

Telephone (V.M.C.) 052477-730  
N.Z. 2 Upper Motueka

7.9.89  
REF 8924

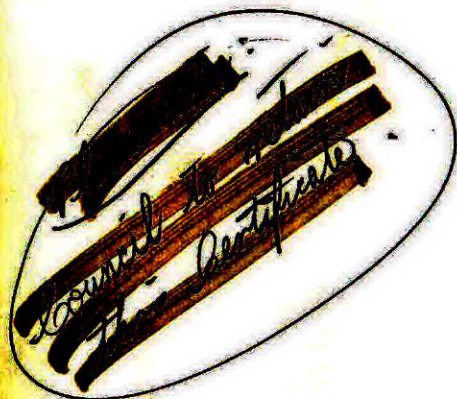
**GARY HODDER**  
B.E., M.I.P.E.N.Z. Registered Engineer  
CONSULTING CIVIL & STRUCTURAL ENGINEER

DESIGN CERTIFICATE FOR  
SUPPORT OF FIRST FLOOR  
ADDITION OVER TERRACE  
- AT 250 QUEEN VICTORIA ST.  
MOTUEKA  
- FOR MR & MRS WOOLFORD

THIS IS TO CERTIFY THAT THE DETAILS SHOWN  
ON DRS. 8924, 01 & 02, HAVE BEEN DESIGNED  
IN ACCORDANCE WITH THE RELEVANT N.Z. STAND-  
ARDS, INCLUDING NZS 4203, NZS 3603,  
& SHOULD PERFORM ADEQUATELY IF CONSTRUCT-  
ED IN ACCORDANCE WITH THE DRAWINGS & NZS  
3604. IT HAS BEEN ASSUMED THAT FIRM  
BEARING ORIGINAL GROUND EXISTS AT THE SITE  
& UNDER EXISTING FOUNDATIONS.

SIGNED

*G S Hodder*  
BE. MIPENZ  
REG. NO. 8398



**TASMAN DISTRICT COUNCIL**

These are the plans  
specifications referred to in

Building Permit No. 044602  
Date 19/9 1989

BUILDING INSPECTOR,

*MACB*



I/1/1

Gordon Christie

31 August 1989

The Manager  
Lowe & Heal Builders Ltd  
PO Box 254  
MOTUEKA

Dear Sir

RE: ALTERATION - WOOLFORD, QUEEN VICTORIA STREET, MOTUEKA

Thank you for your application to alter Mr and Mrs Woolford's dwelling in Queen Victoria Street.

Unfortunately, before a building permit can be issued, further information will be required.

One main area of concern is the supporting of the extra loads above the terrace area. The plans submitted do not provide the details necessary to check on the structural integrity of the proposed building work.

The following is a list of information required prior to the issue of a building permit.

1. Better plans with structural details included.
2. Design certificate for the support of the structure above the terrace area.
3. Specifications.
4. Insulation details.
5. Nominate plumbing and drainage person doing the sanitary work.
6. Initials of owner.

Please note that the permit fees with the Branz levy total \$397.00. Your cheque for \$375.00 is being returned for correction.

Yours faithfully



G K Christie  
TECHNICAL OFFICER

Enc

**Main Office**

189 Queen Street  
Private Bag, Richmond  
Fax (054) 47249  
Tel (054) 48176

**Murchison  
Service Centre**

Fairfax Street  
Murchison  
Tel (054) 39004

**Motueka  
Service Centre**

220 High Street  
P.O. Box 123, Motueka  
Fax (0524) 89751  
Tel (0524) 87700

**Golden Bay  
Service Centre**

Commercial Street  
P.O. Box 74, Takaka  
Fax (0524) 59972  
Tel (0524) 59516

Telephone (LMO) 052477-730

R.D.2 Upper Moutere

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### BEAM AT TERRACE

$$\text{LOAD} \div 4.6/2 \times 2.8 = 6.4 \text{ kN/m}$$

$$\text{BM} = 6^2 \times 6.4/8 = 28.8 \text{ kNm}$$

$$2/300 \times 100 : f_b = 9.6 \text{ MPa} - \text{TOO HIGH}$$

$$178 \times 89 \times 22 \text{ TFB} : 29 \text{ kNm} - \text{O.K.}$$

$$200 \text{ UB} \cdot 25 : 40 \text{ kNm}$$

$$\text{LOAD TO COLUMN} = 2.3 \times 2.8 \times 3 = 19.3 \text{ kN}$$

$$\Rightarrow \text{PAD } 450 \text{ SQ.}$$

$$\text{COLUMN} : 76 \times 76 \times 3.2 \text{ O.K.}$$

### BEAM OUTSIDE EDGE

$$\text{LOAD} = 2.3/2 \times 2.8 = 3.2 \text{ kN/m}$$

$$\text{BM} = 3.0^2/8 \times 3.2 = 3.6 \text{ kNm}$$

$$300 \times 50 : f_b = 3600/677 = 5.3 \text{ MPa}$$

$$250 \times 50 \text{ RS} : 6.9 \text{ MPa} - \text{O.K.}$$

$$4.0 \text{ m MAX SPAN} - 600 \text{ CS}$$

$$\text{BM} = 2.8 \times 0.6 \times 4^2/8 = 3.4 \text{ kNm}$$

$$250 \times 50 \text{ RS} : 3400/521 = 6.5 \text{ MPa} - \text{O.K.}$$

$$4.3 \text{ m SPAN} : \text{BM} = 3.8 \text{ kNm}$$

$$250 \times 50 : 3800/521 = 7.3 - \text{O.K.} \\ (8.1)$$



HOUSE ADDITION - 250 Q. VICTORIA  
ST. MOTUEKA FOR WOOLFORD

JOB No. 8924	PAGE No. 1
REF. SSH	DATE 6/1/8

CHECK VERTICAL SUPPORT TO NEW 1ST  
FLOOR OF EXISTING TIMBER FRAMED  
HOUSE.

LOADS.

LIVE LOAD : 1.5 kPa

DEAD LOADS : FLOOR 0.5  
ROOF 0.3  
WALLS 0.5

TOTAL 2.8 kPa

CHECK EXISTING BEARER LINE AT HALL

$$\text{LOAD} = 4.5 \text{ m} \times 2.8 = 12.6 \text{ kN/m}$$

$$\text{BM} = 1.3^2/8 \times 12.6 = 2.7 \text{ kNm}$$

$$\text{TRY } 150 \times 100 \text{ : } f_b = \frac{2700}{375} = 7.2 \text{ mPa}$$

ROUGH SAWN

-OK FOR DTL

NEW BEARER AT LIVING ROOM WALL

$$\text{LOAD} = 2.4 \times 2.8 = 6.7 \text{ kN/m}$$

$$\text{SPAN BETWEEN EXSTS BEARERS} = 2.1 \text{ m max.}$$

$$\text{BM} = 3.7 \text{ kNm}$$

$$\text{TRY } 2/200 \times 50 : f_b = 6.3 \text{ mPa OK.}$$

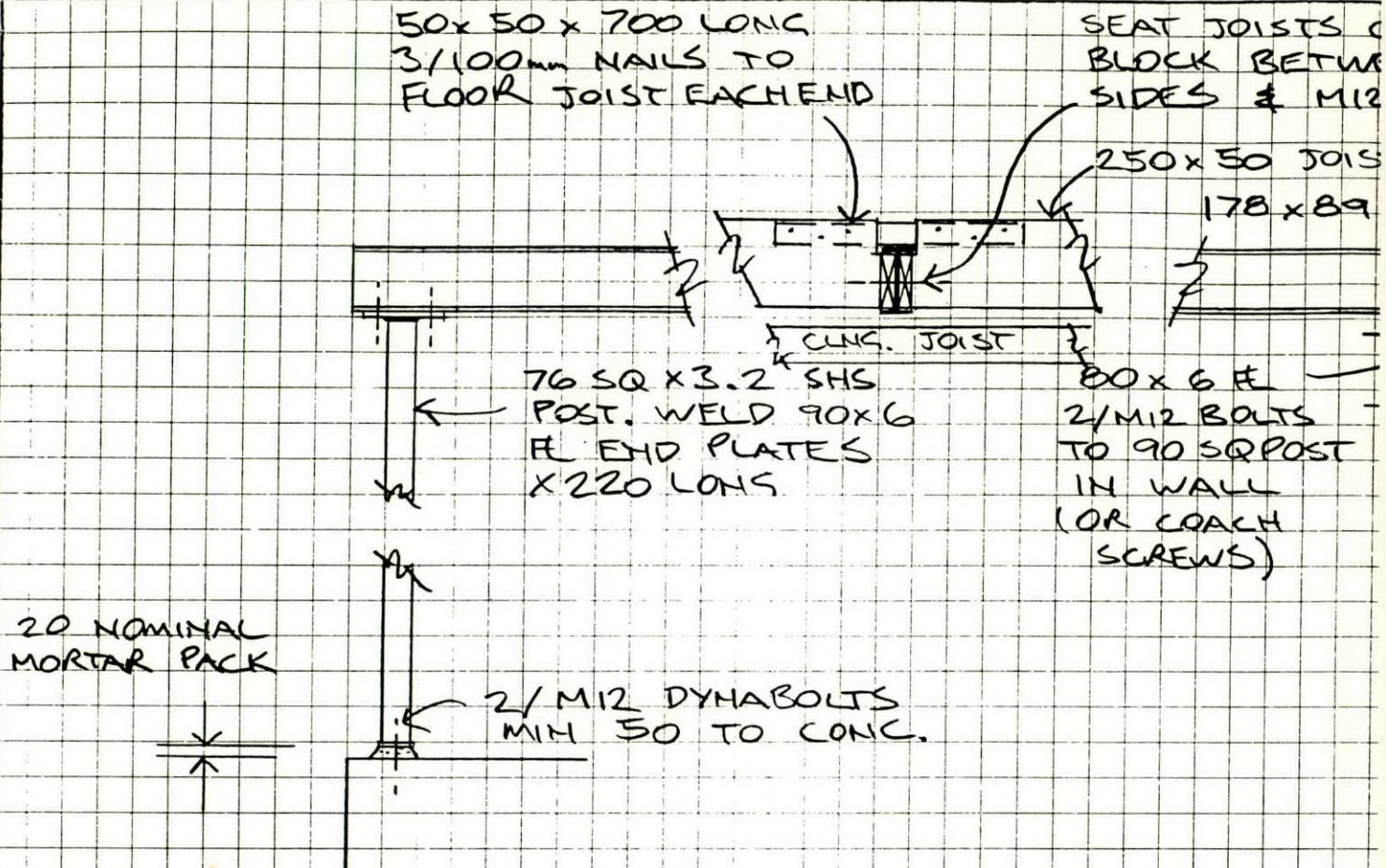
AT KITCHEN

$$\text{LOAD} = 4 \times 2.8 = 11.2 \text{ kN/m}$$

$$\text{BM} = 11.2 \times 2.1^2/8 = 6.2 \text{ kNm}$$

$$\text{TRY } 4/200 \times 50 : f_b = 5.3 \text{ mPa -OK.}$$





# ELEVATION OF STEEL BEAM & JOIST FIXING

DRN: GSH

DATE: 6.9.89

DRG: 8924-02



1 BTM FLANGE  
IN JOISTS BOTH  
BOLT AT 1200 CS.

S - 600

23 KG/M T.F.B.

EXSTG. CEILING  
JOISTS

JOIST HANGER  
NAILS TO TRIMMER.

FLOOR JOIST

1 OR 2 / 250x50  
TRIMMER BEAM,  
PACK TO WALL  
EACH END.

MIN. 8 / 3.15 mm DIA

← PACK UNDER  
POST TO FOUNDATION  
WALL

CROSS SECTION AT EXSTS.

WALL OPENING 1:20

1:20

FIRST FLOOR ADDITION  
FOR WOOLFORD AT  
50 Q. VICTORIA ST.  
10 TUEKA

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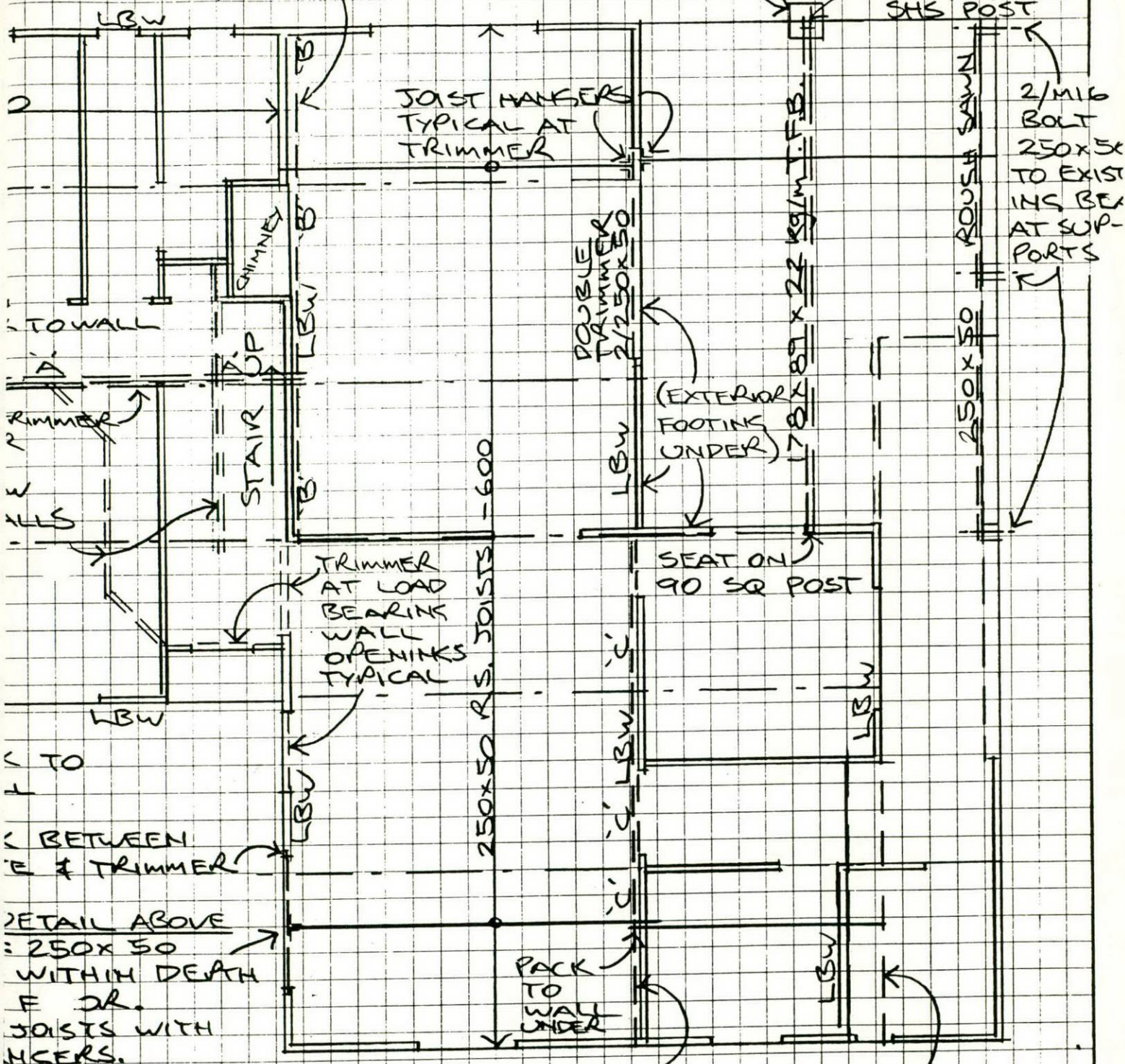
SSA.

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ADDITIONAL 2/200x50  
EXISTING FLOOR JOISTS  
WALL & SEAT ON  
BEARERS BOTH ENDS

EXCAVATE UNDER EXISTING FOOTING  
& CAST 450 SQ x 200 PAD, 3/D12  
EACH WAY  
- TO FIRM GROUND



ADDITIONAL 4/200x50 TO EXIST JOISTS  
& SEAT ON BEARERS BOTH ENDS.  
ON EXIST. BEARERS SUPPORTING  
50, IF NEAR MID SPAN, WITH

APPROXIMATE LINE  
OF FLOOR ABOVE

FIRST FLOOR ADDITION

FOR WOOLFORD AT

250 Q. VICTORIA ST.

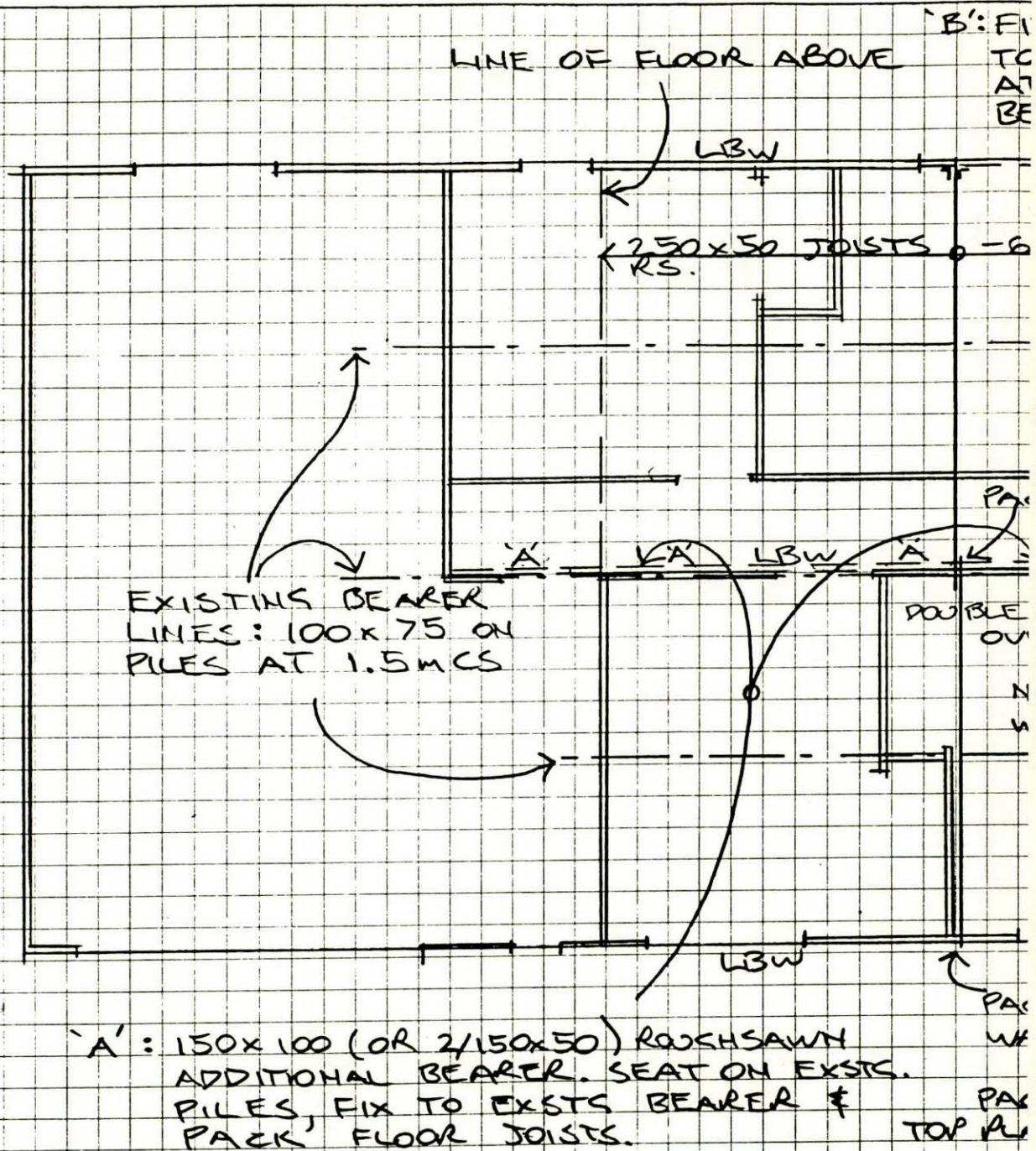
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*SS Hodder*





## LAYOUT PLAN 1:75 APPROX

SHOWING 1ST FLOOR FRAMING, GROUND FLOOR WALLS, & SUBFLOOR STRENGTHENING (DENOTED A, B, C)

NOTE: DETAILS GENERALLY AS NZS 3604, UNLESS SHOWN

PROVIDE TRIMMERS OVER ALL EXISTING WALL OPENINGS ON LOAD BEARING WALLS (LBW) DETAILS AS SHOWN AT RIGHT

TYPICAL  
WINDOWS  
TRIMMER  
OF 1ST  
FIX NEW  
JOIST H.

C': FIX ADD AT WALL (STRENGTHEN) 4/200x150x10

DRN: SGH  
DRC:  
8924