

Job: 20-5333X

Client: Joyce Bull
Phone:

VIP Frames & Trusses

REVISED ASBUILT TRUSS BC21209

Site:

Own Home
Lot 14 Oakville Estate
4 Goldie Drive
Rangiora

Fabricator Design Statement : Page 1

RECEIVED 26/01/2021

Description:
Building Consent No.: BC201209
MITek 20/20 Engineering 4.7.346.0

MITek New Zealand Limited

Phone:

Printed: 13:11:39 26 Jan 2021

As built design
BC201209**MITEK FABRICATOR DESIGN STATEMENT**

This statement is issued by MITek accredited fabricator **VIP Frames & Trusses**, being licensed to use the MITek 20/20® software, to the client listed above and may be used by the Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

MITek 20/20® TRUSS DESIGN DATA

The MITek 20/20® computer design for this job is based on the following design parameters entered into the program. The Fabricator shall ensure that these job details are current and relevant to the project for the design of the MITek® trusses.

Job Details		Importance Level :	2	Design Working Life :	50 years
Roof Truss		Pitch:	40.000 deg	Nominal Overhang:	70 mm
Timber Group:	~MSGx45 H1.2	Ceiling		Wind	
Roof		Material:	Rondo on clips	Area:	High (44.0 m/s)
Material:	Galv Iron .5mm	Dead Load:	0.200 kPa	Pressure Coeff:	Cpe = varies; Cpi = -0.30, 0.20
Dead Load:	0.210 kPa	Restraints:	600 mm centres	Snow	
Restraints:	900 mm centres	Live Load:	Qc = 1.400 kN	Location:	Christchurch (N4) at 100 m
Live Load:	Qur = 0.250 kPa	Occupancy Live Load		Open Ground Load:	0.900 kPa
	Qc = 1.100 kN	Distributed:	Quf = 1.500 kPa	Basic Roof Load:	0.630 kPa
		Concentrated:	Qcf = 1.800 kN		
Attic Floor		Attic Room Ceiling		Attic Wall	
Material:	20mm Particle Board	Material:	Gib Board 12mm	Material:	Gib Board
Dead Load:	0.200 kPa	Dead Load:	0.200 kPa	Dead Load:	0.300 kPa
Restraints:	Continuous	Restraints:	600 mm centres	Restraints:	Continuous

The minimum timber treatment for these MITek® trusses shall be in accordance with B2/AS1 Table 1A and the relevant sections of NZS 3602:2003. The timber for these MITek® trusses shall be graded to the requirements of NZS 3603:1993. Proprietary fixings and timber connectors shall be selected in accordance with NZS3604:2011 Section 4 - Durability.

MITek® Truss List

Legend: * = detail only, ? = input only, ~~xxx~~ = failed design, Ø = non certified, Unmarked trusses = designed successfully, LB = lateral bracing required
GB = gable brace required

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
T6	1	10080	3.000	900	T7A	1	4400	3.000	900	J7	1	2420	3.000	900
T4	1D	9900	3.000	900	T8	4	4353	3.000	900	*R1	2	6520	40.000	900
T3	3	5533	3.000	900	J11	1	3500	3.000	900	*H1	2	6299	2.122	900
T1	14	6873	3.000	450	J1	1	3500	3.000	900	J14	1	1700	3.000	900
T2	1	6873	3.000	450	J4	1	3500	3.000	900	T5	1	1520	3.000	900
GE3	1D	6290	40.000	900 GB	J5	1	3500	3.000	900	J16	1	1700	3.000	900
S3	2	6290	40.000	900	J6	1	3320	3.000	900	J10	1	1520	3.000	900
S5	3	6290	40.000	900	J2	1	3320	3.000	900	J9	1	633	3.000	900
S6	1	6290	40.000	900	J3	1	3320	3.000	900	J15	1	813	3.000	900
S7	1	6290	40.000	900	P1	1D	7440	0.000	900	GE1	1	800	0.000	900
GE4	1D	6380	40.000	900 GB	J13	1	2600	3.000	900	GE2	1	755	0.000	900
S2	4	6380	40.000	900	J12	1	2600	3.000	900	*R2	22	600	40.000	900
T7	4	4400	3.000	900	J8	1	2420	3.000	900					

Total quantity : 88

The computer design input has been carried out by:

Signed: 

Name of Detailer: Administrator

Date: ...Tuesday, 26 January 2021....

Qualifications and Title: Detailer

On behalf of:

VIP Frames & Trusses



Correspondence from : **AUCKLAND**
40 Neales Road, East Tamaki 2013
PO Box 58-014, Botany 2163
Phone: 09 274 7109
Fax: 09 274 7100

As built design
BC201209

CHRISTCHURCH
14 Pilkington Way, Wigram 8042
PO Box 8387, Riccarton 8440
Phone: 03 348 8691
Fax: 03 348 0314

www.mitek.nz.co.nz

Printed: 13:11:39 26 Jan 2021

MiTek 20/20 Engineering 4.7.346.0

PRODUCER STATEMENT for MiTek 20/20® TRUSS DESIGN - Version 4.7

ISSUED BY: **MiTek New Zealand Limited**

TO: **VIP Frames & Trusses**

IN RESPECT OF: **MiTek® Truss Designs**

This producer statement covers the MiTek 20/20® truss design and the structural performance of the GANG-NAIL® connector plate for the job reference **20-5333X** and may be used by a Building Consent Authority to assist in determining compliance with the New Zealand Building Code.

The MiTek 20/20® truss design program has been developed by MiTek New Zealand Limited for the design of MiTek® timber roof, floor and attic trusses in New Zealand. The truss designs computed by MiTek 20/20® are prepared using sound and widely accepted engineering principles, and in accordance with compliance documents of the New Zealand Building Code and Verification Method B1/VM1; and internationally accepted standard ANSI/TPI 1 - 2002 as an alternative solution, to satisfy the requirements of Clause B1 of the New Zealand Building Code.

On behalf of MiTek New Zealand Limited, and subject to:

- i) All proprietary products meeting their performance specification requirements
- ii) The provision of adequate roof bracing and overall building stability
- iii) Correct selection and placement of GANG-NAIL connector plates
- iv) Correct input of Truss Design Data as shown in the Fabricator Design Statement for this job
- v) The design being undertaken by the accredited fabricator under the terms of the software licence
- vi) Timber is graded to the requirements of NZS 3603:1993
- vii) Minimum timber treatment for these MiTek® trusses shall be in accordance with B2/AS1 Table 1A and the relevant sections of NZS 3602:2003

I believe on reasonable grounds that the trusses, if constructed in accordance with the MiTek 20/20® truss design and shop drawings, will comply with the relevant provisions of the New Zealand Building Code.

MiTek New Zealand Limited holds a current policy of Professional Indemnity Insurance no less than \$500,000.

On behalf of MiTek New Zealand Limited,

Date: Tuesday, 26 January 2021

In Ling Ng, BE (Hons), CPEng, IntPE, MIPENZ (ID: 146585)
TECHNICAL SERVICES MANAGER, MiTek New Zealand Limited

As built design
BC201209

STRINGER TO STUD FIXINGS

18/01/2019

Truss Span (m)	Loaded Dimension	Light Roof (No Snow)					Heavy Roof (No Snow)				
		Wind Zone					Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
2.0	1.0	K	K	K	K	K	K	K	K	K	K
3.0	1.5	K	K	K	K	K	K	K	K	K	K
4.0	2.0	K	K	K	K	K					
5.0	2.5	K	K	K							
6.0	3.0	K	K								
7.0	3.5						M	M	M	M	M
8.0	4.0					M	M	M	M	M	M
9.0	4.5				M	M	M	M	M	M	M
10.0	5.0				M	M	M	M	M	M	M
11.0	5.5			M	M	M	M	M	M	M	N
12.0	6.0	M	M	M	M	M	N	N	N	N	N

Truss Span (m)	Loaded Dimension	Light Roof + Snow (Sg = 0.9 kPa)					Heavy Roof + Snow (Sg = 0.9 kPa)				
		Wind Zone					Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
2.0	1.0	K	K	K	K	K	K	K	K	K	K
3.0	1.5	K	K	K	K	K	K	K	K	K	K
4.0	2.0	K	K	K	K	K					
5.0	2.5										
6.0	3.0										
7.0	3.5						M	M	M	M	M
8.0	4.0					M	M	M	M	M	M
9.0	4.5	M	M	M	M	M	M	M	M	M	M
10.0	5.0	M	M	M	M	M	M	M	M	M	M
11.0	5.5	M	M	M	M	M	N	N	N	N	N
12.0	6.0	M	M	M	M	M	N	N	N	N	N

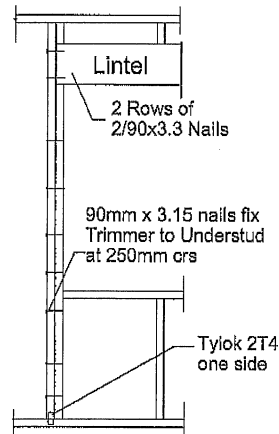
Truss Span (m)	Loaded Dimension	Light Roof + Snow (Sg = 1.5 kPa)					Heavy Roof + Snow (Sg = 1.5 kPa)				
		Wind Zone					Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
2.0	1.0	K	K	K	K	K	K	K	K	K	K
3.0	1.5	K	K	K	K	K					
4.0	2.0										
5.0	2.5						M	M	M	M	M
6.0	3.0						M	M	M	M	M
7.0	3.5	M	M	M	M	M	M	M	M	M	M
8.0	4.0	M	M	M	M	M	N	N	N	N	N
9.0	4.5	M	M	M	M	M	N	N	N	N	N
10.0	5.0	M	M	M	M	M	N	N	N	N	N
11.0	5.5	M	M	M	M	M	SED	SED	SED	SED	SED
12.0	6.0	N	N	N	N	N	SED	SED	SED	SED	SED

FIXING TYPE	DESCRIPTION	MIN. STUD SIZE	STRINGER SIZE	CHARACTERISTIC
K	2/ 90 x 3.15 Nails + 1 Stud-Lok SL125 Screw	90x45 SG8 @ 600 crs	90 x 45 SG8	3.93kN
L	3/ 90 x 3.15 Nails + 2 x Stud-Lok SL125 Screws	90x45 SG8 @ 600 crs	140 x 45 SG8	7.22kN
M	L + 1 x Multigrip - 3 /14g x 35mm screws each flange	90x45 SG8 @ 600 crs	140 x 45 SG8	12.67kN
N	L + 1 x SPH140 - 3 /14g x 35mm screws each flange	90x45 SG8 @ 400 crs	140 x 45 SG8	17.72kN

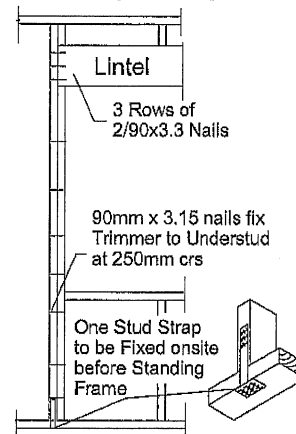
As built design
BC201209

Lintel Fixings

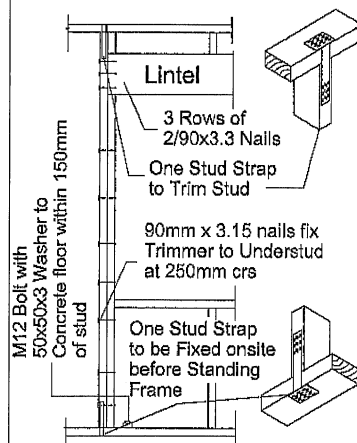
Type E (1.4kN)



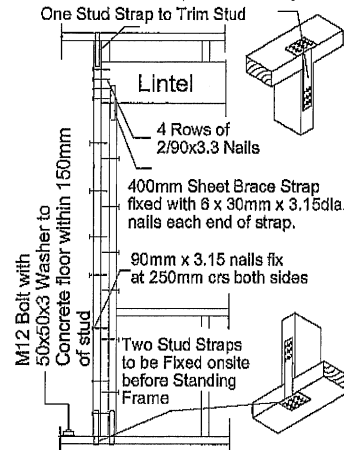
Type F (4.0kN)



Type G (7.5kN)



Type H (13.5kN)

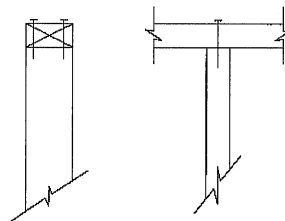


Note. Stud numbers indicative only. Refer Table 8.5 NZS 3604:2011
For fixing of Jack Studs to lintel and top plate refer to "Stud to Top Plate Fixing Schedule"

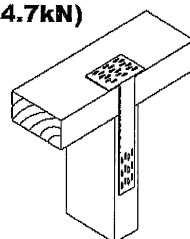
Top Plate Fixings

Fixing Type A (0.7kN)

2/90x3.33 Plain Steel Wirenails
Driven Vertically Into Stud



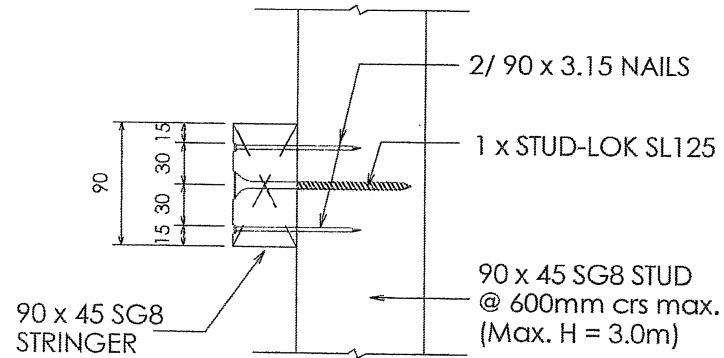
Fixing Type B (4.7kN)



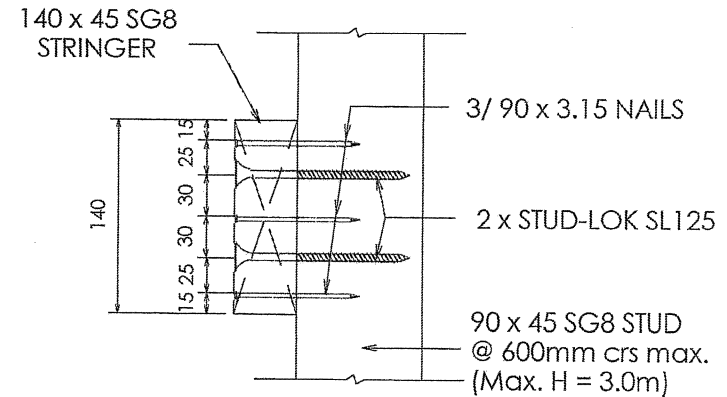
GANG NAIL Stud Strap
Design Capacity 6.1 kN
AS1720.1-1997

NOTES:

- 1) Assume supported trusses are at 900 mm crs
- 2) Refer to Truss Fixing Report for maximum Truss Characteristic Reactions (Up or Down)
- 3) Select Stringer Fixing Type Characteristic Strength > or = max. Truss Characteristic Reaction
- 4) H = Height of stringer from base of stud
- 5) Stud size and spacing indicated are min. requirements

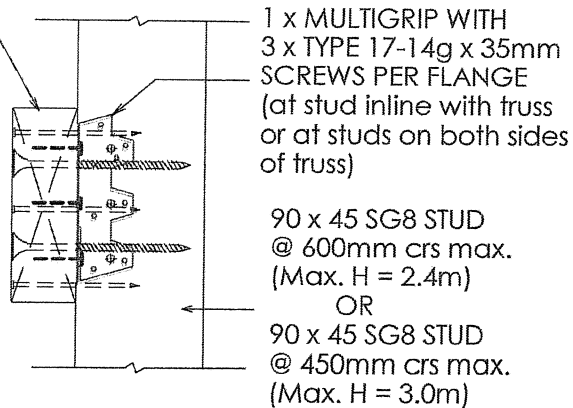


TYPE K @ STUD CRS.
(3.9kN CHARACTERISTIC)



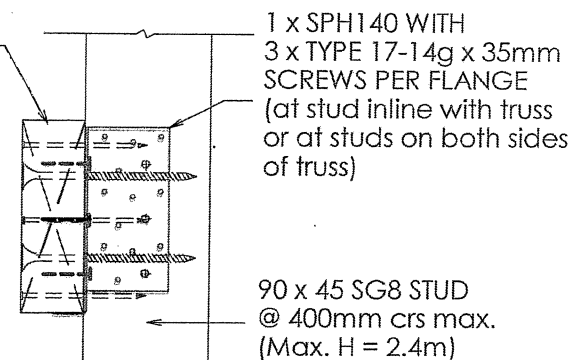
TYPE L @ STUD CRS.
(7.2kN CHARACTERISTIC)

140 x 45 SG8 STRINGER
WITH TYPE L FIXING
@ STUD CRS.
(3 NAILS + 2 x SL125)



TYPE M (L + MULTIGRIP)
(12.7kN CHARACTERISTIC)

140 x 45 SG8 STRINGER
WITH TYPE L FIXING
@ STUD CRS.
(3 NAILS + 2 x SL125)



TYPE N (L + SPH140)
(17.7kN CHARACTERISTIC)

As built design
BC201209

Job Title :

**STRINGER TO STUD FIXING
WITH STUD-LOK SL125**

Sheet Title :

STRINGER FIXING DETAILS

Date : 18/1/2019

Designed : ILN

Checked :

Scale : 1:5

Drawn : DXU

Certified :

PrimeCAD V4.3
Drawing Number :

25804

Sheet :

1

A4

0800 PRENAIL (0800 773 6245)

TRUSS TO TOP PLATE FIXING

= PAIRS OF WIRE DOGS & 2/90x3.15 nails

UNLESS STATED OTHERWISE

MULTI-PLY NAILING

TOP CHORD = 1 row @ 180mm ctrs
BOTTOM CHORD = 1 row @ 180mm ctrs
WEBS = 1 row @ 180mm ctrs

REVISED ASBUILT TRUSS BC21209

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As built design
BC201209

VIP FRAMES
&
TRUSSES

200 Maces Road
PO Box 35-193 Christchurch

Ph (03) 389 8200

JOB No **20-5333X**

Client: Joyce Built

Job Name: Own Home

Address: Lot 14 Oakville Estate
4 Goldie Drive

Pitch: 40.000
Roof Material: Galv Iron .5mm
Soffit Overhang: 70
Wind Area: High
Snow Load: 0.252

Trusses And Rafters At 900 Centres
Unless Stated Otherwise

DRAWN BY Hayden Binnie

DATE 25 Jan, 2021 PAGE 1 of

FIXINGS

A=47x90 JH

B=47x120 JH

D=47x190 JH

E=95x165 JH

C=2xCT200's

M=Multigrips

N=Nail On Plate

L=Pair CPC 40

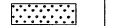
P=Pair CPC 80



CT 200



Multi Grips



Nail on plate



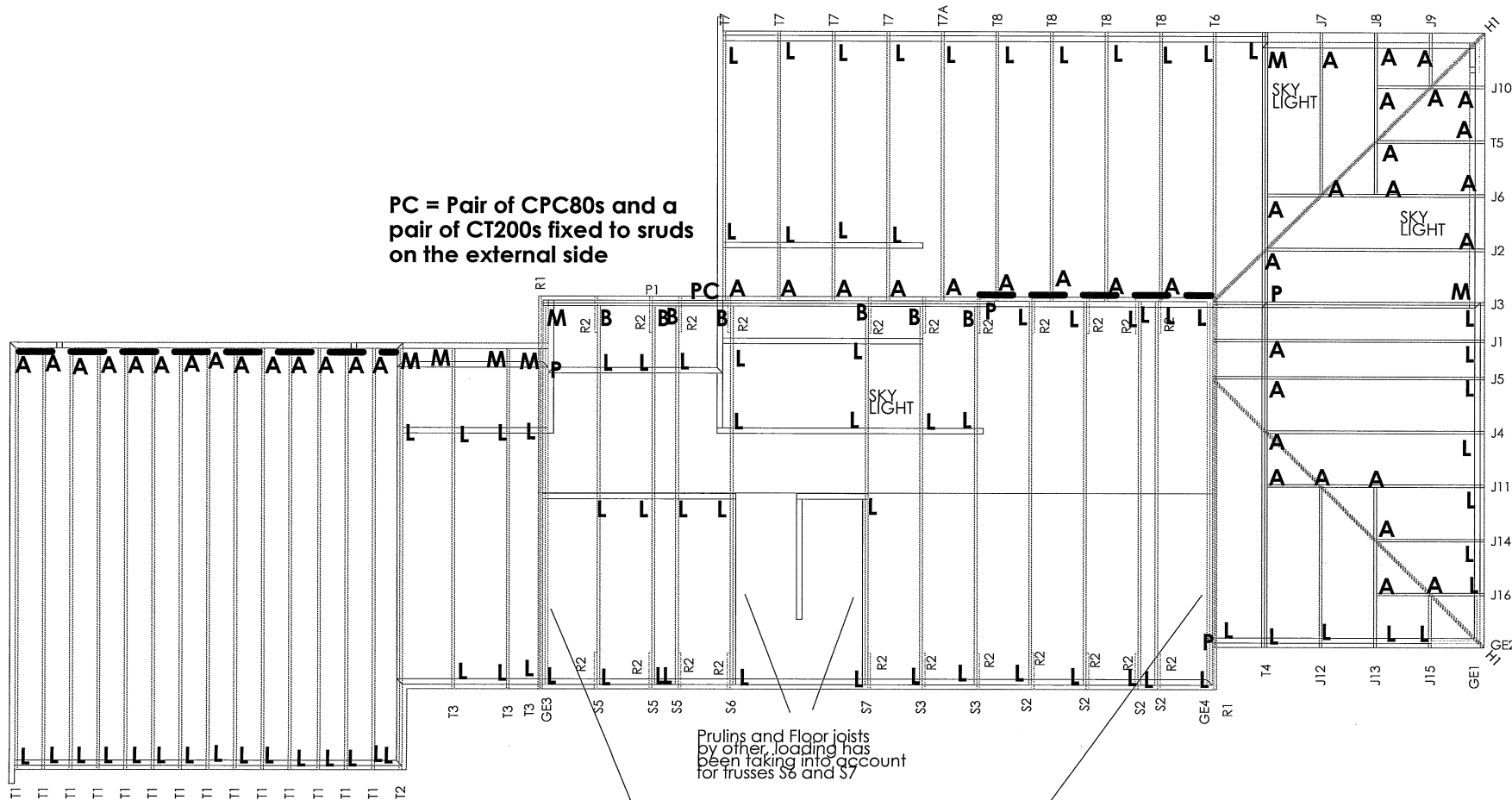
CPC

NOTE

Please contact VIP Frames and Trusses Ltd for any queries regarding this layout or if any on site remedial work is required.

No modifications to Roof Trusses or Wall Frames are to be undertaken without first obtaining written authority from VIP Frames and Trusses Ltd.

PC = Pair of CPC80s and a pair of CT200s fixed to studs on the external side



Gable End Bracing requirements for GE3 and GE4 are met through the bracing at the 2.4 ceiling line as well as the continuous walls forming the truss void in the attic space.

REVISED ASBUILT TRUSS BC21209

RECEIVED 26/01/2021

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BC201209

VIP FRAMES
&
TRUSSES

200 Maces Road
PO Box 35-193 Christchurch
Ph (03) 389 8200

JOB No **20-5333X**

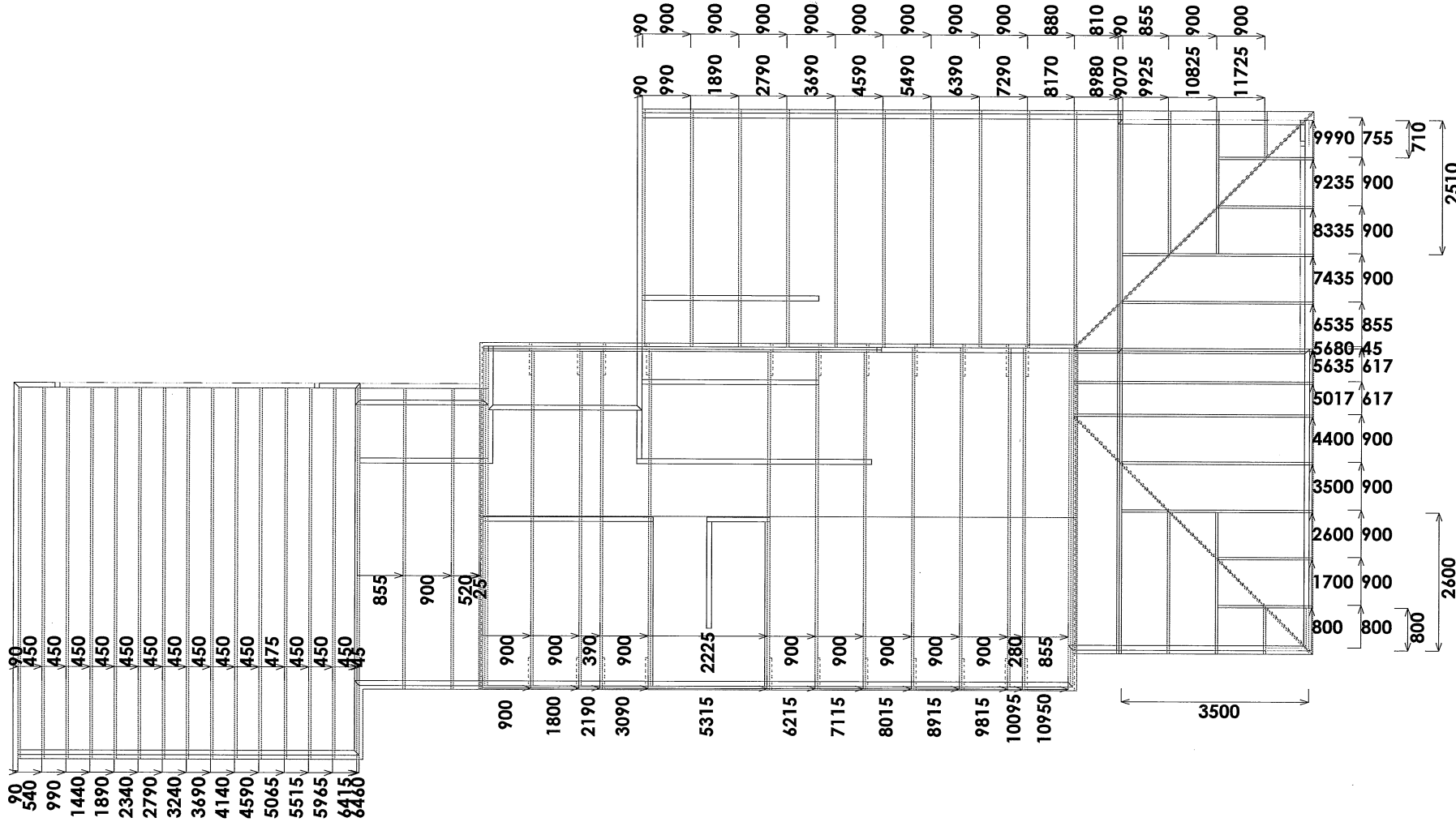
Client: Joyce Built
Job Name: Own Home
Address: Lot 14 Oakville Estate
4 Goldie Drive

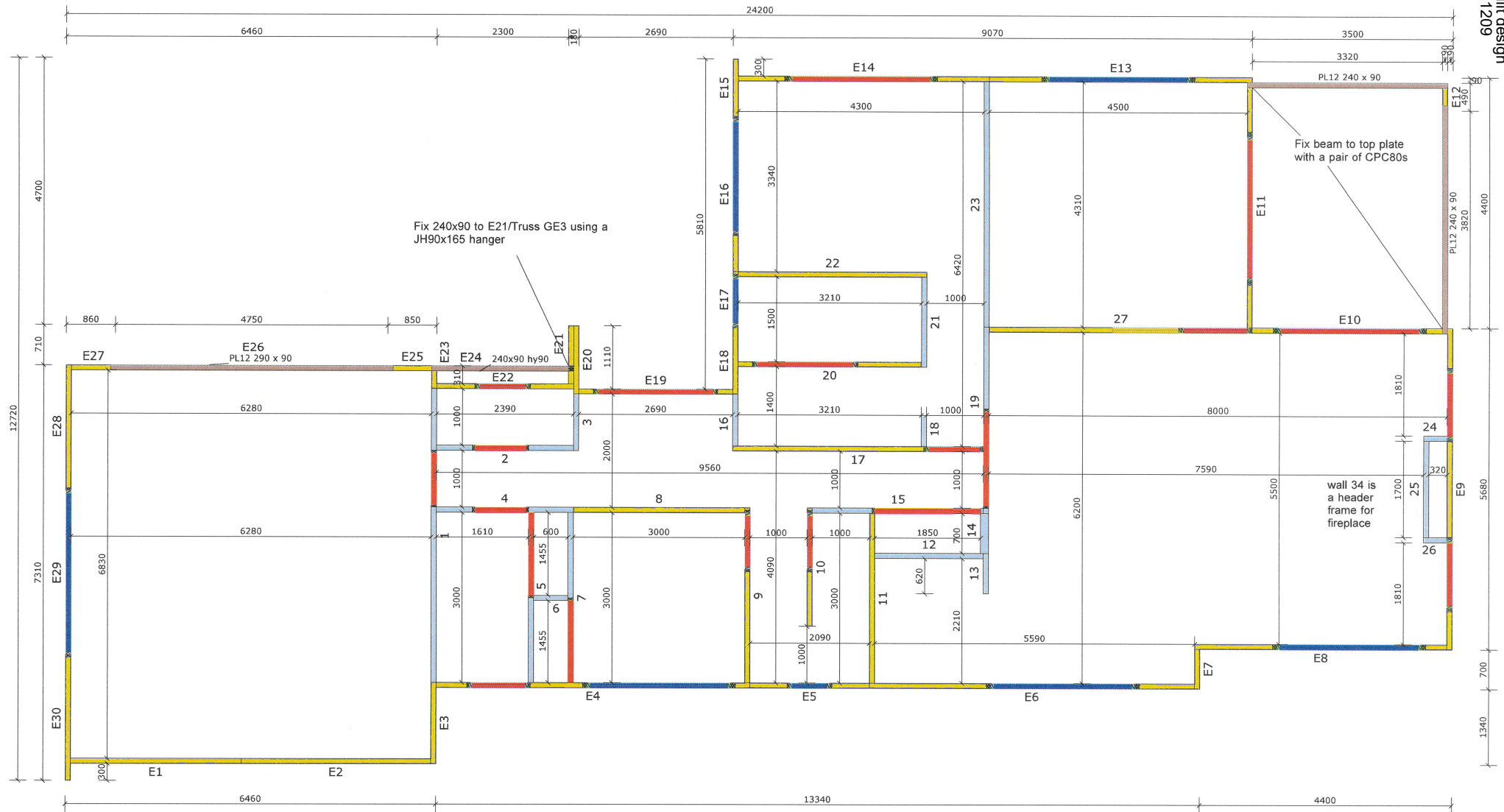
Pitch: 40.000
Roof Material: Galv Iron .5mm
Soffit Overhang: 70
Wind Area: High
Snow Load: 0.252

Trusses And Rafters At 900 Centres
Unless Stated Otherwise

DRAWN BY Hayden Binnie

DATE 25 Jan,2021 PAGE 1 of




VIP *Frames & Trusses*

 65 Wickam Street
 Bromley
 Christchurch
 New Zealand

Phone: (0800) PRENAIL

 OT No.: **20-5333-OD-01**

Name: New Dwelling

 Address: Lot 14
 4 Golde Drive
 Rangiora

Sheet Title: Dimensioned Floor Plan Ground Floor

Snow Zone: Christchurch (N4)

Wind Area: High

TC Restraints: 900 mm

Roof Material: Galv Iron 0.55mm

Roof Live Load: 0.630kPa

Roof Pitch: 3 and 40 Degrees

Snow Altitude: 100.000 m

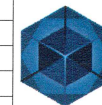
Design Wind Speed: 44.0 m/s

BC Restraints: 600 mm

Ceiling Material: Standard Plaster Board 13mm

Ground Snow Load: 0.900 kPa

Truss Centres: 900 mm



MiTek

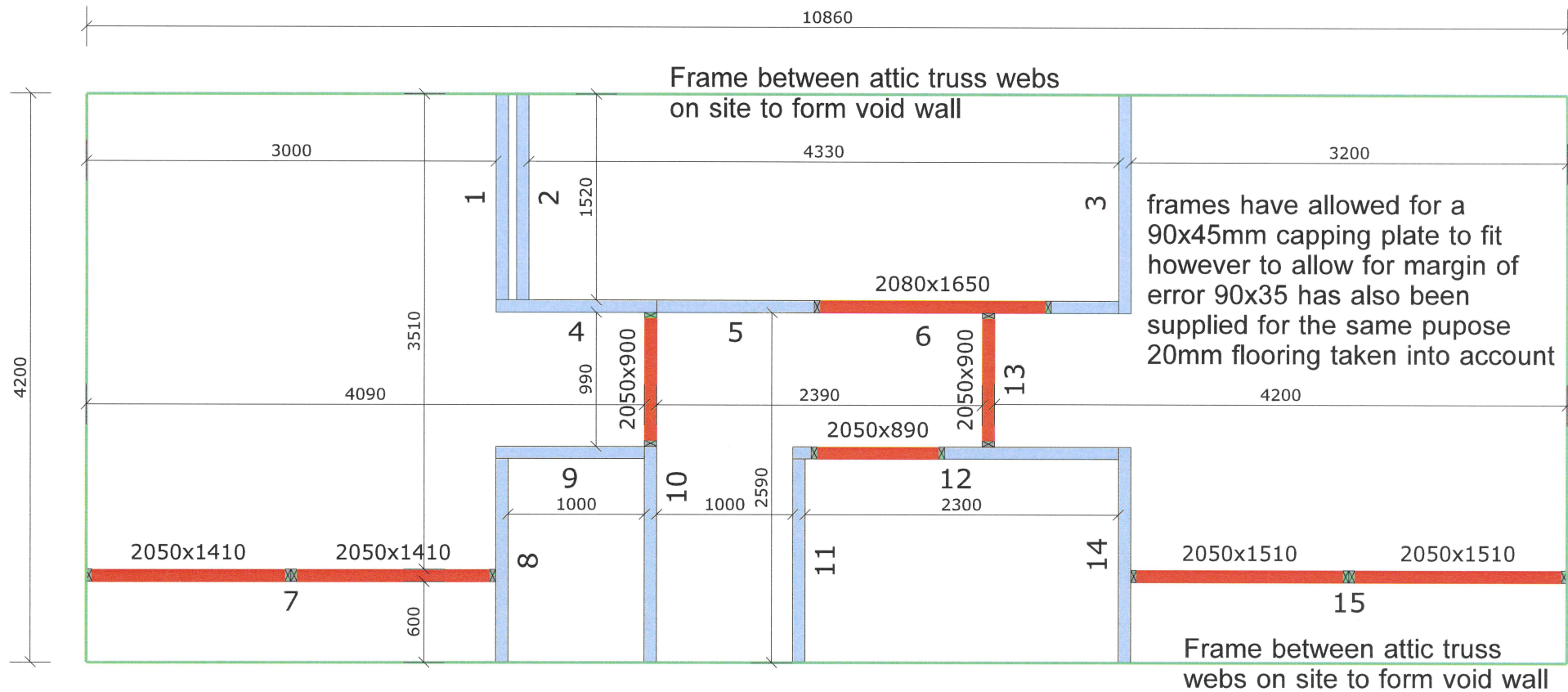
SAPPHIRE™

Better Technology. Better Building.

Ver. 8.1.2

Building Consent No.: BC201209	Structure: 20-533X
Drawn By: Hayden	Date: 25/01/2021

Consent No.:	00267233	Date:	25/01/2021
Drawn By:	Hayden	Date:	25/01/2021



65 Wickam Street
Bromley
Christchurch
New Zealand

Phone: (0800) PRENAIL

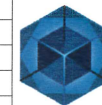
OT No.: **20-5333-OD-01**

Name: New Dwelling

Address: Lot 14
4 Golde Drive
Rangiora

Sheet Title: Dimensioned Floor Plan First Floor

Snow Zone: Christchurch (N4)	Snow Altitude: 100.000 m
Wind Area: High	Design Wind Speed: 44.0 m/s
TC Restraints: 900 mm	BC Restraints: 600 mm
Roof Material: Galv Iron 0.55mm	Ceiling Material: Standard Plaster Board 13mm
Roof Live Load: 0.630kPa	Ground Snow Load: 0.900 kPa
Roof Pitch: 3 and 40 Degrees	Truss Centres: 900 mm



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Building Consent No.: BC201209	Structure: 20-5333X
Drawn By: Hayden	Date: 25/01/2021