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05/09/2024

Our Ref – Job Number 1497953204

**RE: Structural Certification of Single-Story Lightweight Structure Class 10a.**

**For: David Coleman**

**Location: 61 School Lane, Budgee Budgee NSW 2850**

To whom it may concern

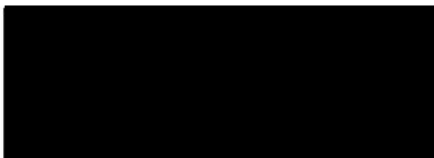
The purpose of this letter is to provide structural certification over the aspects of the buildings mentioned above, namely the drawings referenced in this certification are

- Structural Drawings, ref Job Number 1497953204 dated 05/09/2024

I have relied on the following reference documents

- AS 1170.0 General Principals (2002)
- AS 1170.1 Permanent & Other Actions (2002)
- AS1170.2 AS1170.2- (2021)
- AS 1170.3 Ice and Snow Actions (2021)
- AS 1170.4 Earthquake Loads (2007)
- AS 3600 Concrete Structures (2018)
- AS 4100 Steel Structures Code (2021)
- AS 4600 Cold Formed Section Code (2018)
- AS 2870 Residential Slab and Footing (2011)
- National Construction 2022

Yours faithfully,



**Camilo Pineda Moreno**  
*Beng MIEAust RPeng, RPEQ.*  
**BPB: 2769 (NSW)**

# ENGINEERING SCHEDULE

CERTIFIED STEEL PORTAL FRAME SHED DESIGN IN ACCORDANCE WITH NCC 2022 FOR SITE WIND SPEED "40.93m/s", WIND REGION "A3", TERRAIN CATEGORY "2", IMPORTANCE LEVEL "2"

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

Customer: David Coleman  
Site Address: 61 School Lane, Budgee Budgee NSW 2850

Main Building: Span: 8, Length: 18.75, Height: 4.5, Roof Pitch: 11 degrees  
The length being comprised of 5 bays, the largest bay is 3.75m bays.  
Left LeanTo: NA  
Right LeanTo: NA

Total Kit Weight: 5153.94kg

INTERNAL PORTALS
Column: C30024
Rafter: C30024
Knee Brace: C15024
Knee Brace Length: 2000
Apex Brace: NA
Apex Brace Length: NA

END PORTALS
Column: C30024
Rafter: C30024
Knee Brace: NA
Knee Brace Length: NA
Apex Brace: NA
Apex Brace Length: NA
Endwall Mullion: C30024

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: TH120100	Max Spacing: 1200	Overlap: 10%
Side Wall Girts: TH120100	Max Spacing: 1200	Overlap: 10%
Front End Wall Girts: TH120100	Max Spacing: 1200	Overlap: 10%
Back End Wall Girts: TH120100	Max Spacing: 1100	Overlap: 10%
Roof Purlins: TH120100		

NOTE: Girt spacing will vary to a maximum 1.2m where window/s are located.

FASTENERS
Sleeve Anchor Bolts: M16x105 Sleeve Anchor
Frame Bolts: M16x45 Purlin Assembly Zinc (Mild)
Frame Screws: Frame Screw 14x14x22
Cross Bracing Strap: 32mm x 1.2 strap
Open Bay Header Height: NA

COLOUR SCHEDULE
Roof Sheets: Monolith
External Wall Sheets: Monolith
Roller Doors: Monolith
Flashings: Monolith
PA Doors: Monolith
Windows: NA

## 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.

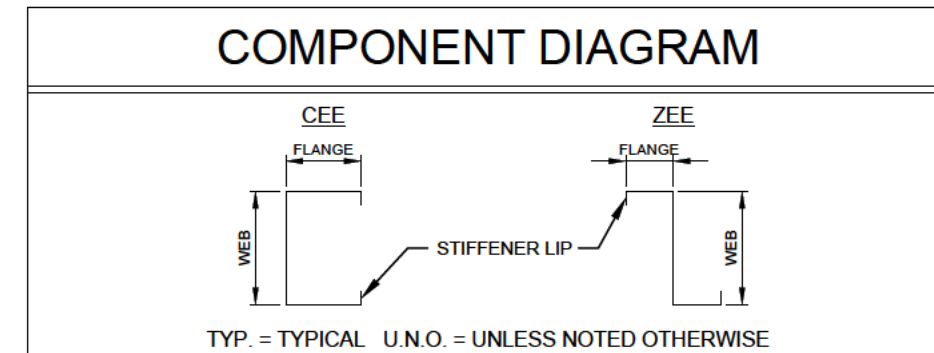
## GENERAL

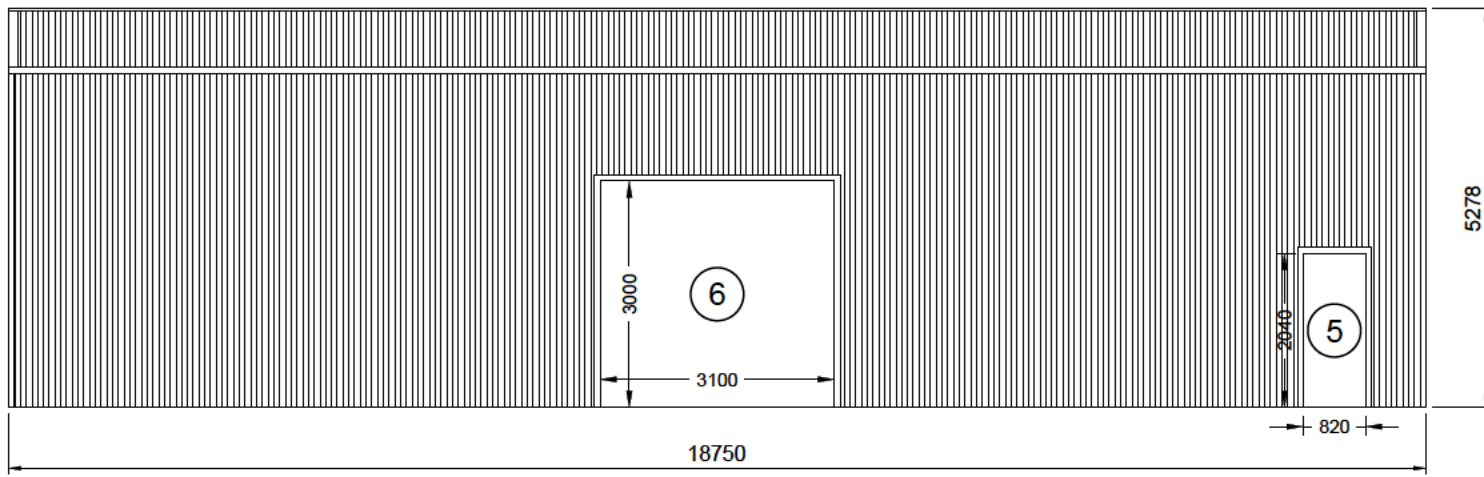
The designs as portrayed on the drawings remain the intellectual property of Best Sheds Pty Ltd and are provided for building approval and construction purposes only.

## SNOW LOAD

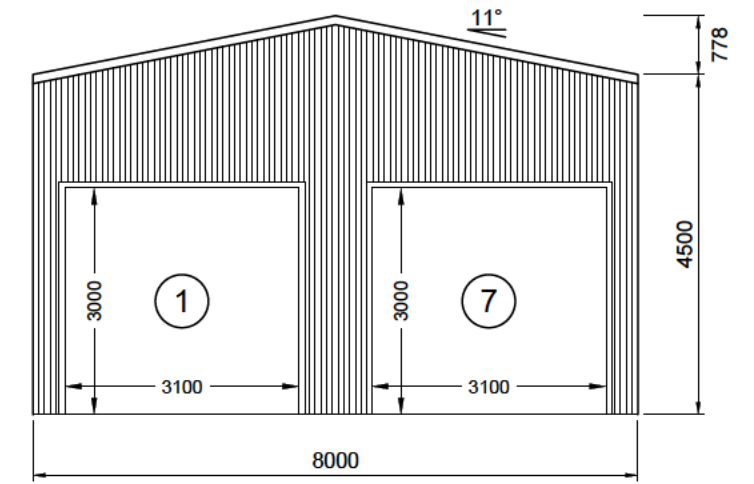
Following conditions only apply to buildings with snow loading:

- 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.

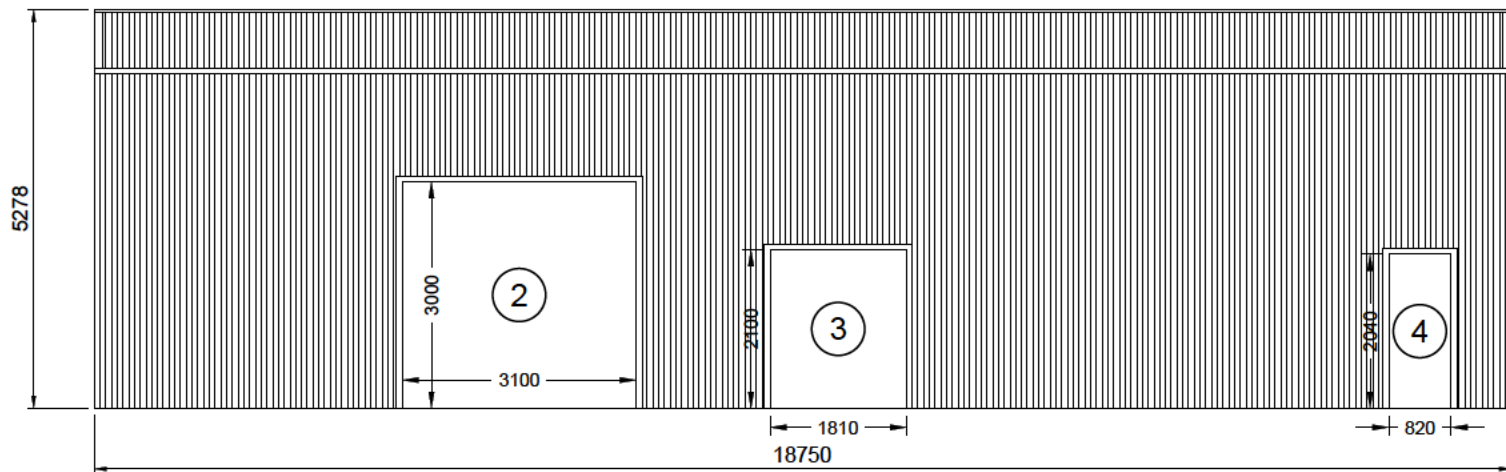




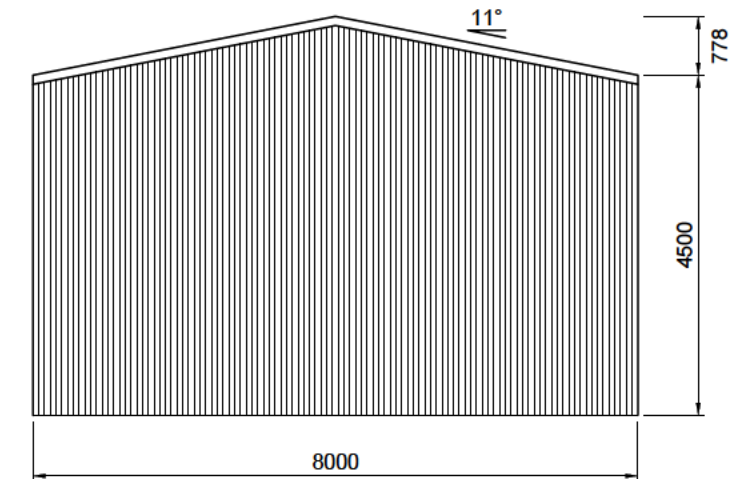
2 LEFT ELEVATION  
2 SCALE: 1:100



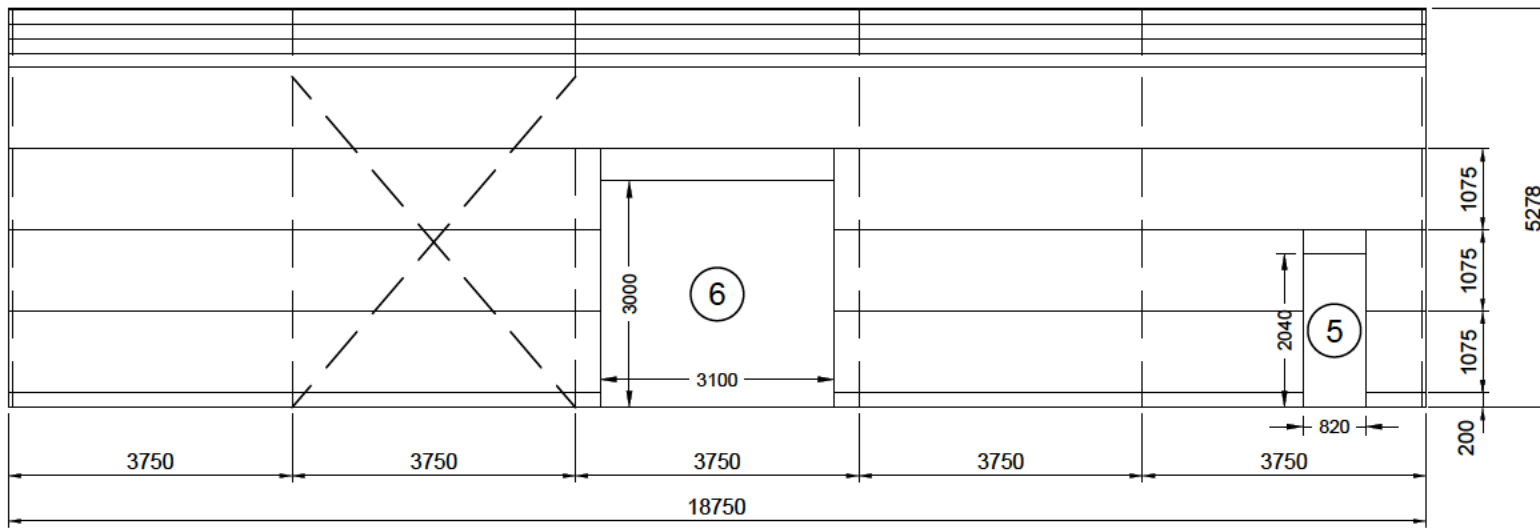
3 REAR ELEVATION  
2 SCALE: 1:100 FRAME #6



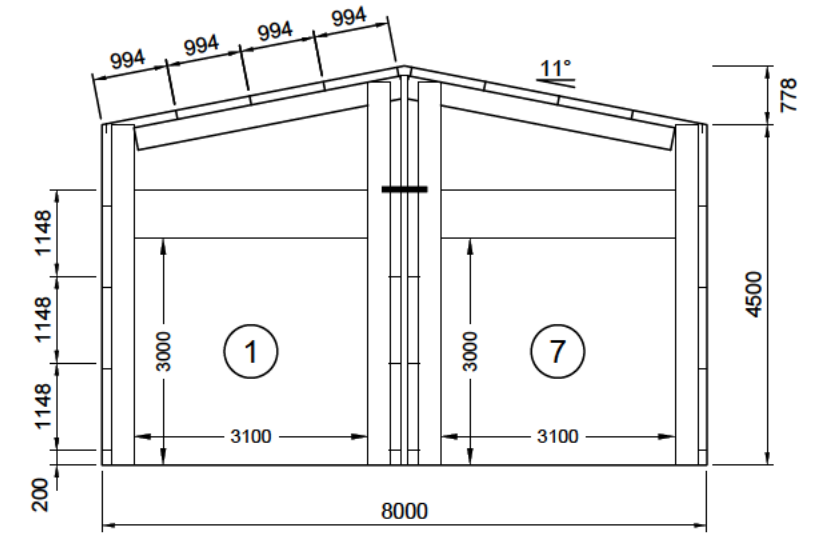
1 RIGHT ELEVATION  
2 SCALE: 1:100



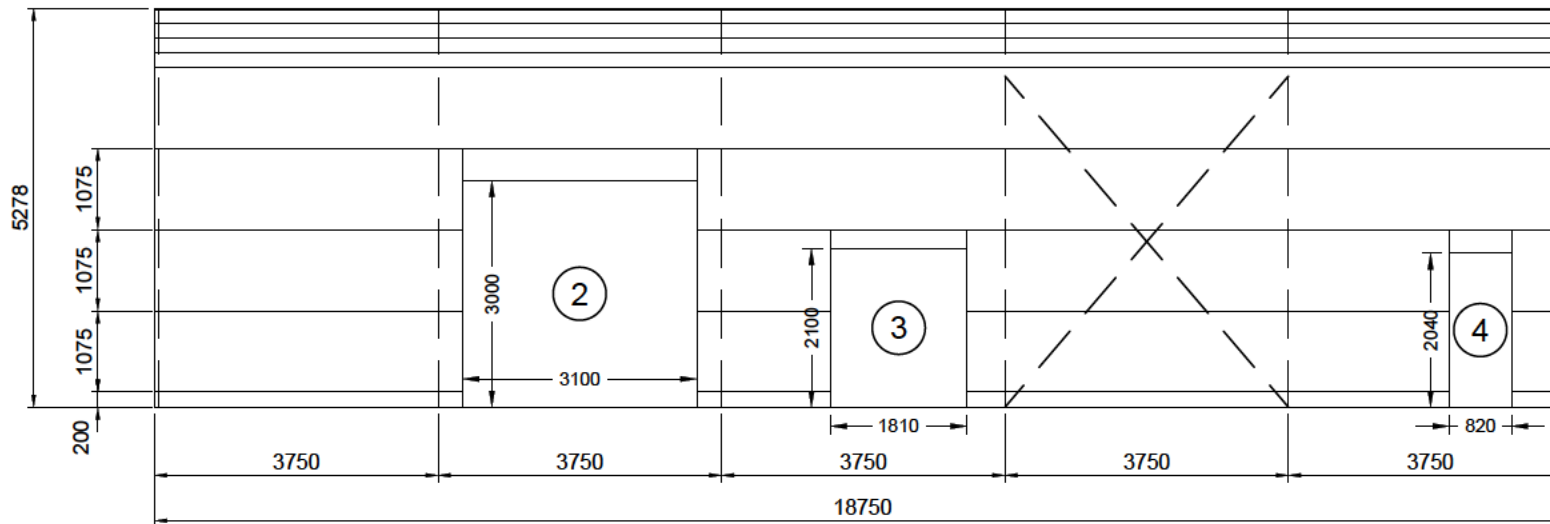
4 FRONT ELEVATION  
2 SCALE: 1:100 FRAME #1



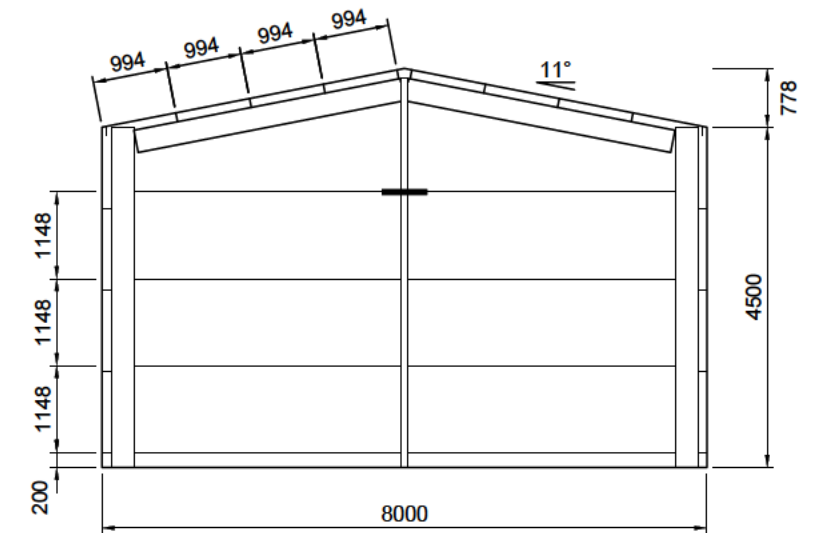
**2** LEFT ELEVATION  
**3** SCALE: 1:100



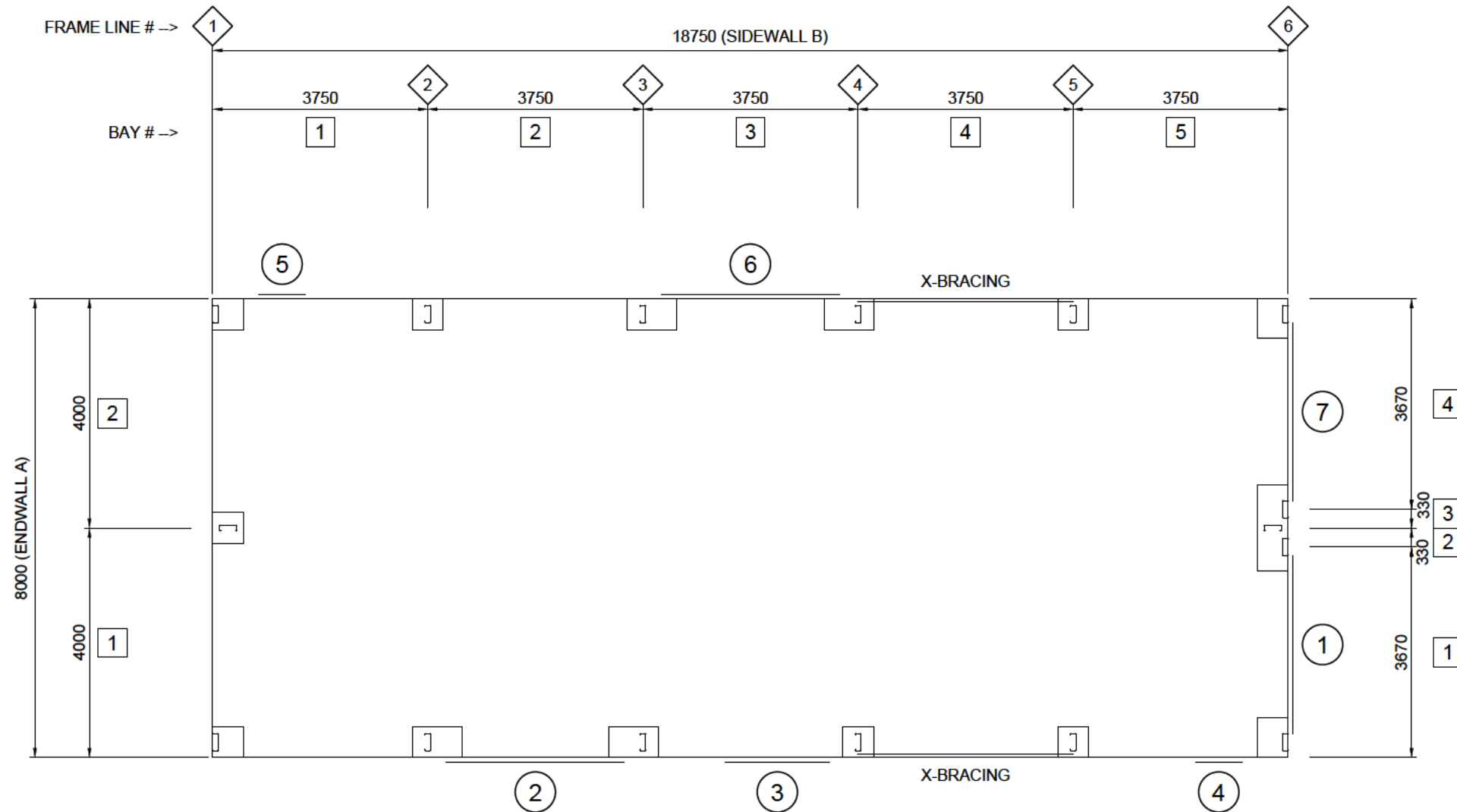
**3** REAR ELEVATION  
**3** SCALE: 1:100 FRAME #6



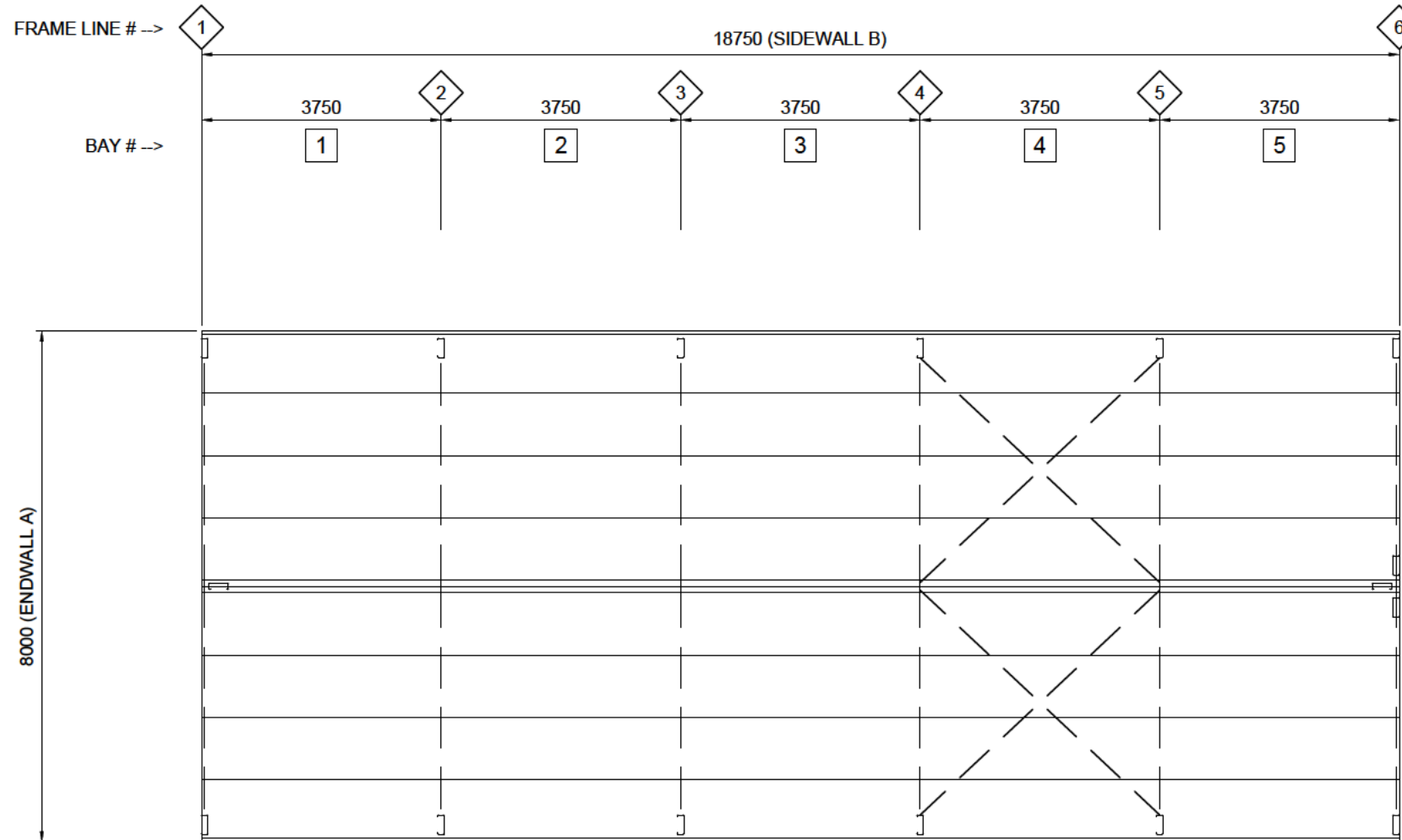
**1** RIGHT ELEVATION  
**3** SCALE: 1:100



**4** FRONT ELEVATION  
**3** SCALE: 1:100 FRAME #1



1 FLOOR PLAN  
4 SCALE: 1:100



1 ROOF FRAMING PLAN

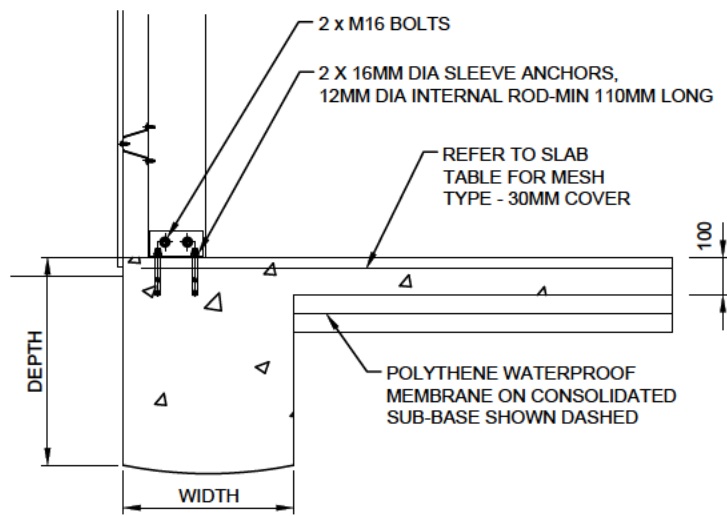
5 SCALE: 1:100

**SLAB FOUNDATIONS DOMESTIC / LIGHT INDUSTRIAL**  
(100mm MINIMUM CONCRETE SLAB INCLUDED)

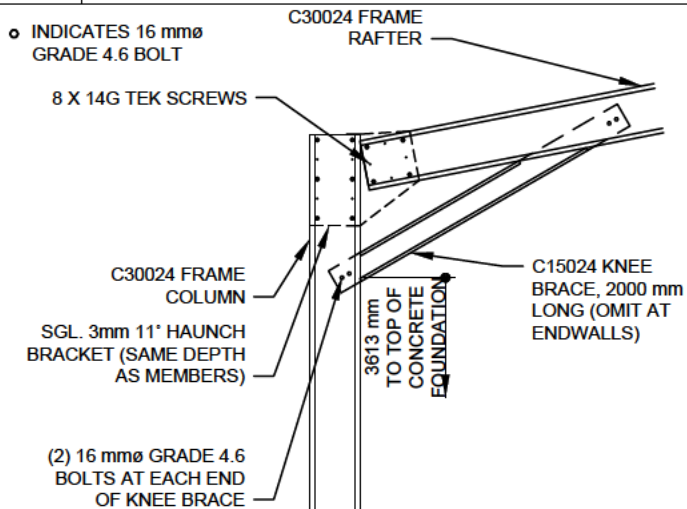
SOIL CLASSIFICATION (COMPACTED)	REINFORCING IN SLAB	EDGE BEAM	PIER	EDGE BEAM (slab thickness not included)	
				DEPTH	WIDTH
A, S, & M	SL72	---	450 x 400	---	---
M - D	SL82	L11TM3	---	300	300
H TO H - D	SL82	L11TM3	---	400	300
E TO E - D	SL82	L11TM4	---	400	400
P (DROP EDGE BEAM OR STANDARD EDGE BEAM WITH PIERS UNDER COLUMNS 300 INTO FIRM GROUND)	SL82	L11TM4	450ø	400	400

THICKNESS: 100MM WITH MINIMUM 30MM COVER. REFER TO SLAB FOUNDATION TABLE FOR REINFORCING SPECIFICATION

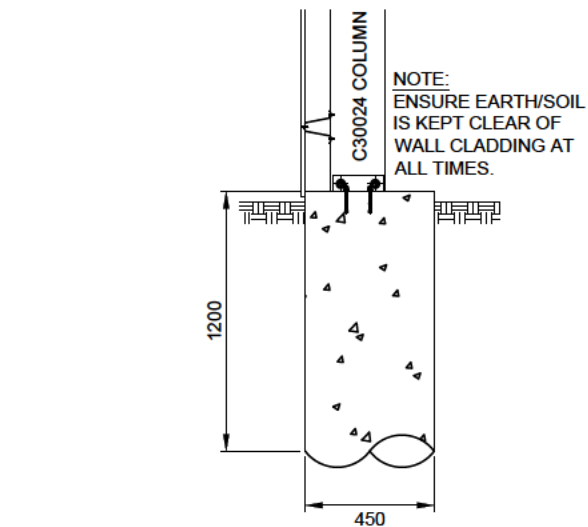
STRENGTH: 25mPa



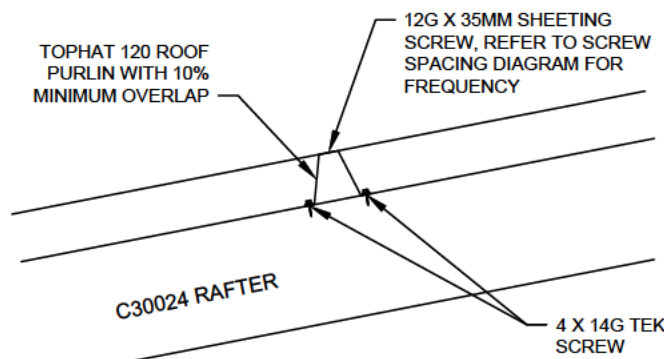
**Y SLAB DETAIL**



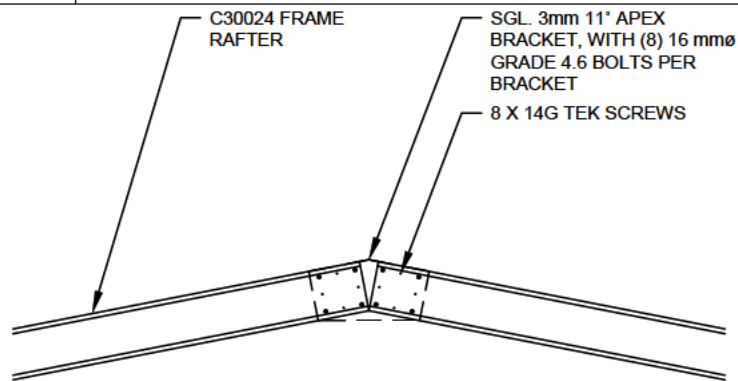
**A HAUNCH CONNECTION**



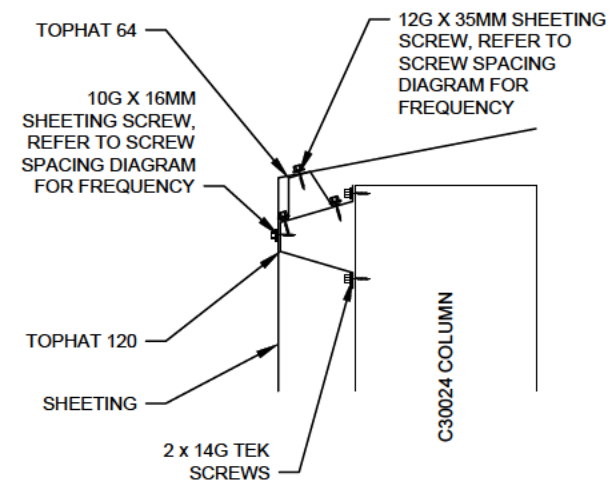
**Z ALTERNATE PIER DETAIL**



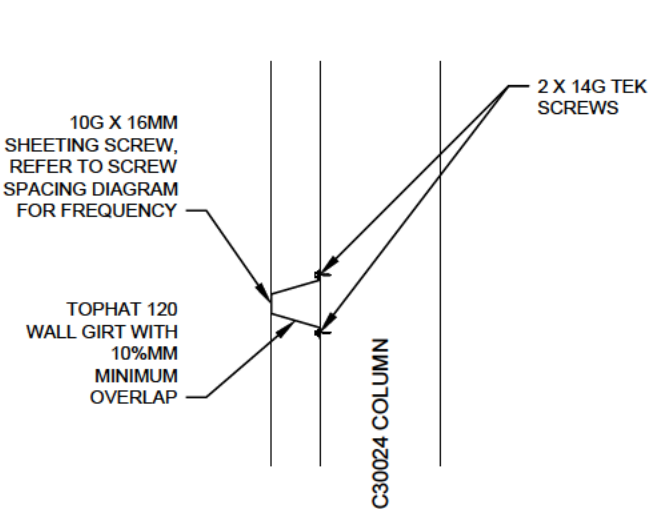
**E PURLIN CONNECTION**



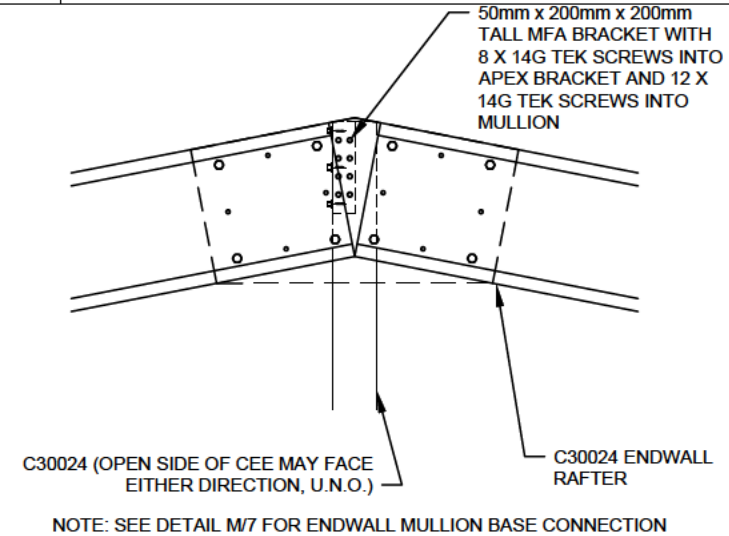
**B APEX CONNECTION**



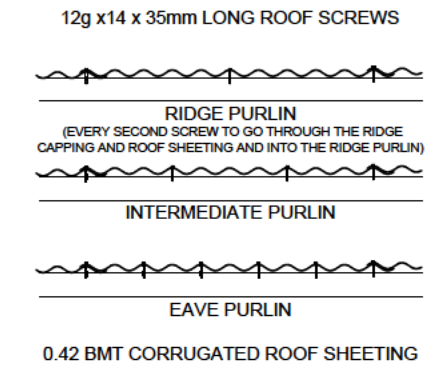
**H EAVE CONNECTION**



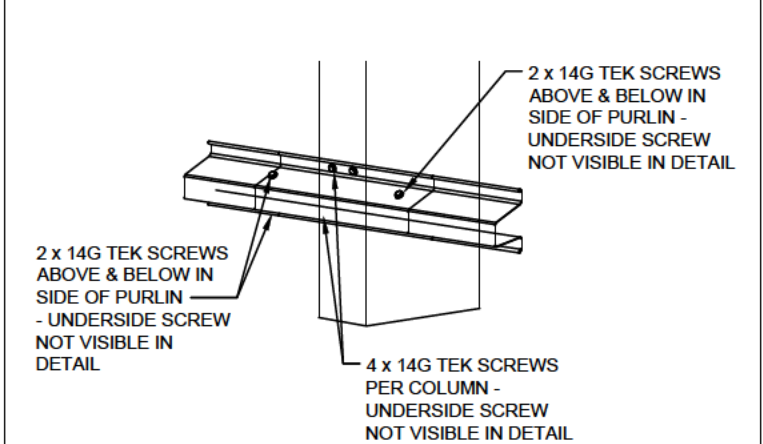
**F GIRT CONNECTION**



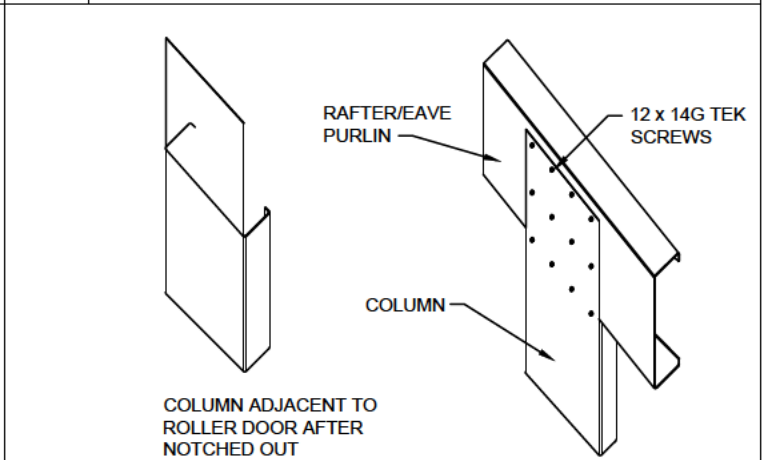
**C2 ENDWALL MULLION TO RAFTER PEAK CONDITION**



**I ROOF SHEETING**



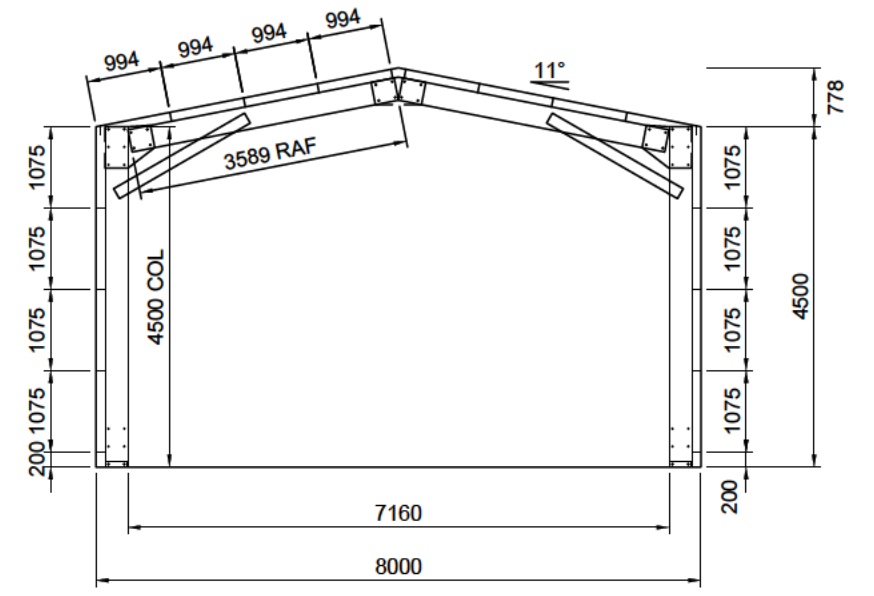
**G TOP HAT CONNECTION**



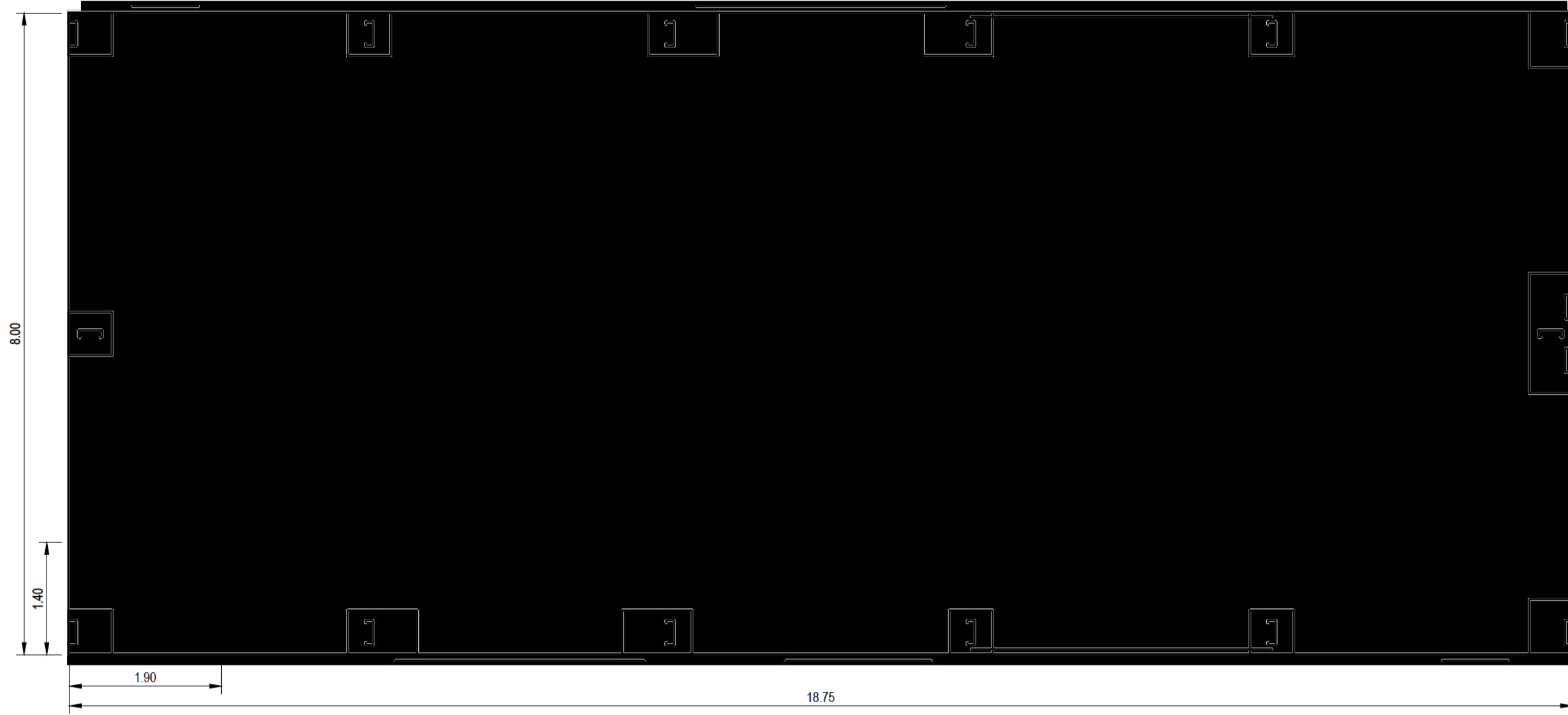
**D ENDWALL MULLION ROTATED**

<p><b>R</b> PA DOOR STYLE CONNECTION</p>	<p><b>S</b> GLASS SLIDING DOOR STYLE CONNECTION (TH120)</p>	<p><b>T</b> FLYBRACE</p>	
<p><b>N</b> ROTATED ENDWALL MULLION BASE</p>	<p><b>O</b> ENDWALL GIRT BRACKET</p>	<p><b>P</b> TH120 SIDE ROLLER DOOR DETAIL</p>	<p><b>Q</b> END DOOR HEADER AND JAMB</p>
<p><b>J</b> WALL SHEETING</p>	<p><b>K</b> CORNER COLUMN BASE</p>	<p><b>L</b> INTERNAL COLUMN BASE</p>	<p><b>M</b> ENDWALL MULLION BASE</p>





1 TYP. FRAME CROSS-SECTION  
 8 SCALE: 1:100 FRAMES 2-5



FLOOR PLAN  
SCALE 1:50

Notes



Issued/Revision	By	Appd	YYYY.MM.DD
A	DC	DC	2024.10.08
ISSUED FOR APPROVAL			

Issue Status

**S4**  
**SUITABLE FOR**  
**STAGE APPROVAL**

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Client/Project  
DAVID COLEMAN  
61 SCHOOL LANE  
BUDGE BUDGE

DC	DC	DC	DC	2024.08.10
Dwn.	Dsgn.	Chkd.	Appd.	YYYY.MM.DD

Title SHED  
INTERNAL LAYOUT  
PLAN

Project No. 241008      Auth. Ref. -      Scale at A1 1:50

Revision **A**      Drawing No.