

# ENGINEERING SCHEDULE

CERTIFIED STEEL PORTAL FRAME SHED DESIGN IN ACCORDANCE WITH NCC 2022 FOR SITE WIND SPEED "40.93m/s", WIND REGION "A0", TERRAIN CATEGORY "3", IMPORTANCE LEVEL "2"

Internal Pressure: 0.5  
Design Snow Load: 0.00 KPa, Roof Snow Load: 0.00 KPa

Customer: Billy Potter  
Site Address: 49A High street Texas, Texas QLD 4385

Main Building: Span: 6, Length: 7, Height: 3, Roof Pitch: 11 degrees  
The length being comprised of 2 bays, the largest bay is 3.5m bays.  
Left LeanTo: NA  
Right LeanTo: NA

Total Kit Weight: 1149.26kg

## DOMESTIC & LIGHT INDUSTRIAL STEEL PORTAL FRAME SHED STRUCTURES

This structure is designed in compliance with AS4600, AS3600 and AS1170 1 to 4 as Importance Level 2 with a Live Load of 0.25kPa as "Air Leaky Structures" providing stability when openings are prevalent.

The structures are clad with corrugated pre-painted finish, 0.42mm walls and 0.42mm roof (compliant with AS1562.1 Metal) over cold formed 450 to 550mPa galvanized steel C sections primary frames.

Primary framing is fastened together with 4.6 Class galvanized bolts adequately tensioned on ground prior to erection.

Secondary framing steel bracing, with purlins and girts lapped, are all tek fastened to primary steel with a minimum of two (2) teks per connection as specified in details.

All rainwater products are compliant with AS2179.1 (Metal).

## ENGINEERING

The undersigning engineer has checked that the design of the structure complies with relevant current Australian Standards as stated above and the following i.e AS4671- 2001 Steel Reinforcing materials, AS3600 - Concrete structures. However, he will not be present during construction, neither will he conduct inspections nor construction supervision.

The class 10a buildings are designed for erection on pad footings or slab based on soil of classification "A"- "P" with minimum bearing capacity 100kPa (i.e. organic soil is to be removed to a suitable material below natural surface).

Where (suitable) fill is required to level the site, it should be placed and compacted in layers of 150mm maximum.

Concrete pad footings and slab supply and placement is to be in compliance with AS2870-2011 Residential Slabs & Footings, AS3600-2009 Concrete Structures for A2 and B2 exposure (i.e. 25mPa strength @ 28 days strength) with recommended slump 75 to 80mm for light pneumatic tyred traffic all trafficable floors.

25mm deep concrete saw cut, to be made into the surface of the concrete slab every 6m in width or length as crack control joints.

For sites where these conditions are considered to be inadequate, a customized foundation design for the structure can be supplied to suit a specific purpose.

## CONSTRUCTION

Erection of the structure is to be in compliance with local and state ordinances,

Occupational Health and Safety Regulations and with plans provided.

## GENERAL

The designs as portrayed on the drawings remain the intellectual property of Best Sheds Pty Ltd and are provided for building approval and construction purposes only.

## SNOW LOAD

Following conditions only apply to buildings with snow loading:

- No maintenance or roof traffic permitted on the roof while there is snow present.
- No other structure to be erected within 500mm of the gutters of this building.

INTERNAL PORTALS
Column: C15015
Rafter: C15015
Knee Brace: NA
Knee Brace Length: NA
Apex Brace: C15015
Apex Brace Length: 3700

END PORTALS
Column: C15015
Rafter: C15015
Knee Brace: NA
Knee Brace Length: NA
Apex Brace: NA
Apex Brace Length: NA
Endwall Mullion: C15015

LEFT LEAN TO PORTALS
Internal Column: NA
Internal Rafter: NA
End Column: NA
End Rafter: NA
Knee Brace: NA
Knee Brace Length: NA

RIGHT LEAN TO PORTALS
Internal Column: NA
Internal Rafter: NA
End Column: NA
End Rafter: NA
Knee Brace: NA
Knee Brace Length: NA

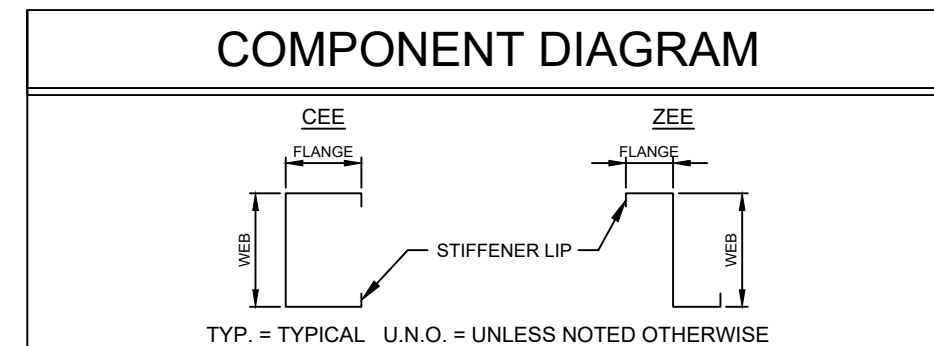
NOTE: All unclad intermediate columns are always back to back (refer to drawing: Floor Plan).

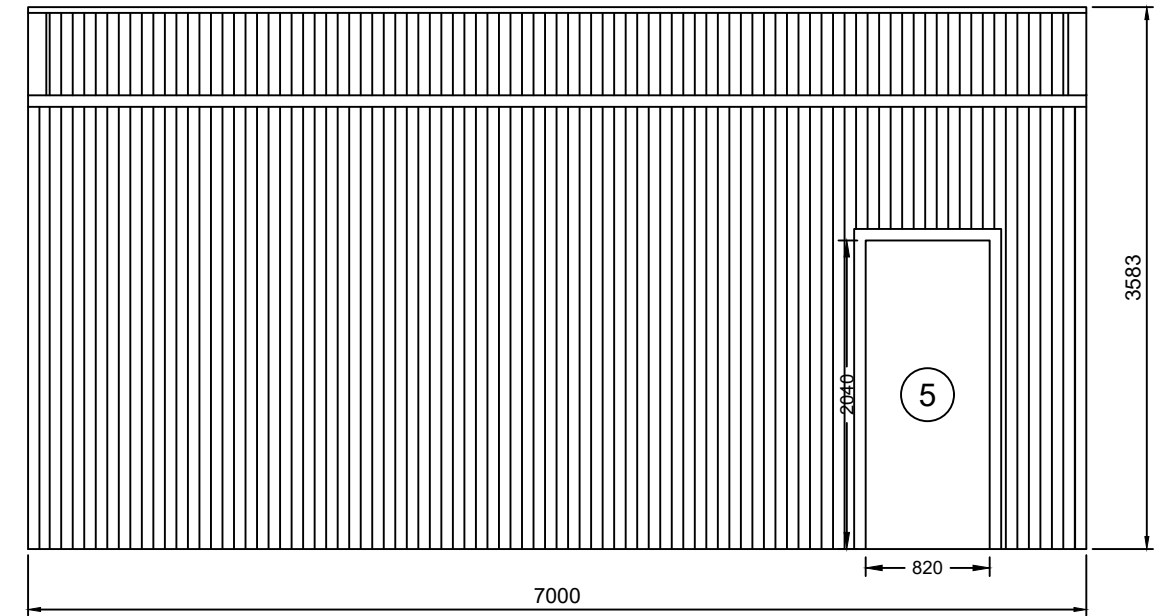
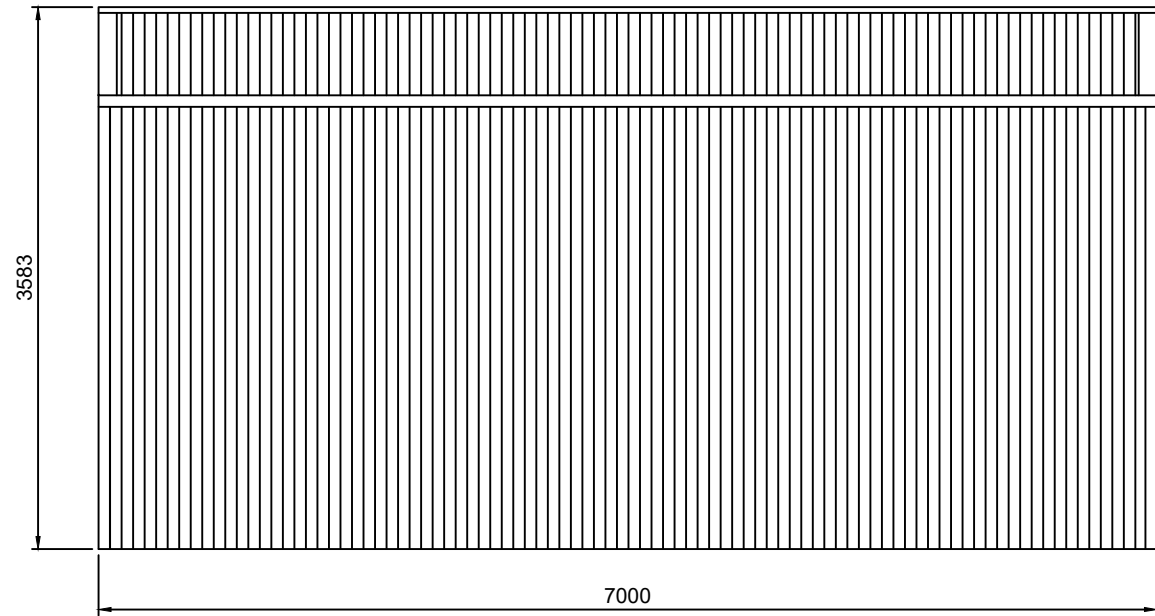
PURLINS AND GIRTS		
Eave Purlin: C10010	Max Spacing: 1250	Overlap: 10%
Side Wall Girts: TH64075	Max Spacing: 1250	Overlap: 10%
Front End Wall Girts: TH64075	Max Spacing: 1250	Overlap: 10%
Back End Wall Girts: TH64075	Max Spacing: 1000	Overlap: 10%
Roof Purlins: TH64075		

NOTE: Girt spacing will vary to a maximum 1.25m where window/s are located.

FASTENERS
Sleeve Anchor Bolts: M12x80 Sleeve Anchor Yellow Zinc
Frame Bolts: M12x30 Purlin Assembly Zinc (Mild)
Frame Screws: Frame Screw 14x14x22
Cross Bracing Strap: NA
Open Bay Header Height: NA

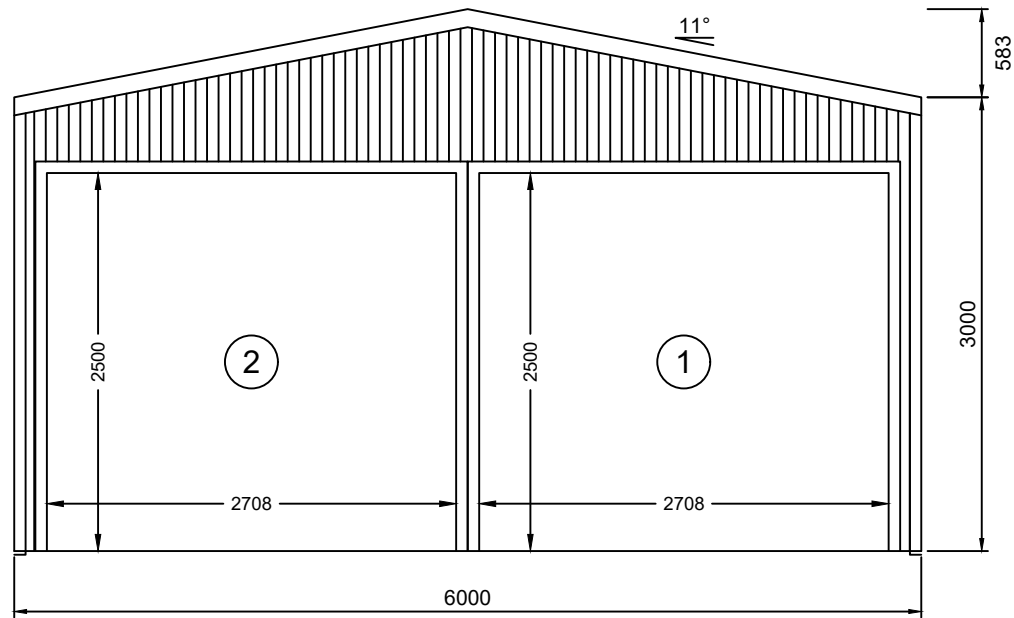
COLOUR SCHEDULE
Roof Sheets: Slate Grey
External Wall Sheets: Smooth Cream
Roller Doors: Slate Grey
Flashings: Slate Grey
PA Doors: Slate Grey
Windows: Slate Grey





1 RIGHT ELEVATION  
2 SCALE: 1:50

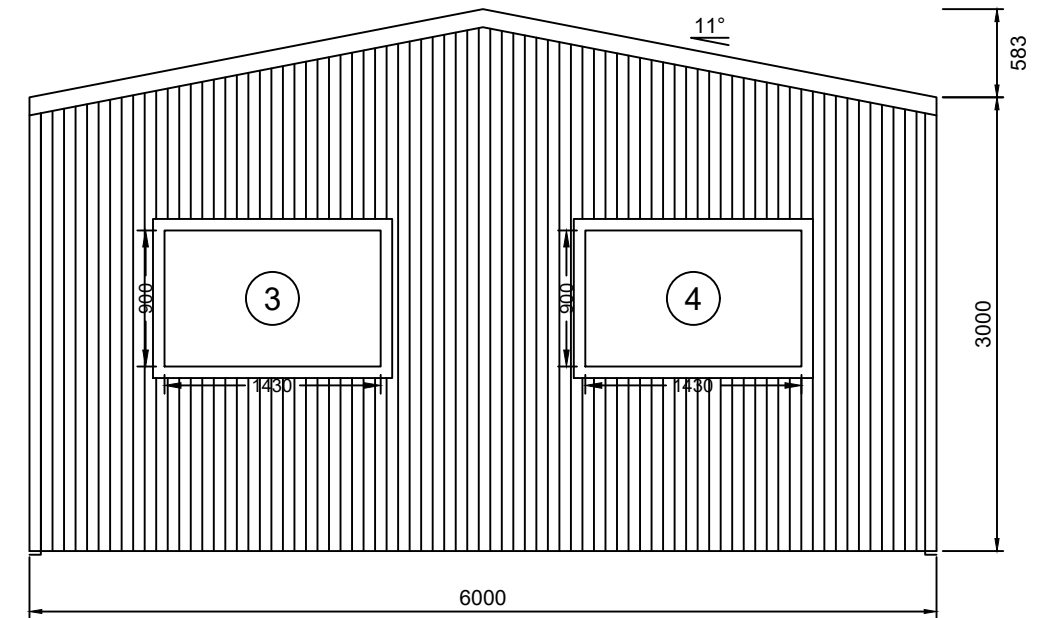
2 LEFT ELEVATION  
2 SCALE: 1:50



2 FRONT ELEVATION  
3

SCALE: 1:50

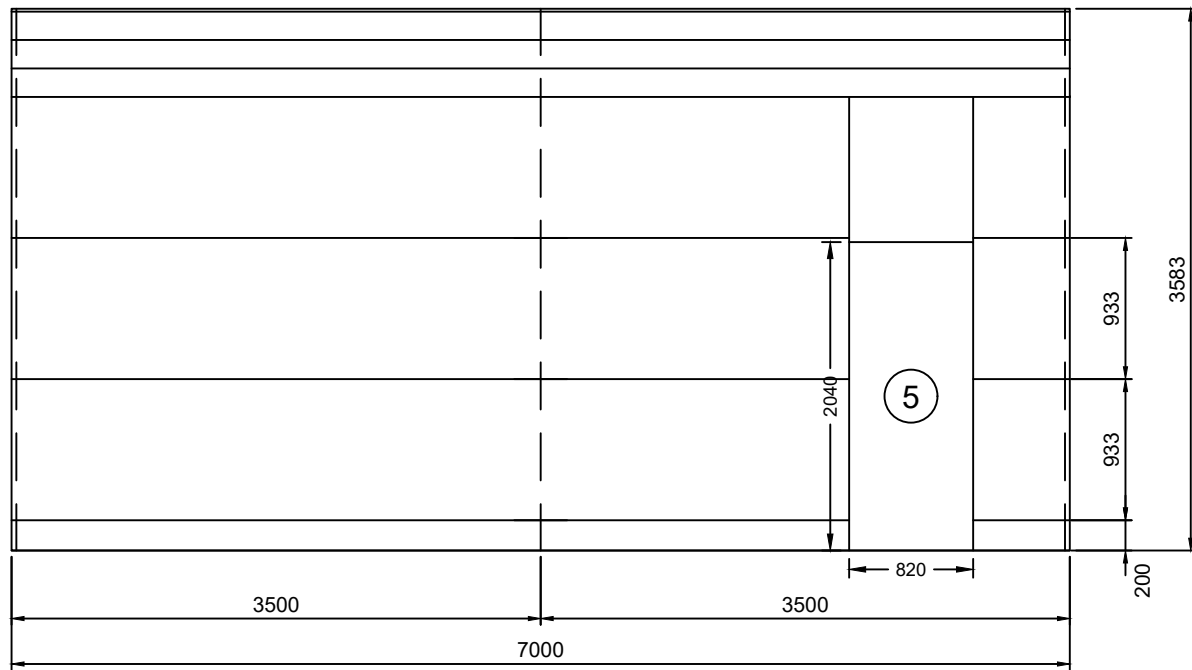
FRAME #1



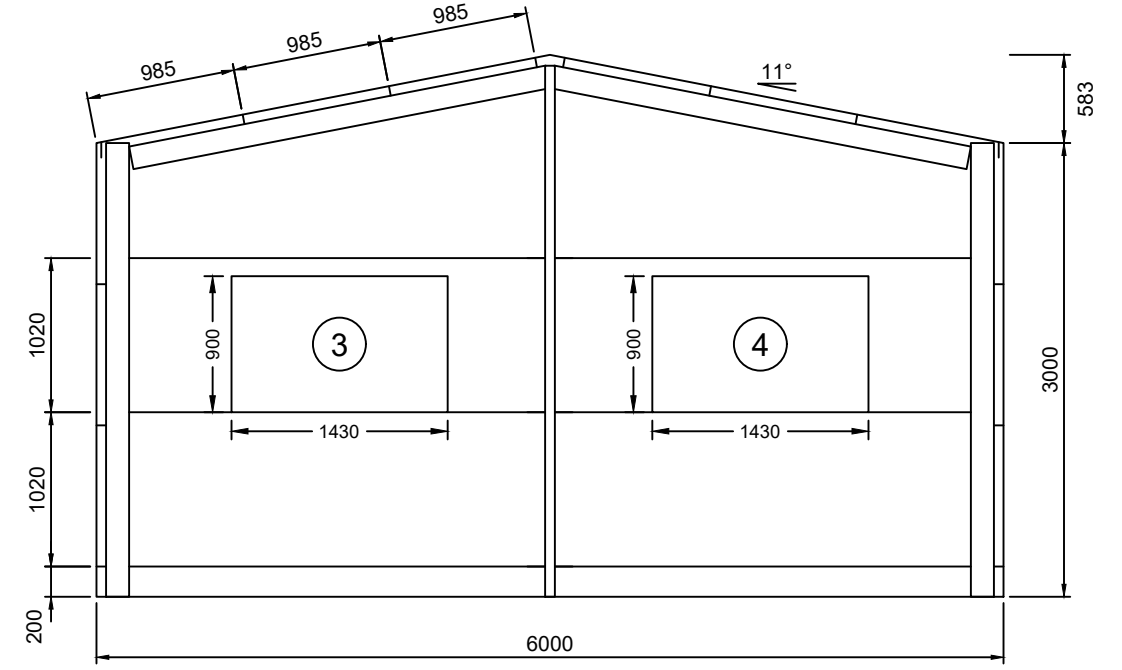
1 REAR ELEVATION  
3

SCALE: 1:50

FRAME #3

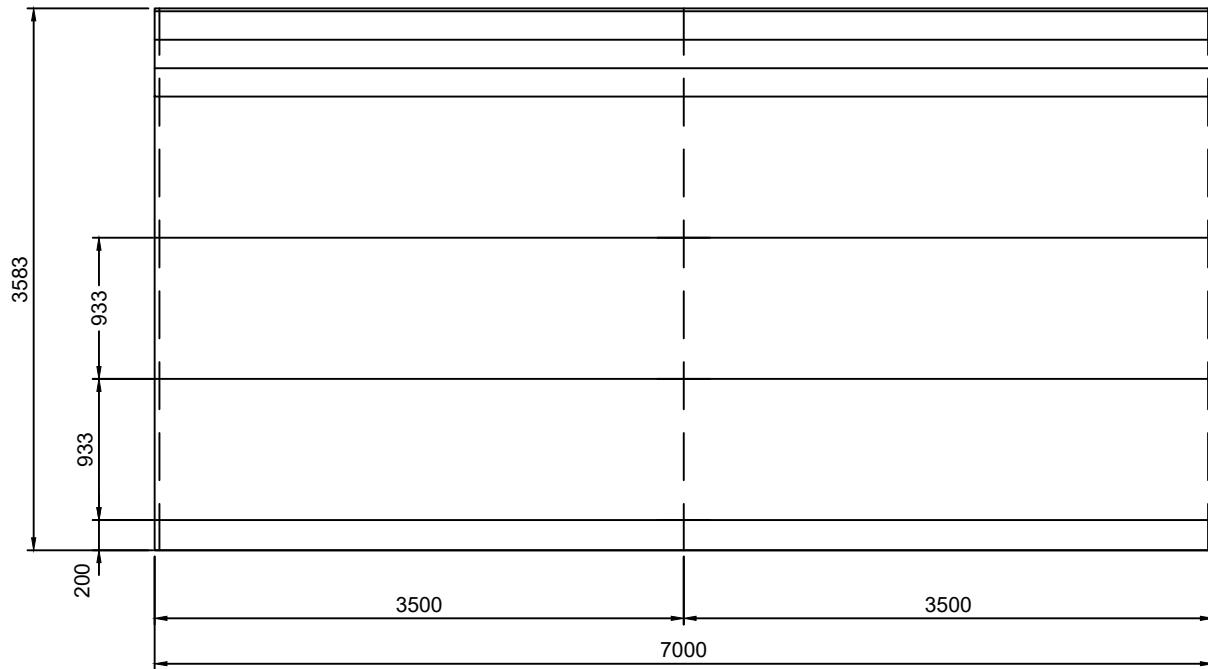


**2** LEFT ELEVATION  
**4** SCALE: 1:50

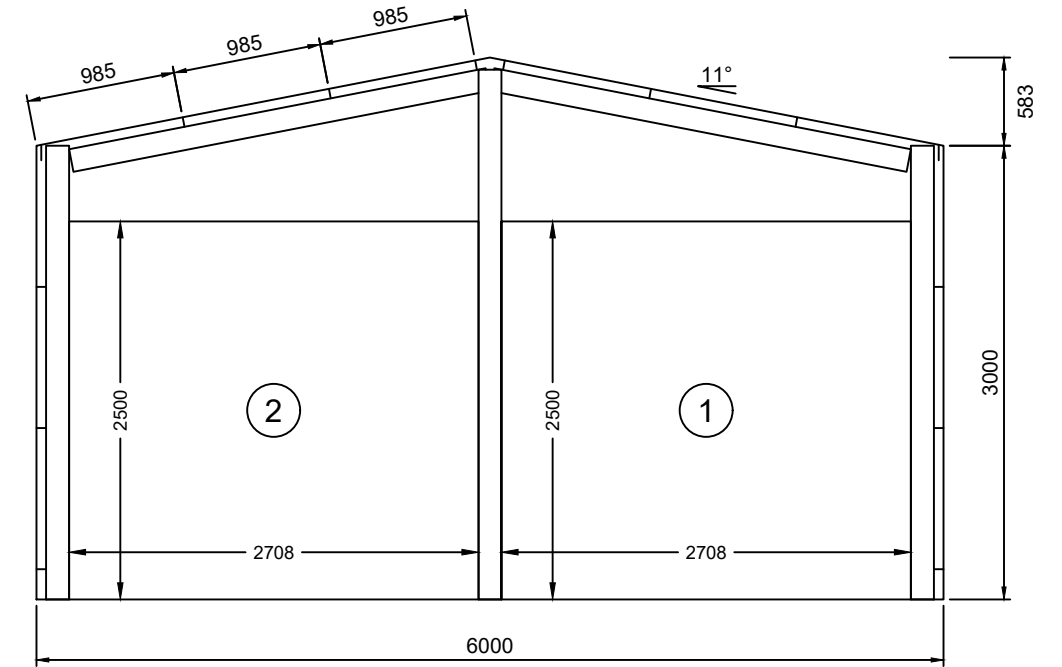


**3** REAR ELEVATION  
**4** SCALE: 1:50

FRAME #3

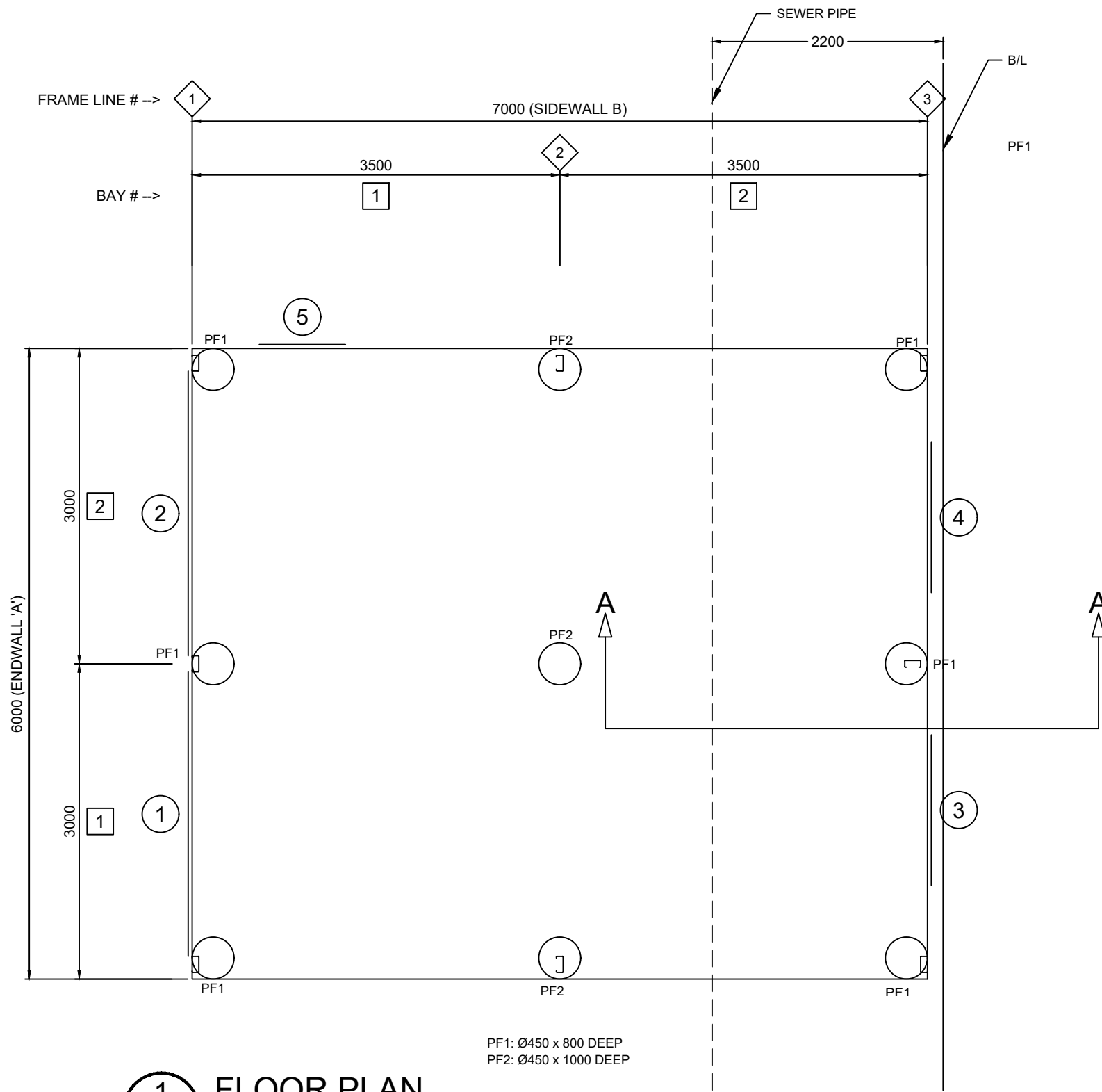


**1** RIGHT ELEVATION  
**4** SCALE: 1:50



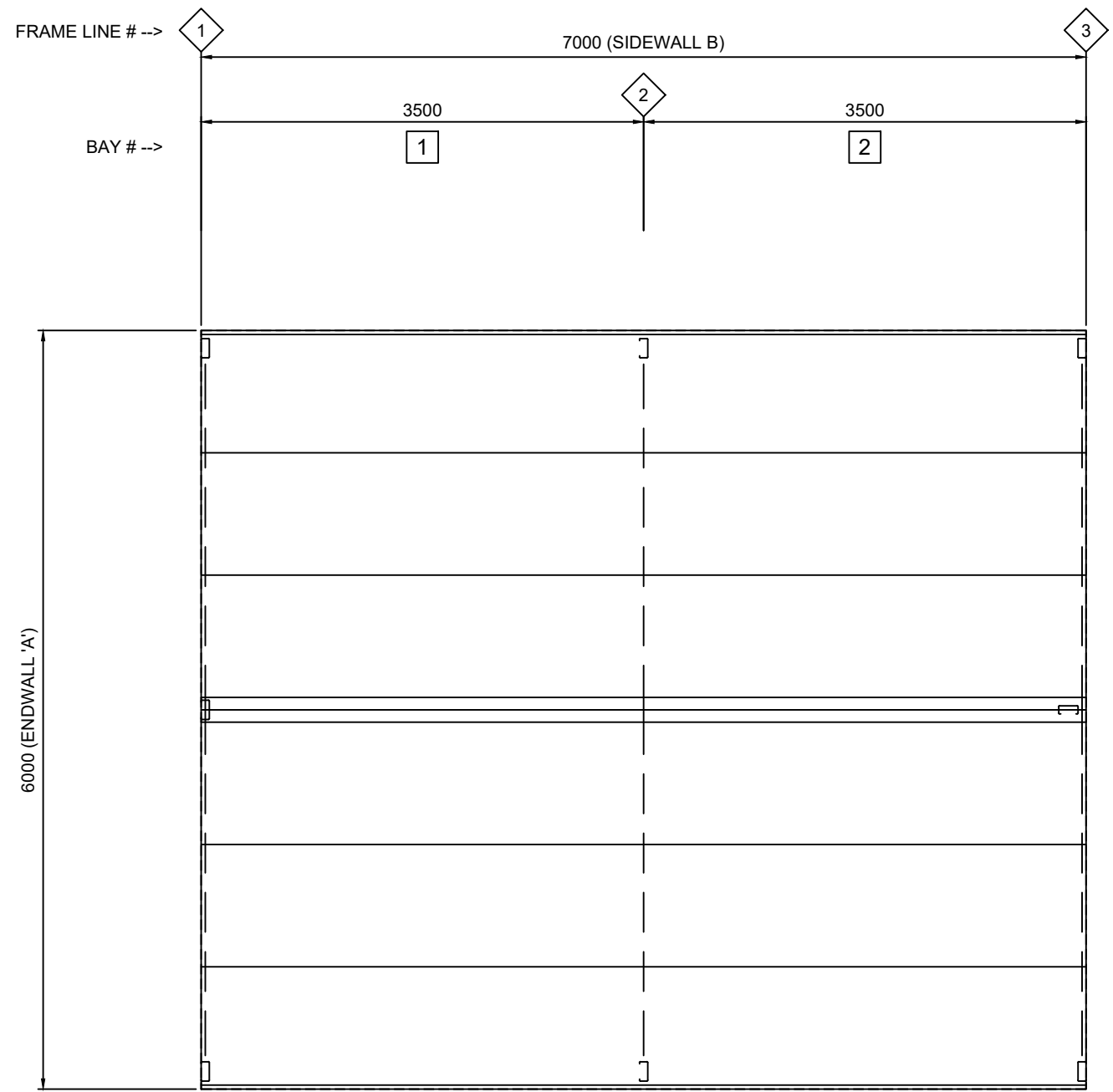
**4** FRONT ELEVATION  
**4** SCALE: 1:50

FRAME #1



PF1: Ø450 x 800 DEEP  
 PF2: Ø450 x 1000 DEEP

**1** FLOOR PLAN  
**5** SCALE: 1:50

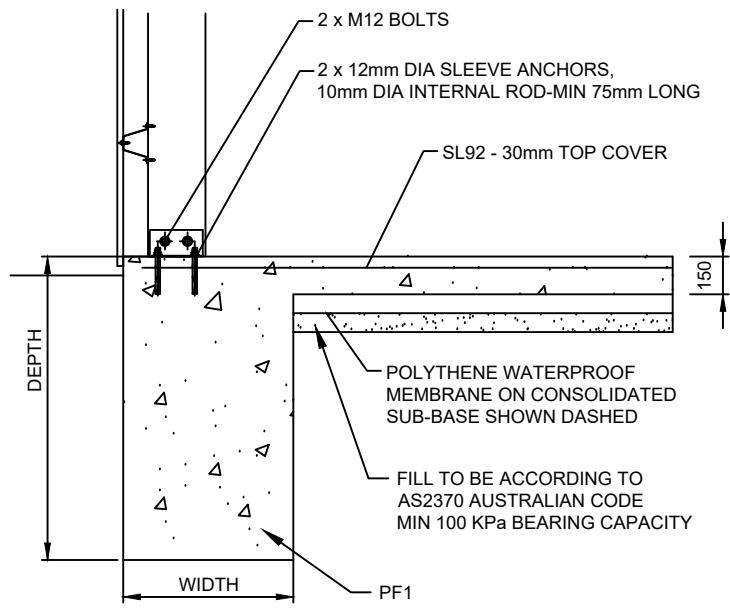


**2** ROOF FRAMING PLAN  
**5** SCALE: 1:50

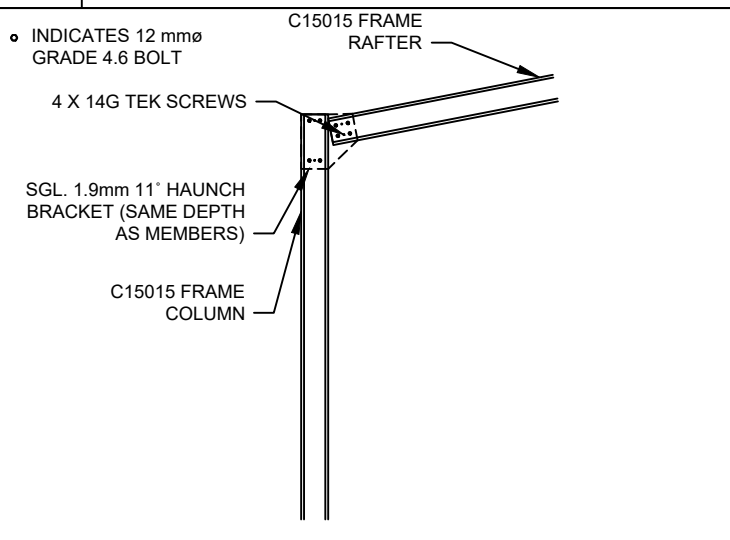
SLAB FOUNDATIONS DOMESTIC / LIGHT INDUSTRIAL (150mm MINIMUM CONCRETE SLAB INCLUDED)					
SOIL CLASSIFICATION (COMPACTED)	REINFORCING IN SLAB	EDGE BEAM	PIER	EDGE BEAM (slab thickness not included)	
	MESH REINFORCING	TRENCH MESH	Ø x DEPTH	DEPTH	WIDTH
P (DROP EDGE BEAM OR STANDARD EDGE BEAM WITH PIERS UNDER COLUMNS 300 INTO FIRM GROUND)	SL92	---	450Ø	---	---

THICKNESS: 150mm WITH MINIMUM 30MM COVER. REFER TO SLAB FOUNDATION TABLE FOR REINFORCING SPECIFICATION

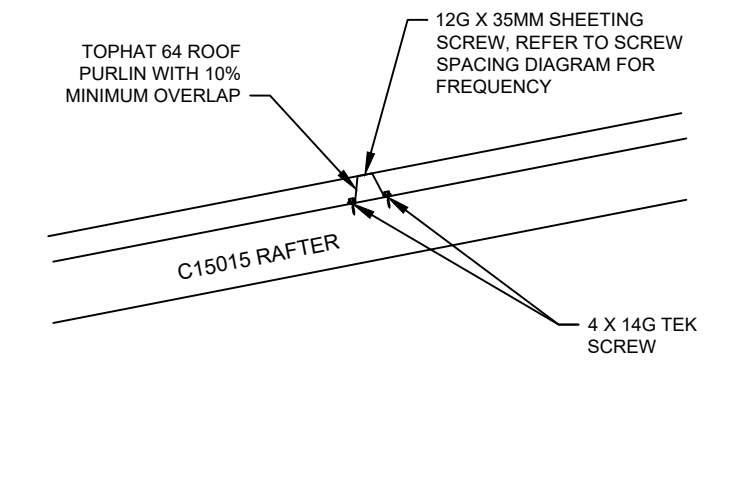
STRENGTH: 32MPa



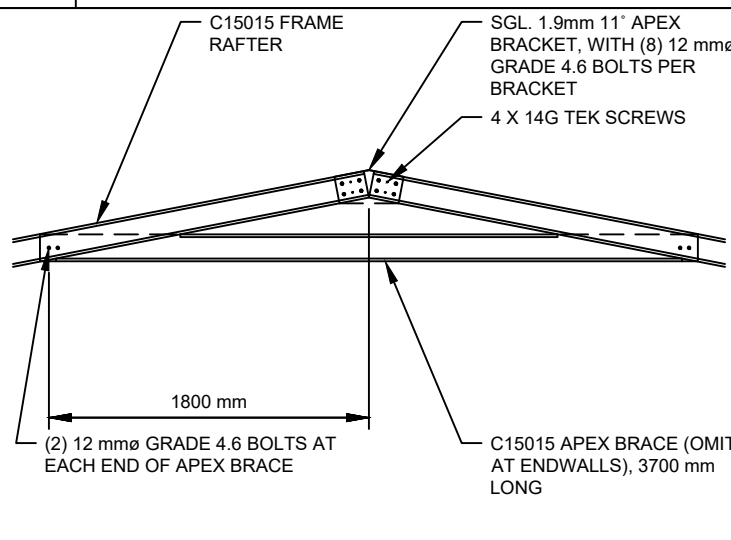
**Y** SLAB DETAIL



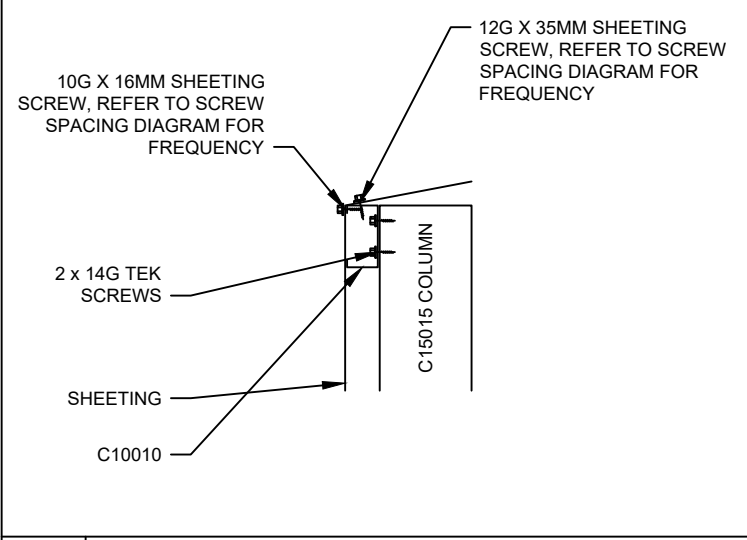
**A** HAUNCH CONNECTION



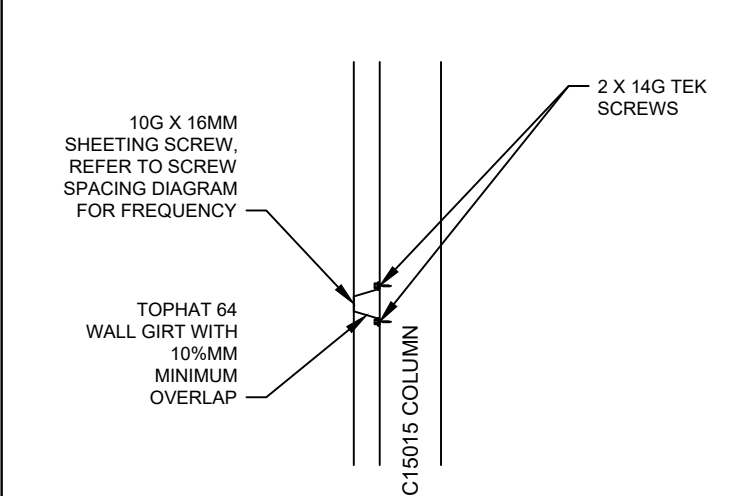
**E** PURLIN CONNECTION



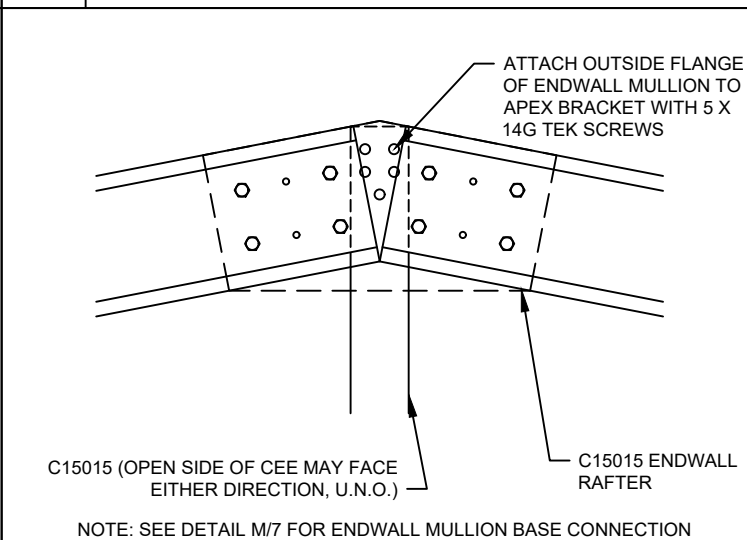
**B** APEX CONNECTION



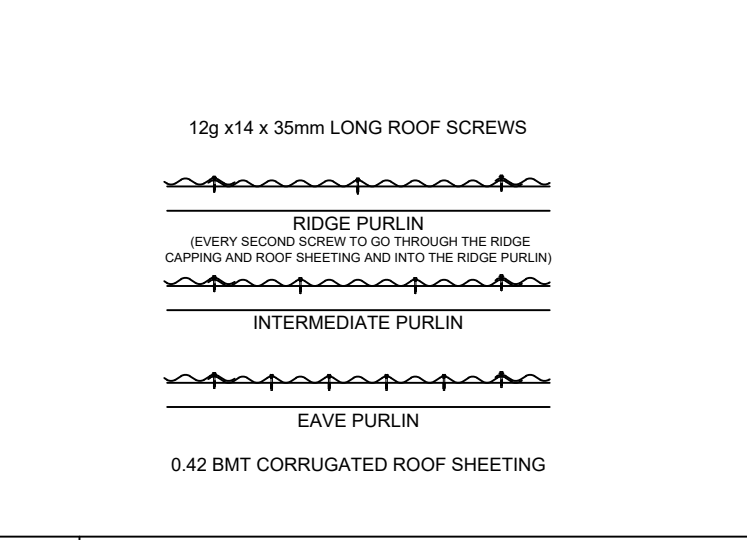
**H** EAVE CONNECTION



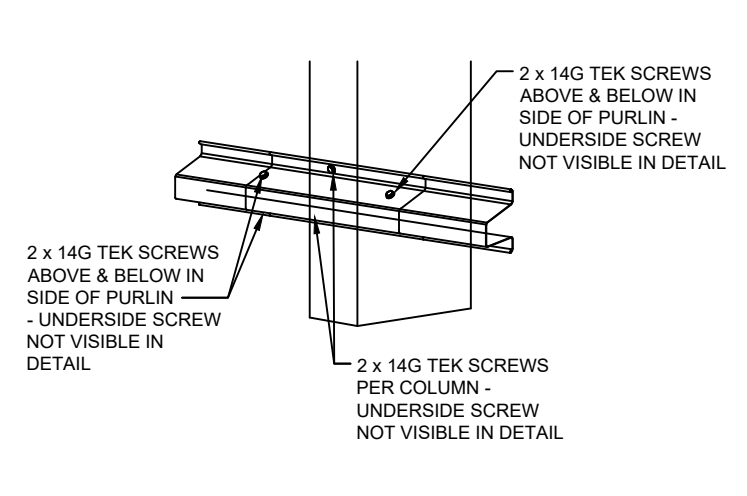
**F** GIRT CONNECTION



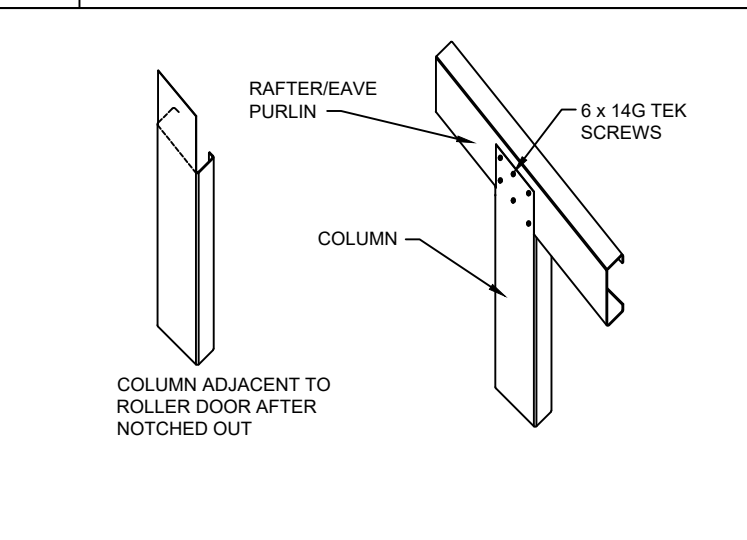
**C2** ENDWALL MULLION TO RAFTER PEAK CONDITION



**I** ROOF SHEETING



**G** TOP HAT CONNECTION



**D** ENDWALL MULLION ROTATED

**best sheds**  
Value & Quality Direct to You

151 Smeaton Grange Road,  
Smeaton Grange, NSW, 2567  
Phone: 02 4648 7777  
Fax: 02 4648 7700  
Email: sales@bestsheds.com.au

**EMERALD**  
DESIGN & CONSTRUCTION

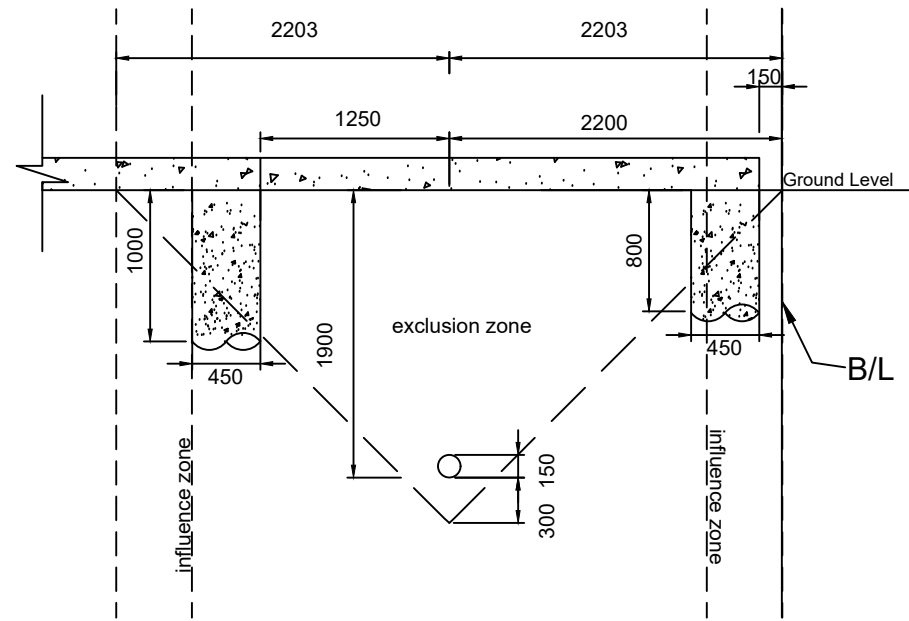
**CIVIL & STRUCTURAL ENGINEERS**  
COMMERCIAL - INDUSTRIAL - RESIDENTIAL - FORENSIC - STEEL DETAILING  
CAMILO PINEDA MORENO  
Bend MIEAust RPEng  
RPEQ 15562 TBP PE003976 (VIC)

Customer Name: Billy Potter  
Site Address: 49A High street Texas  
Texas,  
QLD, 4385

Signature:   
Date: 13.02.2024

DATE 13-02-2024  
JOB NO. 2023004271  
SHEET 6 of 8

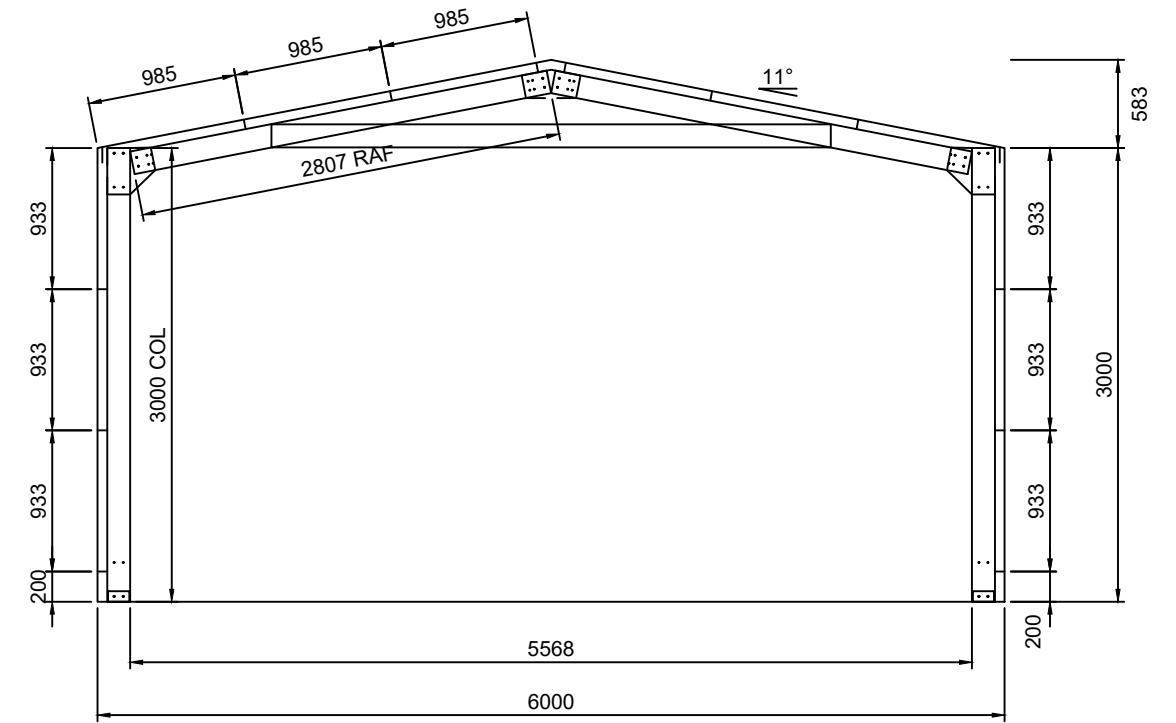
<b>N</b> ROTATED ENDWALL MULLION BASE	<b>O</b> ENDWALL GIRT BRACKET	<b>P</b> END DOOR HEADER AND JAMB	
<b>J</b> WALL SHEETING	<b>K</b> CORNER COLUMN BASE	<b>L</b> INTERNAL COLUMN BASE	<b>M</b> ENDWALL MULLION BASE



AA SECTION DETAIL

2  
8

SCALE: 1:75



TYP. FRAME CROSS-SECTION

1  
8

SCALE: 1:50

FRAME 2

This form is to be used by an appointed competent person for the purposes of section 10 of the *Building Act 1975* and sections 73 and 77 of the Building Regulation 2021 (Design-specification certificate) stating that an aspect of building work or specification will, if installed or carried out as stated in this form, comply with the building assessment provisions.

Additional explanatory information is included in the Appendix at the end of this form.

<p><b>1. Property description</b></p> <p>This section need only be completed if details of street address and property description are applicable.</p> <p>E.g. in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.</p> <p>The description must identify all land the subject of the application.</p> <p>The lot and plan details (e.g. SP/RP) are shown on title documents or a rates notice.</p> <p>If the plan is not registered by title, provide previous lot and plan details.</p>	<p>Street address <i>(include number, street, suburb/locality and postcode)</i>                  49A High street Texas, Texas .....                  ..... State QLD Postcode 4385 .....</p> <p>Lot and plan details <i>(attach list if necessary)</i>                  .....</p> <p>Local government area the land is situated in                  .....</p>
<p><b>2. Description of aspect/s certified</b></p> <p>Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.</p>	<p>Class 10a Lightweight Structure                  Dimensions: Span 6.000 m, Length 7.000 m, Height 3.000 m, Roof pitch 11 deg                  Frame: C15015 Steel Portals Spaced 3.500 mm TH64075 Purlins &amp; Girts                  Cladding: Corrugated 0.42                  Foundation: 100mm Reinforced Slab on Pads or Independent Pad Footings</p>
<p><b>3. Basis of certification</b></p> <p>Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications were relied upon.</p>	<p>Australian Standards: AS/NZS 4600, AS/NZS 1170.0, AS/NZS 2870, AS/NZS 3600, AS 1562, AS 4100                  Building Code of Australia                  AS2047-2014 Windows and External Glazed Doors in Buildings                  AS1288-2006 Glass in Buildings                  AS4055-2012 Wind Loads for Housing                  Region A0                  BCA Importance Level 2</p>

<p><b>4. Reference documentation</b></p> <p>Clearly identify any relevant documentation, e.g. numbered structural engineering plans.</p>	<p>Best Sheds Plans Numbered 2023004271. No of pages as indicated on the plans, dated 13/2/2024 and signed 13/2/2024</p>
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<p><b>5. Building certifier reference number and building development application number</b></p>	<p>Building certifier reference number</p> <p>.....</p> <p>Building development application number <i>(if available)</i></p> <p>.....</p>
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<p><b>6. Appointed competent person details</b></p> <p>Under Part 6 of the Building Regulation a person must be assessed as a competent for the type of work (design-specification) by the relevant building certifier.</p>	<p>Name <i>(in full)</i> Camilo Pineda Moreno .....</p> <p>Company name <i>(if applicable)</i> Emerald Design and Construction .....</p> <p>Business phone number 0416 797 422 .....</p> <p>Email address info@edcstruct.com.au .....</p> <p>Postal address P.O. Box 5 .....</p> <p>Avondale Heights ..... State VIC ..... Postcode 3034 .....</p> <p>Licence class or registration type <i>(if applicable)</i> .....</p> <p>Licence or registration number <i>(if applicable)</i> RPEQ 15562</p>
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<p><b>7. Signature of appointed competent person</b></p> <p>This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.</p>	<p>Signature</p> <p style="text-align: right;">Date</p> <p style="text-align: right;">.....</p> <p style="text-align: center;"></p> <p style="text-align: right;">14/2/2024</p>
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**LOCAL GOVERNMENT USE ONLY**

<b>Date received</b>		<b>Reference number/s</b>	
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## Appendix – explanatory information

**IMPORTANT NOTE:** it is an offence for a competent person to give a building certifier a document, including this form, that the person knows or reasonably suspects, is false or misleading.

**Who can complete this certificate?** (sections 10 of the *Building Act 1975* (Building Act) and 73 of Building Regulation 2021 (BR 2021))  
A building certifier can accept from a competent person (design – specifications) a certificate stating that the competent person has assessed the building design or specification for the aspect of building work, and it will, if installed or carried out under the certificate, comply with the building assessment provisions, including any relevant standards and codes.

Schedule 10 of the BR 2021 defines *building design or specification* as any material, system, method of building or other thing related to the design of or specifications for building work.

For a competent person to meet the regulation requirements (section 77 of the BR 2021) they must substantially complete all sections of this form, including information, such as the design of a particular material, system, method of building or that a building element complies with the Building Code of Australia or a provision of the Queensland Development Code. It is also important that the details of the relevant reference documents are included, for example, the applicable Australian Standards or other technical provisions that may be applicable to the subject work.

**What is the purpose of this form?** (section 10 of the *Building Act 1975*)

The information in this form informs the building certifier's decision making when they are assessing a building development application and issuing the building development approval for the building work the subject of the certificate (form).

**When is this form not required?**

The assessment of some building applications will be entirely within the expertise of the relevant building certifier and therefore they may not seek the help of a competent person. In these instances, this form is not required.

**Is a manufacturer or supplier required under the BR 2021 to complete and sign this Form 15, if requested?**

**No.** A manufacturer or supplier of building materials is not required to complete and give this form or any aspect and inspection certificates if requested by a construction contractor, builder, appointed competent person, or a building certifier.

However, a manufacturer or supplier may give the construction contractor, builder, competent person or the building certifier evidence of suitability such as a manufacturers statement for an aspect or material that it is compliant with the relevant reference documents in the BCA i.e. the applicable Australian Standard/s.

**What if there is not enough space for all the supporting material/documents?**

Items 2, 3 and 4 requires the competent person to clearly identify the extent of the assessment that was undertaken for aspect/s of work identified in this form.

For instance, there is provision for material such as specifications, standards, codes or other relevant publications to be referenced in the form. However, if the space in the form is not sufficient to accommodate all of this material, you can create and refer to additional material in an addendum or attachment to the form.

The form is also available in a Microsoft Word version, that you can download and edit to include additional material in the relevant parts of the form. Note that editing the form in the Microsoft Word version may cause the relevant boxes to expand and increase the length of the document. This is acceptable and does not change the approved form, provided the section text (description on the left-hand side of the page) is not altered.

**Appointed competent person (design or specification)** – (sections 34 and 36 of the BR 2021)

A building certifier must assess and decide to appoint an individual as a competent person before they can, as a competent person, give design-specification help. The building certifier is required to keep detailed records about what was considered when appointing a competent person.

A building certifier must be satisfied that an individual is competent to give the type of inspection help having regard to the individual's experience, qualifications and skills and if required by law to hold a licence or registration, that the individual is appropriately registered or licensed.

An individual is appointed as competent to give design-specification help on or from a particular day. The building certifier can also decide an individual is a competent person (design-specification) and a competent person (inspection) at the same time or for the same systems or components of the work.

For further information about assessment of someone as a competent person refer to the **Guideline for the assessment of competent persons**.

### PRIVACY NOTICE

The Department of Energy and Public Works is collecting personal information as required under the *Building Act 1975*. This information may be stored by the Department, and will be used for administration, compliance, statistical research and evaluation of building laws. Your personal information will be disclosed to other government agencies, local government authorities and third parties for purposes relating to administering and monitoring compliance with the *Building Act 1975*. Personal information will otherwise only be disclosed to third parties with your consent or unless authorised or required by law.