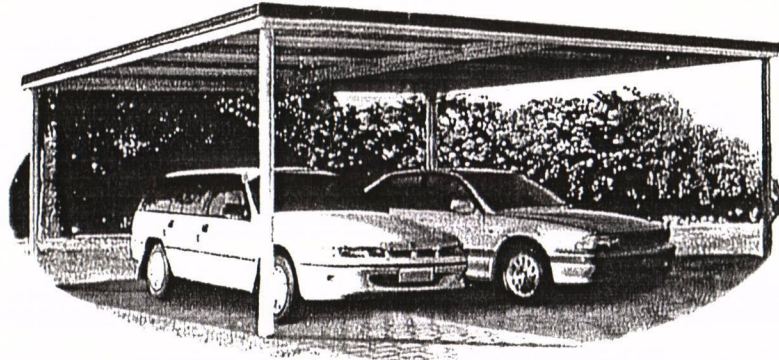




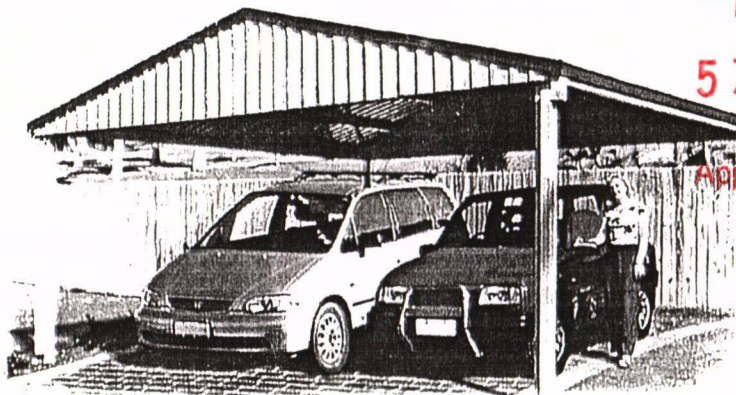
CARPORTS

Flat Roof



Depth = 5.88m, Width = single 3m, double 5.88m. Extensions can be added to this building so a maximum width of 30m (Nominal Size) can be achieved. Heights = 2.4m, 3m, 3.6m & 4.2m. Wind Zone = Up to and including high wind only.

Gable Roof



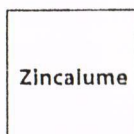
TIMARU DISTRICT COUNCIL
BUILDING CONSENT

57316 - 2 2.1

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Depth = 5.88m, Width = Double 5.88m. (Singles are not available). Extensions can be added to this building so a maximum depth of 30m (Nominal Size) can be achieved. Heights = 2.4m, 3m, 3.6m & 4.2m. Wind Zone = Up to and including high wind only.

Colours
available:
(one colour per
building)



Colours are a guide only, ask to see sample for accurate colours.

Totalspan Offers:

- Complete Kitsets with all instructions included
- Written quotes
- Construction service available

Visit us on the Internet www.totalspan.co.nz

Totalspan Buildings

76 Hilton Highway

Timaru

Phone: 03 688 7066

Free Phone: 0800 10 35 45

0275 463897.



Steel Carports - RETAIL

High Wind Zone

GST Inclusive

Effective: 16th April 2007

Coloured

Height	2.4	3.0	3.6	4.2
--------	-----	-----	-----	-----

Flat Roof

3.0m x 6.0m	1,653	1,703	1,773	1,822
6.0m x 6.0m	2,507	2,559	2,628	2,678
9.0m x 6.0m	3,964	4,041	4,142	4,218
12.0m x 6.0m	4,560	4,634	4,729	4,801
Additional 6.0m Bay	2,053	2,076	2,101	2,123

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Gable Roof

6.0m x 6.0m	3,006	3,064	3,154	3,203
9.0m x 6.0m	4,709	4,795	4,916	4,993
12.0m x 6.0m	52,223	5,304	5,420	5,492
Additional 6.0m Bay	2,217	2,240	2,266	2,289

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Zinc

Height	2.4	3.0	3.6	4.2
--------	-----	-----	-----	-----

Flat Roof

3.0m x 6.0m	1,528	1,582	1,680	1,701
6.0m x 6.0m	2,279	2,330	2,429	2,450
9.0m x 6.0m	3,611	3,693	3,822	3,870
12.0m x 6.0m	4,162	4,238	4,360	4,406
Additional 6.0m Bay	1,884	1,908	1,931	1,957

our size.

Gable Roof

6.0m x 6.0m	2,641	2,699	2,792	2,840
9.0m x 6.0m	4,182	4,269	4,394	4,470
12.0m x 6.0m	4,656	4,738	4,855	4,930
Additional 6.0m Bay	2,016	2,039	2,065	2,091

Slab fixing plate per leg \$ 20.62

Price to Construct

Flat Roof		Height:	2.40	3.00	3.60	4.20
6.0m x 3.0m	In ground		1,118.75	1,145.00	1,203.76	1,263.75
	On slab		831.60	851.40	894.00	938.30
6.0m x 6.0m	In ground		1,318.75	1,351.25	1,418.75	1,156.10
	On slab		1,024.10	1,049.40	1,102.22	1,156.10

Concrete Floor

Single 6.0m x 3.0m	1,814.00
Double 6.0m x 6.0m	3,342.00

Additional bays and Gable Roof POA
No Permit fees allowed for

Proposed

Garage

FREDERICK R SMITH Consulting Structural and Civil Engineer
PO Box 11350, Sockburn, Christchurch, NZ Telephone 03 348 1521 Facsimile 03 348 1571

Size to Build

6m x 3m x 3.6
Long Wide High

PRODUCER STATEMENT – DESIGN

Issued by: Frederick Roland Smith
to: Totalspan Buildings a Division of Versatile Buildings Ltd
for the: Local Territorial Authority
in respect of: steel framed Totalspan buildings

Frederick R Smith Consulting Engineer has been engaged to provide design services in respect of the requirements of Clause B1 and B2 of the Building Regulations 1992 for all of the work as specified of the building work.

The design has been checked in accordance with B1/VM1, B1/VM4, B2/VM1, AS/NZS 1170:2002, NZS 3101 and AS/NZS 4600 of the approved documents issued by the Building Industry Authority and the work is described on the drawings prepared by Frederick R Smith Consulting Engineer as:-

(a) Enclosed Buildings

TS3000 3.0m bay spacings	3.5, 4.0, 5.0, 6.0 and 7.0m spans/1 to 19 TS 3000 Table 1 TS 3000 Table 4 Sheets 1 to 3 TS 3000 Table 6 Sheets 1 to 3 TS 3000 Table 7 Sheets 1 to 3	
TS5000-NZL 3.0 bay spacings	75/S45/1 to 4 90/S45/1 to 4 12/S45/1 to 5 Bracing sheets 1 & 2 Garaports	75/S50/1 to 4 90/S50/1 to 4 12/S50/1 to 5 6m Lintels
TS6000-NZL 3.5 bay spacings	75/S45/1 to 4 90/S45/1 to 4 12/S45/1 to 5 Bracing sheets 1 & 2 Garaports	75/S50/1 to 4 90/S50/1 to 4 12/S50/1 to 5 7m Lintels
TS7000-NZL 4.0 bay spacings	4/S45/1 to 3 6/S45/1 to 3 7/S45/1 to 3 75/S45/1 to 3 90/S45/1 to 3 12/S45/1 to 4 Bracing sheets 1 & 2 Garaports	4/S50/1 to 3 6/S50/1 to 3 7/S50/1 to 3 75/S50/1 to 3 90/S50/1 to 3 12/S50/1 to 4 8m Lintels 3m wide Awnings
<u>4m, 5m, 6m wide Awnings</u>		
TS1040-NZL	4A/S45/1	4A/S50/1
TS1050-NZL	5A/S45/1	5A/S50/1
TS1060-NZL	6A/S45/1	6A/S50/1
TS456F-NZL	4A/5A/6A/F (foundation details)	

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2.

Firewalls

Firewalls up to 3.6m high
Firewalls up to 6.4m high

Firewalls/36
Firewalls/64

Heritage Barns

00045NZ

HB/S45/1 to 4

HB/S50/1 to 4

0.40 BMT Roof Cladding

0.4 B.M.T/1

(b) Gable Roofed Carports

TSG93046NZ

TSFG93046-NZ sheets 1 and 2

TSGRC/S45/1 and 2

(c) Flat Roofed Carports

TSFS93046NZ

TSF93046NZ

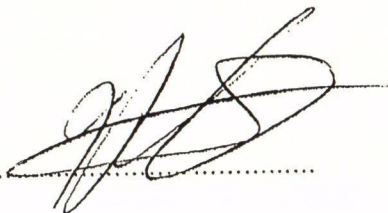
TSFS93046-NZ sheets 1 to 3

TSFRCS/S45/1

TSFRC/S45/1 and 2

As a designer I have taken all reasonable steps to verify design assumptions. I am satisfied on reasonable grounds that in relation to the building work specified above the provisions of the Building Code would be met if the building work were properly completed in accordance with the drawings, specifications and other documents according to which the building is proposed to be constructed and which have been submitted with the application. I understand this Producer Statement if accepted may be relied upon for the purpose of establishing compliance with the Building Code.

signed.....



BE(civil), CPeng(NZ) MIPENZ, MACENZ
CPeng(Aust), MIEAust 2410880 RPEQ 6225

Date:

21 March 2007

Address:

504 Blenheim Road
Christchurch

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BUILDING CONSENT

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TOTALSPAN BUILDINGS LTD

MANUFACTURERS STATEMENT – DURABILITY

To satisfy the requirements of Clause B2: "Durability" of the NZBC and to ensure the cladding material meets a durability life be 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: Standard Totalspan RoofCladding on Class V Building category as per NZS4203:1992 and AS1170.2: 2002 Table 3.2.9
- Fasteners: Screws to be #10 x 16 Tek screws, Class 3 Zinc plated to comply with AS/NZS1111.2-2000
Bolts to be M10 & M12- 4.6.3 Hex commercial zinc plated to comply with AS/NZS 1111.2-2000
Screwbolts to be M10x75 Zinc plated complying with AS3566.2-2002

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 Totalspan Buildings Fixing Guide
- 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 whenever corrosive salts are present.

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 manufacturers recommendations are to be followed for surface preparation and paint type to be used.
- **Evident Corrosion**
Areas that 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 air 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, Clause 4, Durability.
2. Totalspan Buildings Assembly Instructions
3. New Zealand Building Code 2004
4. Australian Building Code 1989

Jeffrey Geasley

for Totalspan Buildings Ltd

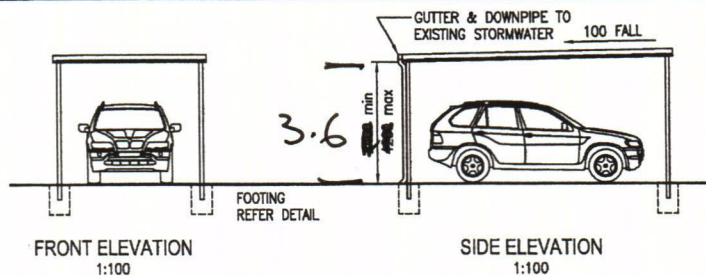
112 Waterloo Road
Christchurch
NEW ZEALAND

Dated: 27th November 2006

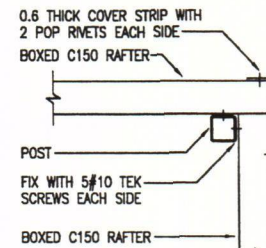
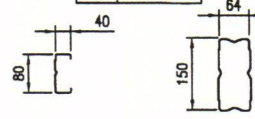
TIMARU DISTRICT COUNCIL
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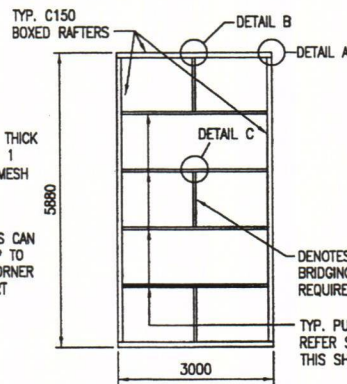
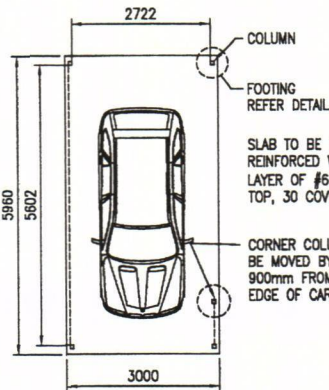
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RAFTER SCHEDULE	
S45	C15010
S50	C15015



DETAIL A
1:10

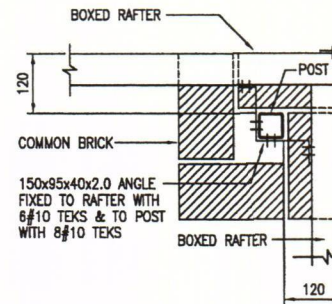


PURLIN SCHEDULE

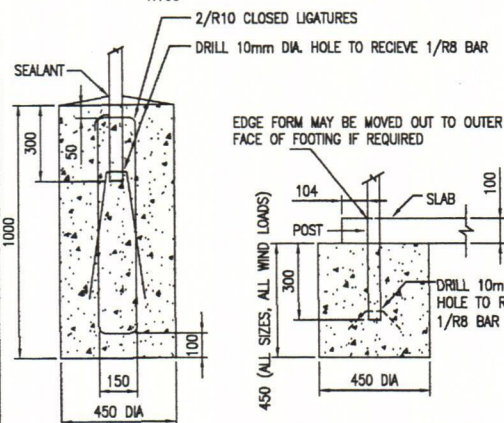
- ALL PURLINS TO BE SINGLE 80x40 CRIMPED 'C'S
- ALL HEIGHTS:
6 TO 30m WIDE:
S45 S50
*3 PURLINS *4 PURLINS
- ALL PURLINS TO BE EVENLY SPACED FROM EDGE OF RAFTERS.
- * DENOTES BRIDGING. REFER FRAMING PLAN FOR DETAILS.
- IN SNOW CONDITIONS ALL PURLINS MUST BE BOXED WITHOUT BRIDGING

COLUMNS:- SHALL BE G450 SHS;
S45/S50:
2.4, 3.0, 3.6, & 4.2m;
75x75x2.0

SLAB SIZE: 5960x3000

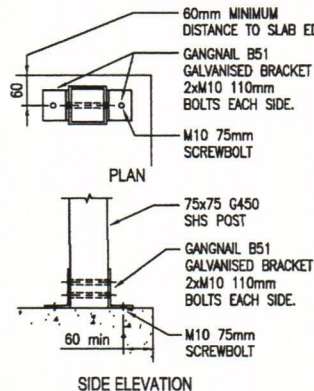


ALTERNATIVE POST TO RAFTER CONNECTION
(IF POSTS ARE TO BE BRICKED IN)
1:10

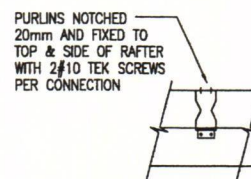


LEG CAST INTO FOOTING
1:20

OPTIONAL LEG CAST INTO
FOOTING WITH SLAB ON TOP
1:20

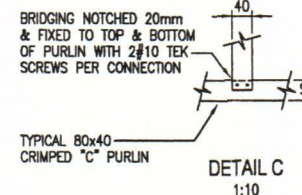


ALTERNATIVE OPTION COLUMN
FIXING TO EXISTING SLAB
1:10



DETAIL B
1:10

SPlicing DETAIL
(TYPICAL FOR SPliced 8m LONG BEAMS)
1:50



GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED FOR ANY FABRICATION OR ERECTION DETAILS.
- AT SETOUT, DIAGONALS MUST BE CAREFULLY CHECKED TO ENSURE BUILDING IS SQUARE.

LOADINGS

- STRUCTURE HAS NOT BEEN DESIGNED TO CARRY OCCASIONAL LOADING AS STIPULATED IN 3.8.3 OF AS/NZS 1170.1.
- WIND LOAD IN ACCORDANCE WITH AS/NZS 1170.2
REGION A6,A7 S45
REGION W S50
- ROOF LIVE LOAD: - 0.25 kPa GENERALLY IN ACCORDANCE WITH AS/NZS 1170.1
- A ROOF SNOW LOAD OF 0.55 kPa IS OBTAINABLE WHEN PURLINS ARE BOXED. HIGHER SNOW LOAD REQUIRES SPECIFIC DESIGN CONCRETE

- SERVICES OF AN EXPERIENCED CONSULTING ENGINEER SHOULD BE ENGAGED TO ADVISE ON SUITABILITY OF SOIL CONDITIONS.
- CONCRETE SHALL HAVE MAXIMUM AGGREGATE SIZE OF 20mm, SLUMP OF 80+/-20 AND ULTIMATE COMPRESSION STRENGTH AT 28 DAYS OF 20 MPa
- CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION AND BE COMPACTED BY EXTERNAL VIBRATION OR HAND TAMPING.
- FOOT EXCAVATIONS SHALL BE THOROUGHLY CLEANED OF ALL LOOSE MATERIAL BEFORE PLACING CONCRETE.
- FOUNDING MATERIAL SHALL HAVE SAFE BEARING CAPACITY OF 75kPa.
- POUR SLAB ON 50mm COMPACTED SAND AND 200um POLYTHENE WATERPROOF MEMBRANE (LAPPED 200 AND SEALED WITH APPROPRIATE TAPE). - OPTIONAL BUT RECOMMENDED

STEELWORK

- ALL STRUCTURAL FRAMING MEMBERS SHALL BE G450 GRADE STEEL U.N.O. AND ALL CLEATS SHALL BE G450 GRADE STEEL GALVANISED TO MIN Z200. POSTS SHALL BE G450, REFER DRAWING
- ROOF SHEETING SHALL BE G550 GRADE STEEL PROTECTED WITH ZINCALUME AZ150. ROOF SHEETING CAN BE REPLACED WITH CLEAR ROOF 1800GSM PANEL FIXED TO MANUFACTURERS SPECIFICATIONS. A HIGHER GSM RATE MAY BE REQUIRED FOR SNOW AREA'S.
- PURLINS & BRIDGING TO BE EX. 80x40 LIPPED CRIMPED CHANNELS 0.75mm B.M.T.
- CLADDING SHEET IS TO BE FIXED AS FOLLOWS:-
S45 - AT ENDS OF SHEETS WITH 1 SCREW EVERY RIB AND AT OTHER PURLINS WITH 1 SCREW EVERY SECOND RIB
S50 - AT ENDS OF SHEETS WITH 1 SCREW EVERY RIB AND AT OTHER PURLINS WITH 1 SCREW EVERY RIB
ALL SCREWS INTO ROOF SHEETING TO HAVE NEOPRENE WASHERS.
- NOTCH PURLINS AND FIX TO RAFTERS WITH 2#10 TEKs PER FLANGE EACH END
- SCREWS CONNECTING STRUCTURAL MEMBERS TO BE WAFERTEKS No10 U.N.O. MANUFACTURED BY DEUTSCHER (OR EQUIVALENT) WITH MIN. EDGE DISTANCE OF 6mm AND MIN. PITCH OF 12mm.
- RIDGES, BARGES AND ALL PENETRATIONS TO BE FLASHED WITH 0.4mm ZINCALUME FINISHED STEEL.
- GUTTER AND DOWNPIPES TO BE FITTED AND DISCHARGED TO EXISTING STORMWATER SYSTEM. SPLICE GUTTER AT CENTRE OF BUILDING. PROVIDE TWO SCREWS INTO EACH WEB AND SEAL WITH SILICONE.
- STEELWORK SHALL ALL COMPLY WITH THE REQUIREMENTS OF:-
AS/NZS 1170 PARTS 1&2 LOADING CODES
AS 4100 STEEL STRUCTURE CODES
AS/NZS 4600 COLD FORMED STEEL STRUCTURE CODE
AS 1562 DESIGN AND INSTALLATION OF METAL ROOFING
AS 1111/1112 METRIC HEXAGON COMMERCIAL BOLTS AND SCREWS
AS 2313 GUIDE TO THE PROTECTION OF IRON AND STEEL
AS 3566 SELF DRILLING SCREWS FOR BUILDING & CONSTRUCTION INDS

FREDERICK R SMITH
Chartered Consulting Engineer
504 Blenheim Road
Christchurch, NZ
Phone +64 03 348 1521

I certify that buildings erected in accordance with these drawings will comply with the New Zealand Building Code.

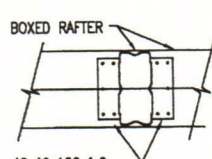
F R Smith
BS (Civil) MIPENZ MACENZ MIEAust CPEng RPEQ
(6225)

TOTALSPAN BUILDINGS
A Division of VERSATILE BUILDINGS LTD
112 Waterloo Road, Hornby
P.O.Box 11-013, Christchurch
PH: (09) 261 2306 FAX: (09) 262 1535

REGIONS A6, A7 & W
WIND SPEED:
S45m/s (High)
S50m/s (Very High)

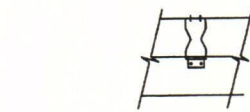
SINGLE FLAT ROOF CARPORT

JOB No.
TSFC93046-NZ
DRAWING No.
1
REVISION SUFFIX



40x40x120x1.2
ANGLE BRACKETS
WITH 5/10 TEK SCREWS
PER CONNECTION

DETAIL B
1:10



C150 BOXED RAFTER

PURLINS NOTCHED
20mm AND FIXED TO
TOP SIDE OF RAFTER
WITH 2/10 TEK SCREWS
PER CONNECTION

DETAIL C
1:10

BRIDGING NOTCHED 20mm
& FIXED TO TOP & BOTTOM
OF PURLIN WITH 2/10 TEK
SCREWS PER CONNECTION

TYPICAL 80x40
CRIMPED 'C' PURLIN

DETAIL D

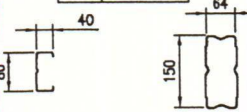
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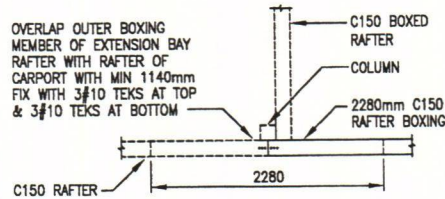
RAFTER SCHEDULE

S45	C15010
S50	C15015

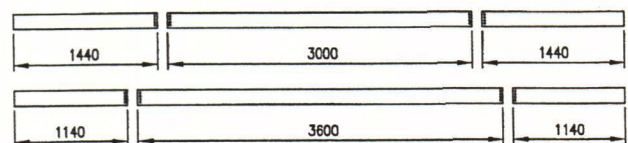


TYPICAL 80x40
CRIMPED 'C' PURLIN

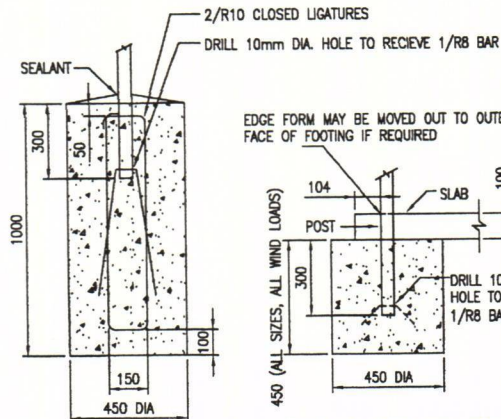
TYPICAL C150
BOXED RAFTER



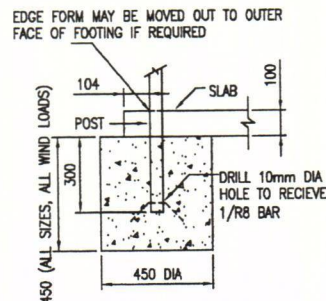
DETAIL E - SPLICING DETAIL
(TYPICAL FOR CARPORT EXTENSION)
1:50



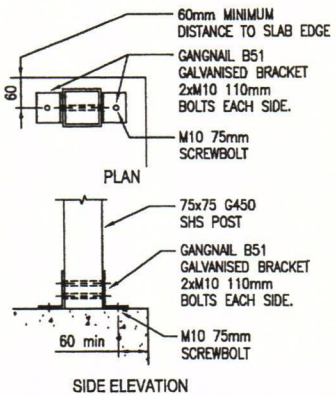
SPLICING DETAIL
(TYPICAL FOR SPLICED 8m LONG BEAMS)
1:50



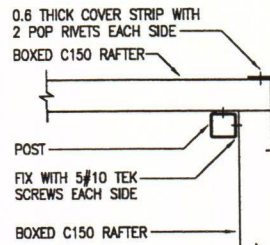
LEG CAST INTO FOOTING
1:20



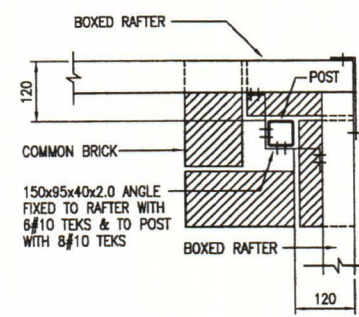
OPTIONAL LEG CAST INTO
FOOTING WITH SLAB ON TOP
1:20



ALTERNATIVE OPTION COLUMN
FIXING TO EXISTING SLAB
1:10



DETAIL A
1:10



ALTERNATIVE POST TO RAFTER CONNECTION
(IF POSTS ARE TO BE BRICKED IN)
1:10

GENERAL NOTES

1. DRAWINGS SHALL NOT BE SCALED FOR ANY FABRICATION OR ERECTION DETAILS.
2. AT SETOUT, DIAGONALS MUST BE CAREFULLY CHECKED TO ENSURE BUILDING IS SQUARE.

LOADINGS

1. STRUCTURE HAS NOT BEEN DESIGNED TO CARRY OCCASIONAL LOADING AS STIPULATED IN 3.8.3 OF AS/NZS 1170.1.
2. WIND LOAD IN ACCORDANCE WITH AS/NZS 1170.2
REGION A6,A7 S45
REGION W S50
3. ROOF LIVE LOAD; - 0.25 kPa GENERALLY IN ACCORDANCE WITH AS/NZS 1170.1
4. A ROOF SNOW LOAD OF 0.55 kPa IS OBTAINABLE WHEN PURLINS ARE BOXED. HIGHER SNOW LOAD REQUIRES SPECIFIC DESIGN

CONCRETE

1. SERVICES OF AN EXPERIENCED CONSULTING ENGINEER SHOULD BE ENGAGED TO ADVISE ON SUITABILITY OF SOIL CONDITIONS.
2. CONCRETE SHALL HAVE MAXIMUM AGGREGATE SIZE OF 20mm, SLUMP OF 80+/-20 AND ULTIMATE COMPRESSION STRENGTH AT 28 DAYS OF 20 MPa
3. CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION AND BE COMPACTED BY EXTERNAL VIBRATION OR HAND TAMPING.
4. FOOT EXCAVATIONS SHALL BE THOROUGHLY CLEANED OF ALL LOOSE MATERIAL BEFORE PLACING CONCRETE.
5. FOUNDING MATERIAL SHALL HAVE SAFE BEARING CAPACITY OF 75kPa.
6. POUR SLAB ON 50mm COMPACTED SAND AND 200um POLYTHENE WATERPROOF MEMBRANE (LAPPED 200 AND SEALED WITH APPROPRIATE TAPE). - OPTIONAL BUT RECOMMENDED

STEELWORK

1. ALL STRUCTURAL FRAMING MEMBERS SHALL BE G450 GRADE STEEL U.N.O. AND ALL CLEATS SHALL BE G450 GRADE STEEL GALVANISED TO MIN Z200. POSTS SHALL BE G450, REFER DRAWING
2. ROOF SHEETING SHALL BE G550 GRADE STEEL PROTECTED WITH ZINCALUME AZ150. ROOF SHEETING CAN BE REPLACED WITH CLEAR ROOF 1800GSM PANEL FIXED TO MANUFACTURERS SPECIFICATIONS. A HIGHER GSM RATE MAY BE REQUIRED FOR SNOW AREA'S.
3. PURLINS & BRIDGING TO BE EX. 80x40 LIPPED CRIMPED CHANNELS 0.75mm B.M.T.
4. CLADDING SHEET IS TO BE FIXED AS FOLLOWS:-
S45 - AT ENDS OF SHEETS WITH 1 SCREW EVERY RIB AND AT OTHER PURLINS WITH 1 SCREW EVERY SECOND RIB
S50 - AT ENDS OF SHEETS WITH 1 SCREW EVERY RIB AND AT OTHER PURLINS WITH 1 SCREW EVERY RIB
ALL SCREWS INTO ROOF SHEETING TO HAVE NEOPRENE WASHERS.
5. NOTCH PURLINS AND FIX TO RAFTERS WITH 2/10 TEKs PER FLANGE EACH END
6. SCREWS CONNECTING STRUCTURAL MEMBERS TO BE WAFERTEKS No10 U.N.O MANUFACTURED BY DEUTSCHER (OR EQUIVALENT) WITH MIN. EDGE DISTANCE OF 6mm AND MIN. PITCH OF 12mm.
7. RIDGES, BARGES AND ALL PENETRATIONS TO BE FLASHED WITH 0.4mm ZINCALUME FINISHED STEEL.
8. GUTTER AND DOWNPIPES TO BE FITTED AND DISCHARGED TO EXISTING STORMWATER SYSTEM. SPLICE GUTTER AT CENTRE OF BUILDING. PROVIDE TWO SCREWS INTO EACH WEB AND SEAL WITH SILICONE.
9. STEELWORK SHALL ALL COMPLY WITH THE REQUIREMENTS OF:-
AS/NZS 1170 PARTS 1&2 LOADING CODES
AS 4100 STEEL STRUCTURE CODES
AS/NZS 4600 COLD FORMED STEEL STRUCTURE CODE
AS 1562 DESIGN AND INSTALLATION OF METAL ROOFING
AS 1111/1112 METRIC HEXAGON COMMERCIAL BOLTS AND SCREWS
AS 2313 GUIDE TO THE PROTECTION OF IRON AND STEEL
AS 3566 SELF DRILLING SCREWS FOR BUILDING & CONSTRUCTION IND

FREDERICK R SMITH
Chartered Consulting Engineer
504 Blenheim Road
Christchurch, NZ
Phone +64 03 348 1521

I certify that buildings erected in accordance with these drawings will comply with the New Zealand Building Code.

F R Smith
BE (civil) MIPENZ MACENZ MIEAust CPEng RPEQ (2025)

TOTALSPAN BUILDINGS
A Division of VERSATILE BUILDINGS LTD
112 Waterloo Road, Hornby
P.O.Box 11-013, Christchurch
PH: (09) 261 2306 FAX: (09) 262 1535

REGIONS A6, A7 & W

WIND SPEED:
S45m/s (High)
S50m/s (Very High)

DOUBLE FLAT ROOF CARPORT
DETAILS & NOTES

JOB No.
TSFC93046-NZ

DRAWING No.
3

REVISION SUFFIX

T.D.C.

25 JUN 2007

BUILDING ADVISORY
SERVICES

GIB® Wall Bracing Calculation Sheet A**single storey**

V85A

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Job Details

Name	IAN CHAPMAN	note
Street and Number	6 GAMMACK ST	cells D4 and D8 appear as LH and RH
Lot and DP Number		headers on all printed sheets
City/Town/District	TEMUKA	
Designer and date	M.E.THOMSON	13-Jun-07
Company Name	MILWARD FINLAY LOBB	

Building Specification

Location of Storey	single	▼
Floor Loading	2 kPa	▼
Foundation Type	slab	▼
Building Height to Apex (m)	4	▼
Roof Height above Eaves (m)	1	▼
Stud Height (m)	2.4	▼
Cladding Weight (top or single)	light	▼
Cladding Weight (lower)	light	▼
Cladding Weight (subfloor)	light	▼
Roof Weight	light	▼
Roof Pitch (degrees)	0-25	▼
Room in Roof Space	no	▼
Building Length (m)	8	
Building Width (m)	6	
Gross Building Plan Area (m2)	48	

not applicable (single storey building)

not applicable (slab)

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Building Location**Wind Zone****Low**

Region	R1	▼
Terrain	Inland	▼
Exposure	Sheltered	▼
Topography	Gentle	▼

Earthquake Zone

C ▼

Enter at least 'moderate' in a Lee Zone

Bracing Units required for Wind

per m	subfloor	walls
W along	n/a	26 BUs/m
W across	n/a	18 BUs/m
Totals	subfloor	walls
W along	n/a	156 BUs
W across	n/a	144 BUs

Bracing Units required for Earthquake

per m2	subfloor	walls
E	n/a	1.8 BUs/m2
Totals	subfloor	walls
E along	n/a	86 BUs
E across	n/a	86 BUs

GIB® Wall Bracing Calculation Sheet B

single storey

V85A

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Along									
Wall or Bracing Line	Bracing Elements provided							Wind	Earthq.
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
A	enter	1	PLY 7mm	SPST1	1.2	2.4		108	96
		2	PLY 7mm	SPST1	1.2	2.4		108	96
line totals		3							
W	216	4							
EQ	192	5							
B	enter	1	PLY 7mm	SPST1	1.2	2.4		108	96
		2							
line totals		3							
W	108	4							
EQ	96	5							
C	enter	1	PLY 7mm	SPST1	1.2	2.4		108	96
		2	PLY 7mm	SP1	0.9	2.4		90	90
line totals		3							
W	198	4							
EQ	186	5							
D	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
E	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
F	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
G	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
H	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

Wind Earthq.

Totals Achieved								522	474
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OK OK

Totals Required (from Sheet A)								156	86
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GIB® Bracing Systems, 2006

*For full construction details see literature
GIB® Bracing Systems, 2006*

Supplier	System	Minimum Length (m)	BU's W/m	BU's EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
PLY 7mm	SPST1	1.2	90	80
PLY 7mm	SP2	0.6	85	85
PLY 7mm	SP1	0.9	100	100
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			

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GIB® Wall Bracing Calculation Sheet B

single storey

V85A

GIB® EzyBrace™

GIB® Bracing Systems, 2006

Across									
Wall or Bracing Line		Bracing Elements provided					Wind	Earthq.	
1	2	3	4	5	7	8	6	9W	10EQ
Line Label	Minimum BUs Req/Ach	Bracing Element No.	Supplier	Bracing Type	Element Length L (m)	Element Height H (m)	Angle to Bracing line (degrees)	BUs Achieved	BUs Achieved
M	enter	1	PLY 7mm	SPST1	2.4	2.4		216	192
		2	PLY 7mm	SPST1	1.2	2.4		108	96
line totals		3							
W	324	4							
EQ	288	5							
N	enter	1	PLY 7mm	SPST1	1.2	2.4		108	96
		2	PLY 7mm	SPST1	1.2	2.4		108	96
line totals		3							
W	216	4							
EQ	192	5							
O	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
P	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
Q	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
R	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
S	enter	1							
		2							
line totals		3							
W		4							
EQ		5							
T	enter	1							
		2							
line totals		3							
W		4							
EQ		5							

							Wind	Earthq.
Totals Achieved							540	480

							OK	OK
Totals Required (from Sheet A)							144	86

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GIB® Bracing Systems, 2006

*For full construction details see literature
GIB® Bracing Systems, 2006*

Supplier	System	Minimum Length (m)	BUs W/m	BUs EQ/m
	none			
GIB®	GS1a	1.8	65	55
		2.4	75	65
GIB®	GS2	1.2	70	60
		1.8	80	70
		2.4	90	80
GIB®	BL1	0.4	120	115
		0.6	125	115
GIB®	BL1a	1.8	130	115
GIB®	BLP	0.6	145	135
		0.9	145	145
GIB®	BLG	0.6	145	130
		1.2	150	130
PLY 7mm	SPST1	1.2	90	80
PLY 7mm	SP2	0.6	85	85
PLY 7mm	SP1	0.9	100	100
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			
Custom	Custom			

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Type	Minimum Length (m)	Minimum Plywood Thickness (mm)	Nail Spacing (mm)	Hold-down (kN)	Stud Spacing (mm)	Bracing Units/m (20 bracing units = 1kN) Wind Earthquake	
Ratings for plywood component only							
SP4	0.45	7	75	6	450	70	85
SP2	0.6	7	150	6	600	85	85
SP1	0.9	7	150	6	450 or 600	100	100
SPST1	1.2	7	150	-	600	90	80
SP6	0.9	12	150	6	450 or 600	115	110
SP8D	0.9	7	150	12	450	125	135
SP5D	1.2	7	75	12	600	130	135
SP10	1.8	7	75	6	450	135	135
Ratings for additional sheathing (Gib Board)							
SP2G	0.6	7	150	6	600	95	95
SP1G	0.9	7	150	6	450 or 600	100	100
SP11G	1.8	7	150	6	450 or 600	140	120
BR7	0.9	7	150	6	450 or 600	145	145
SP6G	0.9	12	150	6	450 or 600	120	110
SP6GD	0.9	12	150	12	450 or 600	145	135

CAD1:C:\Winnt\Profiles\LizT\Pe

This table shall be read in conjunction with the product manufacturers specifications.

Please refer to literature produced by:

Catert Holt Harvey - Plybrace, House bracing system manual.

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