PART B : AS-BUILT SERVICES INFORMATION Continued.....

WASTEWATER - PRESSURE *(Pump Make/Model: _____).*

Connection Diameter	Pipe Material	Connection Type
☐ 40mm	☐ uPVC	☐ Public Utility Service Connection
☐ 50mm	☐ Vitrified Clay	☐ Septic Tank
☐ 80mm	☐ Concrete	☐ Other: _____
☐ Other _____ mm	☐ Other: _____	

WASTEWATER - GRAVITY

Pipe Diameter	Pipe Material	Connection Type
☐ 65mm	☐ uPVC	☐ Public Utility Service Connection
☐ 80mm	☐ Vitrified Clay	☐ Septic Tank
☐ 100mm	☐ Concrete	☐ Other: _____
☐ Other _____ mm	☐ Other: _____	

WASTEWATER - DISPOSAL SYSTEM DESCRIPTION

Septic Tank

Size: _____ litres

Type: ☐ Ecotank
☐ Biocycle
☐ Other _____

Effluent Field

☐ Trench: _____ m
☐ Deep Soakhole
Depth: _____ m
No. of Holes: _____
☐ Other: _____

Sanitary Facilities

☐ Toilet: (No.: _____)
☐ Bidet: (No.: _____)
☐ Urinal: (No.: _____)

Waste Disposal Unit

☐ No
☐ Yes - Type: _____

I _____

being: ☐ owner / occupier
☐ craftsman plumber (Reg. No.: _____)
☐ registered drainlayer (Reg. No.: _____)

certify that this Private Utility Service As-Built Record is an accurate representation of the work carried out.

Signature: _____

Date: _____

FAR NORTH DISTRICT COUNCIL
ENVIRONMENTAL SERVICES

KAITAIA SERVICE CENTRE
P.O. BOX 262
KAITAIA

Phone 0-9-408 1400
Fax 0-9-408 1404

File: 30-159-00.

PRIVATE UTILITY SERVICE AS BUILT RECORD
(Section 26, Building Act 1991)

BCPLA

PART A : CONSENT DETAILS
(To be completed in all cases).

Building Consent No.: _____
Applicants Name: JAMES.
and Mailing Address: 6 TOKERAU BEACH RD.
Site Address: 6 TOKERAU BEACH RD.

PART B : AS-BUILT SERVICES INFORMATION
(To be completed in relation to service provided, ticking each box as appropriate).

STORMWATER

Pipe Diameter	Pipe Material	Connection Type
☐ 80mm	☐ uPVC	☐ Public Utility Service Connection
☐ 100mm	☐ Vitrified Clay	☐ Soak Hole
☐ 150mm	☐ Ductile Iron	☐ Stream
☐ 225mm	☐ Concrete	☐ Drain
☐ Other _____ mm	☐ Other: _____	☐ Other: _____

WATER SUPPLY

Pipe Material - COLD

☐ uPVC
☐ Copper
☐ Polybutylene
☐ Other: _____

Pipe Material - HOT

☐ uPVC
☐ Copper
☐ Polybutylene
☐ Other: _____

Hot Water Cylinder

☐ High Pressure: _____ Litre
☐ Low Pressure: 180 Litre

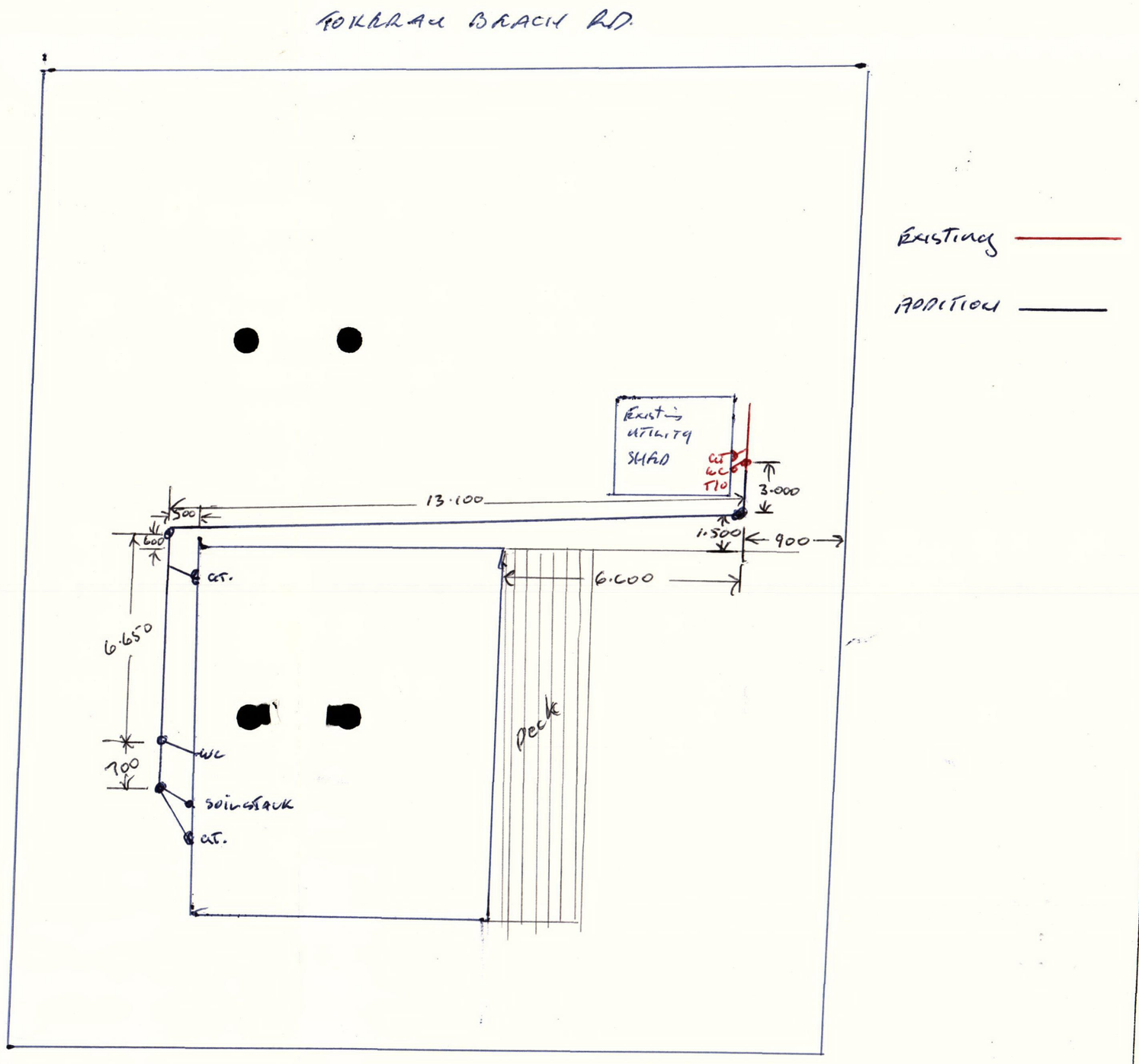
Meter Type

Make: _____
Model: _____
Diameter: _____ mm
Serial No.: _____
Reading: [| | | | |] m^3
(Quote all black figures inclusive of zeros only.)

NOTE: - PART B : AS-BUILT SERVICES INFORMATION Continued on last page

PART C : AS BUILT SERVICES PLAN

(To be completed in all cases. If details are already noted on separate drawings then provide copies in duplicate as appropriate and attach to this sheet. Ensure that drawing numbers, etc, is noted below.)



APPROVED 3/12/1996

BUILDING .....

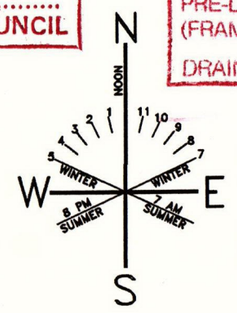
P. & D. .....

.....

FAR NORTH DISTRICT COUNCIL

REQUIRED INSPECTIONS

FOOTINGS	☑		
FLOOR SLAB (REINFORCING)	☑	FLOOR SLAB (PLUMBING)	☑
SOND BEAM	☑		
PRE-LINE (FRAMING)	☑	PRE-LINE (PLUMBING)	☑
DRAINS	☑	FINAL	☑



CONDITIONS OF CONSENT TO BE MADE KNOWN TO ALL TRADESPERSONS PRIOR TO WORK COMMENCING.

site plan 1:200

IDRON BUILDERS
EMENT FOR INITIAL HOME
& N JAMES
ATUWHIWHI

note!

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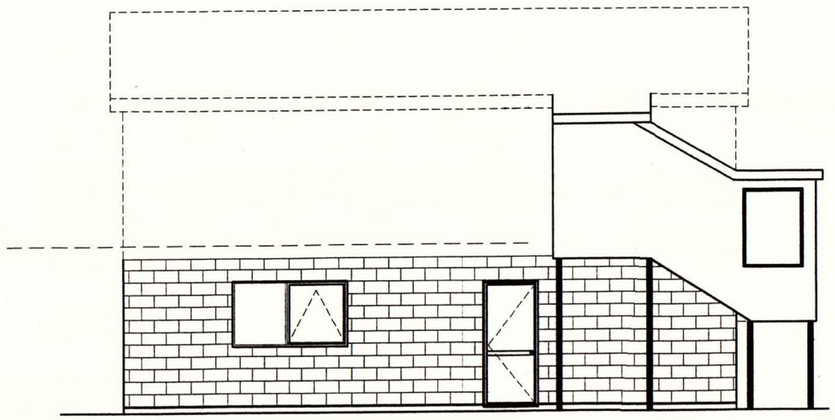
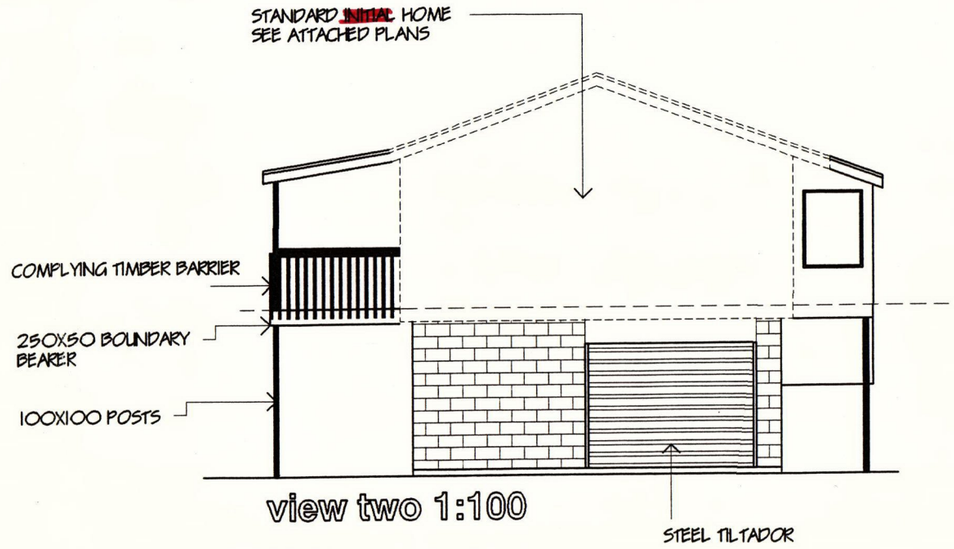
18/3/96

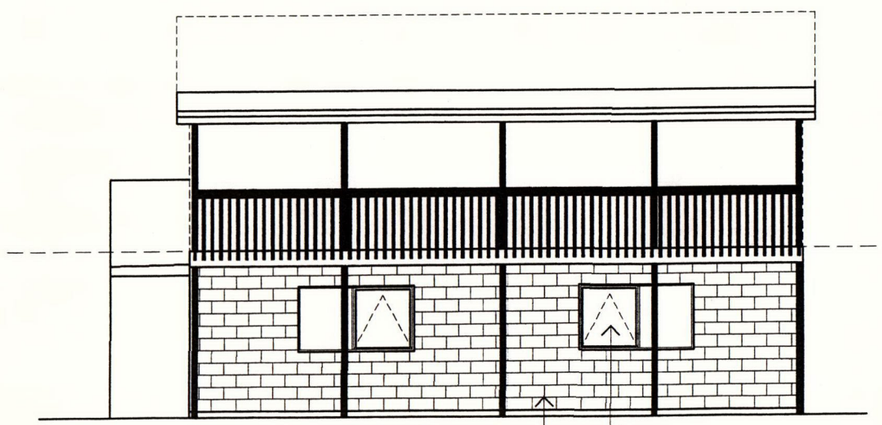
NORTHWOOD DESIGN & CONSTRUCTION
BOX 200 MANGONUI NORTHLAND Ph.&Fax 0-9-406-0999



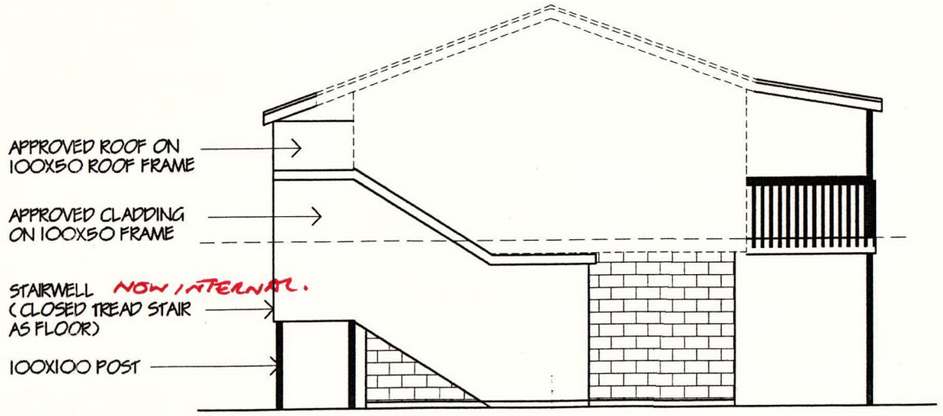
view three 1:100



view two 1:100



view one 1:100



view four 1:100

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BASEMENT FOR ~~INITIAL~~ HOME
P & N JAMES
WHATUWHIWHI

19/3/96

NORTHWOOD
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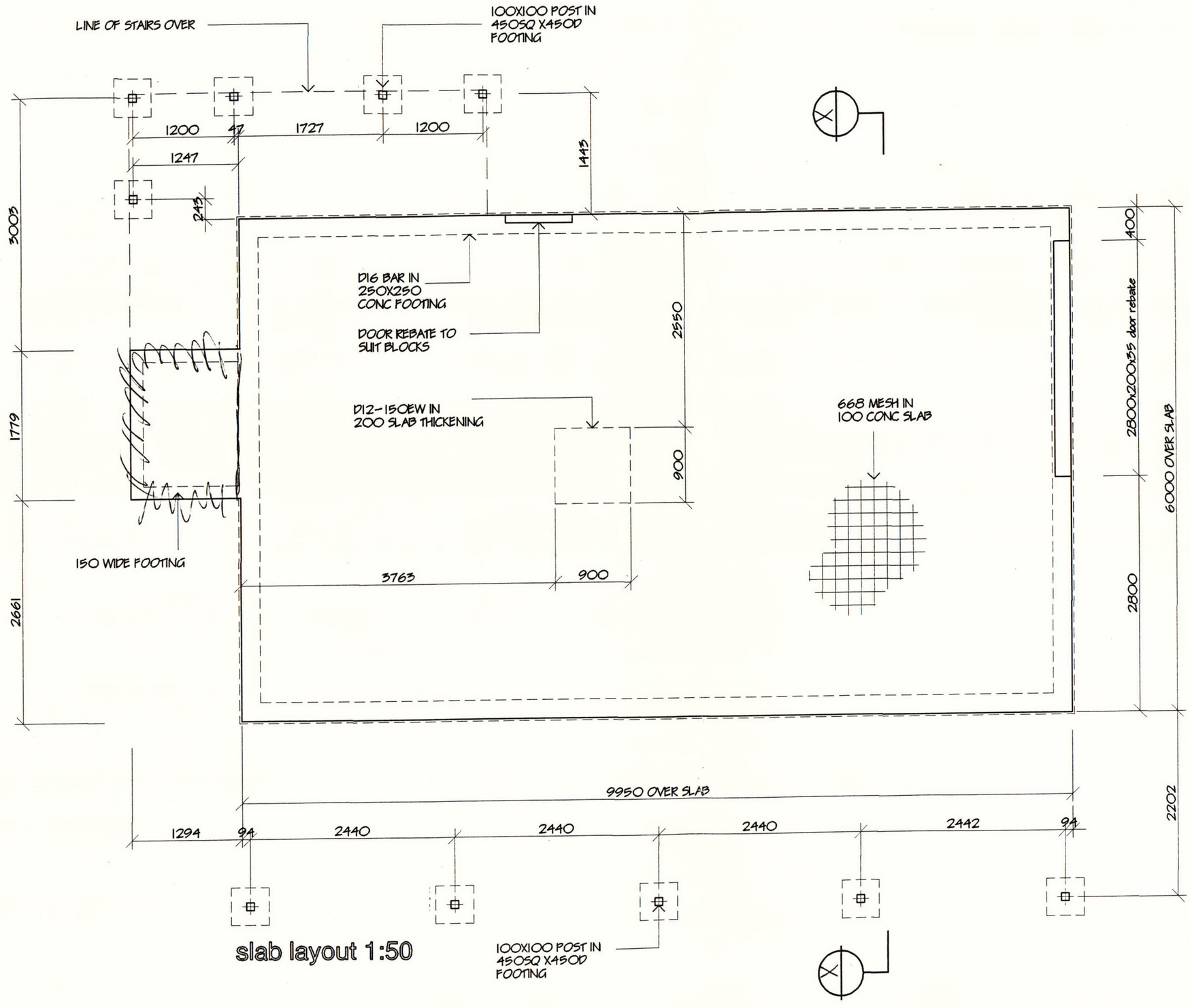

slab layout 1:50

KIDRON BUILDERS
BASEMENT FOR ~~INITIAL~~ HOME
P & N JAMES
WHATUWHIWHI

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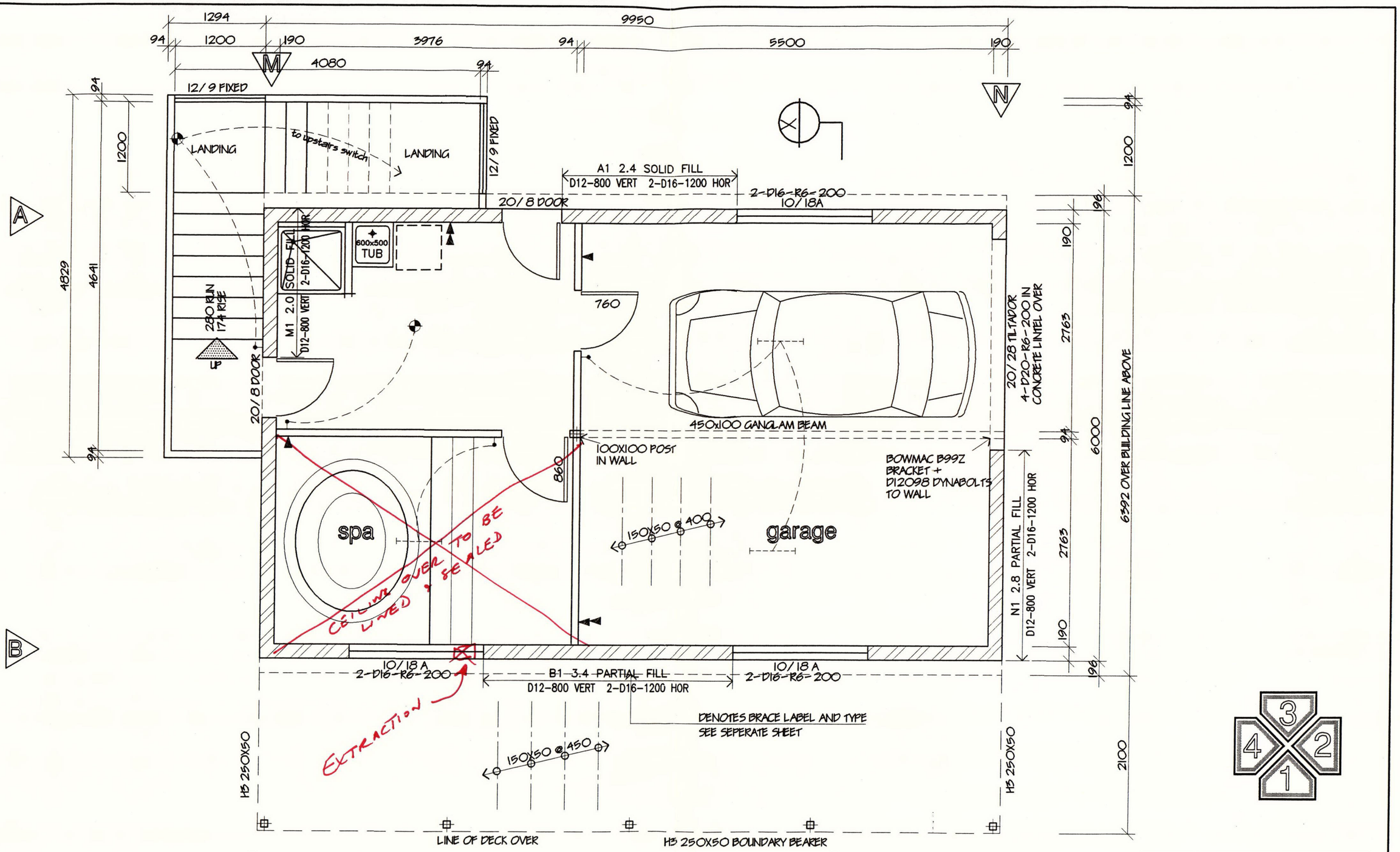

basement floor plan 1:50

FLOOR AREA = 60 m2

ELECTRICAL LEGEND	
	DBLE. POWER POINT
	SGLE. POWER POINT
	FLOURESCENT LIGHT
	LIGHT CIRCUIT AND SWITCH
	DISTRIBUTION BOARD
	METER BOARD

note!

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'IDRON BUILDERS
EMENT FOR INITIAL HOME
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ATUWHIWHI

12/3/96

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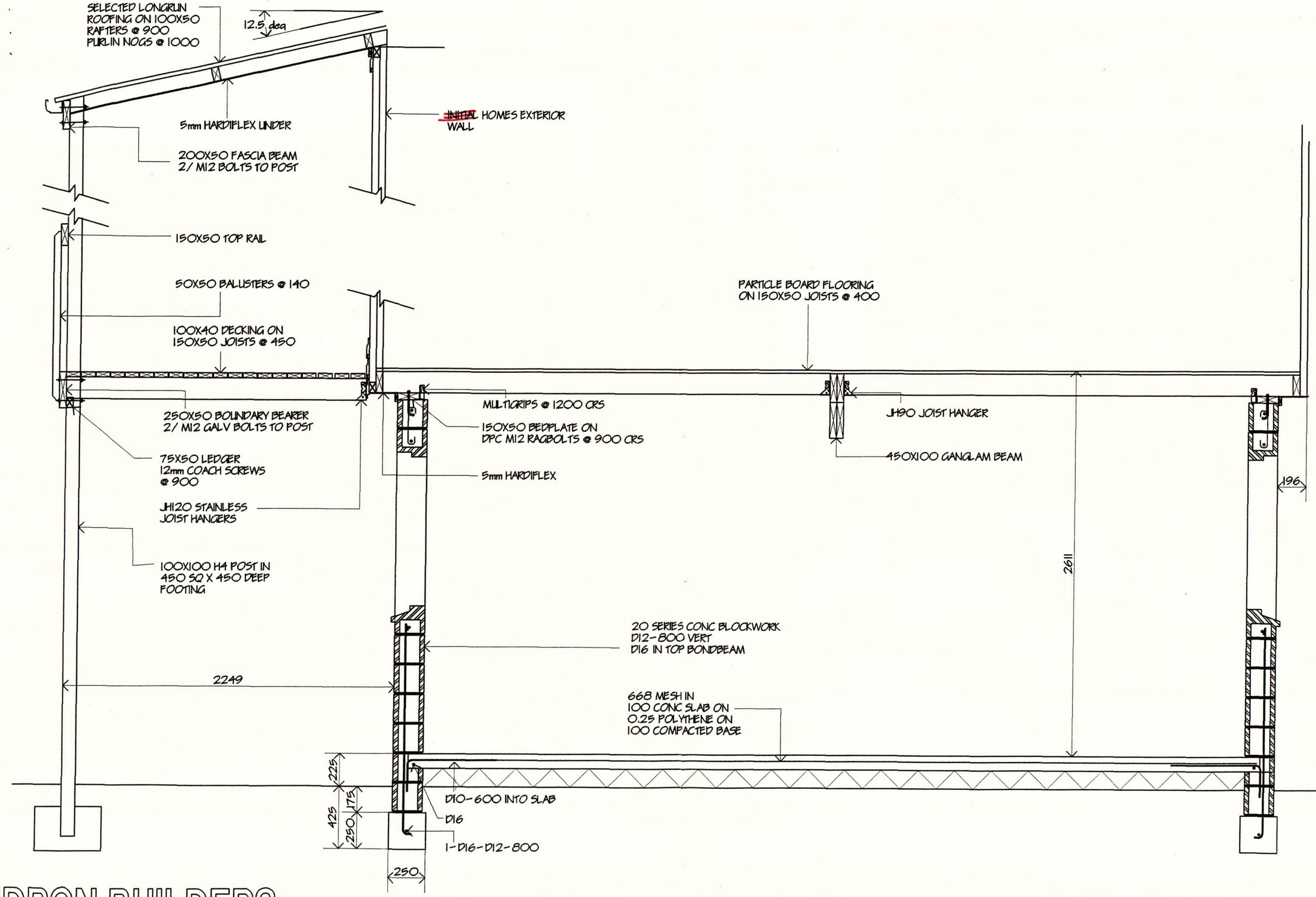

section x-x 1:25

KIDRON BUILDERS
BASEMENT FOR INITIAL HOME
P & N JAMES
WHATUWHIWHI

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18/3/96

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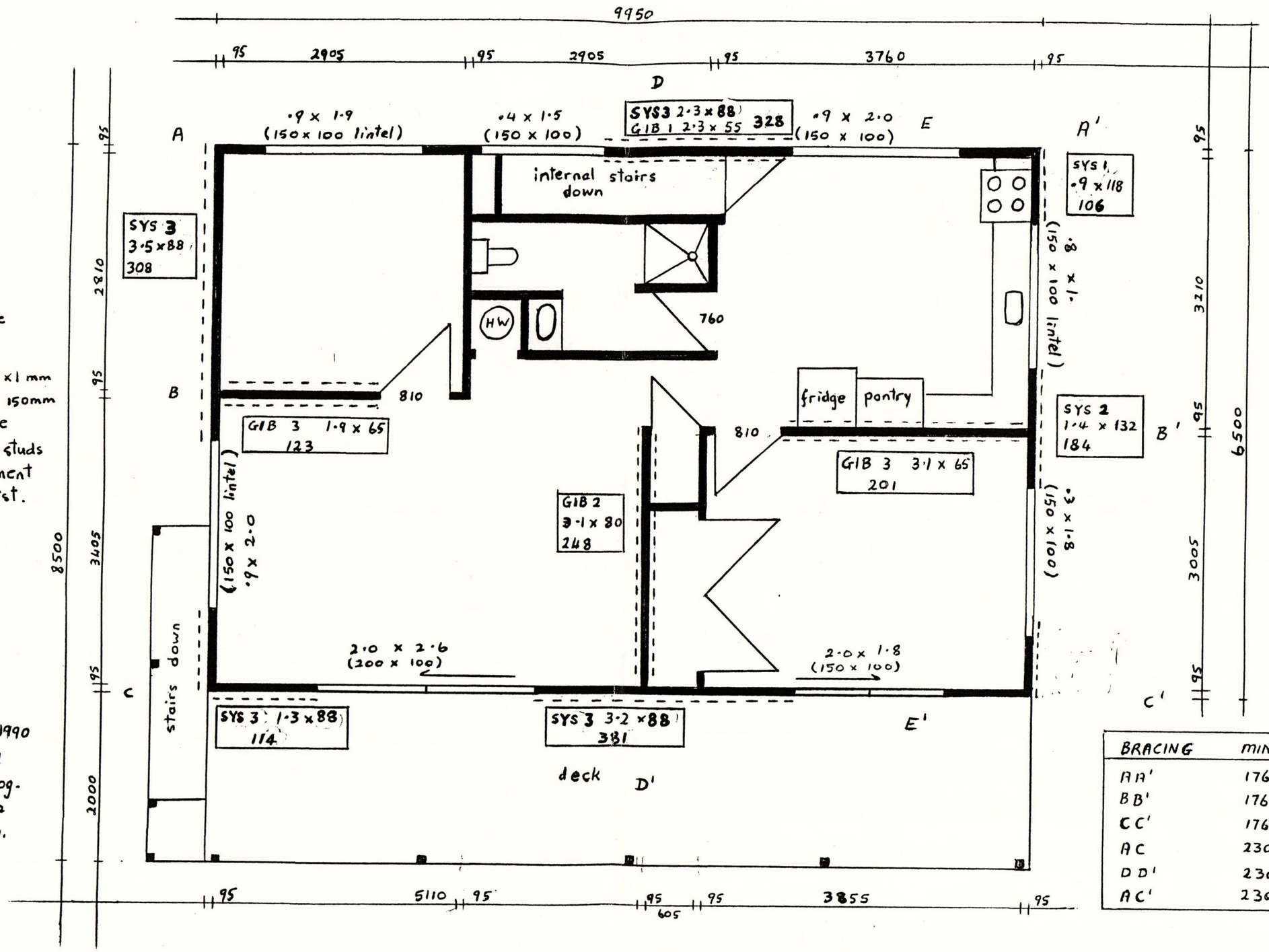
BOX 200 MANGONUI NORTHLAND Ph.&Fax 0-9-406-0999

SYS 1 & 2 (Hardie sheet bracing) have mild steel straps 25 x 1 mm (galvanised) at least 150mm above and below the floor, on the outer studs of the bracing element to the boundary joist.



Framing to NZS 3604-1990
External Walls 100 x 50 #1 @ 400 ¢, 1 central nog.
Internal Walls 100 x 50 #2 @ 600 ¢, 1 central nog.

BRACING	MINIMUM	ACTUAL
AA'	176	328
BB'	176	324
CC'	176	495
AC	230	308
DD'	230	248
AC'	230	290

HOUSE PLAN FOR P & N JAMES
LOT 68, DP 47841, WHATUWHIWHI

Drawn by G HARRON BOX 23-441 PAPATOETOE (09) 2777-333

SHEET

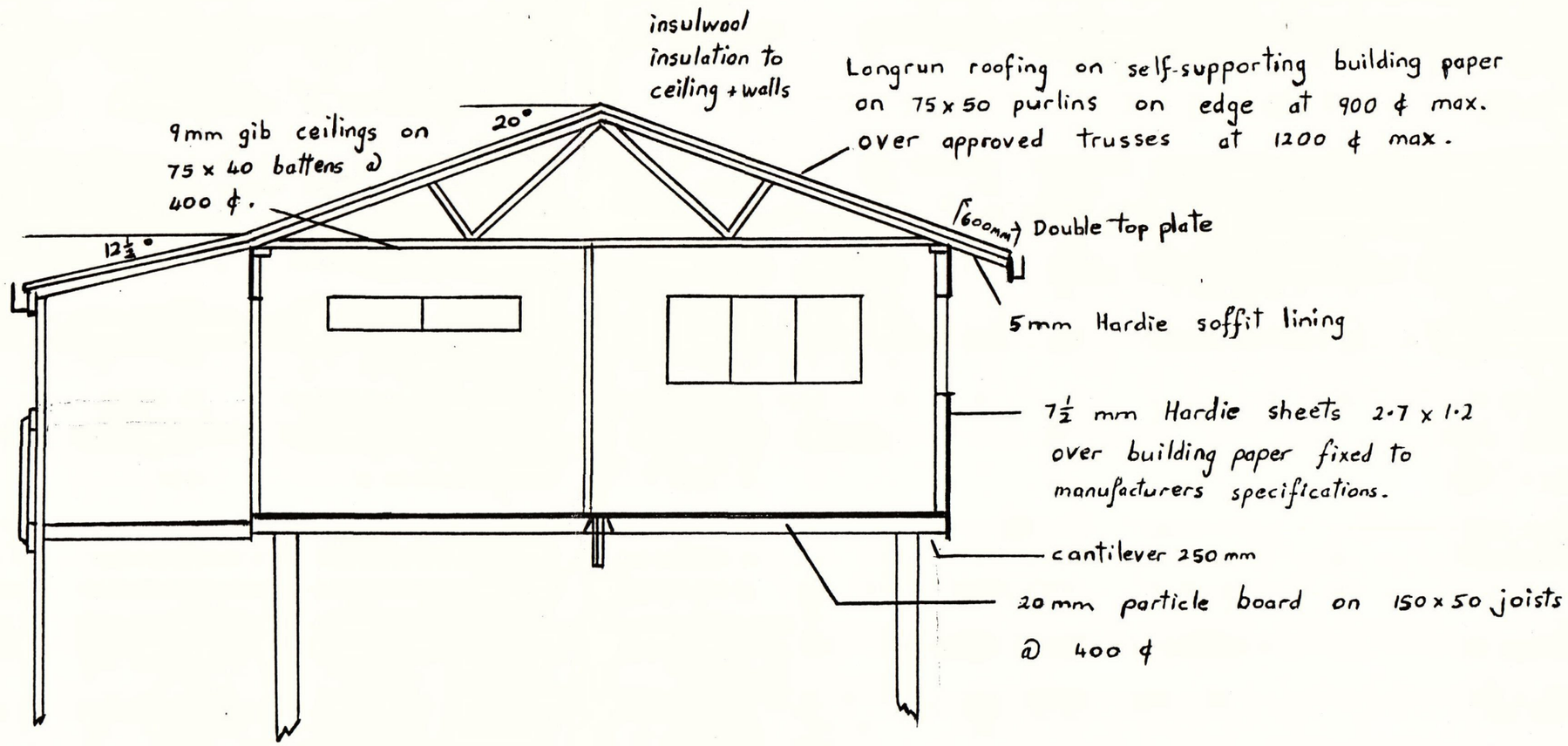
CHECKED

DATE

SCALES 1:50

SERIES OF

REF



SECTION E'E LOT 68 DP 47841

P & N JAMES WHATUWHIWHI

G HARRON PH 09 2777333

BOX 23-441 PAPATOETOE

DRAWN	CHECKED		SHEET
TRACED	DATE		SERIES OF
			REF

Please Photocopy

Wall Bracing Calculation Sheet A

Job Details

box 1

Name P & N JAMES

Street and Number

Lot and DP Number LOT 68 DP 47841

City/Town/District WHATUWHIWHI

Location of Storey: single / upper of two / lower of two

Building height to apex	6.5 m	Roof weight	light / heavy
Roof height above eaves	2.0 m	Cladding weight	light / heavy
Stud height	2.4 m	Room in roof space	y/n
Average roof pitch	20°		
Building length BL =	10 m	Gross Building	
Building width BW =	6.5 m	Plan Area,	GPA = 65 m2

Note: *When the average roof pitch is over 25 degrees, use the eaves length and width to determine BL and BW.*

Note: *For heavy roofs use the roof plan at eaves level to determine GPA.*

Wind Zone

box 2

Region:	Terrain:	Exposure:	Topography:	
R1 0	Inland 0	Sheltered 0	Gentle	0
R2 1 ✓	Coastal 1 ✓	Exposed 1 ✓	Moderate	1 ✓
			Extreme	3

Total points 4

Wind zone: ___ Low (0) ✓ Very high (3)

___ Medium (1) ___ Specific Design (4)

___ High (2)

Earthquake zone

box 3

From figure EQ1 select Earthquake Zone: A B ©

BUs required Wind

box 4

From Table W1A/W1B

W along = 81 BUs/m

W across = 69 BUs/m

Total wind load,

W ALONG:

W along x BW = 527 BUs

W ACROSSL

W across x BL = 690 BUs

BUs required Earthquake

box 5

From Table EQ1

E = 2 BUs/m2

Note: For a room in the roof space use E+1

Total earthquake load,

EQ ALONG and EQ ACROSS:

E x GPA BUs = 130 BUs

GIB BOARD®

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Wall Bracing Calculation Sheet B

Along

Wall or Bracing Line		Bracing Elements Provided			Wind		Earthquake	
1	2	3	4	5	6 W	7 W	6 EQ	7 EQ
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m EQ	BUs Achieved (BU/m x L) EQ
AA'	176	1	SYS 3	2.3	88	202		
		2	GIB 1	2.3	55	126		
BB'	176	1	GIB 3	1.9	65	123		
		2	GIB 3	3.1	65	201		
CC'	176	1	SYS 3	1.3	88	114		
		2	SYS 3	3.2	88	381		
D								
E								
Totals Achieved					W	1147	EQ	
From Sheet A		Totals Required			W	527	EQ	130
Wreq/EQreq =		4.00 *						

***If Wreq/EQreq is 1 or less complete EQ column only**
If Wreq/EQreq is 1.5 or more complete W column only
Otherwise complete both W and EQ

Across

Wall or Bracing Line		Bracing Elements Provided			Wind		Earthquake	
1	2	3	4	5	6 W	7 W	6 EQ	7 EQ
Line Label	Minimum BUs Required	Bracing Element No.	Bracing Type	Length Element (m) L	Rating BU/m W	BUs Achieved (BU/m x L) W	Rating BU/m EQ	BUs Achieved (BU/m x L) EQ
MAC	230	1	SYS 3	3.5	88	308		
NDD'	230	1	GIB 2	3.1	80	248		
OA'C'	230	1	SYS 1	.9	118	106		
		2	SYS 2	1.4	132	184		
P								
Q								
Totals Achieved					W	846	EQ	
From Sheet A		Totals Required			W	690	EQ	130
Wreq/EQreq =		5.3 *						

GIB BOARD®

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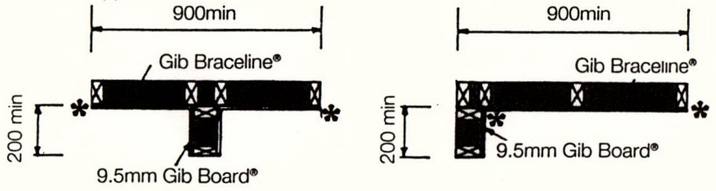
Gib Board® Wall Bracing Systems Construction Guide

(complies with NZS 3604 : 1990)

Specifications			
Type	**Description**	**Additional Requirements**	**Nailing & Stopping**
Gib 1	9.5mm Gib Board® on one face. Min. length 1800mm	Diagonal brace	Gib 1, 2 and 3 30 x 2.5 Gib Clouts® at 150mm cos. around the perimeter of the bracing element and at 300mm ccs. to intermediate framing. Tape and stop all joints within the bracing element.
Gib 2	9.5mm Gib Boards® on both sides. Min. length 1800mm	Diagonal brace	
Gib 3	9.5mm Gib Boards® on both sides. Min. length 1200mm	No additional requirement	
BR 1	Gib Braceline® on one face. Min. length 1800mm	Diagonal brace	BR 1, 2, 3, 4, 5, 6, 7 and 8 30 x 2.5 Gib Clouts® fitted with Gib Braceline® washers at 150mm ccs. around the perimeter of the bracing element.
BR 2	Gib Braceline® vertical on one face. Min. length 1800mm	No additional requirement	
BR 3	Gib Braceline® horizontal on one face. Min. length 1800mm	No additional requirement.	
BR 4	Gib Braceline® on one face. Length 900 to 1200mm	6 kN end-stud fixings	Standard nailing to intermediate framing.
BR 5	Gib Braceline® on one face. Length 1200 to 2400mm	6 kN end-stud fixings	Tape and stop all joints within the bracing element.
BR 6	Gib Braceline® and Gib Board® on opp. sides. Length 1200 to 2400mm	12 kN end-stud fixings	
BR 7	Gib Braceline® on one face 7.5mm ply on other. Length 900 to 2400mm	6 kN end-stud fixings	
BR 8	Gib Braceline® on one face 4.75mm hardboard on other. Length 900 to 2400mm	6 kN end-stud fixings	

Guidelines for Intersecting Walls

Types BR1 to BR8 may have standard 9.5mm Gib Board® intersecting walls with a min. length of 200mm. Gib Braceline® nails and washers are required around the perimeter of the bracing element (*). Intermediate vertical joints may be nailed with standard Gib Clouts® at 300mm ccs. and should be tape reinforced and stopped.



GIB BOARD®

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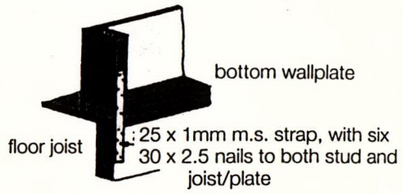
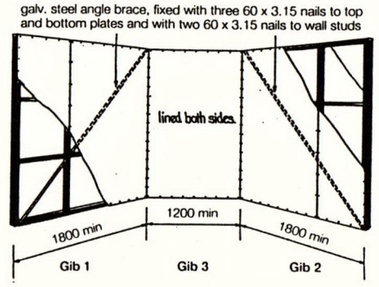
Detail 1

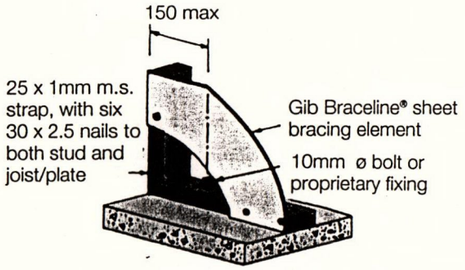
6kN connection to timber sub-floor
(both sides of stud strapped for 12kN)

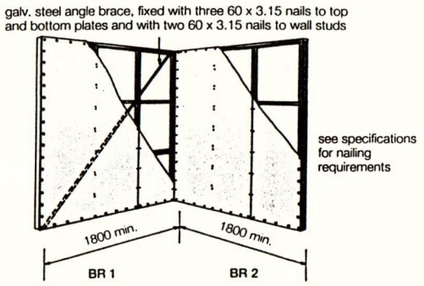




Detail 2

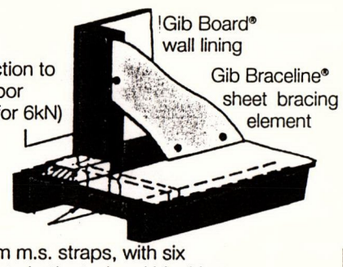
6kN connection to concrete (both sides of stud strapped for 12kN connection)



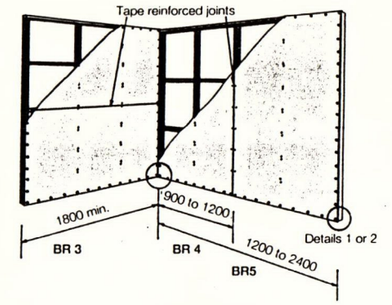


Detail 3

12kN connection to timber sub-floor (single strap for 6kN)

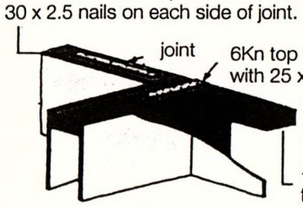


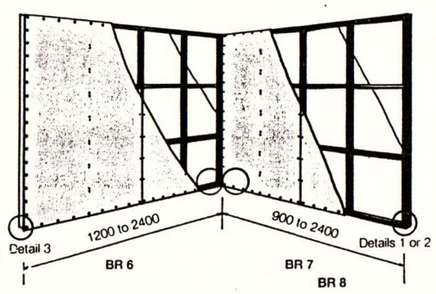
two 25 x 1mm m.s. straps, with six 30 x 2.5 nails to both stud and blocking piece between floor joists



Top Plate Connections

3Kn top plate connection, with 25 x 1mm m.s. strap and three 30 x 2.5 nails on each side of joint.





GIB BOARD®

BRACING PERFORMANCE

Hardiflex sheets 6.0mm and 7.5mm and Hardipanel sheets 6.5mm and 7.5mm thick, fixed as an external cladding system give excellent sheet bracing ratings and performance. They have been tested by BRANZ to technical paper P21 and are suitable for use in conjunction with either NZS 3604:1990 or NZS 3604:1984. The bracing ratings given are specific for Hardiflex and Hardipanel claddings only.

FIXINGS

— Hardiflex and Hardipanels have been tested as sheet bracing fixed with 40mm x 2.5mm Hardiflex nails at standard 200mm centres to all framing (Refer Table 1) and for special nailing conditions to give enhanced bracing ratings. (Refer Tables 2 and 3 and Figs 46 and 47)

— When construction is in accordance with NZS 3604:1984 or NZS 3604:1990, the bracing ratings given in Table 1, Table 2 and Table 3 apply.

— These bracing ratings are based on wall heights of 2.4 metres. For other heights bracing ratings must be multiplied by 2.4 and divided by the element height in metres. Elements less than 1.8 metres are rated as if they were 1.8 metres high.

— Hardiflex and Hardipanels have been extensively tested and evaluated, and in the opinion of BRANZ, the bracing ratings shown are appropriate for use with NZS 3604:1990.

— When Hardipanels are used for sheet bracing it is essential the sheets are fixed on stud. Poor bracing performance results with off stud fixing methods.

SPECIFIC DESIGN — NZS 4203

— When specific design is in accordance with the 'alternative method' outlined in NZS 4203, allowable design racking loads (kN) shall be taken as the NZS 3604:1984 bracing rating divided by a factor of 20.

TABLE 1: HARDIFLEX AND HARDIPANEL BRACING RATINGS STANDARD FIXING (Refer Fig. 45)

Product Application			NZS 3604:1990		NZS 3604:1984
Primary Bracing Element. Hardiflex: 6.0mm and 7.5mm Hardipanel: 6.5mm and 7.5mm	Bracing Panel width and strapping requirements	End Stud fixing and sheet fixing	Rating in bracing units per metre of element length		
			Wind	Earthquake	Wind or Earthquake
System 1	900mm with holding down straps	Standard Fixing End straps required as clause K4.5 and Fig. K1 NZS 3604:1990 for timber floors. For concrete slabs fix as clause E13.2 and Fig. E8 NZS 3604:1990 also refer Fig. 45	118	96	68
System 2	1200mm with holding down straps	as above	132	96	69
System 3	1200mm without holding down straps	Standard Fixing End straps not required refer Fig. 45	88	75	58
System 4	1800mm without holding down straps	as above	93	79	61
System 5	2400mm or more without holding down straps	as above	104	90	68

NOTES FOR TABLE 1
Systems 3, 4 and 5 above can be enhanced to the values of System 2 by utilising holding down straps.

TABLE 2: HARDIFLEX AND HARDIPANEL BRACING RATINGS SPECIAL FIXING (Refer Fig. 46)

Product Application			NZS 3604:1990		NZS 3604:1984
Primary Bracing Element. Hardiflex: 6.0mm and 7.5mm Hardipanel: 6.5mm and 7.5mm	Bracing Panel width and strapping requirements.	End Stud fixing and sheet fixing	Rating in bracing units per metre of element length		
			Wind	Earthquake	Wind or Earthquake
System 6	900mm	Special Fixing and anchorage refer Fig 46	120	110	82
System 7	1200mm	as above	144	118	86
System 8	1800mm	as above	145	118	89
System 9	2400mm or more	as above	146	119	92

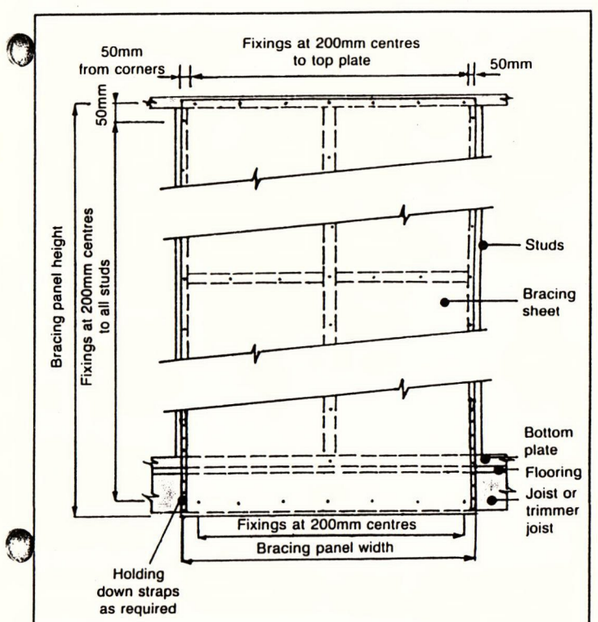


Fig 45. Standard Fixing Detail To Joists With And Without Straps

NOTES FOR FIG. 45

— Galvanised steel holding down straps to be as detailed by Fig. K1 NZS 3604:1990 for timber floors and clause E13.2 and Fig. E8 NZS 3604:1990 for concrete floors.

— Steel holding down straps are required for the 900mm wide panel and the 1200mm wide panel option with straps (Refer Table 1).

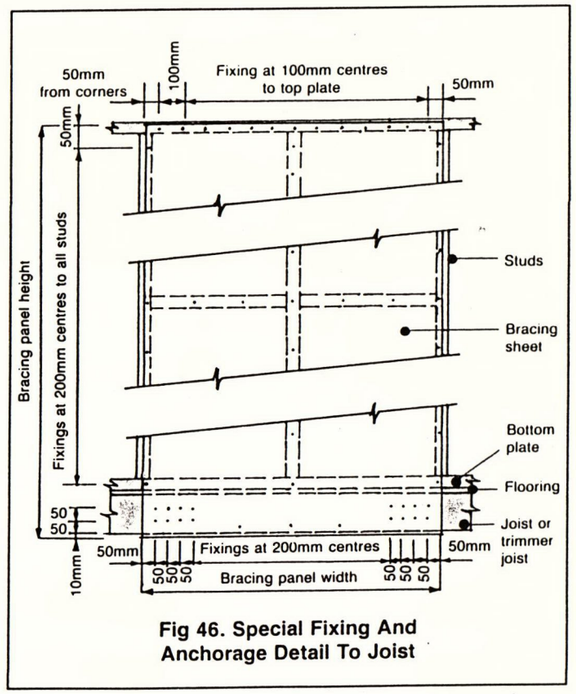


Fig 46. Special Fixing And Anchorage Detail To Joist

NOTES FOR FIG. 46

— Trimmer joists to be a continuous member nailed to the ends of joists and not to be nogged between.

— Fixings to be 40mm x 2.5mm Hardiflex nails refer page 27.

— Refer Table 2.

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