completion.  
  
Maintain their effectiveness for the times stated.
- 2.19 **DELIVER**  
Deliver executed guarantees to the owner prior to the commencement of the work covered by the guarantee.
- 3. **ESTABLISHMENT**
  - 3.1 **COMPLY**  
Comply with all statutory obligations and regulations of regulatory bodies controlling the execution of the works.
  - 3.2 **APPROVALS**  
Attend on territorial authority officers, statutory and network utility inspectors, as necessary to obtain approvals (in addition to building consent approval) for and the satisfactory completion of, the works.
- 4. **TEMPORARY WORKS AND SERVICES**
  - 4.2 **PROVIDE**  
Provide, erect and maintain all scaffolding, sheds, toilets, water, power, hoardings and access to the site. Allow for all cartage, craneage, plant hire and storage. Arrange for all temporary works and services necessary for the completion of the works. Pay all fees and remove temporary works and services on completion of the works.
  - 4.3 **PROTECT**  
Protect all parts of the work liable to damage, including all adjoining public or private property, existing buildings, existing roads, footpaths, fences, site services, trees, landscaping and all existing retained site features, until completion of the works. Take all precautions necessary to protect the works from damage by unauthorised entry or inclement weather. Brace and support all parts of the works against damage during construction.  
  
Make good all damage to existing property and site features arising from construction activities or failure to protect.
  - 4.4 **STORAGE**  
Provide temporary storage areas and protective covers and screens. Framing and structural members to be fillet stacked and protected from moisture and contamination. Finishing materials to be completely protected from the weather and damage and stored in accordance with the manufacturer's recommendations. Fabricated elements to be protected from the weather and damage, and stored in accordance with the supplier's recommendations.
- 5. **PROJECT MANAGEMENT**
  - 5.1 **WORK OUTSIDE NORMAL HOURS**  
Work outside normal hours is permitted, but 24 hours notice is required in writing to the owner before commencing such work. Obtain any necessary permits and permission for such work.

## 5.2 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992. Identify hazards and if their elimination or isolation is not possible, then minimise hazards in the work on site by using proper equipment and techniques. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put in place procedures for dealing with emergencies.

Fence off, light, or otherwise separate any source of danger to people both off and on the site, including outside working hours.

## 5.3 SMOKING

Do not smoke on site except in a designated location in accordance with the Smoke Free Environments Act 1990. This location to be determined by the contractor with the approval of the owner.

# 6. CONSTRUCTION

## 6.1 NUISANCE

Take all reasonable precautions to prevent damage and nuisance from water, fire, smoke, vehicles, dust, rubbish, noise and all other causes resulting from the contract works. Comply with the requirements of the territorial authority and all relevant Acts and Standards.

## 6.2 SET OUT

Set out the work to conform with the drawings. Establish a permanent site datum to confirm the proposed building ground floor level and its relationship to all other existing and new building levels.

While it remains the contractor's responsibility to set out the works accurately and correctly and to confirm any changes from the approved location with the territorial authority, the contractor to obtain the owner's written confirmation that the owner has sighted the proposed building location, site datum and profiles before commencing any further work.

## 6.3 EXECUTION

Conform to the requirements of this specification. All work to be level, plumb, and true to line and face. Employ only experienced workers familiar with the materials and techniques specified.

## 6.4 MATERIALS

Materials to be new unless stated otherwise, the best quality of their respective kinds, and complying with all cited documents.

Substitution of alternative materials, plant or equipment from those specified to be confirmed by the owner in writing, with the substitution then approved by the territorial authority.

## 6.5 COMPLETE ALL SERVICES

Ensure all building services are complete and operational, with all labelling and service instructions provided.

## 6.6 CLEAR AWAY

Clear away all trade debris, unused materials and components from the site and leave the building clean and ready for occupancy, with all services operating and mechanical parts in good working order. Remove all temporary markings, coverings and protective wrappings.

## 6.7 CLEANING

Clean and wash down all external surfaces to remove dirt, debris and marking. Clean all interior surfaces including cabinetwork, joinery, sanitary and hardware items. Vacuum or polish all floor finishes. Clean and polish all glass, both sides.

## 2101 DEMOLITION

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

**NZS 6803P**      The measurement and assessment of noise from construction, maintenance and demolition work

Occupational Safety and Health Service (OSH) publication: Approved code of practice for demolition

#### 1.2 QUALIFICATION

Carry out demolition only under the supervision of a suitably experienced person and using only experienced operators and drivers. Use only experienced, certified, construction blasters for explosives demolition.

#### 1.3 PERMITS

In addition to the building consent, obtain and pay for all required permits and inspections.

#### 1.4 NUISANCE

Take all precautions necessary to minimise nuisance caused by noise, dust, dirt, rubbish and water.

#### 1.5 MATERIAL

Material from the demolition becomes the property of the contractor except where expressly provided otherwise. Remove redundant materials from the site as work proceeds.

#### 1.6 SALVAGE

All designated items to remain the property of the owner.

#### 1.7 BURNING OF MATERIALS

Burning of materials arising from demolition is not permitted on site.

#### 1.8 ANTIQUITIES

All fossils, antiquities and other objects of interest or value found on the job or site are the property of the owner.

#### 1.9 SURVEY

Before commencing work, carry out a thorough survey and examination of all buildings or structures to be demolished in order to ensure the extent, sequence, technique and method of demolition proposed can be safely and efficiently carried out.

#### 1.10 SERVICES

Before commencing demolition, arrange with all utility network operators to disconnect services and remove fittings and equipment. Pay all fees and charges for this work.

### 3. EXECUTION

#### 3.1 COMPLY

Comply with the requirements and recommendations of the Occupational Safety and Health Service (OSH) publication: "Approved code of practice for demolition." Submit a written demolition plan to the requirements of clause 4.8.

#### 3.2 NOISE

Refer to NZS 6803P tables 1 and 2 for the upper limits of construction work noise in residential, commercial and industrial areas over the various time periods. Use silenced and noise insulated plant to comply with those requirements.

- 3.3      **ADJOINING PROPERTY**  
Support and protect adjoining property. Take all precautionary measures necessary to avoid damage or nuisance to adjoining properties.
- 3.4      **PROTECT**  
Protect retained parts of existing buildings, site and site structures. Carefully cut away and strip out to reduce the amount of making good. Make good any damage resulting from failure to protect.
- 3.5      **SUPPORT**  
Support and brace the existing structure during the cutting of new openings or the replacement of structural parts. Prevent debris from overloading any part of the structure. Do not remove supports until the new work is strong enough to support the existing structure. Ensure all work remains structurally stable and sound.
- 3.6      **TEMPORARY SCREENS**  
Erect approved screens wherever penetration of weather, dust and dirt needs to be prevented. Adjust screens as work proceeds.
- 3.7      **PREVENT ACCESS**  
Prevent access by unauthorised persons. Leave site and buildings safe at the close of each day's work.
- 3.8      **DANGEROUS HAZARDS**  
Illuminate and protect all holes, unsafe buildings and other hazards.
- 3.9      **FLAMMABLE OR EXPLOSIVE CONDITIONS**  
Prevent fire or explosion and arrange to alert the appropriate authority where any danger exists.
- 3.10     **EXTENT**  
Extent of the demolition work is shown on the drawings.
- 3.11     **DEMOLISH**  
Demolish buildings and structures down to the existing finished ground level. Do not remove support to adjacent properties or buildings.
- 3.12     **DIG OUT**  
Dig out foundations, footings, basements, floor slabs, paths, drains, cesspits and manholes that are part of or service the demolished building. Do not backfill the resulting voids.
- 3.13     **TREES AND SHRUBS**  
Trees and shrubs to be retained are shown on the drawings. Protect all trees and shrubs from damage throughout the course of the work.
- 3.14     **SALVAGE**  
Carefully dismantle and store safely all salvage items where directed; for removal, use on the site, or until completion of the works.
- 3.15     **REINSTATE AND MAKE GOOD**  
Reinstate and make good demolition damage to adjoining properties, existing work, services, or property.
- 3.16     **TAKE AWAY**  
Take away from the site all plant and equipment, temporary access works and demolished materials and components. Leave the site completely clean and tidy.

## **2201 PREPARATION AND GROUNDWORK**

### **1. GENERAL**

#### **1.1 DOCUMENTS**

Documents referred to in this section are:

NZS 3604                      Light timber frame buildings not requiring specific design

Occupational Safety and Health Service (OSH) publication: Approved code of practice for safety in excavation and shafts for foundations

#### **1.2 SAFE WORKING CONDITIONS**

Provide adequate support for all excavations. Cover holes and fence off open trenches and banks.

### **2. PRODUCTS**

#### **2.1 GRANULAR BASE FOR SLABS**

To conform with NZS 3604 appendix E5. Consolidate with a vibrating roller. Blind the surface with coarse sand or sand/cement and roll ready to receive a dampproof membrane.

#### **2.2 GENERAL BACKFILLING**

Obtain written confirmation from the owner before using any excavated material. Compact approved backfilling in 150mm layers with the last 200mm in clean topsoil, lightly compacted and neatly finished off.

#### **2.3 RETAINING WALLS**

Backfill behind retaining walls with free draining granular material and compact in 200mm layers. Ensure any tanking membranes, drain coil and dampproofing are not punctured.

### **3. EXECUTION**

#### **3.1 CARRY OUT**

Carry out all excavation to the guidelines set by the Occupational Safety and Health Service (OSH) publication: "Approved code of practice for safety in excavation and shafts for foundations."

#### **3.2 FIRES**

Do not light rubbish fires on site.

#### **3.3 EXISTING WORK**

Existing buildings, structures, roads, paving and services shown on the drawings to be retained.

#### **3.4 PREPARATION**

Comply with NZS 3604 - clause 3.4, Site preparation. Remove all turf, vegetation, trees, topsoil, stumps and rubbish from the area to be built on.

#### **3.5 UNDERGROUND ELEMENTS AND SERVICES**

Break out and remove old foundations, slabs, drainage pipes, manholes, tanks, cables and redundant services. Report for instructions when any unexpected voids, made-up ground or services are encountered. Seal off the ends of drains or remove to territorial authority approval.

#### **3.6 TOPSOIL**

Stockpile excavated topsoil on site where directed. Keep separate from other excavated materials. Spread and level where directed before completion of the works.

#### **3.7 SHORING AND UNDERPINNING**

Carry out shoring and underpinning shown on the drawings and as necessary to prevent subsidence of adjoining public or private property and to ensure the safety of the public and site personnel. Maintain protection throughout the progress of the works, or until foundations and subgrade structures have been completed and the stability of adjoining public and private property secured.

**3.8 GENERAL EXCAVATION**

Trim ground to required profiles, batters, falls and levels. Remove all loose material. Protect all cut faces from collapse. Keep all excavations free from water.

**3.9 ROCK EXCAVATION**

If rock is found at any level above the underside of the structural foundations, or above required base levels for site service trenches, immediately notify the owner. Obtain written instructions from the owner on the proposed approach to rock excavation, or consequent alterations to subgrade construction. Confirm any changes with the territorial authority.

**3.10 EXCAVATION FOR FOUNDATIONS**

Foundation excavations to be taken to depths shown. Keep trenches plumb and straight, bottoms level and solid, stepped as detailed and clean and free of water.

**3.11 INADEQUATE BEARING**

If bearing is inadequate then excavate further and backfill with material as follows:

Below slabs on grade: Hardfill  
Below footings: 10MPa concrete  
Service trenches: Hardfill

If excavation exceeds the required depths, backfill and compact to the correct level with material as listed.

**3.12 SURPLUS MATERIAL**

Remove all surplus and excavated material from the site.



## 3101 CONCRETE

### 1. GENERAL

#### 1.1. DOCUMENTS

Documents referred to in this section are:

NZS 3104	Concrete production - high grade and special grade
NZS 3108	Concrete production - ordinary grade
NZS 3109	Concrete construction
NZS 3114	Concrete surface finishes
NZS 3124	Concrete construction for minor works
NZS 3402	Steel bars for the reinforcement of concrete
NZS 3422	Welded fabric of drawn steel wire for concrete reinforcement
NZS 3604	Light timber frame buildings not requiring specific design

### 2. PRODUCTS

#### 2.1 REINFORCEMENT

Bars to NZS 3402. Welded reinforcing mesh to NZS 3422.

#### 2.2 VAPOUR BARRIER

0.25mm minimum polythene to NZS 3604, appendix E8.

#### 2.3 READY-MIX CONCRETE

High grade 20 MPa, maximum aggregate size 19mm to NZS 3104.

#### 2.4 SITE MIXED CONCRETE

To NZS 3124. Ordinary grade 17.5 MPa minimum strength, using either separate batching of sand and coarse aggregate to NZS 3108, or builder's mix.

#### 2.5 SITE CONCRETE

To NZS 3124. 1:8 (cement : all-in aggregate) with minimum water for workability, all materials and batching to NZS 3108.

### 3. EXECUTION

#### 3.1 FALSEWORK AND FORMWORK

Falsework and formwork to be of sufficient strength to retain and support the wet concrete to the required profiles and tolerances. Formwork finish to be selected to produce the specified finished quality. Timber or plywood used for formwork to be non-staining to the set concrete.

Securely fix and brace formwork with sufficient strength to support all loads and with joints and linings tight enough to prevent water loss. Tie wires or rods not to be used unless approved in writing by the owner. Unless detailed otherwise, all interior and exterior angles of beam and column forms to have a 19mm chamfer or fillet strip, mitred at intersections.

Water blast to clean formwork. Keep formwork wet before concrete is placed.

Unless detailed otherwise, set up soffit boxing for beams and slabs to provide a camber when forms are stripped, of 3mm rise for every 3 metres of total clear span.

#### 3.2 INSPECTION

Do not place concrete until all excavations, boxing and reinforcing have been inspected and passed by the territorial authority inspector.

#### 3.3 COMPLY

Comply with NZS 3109, section 3 for execution and construction.

- 3.4 REINFORCEMENT**  
To comply with NZS 3109. Bends to be made cold and once only. Reinforcing to be accurately placed and well secured against displacement. Do not weld reinforcement.
- 3.5 SURFACE FINISHES**  
To comply with NZS 3114, section 105, or as denoted on the drawings.
- 3.6 EXPOSED CONCRETE**  
Formwork linings and surface finishes as nominated for both fair face and concealed or exposed surfaces. Unless detailed, obtain written confirmation of the type and pattern of all joints.
- 3.7 TOLERANCES**  
To comply with NZS 3114, sections 104 and 105, with the suggested tolerances becoming the required tolerances.
- 3.8 VAPOUR BARRIER**  
Apply polythene membrane to prepared basecourse with 150mm laps; tape seal laps and penetrations. Refer to drawings for perimeter details.
- 3.9 DAMPPROOFING**  
Refer to 2301 FOUNDATIONS.
- 3.10 CASTING IN**  
Allow to build in all grounds, bolts and fixings for wall plates and bracing elements, holding down bolts, pipes, sleeves and fixings as required by all trades and as shown on the drawings, prior to pouring the concrete.
- Continuous grounds (i.e. exceeding 100mm) must not be used. Location and form of conduits to be approved in writing by the owner. Minimum cover 40mm. Bare aluminium items not to be encased in concrete. Steel embedded items not to be painted more than 25mm into the concrete encasement. Any form ties to be cut back to specified cover and the cavities filled with mortar.
- Form all pockets, chases and flashing grooves as required by all trades and as shown on the drawings.
- Wrap all pipes embedded in concrete with tape to break the bond and to allow for expansion. Pipes for conveying liquids exceeding a temperature of 50 degrees centigrade not to be embedded in concrete.
- 3.11 PUMPING CONCRETE**  
Pump operation, placing and compaction of the mix to be set up and supervised in accordance with NZS 3109. Advise the ready-mix supplier of the type of pump to be used and the slump required, in addition to the concrete grade, strength and quantity.
- 3.12 COMPACTION**  
To be achieved by the use of power operated vibrators.
- 3.13 RESIDENTIAL FLOOR SLABS**  
Construct in accordance with NZS 3604, appendix E. Lay to true and straight surfaces, screeded, floated and steel (manual or power) trowelled finish. Tolerance on flatness to be a maximum 3mm gradual deviation over a 3 metre straight-edge, to the requirements of NZS 3109.
- 3.14 CONSTRUCTION JOINTS**  
Locate and construct as shown on the drawings.
- 3.15 SAW CUTS**  
Floor slabs cast on the ground to be poured in areas not greater than 25 square metres, with a maximum ratio of length to breadth of 1:1.5  
Cut slabs where indicated on the drawings and as required to control shrinkage cracking. Cutting to be carried out as soon as possible, without causing tear-out of aggregate and before shrinkage cracking has occurred, generally within 24 hours of pouring. Where saw cuts are made, cut out

100mm of every second wire of the mesh for a length of 50mm each side of the saw cut position. Saw cuts to be 1/3rd slab depth or 30mm minimum.

**3.16 REPAIRS**

Make good surface defects immediately after forms are stripped. Make good hollows or bony areas with 1:2 mortar or plaster, finished to the same tolerances as the parent concrete. Fill any tie rod holes with 1:2 mortar.

**3.17 CURING OF CONCRETE**

Keep damp for not less than seven days. Ensure curing of slabs commences as soon as possible after final finishing, by the use of continuous water sprays, or ponding. Alternately, apply a curing membrane. Make sure any membrane used will not affect subsequent applied finishes.

**3.18 STRIKE FORMWORK**

Strike formwork without damaging or overloading structure. Do not remove formwork before the following minimum periods:

Sides of beams, walls and columns:	12 hours
Slabs in beam and slab construction: (leave props under slab spans over 2 metres)	4 days
Props from under slab spans over 2 metres:	10 days
Beams, soffits and slab spans over 5 metres:	18 days

**3.19 CLEAN OUT**

Clean out saw cuts and fill with cement grout where the floor will be covered with carpet or vinyl.

**3.20 REMOVE**

Remove all unused materials and all concrete and reinforcing debris from the site.

## 3801 CARPENTRY

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

AS 1748	Mechanically stress-graded timber
AS/NZS 1859	Reconstituted wood based panels 1859.1 Particle board
AS/NZS 2269	Plywood - structural
NZS 2295	Building papers (breather type)
NZS 3602	Specifying timber and wood-based products for use in building
NZS 3603	Timber structures standard
NZS 3604	Light timber frame buildings not requiring specific design
NZS 3606	Manufacture of glue-laminated timber
NZS 3617	Profiles of weatherboards, fascia boards and flooring
NZS 3631	NZ national timber grading rules
NZMP 3640	Minimum requirements of the NZ Timber Preservation Council Inc.
NZS 4214	Methods of determining the total thermal resistance of parts of buildings
NZS 4218	Energy efficiency - Housing and small building envelope
NZS 4222	Materials for the thermal insulation of buildings

BRANZ Bulletin 302: Preventing moisture problems in timber framed skillion roofs

BRANZ Bulletin 328: Selection and use of fasteners

BRANZ Bulletin 343: Moisture in timber

BRANZ Bulletin 357: Thermal insulation of houses

### 2. PRODUCTS

#### 2.1 BUILDING PAPER

Breather type to NZS 2295.

#### 2.2 ALUMINIUM FOIL

Aluminium sheet, kraft paper fibre reinforced laminates to NZS 4222, part 4 and fitted to NZS 4218.

#### 2.3 GLASS FIBRE INSULATION

Interleaved glass fibre quilt in block form.

#### 2.4 TIMBER FRAMING GENERALLY

Species, grade and level of treatment as set out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640. Mechanical stress grading to be acceptable as an alternative to visual grading.

#### 2.5 TIMBER FRAMING DRY, CHEMICAL FREE, MECHANICALLY STRESS GRADED

Species, grade and moisture content in service as set out in NZS 3602. Machine stress graded to AS 1748, with an average moisture content at supply of 16% or less.

#### 2.6 TIMBER FRAMING DRY, TREATED

Species, grade and moisture content in service as set out in NZS 3602. Treated H1 to NZMP 3640, with an average moisture content at supply of 16% or less. Either mechanically stress graded to AS 1748, or visual grading to NZS 3631.

#### 2.7 CEILING BATTENS

Species, grade, moisture content in service and level of treatment as set out in NZS 3602. Grading to NZS 3631 and treated to NZMP 3640.

#### 2.8 LAMINATED TIMBER

Radiata pine laminations to NZS 3606, table 1; treated as required by NZS 3602, to the requirements of NZMP 3640, with special attention to section 4 "Recommendations and advisory notes." Supply weather resistant sealed.

- 2.9 **TIMBER STRIP FLOORING**  
Dressing grade to NZS 3631, section 4.4. H1 treated to NZMP 3640. Profiles to NZS 3617.
- 2.10 **PARTICLE BOARD FLOORING**  
Flooring grade high density resin bonded to AS/NZS 1859.1.
- 2.11 **PLYWOOD**  
Structural plywood to AS/NZS 2269 for bracing, bracketing, sarking and floors.
- 2.12 **COMPRESSED FIBRE CEMENT SHEET FLOORING**  
18mm thick high density sheet of Portland cement, fine sand, cellulose fibre and water, with a smooth finish both sides.
- 2.13 **HARDWOOD SPACED BOARDING FOR EXTERIOR DECKS**  
Plantation-grown hardwood. Dressed four sides and with arrises removed. Provide a timber sample for approval prior to laying.
- 2.14 **SOFTWOOD SPACED BOARDING FOR EXTERIOR DECKS**  
Selected radiata pine, treated to H3 to NZMP 3640, sections 8.6 and 9.3. Dressed four sides and with arrises removed. Provide a timber sample for approval prior to laying.
- 2.15 **DAMPPROOF COURSE**  
2-ply/3-ply kraft felt strip saturated and coated with bitumen.
- 2.16 **NAILS**  
Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners."
- 2.17 **BOLTS AND SCREWS**  
Steel, stainless steel and galvanised steel of pattern to suit the location and to BRANZ Bulletin 328 "Selection and use of fasteners."
- 2.18 **NAIL PLATES**  
Stainless steel and/or galvanised steel toothed or nailed plates to the manufacturer's design for the particular locations as shown on the drawings.
- 2.19 **CONNECTORS**  
Galvanised steel connectors and structural brackets to the manufacturer's design for particular locations shown on drawings.
3. **EXECUTION**
- 3.1 **ATTENDANCE**  
Provide and fix blocks, nogs, openings and other items as required by other trades.
- 3.2 **MOISTURE CONTENT**  
Maximum allowable equilibrium moisture content (EMC) in accordance with BRANZ Bulletin 343 for framing supporting interior linings:

	<u>EMC</u>
1. Framing at erection	24%
2. Framing at enclosure	20%
3. Framing at lining	16%
4. Timber strip flooring (at time of laying)	10%

- 3.3 **GENERALLY**  
To NZS 3603 and 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).
- 3.4 **DIMENSIONS**  
All timber sizes are nominal sizes.
- 3.5 **SET OUT**  
Set out framing in accordance with the requirements of NZS 3604 and as required to support sheet linings and claddings.
- 3.6 **SUB-FLOOR FRAMING**  
Frame up off foundation walls and piles, all fabricated, fastened and braced to NZS 3604, sections 2.5 and 4.
- 3.7 **FLOOR FRAMING**  
Framed and fastened to NZS 3604, sections 5.1 and 5.3.
- 3.8 **WALL FRAMING**  
Frame to required loading and bracing complete with lintels, sills and nogs, all fabricated and fastened to NZS 3604, section 6.
- 3.9 **ROOF FRAMING**  
Frame to required loading and bracing complete with valley boards, ridge boards and purlins. Design and fit roof trusses complete with anchorage. All fabricated and fastened to NZS 3604, section 10.
- 3.10 **INSTALLING CEILING BATTENS**  
Fabricate and fasten in accordance with NZS 3604, section 12.
- 3.11 **INSTALLING PERFORATED FOIL FLOOR UNDERLAY**  
Lay and secure to the manufacturer's recommendations and as shown in NZS 4218.
- 3.12 **INSTALLING BUILDING PAPER DECK UNDERLAY**  
Lay and secure in accordance with BRANZ Bulletin 302 "Preventing moisture in timber framed skillion roofs."
- 3.13 **INSTALLING INSULATION**  
Lay aluminium foil insulating sheet and fit insulation, to NZS 4214, as detailed, to the manufacturer's recommendations, and to the recommendations of BRANZ Bulletin 357 "Thermal insulation of houses."
- 3.14 **LAYING TIMBER STRIP FLOORING**  
Lay, cramp and fasten to NZS 3604, section 5.2. Punch nails, then sand off with one coarse and one fine paper, hand sanding into corners.
- 3.15 **LAYING PARTICLE BOARD FLOORING**  
Lay and fasten to the manufacturer's recommendations and NZS 3604, section 5.2. Punch nails, then sand with one coarse and one fine paper, hand sanding into corners.
- 3.16 **LAYING PLYWOOD SARKING AND FLOORING**  
Lay and countersink screw fix to the manufacturer's recommendations and to NZS 3604, section 5.2.
- 3.17 **LAYING COMPRESSED FIBRE CEMENT SHEET FLOORING**  
Set out and countersink screw fix through pre-drilled holes strictly in accordance with the manufacturer's recommendations and NZS 3604, section 5.2.
- 3.18 **LAYING HARDBOARD UNDERLAY**  
Punch existing floor fixings and course sand level. Lay underlay with joints staggered, with a 1mm gap between sheets and a 2mm gap at all perimeters. Use 18mm divergent staples at 100mm centres

throughout the whole sheet and 30mm apart, 18mm in from the edges of the sheets. Punch staples below the surface and sand joins level.

**3.19 LAYING FIBRE CEMENT UNDERLAY**

Punch existing floor fixings and course sand level. Set out and fix strictly in accordance with the manufacturer's recommendations, using 25mm x 2.5mm annular-threaded underlay nails. Drive heads flush with the sheet surface.

**3.20 LAYING TIMBER SPACED BOARDING FOR EXTERIOR DECKS**

Confirm with the owner whether the grooved side of the boards are to be face up or face down. Avoid excessively short or long lengths, drill for all fixings, stagger end joints and space boards a maximum of 2mm apart. Fix using annular grooved galvanised jolt head nails, heads driven flush with the board surface.

**3.21 LEAVE**

Leave all work to the standard required by all following trades.

## 4201H JAMES HARDIE CLADDING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZS/AS 2908	Cellulose - cement products 2908.2 Flat sheets
NZS 2295	Building papers (breather type)
NZS 3604	Light timber frame buildings not requiring specific design
NZS 4214	Methods of determining the total thermal resistance of parts of buildings

BRANZ appraisal certificate 229: James Hardie wall bracing systems

BRANZ Bulletin 284: Sealed joints in exterior claddings - 2. Sealants

BRANZ Bulletin 304: Flashing design

BRANZ Bulletin 305: Domestic flashing installation

#### 1.2 JAMES HARDIE DOCUMENTS

James Hardie documents that relate to work in this section are:

- Harditex™ Technical
- Harditex™ Selling
- Harditex™ Premium Selling
- Harditex™ BRANZ appraisal certificate 243
- Hardibacker® Technical
- Hardibacker® BRANZ appraisal certificate 240
- Hardiflex® Technical
- Hardiflex® Selling
- Hardiflex® BRANZ appraisal certificate 242
- James Hardie Weatherboards Technical
- James Hardie Weatherboards Selling
- James Hardie Weatherboards BRANZ appraisal certificate 241
- James Hardie Soffits Technical
- James Hardie Soffits Selling
- BRANZ Appraisal Certificate 229: James Hardie wall bracing systems

Copies of the above literature are available by phoning the James Hardie Helpline on 0800 808 868.

### 2. PRODUCTS

#### 2.1 UNDERLAY

Breather type flame retardant lightweight paper to NZS 2295.

#### 2.2 GENERALLY

James Hardie fibre cement sheets to comply with NZS/AS 2908.2.

#### 2.5 HARDITEX™ FLUSH CLADDING SYSTEM

Treated cellulose fibre in a matrix of cement and sand autoclaved sheet, with rebated joints both sides and one edge, oxide tinted pink.

#### 2.6 HARDIFLEX® SOFFIT PANELS

Treated cellulose fibre in a matrix of cement and sand autoclaved sheet with an unsanded finish.

#### 2.7 SCREWS FOR TIMBER

For timber framing, countersunk Phillips-head stainless steel screws.



- 2.8 **SCREWS FOR SOFFIT LININGS**  
Villadrive® wood screws, 6 gauge x 30mm and 6 gauge x 25mm for steel.
- 2.9 **FASTENINGS FOR SOFFIT LININGS**  
Fastfix white nylon fasteners.
- 2.10 **HARDIFLEX®, HARDITEX™, HARDIBACKER® NAILS GALVANISED**  
Galvanised 40mm x 2.8mm flathead minimum head diameter 6.8mm. Refer to relevant James Hardie technical literature.
- 2.11 **HARDIFLEX®, HARDITEX™, HARDIBACKER® NAILS STAINLESS STEEL**  
316 stainless steel 40mm x 2.8mm flathead minimum head diameter 6.8mm. Refer to relevant James Hardie technical literature.
- 2.12 **SOFFIT JOINTERS, CAPPING MOULDS, SCOTIA MOULDS**  
Extruded PVC. Refer to relevant James Hardie technical literature.
- 2.13 **PANEL JOINTERS**  
Extruded PVC to suit the selected panel texture. Refer to relevant James Hardie technical literature.
- 2.14 **SEALING STRIPS**  
Butynol rubber and/or compressible sealing strips. Refer to relevant James Hardie technical literature.
- 2.15 **SUBSTRATE BOARD SECTIONS**  
PVC base mould, control joint mould, spacer angles and horizontal flashings. Refer to relevant James Hardie technical literature.
- 2.16 **SEALANT**  
Silicone or polyurethane sealant. Refer to relevant James Hardie technical literature.
- 2.17 **TIMBER FASCIAS AND BARGE BOARDS**  
Dressing grade to NZS 3631 and H3 treated to NZMP 3640. Finger-jointed timber to AS/NZS 1491.
3. **EXECUTION**
- 3.1 **MOISTURE CONTENT**  
Maximum allowable equilibrium moisture content (EMC) of framing at enclosure 24%.
- 3.2 **GENERALLY**  
To NZS 3604 except as varied in this specification. Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).
- 3.3 **FIX PAPERS**  
Fix breather type building paper to NZS 4214, as detailed. Refer also to relevant James Hardie technical literature.
- 3.4 **STORING JAMES HARDIE PRODUCTS**  
Take delivery of sheets dry and undamaged in pallets and stack vertically or lay horizontally on a smooth level surface. Protect edges and corners from damage and cover to keep dry until fixed.
- 3.5 **HANDLING JAMES HARDIE PRODUCTS**  
Avoid distortion and contact with potentially damaging surfaces. Do not drag sheets across each other, or across other materials. Protect edges, corners and surface finish from damage.
- 3.6 **SUBSTRATE JAMES HARDIE PRODUCTS**  
Do not commence work until the substrate is of the standard required by relevant James Hardie technical literature for the specified finish; plumb, level and in true alignment. Moisture content of

timber framing to comply with NZS 3602 moisture content maximums, to minimise shrinkage and movement after sheets are fixed.

- 3.7        **THERMAL BRIDGING JAMES HARDIE PRODUCTS**  
Install thermal bridging to steel framing, strictly in accordance with relevant James Hardie technical literature.
  
- 3.8        **INSTALLING JAMES HARDIE PRODUCTS**  
To be strictly in accordance with relevant James Hardie technical literature. Refer to the JAMES HARDIE DOCUMENTS clause. Retain current copies of all relevant James Hardie publications on site and ensure that all installers are familiar with requirements for preparation, fixing and finishing James Hardie cladding products and accessories.
  
- 3.9        **BRACING SYSTEM JAMES HARDIE PRODUCTS**  
Fix sheets in accordance with relevant James Hardie technical literature and BRANZ appraisal certificate 229.
  
- 3.10      **INSTALL HARDITEX™ FLUSH CLADDING SYSTEM**  
Cut sheets dry, form holes and work sheets to relevant James Hardie technical literature. Cover framing with building paper to NZS 3604. Fit butynol rubber sealing strips behind joints before scribe fitting and nailing sheets to all framing. Fit control joints at 5.4 metre maximum centres to limit flush areas to 25 m<sup>2</sup> and vertical structural expansion joints at 14.4 metre centres. Finalise location and form of control and expansion joints on site before commencing cladding work.
  
- 3.11      **INSTALL HARDIFLEX® SOFFIT PANELS**  
Cut sheets dry and scribe fit to fully support all edges and joints. Nail and drill for and insert PVC fasteners. Fit complete with colour matched jointers and capping moulds. Refer to relevant James Hardie technical literature.
  
- 3.12      **INSTALL EXTERIOR TIMBER FINISHINGS**  
Fix timber fascias, barge boards, facings, beads, trim and enclosures level, true to line and face, with all end grain sealed and joints mitred.
  
- 3.13      **FIX FLASHINGS**  
Fix flashings, covers and soakers as detailed and to BRANZ Bulletins 304 "Flashing design" and 305 "Domestic flashing installation."
  
- 3.14      **USE OF SEALANTS**  
Selection and use of sealants to follow BRANZ Bulletin 284 "Sealed joints in external claddings - 2. Sealants."
  
- 3.15      **LEAVE**  
Leave all work to the standard required by all following trades.

## 4301 ROOFING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	E2/AS1	External moisture I.O Roofs
NZS/AS 1397		Steel sheet and strip - hot-dipped, zinc-coated, or aluminium/zinc-coated
NZS 2295		Building papers, (breather type)
NZS 3403		Hot-dipped galvanised corrugated steel sheet for building purposes
NZS 3602		Timber and wood-base products for use in building
NZS 3604		Light timber frame buildings not requiring specific design
NZMP 3640		Minimum requirements of the NZ Timber Preservation Council
NZS 4206		Concrete interlocking roofing tiles
NZS 4217		Pressed metal tile roofs
NZS 4222		Materials for the thermal insulation of buildings

BRANZ Bulletin 284: Sealed joints in external claddings - 2. Sealants

New Zealand Metal Roofing and Cladding Manufacturers' Association Inc: Profiled metal roofing design and installation handbook

#### 1.2 ROOFER QUALIFICATION

Carry out all roofing work using experienced, competent roofers familiar with the materials and techniques specified.

#### 1.2 WIND AND EARTHQUAKE LOADINGS

Use fixings and methods capable of sustaining the loads appropriate to the area as set out in NZS 3604, table 2.3.

#### 1.4 COORDINATE

Coordinate to ensure substrate and preparatory work is complete and other work programmed in the order required for access and completion of the roof.

### 2. PRODUCTS

#### 2.1 TILE BATTENS

Douglas fir, or No 1 framing radiata pine to NZS 3602. Size to NZS 3604, table 10.8. Treated to NZMP 3640, group A, hazard class H1.

#### 2.2 BUILDING PAPER

Breather type kraft paper laminates to NZS 2295.

#### 2.3 UNDERLAY SUPPORT

50mm hexagon mesh of 1mm diameter galvanised steel wire in 900mm (minimum) width sheets.

#### 2.4 METAL ROOFING TILES

Pressed steel sheet galvanised to NZS 3403, aluminium-zinc coated to NZS/AS 1397. Accessories, cappings, flashings, and fixings to match and to the manufacturer's recommendations.

### 3. EXECUTION

#### 3.1 STACK ROOFING

Stack roofing and accessories on clean, level areas of the site and protect from damage and from weather until ready to fix in place.

- 3.2        **SET OUT**  
Set out the planned layout before fixing commences, to ensure true lines and the correct relationship to module, grid and roof features.
- 3.3        **LAY ROOF UNDERLAY**  
Lay and fix to NZBC acceptable solution E2/AS1, NZS 3604, section 11.2 and the manufacturer's recommendations.
- 3.4        **LAY ROOFING, GENERALLY**  
Take care to avoid damaging pre-finished roofing both during and after fixing. Wear only soft-soled shoes on the finished surface.
- 3.5        **FIX THE TILE BATTENS**  
Fix the tile battens to the roofing manufacturer's recommendations and with all joints fully supported and staggered.
- 3.6        **CUT METAL TILES**  
Cut with recommended tools, fold ends and seal cut edges of tiles and accessories without damaging their integrity or finish, all to the manufacturer's recommendations.
- 3.7        **LAP METAL TILES**  
Lap metal tiles and fix complete with all matching accessories, flashed to all roof features and penetrations; all to the manufacturer's recommendations and NZS 4217.
- 3.8        **FIX COVERS AND FLASHINGS**  
To comply with NZBC acceptable solution E2/AS1, 1.0. Install and fixed as detailed and to the roofing manufacturer's details.
- 3.9        **PENETRATIONS**  
Flash and overflash all penetrations through the roof.
- 3.10       **USE OF SEALANTS**  
Selection and use of sealants to follow BRANZ Bulletin 284 "Sealed joints in external claddings - 2. Sealants."
- 3.11       **LEAVE**  
Leave the work complete with all flashings, undercloaks, valleys, ridges and hips properly installed so the finished roof is completely weathertight.
- 3.12       **CLEAR**  
Clear all trade rubbish and unused materials from the roof and surrounds regularly during the work and at completion. Sweep down the completed roof and flush out all spoutings, gutters and rainwater pipes, ensuring that metal filings, metal scraps and loose fixings are removed.
- 3.13       **REPLACE**  
Replace damaged or marked elements. Remove unused materials from the site.

## **4501     TIMBER WINDOWS AND DOORS**

### **1.        GENERAL**

#### **1.1       DOCUMENTS**

Documents referred to in this section are:

NZS 3602	Timber and wood-based products for use in building
NZS 3610	Profiles of mouldings and joinery
NZS 3619	Timber windows
NZS 4211	Performance of windows

### **2.        PRODUCTS**

#### **2.1       TIMBER SELECTIONS**

To NZS 3602.

#### **2.2       EXTERNAL WINDOW FACINGS AND SCRIBERS**

To NZS 3610 or as detailed.

#### **2.3       ARCHITRAVES**

To NZS 3610 or as detailed.

#### **2.4       EXTERIOR DOORS**

Solid timber framed, panelled and/or bead glazed.

#### **2.5       GLAZED DOORS**

Solid timber framed and bead glazed.

#### **2.6       DOOR HINGES**

Door hinges to be butt hinges. Galvanised steel, or stainless steel fixed pin for exterior use. Bright steel, chrome plate, stainless steel, zinc plated, or Florentine bronze, loose pin for interior use. Select to suit adjoining finish. Size and gauge to carry door size and weight. 3 hinges per door.

#### **2.7       SLIDING DOOR GEAR**

To suit door size and weight and as detailed.

#### **2.8       FOLDING DOOR GEAR**

Bi-fold pattern to suit size and weight of doors and as detailed.

#### **2.9       FLASHINGS**

Galvanised steel, powder coated galvanised steel, powder coated aluminium-zinc coated steel, or aluminium flashings as detailed.

### **3.        EXECUTION**

#### **3.1       CONFIRM**

Confirm all framing openings on site for dimension, plumb and straightness prior to fabrication or ordering of timber joinery.

#### **3.2       GENERALLY**

Execution to include those methods, practices and processes contained in the unit standards for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

- 3.3 **EXTERNAL DOOR AND WINDOW FRAMES AND SASHES**  
Profiles to NZS 3610 and fabrication to NZS 3619, or as detailed; and to conform with the performance requirements of NZS 4211. Jamb, head and sill liners as detailed. Wedge and rigidly fix in place without distortion, plumb, and true to line and face, complete with tray and cap flashings and with all doors and sashes operating freely. Fit hardware.
- 3.4 **INTERNAL JOINERY FRAMES**  
Fabricate as detailed. Wedge and rigidly fix in place without distortion, plumb, and true to line and face.
- 3.5 **INTERNAL DOOR FRAMES, SOLID REBATED**  
Fabricate as detailed. Hang doors to operate freely on hinges, sliding, or bi-fold gear and to the manufacturer's recommendations. Fit hardware.
- 3.6 **INTERNAL DOOR LINERS**  
Heads and jambs finished 20mm, with 10mm planted stops, finished to match width of lined walls. Hang doors on hinges, sliding, or bi-fold gear to the manufacturer's recommendations and to operate freely. Fit hardware.
- 3.7 **INTERNAL DOOR LINERS, EXTENDED**  
Heads and jambs finished 20mm, with 10mm planted stops and rebated for wall linings. Hang doors on hinges, sliding and bi-fold gear to the manufacturer's recommendations and to operate freely. Fit hardware.
- 3.8 **CHECK**  
Check and adjust operation of all doors sets, hardware and furniture.
- 3.8 **ON COMPLETION**  
On completion remove any temporary protection and leave ready for following work.



## 5101 LINING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZMP 9	Fire properties of building materials and elements of structure
AS/NZS 1859	Reconstituted wood-based panels
	1859.1 Particle board
	1859.2 Medium density fibreboard (MDF)
AS/NZS 2269	Plywood - structural
AS 2458	Hardboard
NZS/AS 2908	Cellulose-cement products
	2908.2 Flat sheets
NZS 3602	Timber and wood-based products for use in buildings
NZS 3604	Light timber frame buildings not requiring specific design
NZS 3610	Profiles of mouldings and joinery
NZS 3612	Interior plywood
NZS 4221	Fibrous plaster sheet
NZS 7607	Plastics - Decorative laminated sheets based on thermo-setting resins:
	Part 1: Specification
	Part 2: Determination of properties

Interior Systems Association: Levels of finish

New Zealand Fibrous Plaster Association: Code of recommended practice for the application and fixing of fibrous plaster

BRANZ Bulletin 328: Selection and use of fasteners

BRANZ Bulletin 343: Moisture in timber

#### 1.2 MOISTURE CONTENT

Maximum allowable equilibrium moisture content (EMC) in accordance with BRANZ Bulletin 343 for:

1.	Framing at lining (timber-based)	<u>EMC</u> 24%
2.	Framing at lining (plasterboard/fibrous)	16%

#### 1.4 PROTECT

Protect all joinery, fittings and finishes already in place from water staining or damage from lining installation. Immediately make good any damage.

#### 1.5 BUILDING

Building to be weatherproof before lining work commences.

### 2. PRODUCTS

#### Plasterboard

#### 2.1 PLASTERBOARD

Gypsum plaster core encased in a durable face and backing paper formed for: standard use, bracing use, water resistance, and for fire rated use as approved by the fire ratings committee of Standards New Zealand for inclusion in NZMP 9.

Refer to the drawings and/or the finishing schedule for the location of standard, water resistant, bracing, special ceiling, fire rated, sound rated panels.

- 2.2 **EXTERNAL ANGLE**  
Slim type 0.5mm galvanised steel.
- 2.3 **CASING BEAD**  
Slim type 0.5mm galvanised steel or PVC.
- 2.4 **NAILS**  
Galvanised clouts 40mm x 2.5mm.
- 2.5 **SCREWS**  
40 x 6 gauge zinc electro-plated bugle head gypsum drywall screws.
- 2.6 **JOINTING**  
Compound and paper tape to the board manufacturer's recommendations.
- 2.7 **ADHESIVE**  
Multi-purpose water based wallboard adhesive.
- 3. **EXECUTION**
  - 3.1 **SUBSTRATE**  
To NZS 3604, sections 6, 9, 11 and the standard required by the manufacturer's recommendations. Starting work implies acceptance the substrate will allow work of the required standard.
  - 3.2 **LEVELS OF FINISH**  
Before commencing work, confirm the surface finish assessment procedures necessary to ensure the specified levels of finish will be obtained.  
  
**Plasterboard**
    - 3.3 **LEVELS OF FINISH**  
Provide levels of finish to standards laid down by the Interior Systems Association document "Levels of finish," as follows:  
  
      - Level 3: surfaces receiving heavy to medium texture finishes
      - Level 4: surfaces receiving light texture or wall covering finishes
      - Level 5: surfaces receiving thin coating finishes.
    - 3.4 **LINE CEILINGS**  
Line ceilings with plasterboard sheets, fastened to the manufacturer's recommendations.
    - 3.5 **LINE WALLS**  
Line walls that are up to 2400mm high by the horizontal method and walls above 2400mm high by the vertical method, with plasterboard sheets, fastened to the manufacturer's recommendations.
    - 3.6 **LINE WET AREA WALLS**  
Line wet area walls with water resistant plasterboard sheets using adhesive and nail fixing to studs at centres to suit the surface finish and to the manufacturer's details.
    - 3.7 **FORM BRACING PANELS AND SYSTEMS**  
Form using high density plasterboard sheets fixed with clout-washers and clouts to the manufacturer's details. For panels strap substrate and for systems diagonal brace to NZS 3604, appendices K.4 and K.2.
    - 3.8 **FIX EXTERNAL ANGLES**  
Fix full length to all external corners with clouts at 100mm each side staggered.

**3.9 FILL JOINTS**

Fill joint recess with bedding compound, centre the paper tape, apply second coat of bedding compound followed by a coat of finishing compound; allow to dry and lightly sand off, all to the manufacturer's recommendations.

**3.10 STOPPING**

Fill nail holes and flush up external angles with two successive coats of bedding compound followed by a coat of finishing compound, allow to dry and lightly sand off, all to the manufacturer's recommendations.

**Sundry Items****3.11 CEILING ACCESS**

Trim out ceiling to form 600mm x 500mm square clear opening. Fit finished 40mm x 12mm timber facings to perimeter, set to support a lift-out panel of the ceiling material.

**3.12 INSTALL TRIM**

Scribe and fit facings to exterior joinery, architraves to interior joinery, skirtings to all walls and timber bead cornices as detailed and shown.

**3.13 CLEAN ALL**

Clean all adjoining surfaces and fittings of spots, marks, dust and droppings.

**3.14 LEAVE**

Leave all work to the standard required by all following trades.

## 5501 JOINERY FITTINGS

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	D1/AS1	Access routes 4.0 Stairways
AS/NZS 1859	Reconstituted wood based panels 1859.2 medium density fibreboard (MDF)	
NZS 3602	Timber and wood-based products for use in buildings	

### 2. PRODUCTS

#### 2.1 MDF BACKING BOARD

Medium density fine wood fibreboard sheet 6mm maximum thickness, to AS/NZS 1859.2.

#### 2.2 PRE-FINISHED MDF BACKING BOARD

Medium density fine wood fibreboard sheet 6mm maximum thickness, to AS/NZS 1859.2.

#### 2.3 SOLID TIMBER COMPONENTS

Selection to NZS 3602.

#### 2.4 CARCASE

Melamine urea formaldehyde resin bonded medium density wood particle board sheet to AS/NZS 1859.2.

#### 2.5 PRE-FINISHED CARCASE

Melamine urea formaldehyde resin bonded, medium density, wood particle board sheet to AS/NZS 1859.2, or urea formaldehyde resin bonded, medium density, fine wood fibreboard sheet to AS/NZS 1859.2, veneered both sides, with decorative sheet impregnated with melamine resin.

#### 2.6 CUPBOARD DOORS, PRE-FINISHED

Melamine urea formaldehyde resin bonded, medium density, wood particle board sheet to AS/NZS 1859.2, or urea formaldehyde resin bonded, medium density, fine wood fibreboard sheet to AS/NZS 1859.2, veneered both sides, with decorative sheet impregnated with melamine resin.

#### 2.7 CUPBOARD DOORS, WOOD VENEER

Medium density wood fibreboard to AS/NZS 1859.2, veneered with selected species wood veneer.

#### 2.8 DRAWER FRONTS

As for CUPBOARD DOORS.

#### 2.9 SHELVING

As for PRE-FINISHED CARCASE, supported on chrome plated adjustable shelf studs.

#### 2.10 JOINERY FITTINGS, COMPONENTRY

Carcase connectors to be one piece steel straight deep cut thread, fibreboard screws with press fit plastic trim cap. Carcase fasteners to be knocked down type centric sphere zinc alloy connectors with connecting bolts, sleeves and dowels to suit each particular fastening location.

#### 2.11 HARDWARE

Drawer runners, handles, metal and plastic connectors, shelf supports, rails and sundry fittings, all as shown and described on the drawings. Allow to fit.

### 3. EXECUTION

#### 3.1 GENERALLY

Execution to include those methods, practices and processes contained in the current syllabus for the National Certificate in Carpentry and the National Certificate in Joinery (cabinetry, exterior joinery, stairs).

#### 3.2 ALL JOINERY FITTINGS

Check site dimensions. Carry out machining within the practices recommended for the particular timber, wood product or pre-finished wood product being used. Machine drill and cut all holes and recesses and form all joints to the componentry manufacturer's recommendations. All work to be accurate, square and true to line and face.

#### 3.3 FABRICATE JOINERY FITTINGS

Carry out glueing, dowelling and all other operations necessary for the proper assembly of the fittings as detailed with all fixings concealed unless otherwise detailed. Scribe fit adjustable shelves with 4 shelf pins and locate force fit pin holes at 50mm maximum centres in solid cheeks. Construct drawers as detailed, using proprietary metal section drawer runners. Fit drawers with 3mm clearance into the drawer space.

Hang doors on concealed hinges.

Use glue joints where provision for shrinkage is not required, with contact surfaces, glueing and pressure all applied to the glue manufacturer's recommendations.

Locate and drive connectors and connecting bolts to the manufacturer's recommendations. Scribe fit on site - level, square, plumb and true to line and face.

#### 3.4 FABRICATE TIMBER STAIRS

To comply with NZBC acceptable solution D1/AS1, 4.0. closed type, unless detailed otherwise. Ex 250mm x 50mm strings, with ex 50mm treads housed into ex 25mm risers. House and wedge treads and risers 15mm into strings, all glued, wedged and blocked. Form nosing overhangs of 25mm by splaying risers forward to finish flush with the front of the treads. Fabricate and install the handrails and balustrading as detailed, complete with all associated metal componentry and hardware.

#### 3.5 WARDROBES AND COAT CUPBOARDS

Fit out with 300mm wide melamine faced board shelf, on ex 25mm scotia bead to back and ends. All exposed edges clashed to match. Fit the selected coat rail to the front edge of the shelf.

#### 3.6 STORAGE CUPBOARDS

Fit out with 5 full depth melamine faced board shelves on ex 25mm scotia beads along back and ends. All exposed edges clashed to match. Shelf heights as shown on the drawings.

#### 3.7 HOT WATER CUPBOARDS

Fit out with 2 full depth 20mm x 70mm timber slat shelves on ex 25mm scotia bead along ends. Confirm the height of the hot water cylinder before installing the shelves.

#### 3.8 LEAVE

Leave all work to the standard required by all following trades.

## **6501 CARPETING**

### **1. GENERAL**

#### **1.1 DOCUMENTS**

Documents referred to in this section are:

AS/NZS 2455      Textile floor coverings - installation practice  
2455: 1 General

#### **1.2 LAYER QUALIFICATION**

All work in this section to be by competent, experienced layers, familiar with the materials and techniques specified.

### **2. PRODUCTS**

#### **2.1 NEEDED UNDERLAY**

Slab felt of matted jute or other approved fibre.

#### **2.2 FOAM UNDERLAY**

Slab foam plastic.

#### **2.3 RUBBER UNDERLAY**

High resilience foam rubber slab, heavy crepe.

#### **2.4 RUBBER UNDERLAY, DOUBLE DIRECT STICK**

High resilience foam rubber slab, heavy crepe, kraft paper topped and hessian backed.

#### **2.5 CARPET**

Provide 300mm x 300mm minimum size samples of each carpet for the owner's approval of colour, design and quality.

#### **2.6 EDGE GRIPPER**

Plywood batten with plated toothed metal strip on top, prenailed type for timber substrate and adhesive type for concrete.

#### **2.7 UNDERLAY JOINTING TAPE**

Single-sided, self-adhesive cloth strip.

#### **2.8 UNDERLAY FIXING TAPE**

Double-sided, self-adhesive cloth strip.

#### **2.9 HEAT-BOND TAPE**

Double-stick method carpet tape.

#### **2.10 TRIM AND FIXING BARS**

Aluminium section of the type recommended by the manufacturer of the carpet being laid.

#### **2.11 BINDER BARS**

Anodised aluminium section with a fluted face.

#### **2.12 CARPET-TO-CARPET BARS**

Anodised aluminium section with fluted face. Fix with matching roundhead counter-sunk screws.

#### **2.13 ADHESIVE PRIMER**

Compatible with and approved by the direct stick or double - direct stick adhesive manufacturer.

#### **2.14 ACRYLIC ADHESIVE**

Water dispersed non-flammable acrylic based.



- 2.15 **LATEX ADHESIVE**  
Water based non-flammable natural rubber latex based.
- 2.16 **SOLVENT ADHESIVE**  
Sprayable contact polychloroprene based.
- 2.17 **ADHESIVE, DOUBLE DIRECT STICK**  
Underlay to substrate: water dispersed, non-flammable, acrylic based, pressure sensitive.  
Carpet to underlay: water based, non-flammable, natural rubber latex.
- 2.18 **CONTACT ADHESIVE**  
For carpet joins on underlay use trowel applied polychloroprene rubber.
3. **EXECUTION**
- 3.1 **COMPLY**  
Comply with the requirements of AS/NZS 2455.1 including preparation of and procedures over the various substrates.
- 3.2 **INSPECTION**  
Before starting work inspect the substrate to ensure it will allow work of the required standard and that all fittings and fixtures around which the carpet is to be scribed, are in place.
- 3.3 **PROTECTION**  
Protect adjoining work surfaces and finishes during installation and make good any damage to same.
- 3.4 **ALL TAPE**  
All tape for binding and seaming to be the type and width recommended by the carpet manufacturer to suit the specified carpet and the standard of performance required.
- 3.5 **LAYOUT**  
Plan the carpet layout so that:
- seams run lengthways
  - traffic runs along the seam
  - light from windows is not across the seam
  - pile faces away from the main natural light source.
- 3.6 **TEMPERATURE**  
Acclimatise carpet to a room temperature above 15 degrees centigrade through the whole of the installation.
- 3.7 **HANDLE AND STORE**  
Keep carpet dry and protected from damage, sharp bending or folding.
- 3.8 **PREPARE NEW TIMBER OR PARTICLE BOARD FLOOR**  
To be level, sanded smooth and dry with all loose material and dust removed. For direct stick applications, seal the floor to the manufacturer's recommendations.
- 3.9 **PREPARE EXISTING TIMBER OR PARTICLE BOARD FLOOR**  
Remove all existing coverings including adhesives, waxes and paints. Check for soundness and nail down loose panels or boards. Sand smooth and remove all loose material and dust. For direct stick applications seal the floor to the manufacturer's recommendations.
- 3.10 **PREPARE NEW CONCRETE FLOOR**  
To be level, smooth, clean, cured and dried to a relative humidity not exceeding 65% and with all loose material and dust removed. For direct stick applications turn off drying aids for not less than 4 days, then test for relative humidity using an approved hygrometer. Take readings in all corners, along edges, and at various points over the whole area. Do not lay material until all readings show 65% relative humidity or less.

- 3.11 **PREPARE EXISTING CONCRETE FLOOR**  
Remove all existing coverings completely including adhesives and paints. Patch cracks and depressions with a compatible latex patching compound to the manufacturer's recommendations. Seal large areas of patching. Leave surface level, smooth and clean with all loose material and dust removed. Seal powdery surfaces for direct stick applications.
- 3.12 **LAY NEEDLED UNDERLAY**  
Fix grippers to the manufacturer's recommendations and lay underlay at right angles to the main carpet seams with no cross seams coinciding. Hand sew or staple along the entire length of all seams.
- 3.13 **LAY FOAM AND RUBBER UNDERLAY**  
Fix grippers to the manufacturer's recommendations and lay underlay at right angles to the main carpet seams with no cross seams coinciding. Join with masking tape along the entire length of all seams. Spot tack with adhesive in larger areas or stick seams to the floor.
- 3.14 **LAY RUBBER UNDERLAY, DOUBLE DIRECT STICK**  
Apply adhesive to the manufacturer's recommendations and lay underlay at right angles to the main carpet seams with no cross seams coinciding and with all joints and edges tightly butted and the underlay completely bonded to the substrate.
- 3.15 **LAY STAIR UNDERLAY**  
Cut underlay into pads to cover the tread and riser and width of stair carpet less 50mm. Fix to the tread and riser to prevent movement and wrinkling.
- 3.16 **SEAMING AND JOINING**  
Carry out carpet seaming and jointing to ensure:
- joints will not break down under traffic use or when stretched
  - pattern matching and a consistent pile lay
  - pile in seams lined up straight and flat and not caught down
  - seams flat
  - straight seams with diagonals and designs aligned.
- 3.17 **SEWING**  
Latex seal raw edges to prevent pile loss. Stretch to even tension. With 18 gauge thread sew to 20 stitches per 100mm. Latex and tape all cross joints after sewing.
- 3.18 **TAPING**  
Latex seal raw edges to prevent pile loss. Tape seams and cross seams to the manufacturer's recommended systems. Ensure adhesive is at full strength before stretching the carpet.
- 3.19 **TAPING, HEAT BOND**  
Protect carpet edges with a heat shield attachment on the iron. Heat the tape at a rate which ensures a complete melt without overheating, all to the manufacturer's recommended system. Ensure the adhesive is at full strength before stretching the carpet.
- 3.20 **STRETCHING**  
Install the carpet flat and taut so that movement does not cause rucking. Use a power stretcher to ensure maximum tension between walls, with knee kickers used only to assist. Apply force by correct pin adjustment to the carpet base only, to avoid damage to pile and underlay. Tension foam back carpet without stretching. Stretch woven carpet warp at least 1% and weft at least 0.2%. Stretch tufted carpet at least 1% in each direction.
- 3.21 **DIRECT STICK INSTALLATION**  
Apply adhesive evenly over the entire substrate surface to the manufacturer's recommendations and lay the carpet with all edges, selvages and joins tightly butted and all completely bonded to the floor surface. Roll the carpet with a clean 25kg roller and ensure complete contact with adhesive.
- 3.22 **DOUBLE DIRECT STICK INSTALLATION**

Refer to the EXECUTION requirements for RUBBER UNDERLAY, DOUBLE DIRECT STICK, then apply adhesive on the underlay to the manufacturer's recommendations and lay the carpet with all edges, selvages and joins tightly butted and all completely bonded to the underlay surface.

3.23 **FIT STAIR NOSINGS**

Provide and fit stair nosings as detailed and to the manufacturer's recommendations.

3.24 **FIX TRIMS**

Fix binder bars, carpet to carpet bars, and trims to all junctions with other materials and to carpet edges, all to the manufacturer's recommendations. Ensure that all junctions with other materials are neatly formed, with bars and trims securely fastened to the substrate, 20mm from each end and at maximum 100mm centres

3.25 **TAKE AWAY**

Take away from the site all plant and all materials not used, leaving finished floor clean and without blemish.

3.26 **INITIAL CLEAN**

On completion of the flooring installation thoroughly vacuum the finished carpet and arrange for inspection by the owner.

## 6601 PAINTING AND PAPERHANGING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZS 7703 The painting of buildings

Health and Safety in Employment Act 1992

#### 1.2 PAINTER QUALIFICATION

All work to be carried out by competent and experienced painters and paperhangers.

#### 1.3 HEALTH AND SAFETY

Refer to the requirements of the Health and Safety in Employment Act 1992 and if elimination or isolation are not possible, then minimise the hazards in this work.

Refer to NZS 7703 for the recommended procedures and precautions when:

1. Treating or removing lead based paint.
2. Burning off paint.
3. Sanding off paint.
4. Using solvent based paint removers.

### 2. PRODUCTS

#### 2.1 PAINT TYPES

To NZS 7703 for exterior and/or interior primers, undercoats, sealers, stains, clear coatings, solvent-borne and water-borne paints.

#### 2.2 GAP FILLERS

Gap fillers to be linseed oil, putty, plastic wood, wood filler or plastic filler, to suit and to match the surface being prepared.

### 3. EXECUTION

#### 3.1 INSPECT

Inspect all surfaces to be painted and report to the owner any that will not, after the preparatory work laid down in NZS 7703, allow work of the required standard. Confirm that all areas have adequate lighting and are sufficiently free of other construction activities to enable painting and/or paperhanging work to proceed.

#### 3.2 COVER UP

Cover up all adjoining surfaces and areas liable to damage or over-painting.

#### 3.3 REMOVE ALL HARDWARE

Remove all hardware liable to damage or over-painting and replace on completion.

#### 3.4 WHERE NECESSARY

Where necessary to prime or seal surfaces before or while other materials are being built in, arrange with those concerned to inform the painter when this work is required.

#### 3.5 CONFIRM SELECTIONS

Confirm all selections, colours and finishes for both paint and wallpaper with the owner, before commencing work.

#### 3.6 EXTERIOR PAINTING SYSTEMS

To the manufacturer's recommendations and NZS 7703.

- 3.7 **INTERIOR PAINTING SYSTEMS**  
To the manufacturer's recommendations and NZS 7703.
- 3.8 **CARRY OUT**  
Carry out all work within acceptable temperature and humidity limits, and with all timber dry and in the equilibrium moisture content range required by NZS 7703.
- 3.9 **PREPARE SURFACES**  
Prepare surfaces to be coated by making good all damage and defects. Gap filler to be linseed oil putty, plastic wood, wood filler or plaster filler as appropriate to the surface and to the paint manufacturer's recommendations.
- 3.10 **APPLY PAINT**  
Apply paint by brush and/or roller to suit the location of the coating to NZS 7703, clause 6.7. Do not spray on site without express permission.
- 3.11 **REFER TO**  
Refer to the paint manufacturers' manuals and follow their preparation, sequence and application recommendations applying to each system. Correct defective work immediately, with recoating to follow the systems recommendation.  
  
All paint coats in any system to be supplied by the same manufacturer.
- 3.12 **SCUFF BETWEEN ALL COATS**  
Scuff between all coats to remove any dust pick-up, protruding fibres and coarse particles.
- 3.13 **ALL FINISHED PAINT SURFACES**  
All finished paint surfaces to show uniformity of gloss and colour, to have the correct thickness for each coat, and freedom from painting defects such as tackiness and conspicuous brush marks. Finished work to be clean and free of any disfigurement.
- 3.14 **CONFIRM WALLPAPER**  
Confirm that all rolls of each pattern are from the same batch.
- 3.15 **WALLPAPER INSTALLATION**  
Seal or size walls. All drops to be full-length, completely glued, pattern matched and hung vertically without bubbles or visible butt joints. Scribe cut paper 2mm onto surrounding trim.
- 3.16 **CLEAN ALL**  
Clean all adjoining surfaces, glass and fittings of any paint contamination.
- 3.17 **REPLACE ALL**  
Replace all hardware without damage to the hardware or the adjoining surfaces.
- 3.18 **TAKE AWAY**  
Take away from the site all unused painting materials and equipment.

**7101 WATER****1. GENERAL****1.1 DOCUMENTS**

Documents referred to in this section are:

NZBC	G12/AS1	Water supplies
NZS 4602	Low pressure copper thermal storage electric water heaters	
NZS 4603	Installation of low pressure thermal storage electric water heaters	with
	copper cylinders (open-vented systems)	
NZS 4606	Storage water heaters	
	Part 3: Specific requirements for water heaters with composite shells	
NZS 4607	Installation of thermal storage electric water heaters: valve-vented	systems
CSA B137-8	Polybutylene (PB) piping for hot and cold water distribution systems.	

Plumbers, Gasfitters and Drainlayers Act 1976

**1.2 ALL WORK**

All work covering water supply to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

**2. PRODUCTS****2.1 WATER MAIN ALKATHENE**

High density alkathene 32mm OD (minimum 25mm internal diameter) pipe to minimum 1200 kPa (170 psi) complete with rubber ring compression type fittings.

**2.2 POLYBUTYLENE WATER PIPE**

Polybutylene tubing to CSA B137-8 complete with fittings and accessories brand-matched.

**2.3 GATE VALVES**

De-zincified brass with screwed ends.

**2.4 ELECTRIC HOT WATER CYLINDER, MAINS PRESSURE**

A grade to NZS 4606, part 3 ceramic-coated steel thermal storage cylinder, insulated and complete with fittings recommended for installation by the manufacturer.

**2.5 GAS HOT WATER HEATER, STORAGE TYPE**

Insulated cylinder with an integral gas burner and flue.

**2.6 GAS HOT WATER HEATER, CONTINUOUS FLOW TYPE**

Continuous flow unit with an integral gas burner and flue.

**3. EXECUTION****3.1 AVOID**

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

**3.2 GENERALLY**

Generally carry out the whole of this work and tests to NZBC acceptable solution G12/AS1.

**3.3 EXCAVATE**

Excavate for the water main to a firm, even trench base in straight runs. Allow to backfill.

**3.4 LAY WATER MAIN**

Lay a minimum of 450mm below ground level from the utility network operator's supply through a gate valve and meter to by box to the building.



- 3.5 **INSTALL COPPER WATER SUPPLY**  
Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes in straight runs, firmly fixed to falls, with long radius bends and jointed by brazing or with cross fittings, all to NZBC acceptable solution G12/AS1. Conceal all piping, insulate all hot water piping and pressure test before the wall linings are fixed.
- 3.6 **INSTALL POLYBUTYLENE WATER SUPPLY**  
Size the piping layout to eliminate loss of pressure at any point by simultaneous draw-off. Run pipes complete with all fittings and jointed to the manufacturer's specifications, all to NZBC acceptable solution G12/AS1. Conceal all piping and pressure test before the wall linings are fixed.
- 3.7 **INSTALL GAS HOT WATER HEATER, STORAGE TYPE**  
Install where shown complete with all the necessary fittings to the manufacturer's recommendations and in accordance with NZBC acceptable solution G12/AS1 4.10. Complete flue installation in accordance with the manufacturer's details and recommendations.
- 3.8 **FINISH TO EXPOSED PIPES**  
Chrome plate on copper or white polybutylene or PVC including back nuts. At wall penetrations provide and fit collars to match pipe finish.
- 3.9 **INSTALL TAPS AND FAUCETS**  
Install all taps and faucets strictly in accordance with the tap manufacturer's recommendations. Flush out on completion and check that washers or discs are operating correctly.
- 3.10 **LEAVE**  
Leave all water services in proper working order. Pressure test to ensure no leakage and leave all in proper working order.
- 3.11 **CLEAN UP**  
Clean all tapsets and fittings. Remove all unused materials from the site.

## 7401 RAINWATER PLUMBING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZS/AS 1397      Steel sheet and strip - hot-dipped, zinc-coated or  
aluminium/zinc-coated

BRANZ Bulletin 304: Flashing design.

BRANZ Bulletin 305: Domestic flashing installation.

### 2. PRODUCTS

#### UPVC

#### 2.1 UPVC SPOUTING

Profile, jointing, brackets and fittings brand matched and complete to the manufacturer's specifications.

#### 2.2 UPVC DOWNPIPES

Tubes, stand-off brackets and fittings brand matched and complete to the manufacturers specifications.

#### General

#### 2.3 RAINWATER HEADS, DROPPERS, OVERFLOWS

Fabricate and install as detailed.

#### 2.4 FLASHINGS GENERALLY

0.6mm sheet steel galvanised to NZS/AS 1397, aluminium-zinc coated to NZS/AS 1397, 1.8mm (20kg/m<sup>2</sup>) copperised pure lead, 0.5mm copper sheet and 0.7mm aluminium sheet, all to location, compatibility and design requirements of BRANZ Bulletin 304 "Flashing design."

### 3. EXECUTION

#### 3.1 AVOID

Avoid electrolytic action by eliminating contact or continuity of water between dissimilar metals.

#### 3.2 CHECK

Check compatibility of all metals used for rainwater goods, against the materials used for roofing and flashings. Notify any incompatibility to the owner and obtain written approval for amendments to selections and then submit to the territorial authority for their approval.

#### UPVC

#### 3.3 FIT UPVC SPOUTING

Fit and screw fix brackets, set to falls to outlets. Solvent welded or rubber ring jointed spouting section to be complete with all fittings to the manufacturer's recommendations.

#### 3.4 FIX UPVC DOWNPIPES

Screw fix stand-off brackets, set pipes plumb and clear of the wall, solvent welded. Discharge into stormwater bends.

#### General

#### 3.5 INSTALL FLASHINGS

Scribe fit, fold, lap, seam, or run solder as required by the metal, to flash all roof penetrations, roofing and exterior joinery to prevent weather penetration. Allow for 2 rows of rivets to all overlapping

sheet joints. Install and fix flashings and flashing joints to the criteria stated in BRANZ Bulletins 304 "Flashing design" and 305 "Domestic flashing installation."

3.6 LIAISON

Liaise with all associated trades to ensure material selections are compatible and all required flashing work is completed.

3.7 LEAVE

Leave all rainwater services in proper working order and all flashing work completed to keep the building weathertight.

3.8 CLEAN UP

Take away from the site all unused materials and components.

## 7402 SANITARY PLUMBING

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	G1/AS1	Personal hygiene 2.0 Fixture construction and installation 3.0 Location of sanitary fixtures
NZBC AS/NZS 3500 NZS 7641	G13/AS1	Foul water - sanitary plumbing National plumbing code Unplasticized PVC waste and ventilating pipe, fittings and accessories, 32mm, 40mm and 50mm
Plumbers, Gasfitters and Drainlayers Act 1976		

#### 1.2 ALL WORK

All work covering waste disposal and plumbing fittings to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

### 2. PRODUCTS

#### 2.1 COPPER WASTE, SOIL AND VENT PIPES

#### 2.2 UPVC WASTE, SOIL AND VENT PIPES

UPVC pipe to NZS 7641 complete with fittings brand-matched to the manufacturer's specifications.

### 3. EXECUTION

#### 3.1 CARRY OUT

Carry out the whole of this work and tests to AS/NZS 3500 or NZBC acceptable solutions G1/AS1, 2.0, 3.0 and G13/AS1.

#### 3.2 AVOID

Avoid electrolytic action by eliminating actual contact or continuity of water between dissimilar metals.

#### 3.3 INSTALL SANITARY FIXTURES

Fit and install all sanitary fittings and associated screens, components and hardware, plumb, true to line and rigid, all to the manufacturer's recommendations. Standard chrome plated wastes and plastic plugs on chrome plated chains to be supplied with all basins, tubs and baths.

#### 3.4 INSTALL TRAPS, WASTE AND VENT PIPES

Connect waste outlets to traps and run waste pipes and back vents concealed, all sized and fixed to AS/NZS 3500 or NZBC acceptable solution G13/AS1. Discharge wastes into the drainage system stack, soil pipe, or gully trap as shown. Bird proof mesh to all roof vents and vermin proof mesh to all untrapped waste pipes.

#### 3.5 FINISH TO EXPOSED PIPES

Chrome plate on copper, or white UPVC including back nuts. At all wall penetrations provide and fit collars to match pipework.

#### 3.6 INSTALL SUNDRY HARDWARE

install all sundry hardware and fittings as selected.

#### 3.7 TEST

Test all soil and waste disposal systems to ensure no leakage exists and leave all in working order.

#### 3.8 CLEAN UP

Remove labels and clean all fittings. Remove all unused materials from the site.

## 7403 DRAINAGE

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

NZBC	B1/AS1	Structure - general
		6.0 Drains
NZBC	E1/AS1	Surface water
NZBC	G13/AS2	Foul Water - drainage
NZS 3108		Concrete production, ordinary grade
NZS 3402		Steel bars for the reinforcement of concrete
AS/NZS 3500		National plumbing and drainage code
NZS 7643		Installation of Unplasticized PVC pipe systems
NZS 7649		Unplasticized PVC sewer and drain pipe and fittings

Plumbers, Gasfitters and Drainlayers Act 1976

#### 1.2 SUPPLY

Supply a 1:100 scale as-built plan of drains and fittings to the territorial authority and to the owner on completion.

#### 1.3 ALL WORK

All work to be carried out by or under the direct supervision of a person registered under the Plumbers, Gasfitters and Drainlayers Act 1976.

### 2. PRODUCTS

#### 2.1 FILL

Scoria or rock of general all-passing 40 grading to NZBC acceptable solution G13/AS2, 8.0.

#### 2.2 CONCRETE

17.5 MPa and 20 MPa ordinary grade to NZS 3108.

#### 2.3 REINFORCEMENT

To NZS 3402 Grade 300 deformed bars.

#### 2.4 UPVC PIPES

UPVC pipes bends, junctions, fittings and joints to NZS 7649.

#### 2.5 PLASTIC PIPING

Plastic piping for field drains perforated and coiled with filter fabric over.

#### 2.6 GULLY TRAPS

To NZBC acceptable solution G13/AS2, 3.2, complete with grating.

#### 2.7 SURFACE WATER SUMP GRATINGS

Cast iron frame with lift-up grating.

#### 2.8 INSPECTION COVERS

Cast iron frame with screw-down cover.

### 3. EXECUTION

#### 3.1 EXCAVATE

Excavate for drains to a firm even base with correct gradients set in straight runs.

- 3.2 **DRAINAGE LINES GENERALLY**  
All to the pipe manufacturer's recommendations.
- 3.3 **CARRY OUT**  
Carry out drainage work and tests to AS/NZS 3500 and NZS 7643, all as modified by NZBC acceptable solution B1/AS1, 6.0.
- 3.4 **LAY FOUL WATER DRAINS**  
Lay drains in straight runs to correct gradients, to discharge into the network utility operators sewer. Set all inspection fittings on a concrete base.
- 3.5 **INSTALL GULLY TRAPS**  
Set on concrete brought up to protect the top of the fitting. Trowel off.
- 3.6 **LAY STORMWATER DRAINS**  
Confirm the required location of all downpipes and all finished ground levels before commencing pipework. Set downpipe bends in concrete brought up to protect the top of the fitting from damage. Trowel off and fit a cast iron grating. Lay drains in straight runs to correct gradients to discharge into the network utility operator's stormwater system.
- 3.7 **LAY SUBSOIL DRAINS**  
Lay perforated coil piping firmly in a granular bed in straight runs to correct gradients, discharging into a cesspit. Carry the granular bed up over the pipes without disturbing them, to a total depth of 300mm and cover with geotextile fabric; all to the pipe manufacturer's recommendations.
- 3.8 **INSTALL SURFACE WATER SUMP**  
To NZBC acceptable solution E1/AS1 standard, complete with ceramic half-siphon pipe and cast iron frame with a lift out grating.
- 3.9 **INSTALL STORMWATER INSPECTION CHAMBERS**  
To NZBC acceptable solution E1/AS1 standard, with channels to form a cascade and with a 75mm fall across the chamber. Bench from channels at 45 degrees and plaster all the interior with 1:2 cement: sand mortar, trowelled smooth. Fit a cast iron cover and frame.
- 3.10 **INSTALL FOUL WATER INSPECTION CHAMBERS**  
To NZBC acceptable solution G13/AS2 standard, with ceramic channels to form a cascade and with a 75mm fall across the chamber. Bench from channels at 45 degrees and plaster all the interior with 1:2 cement: sand mortar, trowelled smooth. Fit a cast iron cover and frame.
- 3.11 **SOAKHOLES OR TRENCHES**  
Dispose of stormwater on site as shown on the drawings, by soakage, to suit local geology and soil structure; all as directed by the territorial authority.
- 3.12 **CONCRETE ENCASE**  
Concrete encase shallow drains and drains under driveways, on a 100mm deep 17.5 MPa concrete bed reinforced with three 10mm mild steel bars. Surround pipes with a polythene membrane to allow movement and encase in 100mm 17.5 MPa concrete.
- 3.13 **FIELD TEST**  
Field test drains for watertightness (UPVC to NZS 7643 section 11) to the satisfaction of the territorial authority inspector.
- 3.14 **BACKFILL**  
Backfill drain lines in 150mm layers, well tamped but without disturbing the drains. Finish off with 150mm of topsoil, slightly mounded above the finished ground line.



## 7701 ELECTRICAL

### 1. GENERAL

#### 1.1 DOCUMENTS

Documents referred to in this section are:

AS/NZS 3194      Electric shaver supply units  
NZS 6401          PVC-insulated cables for electric power and lighting

Electricity Regulations 1997

#### 1.2 COMPLY

Comply with the Electricity Regulations 1997 for listed and prescribed work and with the utility network operator's requirements. Apply for the service connection. Arrange for the required inspections of listed work. Pay all fees.

#### 1.3 ALL WORK

All work to be carried out by or under the direct supervision of a holder of a practising certificate under the Electricity Regulations 1997.

#### 1.4 CERTIFICATE OF COMPLIANCE

Carry out the prescribed electrical work, test and complete a certificate of compliance, as required by the Electricity Regulations 1997, and in particular, clauses 16, 34 and 35. Allow the network utility operator to view before the meter installation, listed work inspection, polarity check and livening of supply. Supply the certificate to the owner.

### 2. PRODUCTS

#### 2.1 MAINS UNDERGROUND, SINGLE PHASE

Tough plastic sheathed neutral screened cable to NZS 6401 with a minimum rating of 60 amps per phase.

#### 2.2 CABLES

Tough plastic sheathed copper conductors to NZS 6401.

Lighting circuits	1.5mm <sup>2</sup> on 10amp MCB's
Power circuits (domestic)	1.5mm <sup>2</sup> on 16amp MCB's
Power circuits (domestic - insulated construction)	2.5mm <sup>2</sup> on 16amp MCB's
Power circuits (commercial)	2.5mm <sup>2</sup> on 20amp MCB's

#### 2.3 METER BOX

Rust protected metal case ( glass panel door), all powder coated and complete with meter mounting, main switch and fuse.

#### 2.4 DISTRIBUTION BOARD

Complete with neutral and earth busbars, MCB's and 60 amp main switch, complete with removable insulated panel. Include 2 spare MCB's labelled as "spare." All protective devices to be 6kA MCB's of the appropriate rating.

#### 2.5 WALL BOXES

Standard size in plastic, with 2 or more gang size in metal, all screw fixed.

#### 2.6 SWITCH UNITS

16 amp, 230 volt flush polycarbonate units. For number of switches per unit, dimmer units, neon (indicator or toggle) units, locator units and 2-way units refer to the electrical drawings.

#### 2.7 HOT WATER SYSTEM SWITCH

One way 20 amp switch complete with clamp for flexible PVC tubing.

- 2.8 **SWITCHED SOCKET UNITS**  
10 amp, 230 volt flush polycarbonate 3 pin combined switch units. For the number of single and double socket units and inbuilt earth leakage socket units refer to the drawings.
- 2.9 **SHAVER AND EARTH LEAKAGE PROTECTED SOCKET OUTLETS**  
Earth leakage protected 110/230 volt multiple plug configuration and residual current protected socket outlets, tripping at 30 mA.
- 2.10 **SHAVER AND TRANSFORMER PROTECTED SOCKET OUTLETS**  
Isolating transformer protected units to AS/NZS 3194.
- 2.11 **CEILING ROSES**  
White plastic mounting base with screwed cover and to be terminal type.
- 2.12 **BATTEN HOLDERS**  
Standard white plastic with angled cap and brass liners.
- 2.13 **BELL SYSTEM**  
Supply a bell transformer as part of the distribution board.
- 2.14 **TV AERIAL**  
Selected aerial, co-axial cable and outlets, suitable for both VHF and UHF reception.
- 3. EXECUTION**
- 3.1 **LAY MAINS**  
Lay underground mains to the network utility operator's requirements. Allow for trench excavation and backfill.
- 3.2 **FIT METER BOX**  
Fit to the manufacturer's recommendations, level and plumb where shown on the plan. Recess into the external wall; flash to weatherproof.
- 3.3 **FIT DISTRIBUTION BOARD**  
Fit to the manufacturer's recommendations, level and plumb where shown on the plan. Recess into the wall. All labelling to be complete and include a warning notice if light dimmers are used in the installation.
- 3.4 **INSTALL CABLING**  
Design layout with a maximum of 8 light outlet units or 4 switched socket units on any circuit. Separate circuits for all electric heating appliances. All cabling to be run concealed. No TPS cable to be laid directly in concrete and all holes in timber framing for the passage of cables to be at the centre line of the timber member.
- 3.5 **FIT SWITCH AND SOCKET UNITS**  
Fit all single and double switch units and socket units level and plumb where shown on the drawings. Install at the following heights (to the centre of the unit) unless shown otherwise on the electrical drawings.
- |                |                          |
|----------------|--------------------------|
| Switch Units : | 1000mm                   |
| Socket Units : | 150mm above work benches |
|                | 400mm elsewhere          |
- Label all switch units which control electrical equipment by engraving on the rocker switch.
- 3.6 **INSTALL LIGHT FITTINGS**  
Install selected light fittings in the locations and heights shown on the drawings and in accordance with the manufacturer's recommendations.

- 3.7        **INSTALL EMERGENCY AND EXIT LIGHT FITTINGS**  
Install selected fittings in the locations and heights shown on the drawings and in accordance with the manufacturer's recommendations.
- 3.8        **ELECTRIC HOT WATER SYSTEM**  
Wire as a separate circuit through a wall-mounted isolating switch, with the cable from switch to element encased in flexible PVC hose, clamp fixed at each end. Hot water cylinders, thermostats and 3000 watt element supplied and fitted under 7101 WATER.
- 3.9        **WIRE FOR PLUMBING FITTINGS**  
Wire for all fittings to the Electricity Regulations 1997 and to the manufacturer's recommendations.
- 3.10       **TELEPHONE WIRING**  
Wire for the telephone outlets shown on the electrical drawings.
- 3.11       **TELEPHONE DRAW WIRES**  
Supply draw wires for the telephone outlets shown on the drawings.
- 3.12       **FIT TV AERIAL**  
Fit aerial, run cabling concealed below the roof and fit outlets where shown on the electrical drawings.
- 3.13       **INSTALL ELECTRIC POWERED FITTINGS AND EQUIPMENT**  
Provide, install and wire all selected fittings and equipment to the Electricity Regulations and the manufacturer's recommendations. Refer to the drawings for required layouts and locations for equipment.
- 3.14       **ELECTRIC POWER FOR SITEWORKS**  
Provide circuits and connections for site installations, including 12 volt path lighting and electronic irrigation systems. Refer to the drawings for required connection points. High current capacity wiring to be used for all 12 volt system wiring.
- 3.15       **EARTHING**  
Provide a plastic toby box or UPVC tube to contain and protect the earth pin. Fix the connecting earth wiring closely and securely against wall surfaces.
- 3.16       **LABELLING**  
Provide and install a printed label under each controller, switch and circuit breaker on all distribution boards. List the rating of each circuit.
- 3.17       **COMPLETION**  
Leave all work operating correctly, with all equipment clean and all light bulbs and tubes operational.

# DESIGNSCAPE

298 ROSETTA ROAD RAUMATI

20 July 1999

Mr D Saxton  
14 Allan Road  
Raumati

Dear Sir,

## RE : FOUNDATIONS FOR ADDITIONS

As requested I have inspected and determined the suitability of the foundations to your dwelling to take another storey.

### INSPECTION

---

The inspection consisted of visual plus soil test.

The dwelling was visually inspected for any deterioration from settlement, which would show up in foundation, and in particular the brick veneer.

The soil tests taken were adjacent to the garage foundation, outside the wheel line of the drive, to ascertain the existing foundation. I also took a test at the rear for deck post design.

### RESULTS

---

The visual inspection revealed some spalling to the front right hand corner above the garage door. This spalling is plaster, and of no concern to foundation movement. The balance of the foundation and brickwork show no sign of failure.

The penetrometer test in front of the garage shows bearing pressure of 48kpa to 150mm down, then firming to 100 kpa. The foundation depth would be assumed at 300 deep minimum, and I believe founded on solid 100 kpa material.

The test at the rear was pushed to 1000mm then test was 1 blow per 50mm to 1500mm. This equates to 48 kpa.

The final inspection was visual inside the garage and old water tank. This concrete walls show no sign of failure. The loading is taken on the floor joists to a stringer bolted to the exterior wall.

### RECOMMENDATIONS

---

The existing foundation is suitable for the additional storey. I have calculated the

July 20, 1999

loading with the extra storey at 42.3 kpa assuming a base width of 500mm. If the lowest value of soil bearing pressure was used, it would give a factor of safety of 1.14. It is likely that the foundation is actually bearing on 100 kpa soil, the FOS would then be 2.35. (calculations attached)

The decking beam has been calculated and required is 200 x 50. The foundation based on achieving 48kpa will need to be 400 mm diameter hole. The depth of this hole should be taken down to 2.5m concreted in with 2 x D12 rods to 1300mm deep, then post installed and concreted in.

The stringer in the garage exterior wall is unsuitable for the additional storey, this will be strengthened by the addition of 100 x 50 studs on their flat, chemset to wall under the stringer at 600 centres. Chemset anchors will be three per stud.

Attached are the calculation and penetrometer result sheets.

Yours faithfully,



Allan Pullenger  
Rea, TM Ipenz

job number 1389

# DESIGNSCAPE

298 rosetta road  
telephone 04 299 9999

allan pullenger  
rea tm.ipenz

**Mr and Mrs Saxton**  
**LINTELS AND BEAMS**

**Job 1389**

**DATE**

**20/07/99**

<b>BEAM NUMBER</b>	<i>Deck beam</i>
--------------------	------------------

## LOADING

Span	L =	2	m
Load width		1.3	2.6 m
Load LL + DL		3.00	kpa
Load per metre	W =	3.9	kn/m

## BENDING MOMENT

BM = $WL^2/8$	M =	1.95	knm
---------------	-----	------	-----

## BEAM SIZE

Depth	D =	0.2	m
Width	W :	0.05	m

## STRESS

Fw = $MY / I$	Y	0.1	m
$I = BD^3/12$	I =	3.33E-05	m <sup>4</sup>
	Fw	5850	kpa

## DEFLECTION

E	8000000	
Deflection is $5WL^4/384EI$	0.0030	m
Allowable L/360	0.0056	m

## REACTION

End Reaction is $L \times W / 2$	3.90	KN
Footing size required using soil bearing pressure of	48	Kpa
Area with 1.5 FOS	0.122	m <sup>2</sup>
Use footing size of 349 mm		

<b>BEAM NUMBER</b>	<i>Foundation loading</i>
--------------------	---------------------------

## LOADING

Garage Floor	0.5	1 m
--------------	-----	-----

Load LL + DL	2.00	kpa
First Floor	2.1	4.2 m
Load LL + DL	2.00	kpa
Second Floor	2.1	4.2 m
Load LL + DL	2.00	kpa
Roof	2	4 m
Load LL + DL	1.25	kpa
Concrete wall	8.64	kn
Brick	0.60	kn
Load per metre	<b>21.14</b>	kn/m
Foundation width (assumed)	0.5	m
Loading	42.28	kpa
Soil bearing pressure minimum	48	kpa
FOS	1.14	

Note that foundation is probably in 100 kpa soil depth and fos would be 2.35



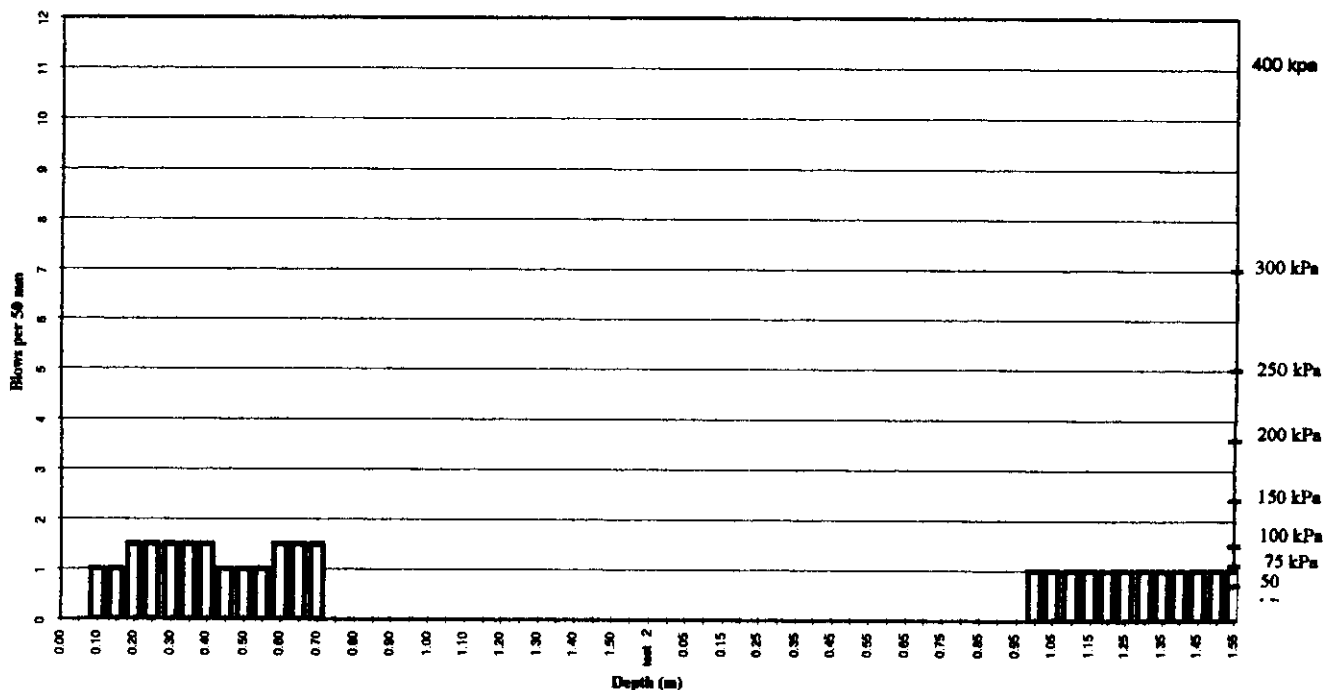
## PENETROMETER CHART

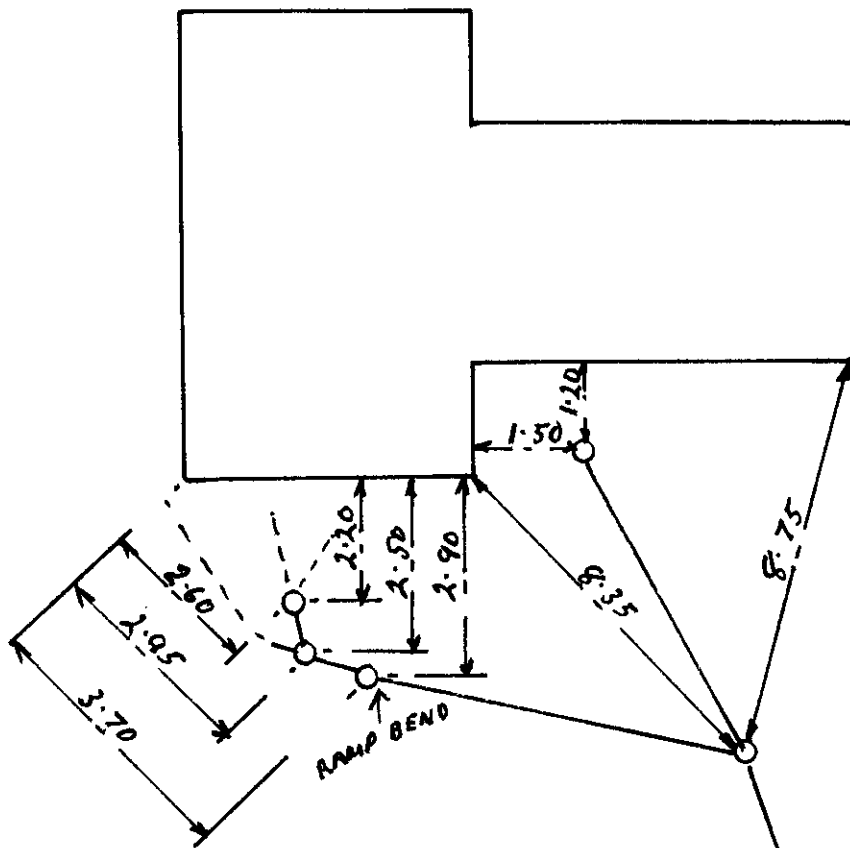
project: saxton alterations  
job no: 1389  
date: july 1999

Penetrometrist: allan pullenger  
Reading-Depth: 1.55  
Location: 14 Allan Road

TEST 1			TEST 2		
depth	reading	blows/50mm	depth	reading	blows/50mm
0.00	1.55	0	0.00	1.55	0
0.05	1.60	0	0.05	1.60	0
0.10	1.65	1	0.10	1.65	0
0.15	1.70	1	0.15	1.70	0
0.20	1.75	1.5	0.20	1.75	0
0.25	1.80	1.5	0.25	1.80	0
0.30	1.85	1.5	0.30	1.85	0
0.35	1.90	1.5	0.35	1.90	0
0.40	1.95	1.5	0.40	1.95	0
0.45	2.00	1	0.45	2.00	0
0.50	2.05	1	0.50	2.05	0
0.55	2.10	1	0.55	2.10	0
0.60	2.15	1.5	0.60	2.15	0
0.65	2.20	1.5	0.65	2.20	0
0.70	2.25	1.5	0.70	2.25	0
0.75	2.30	0	0.75	2.30	0
0.80	2.35	0	0.80	2.35	0
0.85	2.40	0	0.85	2.40	0
0.90	2.45	0	0.90	2.45	0
0.95	2.50	0	0.95	2.50	0
1.00	2.55	0	1.00	2.55	1
1.05	2.60	0	1.05	2.60	1
1.10	2.65	0	1.10	2.65	1
1.15	2.70	0	1.15	2.70	1
1.20	2.75	0	1.20	2.75	1
1.25	2.80	0	1.25	2.80	1
1.30	2.85	0	1.30	2.85	1
1.35	2.90	0	1.35	2.90	1
1.40	2.95	0	1.40	2.95	1
1.45	3.00	0	1.45	3.00	1
1.50	3.05	0	1.50	3.05	1
1.55	3.10	0	1.55	3.10	1

test 2

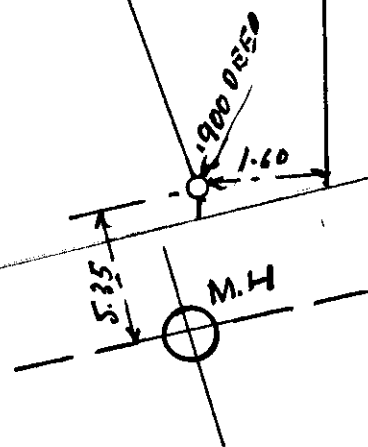




100 $\phi$  P.V.C. IN SAND

TESTED 25- 8- 87

*[Handwritten signature]*



14 ALLEN RD.

D MARSH DRAINLAYER.

# HUTT COUNTY COUNCIL

Valuation No. 301.165

Date Received: 11. 5 - 64  
increased 25 - 5 - 64

## Application for Building Permit

To: The Building Inspector,  
P.O. Box 8012,  
WELLINGTON.

175 K

I (the undersigned), Cam Alexander AITKEN (Full Name)  
of Alexander Rd Raumati Beach (Address)

ERECT  
ADD  
ALTER  
REINSTATE

hereby make application for permission to DWELLING  
with a floor area of \_\_\_\_\_ sq. ft. as prescribed herein and set out in the plans and specifications attached hereto, in premises at:

No. 14 ALLEN RD Street or Road RAUMATI BEACH Township

Lot No. 84 DP. CT. 545/169 14034 Riding

The owner of the premises is P. T. WICKHAM (Name)

ABOVE ADDRESS (Address)

Previous owner

If Section  
has been  
recently  
transferred

Estimated value of: Building only \_\_\_\_\_

£ 4300 : - -

Plumbing and Drainage \_\_\_\_\_

£ 300 : - -

Total

£ 4600 : - -

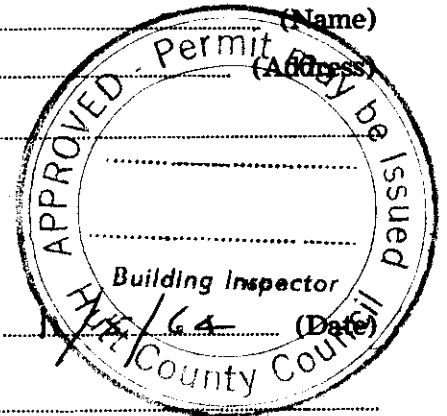
Signature of Applicant

*[Signature]*

(As Builder  
or Owner)

Builder's Name and Address:

If not  
the  
applicant



### FOR OFFICE USE ONLY

Receipt No. 32710 Road Deposit No. \_\_\_\_\_ A/c. No. 4351

#### Fees:

Building Permit \_\_\_\_\_ £ 16 : 10 : 0

Kerb Crossing \_\_\_\_\_ £ : :

Road Deposit \_\_\_\_\_ £ : :

£ 16 : 10 : 0

Date 26.5.64

Permit No. 85805

Date Issued 5-6-64

TOWN PLANNING DISTRICT \_\_\_\_\_  
Conforms / Non-Conforming.

Operative  
Undisclosed

Checked by District Engineer.

*[Signature]*

(Date)

12-5-64

(Initials)

Remarks:

Driveway to basement garage is not satisfactory - too steep (Grade 1 in 3 1/2) - dangerous having to back out on to road - either lower basement to give good access or have separate garage at road level

order 25/5/64  
*[Signature]*

# KAPITI BOROUGH COUNCIL

## APPLICATION FOR WATER SUPPLY AND CONNECTION PERMIT

The Borough Engineer  
Private Bag  
PARAPARAUMU



I, VIVIAN ANN HARLEN (full name)  
PLEASE PRINT  
14 ALLEN ROAD RAUMATI BEACH (postal address)

hereby apply for an "ORDINARY" service to be laid from the Kapiti Borough Water Supply to the premises owned by me at:

(PROPERTY Address in full, if different from above) 14 ALLEN ROAD RAUMATI BEACH

Lot 84 DP 14034 1528-155.00

### Fees Payable (on application)

Inspection \$ 25  
Connection \$ 100  
Total \$ 125

Note: All dwelling units to pay full inspection fees.

The connection fee to be divided equally between dwelling units situated on the same lot sharing a common lateral.

Harlen  
Owners Signature

14-3-83  
Date

### THIS PART TO BE COMPLETED BY PLUMBER

I, TREVOR BEATTIE (full name)  
of \_\_\_\_\_ (address)

being a Licensed Craftsman Plumber apply for permission to connect the above premises to the Kapiti Borough Water Supply. I agree to comply in every respect with the Kapiti Borough Water Supply By-laws. N.B. Connection NOT permitted until permit obtained.

(Signature) \_\_\_\_\_ (Craftsman Licence No.) \_\_\_\_\_ (Date) \_\_\_\_\_

1. Existing Water Supply Save To be retained/dismantled \_\_\_\_\_  
2. Pressure: high/low \_\_\_\_\_ "Header Tank"/Pressure Reducing Valve \_\_\_\_\_  
3. H/W Cylinder Type L/P Exhaust Pipe/Pressure Relief Valve \_\_\_\_\_  
4. Approximate Age of Water Piping 25 Copper/PVC/Alkathene \_\_\_\_\_  
5. If premises have swimming pool what capacity N/A Filter plant Yes/No \_\_\_\_\_  
6. State precisely how it is proposed to make the new connection: \_\_\_\_\_

### OFFICE USE ONLY

Permit No. <u>4677</u>	Job Inspected <u>B.P.P.</u>	Building Register Entry
Date Issued	Connection Recored <u>17/3/83</u>	<b>MAR148 9995 A- 0.125.00 T</b>

## SCALE OF FEES

For the examination of plans and specifications of any building and for the inspection of such building the following fees shall be payable according to the estimated value of the work.

ESTIMATED VALUE OF WORK								Fees	
								£	s. d.
Not exceeding £10	.....	.....	.....	.....	.....	.....	.....	0	5 0
Over £10 and not exceeding £100	.....	.....	.....	.....	.....	.....	.....	0	10 0
" £100	"	"	"	"	"	"	"	1	0 0
" £200	"	"	"	"	"	"	"	1	10 0
" £300	"	"	"	"	"	"	"	2	0 0
" £400	"	"	"	"	"	"	"	2	10 0
" £500	"	"	"	"	"	"	"	3	0 0
" £600	"	"	"	"	"	"	"	3	10 0
" £700	"	"	"	"	"	"	"	4	0 0
" £800	"	"	"	"	"	"	"	4	10 0
" £900	"	"	"	"	"	"	"	5	0 0
" £1,000	"	"	"	"	"	"	"	6	0 0
" £1,250	"	"	"	"	"	"	"	7	0 0
" £1,500	"	"	"	"	"	"	"	8	0 0
" £1,750	"	"	"	"	"	"	"	9	0 0
" £2,000	"	"	"	"	"	"	"	10	10 0
" £2,500	"	"	"	"	"	"	"	12	0 0
" £3,000	"	"	"	"	"	"	"	13	10 0
" £3,500	"	"	"	"	"	"	"	15	0 0
" £4,000	"	"	"	"	"	"	"	16	10 0
" £4,500	"	"	"	"	"	"	"	18	0 0
" £5,000	"	"	"	"	"	"	"	20	0 0
" £6,000	"	"	"	"	"	"	"	22	0 0
" £7,000	"	"	"	"	"	"	"	24	0 0
" £8,000	"	"	"	"	"	"	"	26	0 0
" £9,000	"	"	"	"	"	"	"	28	0 0
" £10,000	"	"	"	"	"	"	"	32	0 0
" £12,500	"	"	"	"	"	"	"	36	0 0
" £15,000	"	"	"	"	"	"	"	40	0 0
" £17,500	"	"	"	"	"	"	"	44	0 0
" £20,000	"	"	"	"	"	"	"	49	0 0
" £25,000	"	"	"	"	"	"	"	54	0 0
" £30,000	"	"	"	"	"	"	"	59	0 0
" £35,000	"	"	"	"	"	"	"	64	0 0
" £40,000	"	"	"	"	"	"	"	69	0 0
" £45,000	"	"	"	"	"	"	"	74	0 0
" £50,000	"	"	"	"	"	"	"	79	0 0
" £60,000	"	"	"	"	"	"	"	84	0 0
" £70,000	"	"	"	"	"	"	"	89	0 0
" £80,000	"	"	"	"	"	"	"	94	0 0
" £90,000	"	"	"	"	"	"	"	99	0 0
Exceeding £100,000	.....	.....	.....	.....	.....	.....	.....	100	0 0

### FEES PAYABLE FOR SPECIAL DUTIES

For inspection required in the case of proposed structural alterations before plans are submitted for approval	0 10 0
For inspecting every detached stove, furnace, oven, close fire or forge erected subsequently to the building	0 5 0
For inspecting old timber before reusing the same in a new building	0 15 0
For any inspection that may be deemed necessary in connection with any building or work in respect of which no fee has otherwise been paid	0 2 6

## Hutt County Council

PERMIT NO. 64468

LOCALITY ..... *Hanmer* .....

DATE RECEIVED *22: 9: 49*

DATE ISSUED *28: 9: 49*

# Application For Building Permit

OWNER'S NAME ..... *G. K. Ross* .....

FOR OFFICE USE ONLY.

REMARKS:

*30/165*

*OK  
SRT*

NOTE.—

- Where the foundations of any building are above or below road level, the position of the intended structure must be approved by the County Overseer before building operations commence.
- Buildings must not be erected within Five feet of adjoining properties.

# Application for Building Permit

TO THE BUILDING INSPECTOR,  
Hutt County Council,  
Bowen Street,  
Wellington.

Postal Address: Hutt County Council,  
P.O. Box 12,  
Government Buildings,  
Wellington.

I, the undersigned do hereby apply for a PERMIT to erect BUILDINGS in accordance with the undermentioned particulars in Kapiti RIDING.

1. Nature of Buildings: New Garage  
Dwellings etc.; new, additions or alterations

Materials New  
(State if new or second hand and where from)

2. Allotment: Lot: 84 D.P.: 14034 Pt. Sections 3 and 4

Area: 32.4 a.s. Block: I. Pakenham S.D. Nearest Township: Pakenham

3. Owner's Name G. K. Ross

Address +5 Pansley Rd. Karori W.3.

4. Previous Owner Howell Estate  
If Section has been recently transferred

5. Frontage (Length) 66'9" Name of Street or Road Allen Road

6. Estimated Value of Building (excluding Sanitary Fittings) £ 70 : — : —

7. Fees (100) £ — : 10 : — No. of Receipt: 351  
See Scale of Fees on Back Page

All work will be carried out in accordance with Hutt County Council's By-laws.

NOTE:—The following MUST accompany this Application:—

- (a) Ground Plans of Proposed Work:
- (b) Front Elevation:
- (c) Sections: Cross and Longitudinal.  
Ground Plan must show position of all sanitary fittings.
- (d) Specifications of BUILDING, and MATERIALS to be used:  
PLANS and SPECIFICATIONS must be submitted in DUPLICATE.
- (e) A SEPARATE DRAINAGE and PLUMBING APPLICATION FORM must be filled in per directions on same and a PERMIT obtained before commencing any DRAINAGE or PLUMBING WORK.
- (f) A Deposit of £2 must be made where building material is taken ACROSS A FOOTPATH.

Signature of Applicant G. K. Ross as BUILDER and OWNER.

Address .....

Builder's Name and Address If not the applicant .....

## Plan of Allotment

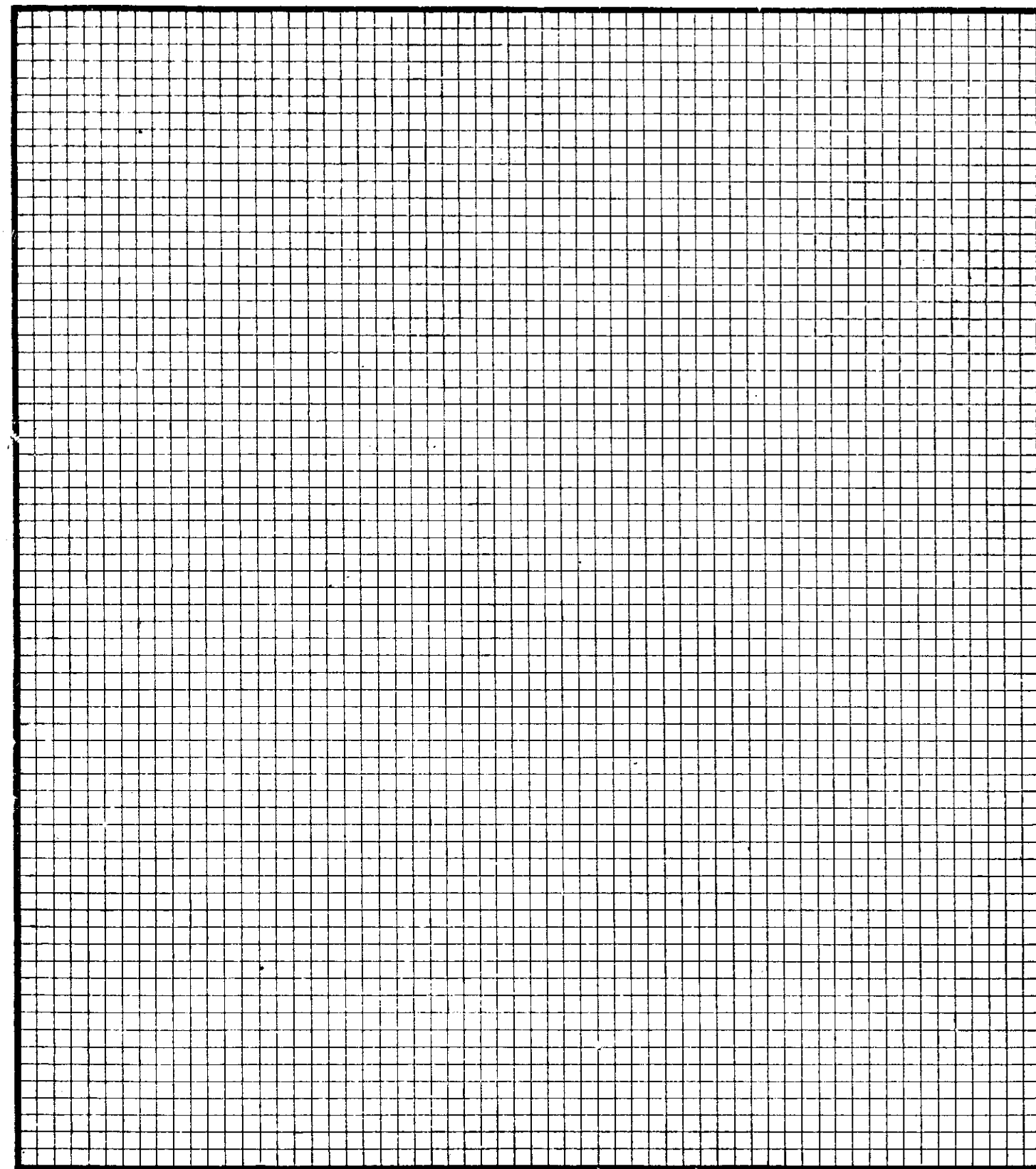
Showing position of proposed buildings on such allotment.

NOTE—Distances of each building from boundary lines must be clearly indicated.  
(Scale: Two feet to a square.)

Boundary Lines to be shown thus: .....

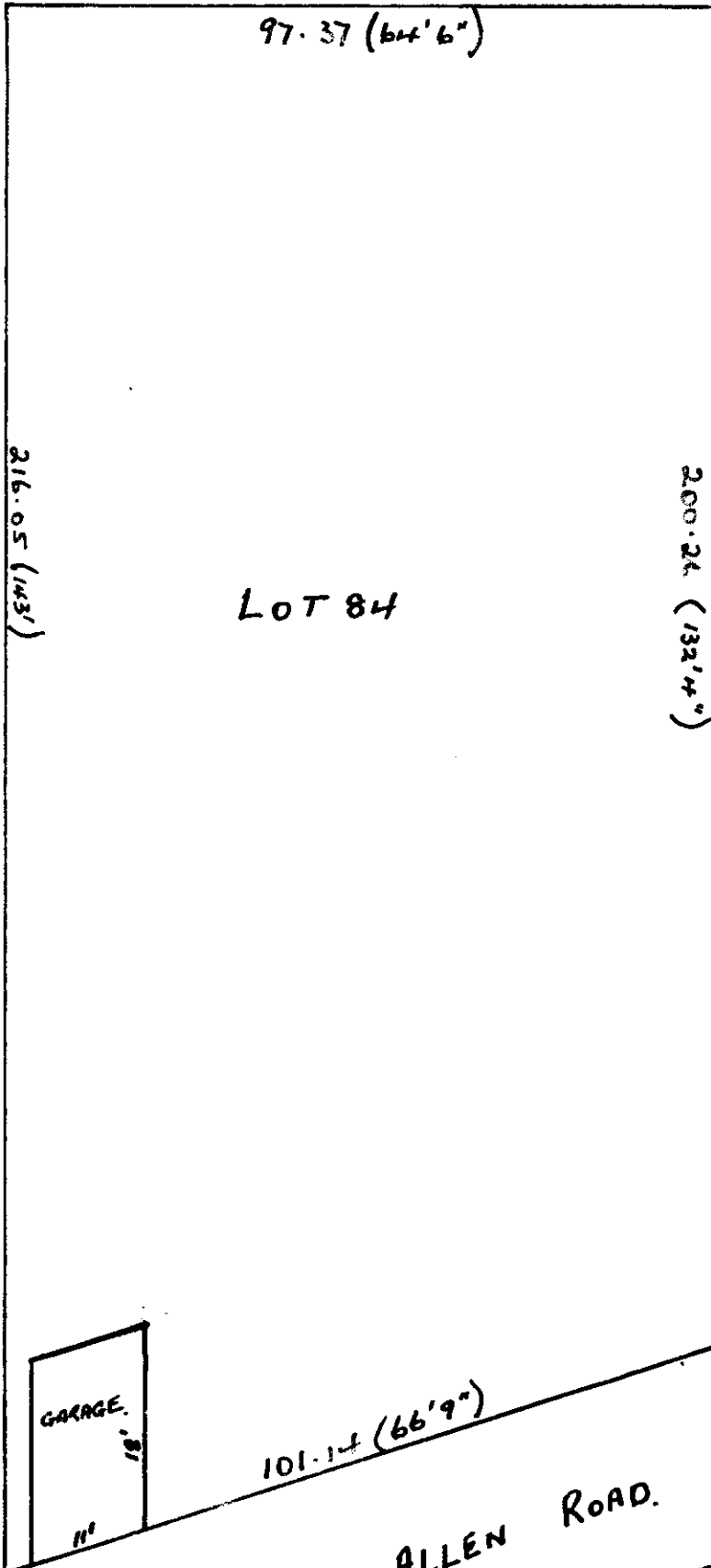
BUILDINGS must NOT be ERECTED within FIVE FEET of ADJOINING properties.

Frontage to Allen Road Road



ALL EXISTING BUILDINGS TO BE SHOWN RED ON THIS PLAN.

SCALE 2 FEET TO 1/8 INCH.



LOT  
86

LOT 84

LOT 82

ALLEN ROAD.

Fees not to be paid until requested by office.

## SCALE OF FEES

For the examination of plans and specifications of any building and for the inspection of such building the following fees shall be payable according to the estimated value of the work.

ESTIMATED VALUE OF WORK								Fees		
								£	s.	d.
Not exceeding £10	.....	.....	.....	.....	.....	.....	.....	0	5	0
Over £10 and not exceeding £100	.....	.....	.....	.....	.....	.....	.....	0	10	0
" £100	"	"	"	"	"	"	"	1	0	0
" £200	"	"	"	"	"	"	"	1	10	0
" £300	"	"	"	"	"	"	"	2	0	0
" £400	"	"	"	"	"	"	"	2	10	0
" £500	"	"	"	"	"	"	"	3	0	0
" £600	"	"	"	"	"	"	"	3	10	0
" £700	"	"	"	"	"	"	"	4	0	0
" £800	"	"	"	"	"	"	"	4	10	0
" £900	"	"	"	"	"	"	"	5	0	0
" £1,000	"	"	"	"	"	"	"	6	0	0
" £1,250	"	"	"	"	"	"	"	7	0	0
" £1,500	"	"	"	"	"	"	"	8	0	0
" £1,750	"	"	"	"	"	"	"	9	0	0
" £2,000	"	"	"	"	"	"	"	10	10	0
" £2,500	"	"	"	"	"	"	"	12	0	0
" £3,000	"	"	"	"	"	"	"	13	10	0
" £3,500	"	"	"	"	"	"	"	15	0	0
" £4,000	"	"	"	"	"	"	"	16	10	0
" £4,500	"	"	"	"	"	"	"	18	0	0
" £5,000	"	"	"	"	"	"	"	20	0	0
" £6,000	"	"	"	"	"	"	"	22	0	0
" £7,000	"	"	"	"	"	"	"	24	0	0
" £8,000	"	"	"	"	"	"	"	26	0	0
" £9,000	"	"	"	"	"	"	"	28	0	0
" £10,000	"	"	"	"	"	"	"	32	0	0
" £12,500	"	"	"	"	"	"	"	36	0	0
" £15,000	"	"	"	"	"	"	"	40	0	0
" £17,500	"	"	"	"	"	"	"	44	0	0
" £20,000	"	"	"	"	"	"	"	49	0	0
" £25,000	"	"	"	"	"	"	"	54	0	0
" £30,000	"	"	"	"	"	"	"	59	0	0
" £35,000	"	"	"	"	"	"	"	64	0	0
" £40,000	"	"	"	"	"	"	"	69	0	0
" £45,000	"	"	"	"	"	"	"	74	0	0
" £50,000	"	"	"	"	"	"	"	79	0	0
" £60,000	"	"	"	"	"	"	"	84	0	0
" £70,000	"	"	"	"	"	"	"	89	0	0
" £80,000	"	"	"	"	"	"	"	94	0	0
" £90,000	"	"	"	"	"	"	"	99	0	0
Exceeding £100,000	.....	.....	.....	.....	.....	.....	.....	100	0	0

### FEES PAYABLE FOR SPECIAL DUTIES

For inspection required in the case of proposed structural alterations before plans are submitted for approval	0	10	0
For inspecting every detached stove, furnace, oven, close fire or forge erected subsequently to the building	0	5	0
For inspecting old timber before reusing the same in a new building	0	15	0
For any inspection that may be deemed necessary in connection with any building or work in respect of which no fee has otherwise been paid	0	2	6

## Hutt County Council

PERMIT NO. 6944

LOCALITY RAUMATI.....

DATE RECEIVED 20.12.49. DATE ISSUED 17.4.50

# Application For Building Permit

OWNER'S NAME C. K. Ross.....

FOR OFFICE USE ONLY.

REMARKS:

30/10/50  
~~No declaration form~~  
OK  
SSP

NOTE—

- Where the foundations of any building are above or below road level, the position of the intended structure must be approved by the County Overseer before building operations commence.
- Buildings must not be erected within Five feet of adjoining properties.



# Application for Building Permit

TO THE BUILDING INSPECTOR,  
Hutt County Council,  
Bowen Street,  
Wellington.

Postal Address: Hutt County Council,  
P.O. Box 12,  
Government Buildings,  
Wellington.

I, the undersigned do hereby apply for a PERMIT to erect BUILDINGS in accordance with the undermentioned particulars in *Kapiti* RIDING.

1. Nature of Buildings: *New dwelling*  
Dwellings etc.; new, additions or alterations

Materials *New*  
(State if new or second hand and where from)

2. Allotment: Lot: *84* D.P.: *14034* Section: *A. 3 & 4*  
Area: *32 paces* Block: *1* S.D. Nearest Township: *Rumati*

3. Owner's Name *G. K. ROSS*  
Address *45 PONSONBY ROAD KARORI W.3.*

4. Previous Owner If Section has been recently transferred *—*

5. Frontage (Length) *66' 9"* Name of Street or Road *Allen Road*

6. Estimated Value of Building (excluding Sanitary Fittings) *£1200*

7. Fees (how paid) *£ 0 : 0 : 0* No. of Receipt: *1653*  
See Scale of Fees on Back Page

All work will be carried out in accordance with Hutt County Council's By-laws.

NOTE:—The following MUST accompany this Application:—

- Ground Plans of Proposed Work:
- Front Elevation:
- Sections: Cross and Longitudinal.  
Ground Plan must show position of all sanitary fittings.
- Specifications of BUILDING, and MATERIALS to be used:  
PLANS and SPECIFICATIONS must be submitted in DUPLICATE.
- A SEPARATE DRAINAGE and PLUMBING APPLICATION FORM must be filled in per directions on same and a PERMIT obtained before commencing any DRAINAGE or PLUMBING WORK.
- A Deposit of £2 must be made where building material is taken ACROSS A FOOTPATH.

Signature of Applicant *G. K. Ross* as BUILDER and OWNER.

Address *45 Ponsonby Road Karori W.3.*

Builder's Name and Address If not the applicant

## Plan of Allotment

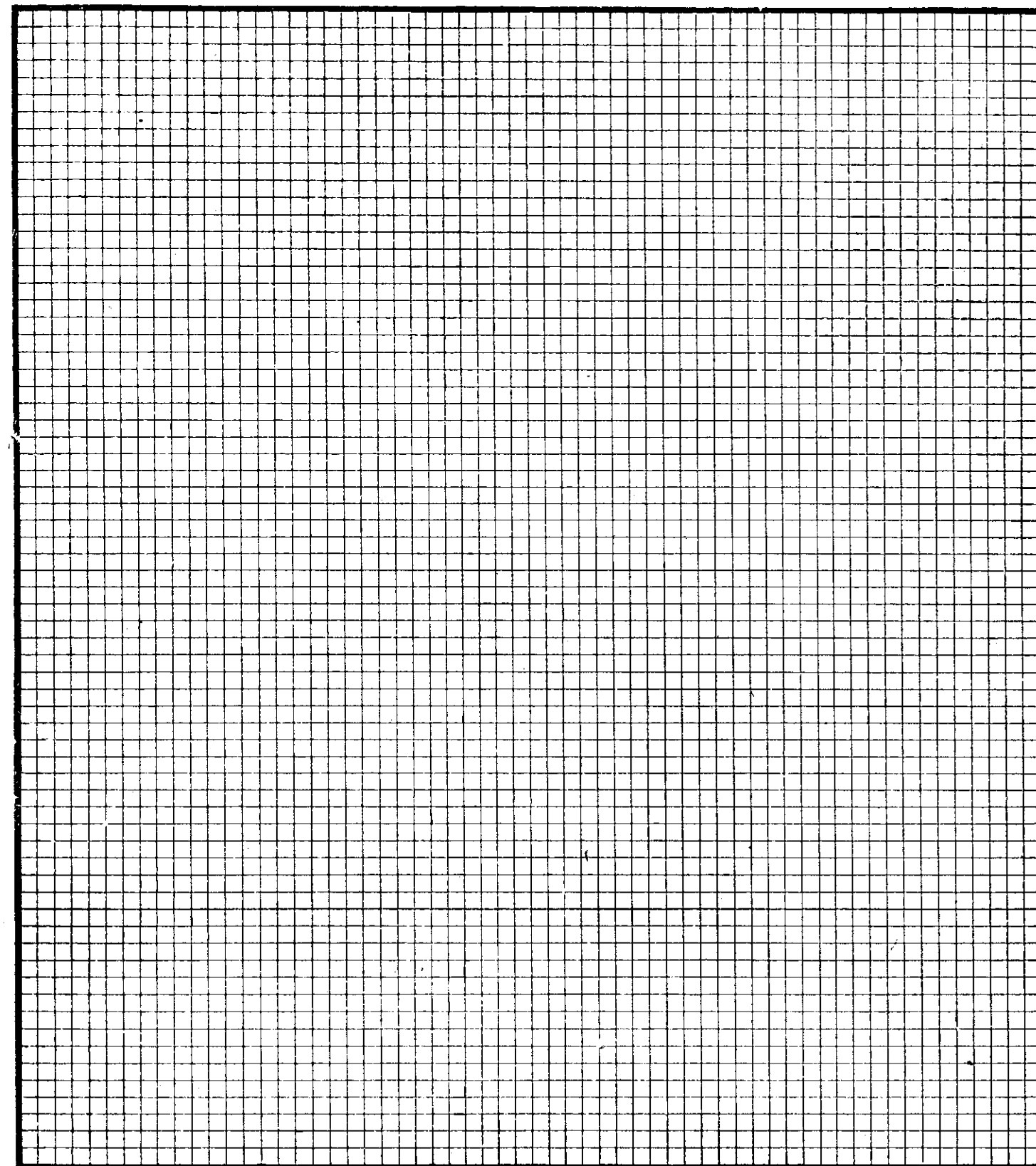
Showing position of proposed buildings on such allotment.

NOTE—Distances of each building from boundary lines must be clearly indicated.  
(Scale: Two feet to a square.)

Boundary Lines to be shown thus: ————

BUILDINGS must NOT be ERECTED within FIVE FEET of ADJOINING properties.

Frontage to ..... Road



ALL EXISTING BUILDINGS TO BE SHOWN RED ON THIS PLAN.

*RECEIVED  
4-11-10*

SPECIFICATION FOR GARAGE FOR G.K. ROSS  
TO BE ERECTED IN ALLEN ROAD, RAUMATI

Foundations to be 6" x 6" concrete blocks.

Floor to be gravel finished with tar and sand.

Timber to be O.B. or pinus insignis whichever is most readily available.

Framework to be 4" x 2"; Rafters to be 5" x 2"

Studs and rafters to be on 24" centres

Roof to be covered with 1" sarking and malthoid.

Exterior to be of rough sawn boards.

Front doors to be of tongued and grooved timber and hinged.

Side door to be of tongued and grooved timber.

Windows to be top hung ~~xxxxx~~ sashes.



*Copy*

HUTT COUNTY COUNCIL

'Phone 44-163

Bowen House, Wellington C.1

P.O. Box 8012

Dear Sir/~~Madam~~,

This is to advise you that your application for a permit to ~~occupy~~ occupy a temporary dwelling has been approved subject to the following conditions : -

*After use, all sanitary fittings, stoves and chimneys must be removed and the building revert to a garage or storeshed.*

Before permits can be issued it will be necessary for you to complete a Legal Agreement with the Council and this will be prepared by the Council's Solicitors (Messrs. Brandon, Ward, Macandrew & Watts, Brandon House, Featherston Street, Wellington, telephone 43-563) at your expense. Will you please make an appointment with Mr. Wiltshire who will prepare the agreement forms for you to sign.

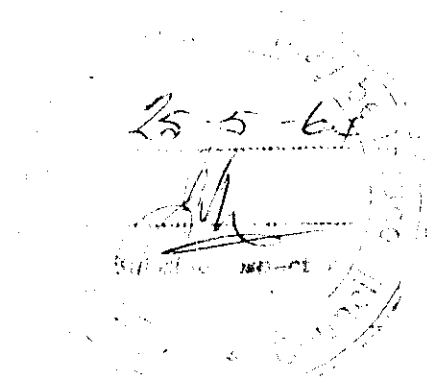
Please note that this agreement cannot be made unless your section is already freehold. If your section is jointly owned all interested parties will be required to sign the agreement.

Temporary living accommodation agreements are valid for twelve months only which should give you sufficient time in which to have your permanent dwelling ready for occupation. Extension of temporary living accommodation agreements will be given only in exceptional circumstances for very good reasons.

It is recommended that your temporary dwelling may take the form of a future garage or a building suitable for this purpose.

*[Signature]*  
BUILDING INSPECTOR.

*Copy of letter sent to Mr Wickham 15/5/64*  
*Signed*  
*Wickham 20/5/64*



S P E C I F I C A T I O N of Labour  
and Materials required in the erection  
of a Residence, Allen Road, Raumati  
Beach, for P.T. WICKHAM, ESQ.

GENERAL:

The Contractor shall be responsible for depositing plans etc. with the County Council, obtaining building permit and for paying all fees and deposits which may be demanded in connection with same.

The Contractor shall insure all employees as required by the Workers' Compensation Act and shall be responsible for seeing that all Subcontractors' employees are similarly insured.

The Contractor shall effect and maintain insurance against fire in an approved office and shall provide the Owner with evidence of such insurance.

All materials used shall be the best procurable of the various kinds specified and all work shall conform to best trade practice and shall be to the satisfaction of the Owner.

All fittings shall be complete with all necessary appurtenances.

SITE:

The site is

The levels shown are approximately correct. The Contractor shall locate the survey pegs and shall be responsible for setting out the house accurately with relation to the section boundaries.

PLANT ETC.:

The Contractor shall furnish all necessary plant, tools, scaffolding and other equipment necessary to complete the various works.

CLEANING:

The building and site shall be left in a perfectly clean and tidy condition on completion, with all glass and fittings etc. left to approval. The greatest care shall be taken, by the use of temporary coverings, to prevent damage to floors.

All rubbish, debris and surplus material of every description shall be carted away and shall not be buried on the site.

DIMENSIONS:

All dimensions shall be accurately checked on the job and reliance shall not be placed entirely upon scaling from drawings.

MAKE GOOD:

Attend upon and make good where and as required after Sub-contractors.

- - - - -

CONTRACTOR

Excavate to the depths and widths shown for all footings to external walls, also rain water tank and garage.

Trenches shall be dug to a depth of not less than 15" into solid ground. The bottom of all trenches shall be level, stepped where necessary and shall be cleaned out before any reinforcing or concrete is placed.

Excavate to the above depth for concrete piles which shall be spaced at not more than 4'-6" apart and 7'-0" between rows.

All surplus spoil shall be dumped where directed. The concrete to landings shall be laid on filling, well rammed and consolidated and graded with fall.

- - - - -

CONCRETOR

All concrete shall be composed of 4 parts aggregate, 2 parts sand and 1 part Portland cement. Aggregate shall be hard blue-stone graded in size from  $\frac{1}{2}$ " to  $\frac{3}{16}$ " diam. and shall be free from all soft stone, vegetable matter, or other impurities. Cement shall be fresh, free from lumps and shall be stored on planks in a watertight shed. Sand shall be clean, sharp, fresh-water sand free from impurities. The aggregate, sand and cement, shall be measured in properly sized gauge boxes for each mix and shall be stored on plank surfaces and not shovelled off the ground.

Mixing shall be done by machine and shall continue for not less than one minute per batch or for such longer time as may be necessary to ensure a homogeneous mass. Water shall be added only in sufficient quantity to ensure workability and an excess of water

shall not be permitted. After mixing, the concrete shall be deposited in the forms or trenches and shall be thoroughly worked to completely embed all reinforcing and to fill all interstices.

All concrete shall conform to the various dimensions shown on the drawing.

BOXING:

All boxing shall be erected plumb and true and shall consist of 1" stuff adequately tied and braced to prevent movement or deflection. All joints shall be tight to prevent leakage. After concrete has sufficiently hardened, all boxing shall be stripped, any wire ties being cut well back from the face.

REINFORCING:

All foundation walls supporting external walls shall be of concrete and shall be reinforced with mild steel rods, the general reinforcing consisting of two  $\frac{1}{2}$ " diam. rods in the footing and one  $\frac{1}{2}$ " diam. rod at the top. Any concrete work over three feet high shall be reinforced with  $\frac{1}{2}$ " rods at 12" centres both ways.

Rods shall be in long lengths, hooked at ends and bent continuously round all angles and shall be wired together at all laps and intersections. Laps shall be not less than 40 diams. of the rods.

Build in  $\frac{1}{2}$ " diam. bolts at 4ft. centres to secure all bottom plates. Similarly secure all sleepers to piles and piers. Any piles over 2'-6" high shall be reinforced with one  $\frac{1}{2}$ " rod.

EXTENT OF WORK:

All footings.  
All external base walls.  
Concrete piles.  
Fuel range base.  
Concrete floor to garage.  
Concrete rain water tank.

VENTS:

Build into concrete base walls, where shown, 9" x 6" pre-cast concrete vents with flues formed through wall.

CHIMNEY :

The fuel range chimney stack is to be constructed in pre-cast concrete blocks. Form chases, as required, for flashings. Carry up chimney stack in pre-cast concrete blocks to height shown.

---

## PLASTERER

### MATERIALS:

All sand shall be clean, sharp and free from salt, vegetable matter or other impurities and shall be screened.

Cement shall be fresh and free from lumps.

Proportions of materials shall be accurately measured, used immediately after mixing and before any set has taken place.

Compo shall be mixed in the proportion of three parts sand to one part cement with the addition of hydrated lime in approved amount.

All surfaces shall be finished with wood float to an approved texture.

### EXTERNAL PLASTERING:

Plaster the whole of the exposed base walls, also inside walls and floor of tank, in one coat of plaster  $\frac{3}{4}$ " thick. Plaster the chimney stack and back entrance steps, finishing with rounded nosing. Run bevel along top of concrete base and around all vents.

- - - - -

## BRICKWORK

### BRICKS:

All bricks shall be hard, square, sound, of full size and of approved manufacture.

### MORTAR:

Mortar shall be composed of four parts sand to one part approved ground hydraulic lime well mixed, tempered and beaten together and allowed to stand for not less than 48 hours before use. Immediately before using the mortar, gauge it with portland cement in the proportion of one to four. No mortar that has become set or dead shall be used.

### WORKMANSHIP:

The whole of the brick work is to be built as indicated on the drawings. All vertical and horizontal joints are to be fully flushed with water. The work is to be carried up in even heights with no part rising more than 3ft. above adjoining work. All angles and intersections are to be properly bonded and perbends kept.

### JOINTS:

Joints shall not exceed  $\frac{1}{8}$ " in thickness. The bonds are to be

finished  $\frac{1}{2}$ " back from the face of brickwork. Rake out bonds as the work proceeds to accommodate Plumber's flashings.

- - - - -

DRAINLAYER

The Drainlayer shall allow for all workmanship and materials necessary to complete work to comply with the By-Laws.

Run sewer drain and connect to Council-sewer-septic tank.

Discharge stormwater from roof into stormwater drain.

All pipes to be 4" diam. glazed, socketted earthenware, jointed in cement compo and cored out inside. Excavate for all necessary trenches, afterwards filling in and well ramming.

No drains shall be covered in until inspected, tested and approved.

All drains shall be laid to even and straight falls, in no case less than 1 in 60 and shall be at least 18" from ground level to invert at highest point.

Where shown, provide and fix pre-cast concrete gully traps complete with gratings and neatly finished with cement kerbs.

All bends and junctions shall be made with easy sweeps and inspection pipes shall be inserted where marked C.E. on plan and at intervals at long run as required by County Engineer.

From highest point of drain, lead off terminal vent in No.24 gauge copper carried up above roof and terminated with cowl.

Joints between stormwater drain and downpipes shall be made above finished ground level in all cases.



CARPENTER AND JOINER

GENERAL:

All timber for framing purposes shall be O.B. Rimu or No.2 Boric gauged Radiata, free from sap, shakes, bad knots, twists and other defects and shall be well seasoned.

All studs and dwangs shall be gauged to an even thickness.

All scantlings shall be spaced at not more than 18" centres, except where otherwise specified.

All finishing timber, where exposed to view, shall be hand-dressed and sand-papered, and all nails shall be punched in.

All window and external door frames shall be primed before being fixed.

H. RIMU

Bottom plates to external walls and partitions	4" x 2"
Bed plates	4" x 2"
Sleeper plates	4" x 3"
Floor joists	5" x 2"

O.B.RIMU OR BORIC RADIATA

Studs	4" x 2"
Angle studs	4" x 4"
Top plates, external walls and partitions	4" x 2"
Braces to partitions and outer walls	6" x 1"
Top plates to walls of ground floor supporting top floor joists	4" x 3"
Dwangs	4" x 2" & 3" x 2"
Soffite bearers	3" x 1 1/2"
Beams over Bedroom and Kitchen windows	6" x 4"
" " Living room windows	10" x 4"
Ceiling runners	6" x 2" & 4" x 2"
Ceiling joists	4" x 2"
Rafters	4" x 2"
Purlins	4" x 2"
Braces (roof)	4" x 2"
Collar ties	4" x 1"
Floor joists	5" x 2"

All trimmers, trimming studs and joists are to be 3" thick.

H. RIMU, H. MATAI OR TAN. RIMU

Flooring, T.& G. dressed	4" x 1"
Weatherboarding, bevelled back	8" x 1"

All exterior finishing to be H. Matai or Totara. Treated O.B. Rimu or Matai to be used if H. Matai or H. Rimu is not obtainable.

FLOORS:

The whole of the floor is to be of timber construction with 5" x 2" H. Rimu joists supported on 4" x 3" H. Rimu sleepers and

10" x 2" Radiata fixed to 4" x 3" top plates.

Cover joists with 4" x 1" T.& G. flooring boards cramped tight and double nailed with 2½" wire flooring nails, two to each board and joist. Flooring to be scribed up close to framing and to be carried continuously under all secondary partitions.

On completion, all floors are to be machine dressed to approval.

EXTERNAL WALLS:

All external walls shall be constructed of 4" x 2" studs and shall be securely braced with 6" x 1" cut in flush. Solid bracing will be permitted in places where continuous bracing is not feasible.

All angles studs to be 4" x 4" or two 4" x 2".

Before putting on weatherboards or laying brickwork, cover the whole of the framing with best quality building paper, well lapped.

Fix flashings to all window and door frames and elsewhere as specified under "Plumber" and to approval. All bottom plates to be bolted to concrete as specified under "Concretor". Dwang all walls with 4" x 2" at 2'-6" centres.

PARTITIONS:

Where shown, all partitions are to be constructed with 4" x 2" studs dwanged with 4" x 2" at 2'-6" centres to take lining. Trim with 4" x 3" for all door openings. Brace partitions with 6" x 1" cut in flush where directed, and dwang as above.

ROOF:

Construct hipped roof as shown, with 4" x 2" rafters well spiked to top plates and to 4" x 2" ceiling joists. Run 6" x 2" and 4" x 2" ceiling runners over joists and fix securely to same. Securely brace and strut roof to prevent movement, sag or deflection. General construction of roof to be in conformity with detail.

WEATHERBOARDING:

All weatherboarding shall be bevel back, thoroughly seasoned dressed H. Rimu or Tan., primed before fixing. All angles and joints shall be neatly mitred and weatherboards cut and butted tight against all door and window frames. Finish basement and each side of main entrance with 8" x 1" vertical ship-lap tan. pine boards.

OUTSIDE FINISHINGS:

Finish all eaves with 6" x 1" fascia, with soffite lined with 3/16" flat asbestos sheets, finishing with 2" bedmould. Finish under lounge floor projection as above.

COATS AND LINEN CUPBOARD:

Construct with framing taken up to ceiling. To Coats provide 14" shelf, as for wardrobe, 5'-6" above floor. To linen cupboard provide and fix shelves (the full width of same) consisting of 3" x 1" battens spaced  $\frac{1}{2}$ " apart and supported on strong cleats.

Provide and fix one approved toilet-paper holder.

HARDWARE:

Allow the p.o. sum of Thirtyfive pounds (£35) to cover all hardware for doors, windows, cupboards etc., and fix complete.

ARCHITRAVES AND SKIRTINGS ETC.:

Finish around all walls, including inside wardrobes, coats and linen, with 3" x  $\frac{3}{4}$ " skirtings rounded on edge. Finish around all doors and windows with 3" x  $\frac{3}{4}$ " architraves rounded on edge.

BATH:

The front of the bath is to be framed up and dswanged to take lining.

S.B. CUPBOARD:

Form cupboard in wall where directed, to take electric switch-board, finishing around with 1" frame and 1" coreboard door, and provided with Ball catch and brass butts.

CEILING ACCESS:

Form ceiling access where directed on plan, finishing with  $\frac{1}{4}$ " dressed stuff and  $1\frac{1}{2}$ " half round.

### JOINER

All timber shall be thoroughly seasoned, Dressing A quality, and shall be hand-dressed, sand-papered and left ready for painting. All joinery shall be securely fitted, mortised and tenoned or doweled together. All window frames, sashes, doors etc., shall be run in accordance with the N.Z. Standard Specification. Run all weathering, grooving, rebating and moulds and saw-cuts to receive flashings.

#### WINDOWS:

All opening windows, unless otherwise specified, shall be awning type and shall be constructed of H. Totara with 6" x 2" frames and 4" x 2" mullions, 6" x 2" heads and 3" sills. Sashes shall be 1 $\frac{1}{4}$ " thick H. Totara or Redwood. Where indicated to open, sashes shall be hung each on a pair of "Whitco" fittings. Meeting rails shall be out of 3" x 2".

Provide and fix fittings allowed for in hardware sum.

Windows are to be finished with 1" bull-nosed window boards with quadrant bead under.

#### DOORS:

The main entrance door is to be panelled H. Rimu. Main entrance and dining doors shall have 2" solid rebated H. Totara frames and 2" sills. Exterior doors to be 1 $\frac{1}{4}$ " thick H. Totara and to be hung each on three 4" galvanized butts. Back door is to be single panelled and astragal divided.

#### INTERIOR DOORS:

All interior doors to be hung each on three 3" steel butts, except cupboard doors which are to have one pair each. All door jambs to be 1 $\frac{1}{2}$ " solid rebated. Interior doors are to be semi-solid flush doors of approved manufacture, faced with O.B. Rimu plywood, and are to have solid clashing strips. Provide and fix door hardware which is covered by p.c. amount previously specified.

#### SINK BENCH:

Is to be of 1" dressed H. Rimu stuff supported on strong dressed standards and bearers, and end cased in with 1" stuff. Form cupboards to front with doors constructed with 1" framing faced both sides with H. Rimu plywood and hung each on 2 $\frac{1}{2}$ " brass butts. Centre panel to be louvred for ventilation. Form bottom shelf of

1" stuff blocked up above floor to form 3" x 2" toe space and provide and fix intermediate shelf of 3" x 1" battens. Leave ready to take Stainless Steel bench-top.

KITCHEN CUPBOARD:

Construct kitchen cupboards with 1" standards. All doors are to be as specified for sink bench above and similarly hung. Construct drawers with proper runners, fronts and sides dove-tailed together, and strong plywood bottoms. Finish between cupboards and ceiling with small mould.

Bench-top is to be covered with approved "Formica".

BATHROOM CUPBOARD:

Is to be constructed with 1" frame set into wall, to have plywood back,  $\frac{1}{2}$ " shelves and to be finished around with small mould. Door to be 1" thick, panelled, hung as above and to have polished plate glass mirror fixed with screws.

STAIRCASE:

Construct and fix staircase as shown on drawing. Wall strings shall be out of  $1\frac{1}{2}$ " and other strings out of  $1\frac{1}{2}$ " timber, housed as required to take treads and risers. Treads shall be out of  $1\frac{1}{2}$ " material rebated, wedged, glued and blocked, with rounded nosings and small stock mould planted beneath. Risers shall be out of 1" material.

GIBRALTAR BOARD

All interior walls and partitions, except service rooms, interiors of all cupboards etc., and ceilings of cupboards, are to be lined with Gibraltar Board sheets of an even thickness of not less than  $\frac{3}{8}$ ".

Sheets shall be well matured and free from defects and shall be secured to studs and dwangs by means of galvanized clouts spaced 6" centres along edges and 9" intermediately.

Clouts shall be punched slightly below surface and all sheets left without spring. Stop all clout holes and joints with stopping plaster, rubbing down to a smooth and even surface.

All ceilings throughout, including service rooms, shall be lined with  $\frac{3}{8}$ " Fibrous plaster as above.

Walls of service rooms to be lined with 3/16" hardboard sheets V-jointed.

Junctions of all walls and ceilings are to be finished with  $1\frac{1}{2}$ " wood scotia.

- - - - -

GLAZIER

Window to Bathroom and Laundry exterior door panel are to be glazed with Moroccan Pinhead glass.

The large windows are to be glazed with  $\frac{1}{4}$ " polished plate.

All glass to be well bedded, sprigged, puttied and back puttied and left clean on completion.

ELECTRICIAN

PRELIMINARY:

All electrical work is to be carried out in strict accordance with the regulations of the N.Z. Fire Underwriters' Assn., and to the satisfaction of the local Power Board Inspectors. Allow for cost of connection from main. The connection of the insulators to the house shall be carried out in conjunction with the General Contractor who shall provide strengthening timbers as required.

MATERIALS AND GENERAL:

Circuits

Lighting, heating, cooking and water heating.

Board

Where directed, mounted in metal box, recessed in thickness of wall. Front panel shall be "Sindanyo" or other approved, hinged to open with wires left loose for this purpose.

Fit board with necessary fuses, terminals, copper bus bars, spare terminals etc.

Cable

Heavy duty C.M.A.

Switches

All switches throughout to be flush plate switches with "Bakelite" face plates and single toggle switches; switches to be insulated where required.

Heating Points

All heating points throughout to be 3-pin earthed plugs in flush plates with switches.

Lamps

Lamps to be "Osram" or other approved gas filled pearl lamps to wattages specified. Electrician to replace any lamp which fails within 30 days of turning on the current.

Cooker

Allow the sum of Sixtyeight pounds (£68) for electric cooker in Kitchen and allow for labour and material in installing same.

Ceiling Roses

Bakelite without bass blocks.

Lamp Holders

Brass covered with bakelite.

Water Heating Cylinder

This fitting will be supplied and installed by Plumber but Electrician shall allow for wiring up and testing. H.W.C. shall operate in night rate with day switch.

EXTENT OF WORK:

Pay all fees and obtain all permits necessary. Connect from main to board and reticulate to points shown. Test out at completion and leave in perfect working order. Electrical Contractor shall

advise General Contractor about position of dwangs and other framing for fittings and switches etc. before linings are fixed.

SCHEDULE OF POINTS: (See Electrical plan)

Allow for the following points:-

Lighting points - 12  
Heating points - 10  
1 Range connection.  
1 hot water Cylinder point.  
Aerial and Earth.  
Float switch.  
Pump.



PLUMBER

FLASHINGS:

All window and exterior door frames shall be flashed with No. 26 gauge galvanized iron set into frames and turned back behind weatherboarding. All window sills to have trays under and long enough to pick up side flashings.

Flash chimney and vent pipes with 5lb. lead where they pass through roof.

SPOUTING:

Provide and fix No.24 gauge galvanized iron spouting complete with brackets and droppers etc.

DOWNPIPE:

Provide and fix 3" diam. No.24 gauge galvanized iron downpipe complete with all the necessary straps, shoes, offsets, etc., and discharge same into rain water tank.

SUPPLY TANK:

Set up in roof one 30-gallon No.24 gauge copper storage tank; tank to be fitted with stop cock, silencers etc.

COLD WATER SUPPLY:

From water tank run  $\frac{1}{4}$ " diam. piping carried up to supply tank in roof. From supply tank, run  $\frac{1}{4}$ " main to supply sink, bath, basin, shower, washing machine, tub and W.C. Provide necessary valves on main as required by By-Laws.

All the above piping to be in copper.

HOT WATER SUPPLY:

The Plumber shall supply and install to approval one 30-gallon or equal electric hot-water storage cylinder, complete with electric element of requisite size and thermostat. Run circulating pipes from fuel range to H.W. cylinder. Electrical work is allowed for under "Electrician".

From supply tank bring down  $\frac{1}{2}$ " copper supply pipe to base of cylinder and put control valve near outlet from tank. From crown of cylinder lead off copper exhaust pipe carried up above roof and flashed with lead. Lead off  $\frac{1}{4}$ " copper pipe from base of exhaust and run with  $\frac{1}{2}$ " branches to basin, bath, sink, shower, tub and wash-

ing machine.

All hot-water piping to be lagged to approval.

Put valve on outlet from cylinder.

TAPS:

Supply and fix the following taps:-

Sink: 1 only c.p. swivel combination faucet.

Bath: 1 pr.  $\frac{1}{4}$ " c.p. brass bath bibcocks with c.p. flanged extensions.

Basin: 1  $\frac{1}{2}$ " c.p. brass basin cock.

Tub: 1 pr.  $\frac{1}{2}$ " c.p. brass cocks.

Shower: 1 pr.  $\frac{1}{2}$ " c.p. shower cocks with  $\frac{1}{2}$ " c.p. rose.

Washing Machine: 1 pr.  $\frac{1}{2}$ " c.p. brass cocks.

W.C.:

Set up first quality English manufacture white enamelled W.C. pan and connect to sewer drain. W.C. is to be provided with 3-gallon low down flushing cistern complete with ball-cock and silencer. Connect to water supply and put stop-cock on inlet. Connect tank to W.C. by means of copper flush pipe.

Provide and fix approved seat of p.c. value £2.10. 0 complete.

BATH:

Provide and install complete one first quality Metters Universal pattern 5'-6" bath complete with c.p. chain and rubber plug.

BASIN:

Provide and install complete one first quality English wall basin 22" x 16" to approval, complete with plug and chain as above, and fix with strong brackets to wall.

TUB:

Install single stainless steel tub on brackets.

SINK:

Install 6'-0" stainless steel sink-bench, securely mounted.

WASTES ETC.:

Bath, basin, tub and sink are to be fitted with No.24 gauge copper wastes with brass inspection caps. Traps to be connected to galvanized wrot. iron piping carried out to discharge over gully traps.

Allow for all back-venting required by By-Laws.

PAINTER AND PAPERHANGER

EXTERIOR WORK:

The whole of the exterior wood trim, including eaves fascia, soffite and bedmould, doors and windows, shall be primed before fixing. All weatherboards and exterior wood trim to be painted two coats. All nail holes shall be stopped.

INTERIOR WORK:

The interiors of all cupboards (except kitchen cupboards) wardrobes etc., shall be finished as specified for the rooms and places in which they are situated. All paint and enamel shall be of approved brand and finishing colours shall be submitted for approval.

All nail holes shall be stopped. Sealer to be used shall be Dusseal or Cemseal. Paste shall have Shirlan or other approved fungicide added in correct proportion.

All floors shall be protected and left clean from paint marks.

All glass, fittings etc., shall be left clean.

Rub down all undercoatings before finishing coat is applied.

Lining papers shall be of good quality to approval and shall be butt jointed. The Paperhanger shall carefully examine all surfaces before painting or papering and shall require the Contractor to make good any imperfections before proceeding with his work.

LIVING, PASSAGE, DINING, SUNROOM AND BEDROOMS:

shall be finished as follows:-

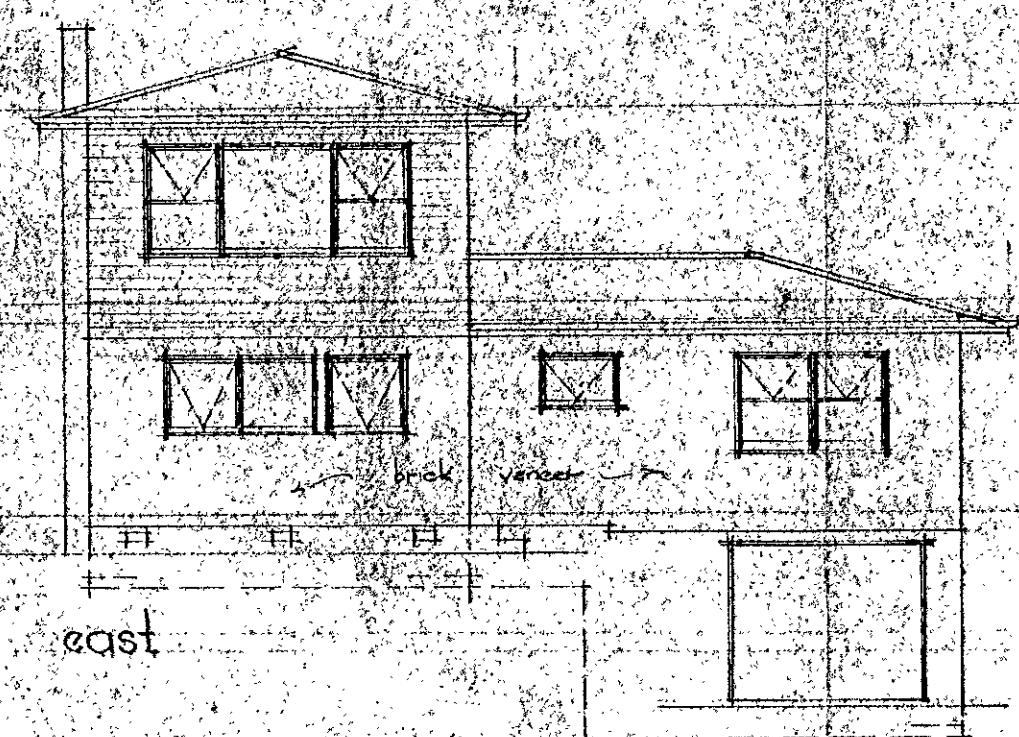
Walls and ceilings to be sealed, ceilings painted two coats, the last coat semi-matt finish; walls covered with approved wall paper. All work to be sealed and given two coats, the last coat gloss finish.

KITCHEN, LAUNDRY AND BATHROOM:

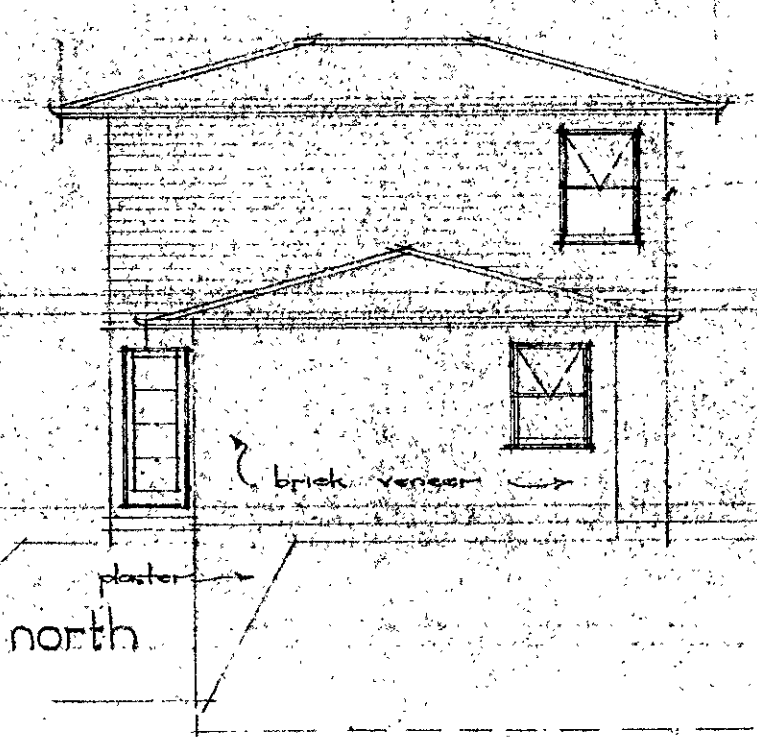
shall be finished as follows:-

Walls and ceilings to be sealed; ceilings painted two coats, the last coat semi-matt finish; walls painted two coats, the last coat gloss finish.

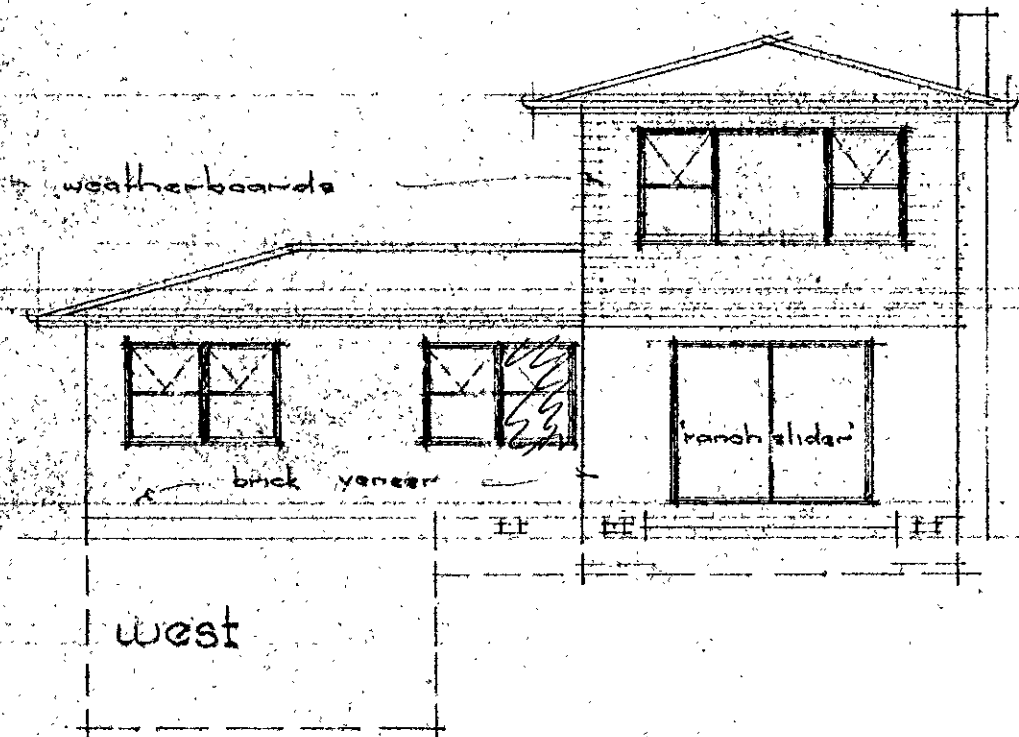
All Kitchen cupboards to be enamel finished to approval.



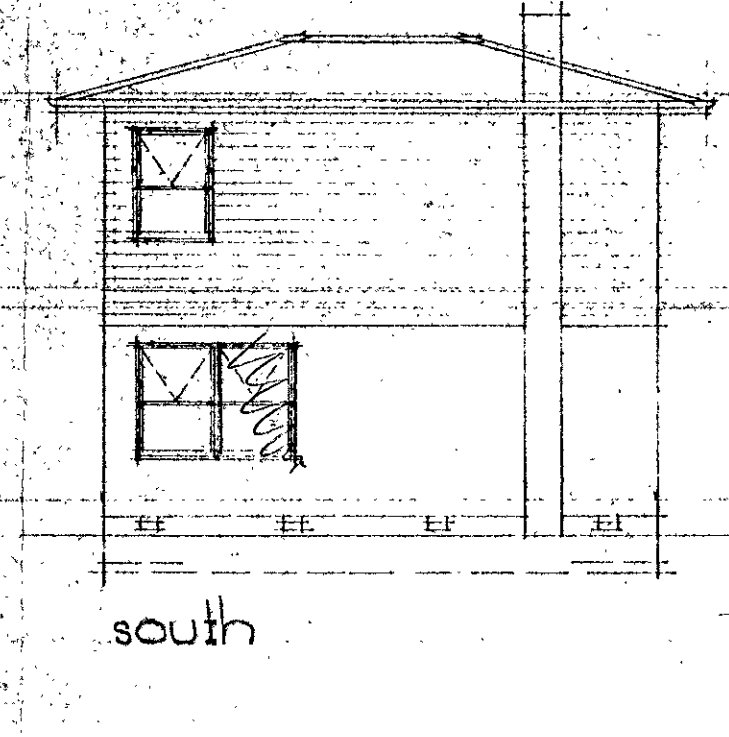
east



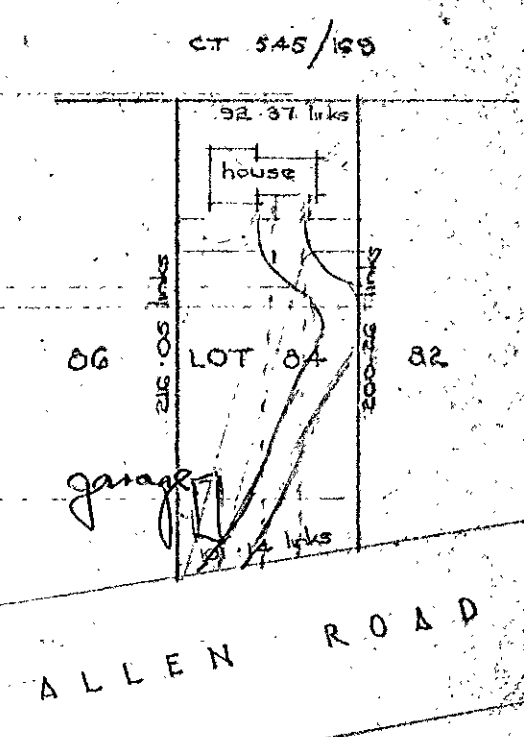
north



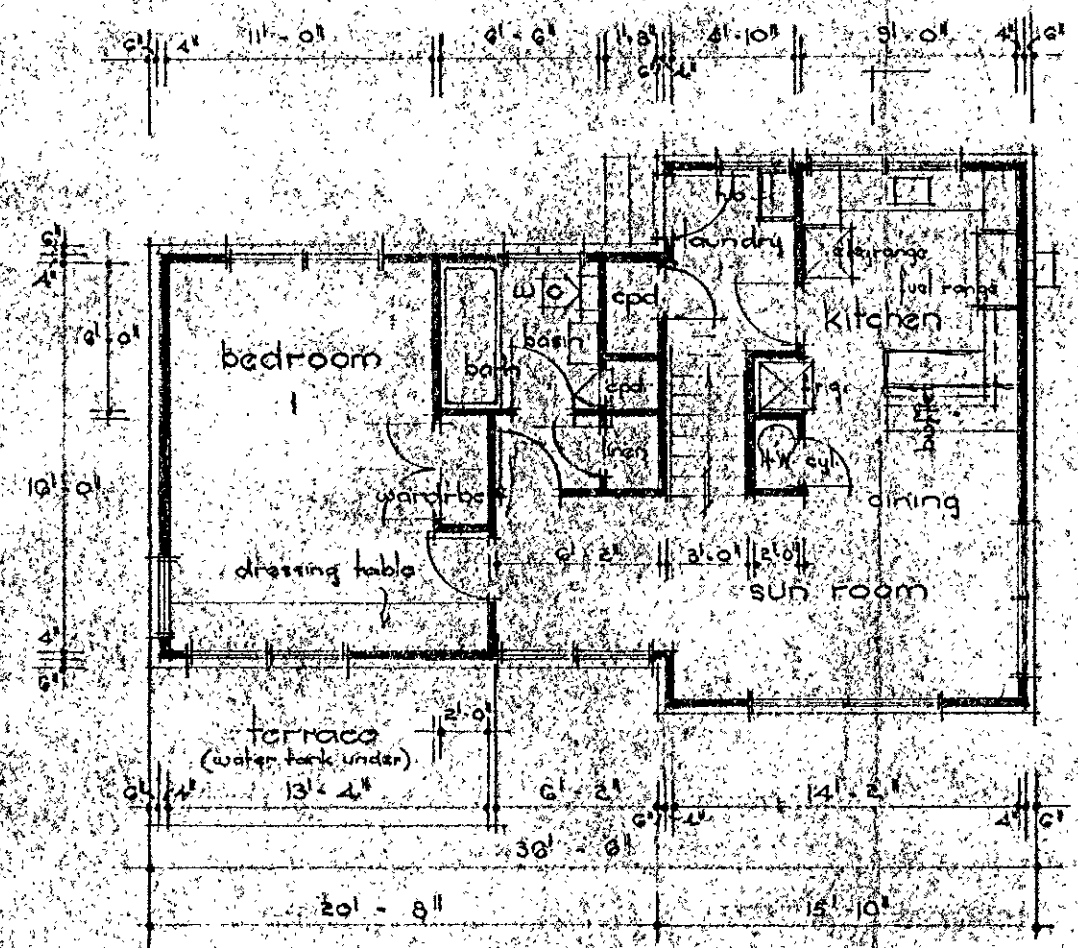
west



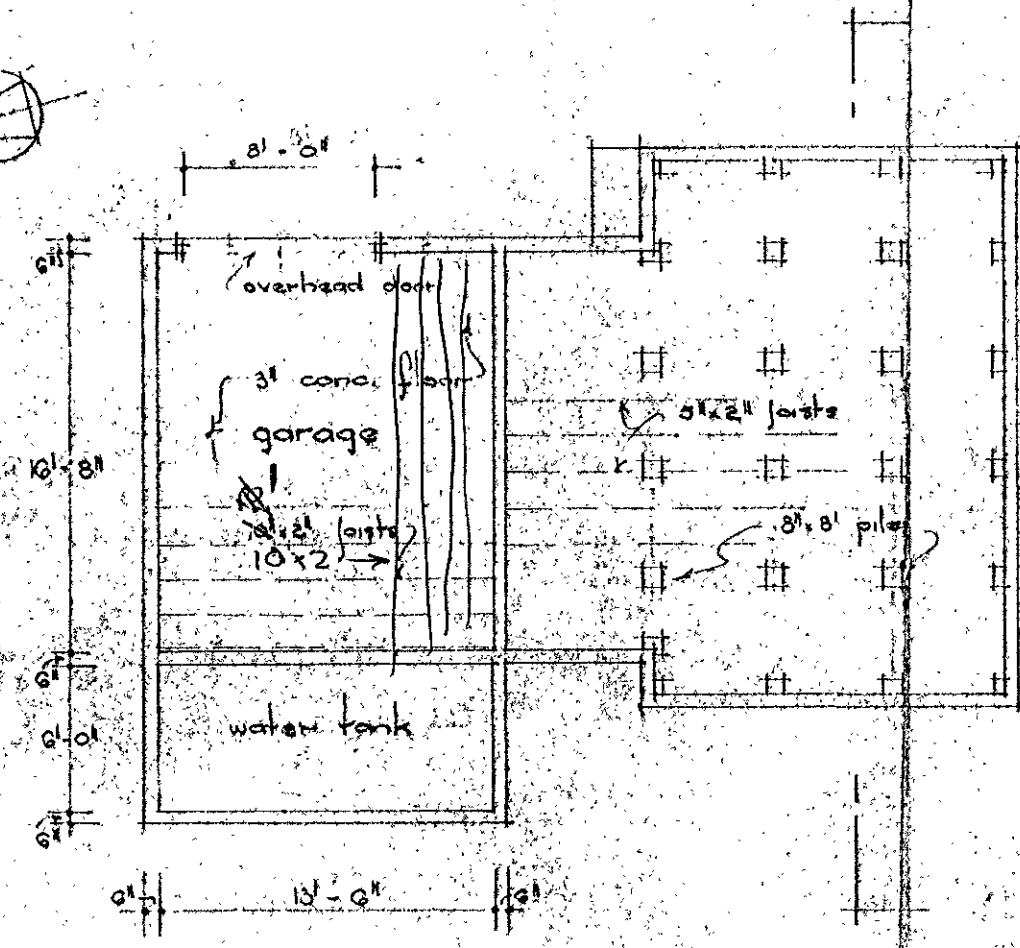
south



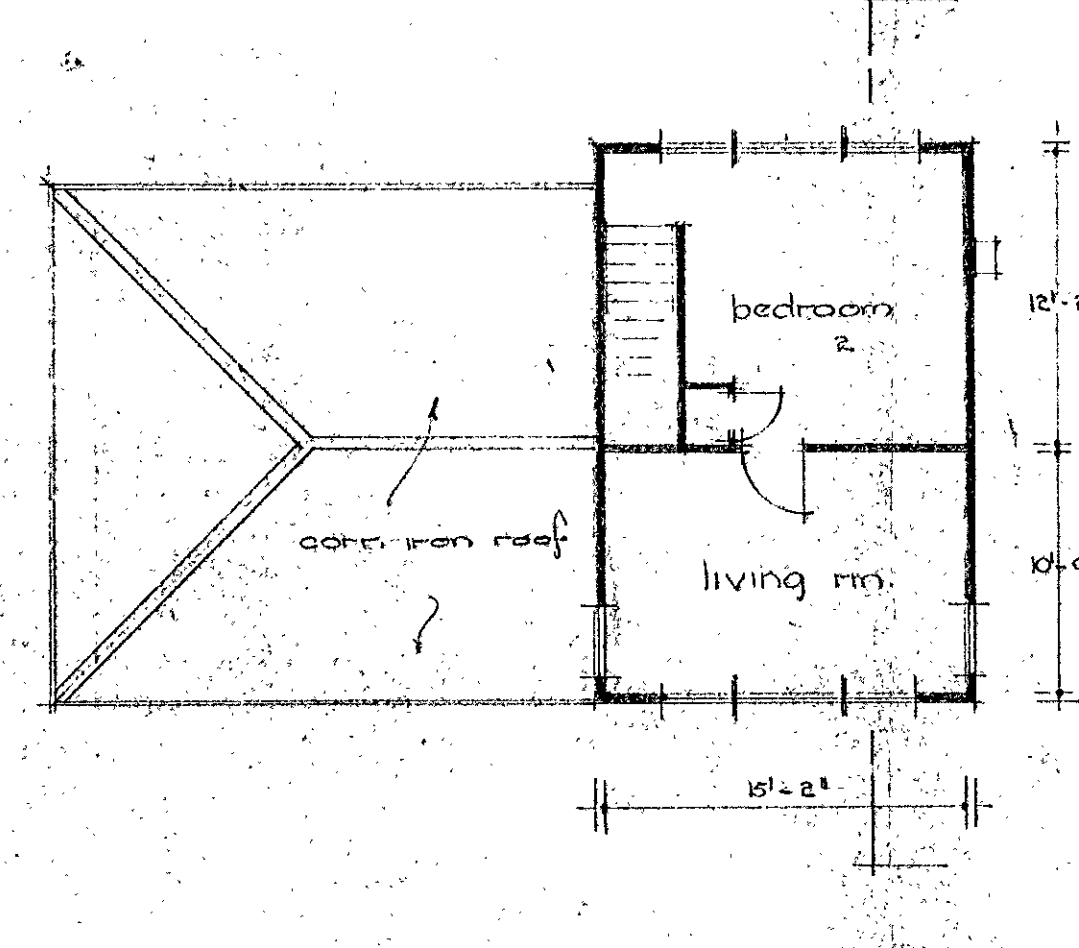
LOCALITY PLAN  
Scale 80'



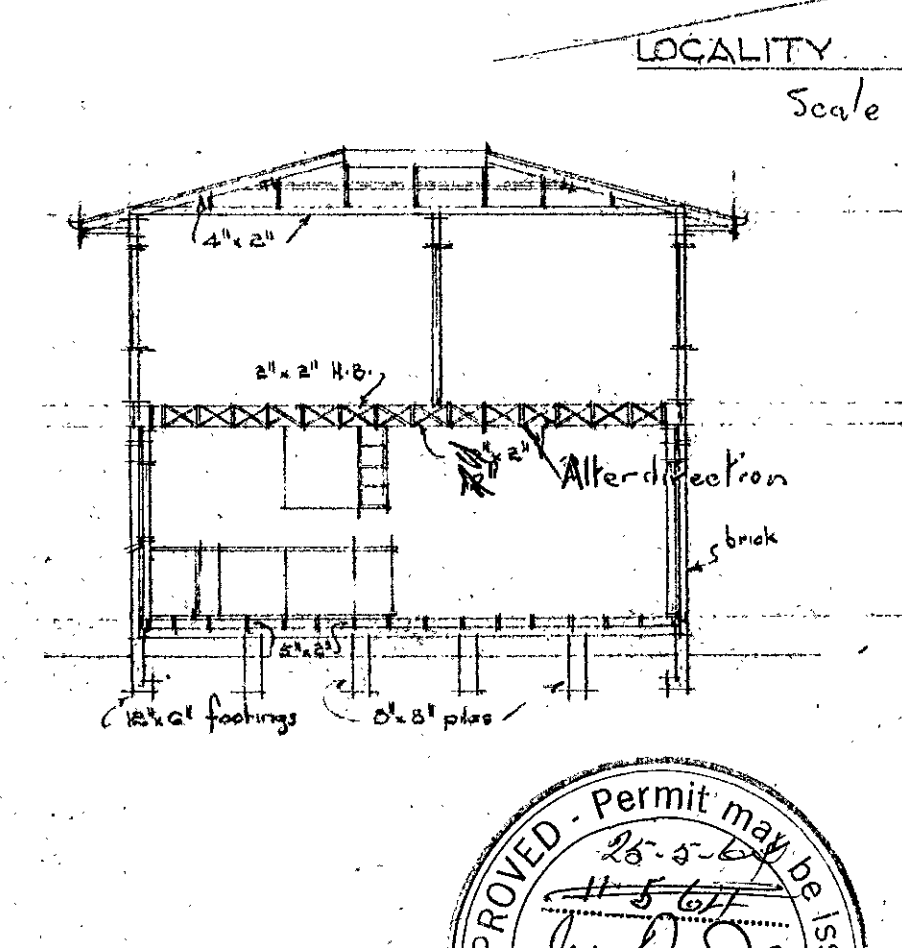
floor plan



foundation plan

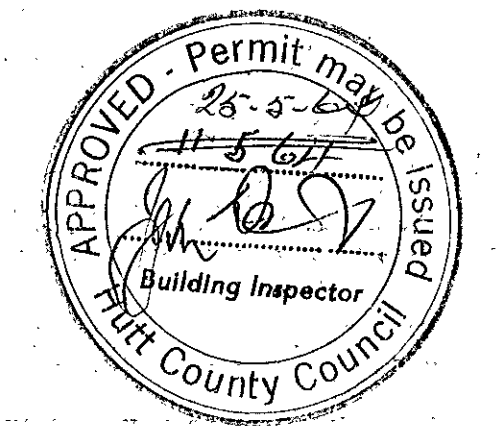


first floor plan

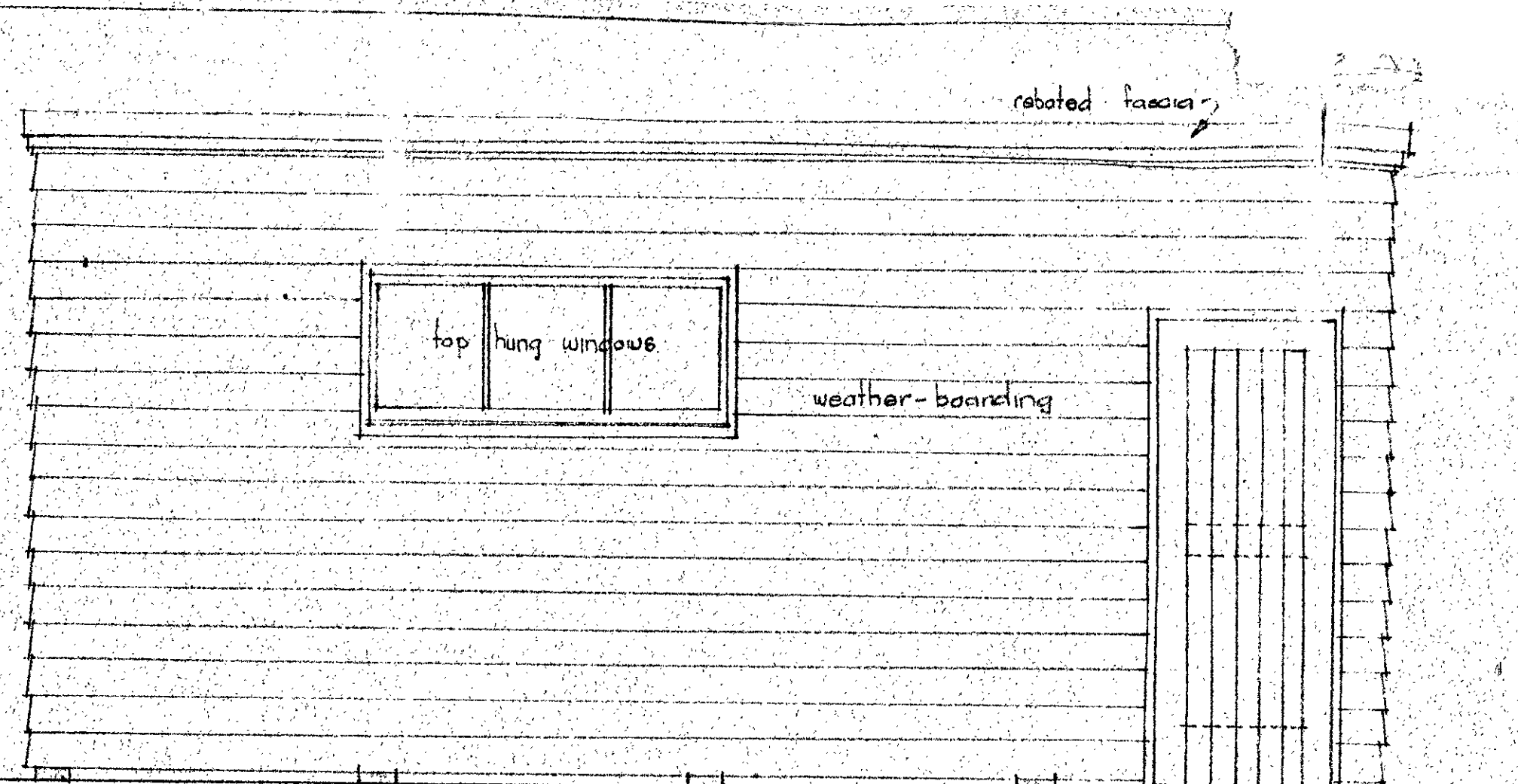


section

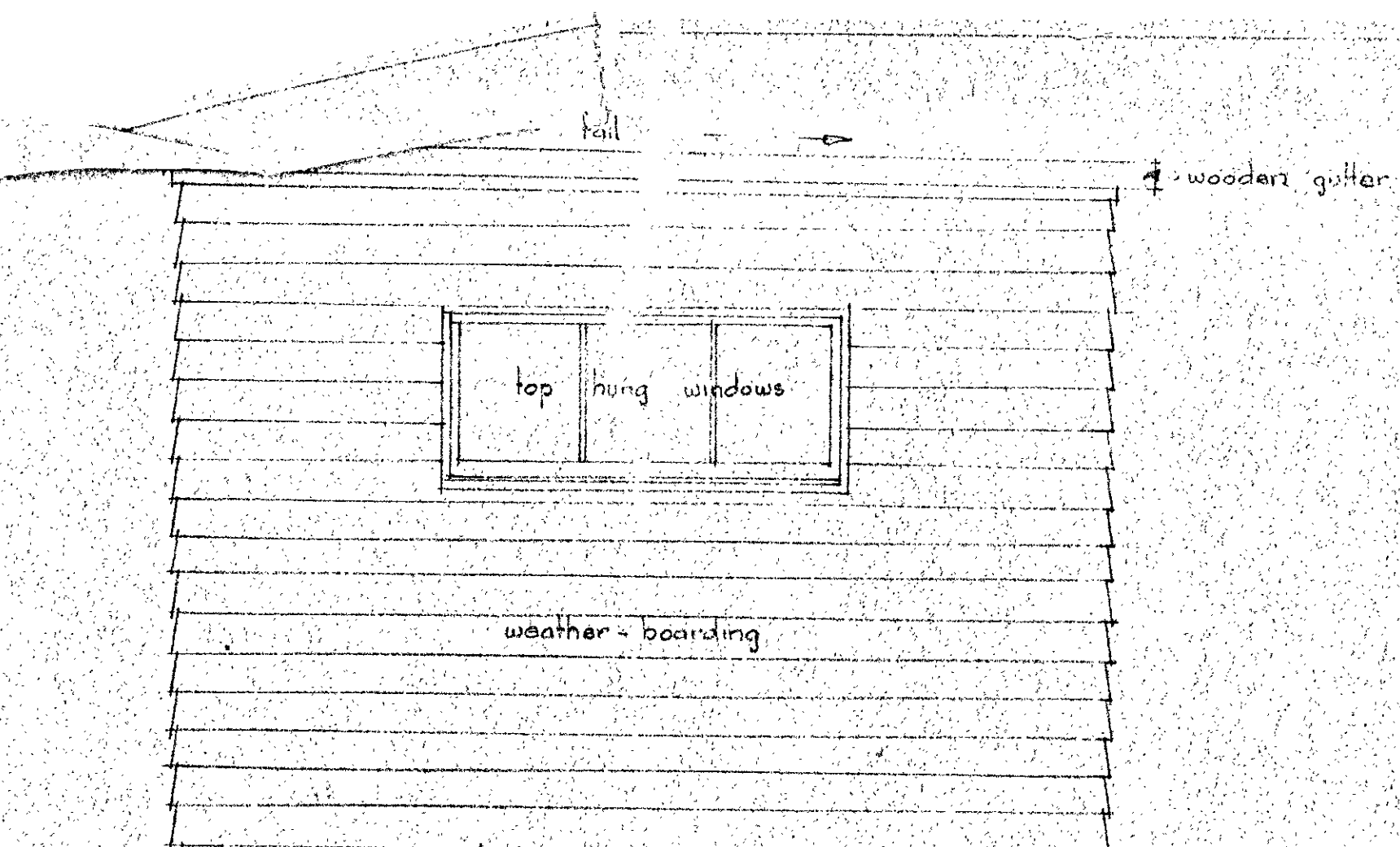
PROPOSED RESIDENCE & GARAGE ALLEN ROAD RAUMATI BEACH  
FOR P. WICKHAM ESQ  
Scale: 1/8" to one foot



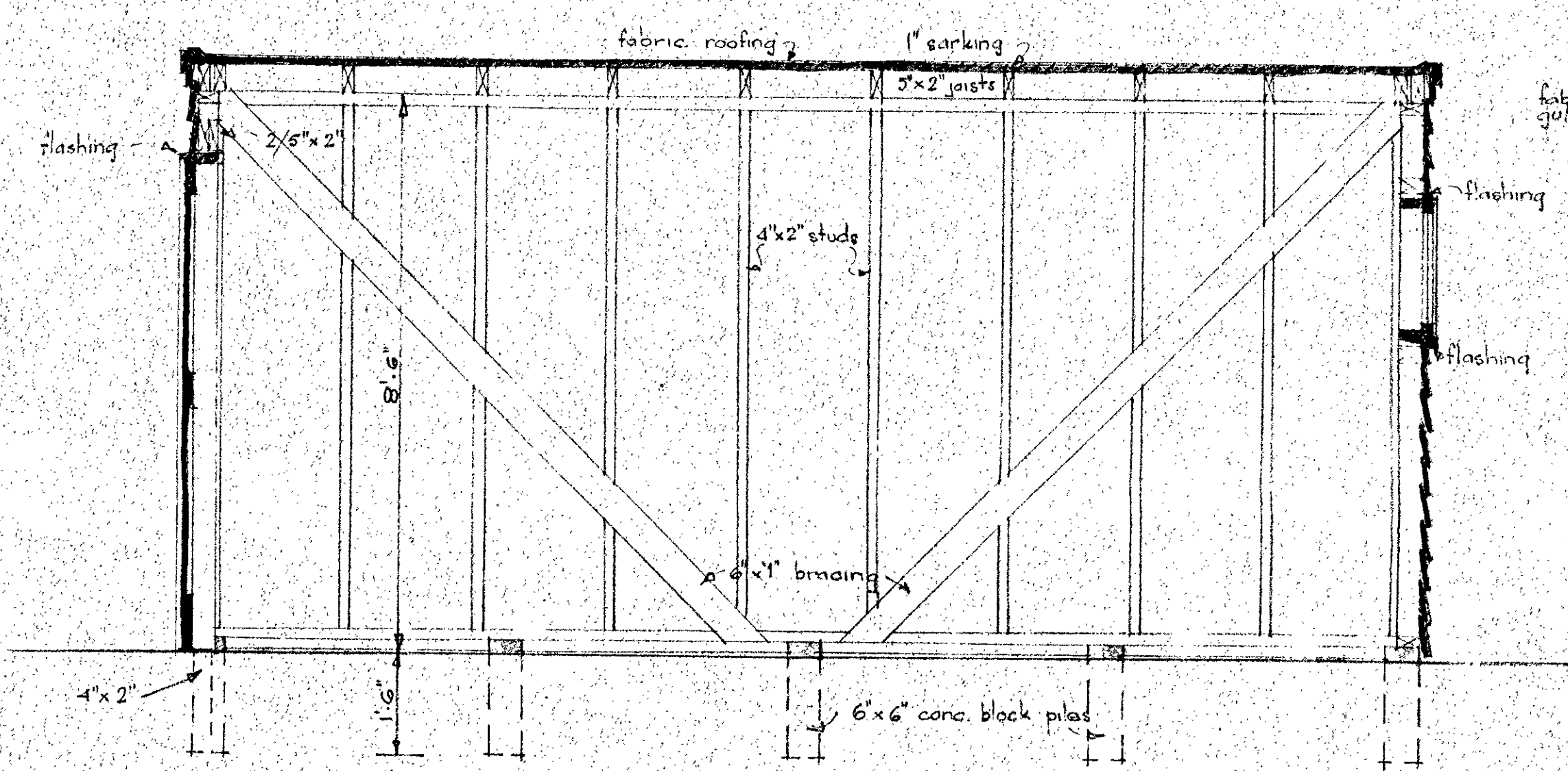




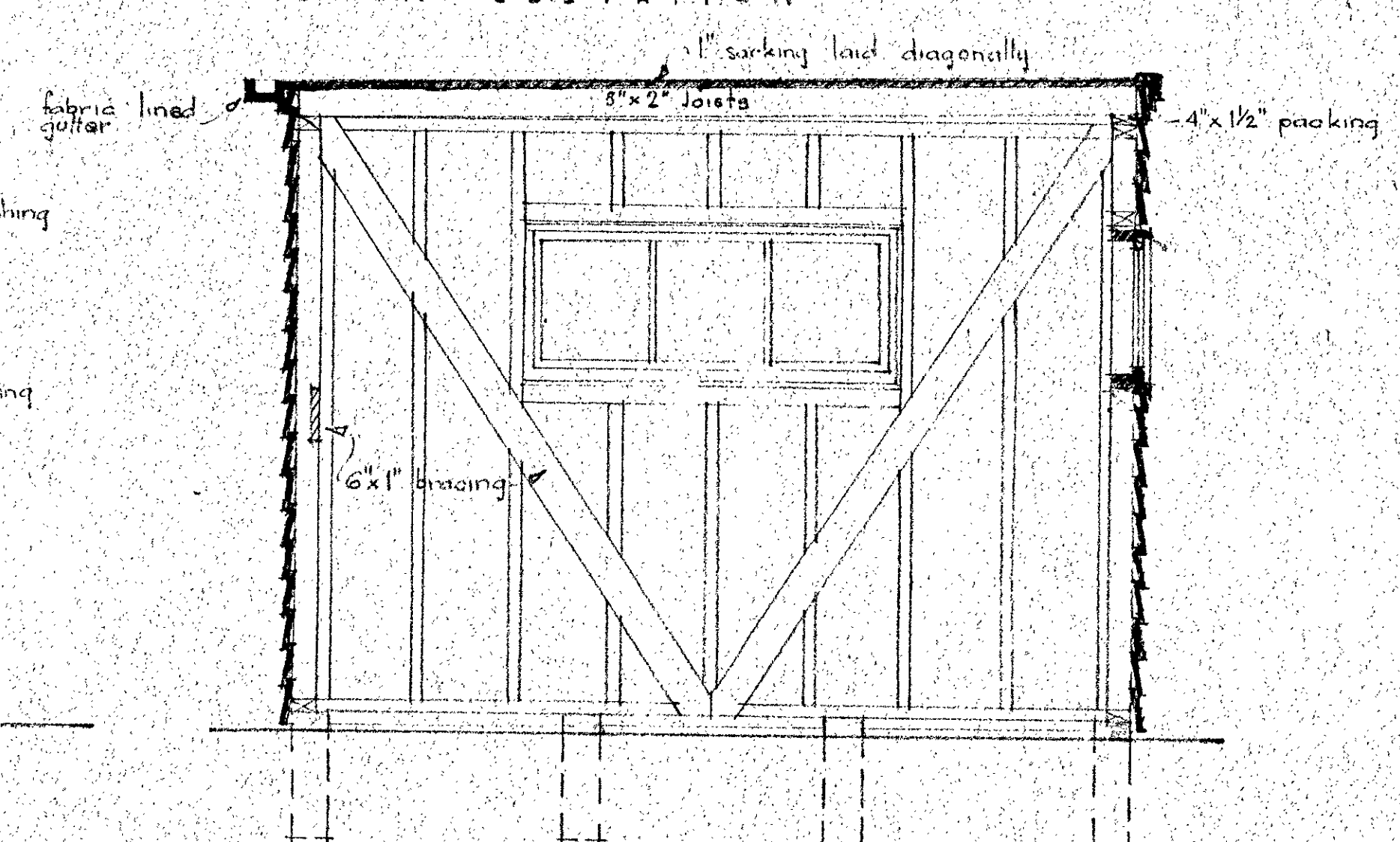
SIDE ELEVATION



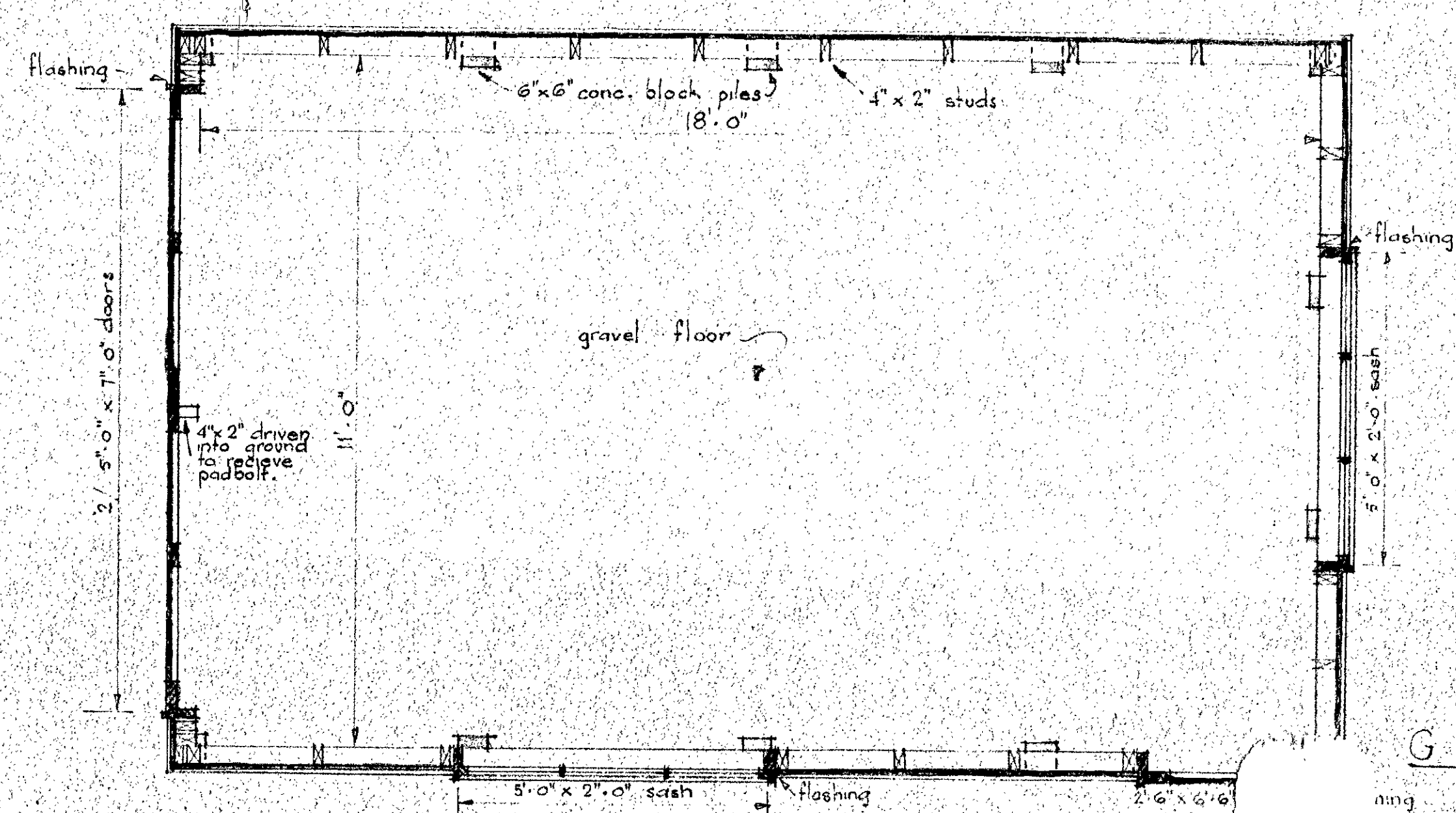
BACK ELEVATION



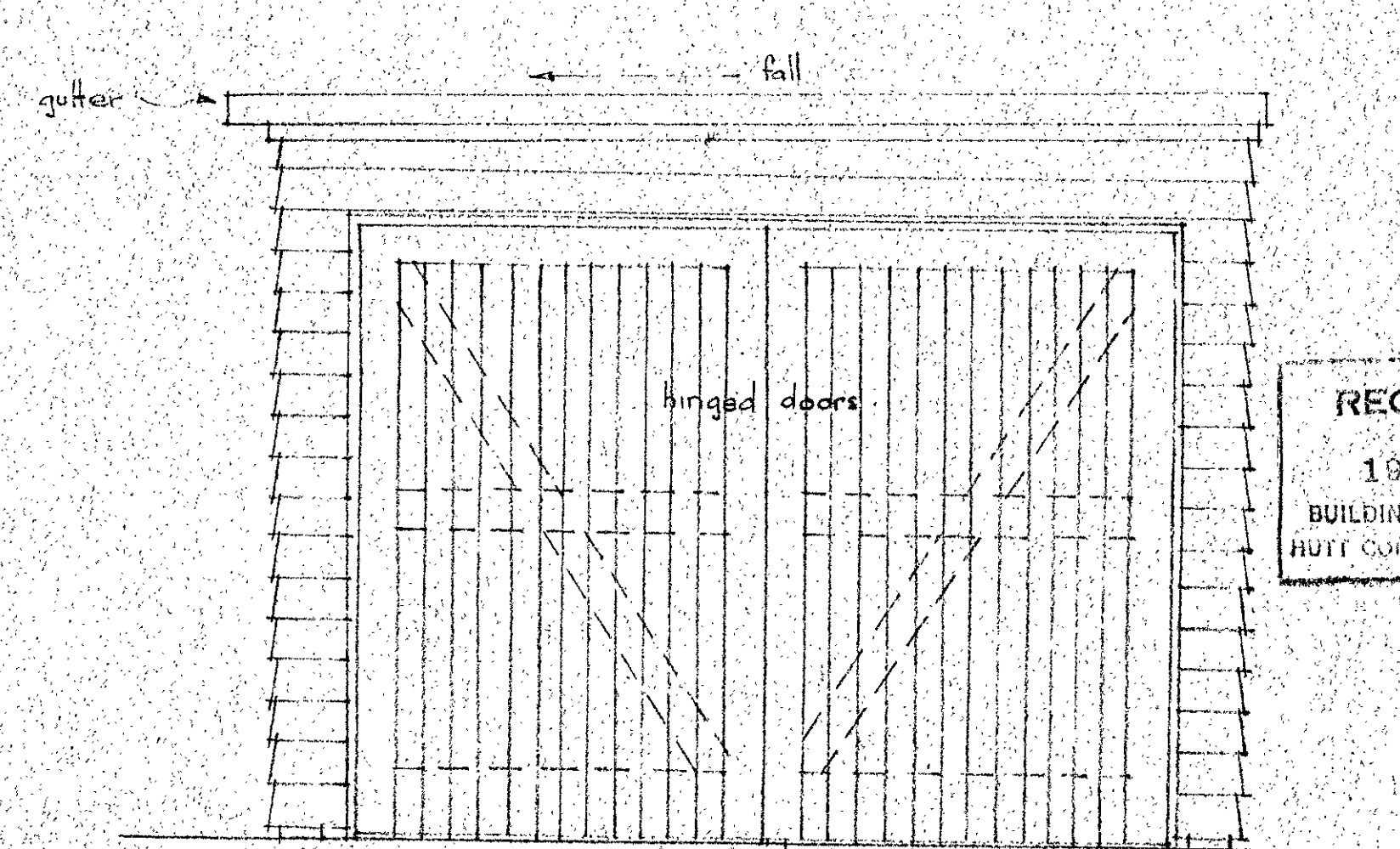
LONGITUDINAL SECTION



CROSS SECTION



PLAN

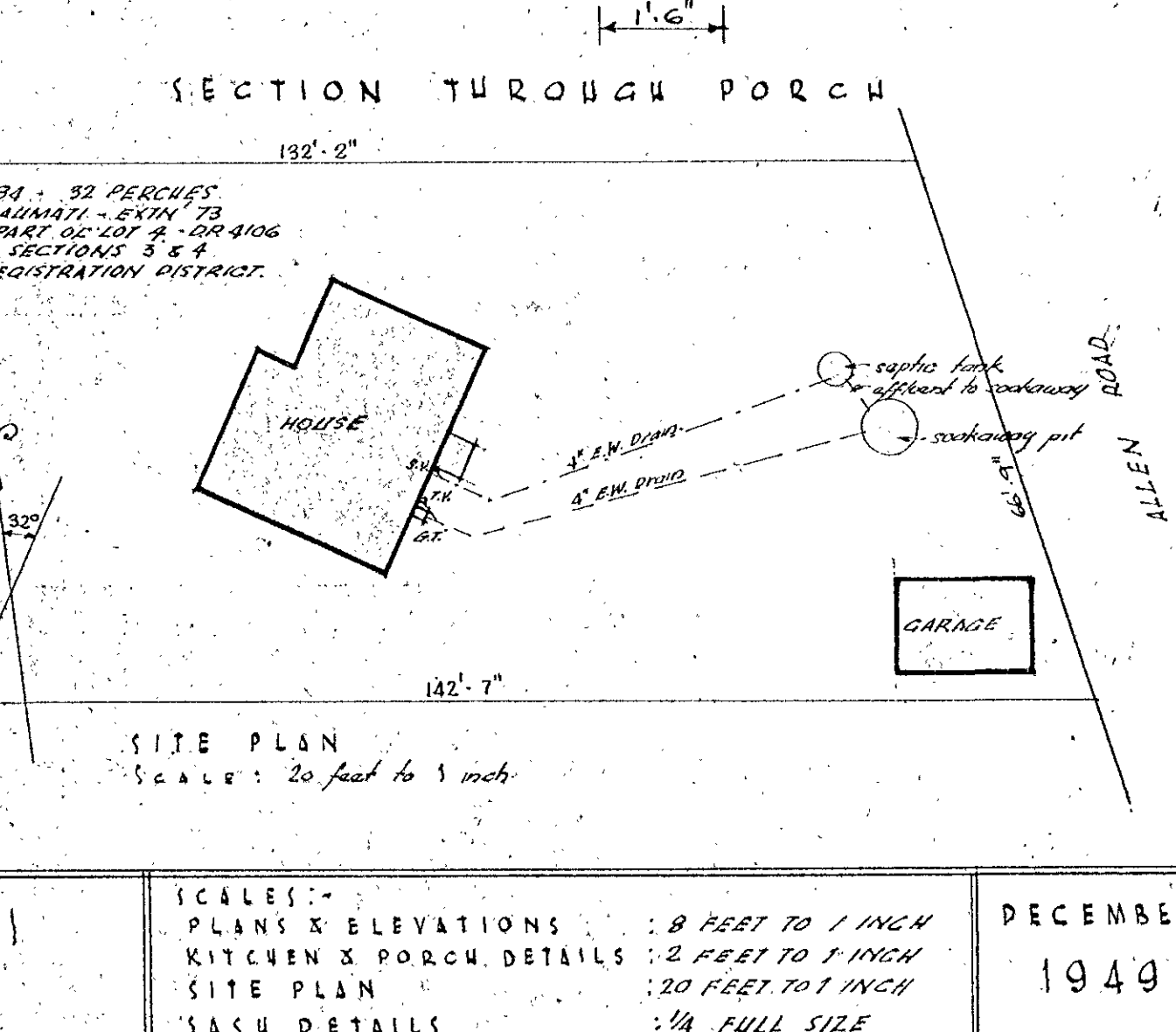
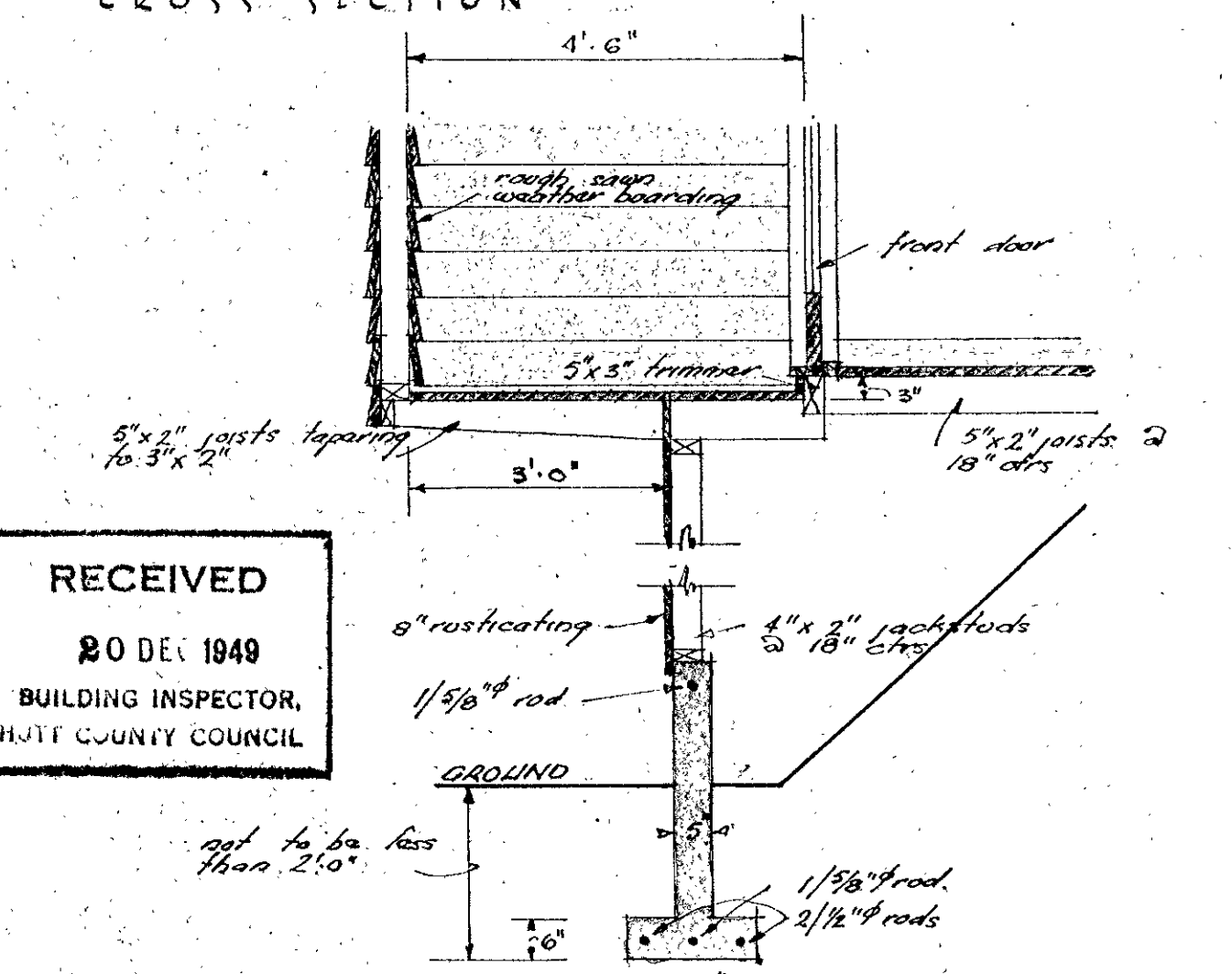
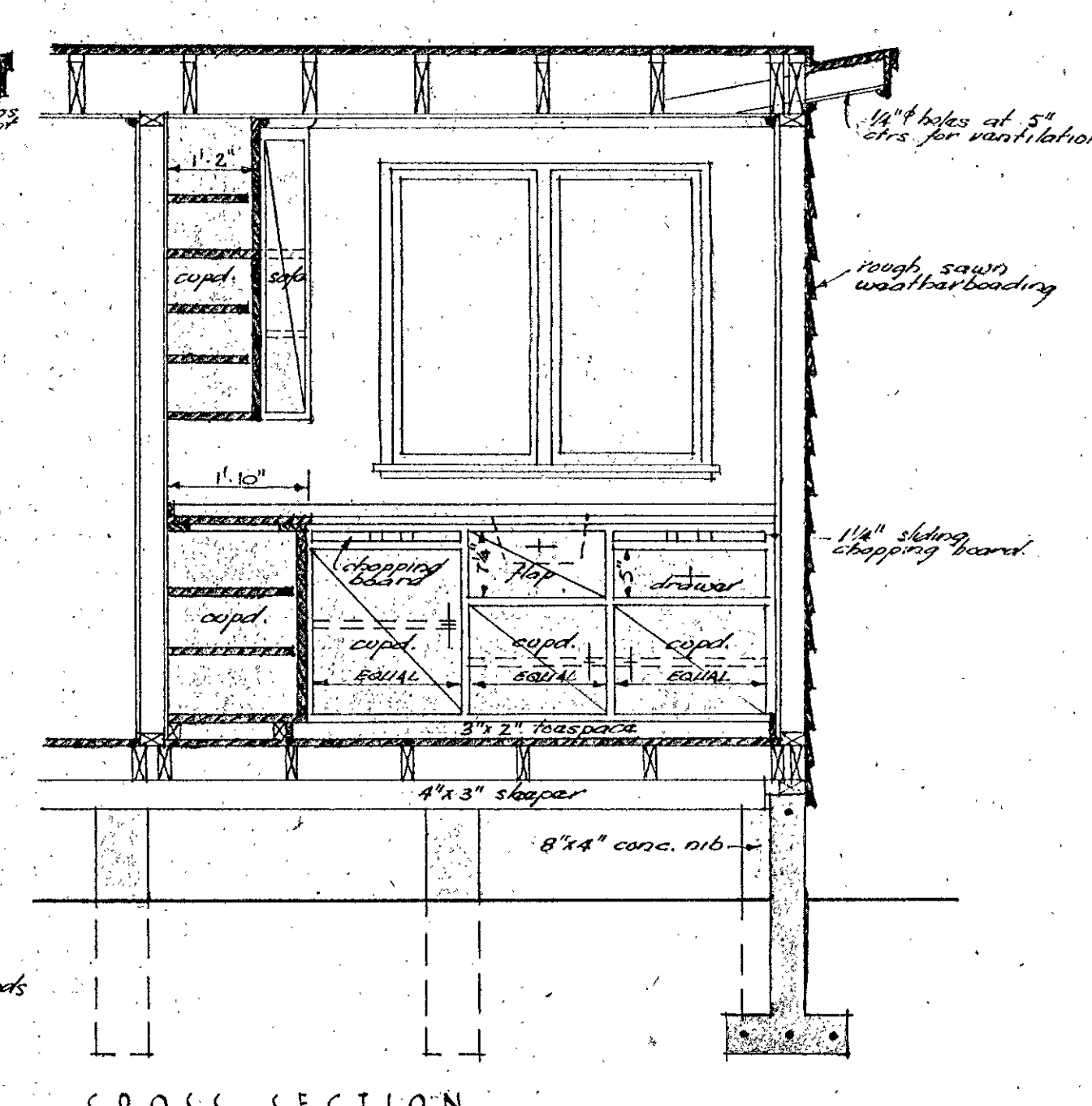
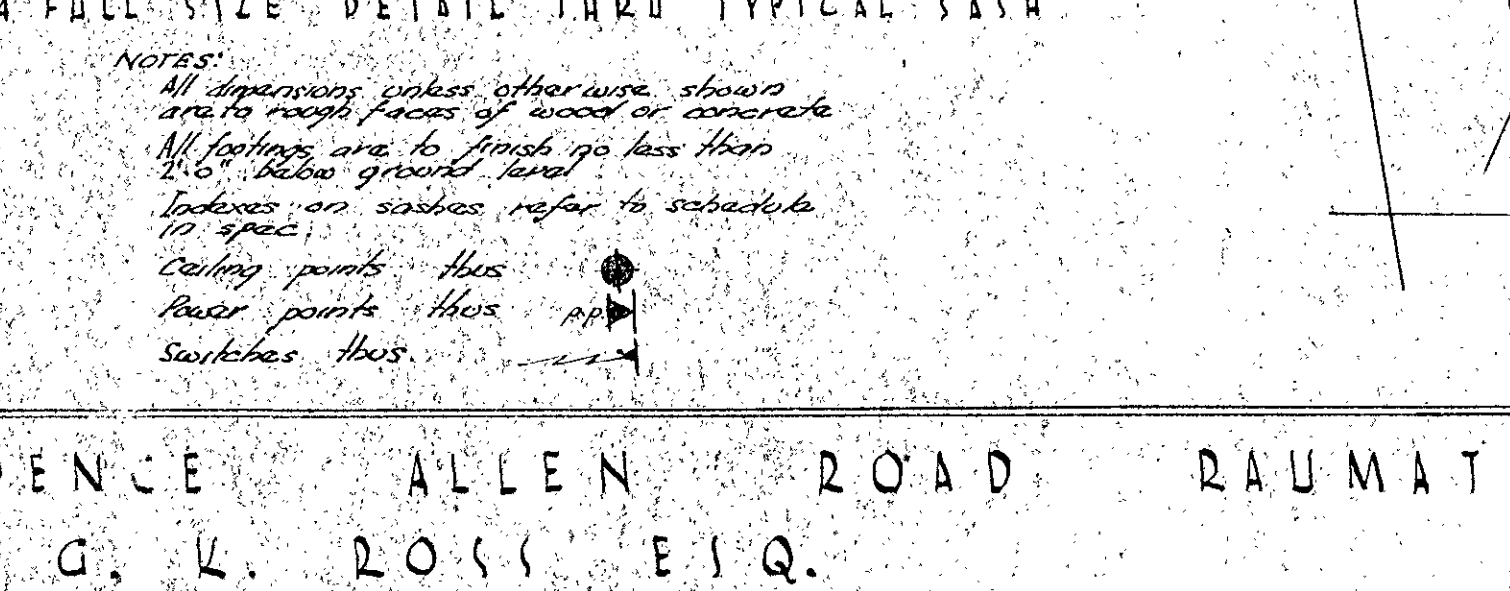
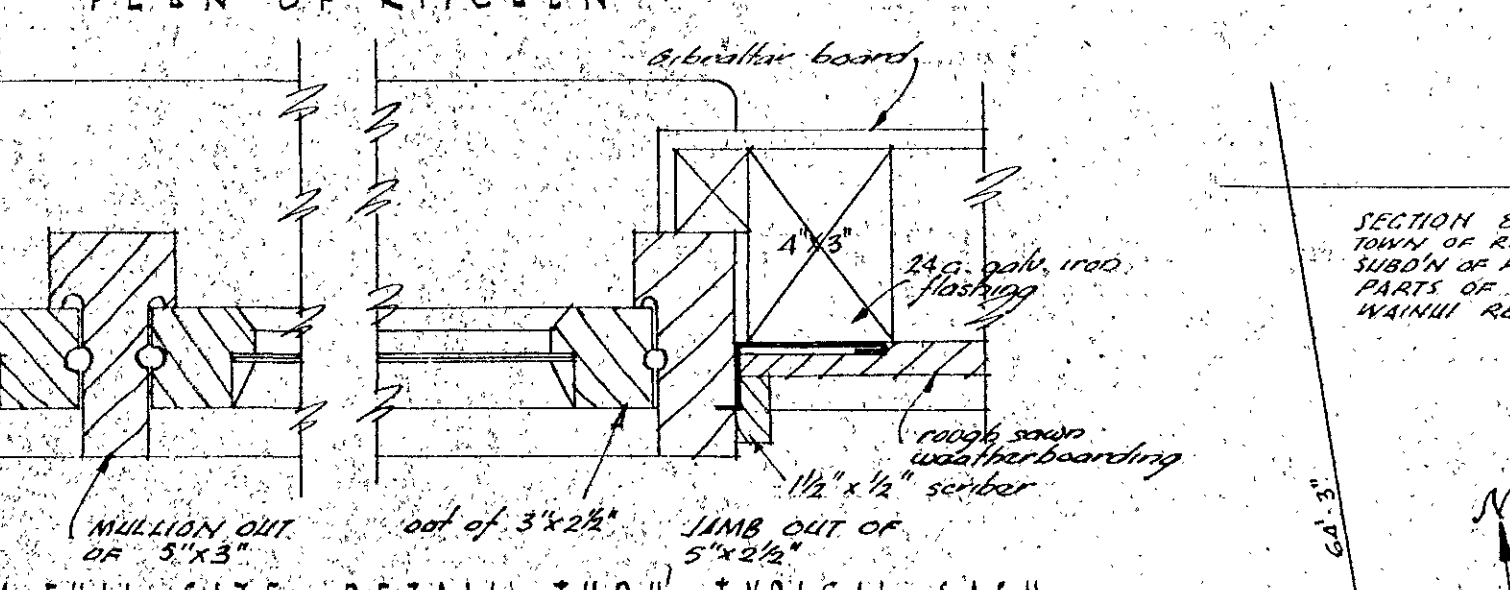
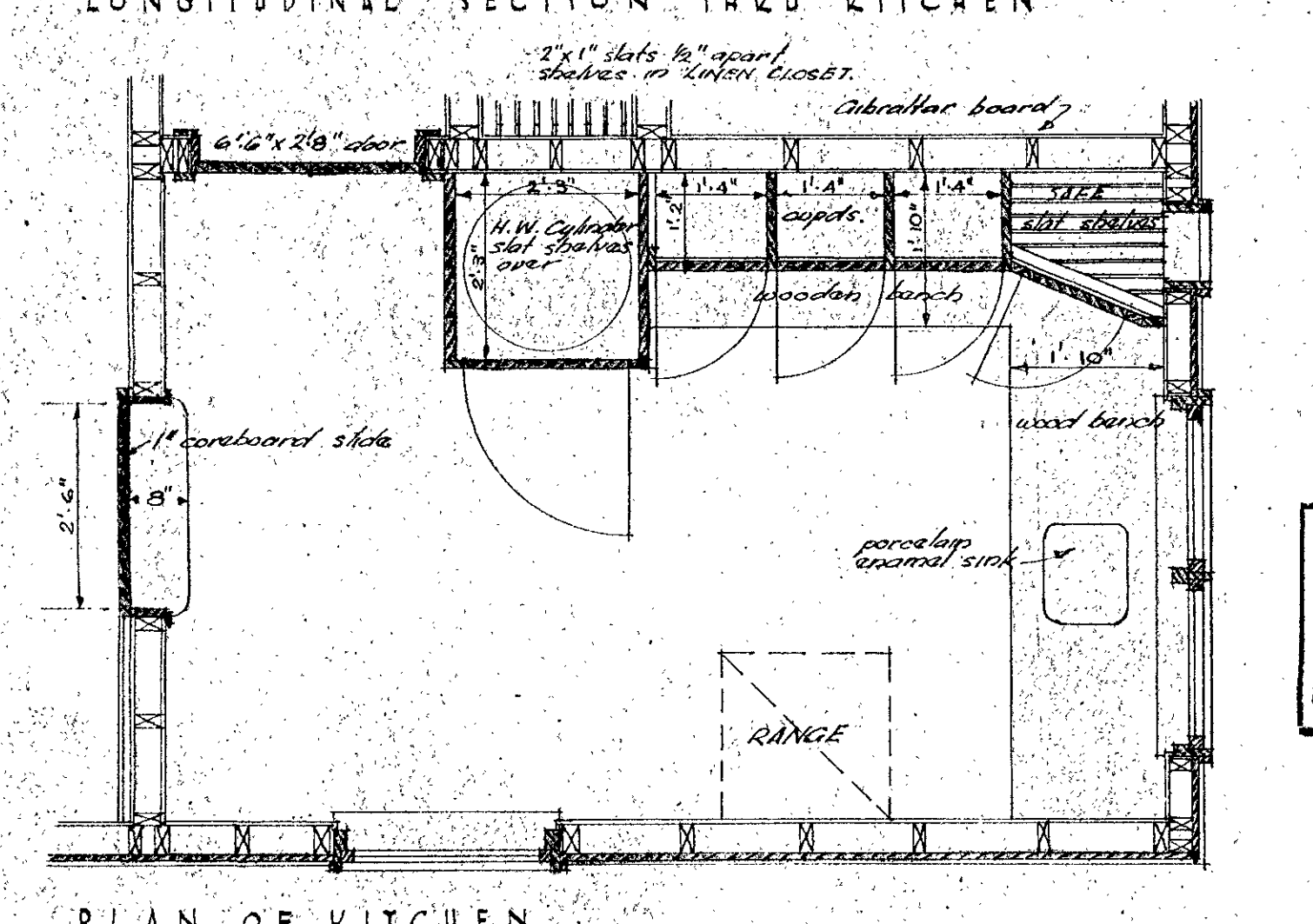
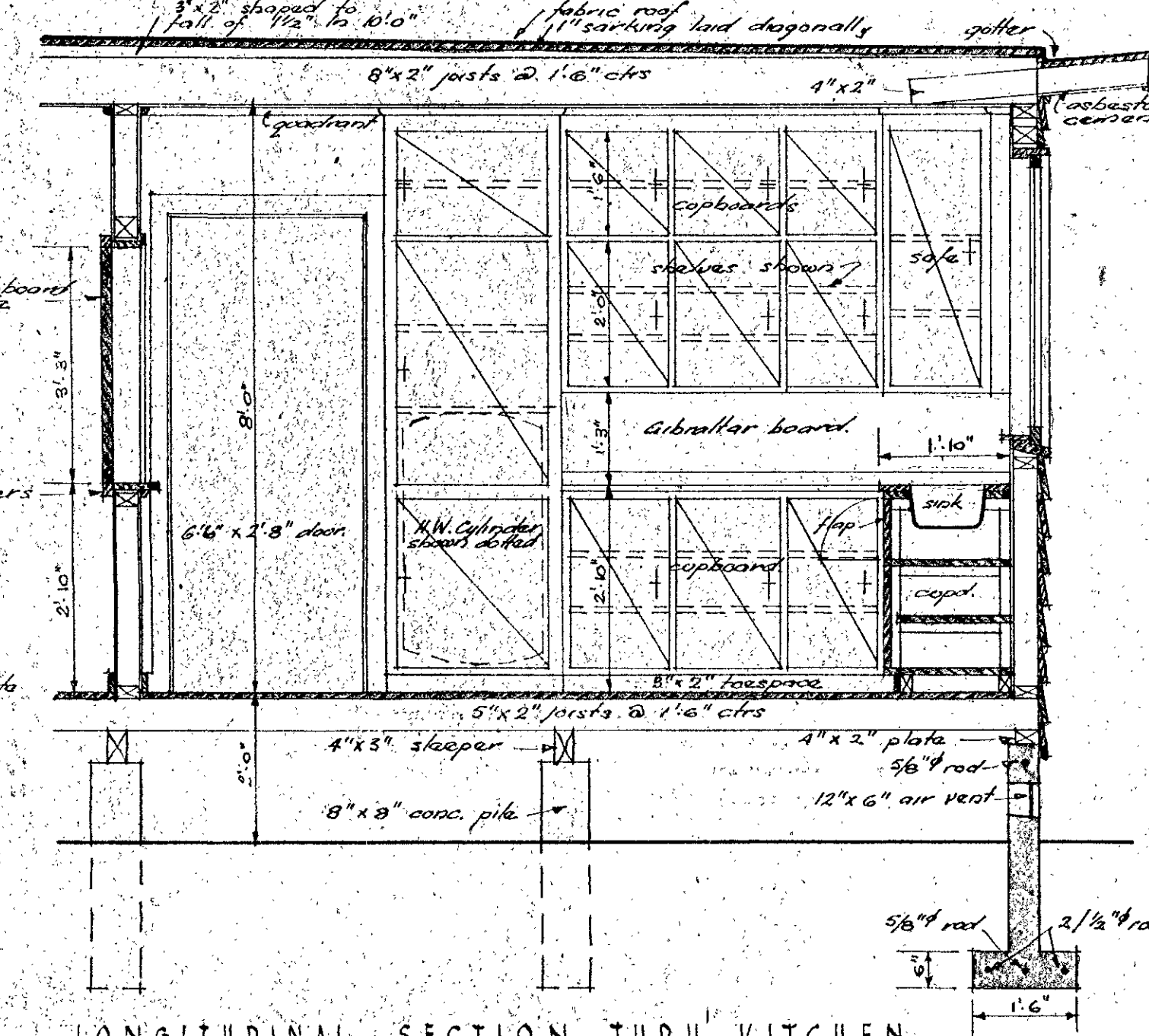
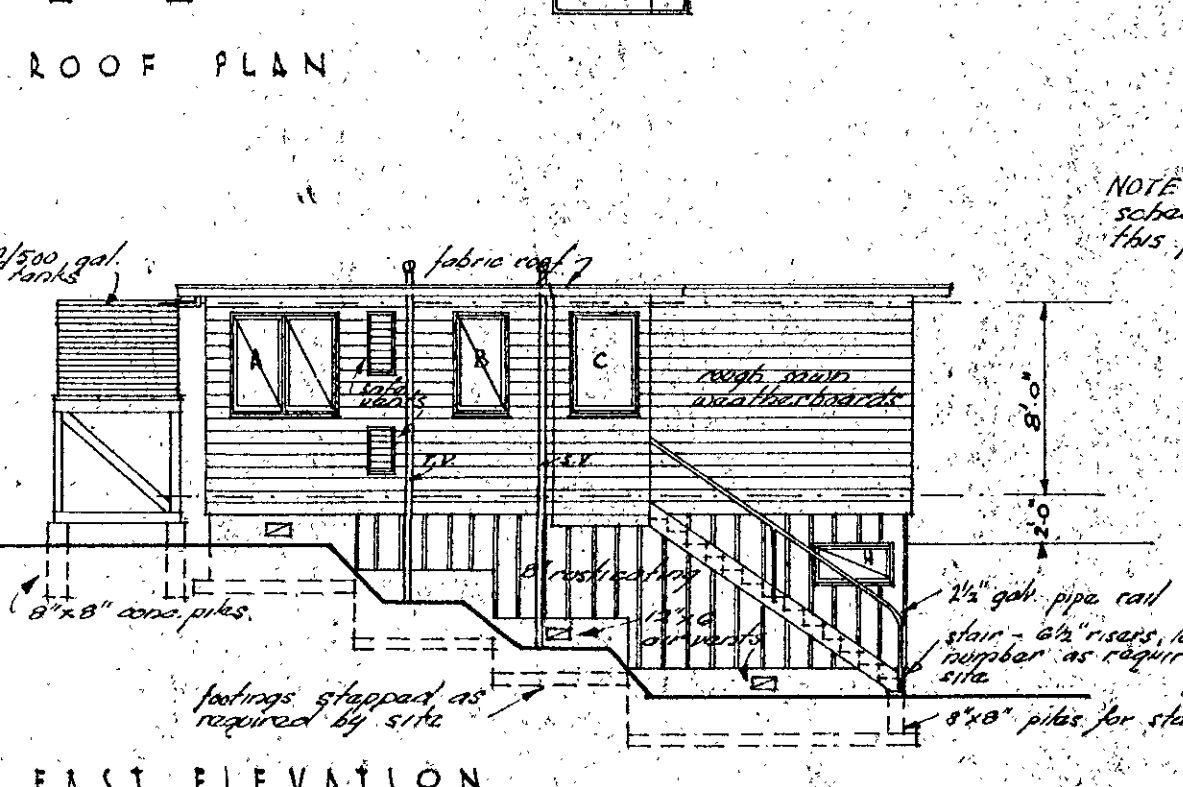
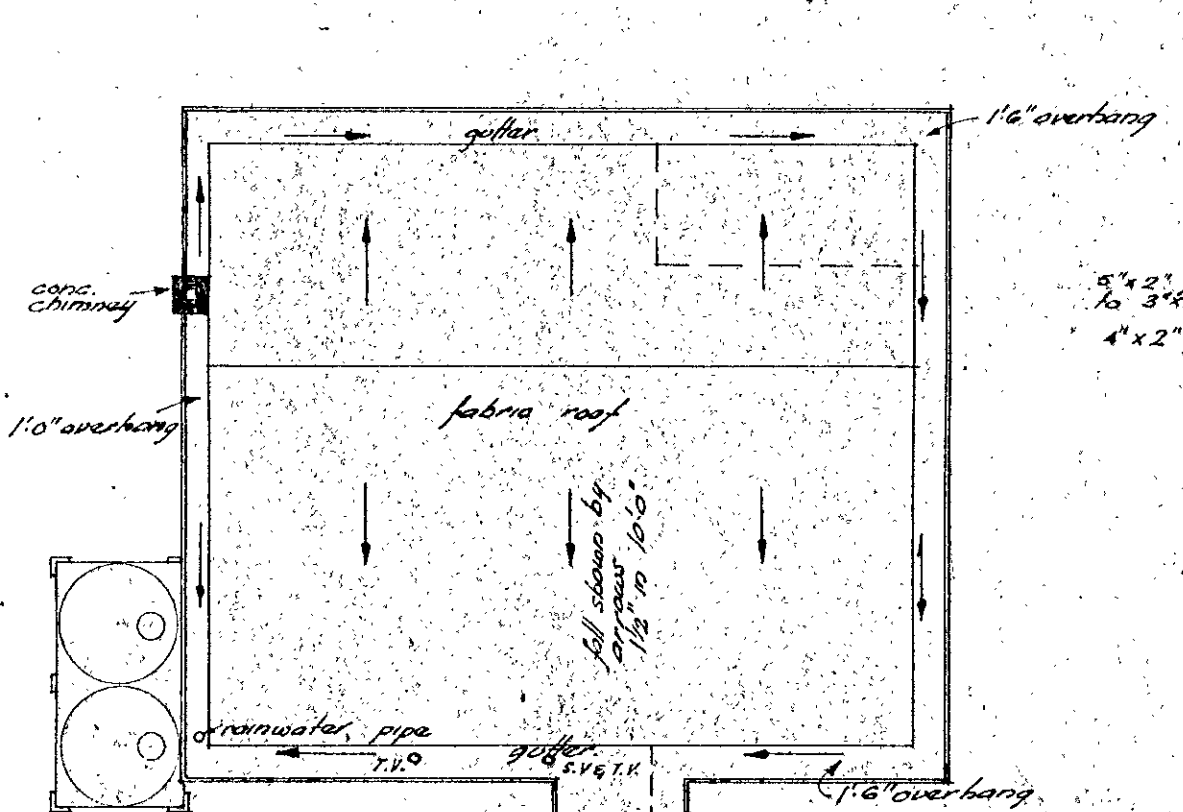
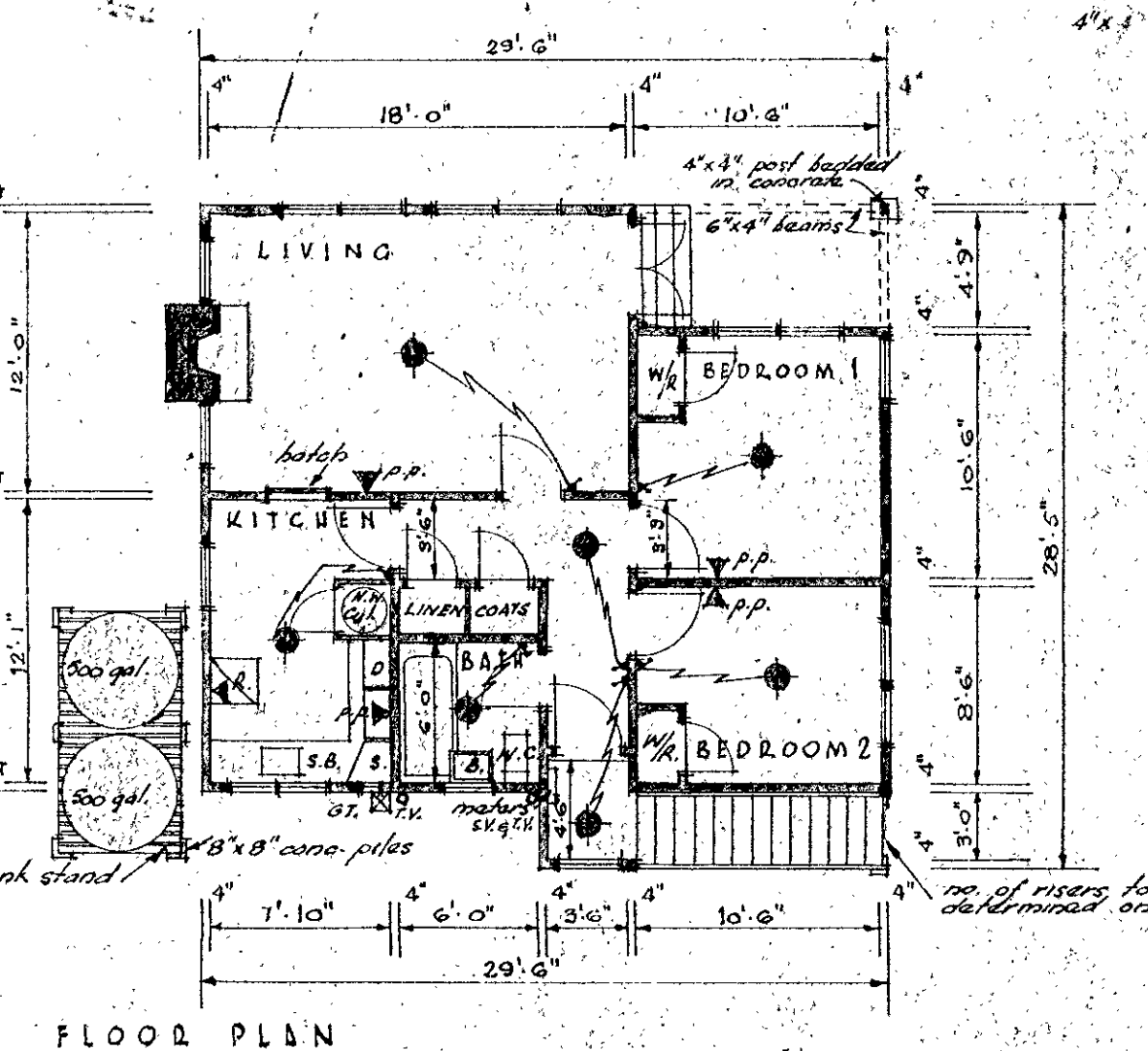
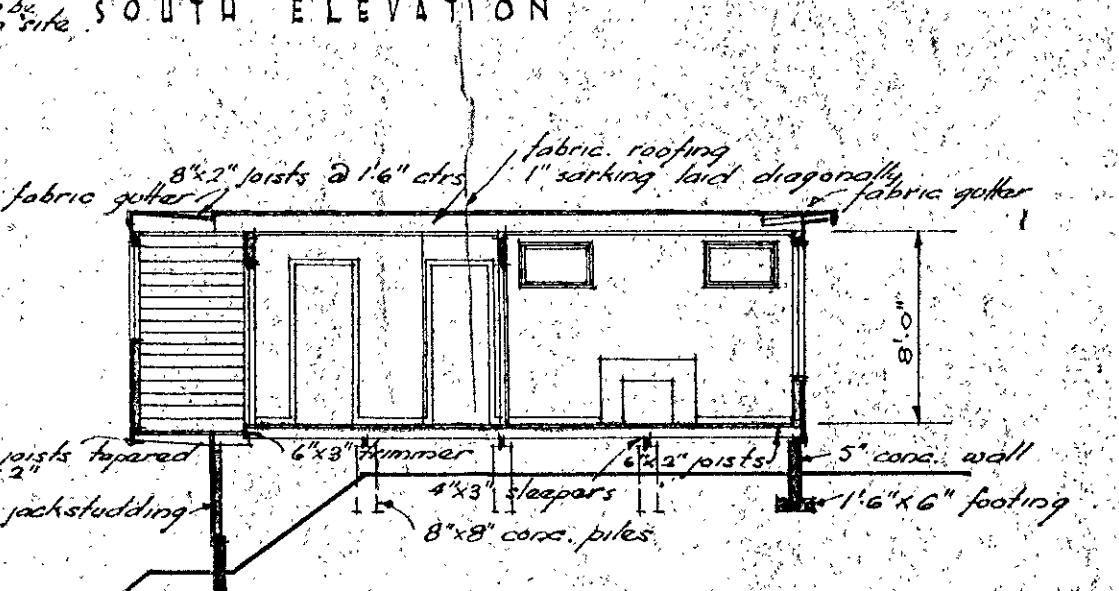
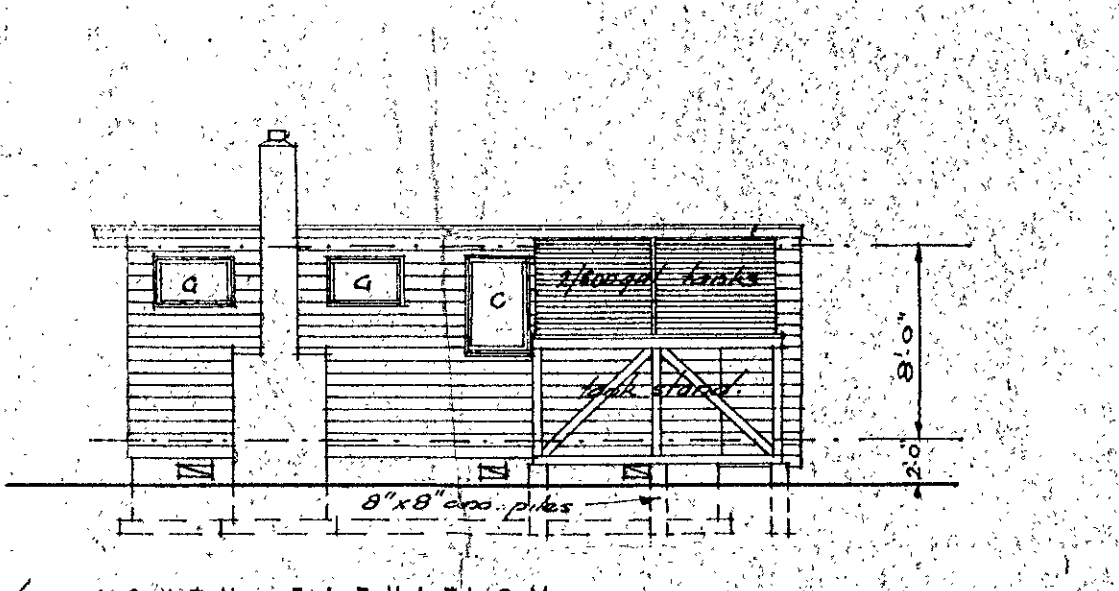
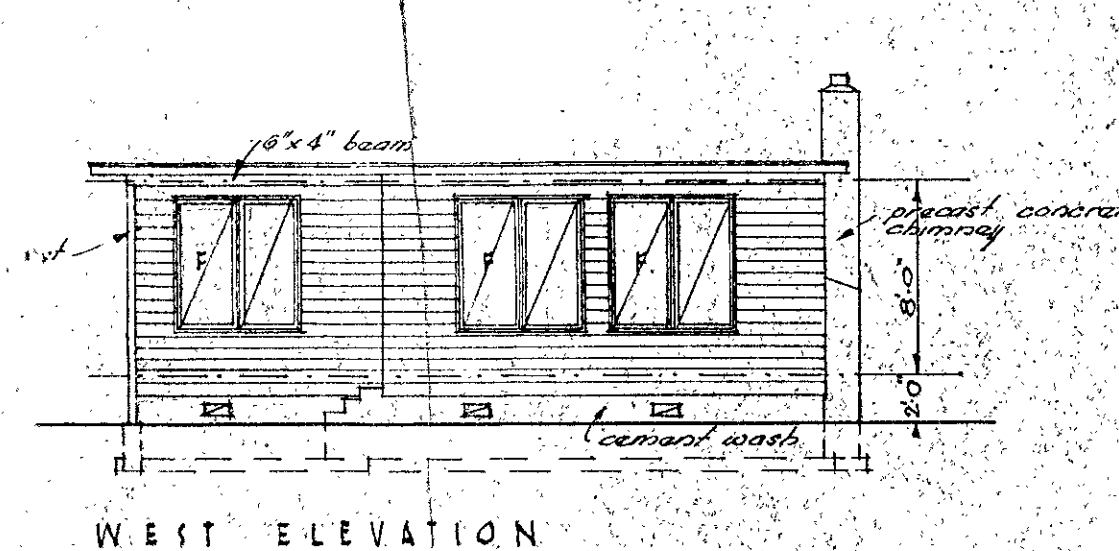
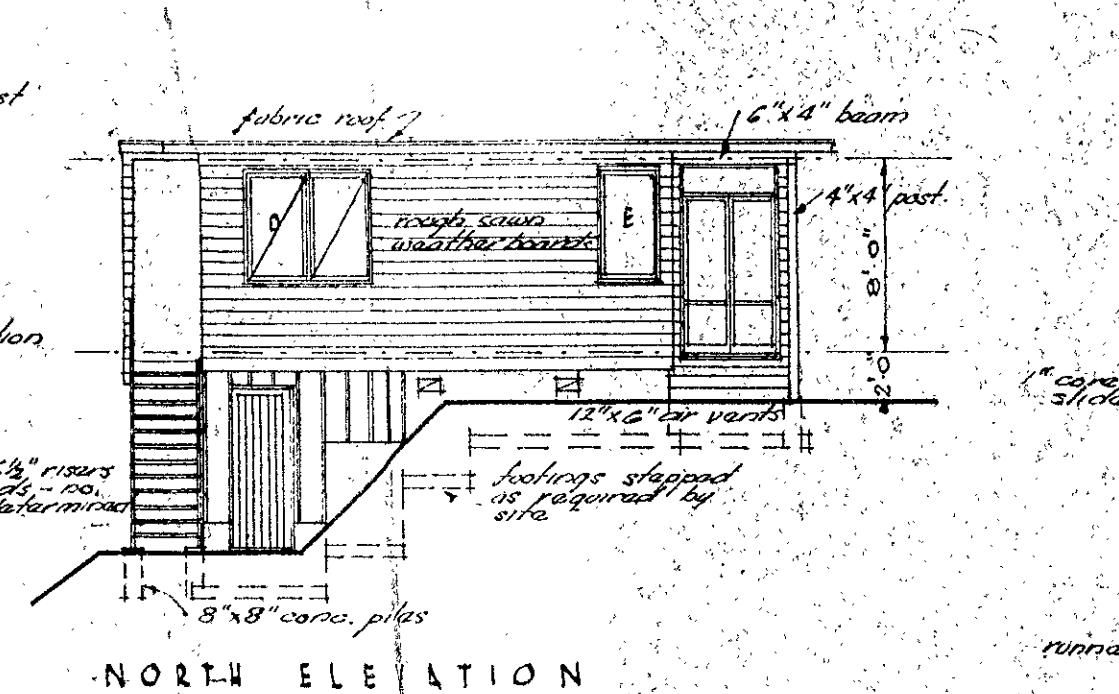
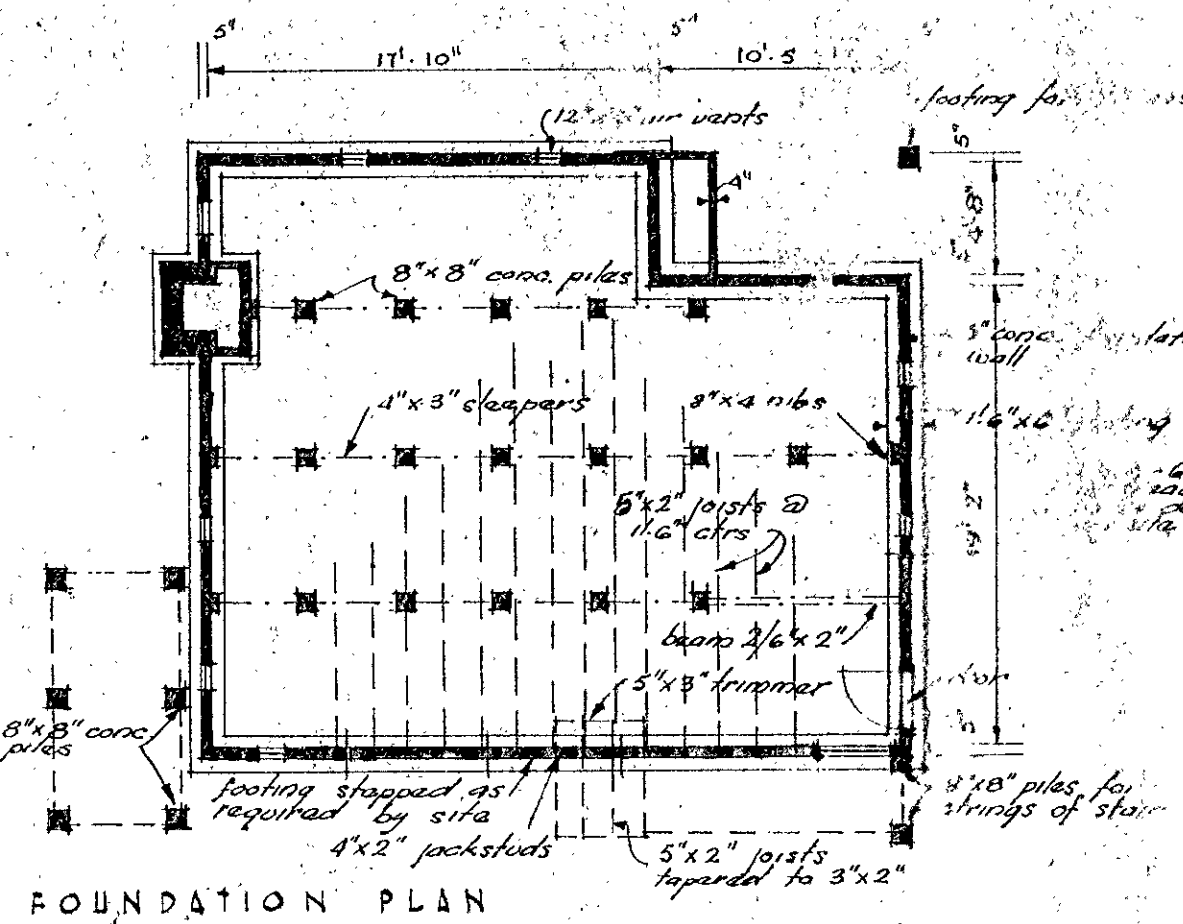


FRONT ELEVATION  
GARAGE - PARAPARAUMU FOR G. ROSS ESQ.

RECEIVED  
19 SEP 1949  
BUILDING INSPECTOR,  
HUTT COUNTY COUNCIL

SCALE: 2 feet to 1 inch DATE: September 1949





RECEIVED  
20 DEC 1949  
BUILDING INSPECTOR,  
HUTCH COUNTY COUNCIL

RESIDENCE ALLEN ROAD RAUMATI  
FOR G. L. ROSS ESQ.

DECEMBER 1949