

CERTIFICATE OF COMPLIANCE – DESIGN

GENERAL

1. All work shall conform to the Australian and New Zealand building codes and relevant standards.
2. Check diagonals to ensure building is square.
3. Drawing shall not be scaled for any fabrication or erection details.

LOADINGS

1. Roof live load – 0.25KPa in accordance with AS1170.1:2002. Non trafficable roof walk on pangs & purlin locations only or use planks.
2. Wind load in accordance with AS/NZ 1170.2:2002. Wind classification in accordance with AS4055:2006. Building is designed for the following equivalent wind loads:
Region A,W,B – N1, N2 & N3
3. Buildings are capable of sustaining the following ground snow in sub alpine regions in accordance with AS1170.3:1990 N2: Sq=0.9KPa, N3: Sq=1.49KPa

FOUNDATIONS

1. Support ground shall have a safe bearing capacity of at least 100KPa.
2. Footings are to be set in natural ground. In the case of fill, footings are to be designed by an engineer
3. At filled sites the depth to be measured below fill level.
4. For H,E & P soil classifications refer to a registered engineer. Piers for firm or soft clays or loose sand to be designed by an engineer.

CONCRETE

1. Remove vegetation & loose material from the site of the building, back fill with compacted hard fill if required & lay a 50mm binding of bedding sand to the underside of the concrete slab. Ensure the surface of the slab will be at least 100mm above the highest level of cleared ground around the slab.
2. Provide a 0.2mm polythene damp proof & slip layer under the slab taped with 200mm laps. This is optional but recommended.
3. Concrete shall have a maximum aggregate size of 20mm, maximum slump of 80mm & a minimum compressive strength of 20MPa at 28 days.
4. The concrete slab shall be 100mm thick with local thickening at bolt down locations as per details. Provide a continuous thickening of an additional 50mm around the perimeter of the slab. Increase this thickening if the Local council requires the slab to have a higher step from the ground. This thickening is to be a minimum of 100mm wide. Increase the slab thickness to 125mm & mesh to F82 when the shed is to be used for heavy load equipment or storage.
5. Slab to have SL62 mesh with 225 laps & 30mm top cover.
6. Fix frames to concrete with M10 screwbolts screwed into drilled hole embedded to 100mm.

STEELWORK

1. All structural members to be C80x40x0.75bmtG550 cold rolled channel or B80x40 as noted.
2. Ridge beams/ purlin/ eave purlin to be 80x40x0.75bmtG550 cold rolled channel.
3. Boxed channels shall be flanged fixed at 500mm centres.
4. Screws to be #10x16mm long tek screws class 3, fixed at a minimum edge distance of 6mm & a minimum pitch of 12mm. Brackets to be minimum G450 galvanized to Z200.
5. All purlins to be fixed with 2 screws top & bottom U.N.O.
6. All bracing strap to be 50x0.75 G550 with no holes/perforations.

CLADDING

1. Cladding to be minimum 0.35bmt G550 grade steel coated to AZ150 & rolled to profile as per manufacturers specifications.
2. Wall sheeting to be fixed with #10x16 tek screws to sheet pans as per manufacturers specifications.
3. Roof sheeting to be fixed with #12x35 and #10x16 tek screws to sheet ribs and pans as per manufacturers specifications.
4. All roof fixings to have neoprene washers between sheeting and screw.
5. Ridges, barges & all wall penetrations to be flashed with 0.35bmt AZ150 steel as per manufacturers specifications.
6. Hinged doors as per manufacturers design & specifications.

Work certified: Garage Series WS3030

Drawings certified: Knight Consulting drawings WS3030.01–03, WS3130.01–04, WS3230.01–04

I hereby certify that the steel structures in the drawings above have been modelled and analysed using a three dimensional space frame analysis program, and if constructed in accordance with the drawings listed above, shall be capable of sustaining the most adverse combinations of loads to which it will be subjected, as per the requirements of the Standard Building Regulations, BCA and other relevant Australian Standards. The assumptions and design criteria used in the analysis are as follows:

1. Standards used:

- AS 1170.0 Structural Design Actions – General Principles
- AS 1170.2 Structural Design Actions – Wind Actions
- AS 1170.3 Structural Design Actions – Snow Actions
- AS 4600 Cold-formed Steel Structures
- AISC Design of Cold-Formed Steel Structures 3rd Edition
- BCA

2. Wind design:

Importance Level 2.0 Annual probability of exceedance 1/500
Combination Factor: Kc = 0.8, 0.95
Catagory 3

Region A & B

Mzcat = 0.83
Shielding Multiplier = MS = 0.9
Topographic Multiplier = Mt = 1.0
Vdes = 38.8 m/s

3. Roof Live Loads:

0.25kPa, (Non Trafficable Roof)

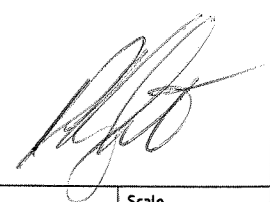
4. Soil test Reference:

Soil Report to be carried out for each site at owners expense.
Footing Design adequate for A & S Class Soils.
For M Class Soils:
Depths of all Footings & Edge Beams to be increased by 100mm.
Minimum Design Pressure: 100 kPa
Footings to be founded in natural stiff material, consult further engineering advise for design on fill or reactive ground.

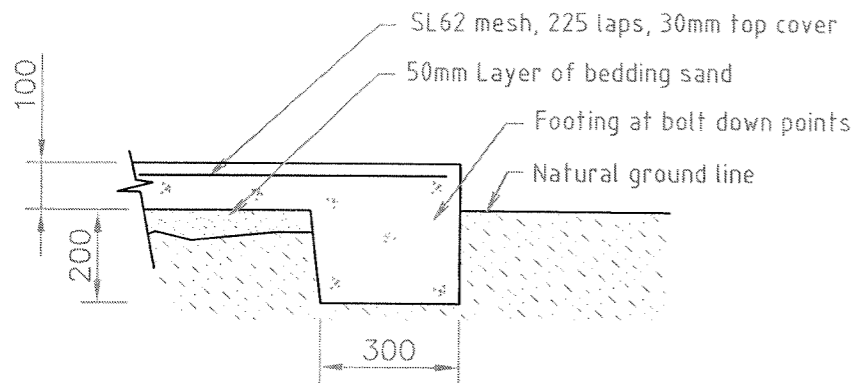
5. Durability:

Durability and protection of materials used as per manufacturers requirements.

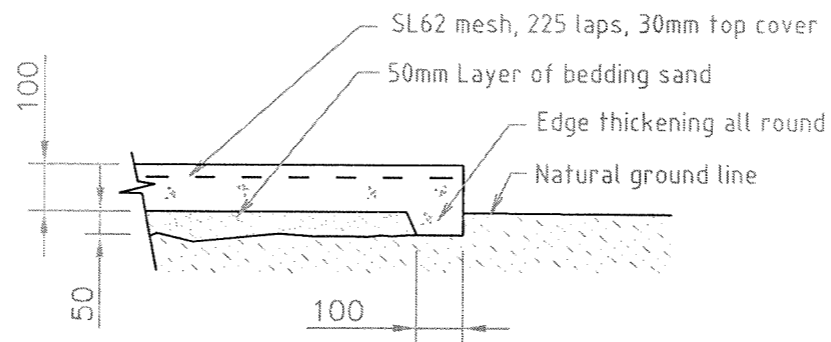
Peter Knight B.E.(Hons)
R.P.E.Q. 2314
for and on behalf of Knight Consulting Pty Ltd



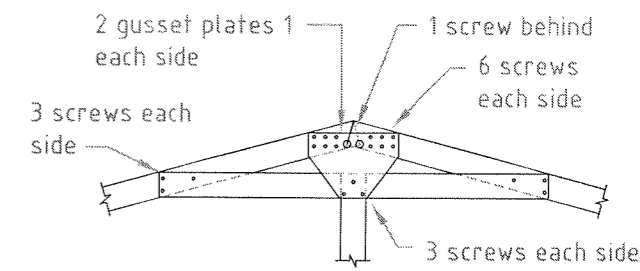
				KNIGHT CONSULTING PTY. LTD. A.C.N. 010 954 462		+	Wind Classification N3 (W41)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale N/A		
74 Platinum St. Crestmead Qld 4132 PH: 07 3827 8000 FAX: 07 3803 2320				Structural Design, Precast Concrete, Design & Management 102 Annerley Road, South Brisbane Q 4101		WORKSHOP SERIES WS3030		STANDARD NOTES						
<table border="0"> <tr> <td style="width: 10px;">A</td> <td style="width: 100px;">Engineer approved</td> <td style="width: 100px;">Dec 2007</td> <td style="width: 100px;">PK</td> </tr> <tr> <td>Rev</td> <td>Revision note</td> <td>Date</td> <td>Checked</td> </tr> </table>		A	Engineer approved	Dec 2007	PK	Rev	Revision note	Date	Checked	COPYRIGHT: These drawings must not be reproduced without express permission of Versatile Buildings (Australia) Pty. Ltd.		Drawing number WS3030.01	Revision A	Sheet 1 of 3
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Rev	Revision note	Date	Checked											



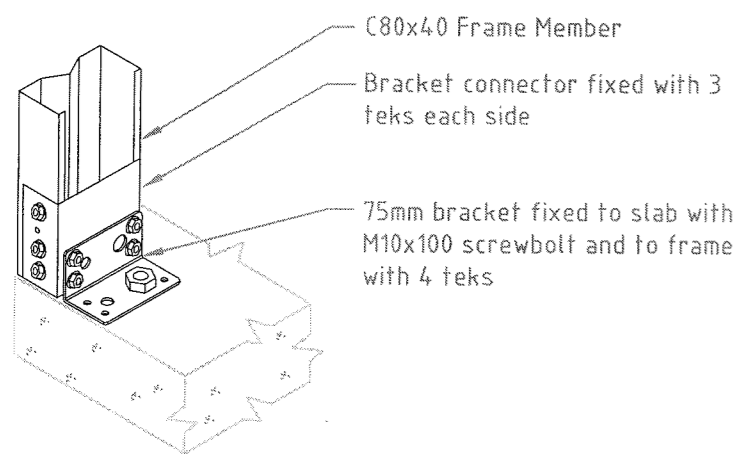
FOOTING DETAIL



EDGE DETAIL

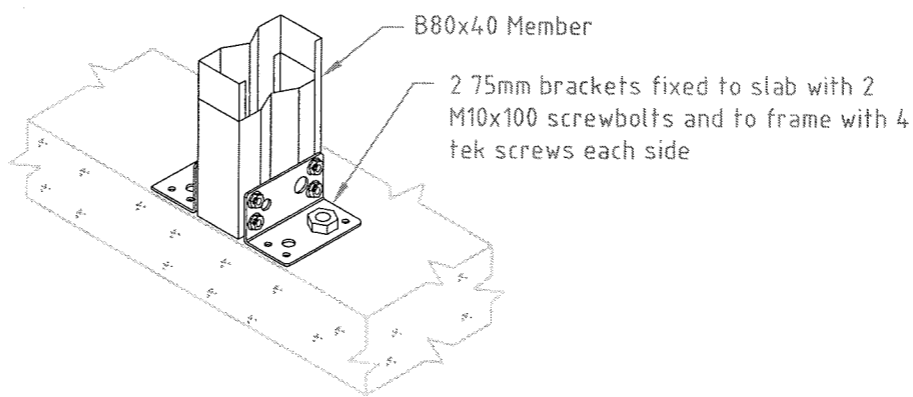


DETAIL 5



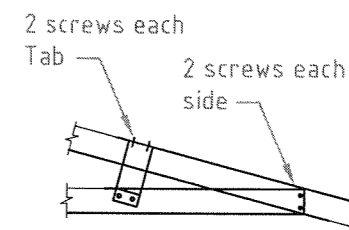
HOLD DOWN DETAIL 1

C80x40 at slab corner

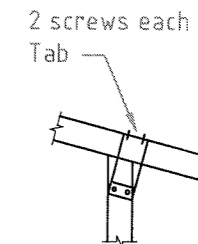


HOLD DOWN DETAIL 2

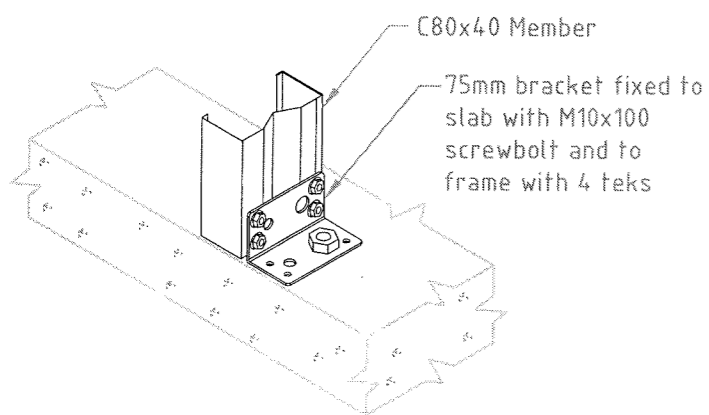
B80x40 at slab side



DETAIL 6

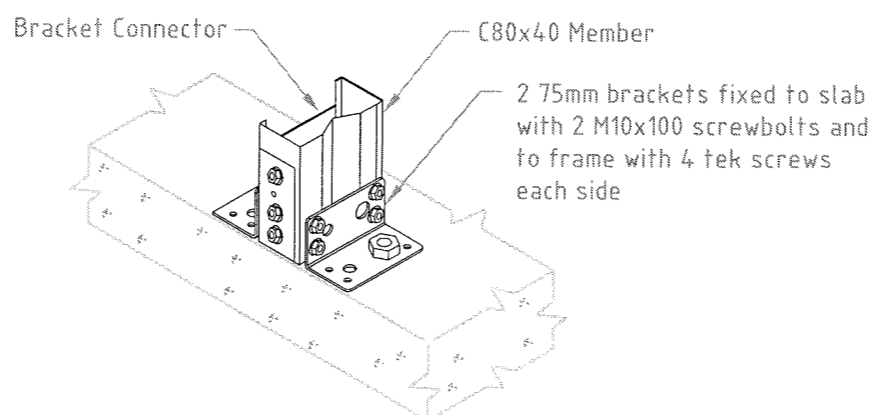


DETAIL 7



HOLD DOWN DETAIL 3

C80x40 at slab side



HOLD DOWN DETAIL 4

C80x40 at slab side

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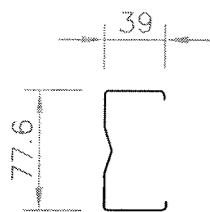
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Wind Classification N3 (W4.1)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale 1:50
Project WORKSHOP SERIES WS3030			Drawing title JOINTS AND FOOTINGS		
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DRAWING SCHEDULE

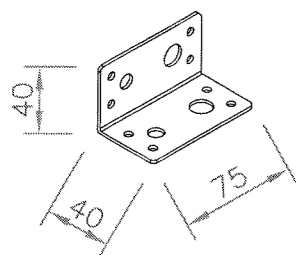
Shed Names	Span	Length	Height	Door Location	Door Type	Wind Class	Drawings
260 Series Workshop	2.6	3.4 - 5.4	2.10	Gable	1.2 wide Hinge	N3	WS3030.01-3, WS3130.01-04
360 Series Workshop	3.6	3.4 - 5.4	2.10	Gable	2.2 wide Hinge	N3	WS3030.01-3, WS3230.01-04



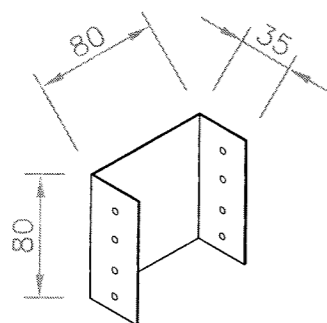
C80x40
0.75bmt G550



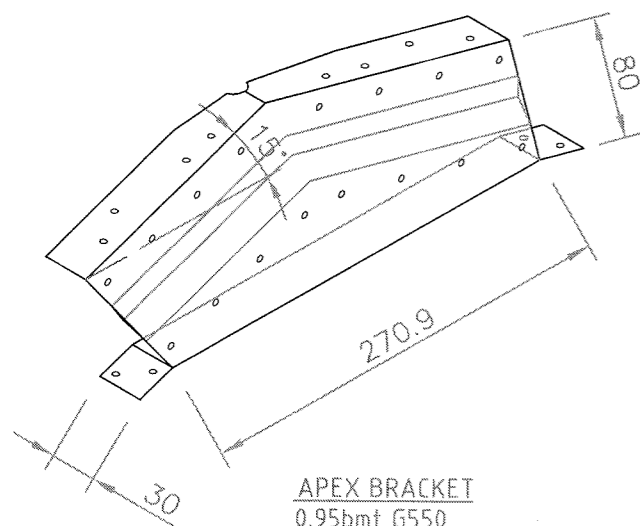
B80x40
0.75bmt G550



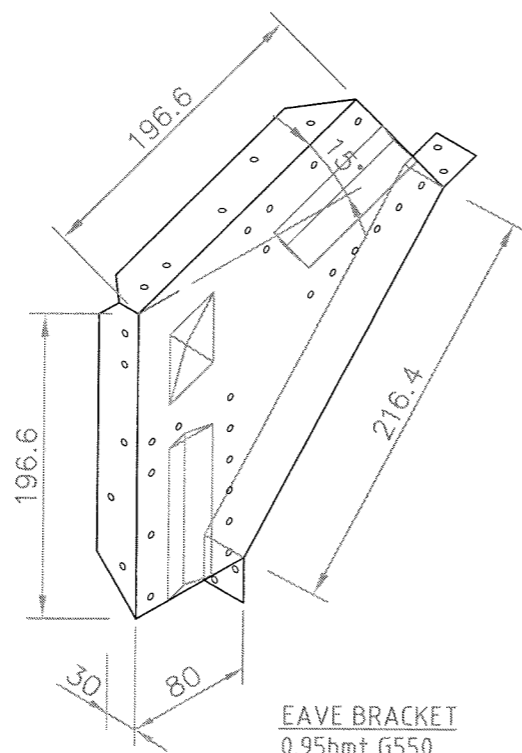
75mm BRACKET
1.95bmt G300



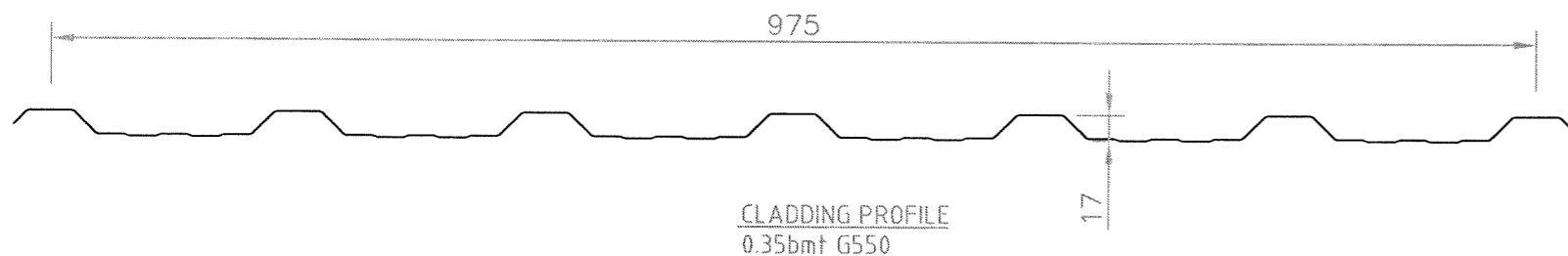
BRACKET CONNECTOR
0.75bmt G550



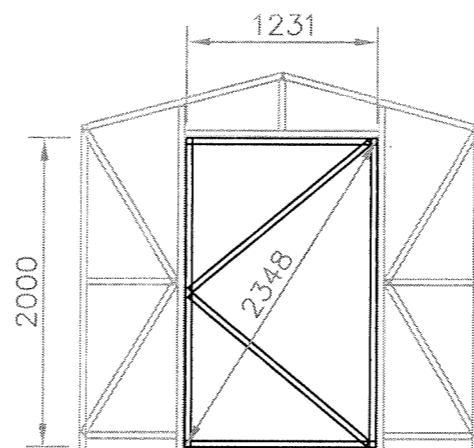
APEX BRACKET
0.95bmt G550



EAVE BRACKET
0.95bmt G550

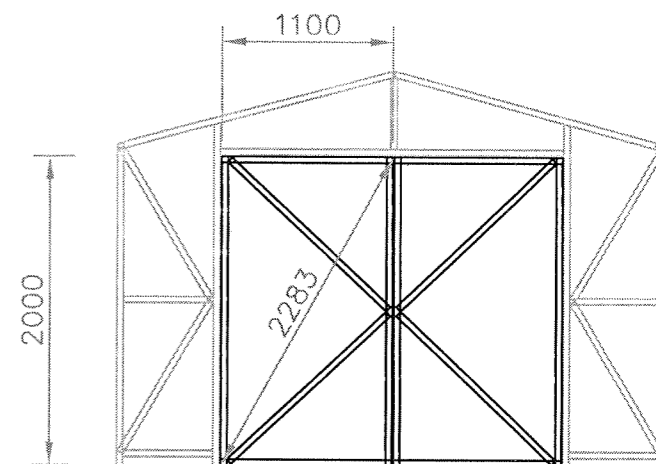


CLADDING PROFILE
0.35bmt G550



HINGED DOORS - 260 SERIES

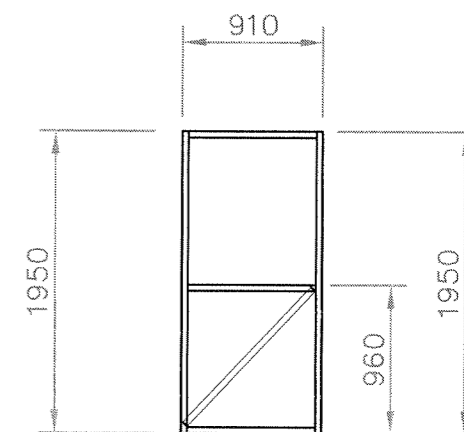
All members C80x40



HINGED DOORS - 360 SERIES

All members C80x40

NOTE:
DOOR FRAMES SHOWN ARE FOR INFORMATION ONLY. DESIGN IS TO MANUFACTURERS SPECIFICATIONS. CONFIRM WITH DOOR MANUFACTURER AS TO FITTING, FIXING & CAPACITY DETAILS.



P/A DOOR

All members C80x40

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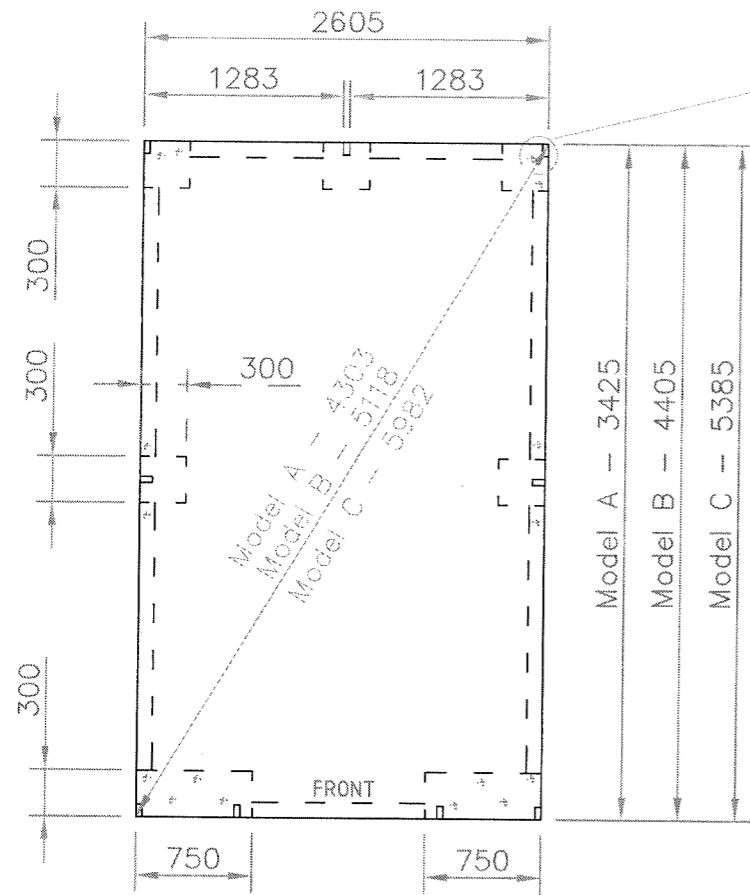
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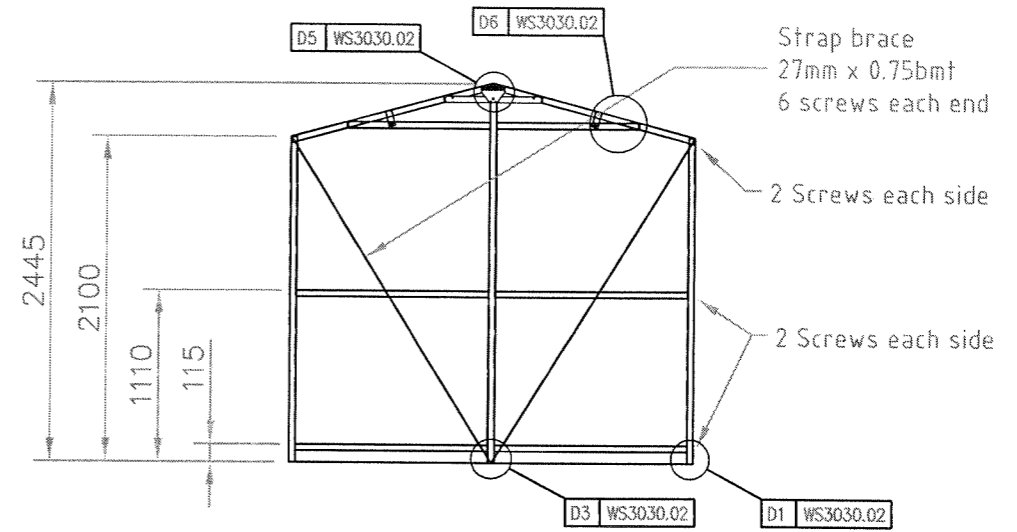
102 Annerley Road, South Brisbane Q 4101

Wind Classification N3 (W41)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale 1:50
Project WORKSHOP SERIES WS3030			Drawing title COMPONENTS, DOORS & DWG SCHEDULE		
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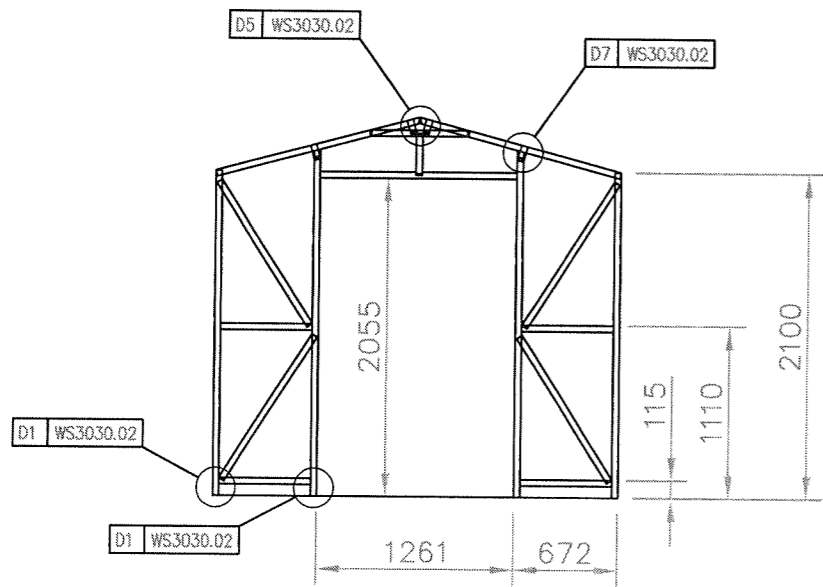


SLAB PLAN

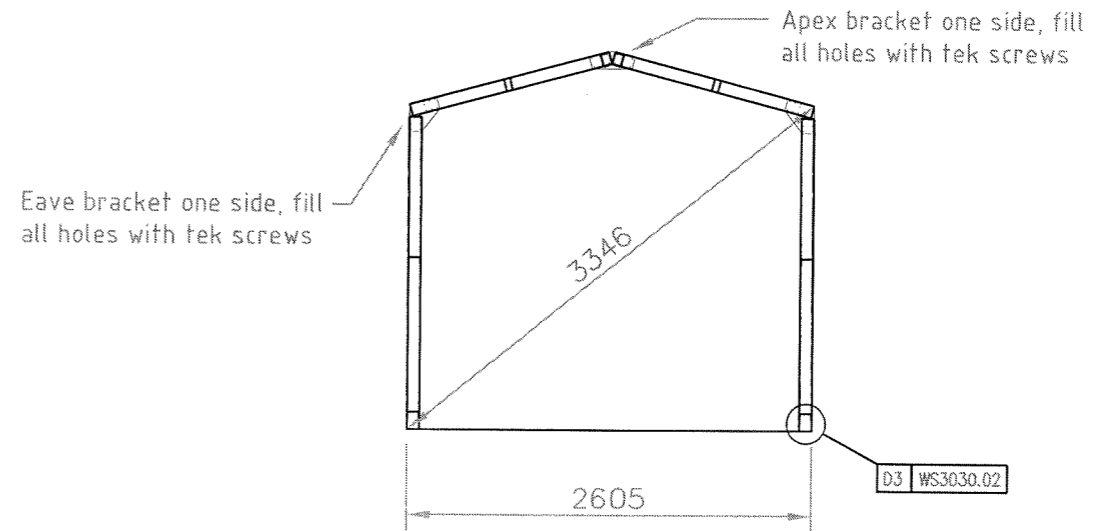
R6 bar to each corner optional but recommended



END FRAME
All members C80x40



FRONT FRAME
All members C80x40



CENTRE FRAME
All members C80x40

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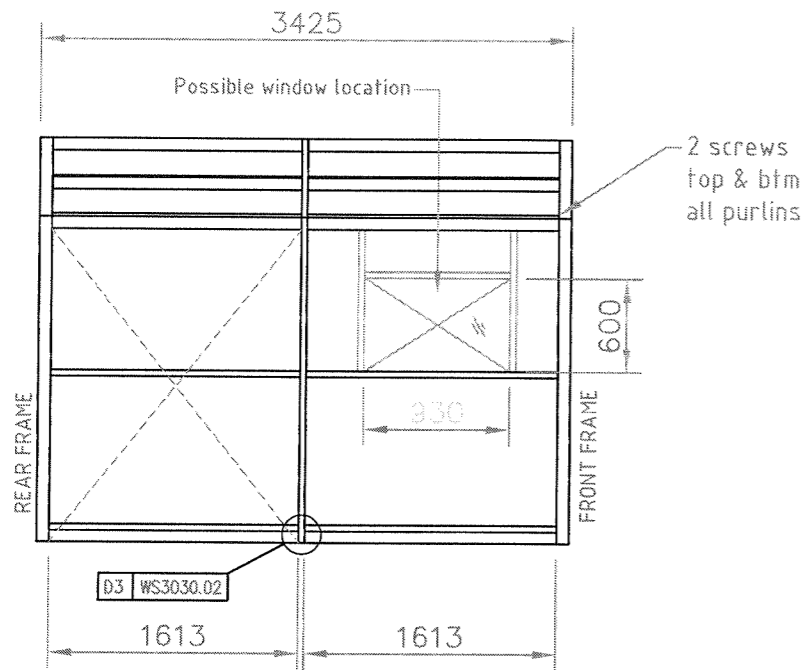
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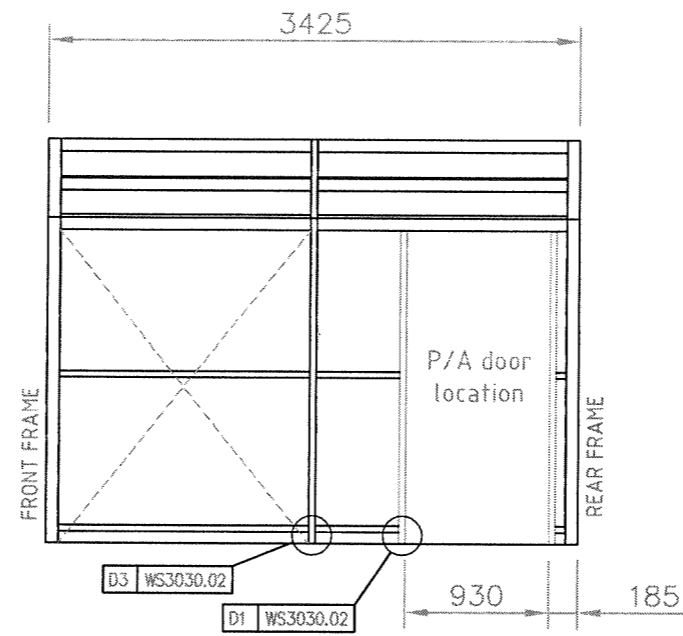
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Wind Classification N3 (W41)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale 1:50
Project WORKSHOP SERIES WS3030			Drawing title FOUNDATION & FRAMING		
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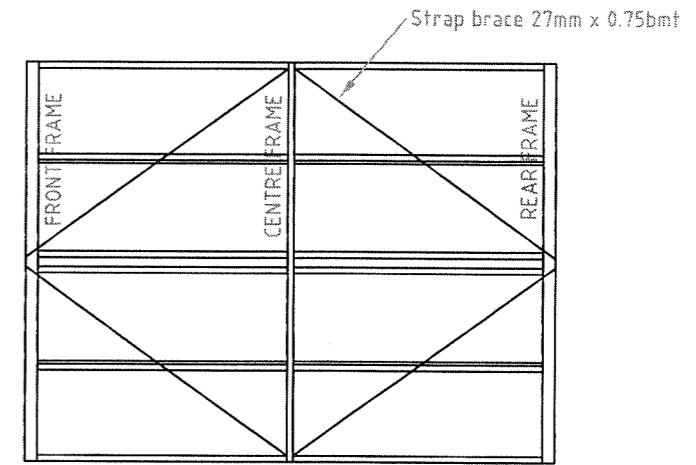
CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO STARTING • ALL DIMENSIONS IN MM UNLESS STATED



LEFT SIDE
All girts C80x40 UNO

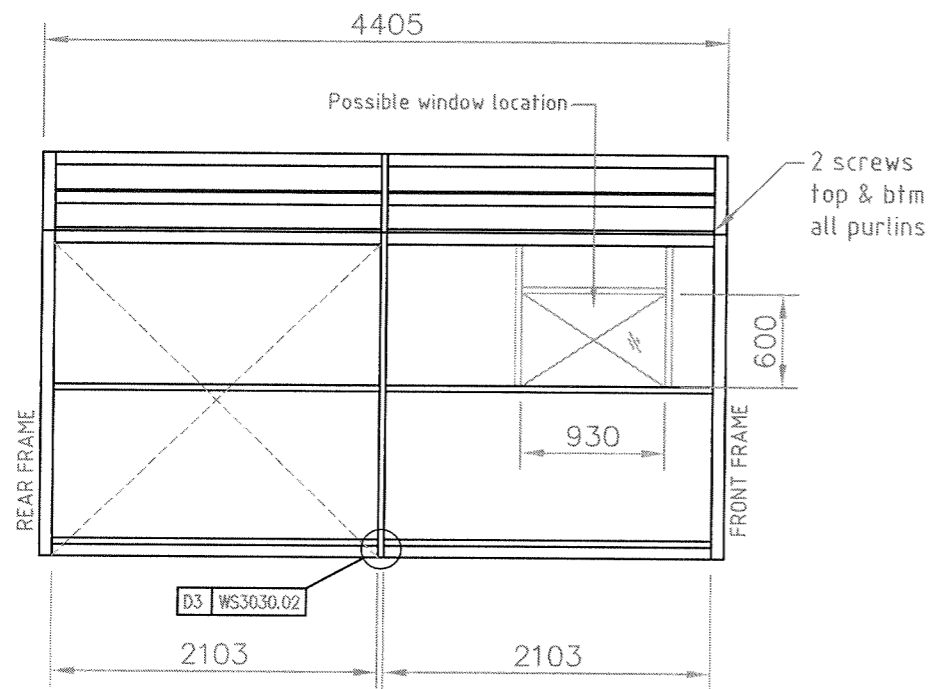


RIGHT SIDE
All girts C80x40 UNO

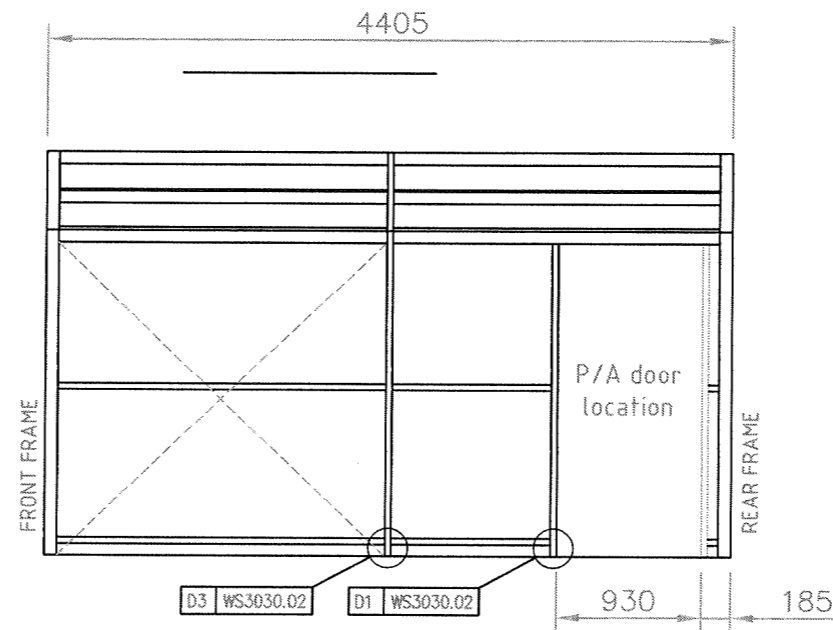


ROOF PLAN
All pulins C80x40 UNO
xx NON TRAFFICABLE ROOF xx

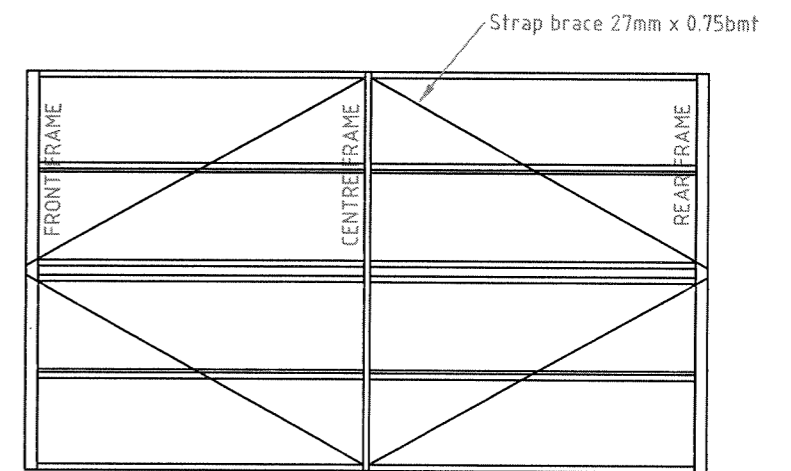
NOTE: ALL STRAP BRACING TO HAVE 6 SCREWS EACH END



LEFT SIDE
All girts C80x40 UNO



RIGHT SIDE
All girts C80x40 UNO



ROOF PLAN
All pulins C80x40 UNO
xx NON TRAFFICABLE ROOF xx

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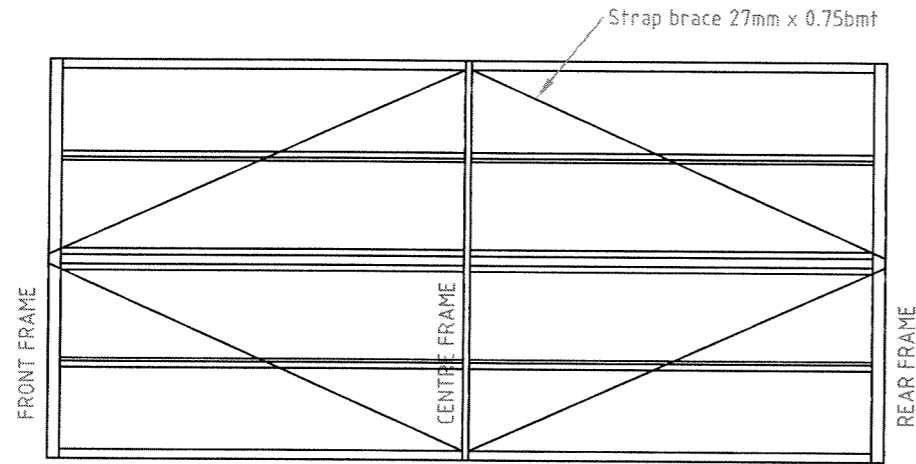
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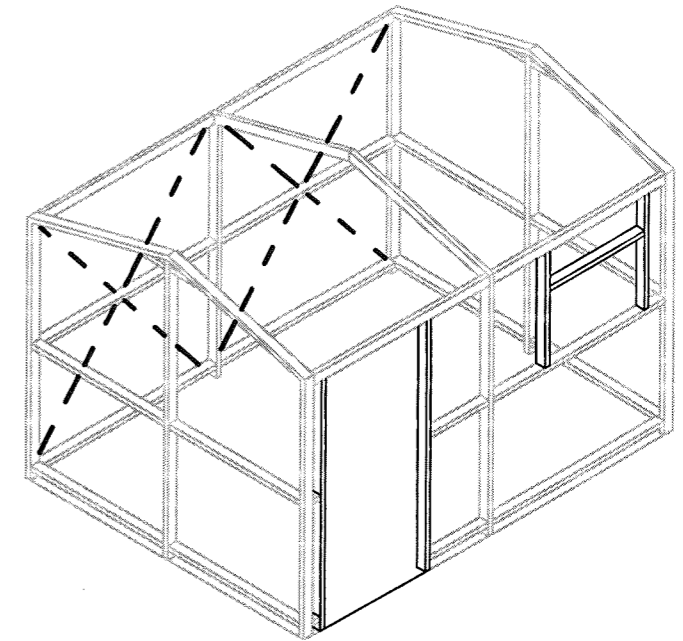
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Wind Classification N3 (W41)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale 1:50
Project WORKSHOP SERIES WS3030			Drawing title FRAMING - MODELS A & B		
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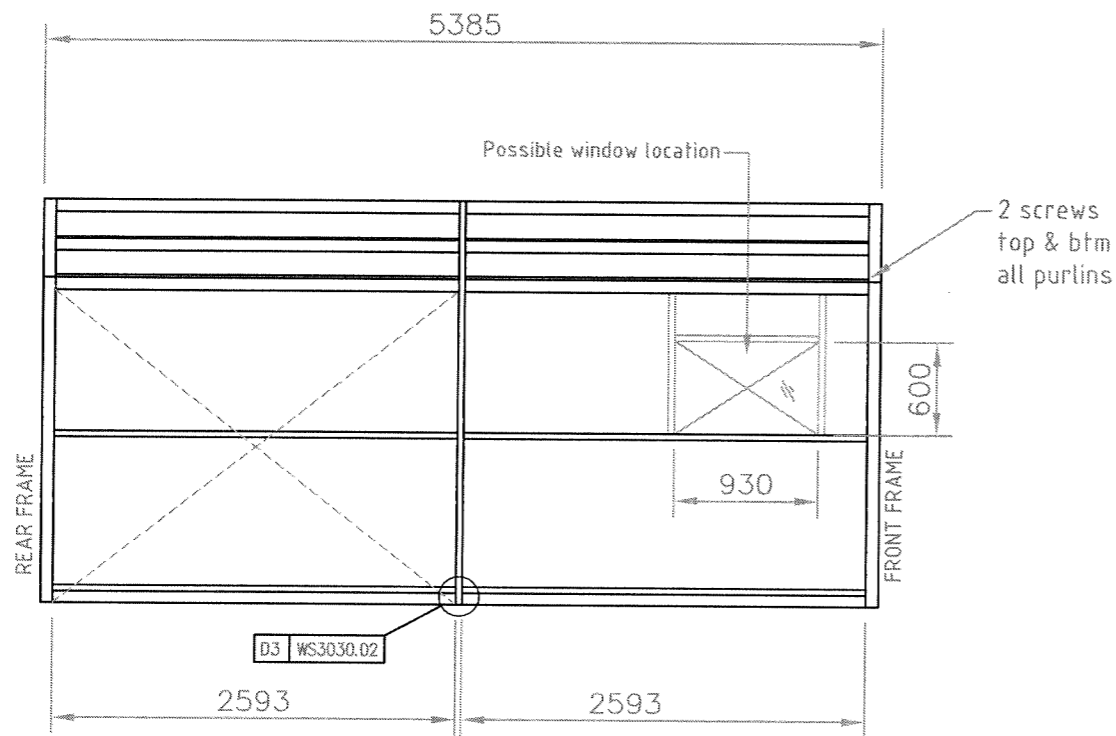


ROOF PLAN
 All pulins C80x40 UNO
 xx NON TRAFFICABLE ROOF xx

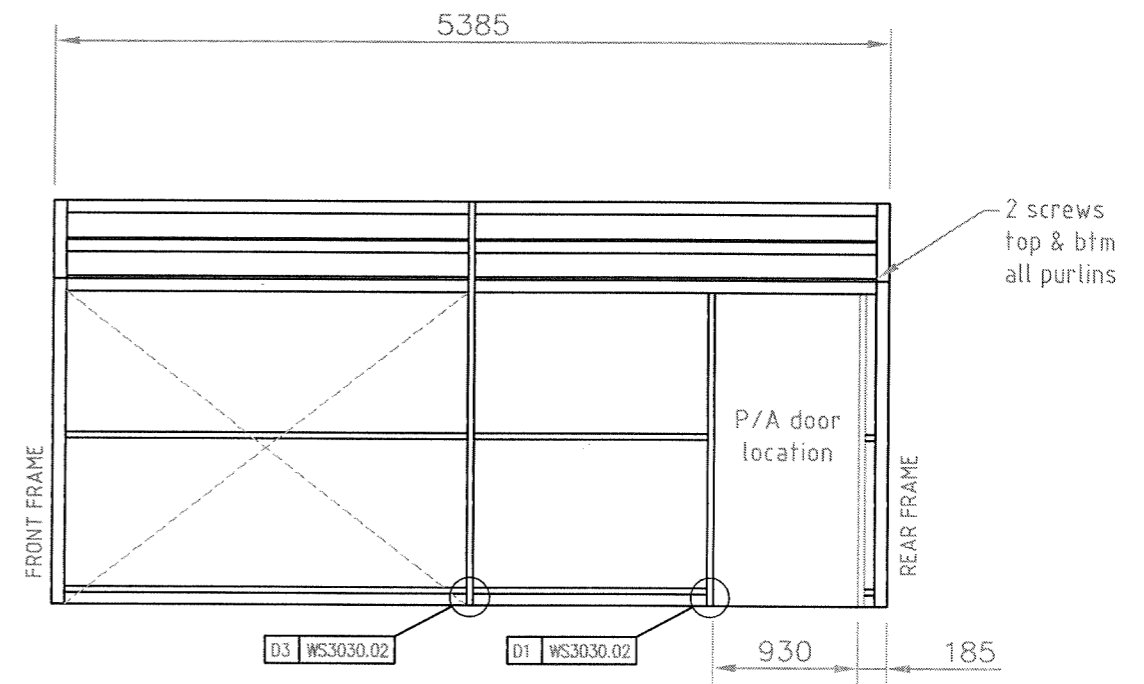


The following rule applies to all models:
 - Where P.a. Door and window to be in the same side wall, 2 Side wall braces to be added to the opposite side wall as shown. Gable and roof bracing as standard.

NOTE: ALL STRAP BRACING TO HAVE 6 SCREWS EACH END



LEFT SIDE
 All girts C80x40 UNO



RIGHT SIDE
 All girts C80x40 UNO

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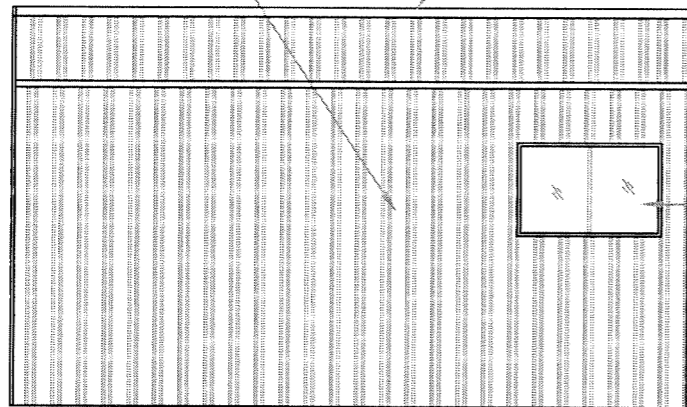
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Wind Classification N3 (W41)	Drawn by AZ	Checked by PK	Engineering approved by - date PK - 13/12/2007	Date 13/12/2007	Scale 1:50
Project WORKSHOP SERIES WS3030			Drawing title FRAMING - MODEL C		
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Wall sheeting pan fixed to eave purlin every pan with #10x16 tek screws and to mid and lower wall girts every second pan

Ridge Cap fix with #12x35 teks and neo washers through sheet to ridge purlin every rib.

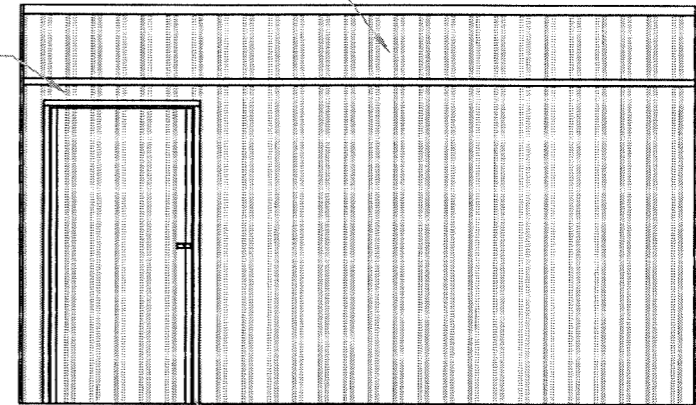


Optional window

LEFT SIDE VIEW

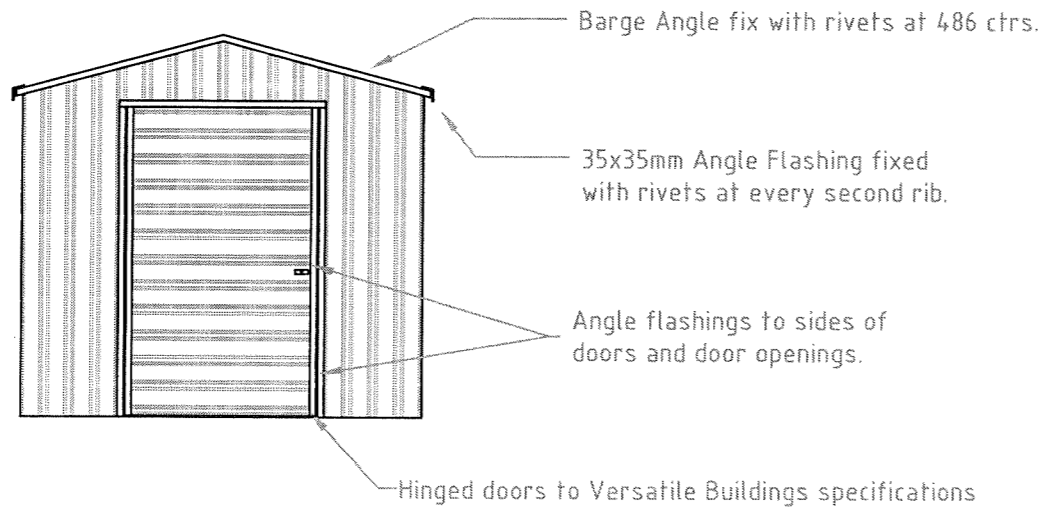
Roof sheeting fixed to ridge beam and eave purlin. Fix through each rib with #12x35 tek screw & neo washer

Lintel cladding fixed to frame with teks.



Angle flashing to sides of doors and door openings.

RIGHT SIDE VIEW



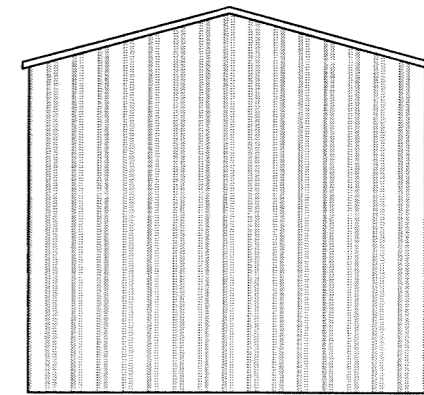
Barge Angle fix with rivets at 486 ctrs.

35x35mm Angle Flashing fixed with rivets at every second rib.

Angle flashings to sides of doors and door openings.

Hinged doors to Versatile Buildings specifications

FRONT VIEW



REAR VIEW



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Structural Design, Precast Concrete,
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102 Annerley Road, South Brisbane Q 4101

Wind Classification

N3 (W41)

Drawn by

AZ

Checked by

PK

Engineering approved by - date

PK - 13/12/2007

Date

13/12/2007

Scale

1:50

Project

WORKSHOP SERIES WS3030

Drawing title

SHEETING & FLASHING

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Drawing number

WS3130.04

Revision

A

Sheet

4 of 4

A Engineer approved

Dec 2007

PK

Rev Revision note

Date

Checked