

1. INSULATION

10.1 General

Install insulation in accordance with NZBC acceptable solution H1/AS1

10.2 Ceiling Insulation

Insulate all interior roof cavity framing with R3.6 Pink batts minimum to form a complete insulated diaphragm.

10.3 Wall Insulation

Insulate all exterior framing with friction fit R2.6 Pink batts to form a complete envelope.

2. INTERIOR LININGS

11.1 General

All linings shall be carried to floor level and behind all fittings. The moisture content of the framing shall be as specified by the manufacturer before fixing any linings.

11.2 Gibraltar Board

Line all walls and ceilings (except wet areas) with 10mm Gibraltar board stopped to a level 4 paint grade finish.

Line all walls and ceilings in wet areas with 10mm Gibraltar 'Aqualine' board stopped to a level 4 paint grade finish.

Fix sheets to manufacturers recommendations with 30 x 2.5 Gib clouts or Gib screws just below the surface of the board (without rupturing the face paper or core). Fix ceiling sheets across ceiling battens in a staggered pattern. Fix wall sheets horizontally. Fix wall sheets to stud in internal corners and at junctions with other walls.

11.3 Skirtings

Shall be customwood 40 x 10mm skirting to all wall and floor junctions including the inside of all built-in cupboards and wardrobes.

3. INTERIOR DOORS

Shall be Flush Panel (Nova Standard MDF) pre hung in rebated flat frames.

The NZ Building Act/Regulations and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.

VB2000

CONTENTS

SECTION 1	SPECIFICATION DETAILS
SECTION 2	FOUNDATION DETAILS
SECTION 3	WALL FRAMING DETAILS
SECTION 4	ROOF FRAMING DETAILS
SECTION 5	HARDWARE FIXING DETAILS
SECTION 6	WALL & ROOF BRACING DETAILS

CLIENT

Mr. Les Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

SOUTHLAND DISTRICT COUNCIL
No: 44739/1
Approved: [Signature]
Date: 10/03/10

The NZ Building Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.
HOME OF **GANG-NAIL®** BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

PRODUCERS
STATEMENT DESIGN

ISSUED BY: Claude Antony Carter Cook (MiTek NZ Ltd)

TO: VERSATILE BUILDINGS

IN RESPECT OF: PROPOSED GARAGE

MiTek New Zealand Ltd has been engaged by Versatile Buildings to provide engineering design services in respect of the requirements of Clause(s) B1 of the Building Regulations 1992 for part only as specified - Roof Structure to Floor (excluding slab and foundation) of the building work. The design has been prepared in accordance with AS/NZS 1170 (Parts 0, 1, 2, 3 & 5), NZS 3603:1993, NZS 3604:1999, approved documents of the NZ Building Code and the work is described on MiTek New Zealand Ltd drawings titled VB 2000 Structural Details and other documents according to which the building is proposed to be constructed.

As an independent design professional covered by a current policy of Professional Indemnity Insurance to a minimum value of \$500,000, I BELIEVE ON REASONABLE GROUNDS that subject to:

1. The verification of the following design assumptions:

- i) Light Roof
- ii) Trusses designed to a modified High Wind $p=660\text{Pa}$, and modified Very High Wind $p=850\text{Pa}$ with a $C_{fig}=-1.1$.
Locations defined as: Sheltered Rural & Open and Exposed Urban Conditions with maximum building height to the apex of 4.2m.
- iii) Snow Load $S_g = 0.9\text{kPa}$
- iv) Buildings designed for Building Importance Level 1, with a 50 year working life.

2. All proprietary products meeting the performance specification requirements, the drawings, specifications and other documents according to which the building is proposed to be constructed comply with the relevant provisions of the building code.

Signature

Date: 1st February 2010



Claude Antony Carter Cook
BE (Hons), MIPENZ (ID: 240891)
CPEng, IntPE

SOUTHLAND DISTRICT COUNCIL

No: 44739/1

Approved: [Signature]

Date: 10/03/10

The NZ Building Act/Regulations 2004
and the provisions of the NZ Building
Code must be complied with in regard
to any inconsistencies in the issued
consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS

VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Willow Street
Lumsden
Southland

AUTHORITY

To satisfy the requirements of Clause B2: 'Durability' of the New Zealand Building Code, the metal cladding material needs to meet a 50-year durability life. To achieve that, the following provisions must apply:

Range of Product and Use.

Specification:	AS1397:2001
Coating type:	Zinc/Aluminium & painted
Steel thickness range:	0.35mm - 0.95mm BMT
Steel grade range:	G300 - G550
Application:	Cladding for Building Importance Level 1, with a 50 year working life. Refer AS/NZS 1170.0:2002
Fasteners:	Galvanised clouts. Aluminium rivets for all steel components. IFI114:1986

Requirements, Limitations and Exclusions.

- Applicable to buildings in Sea-Spray zone and exposure zones 1,2,3 & 4 in accordance with Clause 4, Durability, NZS 3604:1999 which is an acceptable solution under clause B2 of the NZBC
- Fixing and installation of the cladding must be done exactly in accordance with Versatile Buildings Specifications.
- Normal and regular maintenance must be carried out on the exterior surface of the cladding and the following guide must be followed to ensure the durability requirements are met.

Regular Maintenance.**Exposure zones 1,2,3 & 4. (All areas other than sea spray zones - see below)**

- Rain washing only required on exposed sections, sheltered or protected areas such as under spouting, top cladding boards and tops of doors require washing every 3 months.

Sea spray zones (Within 500m from the sea or 100m from sheltered harbours or inlets) and areas of Geothermal activity.

- Rain washing only required on exposed areas. Sheltered and protected areas such as under spouting, top cladding boards and tops of doors require washing down every month and when corrosive salts are present.

VB2000

MANUFACTURERS STATEMENT DURABILITY

Extended Maintenance, Painting or Repainting.**• Extended Durability**

Once the metallic coating or the paint system has weathered away, signs of red rust for bare material or signs of the metallic coating for painted material, painting of the entire surface is required to extend the life of the cladding product. Paint manufacturer's recommendations are to be followed for surface preparation and paint type to be used.

• Evident Corrosion

Areas the show signs of white or red rust/ corrosion (typically in unwashed areas) require cleaning back with a stiff brush and cleaner to remove all dust, surface contaminants and corrosion products and present a sound substrate for painting. Priming of the surface and application of two coats of paint as per the Paint Manufacturer's recommendations is then required. Particular attention needs to be paid to laps (side, end, flashing etc) where earlier corrosion may start due to moisture and dirt entrapment.

If evident corrosion is not treated quickly rapid deterioration of the sheet may occur which could result in perforation. At this stage replacement of the affected sheet is the best option.

References.

1. NZS 3604:1999, clause 4, Durability.
2. Versatile Buildings Assembly Instructions.
3. New Zealand Building Code 2004

The NZ Building Act/Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.

Versatile Buildings
112 Waterloo Road, Christchurch
New Zealand
Dated: 1st February 2010



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

EXPLANATION

The following designs cover the structural aspects (excluding floor details) of the construction of Versatile Buildings standard range of garages for both the 600 and 1000 Series. The sequence of design information is broken down into the following categories:

- Wall Framing.
- Truss Design.
- All Structural Fixings.
- Building Stability Design for both roof and walls.

All other aspects of the Structure are constructed in accordance with the standard Versatile Buildings details for Garages.

Copyright: These drawings must not be used without express prior permission from MiTek NZ Ltd. and Versatile Buildings.

These buildings have been designed for a Building Importance level 1, with a 50 year working life. Refer to AS/NZS 1170.0:2002

Patent: 'FlexiBrace' subject to Patent No: 504428 MiTek New Zealand Ltd.

Steel 'Stud Saver' subject to registered Patent No's 330803 & 314494

The NZ Building Act/Regulations 2004
and the provisions of the NZ Building
Code must be complied with in regard
to any inconsistencies in the issued
consent documents.



MiTek New Zealand Ltd.

HOME OF **GANG-NAIL®** BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

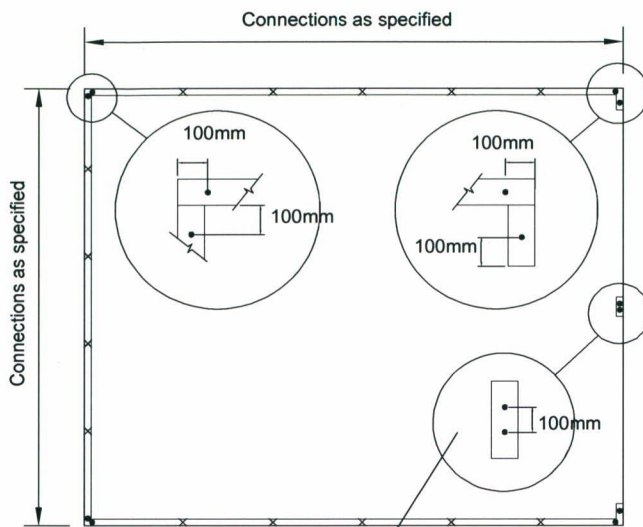
M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

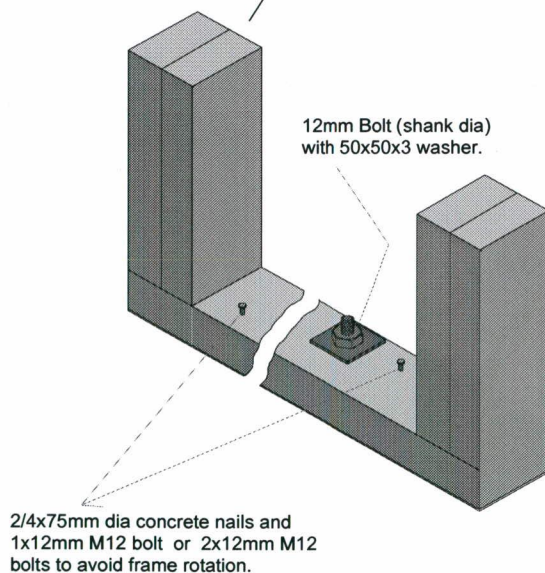
VB2000

FOUNDATION DETAILS

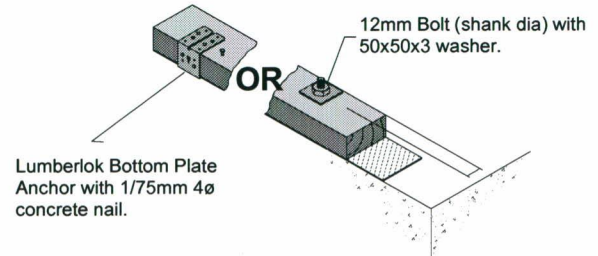
BOTTOM PLATE FIXING LOCATIONS



NOTE: Connections must be applied to all corners and door openings shown and then spaced, as per layout above, between these points



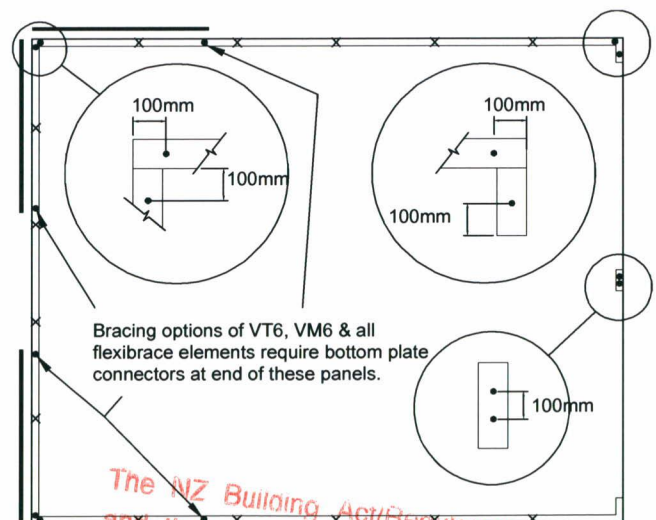
BOTTOM PLATE CONNECTION TYPE



NOTE: For fastener spacing @ 900 ctrs, truss spans building width can be increased by 25%

Wind Load	Max Building	Fixing Spacing
High	9600 12000	1200 900

BRACING ELEMENT FIXINGS



Bracing options of VT6, VM6 & all flexibrace elements require bottom plate connectors at end of these panels.

The NZ Building Act/Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

DESIGN INFORMATION

Design Scope

The VB2000 design series covers the structural requirements for the Purlin fixing, Truss fixing, Truss design, Truss bracing, Wall & Roof Bracing, Lintels, Verandah, Decks & Garaports. All other structural requirements are as per NZS3604: 1999

Building Erection

Proper bracing must be installed to hold the components true and plumb and in a safe condition until permanent bracing is fixed. All permanent bracing and fixings must be installed before applying any loads.

Design References

Compliance Document for the New Zealand Building Code Clause B1 Structure Amendment 8

NZS3603:1993 Amendment 4
Cited Verification Method

NZS3604:1999 Amendment 2
Cited Acceptable Method

AS/NZS1170 Part 0:2002
Cited Verification Method

AS/NZS1170 Part 1:2002
Cited Verification Method

AS/NZS1170 Part 2:2002
Cited Verification Method

AS/NZS1170 Part 3:2002
Cited Verification Method

ANSI/TP11 - 2002
Alternative Solution

Truss Joints

GANG-NAIL plates are to be pressed into both sides at each joint by a licensed GANG-NAIL fabricator

Load Details

These drawings have been prepared using the above design loads.

It is the responsibility of the user to ensure that the design data and loads are still correct at the time of construction.

Design Loads

Dead loads for Light Roof

Trusses:

Top Chord = 0.15kPa (includes weight of trusses, purlins, associated framing and zincalume roof).

Bottom Chord = 0.20kPa for trusses @ 1200 crs with ceiling.

Live loads

Top chord - 1.1kN concentrated load, 0.25kPa uniform load.

Bottom chord - 0.9kN concentrated load below 1200mm head height and 1.4kN concentrated load above 1200mm head height.

Deck: 2.0kPa uniform load.

Wind loads

Buildings designed for a modified UP TO VERY HIGH wind conditions.

Seismic loads

Siesmic Zones A, B or C.

Snow loads

Buildings designed for $S_g = 0.90\text{kPa}$ 50 years working life, region N4 Altitude = 150m, N5 Altitude = 300m.

Buildings designed for $S_g = 0.90\text{kPa}$ 25 years working life, region N4 Altitude = 200m, N5 Altitude = 400m.

Refer to MiTek New Zealand Limited for any design modifications required for increase in snow loads or wind loads above those stated on the drawings.

Buildings designed for Building Importance Level 1. Refer AS/NZS-1170.0:2002

The NZ Building Act/Regulations and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

WALL FRAME DETAIL

Stud Design Table

Wind Load	Wall Height (mm)	Stud Ctrs (mm)	Size & Grade
High	2400	600	90X35 MSG10

Timber Grade & Design

- Studs are to be constructed in 90 x 35 minimum grade to be MSG10 or better in all situations as described in the table shown above.
- Top plates & bottom plates are to be constructed in 90 x 35 minimum grade to be MSG8 or better.
- All other wall framing members not specified can be non structural grade.
- All purlins, bottom chord stiffeners, and lintels to be minimum MSG8 grade.
- Note: 1000 Series buildings do not have dwangs.

Timber Treatment

- Treated Timber is to be used in the construction of the buildings as defined by the frame and truss requirements in NZS3602:2003. All treated timber is to meet the required standards.
- Minimum H1.2 timber treatment is to be used in all wall framing.
- Treatment of Verandah & Deck construction refer to Verandah and Deck details in this document (if included)
- Trusses including Gable Ends can be untreated.

The NZ Building Act/Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

LINTEL SELECTION

Side Entry: Aluminium Joinery.

2.4m Stud Height (Maximum $S_g = 0.9\text{kPa}$ and Very High Wind)

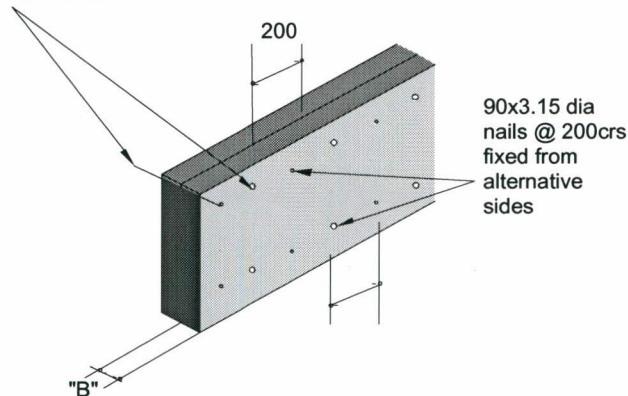
Opening Width	Building Width	Lintel Size
1765 mm Clear Span	7.2m	2 x 140 x 45

Side Entry: Tilt Doors, Sectional Doors, Roller Doors

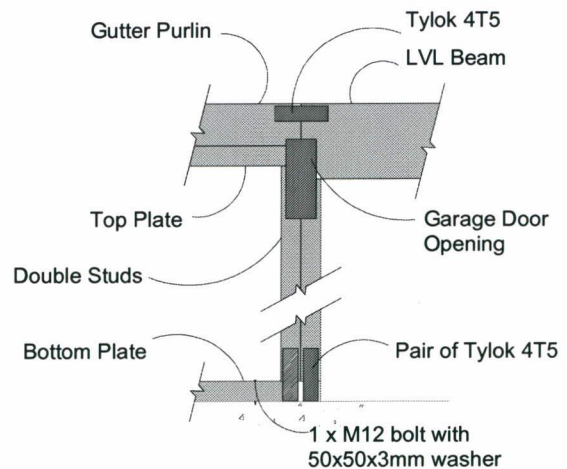
4.8m Wide Opening

Bldg Wth/Truss Span	High wind &/or 0.9kPa Snow Load - Lintel Size
7.2m	2 x 300 x 45 LVL

90x3.15 dia nails driven
alternative sides



This fixing detail applies to 170,240 & 300 LVL
lintels



(Note: Nail Plates on outside face only)

*The NZ Building Act/Regulations 2014
and the provisions of the NZ Building
Code must be complied with in regard
to any inconsistencies in the issued
consent documents.*

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

SPAN, LOAD AND TRUSS
DETAILS

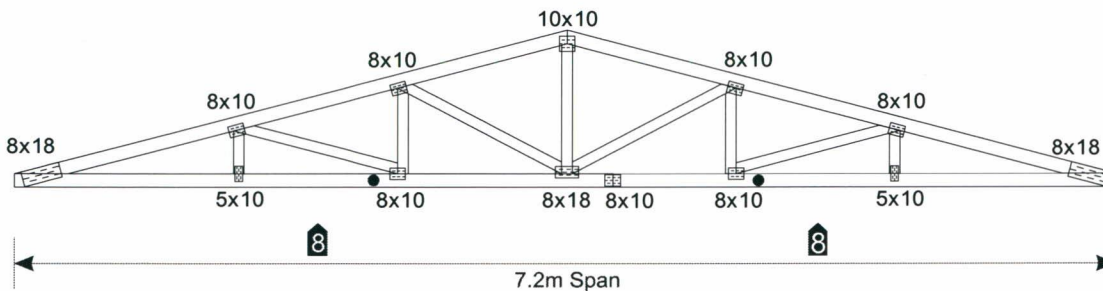
Load Chart

Live Load =	Top Chord - 1.1kN concentrated load, 0.25kPa uniform load. Bottom chord - 0.9kN concentrated load below 1200mm head height and 1.4kN concentrated load above 1200mm head height
Dead Load =	0.15 kPa (Top Chord) 0.20 kPa (Bottom Chord) trussed @ 1200 crs with ceiling
Wind: Roof =	Cfig = -1.1

Span Chart

Truss Centers	Wind Load	Snow Load (kPa)
1200, 1800	High	0.9

7,200 Span



NOTE:

1. Truss Top Chord pitch range is 15°, 20°, 25°, 30°
2. ● Indicates location of Bottom chord brace (truss stiffener)
3. 8 Indicates the truss camber (typical)
4. All truss plates are Gang-Nail® GNQ type
5. All top & bottom chords are to be MSG10 90x45 Douglas Fir or Radiata Pine
6. All webs are to be a min. MSG8 - 70x45 Douglas Fir or Radiata Pine.

The NZ Building Act/Regulations 2014
and the provisions of the NZ Building
Code must be complied with in regard
to any inconsistencies in the issued
consent documents.

Construction Tolerances

NOTE: Nail plates are to be fully pressed home on both sides of joints.
The nail plate axis must be located in the specified or indicated direction.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

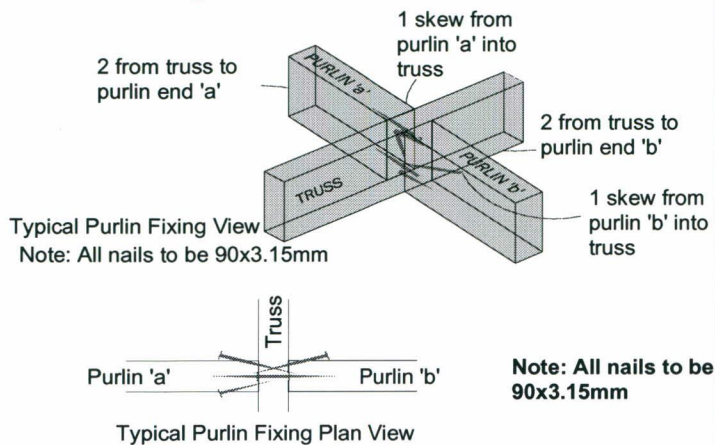
M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

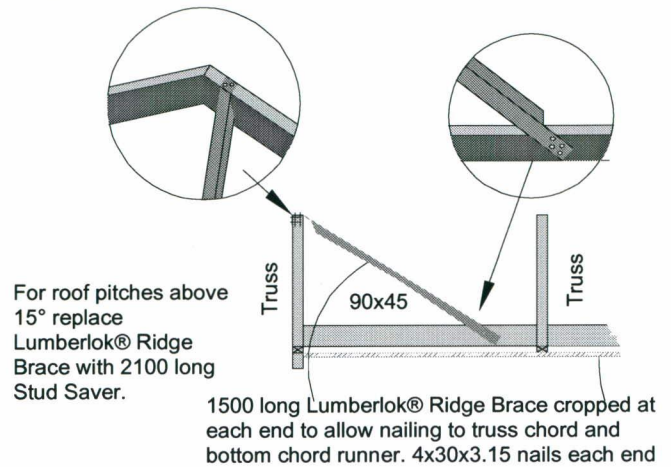
VB2000

TRUSS DETAILS

Purlin Fixing Detail



Ridge Brace



The NZ Building Act/Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

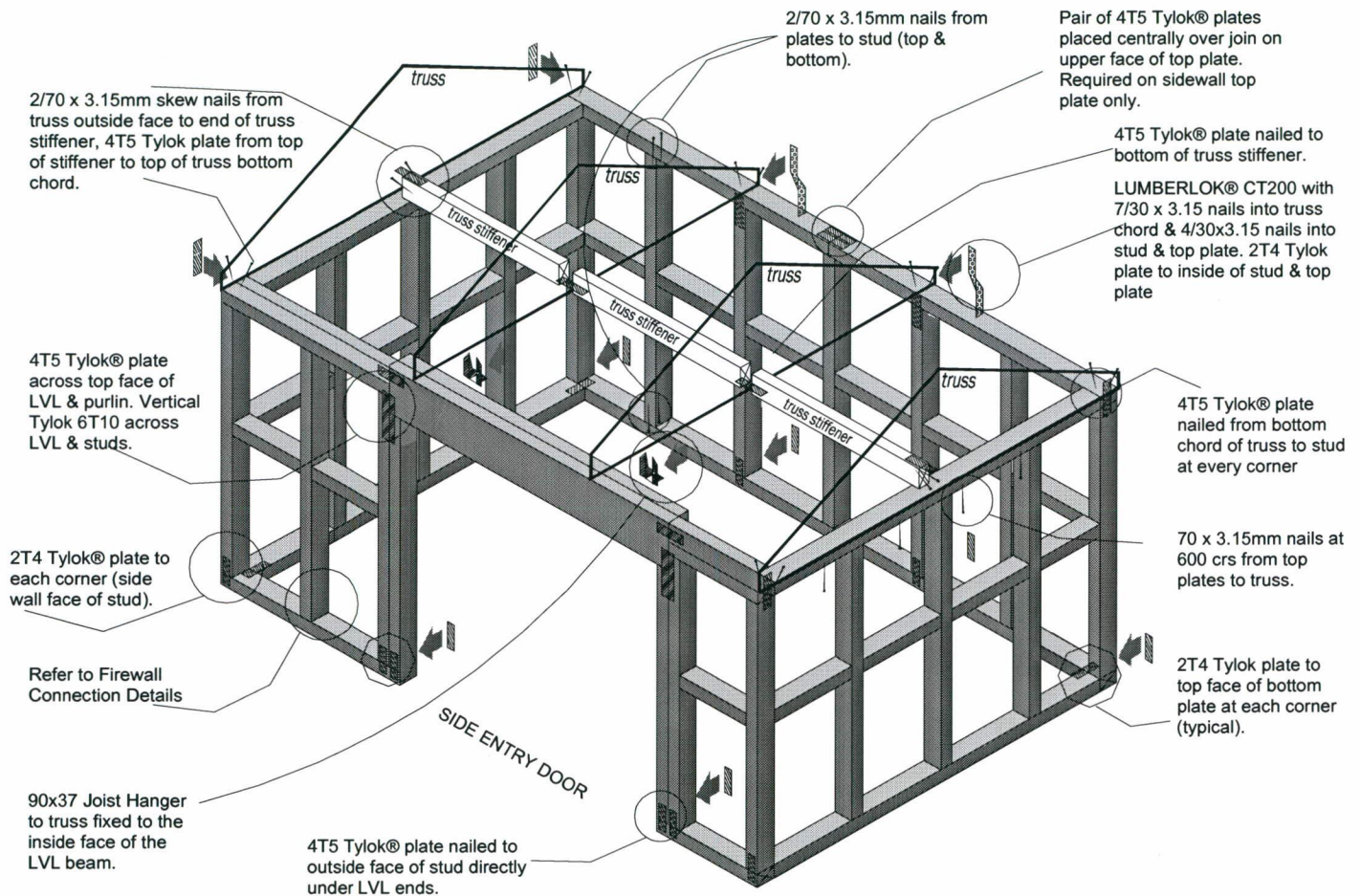
AUTHORITY

VB2000

HARDWARE FIXING
DETAILS

Hardware Fixing Locations

Side Entry



NOTE: 1) Hardware fixings apply to both 600 & 1000 series buildings.
2) 1000 series buildings do not have dwangs.

The NZ Building Act/Regulations 2004 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.

HOME OF **GANG-NAIL®** BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

EXPLANATION

The Building Stability Design of the standard range of garages is broken down into two separate areas, and are as follows: -

Roof Bracing

Using a diaphragm approach, the roof is braced using a series of Strip Brace and / or Multibrace patterns in the plane of the truss top chords to transfer the wall and roof wind demand to the top plates. The loads at the top plate level are then transferred to the foundation through the wall bracing system.

The layouts of Strip Brace and Multibrace patterns are determined by the size and shape of the building plus the relevant wind zones appropriate for that design. These layouts are determined on the VB2000 Series drawings on the following pages.

Wall Bracing

Using a Bracing Units approach the tables shown on the following pages give the loading demand of the respective buildings dimensions and wind loads. The use of wall cladding and / or Secondary Bracing systems provides the method of achieving the required bracing demand. These cladding and secondary bracing units are detailed on the following pages also.

Within allowable side wall and end wall length ratio there is an ability to brace buildings on all three sides only when large door openings make installation of braces impossible. The bracing demand in these situations is laid out in the tables on the following pages.

The VB2000 Series covers stand alone buildings up to but no greater than a width and or length of 12m. In cases where partition walls are available, buildings can be over the 12m overall dimension provided the rules on the following page are followed and installed as per the diagram shown on the following page.

All Angle Brace, Strip Brace, Multibrace & Flexi-Brace options can be located anywhere along the braced wall provided they fit the required dimensions.

The NZ Building Act/Regulations 2014 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

BRACING DEMAND
RULES

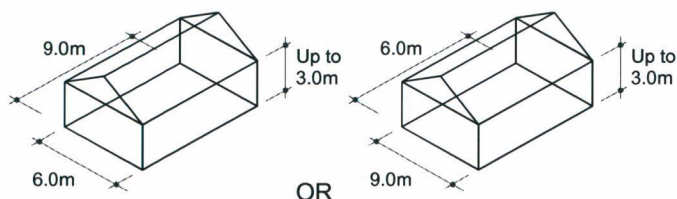
1. BUILDING DIMENSIONS

The maximum building dimensions must not exceed 12m in width and or length.

2. SIDE/END WALL RATIOS DEFINITION

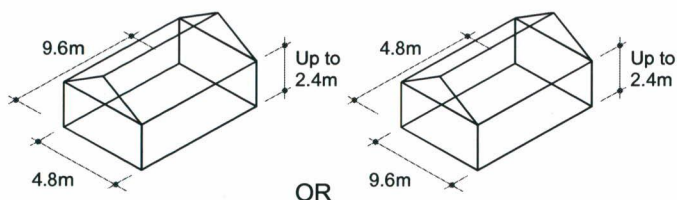
a. 1 to 1.5 Ratio applies only when 3 walls of bracing are available (See rule 3a) on L,M,H & V/High Wind Loads up to 3.0m high.

e.g.



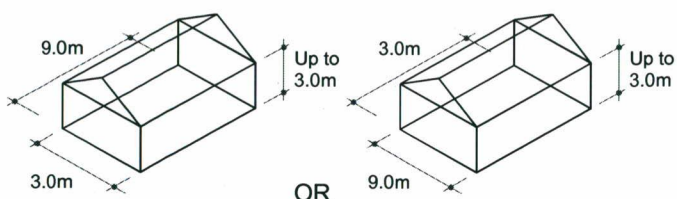
b. 1 to 2 Ratio applies only when 3 walls of bracing is available (See rule 3a) on L, M,H & V/High Wind Loads up to 2.4m high.

e.g.



c. 1 to 3 Ratio applies only when 4 walls of bracing is available (See rule 3b) on L, M,H & V/High Wind Loads up to 3.0m high.

e.g.



3. WALL BRACING DEMAND OPTIONS

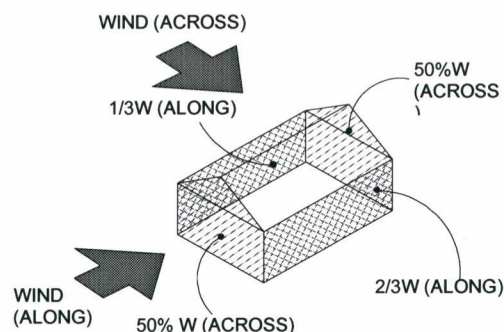
3a. Where 3 walls only are available , establish the demand for ALONG & ACROSS for the specific tables on the following pages. Apply the full bracing unit required to the respective walls and brace accordingly.

3b. Where four walls can be used for bracing, establish the demand on the following pages) by using the tables called "Both end walls available" and "Both side walls available".

NOTE

The shortest two walls must have bracing equally distributed between them.

If that is achieved the Total Bracing Units in the longer walls maybe distributed on a 2/3 to 1/3 split, e.g. A total of 150 Bu's can be distributed in one of the longer walls and the remaining BU's distributed to the other longer wall. (See below)



The NZ Building Act/Regulations and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents

CLIENT

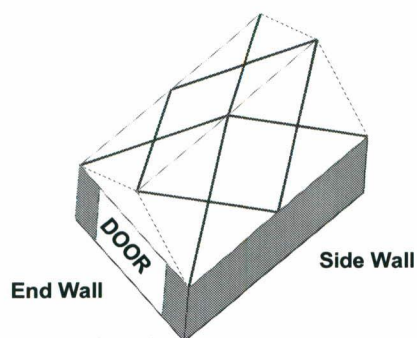
M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

ROOF BRACING

BRACING 7.200m Width, 9.000m Length, High Wind Zone



ROOF BRACING NOTES

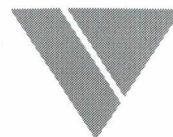
Indicates a single row of Lumberlok Strip Brace tensioned up and laid over the top of the purlins, fix each end with 5/30 x 3.15 nails (typical) Fix at crossings with 2/30 x 3.15 nails.

The NZ Building Act/Regulations 2014 and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS



VERSATILE®
BUILDINGS

CLIENT

M. Naughton
9 Meadow Street
Lumsden
Southland

AUTHORITY

VB2000

WALL BRACING

BRACING ELEMENT

VS6

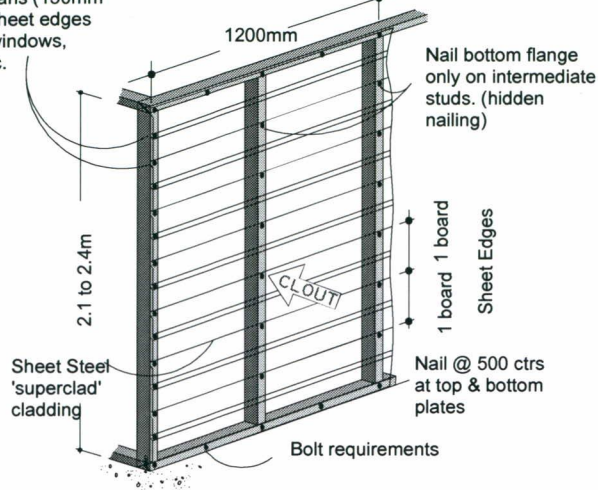
Bracing units (B/U's) per/1200mm:

45

Bracing units (B/U's) per/1800mm:

68

Nail all pans (150mm
ctrs) at sheet edges
around windows,
doors etc.



The NZ Building Act/Regulations 2004
and the provisions of the NZ Building
Code must be complied with in regard
to any inconsistencies in the issued
consent documents.



MiTek New Zealand Ltd.

HOME OF GANG-NAIL® BUILDING SYSTEMS


VERSATILE®
BUILDINGS

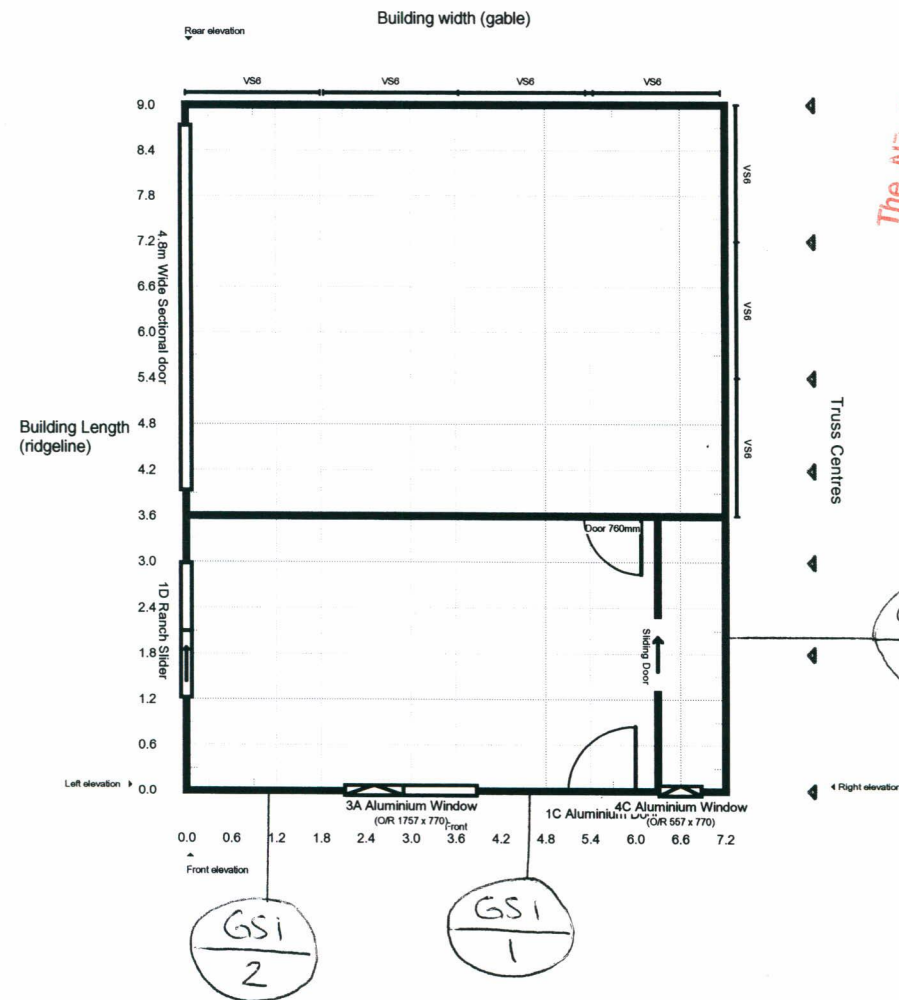
Versatile Buildings 600 Series Floor Plan

Customer: Mr. Les Naughton

Site Address: 9 Meadow Street, Lumsden, Southland

Reference: emma-2556

Contact: Emma Dempsey, Southland, 2186377



The NZ Building Regulations and the provisions of the NZ Building Code must be complied with in regard to any inconsistencies in the issued consent documents.

LEGEND

refer to: **Producer Statement, VB2000,**
for bracing element & fixing details.

VS6  SUPERIOR AD BRACING ELEMENT
1.2 or 1.8 metre wide, full height
Superior bracing panel.

Client : Les Naughton
Order No:
Size : 9000 x 7200mm
Windzone: High
Roof Pitch: 15 Deg

STEP 1a: BRACING DEMAND FOR WIND DIRECTION.
ALONG = (RIDGE LINE)

WALL WIDTH	LOW	MED	HIGH	V.HIGH
3000	70	92	132	170
3600	84	110	159	204
4200	98	129	185	238
4800	112	147	212	272
5400	126	165	238	306
6000	140	184	265	340
6600	154	202	291	374
7200	168	220	318	408
7800	183	239	344	442
8400	197	257	370	476
9000	211	275	397	510

WALL B.U.'S REQ'D: **0** (WRITE IN BOX A)

WRITE FIGURE HERE: **318** (WRITE IN BOX B)

CIRCLE SELECTED

The NZ Building Act 2004 and the provisions of the NZ Building Code must be complied with in relation to any inconsistencies in the consent documents.

STEP 4a: BRACING DEMAND FOR WIND DIRECTION.
ACROSS = (GABLE END)

WALL WIDTH	LOW	MED	HIGH	V.HIGH
3000	24	32	47	59
3600	29	39	57	71
4200	34	45	66	83
4800	39	52	76	95
5400	44	58	85	107
6000	49	65	95	119
6600	53	71	104	131
7200	58	78	113	143
7800	63	84	123	154
8400	68	91	132	166
9000	73	97	142	178
9600	78	104	151	190
10200	83	110	161	202
10800	87	117	170	214
11400	92	123	180	226
12000	97	130	189	238

WALL B.U.'S REQ'D: **142** (WRITE IN BOX C)

WRITE FIGURE HERE: **142** (WRITE IN BOX D)

CIRCLE SELECTED

600 SERIES BRACING V2.0

BRACE RATINGS

- External Walls: Flexi-Brace is the only secondary brace that can be used on its own without the combination of the cladding. In this case reduce the Flexi-Brace ratings to 80% eg. a VF5 would be rated @ 64 BU's

- Internal Walls:

A. Where internal walls are lined one side with plasterboard and combined with Flexi-Brace use the following values:

VF5 + plasterboard (1200mm) = 139BU's

VF7 + plasterboard (600mm) = 50BU's

B. Where internal walls are lined with sheet material other than plasterboard, ie customwood or plywood use the secondary brace ratings as quoted only to achieve the total BU's required.

STEP 2a: CLADDING: PRIMARY BRACING

CODE	RATING	QUANTITY	TOTAL
VS6-12	45	0	0
VS6-18	68	0	0

CLADDING ACHIEVED: **0**

BOX A: TOTAL BU'S REQ'D
0

STEP 2b: HARDWARE: SECONDARY BRACING

BRACING CODE	RATING	QUANTITY	TOTAL
VA6	70	0	0
VT6	100	0	0
VF7	30	0	0
VT6 Pr	200	0	0
VF5	80	0	0
VF8	60	0	0
VM6	150	0	0
VF6	105	0	0
VP1	135	0	0
VP2	179	0	0

HARDWARE ACHIEVED: **0**

BOX B: TOTAL BU'S REQ'D
318

STEP 2c: CLADDING: PRIMARY BRACING

CODE	RATING	QUANTITY	TOTAL
VS6-12	45	0	0
VS6-18	68	3	204

CLADDING ACHIEVED: **204**

STEP 2d: HARDWARE: SECONDARY BRACING

BRACING CODE	RATING	QUANTITY	TOTAL
VA6	70	0	0
VT6	100	0	0
VF7	30	0	0
VT6 Pr	200	0	0
VF5	80	0	0
VF8	60	0	0
VM6	150	0	0
VF6	105	0	0
VP1	135	0	0
VP2	179	0	0
GS1	68	3	231

HARDWARE ACHIEVED: **231**

BOX C: TOTAL BU'S REQ'D
435

STEP 5a: CLADDING: PRIMARY BRACING

CODE	RATING	QUANTITY	TOTAL
VS6-12	45	0	0
VS6-18	68	4	272

CLADDING ACHIEVED: **272**

BOX C: TOTAL BU'S REQ'D
142

STEP 5b: HARDWARE: SECONDARY BRACING

BRACING CODE	RATING	QUANTITY	TOTAL
VA6	70	0	0
VT6	100	0	0
VF7	30	0	0
VT6 Pr	200	0	0
VF5	80	0	0
VF8	60	0	0
VM6	150	0	0
VF6	105	0	0
VP1	135	0	0
VP2	179	0	0

HARDWARE ACHIEVED: **0**

BOX D: TOTAL BU'S REQ'D
142

STEP 5c: CLADDING: PRIMARY BRACING

CODE	RATING	QUANTITY	TOTAL
VS6-12	45	0	0
VS6-18	68	0	0

CLADDING ACHIEVED: **0**

STEP 5d: HARDWARE: SECONDARY BRACING

BRACING CODE	RATING	QUANTITY	TOTAL
VA6	70	0	0
VT6	100	0	0
VF7	30	0	0
VT6 Pr	200	0	0
VF5	80	0	0
VF8	60	0	0
VM6	150	0	0
VF6	105	0	0
VP1	135	0	0
VP2	179	0	0
GS1	68	2	136
GS1	68	1	68

HARDWARE ACHIEVED: **204**

BOX D: TOTAL BU'S REQ'D
204

Versatile Buildings 600 Series Specifications

Customer: Mr. Les Naughton

Site Address: 9 Meadow Street, Lumsden, Southland

Reference: emma-2556

Contact: Emma Dempsey, Southland, 2186377

Model:	Versatile 600 Series
Size & Stud Height:	9.000m long x 7.200m wide, with 2.4m stud height
Floor Type:	Concrete floor
Roof Details:	15 degree pitch. Thickness: 0.40mm. Type: 6 rib
Trusses:	90mm x 45mm kiln dried, stress graded timber as per floor plan
Wall Framing:	H1.2 treated 90mm x 35mm kiln dried, stress graded timber
Wind Zone:	High wind zone
Cladding Type:	Versaclad 'weatherboard' profile
Gable Cladding:	Board & Batten profile
Gable Soffit:	None
Downpipes Location:	Front and Rear of building
Downpipes Size:	65mm
Aluminium Joinery Glazing:	Double

Notes:

GENERAL: Construction to comply with Mitek Producer Statement, VB 2000 and in all other respects NZS 3604:1999 and the NZ Building Code.

FOUNDATIONS: Concrete floor shall be 17.5Mpa, 100mm thick. Footing as detailed

WALL FRAMING: All timber shall be machine stress graded, gauged and treated to minimum TPA Specification H1.2

Studs shall be 90 x 35mm at 600mm crs and housed into 90 x 35mm plates. Lay Supercoarse DPC under all plates. Refer Producer Statement VB 2000, WALL FRAME DETAIL for timber grade options and specification. Fix proprietary nail plates and hardware in accordance with Producer Statement VB 2000, WALL FRAME DETAIL.

ROOF FRAMING: Purlins shall be 90 x 45mm on edge at 1000mm crs fixed to MiTek roof trusses. Fix purlins and ridge braces as detailed in Producer Statement VB 2000, TRUSS DETAILS. See truss details in Producer Statement VB 2000, SPAN, LOAD AND TRUSS DETAILS.

SIDE ENTRY OPENING LINTELS: LVL beam sizes and spans are specified in VB 2000, LINTEL SELECTION. Fixing details are shown in HARDWARE FIXING DETAILS of VB 2000.

ROOFING: Shall be 6 rib longrun metal roofing fixed with 75mm spiral shank weatherseal roof nails, over bituminous type building paper supported by ultra-violet fast lashing.

WALL CLADDING: Fix with galvanised clouts as specified in VB 2000.

ROOF BRACING: For all buildings fix Lumberlok roof plane strap bracing in accordance with VB 2000 Producer Statement, ROOF BRACING.

WALL BRACING: Fix bracing in accordance with VB 2000, WALL BRACING. Bracing panel locations and fixing refer to "Wall Bracing: 600 Series, Feb 04 Ver1.4."

