

31 Sonter Road
PO Box 11-178
Sockburn
Christchurch



Ph. 348-3401
Fax 348-3402
Email: sales@westlake.co.nz
www.westlake.co.nz

AS BUILT DOCUMENTATION

DATE: 25/01/2018

WITH REGARDS TO CONSENT NO

BC160644

Westlake Timber Ltd can confirm that the above project has been fabricated and supplied in accordance with the previously submitted AGREEMENT LETTER.

Please find attached the following.

- 1: As built truss layout and producer statement.
2. Truss to truss and truss to top plate fixings.
- 3: Roof Bracing requirements as per NZS3604:2011
4. Stud to top plate and lintel fixings.

Additional information:

Please make this information available to your inspectors for their on site inspection visits.

PAUL STOCKFORD
MANAGER
WESTLAKE TIMBER LTD



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

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

www.mitek.nz.co.nz

MiTek 20/20 Engineering 4.7.105.0

Printed: 09:26:59 25 Jan 2018

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

ISSUED BY: **MiTek New Zealand Limited**

TO: **Westlake Timber**

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 **15723** 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 Clauses B1 and B2 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: Thursday, 25 January 2018

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

Westlake Timber

Job: 15723

Client: Probuild ITM
Phone:

Site:

Lot 4
112 Rangiora Woodend Road
Woodend

ASBUILT TRUSS BC160644

RECEIVED 08/03/2018

Phone:

Printed: 09:26:59 25 Jan 2018

Description:
Building Consent No.:
MiTek 20/20 Engineering 4.7.105.0

MiTek New Zealand Limited.

MITEK FABRICATOR DESIGN STATEMENT

This statement is issued by MiTek accredited fabricator **Westlake Timber**, 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

Roof Truss

Timber Group: MSGx45_H1.2
Roof Material: Galv Iron .5mm
Dead Load: 0.210 kPa
Restraints: 900 mm centres
Live Load: Q_r = 0.250 kPa
Q_c = 1.100 kN

Importance Level : 2

Pitch: 25.000 deg
Ceiling Material: Standard
Dead Load: 0.200 kPa
Restraints: 400 mm centres
Live Load: Q_c = 1.400 kN

Design Working Life : 50 years

Nominal Overhang: 600 mm

Wind

Area: High (44.0 m/s)
Pressure Coeff: C_{pe} = varies; C_{pi} = -0.30, 0.20

Snow

Location: Christchurch (N4) at 100 m
Open Ground Load: 0.900 kPa
Basic Roof Load: 0.441 kPa

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, ✕ = 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)
T07	1	6470	25.000	900	*HB06	1	3685	18.249	900	J04C	1	1912	25.000	900
T08	1	6470	25.000	853	*HB06A	1	3685	18.249	900	J07	1	1795	25.000	900
T05	1	7070	25.000	900	J08	1	3512	25.000	900	J07A	1	1795	25.000	900
T09	1	7070	25.000	853	J09	1	3512	25.000	579	J07B	1	1795	25.000	900
T09A	2	7070	25.000	853	J02	1	2867	25.000	900	J07C	1	1795	25.000	900
T09B	1	7070	25.000	853	J02A	1	2867	25.000	900	J06	1	1712	25.000	900
TG02	1	7070	25.000	900	J03	1	2812	25.000	900	J06A	1	1712	25.000	900
*HB05	1	5816	18.249	900	J03A	1	2812	25.000	900	*R03	2	1680	25.000	900
T01	1	5780	25.000	900	J03B	1	2812	25.000	900	*R04	1	1625	25.000	900
TG01	1	5780	25.000	900	J05	1	2612	25.000	900	*R04A	1	1625	25.000	900
T11	3	3512	25.000	900	J05A	1	2612	25.000	900	*HB08	1	1596	18.249	900
T04	1	5670	25.000	900	J05B	1	2612	25.000	900	*R06	1	1508	25.000	900
T04A	1	5670	25.000	900	J05C	1	2612	25.000	900	*R06A	1	1508	25.000	900
*HB01	3	4904	18.249	900	*HB04	1	2444	18.249	900	*R05	1	1425	25.000	900
*HB03	2	4825	18.249	900	J01	1	1967	25.000	900	V01	1	1258	25.000	900
T02	1	4810	25.000	900	J01A	1	1967	25.000	900	*HB07	1	1172	18.249	900
T02A	1	4810	25.000	900	J01B	2	1967	25.000	900	V02	1	1141	25.000	900
T10	1	3512	25.000	900	J01C	2	1967	25.000	900	*R01	1	1080	25.000	900
T10A	1	3512	25.000	900	J01D	1	1967	25.000	900	V03	1	1057	25.000	900
T03	3	2867	25.000	802	J04	1	1912	25.000	900	*R02	8	913	25.000	900
TG03	1	3980	25.000	900	J04A	1	1912	25.000	900	*R02A	8	913	25.000	900
T06	2	2612	25.000	900	J04B	1	1912	25.000	900	*HB02	1	677	18.248	900

Total quantity : 92

The computer design input has been carried out by:

Signed: 

Name of Detailer: Michael Horn

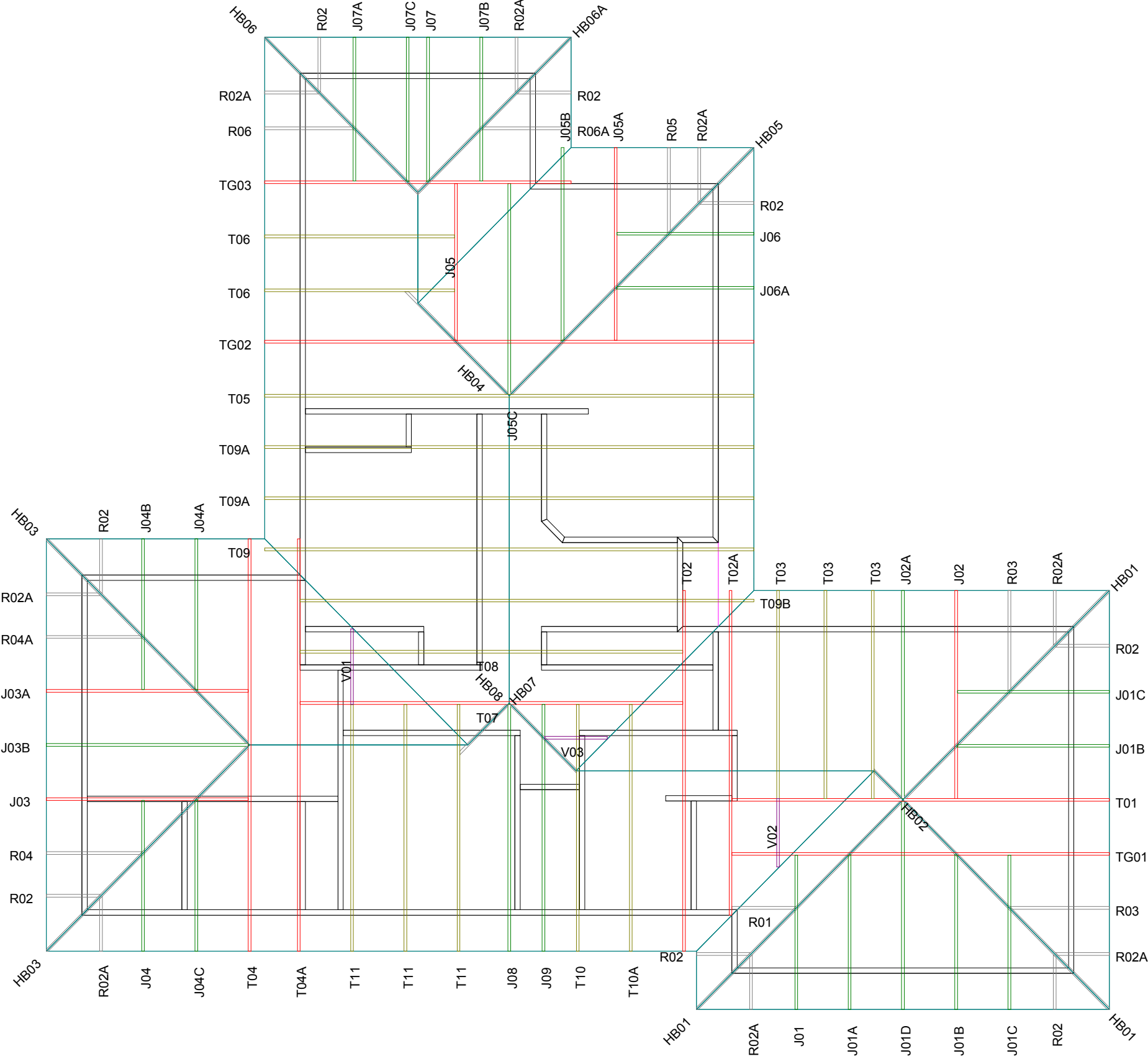
On behalf of:

Westlake Timber

Date: ...Thursday, 25 January 2018...

Qualifications and Title: Detailer





31 Sonter Road, Wigram
PO Box 11-178, Sockburn
Christchurch 8443
Phone: (03) 348 3401
Fax: (03) 348 3402
Email: sales@westlake.co.nz

Site Address :
Lot 4
112 Rangiora Woodend Road
Woodend
112 Rangiora Woodend Road, Wood

Sheet Title :
BC160644
Asbuilt

Date : 24 Jan.2018
Drawn : Michael Horn
System : MiTek 20/20

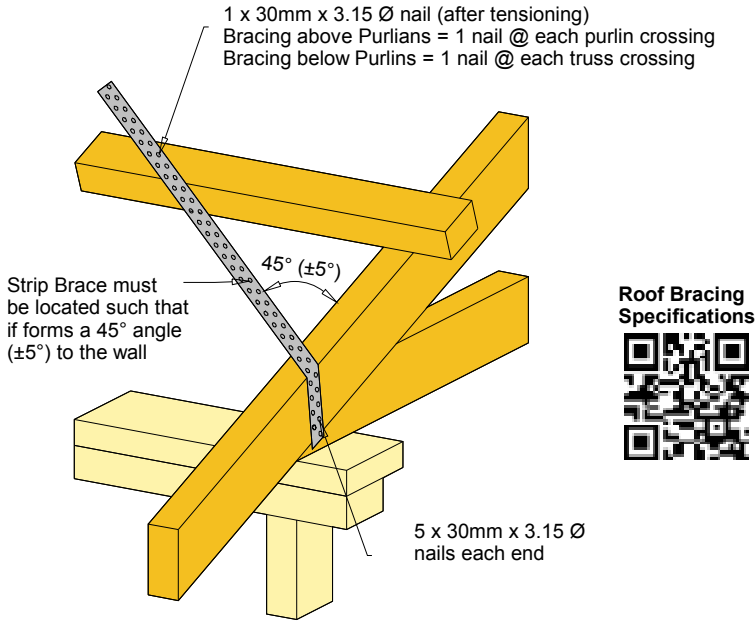
Job Details:
Roof Pitch : 25.00deg
Roof Material : Galv Iron .5mm
Ceiling Material : Standard
Wind Zone : High
Roof Snow Load : 0.441kPa

Truss Centres : 900mm
Roof Live Load : 0.250kPa
Floor Live Load :
Wind Speed : 44m/s
Overhang : 600mm



Job Title :
15723
Sheet :
1
Revision Number :

LUMBERLOK[®]
ROOF BRACING



Refer to:
LUMBERLOK Roof Bracing Specifications 10/2011
MiTek Structural Fixings **On-Site Guide** for Building Code Compliance
(As per NZS 3604:2011)

LUMBERLOK[®]
TRUSS FIXINGS

- D - Pair of Wire Dogs and 2 x 90mm 3.15mm skew nails
- X - LUMBERLOK JH47x90 Joist Hanger
- Z - LUMBERLOK JH47x120 Joist Hanger
- P - LUMBERLOK JH47x190 Joist Hanger
- E - LUMBERLOK JH95x165 Joist Hanger
- T - LUMBERLOK CT200 Ceiling Tie
- O - Pair of LUMBERLOK CT200 Ceiling Ties
- H - LUMBERLOK CT400 Cyclone Tie
- B - LUMBERLOK CT600 Cyclone Tie
- M - Pair of LUMBERLOK Multi Grips
- NP - LUMBERLOK Nailon Plate
- N - LUMBERLOK N21 Diagonal Cleat
- V - LUMBERLOK CPC40 Cleat
- W - Pair of LUMBERLOK CPC40 Cleats
- K - LUMBERLOK TTP 16kN Truss to Top Plate set
- G - LUMBERLOK TTP 9kN Truss to Top Plate set

Joist Hanger Installation



CT200 Truss to Top Plate Fixing Installation



16kN & 9kN Truss to Top Plate Fixing Installation



Notes:
All other areas must have the minimum 2 x 90mm 3.15mm skew nails and 2 x wire dogs for truss to top plate connections

Refer to:
LUMBERLOK Timber Connectors Characteristic Loadings Data Brochure 08/2014



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Site Address :

Lot 4
112 Rangiora Woodend Road
Woodend
112 Rangiora Woodend Road, Wood

Sheet Title :

BC160644
Asbuilt

Date : 24 Jan.2018
Scale: 1:100

Drawn : Michael Horn
System : MiTek 20/20

Job Details:

Roof Pitch : 25.00deg
Roof Material : Galv Iron .5mm
Ceiling Material : Standard
Wind Zone : High
Roof Snow Load : 0.441kPa

Truss Centres : 900mm
Roof Live Load : 0.250kPa
Floor Live Load :
Wind Speed : 44m/s
Overhang : 600mm



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Job Title :

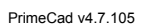
15723

Sheet :

5

Revision Number :

All Lintels have been resized using Mitek Ganglam Manual and Mitek Beam Program. Lintels Superseede Turss Design supplied by Akarana Timber QCH1551



Site Address :	Sheet Title :
Lot 4	BC1606
112 Rangiora Woodend Road	Asbuilt
Woodend	
112 Rangiora Woodend Road	Date : 24 Jan 20
Woodend	Scale: 1:100

Date : 24 Jan, 2018	Drawn : Michael Horn
Scale: 1:100	System : MiTek 20/20

Truss Centres : 900mm
Roof Live Load : 0.250kPa
Floor Live Load :
Wind Speed : 44m/s
Overhang : 600mm

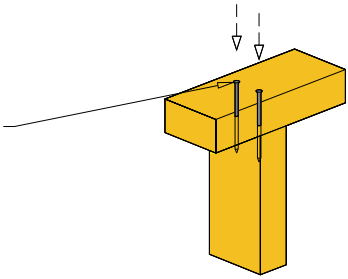


Job Title :
15723
Sheet :
2
Revision Number :

LUMBERLOK
STUD TO TOP PLATE

TYPE A
0.7 kN

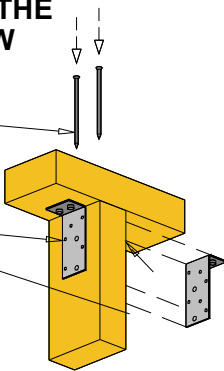
2 x 90mm x 3.15 Ø plain
steel wire nails driven
vertically into stud.



TYPE B
4.7 kN
CHOOSE ANY OF THE
3 OPTIONS BELOW

2 x 90mm x 3.15 Ø plain steel wire
nails driven vertically into stud.

2 x LUMBERLOK
CPC40

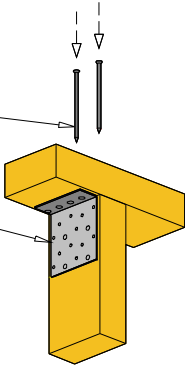


Recommended for internal wall
options to avoid lining issues

OR

2 x 90mm x 3.15 Ø plain steel wire
nails driven vertically into stud.

1 x LUMBERLOK 6 kN Stud Anchor
(CPC80)

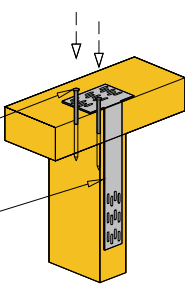


Recommended for internal wall
options to avoid lining issues

OR

2 x 90mm x 3.15 Ø plain
steel wire nails driven
vertically into stud.

1 x LUMBERLOK
Stud Strap



CPC80
Installation



Stud Strap
Installation

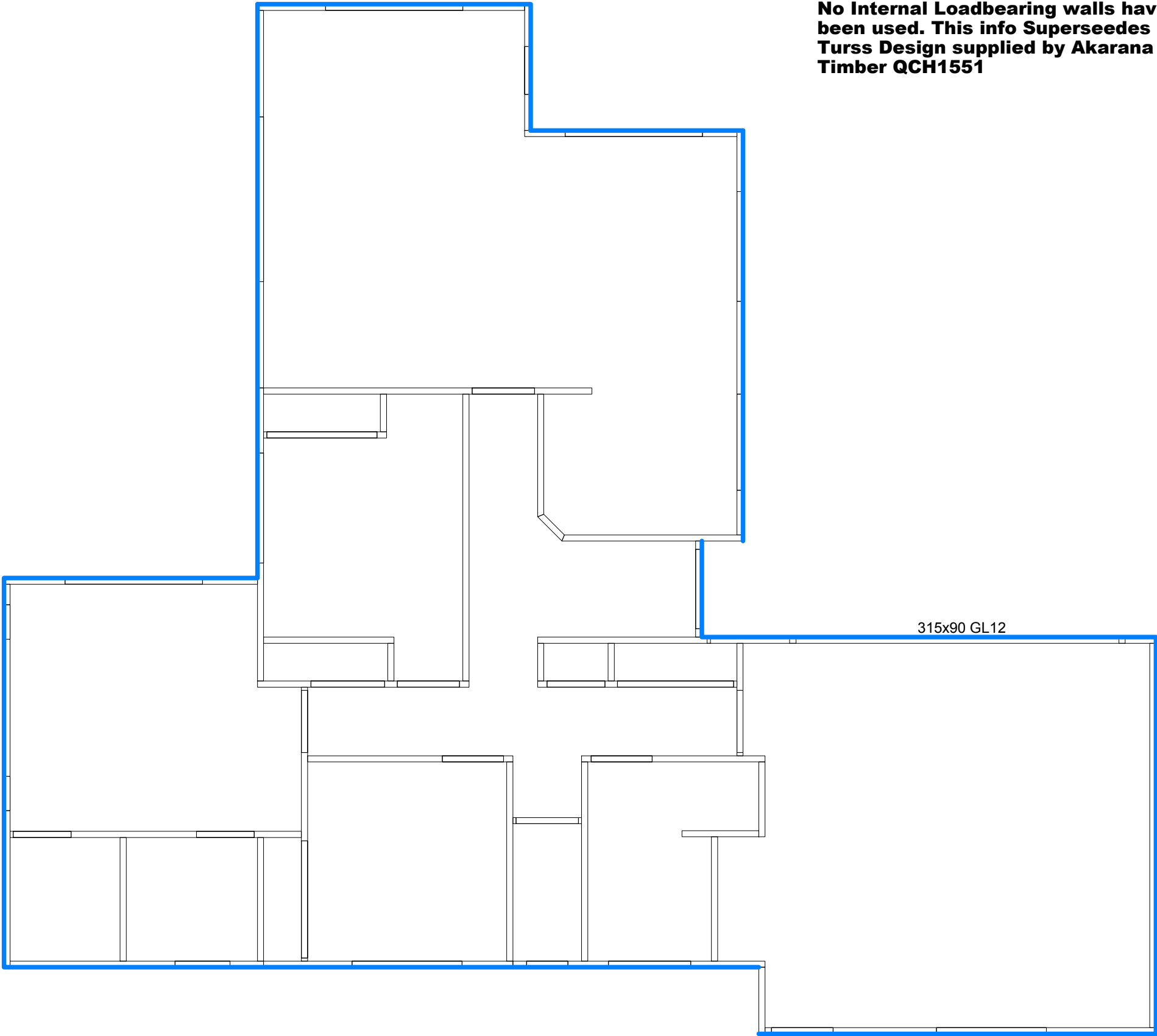


Plate to Top
Plate Fixing
Schedule



Refer to:
LUMBERLOK Stud to Top Plate Fixing Selection Chart 09/2011
MiTek Structural Fixings **On-Site Guide** for Building
Code Compliance
(Alternative to NZS 3604:2011 Table 8.18)

NO INTERNAL LOAD BEARING WALLS
No Internal Loadbearing walls have
been used. This info Superseeds
Turss Design supplied by Akarana
Timber QCH1551



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Lot 4
112 Rangiora Woodend Road
Woodend
112 Rangiora Woodend Road, Wood

Sheet Title :

BC160644
Asbuilt

Date : 24 Jan.2018
Scale : 1:100

Drawn : Michael Horn
System : MiTek 20/20

Job Details:

Roof Pitch : 25.00deg
Roof Material : Galv Iron .5mm
Ceiling Material : Standard
Wind Zone : High
Roof Snow Load : 0.441kPa

Truss Centres : 900mm
Roof Live Load : 0.250kPa
Floor Live Load :
Wind Speed : 44m/s
Overhang : 600mm



PrimeCad v4.7.105

Job Title :

15723

Sheet :

4

Revision Number :

LUMBERLOK[®]

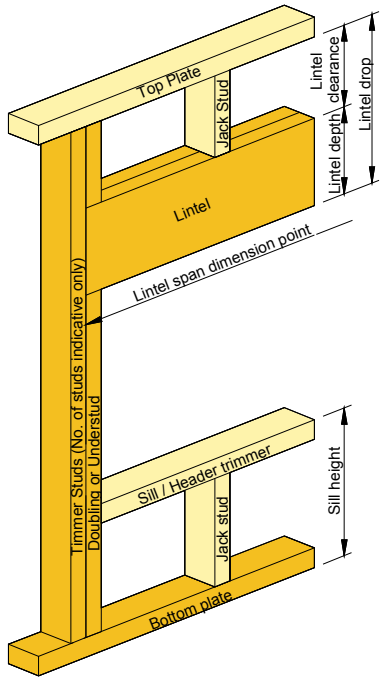
LINTEL FIXING OPTIONS

TYPE E
1.4 kN

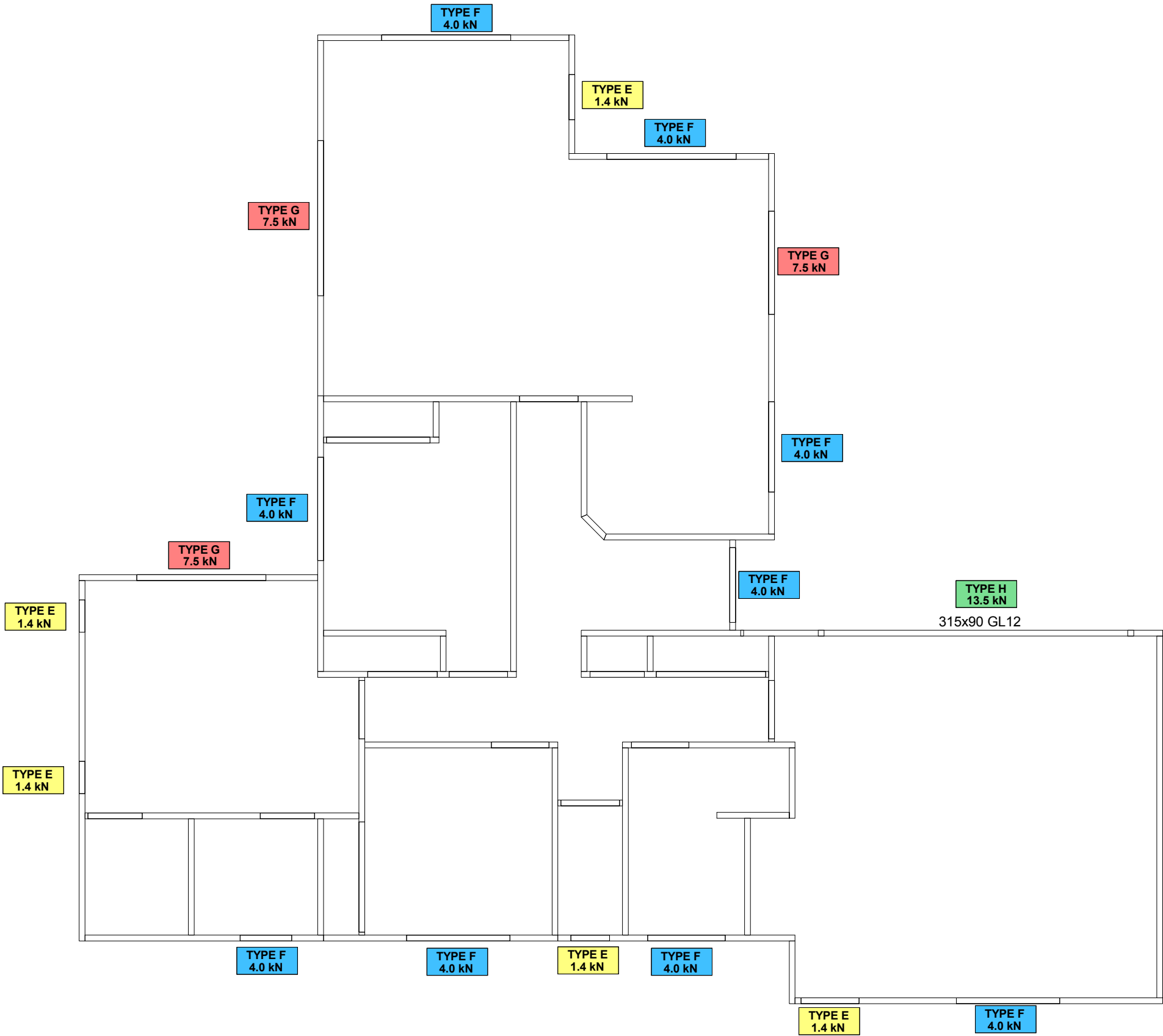
TYPE F
4.0 kN

TYPE G
7.5 kN

TYPE H
13.5 kN



Refer to:
LUMBERLOK Lintel Fixing Schedule 10/2011
MiTek Structural Fixings **On-Site Guide** for Building Code Compliance
(Alternative to Table 8.14 & Figure 8.12 NZS 3604:2011)



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Wind Speed : 44m/s
Overhang : 600mm



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Job Title :

15723

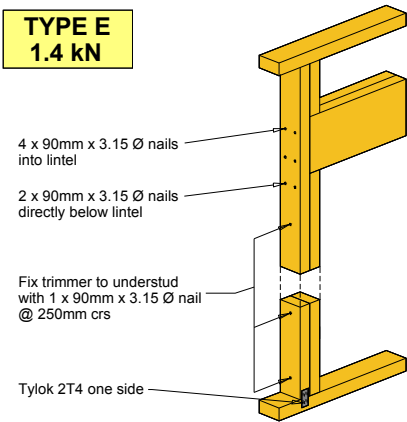
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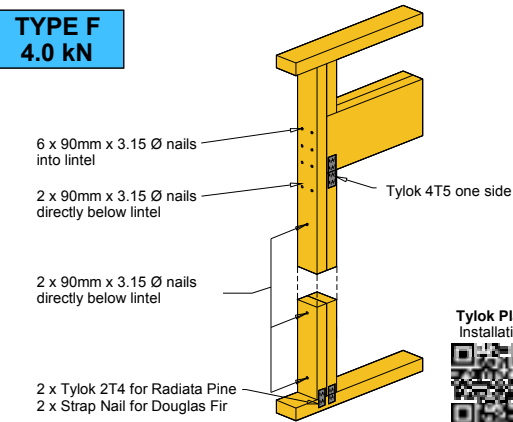
Revision Number :

LUMBERLOK® LINTEL FIXING OPTIONS

**TYPE E
1.4 kN**



**TYPE F
4.0 kN**

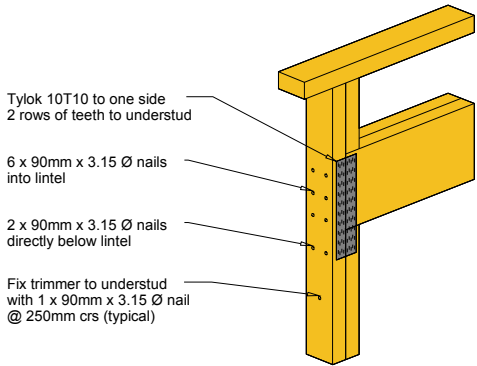


Notes:
For fixing of jack studs to lintel and top plate, refer to Stud to Top Plate Fixing Schedule

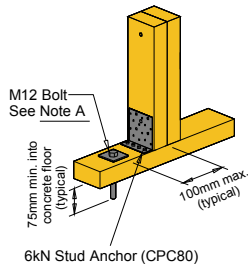
**Stud numbers indicative only.
Refer to Table 8.5 NZS 3604:2011**

LUMBERLOK Lintel Fixing Schedule 10/2011,
MiTek Structural Fixings On-Site Guide for Building Code Compliance
(Alternative to Table 8.14 & Figure 8.12 NZS 3604:2011)

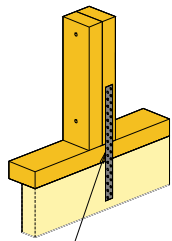
**TYPE G
7.5 kN**



Note A:
M12 proprietary concrete fixing bolt with 50x50x3mm square washer
Or
M12 x 150mm coach screw with 50x50x3mm square washer into timber joist/bearer

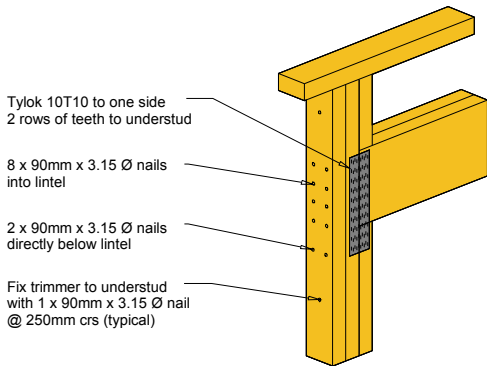


OR

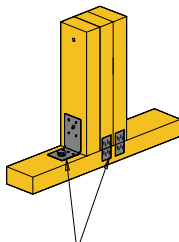


400mm Sheet Brace Strap to one side.
6 x 30mm x 3.15 Ø nails into stud.
3 x 30mm x 3.15 Ø nails into bottom plate.
6 x 30mm x 3.15 Ø nails into timber joist/bearer

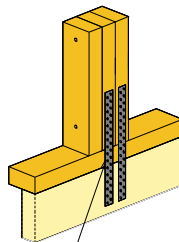
**TYPE H
13.5 kN**



Note A:
M12 proprietary concrete fixing bolt with 50x50x3mm square washer
Or
M12 x 150mm coach screw with 50x50x3mm square washer into timber joist/bearer



OR



2 x 400mm Sheet Brace Strap to one side.
6 x 30mm x 3.15 Ø nails into stud.
3 x 30mm x 3.15 Ø nails into bottom plate.
6 x 30mm x 3.15 Ø nails into timber joist/bearer