APPLICATION

IPENZ ENGINEERS NEW ZEALAND | NEW ZEALAND INSTITUTE OF ARCHITECTS INCORPORATED | ACENZ

Building Code Clause(s) ..... B1 .....

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance notes on the use of this form are printed on the reverse side)*

ISSUED BY: N S CHANDLER
(Design Firm)

TO: Skyline Buildings Ltd on behalf of Marg and Waddy Wadsworth
(Owner/Developer)

TO BE SUPPLIED TO: Far North District Council
(Building Consent Authority)

IN RESPECT OF: 6 x 3 Workshop Stud Height 2.4 SG10 Pitch 15
(Description of Building Work)

AT: 5 Waianga Place
(Address)

Omepere **LOT** 11 **DP** 120046 **SO**

We have been engaged by the owner/developer referred to above to provide Structural Engineering services in respect of the requirements of
(Extent of Engagement)

Clause(s) B1-Structure the Building Code for

○ All or ☑ Part only (as specified in the attachment to this statement), of the proposed building work.
Part only includes timber structure, roof and wall bracing system
Excludes truss design which is covered by Pryda PS1

The design carried out by us has been prepared in accordance with:

☑ Compliance Documents issued by Department of Building & Housing Verification Method
(verification method / acceptable solution)

or

☐ Alternative solution as per the attached schedule

The proposed building work covered by this producer statement is described on the drawings titled

6 x 3 Workshop for Marg and Waddy Wadsworth and numbered 2 - 5

together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

(i) Site verification of the following design assumptions Assumes site conditions comply with CL3 Site Requirements NZS 3604:2011 'Good Ground'

(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

I, N.S CHANDLER am: ☑ CPEng 51037 #
(Name of Design Professional)

☐ Reg Arch #

I am a Member of : ☑ IPENZ ☐ NZIA and hold the following qualifications BE Ceng MICE CPEng FIPENZ

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than $500,000*.

The Design Firm is a member of ACENZ ○ YES ☑ NO

SIGNED BY N.S Chandler ON BEHALF OF N. S Chandler
(Design Firm)

Date 18.08.2014 *(signature)*

FAR NORTH DISTRICT COUNCIL
Approved Documents

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $500,000.*

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.

N.S. Chandler Ltd

Consulting Civil and Structural Engineer

Principal
Noel S Chandler *BE C Eng MICE CP Eng FIPENZ*

P O Box 2
Waipu 0545
Phone 09 432 0826
Mobile 0274 927 828
email nsc@clear.net.nz

Building Design Parameters and Loads Summary to support PS1 Producer Statement

Client	Marg and Waddy Wadsworth	
Site Address	5 Waianga Place Omepere	
Site Legal Description	Lot 11	DP 120046
Building Description	6 x 3 Workshop	

Roof

Dead Load

Lightweight roof	=	0.25	kPa
Ceiling	=	N/A	kPa

Live Load

Uniform Load	=	0.25	kPa
Point Load	=	1.30	kN

Snow Load - NZS 3604 Fig 15.1

Zone	=	0	
Altitude	up to =	0	
.'. Sg	=	0	kPa

Wind Load - as per NZS 3604 Wind Zones

NZS 3604 Wind Zone	=	V High	
Vz	=	50	m/sec
.'. q	=	1.50	kPa

Declaration

I, N.S.Chandler (*name of Design Professional*) am: ☑ CPEng 51037 #

☐ Reg Arch #

I am a Member of: ☑ IPENZ ☐ NZIA

and hold the following qualifications BE Ceng MICE CPEng FIPENZ

The Design Firm is a member of ACENZ ○ YES ☑ NO

SIGNED BY N.S. Chandler ON BEHALF OF N.S.Chandler (*Design Firm*)

Date: 18.08.2014 (*signature*)

Skyline Buildings Ltd
Cnr Rymer Place & Mahunga Drive
Mangere Bridge
PO Box 12261, Penrose
Auckland, New Zealand
Telephone (09) 636 0200
Fax: (09) 636 0201

Producer Statement – Manufacturing
NZBC Durability B2

Issued by: **Skyline Buildings Ltd**

Date : 27-Jun-2014

Project: 6 x 3 Garage Workshop with No Garage Doors

To: Bryan and Margaret Wadsworth
Site address : 5 Waianga Place
Omapere

To be supplied to : Far North District Council

In respect of : **NZBC Durability Requirement B2/AS1**

Skyline Buildings Ltd confirms that this building and its components will satisfy the B2 durability requirements of the New Zealand Building Code provided;

1) The building is constructed as per the Skyline details and specifications for that building.

2) The building is maintained in accordance with the "Maintenance Instructions" as outlined on page 5 in the "Skyline Kitset Instructions" updated February 2008. A copy of this document is available on request

David Dixon
Design Services
Skyline Buildings Ltd

N S CHANDLER LTD

Consulting Civil and Structural Engineer

Principal
Noel S Chandler *BE CEng MICE CPEng FIPENZ*

P.O Box 2
Waipu 0545
New Zealand
Phone 0-9-432 0826
Mobile 0274-927828
E mail nsc@clear.net.nz

24th July 2013

Skyline buildings Ltd
Box 12 261
Penrose
AUCKLAND

Attention David Dixon
By email

Dear David,

Re Skyline Garages - B2 Durability

As explained, the NZS material codes, for example

NZS 3101:2006 - Concrete Structures Standard Section 3

NZS 3404:1997 - Steel Structures Standard cl 1.1.5.1

NZS 3604:2011 - Timber Framed Buildings Section 4

state that these Standards can be used as a means of compliance with the New Zealand Building Code and specifically include B2 Durability. B2 does not need to be specifically detailed in the PS1 certificate.

Yours sincerely,

N S Chandler
Chartered Professional Engineer

APPENDIX A

6.0 x 3.0 Workshop

SKYLINE BUILDINGS

WALL BRACING SYSTEM

150mm SKYBOARD WALL CLADDING

APPENDIX A.

Maintenance Instructions

Tilt Door Maintenance - Oil all pivot points, arms & wheels, and lightly oil the tracks every 6 months. Lubricate key holes annually.

Gutter Maintenance - These should be cleaned at least once a year and on a more regular basis where there are trees in close proximity to remove leaves and dirt that can cause corrosion.

Access Door Maintenance - Oil hinges and key holes annually.

Exterior Maintenance

Clearcote Cedar - Clearcote Cedar is a 100% acrylic clear coating with a cedar tint on specially prepared zinc aluminium alloy coated steel. This product can be overpainted with 100% acrylic finish coats suitable for roofing applications. If Clearcote is not overpainted its appearance is likely to change due to weathering over a period of years.

As a guide;
- Inland areas wash every 6 months.
- Coastal & Industrial areas wash every 3 months.
- Aggressive coastal areas wash every 2 months.

N.B Aggressive Environments - Skyline Buildings Ltd and its Distributors shall not be liable for the performance of the Aluminium-Zinc Alloy Coating or pre-painting treatment of the sheet metal used in the construction of buildings built in close proximity of aggressive environments. This includes and building within 1500 metres of the coastline. In these areas all pre-painted and Aluminium-Zinc Coated steel wall cladding must be repainted every 5 years.

Ph: 0800 83 4000

SKYLINE BUILDINGS

Single Story

Bracing Requirements

Job Details

Name	Marg and Waddy Wadsworth
Street and Number	5 Waianga Place
City/Town/District	Omepere
Designer and date	
Company Name	Skyline Buildings Ltd

No supplimentary roof bracing needed in this building

VULETICH CONSTRUCTION LTD
14 Normanby Street, PO Box 328
Dargaville, 0340
Phone: 09 439 4700
Fax: 09 439 4900
Mobile: John 0274 972 116
Email: vconstruct@xtra.co.nz
SKYLINE

Building Specification

Location of Storey	1	Single	
Floor Loading	1	2kpa	
Foundation Type	2	Sub Floor	
Building Height to Apex (m)	4	3.01	
Roof Height above Eaves (m)	1	0.56	
Stud Height (m)	1	2.4	
Cladding Weight (top or single)	1	Light	
Cladding Weight (lower)	1	Light	not applicable (single storey building)
Cladding Weight (subfloor)	1	Light	
Roof Weight	1	Light	
Roof Pitch (degrees)	1	15	
Room in Roof Space	0		
Building Length (m)	6	6	
Building Width (m)	3	3	
Gross Building Plan Area (m2)	18	18	

Determination of Wind Zone As per NZS3604

Wind Region	N/A
Lee Zone	N/A
Ground Roughness	N/A
Site Exposure	N/A
Topographic Class	N/A
As per Council	
Wind Zone	**V High**

Determination of topographic class

(Refer table 5.4 NZS3604)	1
Formation and Hill Height	N/A
Topographic Zone	N/A
Smooth Gradient Value	N/A
Smooth Gradient Class	N/A
Site Exposure	N/A
Topographic Class	N/A

Bracing Units required for Wind

per m	subfloor	walls	
W along	111	58 BUs/m	**I Class A + B**
W across	93	50 BUs/m	0.29
		Snow Zone N0 No Limit	
			#REF!

Totals	subfloor	walls
W along	333	174 BUs
W across	558	300 BUs

Earthquake Zone Earthquake Zone

Bracing Units required for Earthquake

per m2	subfloor	walls
E	9.4	6.7 BUs/m2

Totals	subfloor	walls
E along	169	121 BUs
E across	169	121 BUs

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Marg & Waddy Wadsworth — Skyline Buildings Ltd

GIB EzyBrace® 2011 Software

Subfloor Bracing Calculation Sheet — Subfloor Along — V06/11

Along							
Bracing Line		*Bracing Elements provided*				*Wind*	*Earthq.*
1	2	3	4	5	6	8W	9EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Number or Length L (m)	BUs Achieved	BUs Achieved
a	*line totals*	1	NZS3604	braced piles	2	320	240
W	320	2					
EQ	240	3					
b	*line totals*	1	NZS3604	braced piles	1	160	120
W	160	2					
EQ	120	3					
c	*line totals*	1	NZS3604	braced piles	2	320	240
W	320	2					
EQ	240	3					
d	*line totals*	1					
W		2					
EQ		3					
e	*line totals*	1					
W		2					
EQ		3					
f	*line totals*	1					
W		2					
EQ		3					
g	*line totals*	1					
W		2					
EQ		3					
h	*line totals*	1					
W		2					
EQ		3					
I	*line totals*	1					
W		2					
EQ		3					
j	*line totals*	1					
W		2					
EQ		3					

						Wind	Earthq.
Totals Achieved						800	600
						OK	OK
Totals Required (from Sheet A)						528	122

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SKYLINE

Marg & Waddy Wadsworth — Skyline Buildings Ltd

GIB EzyBrace® 2011 Software

Subfloor Bracing Calculation Sheet — Subfloor Across — V06/11

Along							
Bracing Line		*Bracing Elements provided*				*Wind*	*Earthq.*
1	2	3	4	5	6	8W	9EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Number or Length L (m)	BUs Achieved	BUs Achieved
m	*line totals*	1	NZS3604	braced piles	2	320	240
W	320	2					
EQ	240	3					
n	*line totals*	1	NZS3604	braced piles	1	160	120
W	160	2					
EQ	120	3					
o	*line totals*	1	NZS3604	braced piles	2	320	240
W	320	2					
EQ	240	3					
p	*line totals*	1					
W		2					
EQ		3					
q	*line totals*	1					
W		2					
EQ		3					
r	*line totals*	1					
W		2					
EQ		3					
s	*line totals*	1					
W		2					
EQ		3					
t	*line totals*	1					
W		2					
EQ		3					
u	*line totals*	1					
W		2					
EQ		3					
v	*line totals*	1					
W		2					
EQ		3					
						Wind	Earthq.
Totals Achieved						800	600
						OK	OK
Totals Required (from Sheet A)						489	122

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Skyline Bracing Element Ratings					
Along			Across		GIB®
Wind	Earthquake		Wind	Earthquake	
OK	OK		OK	OK	
Supplier	System	Minimum Length (m)	per metre BUs W/m		per metre BUs EQ/m
	none				
GIB	GS1-N	0.4			
GIB	GS2-N	0.4			
GIB	GSP-H	0.4			
GIB	BL1-H	0.4			
GIB	BLP-H	0.4			
GIB	BLG-H	0.4			
Ply Brace	EP1	0.6	125		130
Ply Brace	EP2	0.6	140		150
Skybrace	Sky400	0.4	103		93
Skybrace	Sky600	0.6	103		93
Skybrace	Sky1200 60mm	1.2	79.2		79.2
Skybrace	Sky1800	1.8	72.2		70
Skybrace	Sky2400	2.4	63.8		58.8
Skybrace	Sky3000	3.0	79.2		70
Skybrace	Sky1200 30mm	1.2	72		51
Skybrace	SkyPanel 2400	2.4	50.6		39.9
Skybrace	ChampBrace 2400	2.4	58.7		25.7
Skybrace	SkyPanel 150 2400	2.4	37.8		26.6
Skybrace	SkyPanel 3000	3	50.6		39.9
Skybrace	SkyPanel 150 3000	3	37.8		26.6

GIB EzyBrace® 2011

GIB

BRANZ Appraised
Appraisal No.294 [2011]

GIB - Timber Floors - A limit of 120BU/m for NZS3604:2011 timber floors applies unless specific engineering ensues that uplift forces generated by elements rated higher than 120BU/m can be resisted by floor framing.

Single Story	Site 5 Waianga Place Omepere	Snow Zone			Earthquake Zone 1	
Bracing Element Schedule		Wind Zone V High			Soil Class A + B	
Along		Enter GIB				
Wall or Bracing Line	Bracing Elements provided	Brace Length			Wind	Earthq.

1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Available Wall Length L(m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	enter	1	Skybrace	SkyPanel 150 2400	2.4	2.4		91	64
		2							
line totals		3							
W	91	4							
EQ	64	5							
B	enter	1	Skybrace	SkyPanel 150 2400	2.4	2.4		91	64
		2							
line totals		3							
W	91	4							
EQ	64	5							
C	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
D	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

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	Wind	Earthq.
Totals Achieved	181	128
	OK	OK
Totals Required from Bracing Requirements Sheet	174	121

Across

M	enter	1	Skybrace	Sky600	0.6	2.4		62	56
		2	Skybrace	Sky1200 60mm	1.2	2.4		95	95
line totals		3							
W	157	4							
EQ	151	5							
N	enter	1	Skybrace	Sky1200 60mm	1.2	2.4		95	95
		2	Skybrace	Sky600	0.6	2.4		62	56
line totals		3							
W	157	4							
EQ	151	5							
O	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
P	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

	Wind	Earthq.
Totals Achieved	314	302
	OK	OK
Totals Required from Bracing Requirements Sheet	300	121

Skyline Bracing Element Ratings

Supplier	System	Length (m)	BUs W/m	BUs EQ/m	Supplier	System	Length (m)	BUs W/m	BUs EQ/m
Skybrace	Sky600	0.6	103	93	Skybrace	Sky1800	1.8	72.20	70
Skybrace	Sky1200 60m	1.2	79.20	79.20	Skybrace	Sky2400	2.4	63.80	58.8

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"Skyline" Cladding Specification

Exterior Walls

- Exterior Lining-prepainted .55mm gauge aluminium/zinc alloy steel weatherboard (Colorcote) cold roll-formed profile.

- Refer to Technical Information brochure from "Colorcote Pre-painted Metal Products" for material and coating specifications.

Roofing

- Roofing iron is long-run 0.4mm pre-painted zinc-aluminium alloy coated steel 6 rib "Skyrib" cold roll-formed trapezoidal profile unless otherwise stated on the plans.

- Refer to Technical Information brochure from "Colorcote Pre-painted Metal Products" for material and coating specifications.

Technical Services
Skyline buildings
20 September 2006

"Skyline" Cladding Specification

Exterior Walls

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Technical Services
Skyline buildings
20 September 2006

SKYLINE BUILDINGS

TRUSS DETAILS

pryda

PRODUCER STATEMENT – PS1 - (DESIGN)

All roof trusses for **Skyline Buildings Ltd.** reflected in this producer statement comply with revised Building Act (2004) and Approved Documents B1 (Structure) & B2 (Durability). The roof trusses covered by this PS1 have a drawing job no. **19476a** and are attached.

The truss designs for this project have been determined using computer software provided by the Technical Division within Pryda Truss Systems. The software is maintained and overseen by chartered engineers in Australia and New Zealand to comply with the building codes in both countries. In New Zealand the software is regularly checked for structural integrity and building code compliance by the writer and various other staff.

DESIGN CRITERIA

Roofing – Corrugated Iron	Ceiling –Nil
Top chord purlins restraints	- 1000 mm
Bottom chord restraints	- 1500 mm
Maximum truss spacing	- 1200 mm
Standard roof pitch	- 15 deg
Design wind speed	- 46m/s (equal to 50m/s for residential)
Open ground snow load	- 1.0 kPa
Int. pressure coefficient up	- 0.2
Building important level	- 1

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code.

These designs are in accordance with sound and widely accepted engineering principles and comply with the following New Zealand Standards:

AS/NZS 1170: 2002	Structural Design Actions
NZ3603 : 1993	Timber Design
AS1649 : 2001	Determination of Basic Working Loads for Metal Fasteners for Timber

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

The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $500,000.

26 November 2013

Andre' van Blerk

BSc (Eng) MIPENZ (214689) CPEng IntPE
Pryda NZ (a division of ITW New Zealand)
Engineering Department

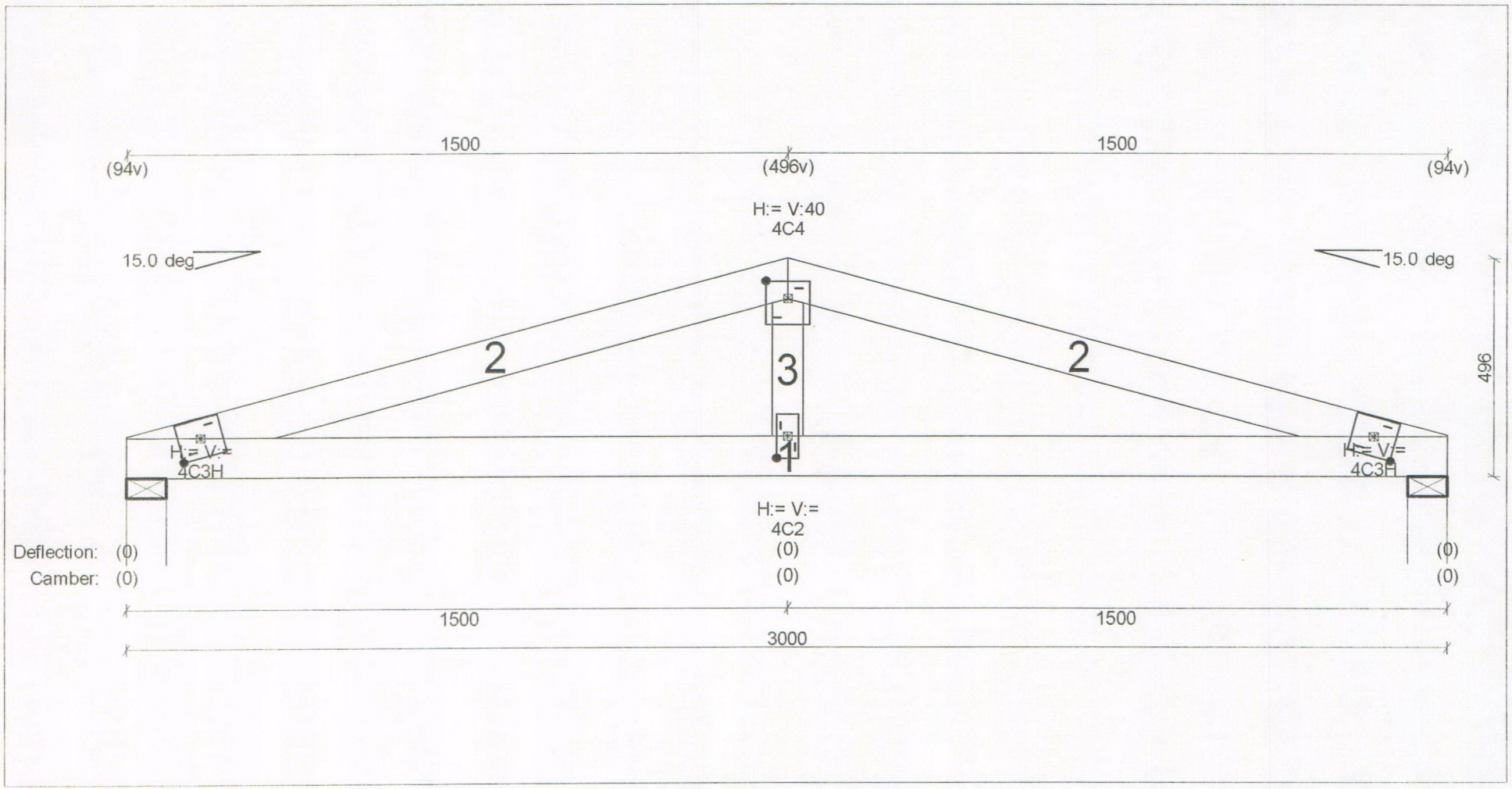
DDI: 09 477 2964
MOB: 021 790 946

Pryda New Zealand
A Division of ITW NZ Pty Ltd CHRISTCHURCH Ph (03) 964 4515 Fax (03) 964 4517

Customer: Skyline
Detailer: <None>
Job: 19476a

PRODUCTION SHEET

Job: 19476a
"S1" - 1 Single Truss - (45mm thick)
Approx truss weight : 12 kg



Timber Group: MSG

ID	Type	Timber	Qty	Length	Bracing
1	BC	90MSG8 H1_2	1	3000	
2	TC	90MSG8 H1_2	2	1553	

ID	Type	Timber	Qty	Length	Bracing
3	Web	70MSG8 H1_2	1	313	