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13/01/2021

HUTT CITY COUNCIL

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Demand Calculation Sheet

Job Details

Name: Milford D5-G
 Street and Number: 64 Waipounamu Drive, Kelson
 Lot and DP Number: **Lot 5 DP 91313**
 City/Town/District: Lower Hutt
 Designer: J. Bailie
 Company: Prime Designs
 Date: Tuesday, 21 July 2020

Building Specification

Number of Storeys: 1
 Floor Loading: 2 kPa
 Foundation Type: Slab

Single

Cladding Weight: Light
 Roof Weight: Light
 Room in Roof Space: No
 Roof Pitch (degrees): 25
 Roof Height above Eaves (m): 2.58
 Building Height to Apex (m): 5.32
 Ground to Lower Floor (m): 0.255

Average Stud Height (m): 2.4
 Building Length (m): 20.270
 Building Width (m): 10.300
 Building Plan Area (m²): 156.93

Building Location

Wind Zone = High

Earthquake Zone 3

Soil Type: D & E (Deep to Very Soft)
 Annual Prob. of Exceedance: 1 in 500 (Default)

Bracing Units required for Wind

	Along	Across
Single Level	582	1164

Bracing Units required for Earthquake

	Along & Across
Single Level	840

GIB EzyBrace® Bracing Software



13/04/2021

Single Level Along Resistance Sheet

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Job Name: Milford D5-G



									Wind	EQ
									Demand	
									582	840
									Achieved	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1527 262%	1379 164%
A	1	2.80		2.4	GS1-N	GIB®	193	168		
	2	0.60		2.4	GS1-N	GIB®	34	35		
	3	0.50		2.4	GS1-N	GIB®	28	29		
	4	0.96		2.4	GS1-N	GIB®	62	57		
	5	0.60		2.4	BL1-H	GIB®	59	61		
External Length = 20.270									376 OK	350 OK
B	1	3.64		2.4	GS1-N	GIB®	251	218		
	2	0.95		2.4	GS1-N	GIB®	61	56		
	3	0.60		2.4	GS1-N	GIB®	34	35		
External Length = 2.980									346 OK	310 OK
C	1	5.40		2.4	GS1-N	GIB®	373	324		
	2	1.65		2.4	GS2-NOM	GIB®	83	83		
	3	0.87		2.4	GS1-N	GIB®	54	51		
	4	0.88		2.4	GS1-N	GIB®	55	52		
External Length = 8.970									564 OK	510 OK
D	1	1.49		2.4	GS1-N	GIB®	103	89		
	2	2.00		2.4	GS1-N	GIB®	138	120		
External Length = 10.280									241 OK	209 OK

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13/04/2021

Single Level Across Resistance Sheet

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Job Name: Milford D5-G



									Wind	EQ
									Demand	
									1164	840
									Achieved	
Line	Element	Length (m)	Angle (degrees)	Stud Ht. (m)	Type	Supplier	Wind (BUs)	EQ (BUs)	1276 110%	1194 142%
M	1	0.50		2.4	BLP-H	GIB®	64	69		
	2	0.50		2.4	BLP-H	GIB®	64	69		
	External Length = 3.300								127 OK	139 OK
N	1	0.89		2.4	GS1-N	GIB®	56	53		
	2	0.85		2.4	GS1-N	GIB®	53	50		
	2	0.40		2.4	BLP-H	GIB®	48	54		
	3	0.40		2.4	BLP-H	GIB®	48	54		
	External Length = 5.880								205 OK	211 OK
O	1	3.00		2.4	GS1-N	GIB®	207	180		
	2	1.80		2.4	GS1-N	GIB®	124	108		
	3	1.80		2.4	GS2-NOM	GIB®	90	90		
									421 OK	378 OK
P	1	1.83		2.4	GS1-N	GIB®	126	110		
	2	1.10		2.4	GS2-NOM	GIB®	55	55		
	3	1.36		2.4	GS1-N	GIB®	94	82		
	4	0.45		2.4	GS1-N	GIB®	24	26		
	External Length = 4.600								299 OK	273 OK
Q	1	3.22		2.4	GS1-N	GIB®	222	193		
	External Length = 5.700								222 OK	193 OK

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Custom Wall Elements

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Supplier	System	Min. Length m	Wind BUs/m	EQ BUs/m
James Hardie	JHD	0.4	83	107
Ext Conc.	Conc. 1.5	1.5	100	100
James Hardie	JHD 0.4	0.4	83	107
James Hardie	JHD 0.6	0.6	99	107
James Hardie	JHD 1.2	1.2	120	120
James Hardie	JHD 2.4	2.4	120	120
EcoPly	EP1-04	0.4	80	95
EcoPly	EP1-06	0.6	95	105
EcoPly	EP1-1.2	1.2	120	135



Construction R-value Calculator

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This webpage calculates the R-value of walls, roofs and suspended floors for most insulation material R-values. It uses the iso-thermal planes method, the same method as used in NZS4214:2006.

Some of the possible material combinations may not be suitable for actual constructions, i.e. EPS based claddings directly fixed on timber framing. Please make sure to select only appropriate material combinations.

If your construction is not listed, please send an e-mail to designnavigator@gmail.com with a description and a detail drawing (pdf) of it or use the [Design Navigator message board](#)

Please select the element type. Then choose the construction details and enter the R-value of the insulation either directly in the text box or by choosing a product from the right panel .

Floors ☐

Walls ☒

Roofs ☐

Linea Wall Cladding
2.03 m²C/W

Type: Wall: Timber Frame with vented Cavity

Timber Frame with vented Cavity [view detail](#)

external surface 0.03

Cladding : Linea weatherboard
R-value: 0.08

Air Barrier : Building paper
R-value: 0.01

Timber Frame & Cavity : 90mm, studs @ 600mm, dwangs @ 800mm
Wall Frame Area: 14.4% Cavity Area: 85.6%

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

Framing :
R-value: 0.75

Earthwool glasswool Wall 580mm 2.2

still Airgap: none
R-value: 0.00

Wall Lining : Gypsum plasterboard 10mm
R-value: 0.04

internal surface 0.09

[Print Page](#)

Current NZS4218:2009 Schedule Method minimum R-value Targets (non-solid construction)

	Zone 1	Zone 2	Zone 3
Roof	R-2.9	R-2.9	R-3.3
Wall	R-1.9	R-1.9	R-2.0
Floor	R-1.3	R-1.3	R-1.3
Glazing (vertical)	R-0.26	R-0.26	R-0.26
Glazing (skylights)	R-0.26	R-0.26	R-0.31

Australian Building Code Targets

	All Zones except NSW	NSW
Roof	R-4.1	R-6.3
Wall	R-2.9	R-3.8





Construction R-value Calculator

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Floors ☒

Walls ☐

Roofs ☐

RibRaft

1.97

m²°C/W

Type:

[view detail](#)

[Print Page](#)

Current NZS4218:2009 Schedule Method minimum R-value Targets (non-solid construction) [i](#):

	Zone 1	Zone 2	Zone 3
Roof	R-2.9	R-2.9	R-3.3
Wall	R-1.9	R-1.9	R-2.0
Floor	R-1.3	R-1.3	R-1.3
Glazing (vertical)	R-0.26	R-0.26	R-0.26
Glazing (skylights)	R-0.26	R-0.26	R-0.31

Australian Building Code Targets [i](#):

	All Zones except NSW	NSW
Roof	R-4.1	R-6.3
Wall	R-2.9	R-3.8





Construction R-value Calculator

HUTT CITY COUNCIL

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Floors ☐

Walls ☒

Roofs ☐

Rockcote Wall Cladding 2.17 m²C/W

Type: Wall: Timber Frame with vented Cavity ▼

Timber Frame with vented Cavity [view detail](#)

external surface 0.03

Cladding : Integra Lightweight Concrete 50mm Panel ▼

R-value: 0.29

Air Barrier : Building paper ▼

R-value: 0.01

Timber Frame & Cavity : 90mm, studs @ 600mm, dwangs @ 800mm ▼

Wall Frame Area: 14.4%

Cavity Area: 85.6%

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

15-90mm vented cavity (all R-values on ext. side of cavity will be halved), R: 0.08

Framing :

R-value: 0.75

Earthwool glasswool Wall 580mm 2.2

still Airgap: none ▼

R-value: 0.00

Wall Lining : Gypsum plasterboard 10mm ▼

R-value: 0.04

internal surface 0.09

[Print Page](#)

Current NZS4218:2009 Schedule Method minimum R-value Targets (non-solid construction)

	Zone 1	Zone 2	Zone 3
Roof	R-2.9	R-2.9	R-3.3
Wall	R-1.9	R-1.9	R-2.0
Floor	R-1.3	R-1.3	R-1.3
Glazing (vertical)	R-0.26	R-0.26	R-0.26
Glazing (skylights)	R-0.26	R-0.26	R-0.31

Australian Building Code Targets

	All Zones except NSW	NSW
Roof	R-4.1	R-6.3
Wall	R-2.9	R-3.8





Construction R-value Calculator

HUTT CITY COUNCIL

This webpage calculates the R-value of walls, roofs and suspended floors for most insulation material R-values. It uses the "iso-thermal planes" method, the same method as used in NZS4214:2006.

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Floors ☐

Walls ☐

Roofs ☒

Corrugated Roof Cladding 3.09 m²°C/W

Type: Roof: Timber framed truss Roof, direct fixed or battened flat Ceiling ▼

Timber framed Roof, direct fixed or battened flat Ceiling view detail

external surface 0.03

Roofing : Corrugate iron with building paper ▼

R-value: 0.01

Insulation :

Timber Frame & Cavity :

90mm rafters or joists @ 900mm, battens covered with insulation ▼

Roof Frame Area: 5.0%

Cavity Area: 95.0%

Roof space (still air) 0.11

Roof space (still air) 0.11

Framing :

R-value: 0.75

Earthwool glasswool Skillion Ceiling

430mm 3.2

Roof Lining : Gypsum plasterboard 13mm ▼

R-value: 0.06

internal surface 0.09

Non-IC-rated recessed downlights

Ceiling Area
[m²]:

119.84

Number of
downlights:

Clearance from lamp holder side
[m]:



Print Page

Current NZS4218:2009 Schedule Method minimum R-value Targets (non-solid construction)

	Zone 1	Zone 2	Zone 3
Roof	R-2.9	R-2.9	R-3.3
Wall	R-1.9	R-1.9	R-2.0
Floor	R-1.3	R-1.3	R-1.3
Glazing (vertical)	R-0.26	R-0.26	R-0.26
Glazing (skylights)	R-0.26	R-0.26	R-0.31

Australian Building Code Targets

	All Zones except NSW	NSW
Roof	R-4.1	R-6.3
Wall	R-2.9	R-3.8



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13/01/2021

Paraparaumu Prenail 2016 Ltd.

37 Ihakara St. PARAPARAUMU Ph (04) 902 5618 Fax (04) 902 5619

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Date: 07-08-2020

Ver 4.5.2

Fabricator / Designer Statement

Job Ref: 0452

HUTT CITY COUNCIL

This statement may be used by the Building Consent Authority for compliance purposes and is issued by a licensed truss fabricator using the Pryda Build software.

CLIENT Name: Friday Homes

SITE Details:

Address : "Milford 2 - D5-G", Lots 2 & 5
Manapouri Grove, Kelson, Lower Hutt

City:

Post Code:

Nominal Design Criteria:

Design working life: 50 years

Building importance: Residential (Importance Level 2)

Roofing: Corrugated iron (8.0 kg/sq.m)

Ceiling: 13mm Gib-board (8.5 kg/sq.m)

Top chord purlins: 900 mm

Design roof snow load: 0 Pa
(incl. probability factor)

Ground snow load: 0 Pa

Location: Region N1 - lower Nth Island
Altitude above sea level: 100 m

BC restraints: Lateral tie restraints at 1800 mm crs
Standard truss spacing: 900 mm
Standard roof pitch: 25.00 deg.
Ult. design wind speed: 44 m/s (wind classification = High)

Max. eaves height: 3 m

Max. ridge height: 6 m

Int pressure coeff. up: 0.2

Overhang Condition: Metal fascia

The correctness of the Design Criteria used by the Pryda Build truss design software is the responsibility of the fabricator.

Note : Where relevant, a structural fascia beam is required at all hip and dutch hip corners to support the short creeper/rafter overhangs, as shown in AS4440-2004

Note: This statement must be read in conjunction with the truss layout and detail sheets.

Note: Some trusses in this job support ceiling materials that are different to this nominal data (see individual truss detail sheets).

Note: The Structural Timber products supplied in this building stores approximately '580' kg of carbon.

All truss designs and their connections have been designed using Pryda design software. Additional items such as roof/ceiling plane bracing, special notes, supplementary timber, etc., which may be shown on the plan drawings are the responsibility of others.

All trusses have been manufactured in accordance with the fabrication specifications provided by Pryda, and shall be installed, connected and braced in accordance with the recommendations given in - : AS4440:2004 "Installation of nailplated timber roof trusses" and any other supplementary details that may be provided, such as the Pryda Installation Guides.

Timber verification and grading values are in accordance with clause B1 and timber treatment in accordance with clause B2 of the New Zealand Building Code.

I/we confirm that the trusses for this project have been manufactured in accordance with the fabrication specifications provided by Pryda New Zealand.

Name: David Bright

Position: Estimator

Signed:



Date: 07-08-2020

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Date: 07-08-2020

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Fabricator / Designer Statement

Job Ref: 0452

Note 1: All timber framing nails are machine-driven, glue coated, or annular/helical deformed shank.
Use specified fixings with Pryda connectors as noted.

Note 2: The following trusses have not yet fully passed all of the design criteria, eg:-

Truss Mark **Status**

BR1 Fixings and connections have not been designed.
BR2 Fixings and connections have not been designed.
BR3 Fixings and connections have not been designed.

Tie-downs to walls/beams:

Trusses need to be fixed at each timber support with 2/90x3.15 dia Skew Nails.

All additional tie-downs are as follows:

Truss Mark	Sup No.	Distance	Fixing	Support Jt Grp	Width	Truss Jt Grp	Uplift (kN)	Fixing Details
J1	1	-	2/Z	JD5	90	JD5	-0.77	
J2	1	-	2/Z	JD5	90	JD5	-0.62	
J3	1	-	2/Z	JD5	90	JD5	-1.10	
J4	1	-	2/Z	JD5	90	JD5	-0.94	
JE1	1	-	2/Z	JD5	90	JD5	-0.76	
JE2	1	-	2/Z	JD5	90	JD5	-1.19	
JE3	1	-	2/Z	JD5	90	JD5	-0.59	
JE4	1	-	2/Z	JD5	90	JD5	-0.58	
JE5	1	-	2/Z	JD5	90	JD5	-0.72	
JE6	1	-	2/Z	JD5	90	JD5	-2.13	
JE7	1	-	2/Z	JD5	90	JD5	-2.14	
JE8	1	-	2/Z	JD5	90	JD5	-2.16	
JE9	1	-	2/Z	JD5	90	JD5	-2.05	
JS1	1	-	2/Z	JD5	90	JD5	-0.66	
JS11	3	1025	2/Z	JD5	90	JD5	-1.64	
JS2	1	-	2/Z	JD5	90	JD5	-0.70	
JS3	1	-	2/Z	JD5	90	JD5	-0.58	
JS4	1	-	2/Z	JD5	90	JD5	-0.70	
JS5	1	-	2/Z	JD5	90	JD5	-0.94	
JS6	1	-	2/Z	JD5	90	JD5	-1.13	
S1	1	-	2/Z	JD5	90	JD5	-2.18	
	7	5700	2/Z	JD5	90	JD5	-2.18	
S2	1	-	2/Z	JD5	90	JD5	-1.82	
	7	5700	2/Z	JD5	90	JD5	-1.82	
S3	1	-	2/NPPC4	JD5	90	JD5	-3.30	2/12g-11x35 screws, 6/30x3.15d nails
S4	1	-	2/Z	JD5	90	JD5	-1.18	
	4	3300	2/Z	JD5	90	JD5	-1.24	
S5	3	1415	2/Z	JD5	90	JD5	-1.18	
	6	4670	2/Z	JD5	90	JD5	-0.87	
S6	1	-	2/Z	JD5	90	JD5	-0.53	
	4	1135	2/Z	JD5	70	JD5	-1.24	
	5	1735	2/Z	JD5	70	JD5	-0.73	
	6	2335	2/Z	JD5	70	JD5	-0.79	
	8	3300	2/Z	JD5	90	JD5	-0.58	
SG1	1	-	2/NPPC8	JD5	90	JD5	-10.87	4/12g-11x35 screws, 12/30x3.15d nails
	7	5700	2/NPPC4	JD5	90	JD5	-5.07	2/12g-11x35 screws, 6/30x3.15d nails
SG2	1	-	2/NPPC4	JD5	90	JD5	-5.78	2/12g-11x35 screws, 6/30x3.15d nails
	3	1415	2/NPPC4	JD5	90	JD5	-5.04	2/12g-11x35 screws, 6/30x3.15d nails
	6	4670	2/Z	JD5	90	JD5	-1.43	
TG1	1	-	2/Z	JD5	90	JD5	-2.78	
	7	5700	2/Z	JD5	90	JD5	-2.83	
TG2	1	-	2/NPPC8	JD5	90	JD4	-8.24	4/12g-11x35 screws, 12/30x3.15d nails
	11	10280	2/NPPC8	JD5	90	JD4	-8.25	4/12g-11x35 screws, 12/30x3.15d nails

Primary connections (truss to girder):

Truss Marks			Fixing Details	
Girder	Supported	Connector	Girder	Supported
SG1	JS10	FB4590	8/30x3.15d nails	4/30x3.15d nails
	JS7	FB4590	8/30x3.15d nails	4/30x3.15d nails
	JS8	FB4590	8/30x3.15d nails	4/30x3.15d nails
	JS9	FB4590	8/30x3.15d nails	4/30x3.15d nails
	S3	2/NPPC8	6/12g-11x65 screws	6/12g-11x35 screws
	TG3	TB45/16	8/12g-11x65 screws	12/12g-11x35 screws
SG2	JS11	FB4590	8/30x3.15d nails	4/30x3.15d nails
	JS7	FB4590	8/30x3.15d nails	4/30x3.15d nails
	JS8	FB4590	8/30x3.15d nails	4/30x3.15d nails

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Fabricator / Designer Statement

Job Ref: 0452

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JS9
TG3

FB4590
TB45/16

8/30x3.15d nails
8/12g-11x35 screws

4/30x3.15d nails
12/12g-11x35 screws

Secondary fixings (hip & gable ends, valleys):

All trusses are to be fixed at each support with the following:

Hip truss to truncated girder	3 face nails, bottom chords
Jack truss to truncated girder	3 skew nails or back face nails, bottom chords
Creeper truss to hip truss	3 face nails, top and bottom chords
Top chord extensions	2 skew nails
Valley trusses	1 skew nail
Outriggers	2 skew nails

All additional connections are as follows:

<i>Supporting Truss</i>	<i>Supported Truss</i>	<i>Top Chord</i>	<i>Bottom Chord</i>
H2	JS5	1/NPA75/190	-
	JS6	1/NPA75/190	-
H4	JS11	1/NPA75/190	-
	JS9	1/NPA75/190	-
H5	JS10	1/NPA75/190	-
TG1	J1	1/MGL	-
	J2	1/MGL	-
TG2	J3	1/MGL	-
	J4	1/MGL	-
	JE2	1/NPA75/190	-
	JE6	1/FB4590	-
	JE7	1/FB4590	-
TG3	JE8	1/FB4590	-
	JE9	1/FB4590	-

Fixing Summary:

<i>Connector</i>	<i>Description</i>	<i>Total</i>	<i>Fixing Method (per connector)</i>	
Primary			<i>Girder</i>	<i>Supported Truss</i>
FB4590	Joist hanger	8	8/30x3.15d nails	4/30x3.15d nails
NPPC8	Purlin cleat	2	6/12g-11x65 screws	6/12g-11x35 screws
TB45/16	Truss boot	1	8/12g-11x35 screws	12/12g-11x35 screws
TB45/16	Truss boot	1	8/12g-11x65 screws	12/12g-11x35 screws
Secondary			<i>Supporting Truss</i>	<i>Supported Truss</i>
FB4590	Joist hanger	4	8/30x3.15d nails	4/30x3.15d nails
MGL	Multigrip (long)	9	6/30x3.15d nails	4/30x3.15d nails
NPA75/190	Nail-on plate (angled)	12	6/30x3.15d nails	6/30x3.15d nails
Tiedown			<i>Support</i>	<i>Truss</i>
NPPC4	Purlin cleat	8	2/12g-11x35 screws	6/30x3.15d nails
NPPC8	Purlin cleat	6	4/12g-11x35 screws	12/30x3.15d nails
Z	Z nail	132		

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13/01/2021**PARAPARAUMU PRENAIL LTD**37 Ihakara Street, Paraparaumu 5032
Tel: 04 902 5618 Fax: 04 902 5619

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Producer Statement for Manufactured Frames

HUTT CITY

Paraparaumu Prenail Ltd will at the time of supply, produce Wall Frames including all Timber Lintels and Beams, manufactured to the following criteria:

Job Name	Proposed Dwelling
Site Address	"Milford 2 - DG-5", Lots 2 & 5, Manapouri Grove Kelson, Lower Hutt
Client	Friday Homes
Architect/Draughtsman	Prime Designs
Engineer	

Wind Zone	High
Snow Load Region	
Earthquake Region	

Roof Material	Light
---------------	-------

Wall Framing as Specified	Timber Size	Stud Spacing	Treatment	Bottom Plate Treatment	Grade
External Walls	90x45	600	H1.2	H1.2	MSG8
Internal Walls	90x45	600	H1.2	H1.2	MSG8
Beam 1	-	-	-	-	-
Beam 2	-	-	-	-	-
Beam 3	-	-	-	-	-
Beam 4	-	-	-	-	-

All timber members and components in this design have been determined to comply with The New Zealand Building Code (Section B1). They have been designed in accordance with sound and widely accepted engineering principles to comply with the following New Zealand Standards:

NZS 1170: 2002 General Structural Design and Design Loadings for Buildings.

NZS 3603: 1993 Timber Design

NZS 3604: 2011 Timber Framed Buildings

Any design that falls outside of these New Zealand Standards that requires specific design will have all Loading and Design Tables and Charts attached.

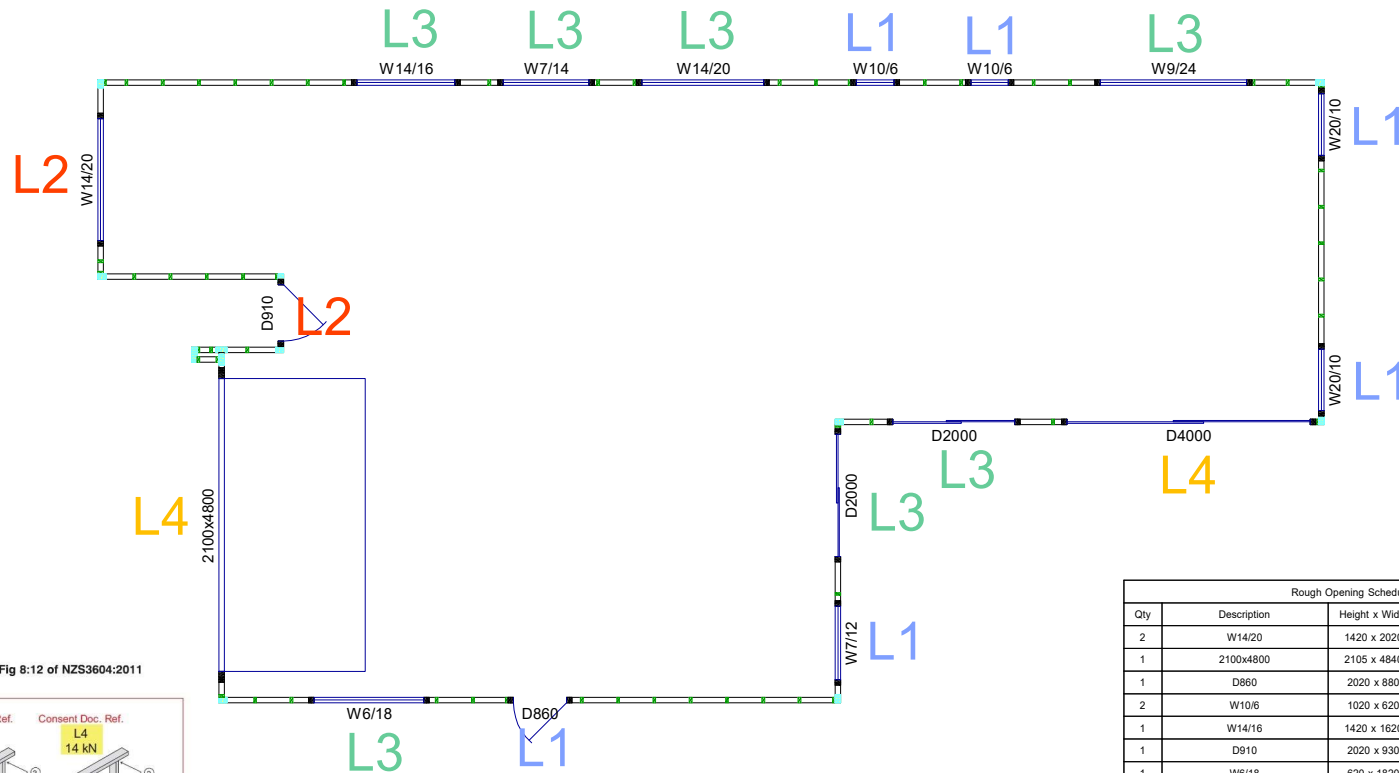
Designed by Brett Giles

Signed : Bwgiles

Date 7 August 2020

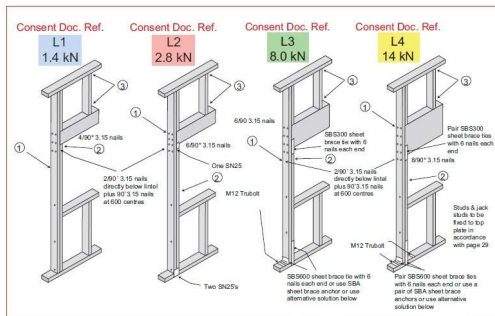
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Lintel Fixing Schedule

Acceptable solutions in conjunction with tables 8:14 & Fig 8:12 of NZS3604:2011



Qty	Description	Height x Width	Fin. Height	Lintel Size
2	W14/20	1420 x 2020	2020	1-PLL200
1	2100x4800	2105 x 4840	2105	1-PLL350
1	D860	2020 x 880	2020	1-PLL150
2	W10/6	1020 x 620	2020	1-PLL150
1	W14/16	1420 x 1620	2020	1-PLL150
1	D910	2020 x 930	2020	1-PLL150
1	W6/18	620 x 1820	2020	1-PLL200
2	D2000	2020 x 2020	2020	1-PLL200
1	D4000	2020 x 4020	2020	1-PLL300
1	W7/12	720 x 1220	2020	1-PLL150
2	W20/10	2020 x 1020	2020	1-PLL150
1	W7/14	720 x 1420	2020	1-PLL150
1	W9/24	970 x 2420	2020	1-PLL250



Customer : Friday Homes
 Site Address : "Milford 2 - D5-G", Lots 2 & 5
 : Manapouri Grove, Kelson, Lower Hutt

Roofing : Corrugated iron
 Std. Stud Centres : External: 600 Internal: 600
 Design Wind Velocity: 44.00 m/s (Ult.)
 Detailer : <None>

Job Ref 0452
 Scale
 Level

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Paraparaumu Prenail 2016 Ltd.

37 Ihakara St. PARAPARAUMU Ph (04) 902 5618 Fax (04) 902 5619

Page 1 of 1

Date: 07-08-2020

Ver 4.5.2

Producer Statement - PS1 - Design

Job Ref: 0452

HUTT CITY COUNCIL

This producer statement applies to the structural engineering design software "Pryda Build" supplied by Pryda NZ to

Paraparaumu Prenail 2016 Ltd.



These truss designs are in accordance with sound and widely accepted engineering principles. I believe on reasonable grounds that if constructed in accordance with the design, the trusses will comply with relevant requirements of the New Zealand Building Code, Clause B1 and Verification Method B1/VM1. The durability shall comply with the New Zealand Building Code, Clause B2, for building importance level 2 and a design working life of 50 years.

In addition to the above, this software also complies in part with:

ANSI / TPI 1 - 2002 National Design Standard for metal plate connected wood truss construction.

AS 1649 - 2001 Timber - Methods of test for mechanical fasteners and connectors - Basic working loads and characteristic strengths.

The truss designs require that the supporting structure is stable in its own right, and that the trusses will be braced in accordance with the New Zealand Building Code Standard NZS 3604:2011, and any supplementary details provided, including but not limited to Pryda Installation Guides.

Pryda NZ holds a current policy of Professional Indemnity Insurance with cover no less than NZ\$2 million. The policy includes the engineering design processes used in the software.

On behalf of Pryda NZ (a division of ITW New Zealand)

A handwritten signature in blue ink, appearing to read "André van Blerk". The signature is written in a cursive, flowing style.

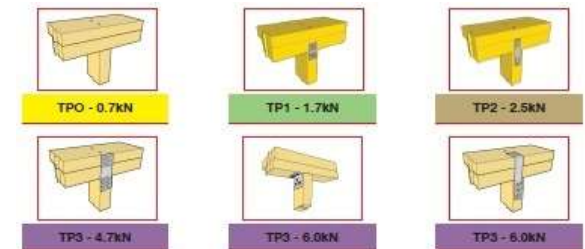
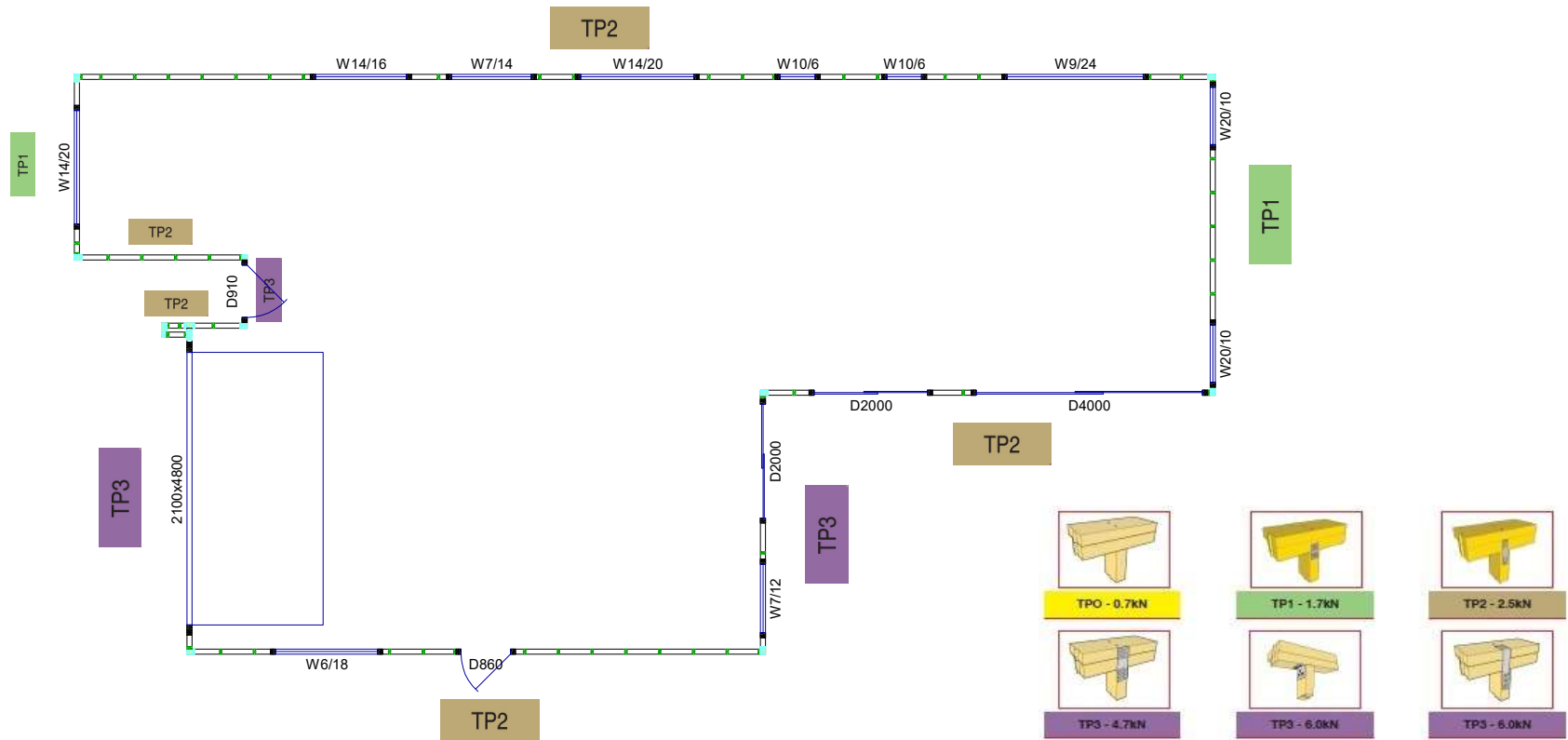
André van Blerk

Chartered Professional Engineer

BSc (Eng) CMEngNZ (214689), CPEng, IntPE

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Minimum Top Plate to Stud Joint Fixing Table for roof member 600, 900 & 1200 Centres

Loaded Dimension (m)	Light Weight Roof Wind Zone					Heavy Weight Roof Wind Zones				
	L	M	H	VH	EH	L	M	H	VH	EH
2.0	TPO	TPO	TP1	TP2	TP3	TPO	TPO	TPO	TP1	TP2
3.0	TPO	TP1	TP2	TP3	TP3	TPO	TPO	TP1	TP2	TP3
4.0	TPO	TP2	TP3	TP3	TP3	TPO	TPO	TP2	TP3	TP3
5.0	TP1	TP2	TP3	TP3	TP3	TPO	TPO	TP2	TP3	TP3
6.0	TP2	TP3	TP3	TP3	TP3	TPO	TPO	TP3	TP3	TP3



Customer : Friday Homes
 Site Address : "Milford 2 - D5-G", Lots 2 & 5
 : Manapouri Grove, Kelson, Lower Hutt

Roofing : Corrugated iron
 Std. Stud Centres : External: 600 Internal: 600
 Design Wind Velocity: 44.00 m/s (Ult.)
 Detailer : <None>

Job Ref 0452
 Scale
 Level

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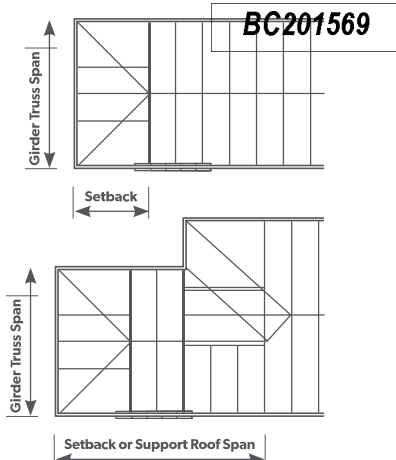
Selection Charts

HUTT CITY COUNCIL

Table 5
HUTT CITY
TE ANA KAHARANGA

PL8 Lintel supporting girder/setback trusses with light roof.

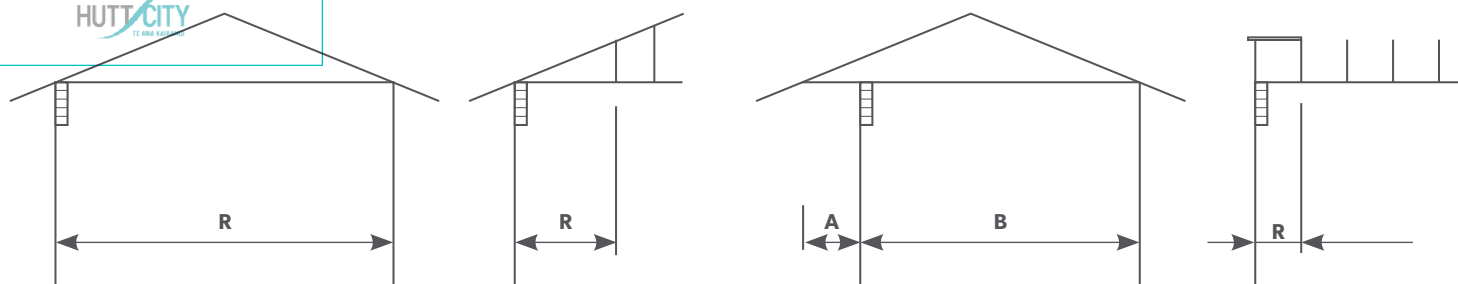
Note: For heavy roof refer to Prolam Online
at www.prolamnz.com/specifiers



Lintel Size	Setback (m)	Maximum Lintel Span (m)										
		Girder Truss Span (m)										
		5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0
PL8H1-150100 140 x 90mm	1.2	2.45	2.25	2.10	1.95	1.80	1.70	1.60	1.55	1.45	1.40	1.35
	2.4	2.06	1.80	1.65	1.50	1.40	1.30	1.20	1.10	1.05	1.00	0.95
	3.6	1.70	1.50	1.35	1.20	1.10	1.00	0.90	0.85			
	4.8	1.46	1.25	1.10	1.00	0.90	0.80					
	6.0	1.25	1.05	0.95	0.80							
	7.5	1.05	0.90									
	10.0	0.80										
PL8H1-200100 190 x 90mm	1.2	3.45	3.20	3.00	2.85	2.70	2.60	2.50	2.40	2.30	2.20	2.15
	2.4	3.25	2.95	2.70	2.50	2.30	2.15	2.00	1.90	1.80	1.70	1.60
	3.6	2.80	2.50	2.25	2.05	1.85	1.70	1.60	1.50	1.40	1.30	1.25
	4.8	2.40	2.10	1.90	1.70	1.55	1.40	1.30	1.20	1.10	1.05	1.00
	6.0	2.10	1.85	1.60	1.45	1.30	1.20	1.10	1.00	0.95	0.85	
	7.5	1.80	1.55	1.35	1.20	1.05	0.95	0.90	0.80			
	10.0	1.45	1.20	1.06	0.95	0.85						
PL8H1-250100 240 x 90mm	1.2	4.30	4.00	3.70	3.50	3.40	3.20	3.10	2.95	2.80	2.70	2.60
	2.4	3.95	3.60	3.35	3.10	2.90	2.70	2.55	2.40	2.30	2.20	2.10
	3.6	3.55	3.20	2.90	2.65	2.45	2.30	2.15	2.00	1.90	1.80	1.70
	4.8	3.15	2.80	2.55	2.30	2.10	1.95	1.80	1.70	1.60	1.50	1.40
	6.0	2.85	2.50	2.25	2.00	1.85	1.70	1.55	1.45	1.35	1.30	1.20
	7.5	2.50	2.20	1.95	1.75	1.60	1.45	1.35	1.25	1.15	1.05	1.00
	10.0	2.10	1.80	1.55	1.40	1.25	1.15	1.05	0.95	0.90	0.85	0.80
PL8H1-300100 290 x 90mm	1.2	4.90	4.70	4.50	4.30	4.10	3.90	3.70	3.60	3.50	3.30	3.20
	2.4	4.80	4.60	4.45	4.25	3.95	3.75	3.55	3.35	3.20	3.05	2.95
	3.6	4.65	4.45	4.05	3.70	3.45	3.20	3.00	2.85	2.65	2.55	2.40
	4.8	4.40	3.95	3.55	3.25	3.00	2.75	2.55	2.40	2.25	2.10	2.00
	6.0	4.00	3.55	3.15	2.85	2.60	2.40	2.20	2.05	1.95	1.80	1.70
	7.5	3.55	3.10	2.75	2.45	2.25	2.05	1.90	1.75	1.65	1.50	1.45
	10.0	2.95	2.55	2.25	2.00	1.80	1.65	1.50	1.40	1.30	1.20	1.10
PL8H1-350100 315 x 90mm	1.2	5.50	5.30	5.10	5.00	4.70	4.50	4.30	4.20	4.00	3.90	3.80
	2.4	5.45	5.25	5.05	4.85	4.70	4.50	4.30	4.10	3.90	3.75	3.50
	3.6	5.25	5.05	4.90	4.60	4.30	4.00	3.75	3.55	3.35	3.20	3.05
	4.8	5.10	4.90	4.45	4.10	3.75	3.50	3.25	3.05	2.90	2.75	2.60
	6.0	4.95	4.45	4.00	3.65	3.35	3.10	2.85	2.70	2.50	2.35	2.25
	7.5	4.50	3.95	3.55	3.20	2.90	2.65	2.45	2.30	2.15	2.00	1.90
	10.0	3.80	3.30	2.90	2.60	2.35	2.15	2.00	1.85	1.70	1.60	1.50

These span tables apply only to Prolam products

Selection Charts



$$A \leq \frac{1}{4} (A + B), R = B + 2A$$

Table 1

Prolam® Lintels supporting roof and ceiling only.

		Lintel Size	Maximum Lintel Span (m)												
			Supported Roof Span 'R' (m)												
			2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0
PL8	Light Roof	PL8H1-150100 140 x 90mm	3.30	3.10	2.85	2.65	2.45	2.35	2.20	2.10	2.00	1.95	1.85	1.80	1.75
		PL8H1-200100 190 x 90mm	4.40	4.15	3.90	3.60	3.35	3.15	3.00	2.85	2.75	2.60	2.50	2.45	2.35
		PL8H1-250100 240 x 90mm	5.20	4.90	4.70	4.50	4.20	4.00	3.80	3.60	3.40	3.30	3.20	3.00	2.90
		PL8H1-300100 290 x 90mm	6.00	5.70	5.40	5.20	5.00	4.80	4.50	4.30	4.10	4.00	3.80	3.70	3.60
		PL8H1-350100 315 x 90mm	6.40	6.10	5.80	5.60	5.40	5.20	4.90	4.70	4.50	4.30	4.10	4.00	3.90
		PL8H1-400100 360 x 90mm	7.10	6.70	6.40	6.10	5.90	5.80	5.50	5.30	5.10	4.90	4.70	4.50	4.40
PL12	Light Roof	PL12H1-150100 140 x 90mm	3.75	3.50	3.30	3.05	2.85	2.65	2.55	2.40	2.30	2.20	2.15	2.05	2.00
		PL12H1-200100 190 x 90mm	4.80	4.55	4.35	4.15	3.85	3.65	3.45	3.30	3.15	3.00	2.90	2.80	2.70
		PL12H1-250100 240 x 90mm	5.70	5.40	5.20	5.00	4.80	4.60	4.30	4.10	3.90	3.80	3.60	3.50	3.40
		PL12H1-300100 290 x 90mm	6.60	6.20	6.00	5.70	5.50	5.40	5.20	5.00	4.80	4.60	4.40	4.20	4.10
		PL12H1-350100 315 x 90mm	7.00	6.60	6.30	6.10	5.90	5.70	5.50	5.40	5.10	4.90	4.80	4.60	4.40
		PL12H1-400100 360 x 90mm	7.80	7.30	7.00	6.70	6.50	6.30	6.10	6.00	5.80	5.60	5.40	5.20	5.00
PL17	Light Roof	PL17H1-150100 140 x 90mm	4.15	3.90	3.65	3.50	3.35	3.20	3.10	3.00	2.90	2.80	2.70	2.60	2.50
		PL17H1-200100 190 x 90mm	5.20	4.95	4.70	4.50	4.35	4.25	4.10	4.00	3.95	3.80	3.65	3.55	3.40
		PL17H1-250100 240 x 90mm	6.20	5.90	5.60	5.40	5.20	5.00	4.90	4.80	4.70	4.60	4.50	4.40	4.30
		PL17H1-300100 290 x 90mm	7.10	6.80	6.40	6.20	6.00	5.80	5.60	5.50	5.40	5.30	5.20	5.10	5.00
		PL17H1-350100 315 x 90mm	7.60	7.20	6.90	6.60	6.40	6.20	6.00	5.90	5.70	5.60	5.50	5.40	5.30
		PL17H1-400100 360 x 90mm	8.40	8.00	7.60	7.30	7.00	6.80	6.60	6.50	6.30	6.20	6.10	6.00	5.90

Note: For heavy roof refer to Prolam Online at www.prolamnz/specifiers

These span tables apply only to Prolam products

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13/01/2021



AsureQuality

HUTT CITY COUNCIL

*This is to Certify***HUTT CITY**
Prowood Ltd

Waiwhero Road, Motueka

Has been assessed by AsureQuality Limited and found to have a production system that meets the requirements of the:

Engineered Wood Products Programme**Scope of Certification**

Prowood Limited has demonstrated compliance to the AsureQuality Engineered Wood Products Programme for the following standards and products:

Finger Joint and Glue Laminated Standards

AS/NZS 1328.1 Glued laminated structural timber - Part 1 Performance requirements and minimum production requirements

AS/NZS 1328.2 Glued laminated structural timber - Part 2 Guidelines for AS/NZS 1328 - Part 1 for the selection, production and installation of glued laminated structural timber

AS 5068 – Timber – Finger joints in structural products – Production requirements

For the following products

GL8, GL12, GL17

Registration No:	AEWP 05
Certificate No:	02
Certification Date:	31 st August 2012
Date of Issue:	31 st August 2014
Re-Issue:	July 2017

John McKay
Chief Executive

JAS-ANZ

www.jas-anz.org/register*Global experts in food safety and quality*

This certificate remains the property of AsureQuality Ltd
7a Pacific Rise | Mt Wellington | Auckland 1741 | New Zealand
+64 9 573 8000 | www.asurequality.com | info@asurequality.com

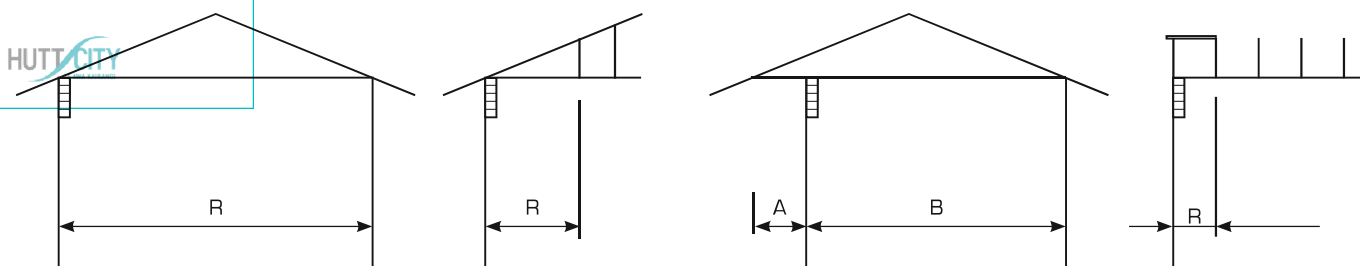
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BC201569

PROWOOD

Sustainable Solutions

SELECTION CHARTS

$$A \leq \frac{1}{4} (A + B), R = B + 2A$$

PROLAM®**TABLE 1:****PROLAM® LINTELS SUPPORTING ROOF AND CEILING ONLY**

		LINTEL SIZE	MAXIMUM LINTEL SPAN (m)												
			SUPPORTED ROOF SPAN 'R' (m)												
			2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0
GL8	LIGHT ROOF	PLL 150 140 x 88mm	3.25	3.00	2.80	2.60	2.40	2.25	2.15	2.05	1.95	1.85	1.80	1.75	1.70
		PLL 200 190 x 88mm	4.15	3.95	3.70	3.45	3.20	3.00	2.85	2.70	2.60	2.50	2.40	2.30	2.25
		PLL 250 240 x 88mm	4.90	4.60	4.40	4.30	4.00	3.70	3.50	3.40	3.20	3.10	3.00	2.90	2.80
		PLL 300 290 x 88mm	5.60	5.30	5.10	4.90	4.70	4.50	4.30	4.10	3.90	3.70	3.60	3.50	3.30
		PLL 350 315 x 88mm	6.30	6.00	5.70	5.50	5.30	5.10	5.00	4.70	4.50	4.30	4.20	4.00	3.90
	HEAVY ROOF	PLL 150 140 x 88mm	2.75	2.50	2.30	2.10	2.00	1.85	1.75	1.70	1.60	1.55	1.50	1.45	1.40
		PLL 200 190 x 88mm	3.65	3.35	3.05	2.80	2.65	2.50	2.35	2.25	2.15	2.05	2.00	1.90	1.85
		PLL 250 240 x 88mm	4.50	4.10	3.80	3.50	3.30	3.10	2.90	2.80	2.70	2.50	2.40	2.40	2.30
		PLL 300 290 x 88mm	5.30	4.90	4.50	4.20	3.90	3.70	3.50	3.30	3.20	3.10	2.90	2.80	2.70
		PLL 350 315 x 88mm	5.90	5.60	5.30	4.90	4.60	4.30	4.10	3.90	3.70	3.60	3.40	3.30	3.20
GL12	LIGHT ROOF	PL12 150 140 x 88mm	3.65	3.40	3.20	2.95	2.75	2.60	2.45	2.35	2.25	2.15	2.05	2.00	1.95
		PL12 200 190 x 88mm	4.55	4.30	4.10	3.95	3.70	3.45	3.30	3.15	3.00	2.85	2.75	2.65	2.60
		PL12 250 240 x 88mm	5.40	5.10	4.90	4.70	4.50	4.30	4.10	3.90	3.70	3.60	3.40	3.30	3.20
		PL12 300 290 x 88mm	6.20	5.80	5.60	5.40	5.20	5.00	4.90	4.70	4.50	4.30	4.10	4.00	3.80
		PL12 350 315 x 88mm	6.90	6.60	6.30	6.00	5.80	5.60	5.50	5.30	5.20	5.00	4.80	4.60	4.50
	HEAVY ROOF	PL12 150 140 x 88mm	3.10	2.90	2.65	2.45	2.25	2.15	2.00	1.95	1.85	1.75	1.70	1.85	1.60
		PL12 200 190 x 88mm	4.10	3.85	3.50	3.25	3.05	2.85	2.70	2.55	2.45	2.35	2.25	2.20	2.10
		PL12 250 240 x 88mm	5.10	4.70	4.30	4.00	3.80	3.50	3.30	3.20	3.00	2.90	2.80	2.70	2.60
		PL12 300 290 x 88mm	5.89	5.50	5.20	4.80	4.50	4.20	4.00	3.80	3.70	3.50	3.40	3.30	3.20
		PL12 350 315 x 88mm	6.50	6.20	5.90	5.60	5.20	4.90	4.70	4.50	4.30	4.10	3.90	3.80	3.70

The span tables apply only to Prolam® products

283 Waiwhero Rd P O Box 413 Motueka New Zealand Phone 03 526 7436 Fax 03 526 7437

Apr 2009

Email: info@prowoodnz.com

Web: www.prolamnz.com