

MiTek 20/20 Engineering 4,6,6,322

MiTek New Zealand Limited

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Printed: 11:20:10 03 Feb 2016

PRODUCER STATEMENT for MiTek 20/20® TRUSS DESIGN - Version 4.6

ISSUED BY:

MiTek New Zealand Limited

TO:

Paraparaumu Prenail Ltd

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 **7734** 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.

Date: Wednesday, 3 February 2016

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

On behalf of MiTek New Zealand Limited,

hhimp Mg

In Ling Ng, BE (Hons), CPEng, IntPE, MIPENZ (ID: 146585)

TECHNICAL SERVICES MANAGER, MiTek New Zealand Limited

Paraparaumu Prenail Ltd

Fabricator Design Statement: Page 1

Job: 7734

Client: Paraparaumu Prenail Ltd

Phone: 04-902 5618

Site: Walkane Country Lodge 394 Te Moana Road

Waikanae

Description:

Building Consent No.: MiTek 20/20 Engineering 4.6.6.322

MiTek New Zealand Limited

Phone:

Printed: 11:20:10 03 Feb 2016

MITEK FABRICATOR DESIGN STATEMENT

This statement is issued by MiTek accredited fabricator Paraparaumu Prenail Ltd, 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:

Roof Material:

Dead Load: Restraints: Live Load:

Monier Concrete Tiles 0.600 kPa 400 mm centres Qur = 0.250 kPa Qc = 1.100 kN

TRUSS

Importance Level:

Pitch: Celling

Material: Dead Load: Restraints: Live Load:

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22.500 dea Gib Board 13mm 0.200 kPa 600 mm centres Qc = 1.400 kN

Design Working Life: 50 years

Nominal Overhang: Wind

Medium (37.0 m/s) Area: Pressure Coeff:

750 mm

Cpe = varies; Cpi = -0.30, 0.20

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

Ø = non certified. Unmarked trusses = designed successfully. LB = lateral bracing required * = detail only, Legend:

Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)	Truss	Qty	Span (mm)	Pitch (deg)	Spacing (mm)
PTG01	1	1755	0.000	900	T03A	1	11184	22,500	900	T07B	1	7026	16,000	900
PTG01A	1	1755	0.000	900	T03B	1	11184	22.500	900	T07C	1	7026	16.000	900
PTG02	1	1755	0.000	900	T03C	7	11184	22.500	900	T07D	1	7026	12.500	900
PTG02A	1	1755	0.000	900	T03D	1	11184	22,500	900	T 07 E	1	7026	12,500	900
PTG03	1	1755	0.000	900	T03E	1	11184	22.500	900	T07F	1	7026	12.500	900
PTG04	1	1755	0.000	900	T03F	1	11184	22,500	900	T07G	1	7026	16.000	900
T01	1	6478	16.000	900	T03G	1	11184	22.500	900	T08	1	4328	12.500	900
T02	1	8873	22.500	900	T04	1	11184	22.500	900	T09	1	5318	12.500	900
T02A	1	8873	22.500	900	T04A	1	11184	22,500	900	T10	1	6308	12,500	900
T02B	1	8873	22.500	900	T04B	1	11184	22.500	900	T11	1	10790	22.500	900
T02C	1	8873	22.500	900	T04C	1	11184	22.500	900	T11A	1	10790	22.500	900
T02D	1	8873	22.500	900	T05	2	5837	22,500	900	T12	1	5595	22.500	900
T02E	1	8873	22,500	900	T06	2	4307	22.500	900	T13	1	3105	22.500	900
T02F	1	8873	22.500	900	T07	1	7026	16.000	900					
TO3	4	11194	22 500	000	ΤΛ7Δ	1	7026	16 000	ดกก					

Total quantity: 51

The computer design input has been carried out by:

Name of Detailer: David Bright

gned: Date: Wednesday, 3 February 2016 Signed:

On behalf of: Paraparaumu Prenail Ltd

37 Ihakara St Paraparaumu Kapiti Coast Ph (04) 902-5618



Paraparaumu Prenail Ltd

Job: 7734

Client: Paraparaumu Prenail Ltd

Phone: 04-902 5618

Site: Waikane Country Lodge 394 Te Moana Road

Waikanae

Description:

Building Consent No.: MITek 20/20 Engineering 4.6.6.322

MiTek New Zealand Limited.

Phone:

Fixing Report: Page 1

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TRUSS FIXING SELECTION REPORT - Characteristic **Loads**

Fixings are selected from the LUMBERLOK Brochure 08/2014 (Timber Connectors Characteristic Loadings Data)

<u>MiTek* Truss List</u>
Legend: * = detail only, ? = input only, Txx = failed design, Ø = non certified, Unmarked trusses = designed successfully

Truss	Qty	Span	Joint	Down	Uplift	Bearing		Fixing
PTG01	1	(mm) 1755	С	(kN) 7.038	(kN) 0.906	Butt	Qty 1	Selected JH 47x120
-			D	7.038	0.532	Butt	1	JH 47x120
PTG01A	1	1755	С	7.038	0.906	Butt	1	JH 47x120
DTOOO		4777	D	7.038	0.532	Butt	1	JH 47x120
PTG02	1	1755	C D	5.582 5.582	0.477 0.102	Butt Butt	1 1	JH 47x90 JH 47x90
PTG02A	1	1755	Ç	5.582	0.102	Butt	1	JH 47x90 JH 47x90
1 100211		11.00	Ď	5.582	0.102	Butt	i	JH 47x90
PTG03	1	1755	C	6.697	0.833	Butt	1	JH 47x90
			D	6.697	0.459	Butt	1	JH 47x90
PTG04	1	1755	C	4.234	0.120	Butt	1	JH 47x90
T 04	1	6470	D	4.234 7.795	0.000 0.125	Butt	1	JH 47x90
T 01	'	6478	0	7.795	0.125	Cross Wide	'	Pair of Wire Dog Staples No fixing selected
			ĭ	0.963	0.158	Cross	1	Pair of Wire Dog Staples
T02	1	8873	M	8.484	0.553	Cross	1	Pair of Wire Dog Staples
			T	13,115	0.000	Cross	1	Pair of Wire Dog Staples
			В	3.238	0.000	Cross	1	Pair of Wire Dog Staples
T 02A	1	8873	M	9.367	0.483	Cross	1	Pair of Wire Dog Staples
			T B	12.236 3.236	0,000 0,000	Cross Cross	1	Pair of Wire Dog Staples Pair of Wire Dog Staples
T02B	1	8873	M	10.451	0.421	Cross	1	Pair of Wire Dog Staples
			Ť	11.219	0.000	Cross	1	Pair of Wire Dog Staples
			В	3.242	0.000	Cross	1	Pair of Wire Dog Staples
T02C	1	8873	M	8.806	0.525	Cross	1	Pair of Wire Dog Staples
			T	12.795	0.000	Cross	1	Pair of Wire Dog Staples
T02D	1	8873	B M	3.237 9.866	0.000 0.456	Cross Cross	1	Pair of Wire Dog Staples Pair of Wire Dog Staples
1020		0070	Ť	11.736	0.000	Cross	i	Pair of Wire Dog Staples
			В	3,236	0.000	Cross	1	Pair of Wire Dog Staples
T02E	1	8873	M	10.794	0.418	Cross	1	Pair of Wire Dog Staples
			บ	10.880	0.000	Cross	1	Pair of Wire Dog Staples
TOOF		0070	В	3.240	0.000	Cross	1 1	Pair of Wire Dog Staples
T02F	1	8873	M S	7.886 13.844	0.591 0.000	Cross Cross	1	Pair of Wire Dog Staples Pair of Wire Dog Staples
			В	3.252	0.000	Cross	i	Pair of Wire Dog Staples
T03	1	11184	В	13.298	0.545	Cross	1	Pair of Wire Dog Staples
			L	11.982	0.884	Cross	1	Pair of Wire Dog Staples
T03A	1	11184	В	12.100	0.444	Cross	1	Pair of Wire Dog Staples
			L	0.222 13.142	0.415 1.101	Cross Cross	1 1	Pair of Wire Dog Staples Pair of Wire Dog Staples
T03B	1	11184	В	12.775	0.501	Cross	i	Pair of Wire Dog Staples
,,,,,	•		v	11.651	1.156	Cross	1	Pair of Wire Dog Staples
T03C	7	11184	В	13.256	0.555	Cross	7	Pair of Wire Dog Staples
			L	13.256	0.555	Cross	7	Pair of Wire Dog Staples
T03D	1	11184	В	11,629	0.407	Cross	1	Pair of Wire Dog Staples
			L V	3.403 11.970	0.000 1.084	Cross Cross	1	Pair of Wire Dog Staples Pair of Wire Dog Staples
T03E	1	11184	B	11.674	0.410	Cross	1	Pair of Wire Dog Staples
1002			Ĺ	1.525	0.012	Cross	1	Pair of Wire Dog Staples
			Ų	12.081	1.008	Cross	1	Pair of Wire Dog Staples
T0 3F	1	11184	N	10,536	0.590	Cross	1	Pair of Wire Dog Staples
			L W	3.465	0.000 1.037	Cross Cross	1 1	Pair of Wire Dog Staples Pair of Wire Dog Staples
T03G	1	11184	A	11.603 2.999	0.155	Cross	1	Pair of Wire Dog Staples
1056	•	11104	ĸ	3.187	0.000	Cross	i	Pair of Wire Dog Staples
			M	8.058	0.010	Cross	1	Pair of Wire Dog Staples
			٧	11.760	0.833	Cross	1	Pair of Wire Dog Staples
T04	1	11184	В	17,990	1.458	Cross	1	Pair of Wire Dog Staples
T04A	1	11184	L B	19.329 17.990	1.698 1.134	Cross Cross	1	Pair of Wire Dog Staples Pair of Wire Dog Staples
1048	1	11104	L	19.329	1.134	Cross	1	Pair of Wire Dog Staples
T04B	1	11184	B	19.329	1.698	Cross	1	Pair of Wire Dog Staples
			L	17.990	1.458	Cross	1	Pair of Wire Dog Staples
T04C	1	11184	В	19.329	1.273	Cross	1	Pair of Wire Dog Staples
Toc	_	C007	L	17.990	1.134	Cross	1	Pair of Wire Dog Staples
T05	2	5837	В М	7.585 6.183	0.000 0.830	Cross Butt	2	Pair of Wire Dog Staples JH 47x90
			141	0.100	5.550	Juil	_	

Paraparaumu Prenail Ltd

MiTek New Zealand Limited.

Client: Paraparaumu Prenail Ltd

Phone: 04-902 5618

Site: Waikane Country Lodge 394 Te Moana Road

Waikanae

Phone:

Fixing Report: Page 2

Printed: 11:20:14 03 Feb 2016

Description:

Job: 7734

Building Consent No.: MiTck 20/20 Engineering 4.6.6.322

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Truss	Qty	Span	Joint	Down	Uplift	Bearing		Fixing
Too	_	(mm)	_	(kN)	(kN)	•	Qty	Selected
T 06	2	4307	В	5.971	0.000	Cross	2	Pair of Wire Dog Staples
			!	4.523	0.669	Butt	2	JH 47x90
T 07	1	7026	L	9.294	0.000	Cross	1	Pair of Wire Dog Staples
			l .	8.375	1.263	Cross	1	Pair of Wire Dog Staples
			Α	1.116	0.312	Cross	1	Pair of Wire Dog Staples
			j	2,027	0.338	Cross	1	Pair of Wire Dog Staples
			Q	2.290	0.988	Cross	1	Pair of Wire Dog Staples
T 07A	1	7026	J	9.726	1.038	Cross	1	Pair of Wire Dog Staples
			0			Wide		No fixing selected
	•		F	1.731	0.146	Cross	1	Pair of Wire Dog Staples
T 07B	1	7026	J	9.726	1.038	Cross	1	Pair of Wire Dog Staples
			0			Wide		No fixing selected
			F	1.731	0.146	Cross	1	Pair of Wire Dog Staples
T07C	1	7026	J	9.726	1.038	Cross	1	Pair of Wire Dog Staples
			0			Wide		No fixing selected
			F	1.731	0.146	Cross	1	Pair of Wire Dog Staples
T07D	1	7026	K	7.679	0.447	Cross	1	Pair of Wire Dog Staples
			Ş	7.849	0.546	Cross	1	Pair of Wire Dog Staples
T07E	1	7026	M	7.508	0.427	Cross	1	Pair of Wire Dog Staples
			Ü	9.842	0.886	Cross	1	Pair of Wire Dog Staples
			Ĺ	1.246	0.224	Cross	1	Pair of Wire Dog Staples
T07F	1	7026	ĸ	7.738	0.452	Cross	1	Pair of Wire Dog Staples
	,		ŝ	8.651	0.772	Cross	1	Pair of Wire Dog Staples
			j	0.661	0.125	Cross	1	Pair of Wire Dog Staples
T 07G	1	7026	Ĭ	9.750	1.036	Cross	i	Pair of Wire Dog Staples
10,0	•	, 525	N			Wide	•	No fixing selected
			Ä	1.712	0.151	Cross	1	Pair of Wire Dog Staples
T08	1	4328	F	4.943	0.198	Cross	i	Pair of Wire Dog Staples
•••	•	1020	j	5.881	0.000	Cross	i	Pair of Wire Dog Staples
T 09	1	·5 3 18	Ğ	5.968	0.291	Cross	1	Pair of Wire Dog Staples
• • •	•	00.0	M	6.489	0.082	Cross	1	Pair of Wire Dog Staples
T 10	1	6308	H	6.995	0.383	Cross	1	Pair of Wire Dog Staples
110	•	0000	ö	7.095	0.342	Cross	1	Pair of Wire Dog Staples
T11	1	10790	Ä	16,950	1.317	Cross	i	Pair of Wire Dog Staples
111		10730	Ŕ	16,252	1.009	Cross	i	Pair of Wire Dog Staples
T11A	1	10790	A	16.947	1.778	Cross	i	Pair of Wire Dog Staples
TIM	•	10780	Ŕ	16.256	1.258	Cross	1	Pair of Wire Dog Staples
T10	4	5595		5.691	0.807	Butt	1	JH 47x90
T12	1	ენყნ	O 1	7,215	0.007		1	Pair of Wire Dog Staples
T43	4	2105	_		0.000	Cross	1	Pair of Wire Dog Staples
T13	1	3105	Ā	3,338		Cross		
			E	3.338	0.464	Butt	1	JH 47x90

<u>Fixing List</u>

Qıy Selected Fixing

JH 47x120 JH 47x90

Pair of Wire Dog Staples No fixing selected

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Note:
1) Fixings have been selected based on loading only. Please check that selected fixings are practical for each situation and that appropriate nailing can be applied on site.
2) Fixings are selected from the LUMBERLOK Brochure 08/2014 (Timber Connectors Characteristic Loadings Data) with down and uplift characteristic loads of at least the values shown for each joint.