

HOUSE NOT PART OF PERMIT



NEW PLYMOUTH
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#Notes

client:
LOWE

project:
RELOCATE PERMIT

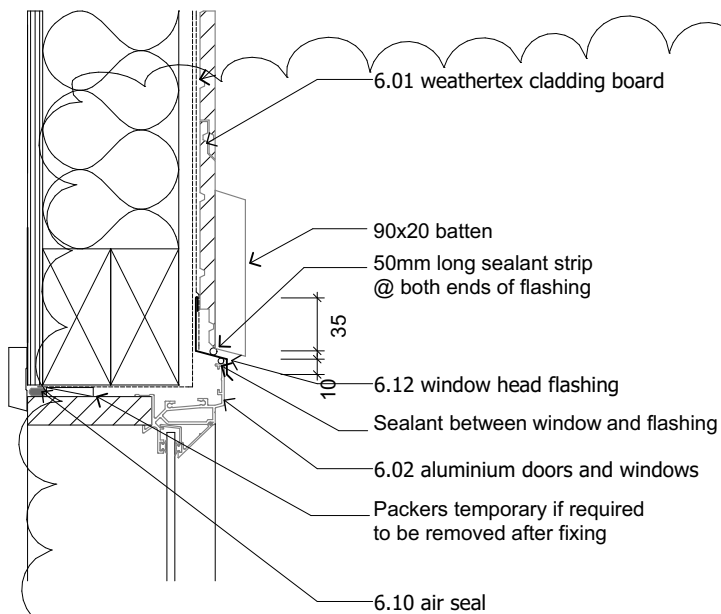
design by: Manor Build

scale: As Noted

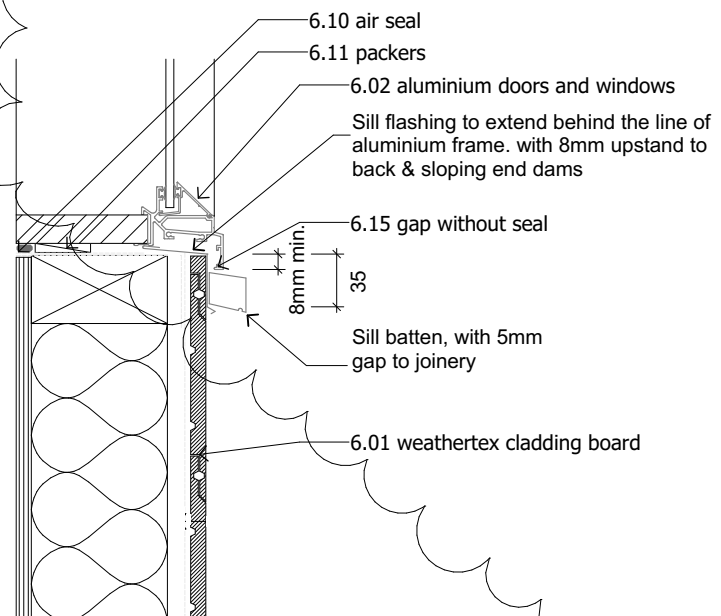
date: 10/03/2021

ELEVATIONS

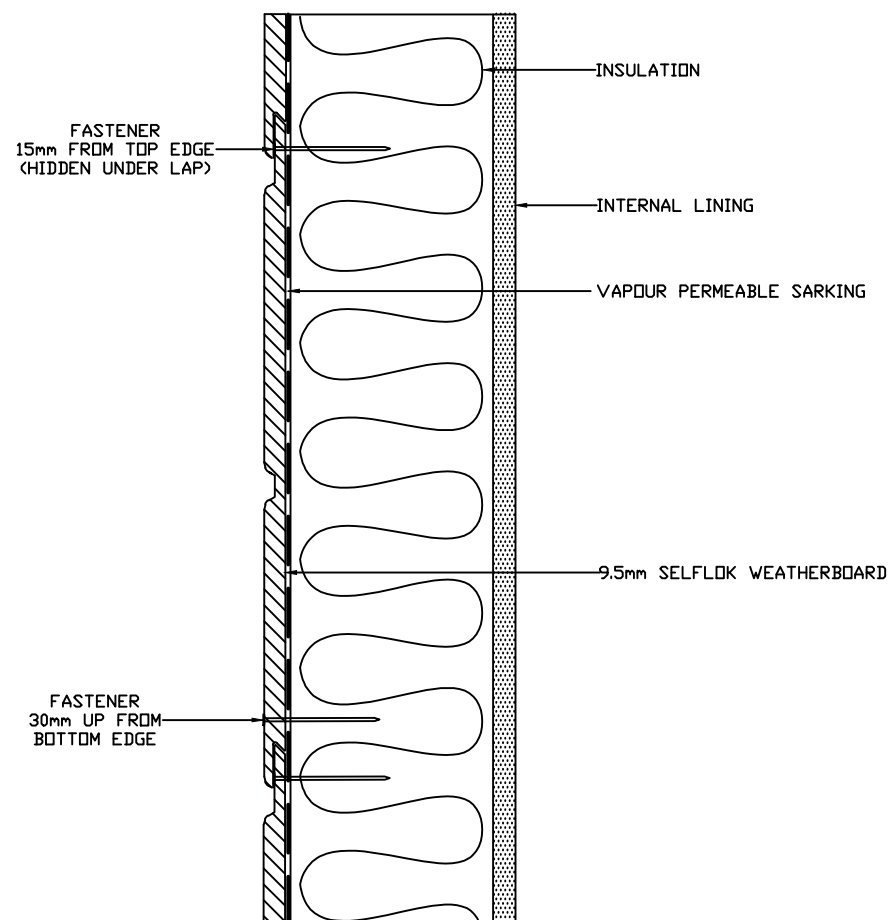
job no: MG181	sheet no: A2-3
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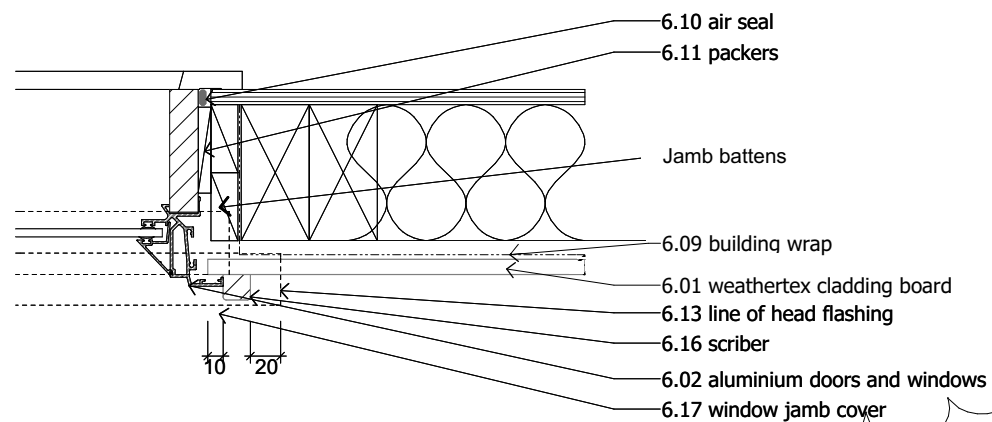
JOINERY HEAD
Scale 1:5



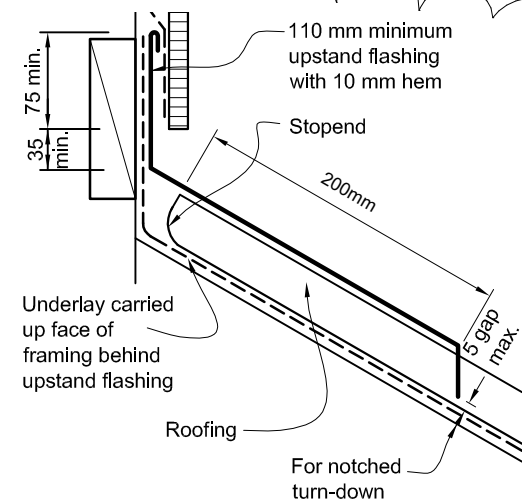
JOINERY SILL
Scale 1:5



CLADDING FIXING
Scale NTS



JOINERY JAMB
Scale 1:5



APRON FLASHING
Scale NTS



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date: 10/03/2021

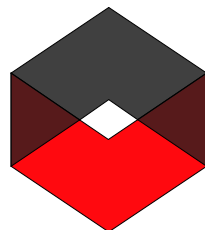
CONSTRUCTION DETAILS

job no:

MG181

sheet no:

A3-2



Design has been based on the following site specific and/or building specific items:


- Building Importance Level = “1”
- Design Life for structural elements = 50 years
- Design Wind Speed = 37.3m/s (for design of the Building)(Wind Zone = “High”) - in accordance with AS/NZS1170.2:2011
- Earthquake Zone = “1” in accordance with NZS3604:2011
- Corrosion Zone = “C” in accordance with NZS3604:2011

Design Assumptions:
Kiwispan part and House part are designed as seperate structures and deflections kept low to not transfer the loads to the other part.

Member Schedule Summary

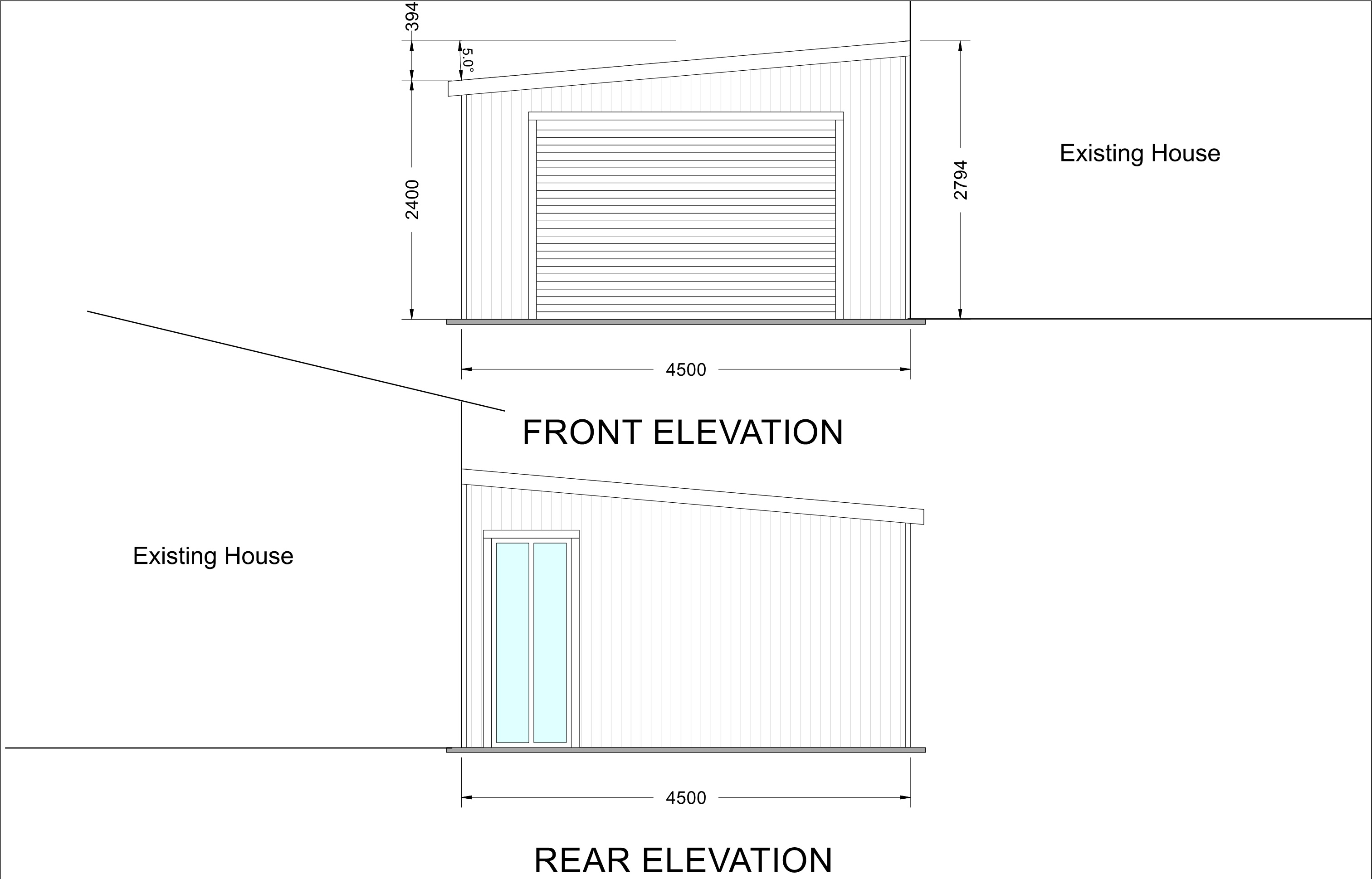
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End Rafter (ER):	C15012 Single C15019
Internal Column (IC):	C20019 Single
Internal Rafter (IR):	C20019 Single
End Wall Mullion (EWM):	NA
Knee Brace (KB):	NA
Apex Brace (AB):	NA
End Roller Door Post:	C15019 Single
Eave Purlin (EP):	TH100075
Open Bay Column:	C20019
End Wall Girt (EWG):	TH100075 (Max Spacing: 1200, Over Lap: 15%)
Side Wall Girt (SWG):	TH100075 (Max Spacing: 1450, Over Lap: 15%)
Roof Purlins (RP):	TH100075 (Max Spacing: 1450, Over Lap: 15%)
Wall Cladding Type:	Slimclad 0.40
Roof Cladding Type:	Trimrib 0.40
Wall Colour:	Endura, TBC
Roof Colour:	Endura, TBC
Barge Colour:	Endura, TBC
Gutter Colour:	Endura, TBC
Downpipe Colour:	Endura, TBC


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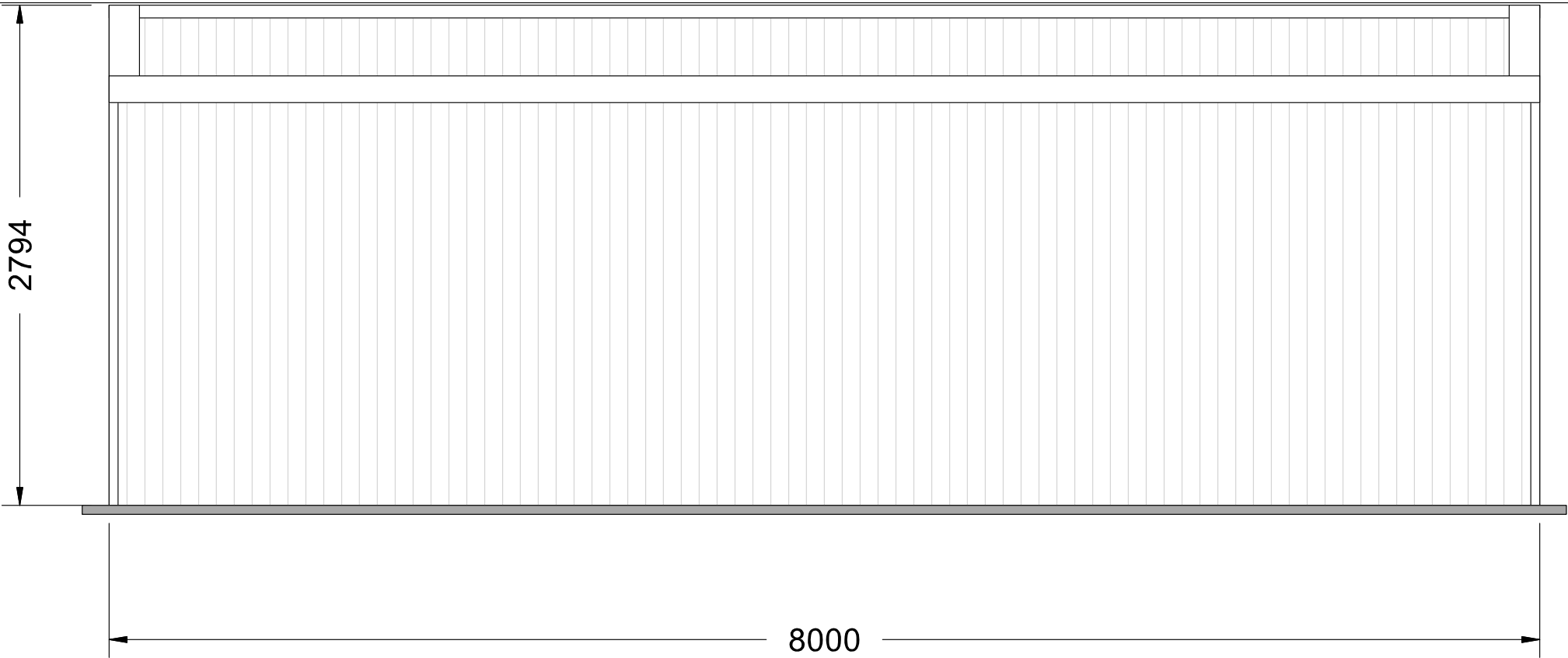
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- The contractor shall verify all dimensions on site prior to commencing construction.
- Do not scale dimensions from these drawings. If in doubt, ask.
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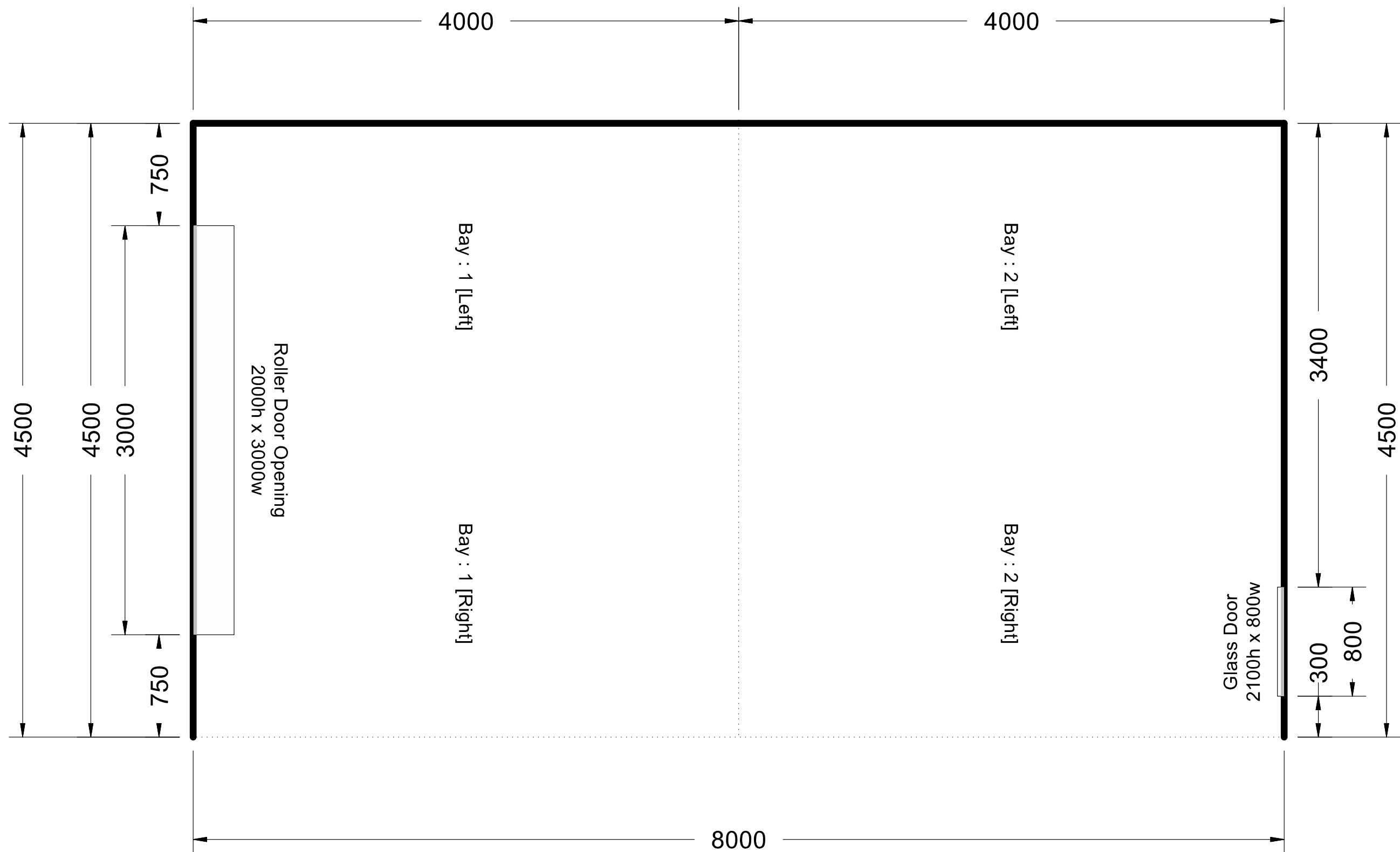
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	Scale: 1:34		Date: 1/06/2021	
	Original Size: A3		Page Number: 2 of 9	



LEFT ELEVATION

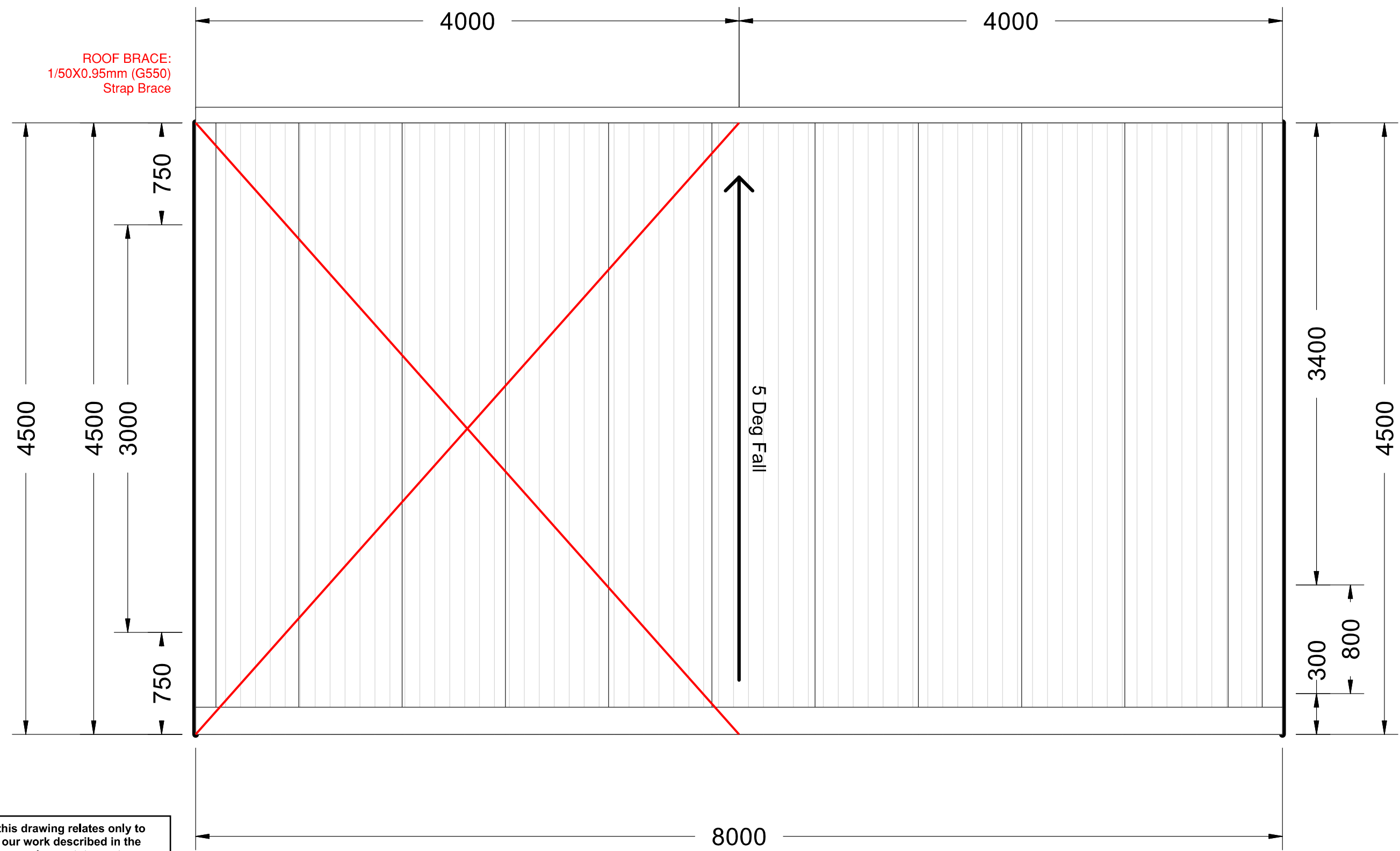


RIGHT ELEVATION




FLOOR PLAN

		<i>Floor Plan</i> (Unlined Building)	Job Number: SZI210316103515	
	Scale: 1:30		Date: 1/06/2021	
	Original Size: A3	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: 4 of 9	




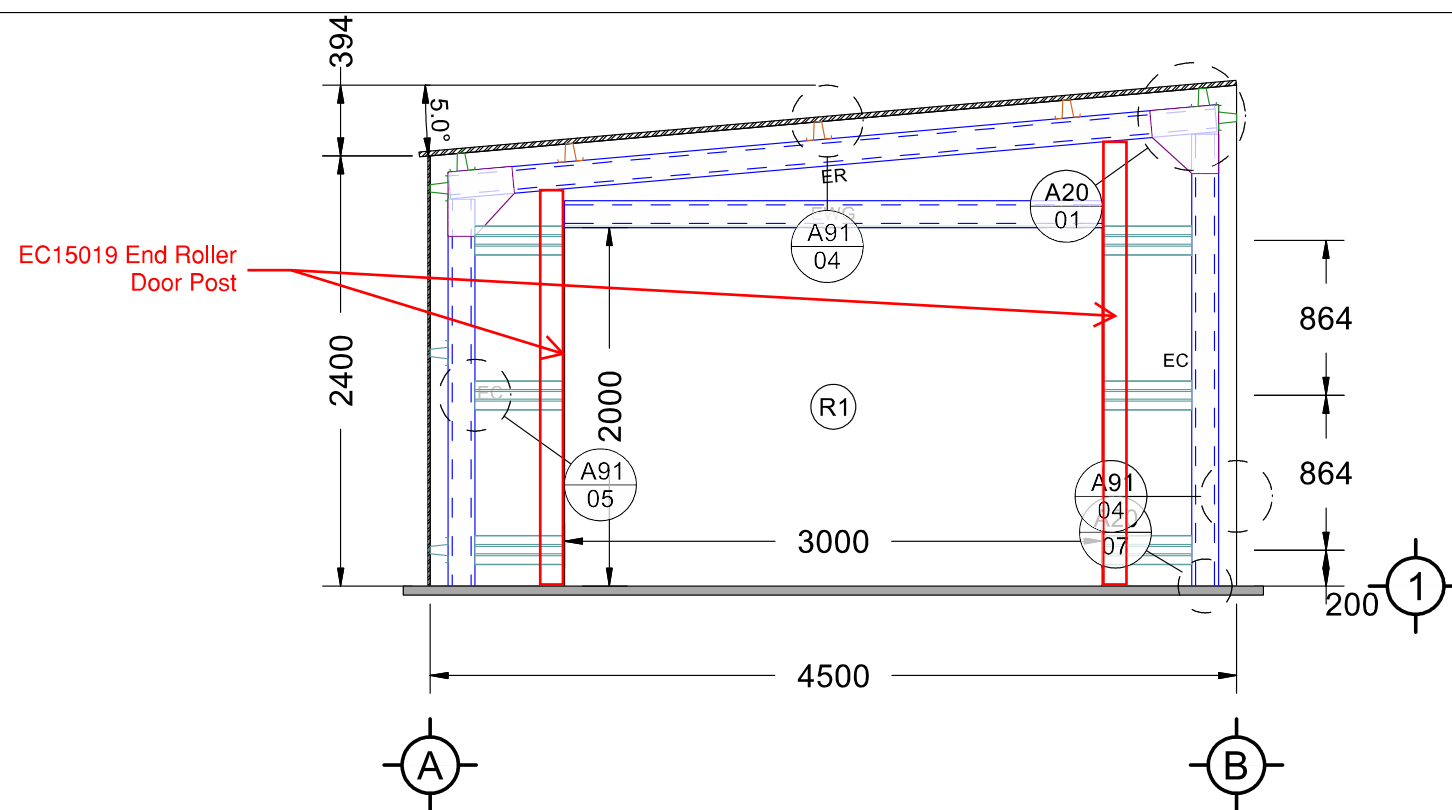
Roof Elevation

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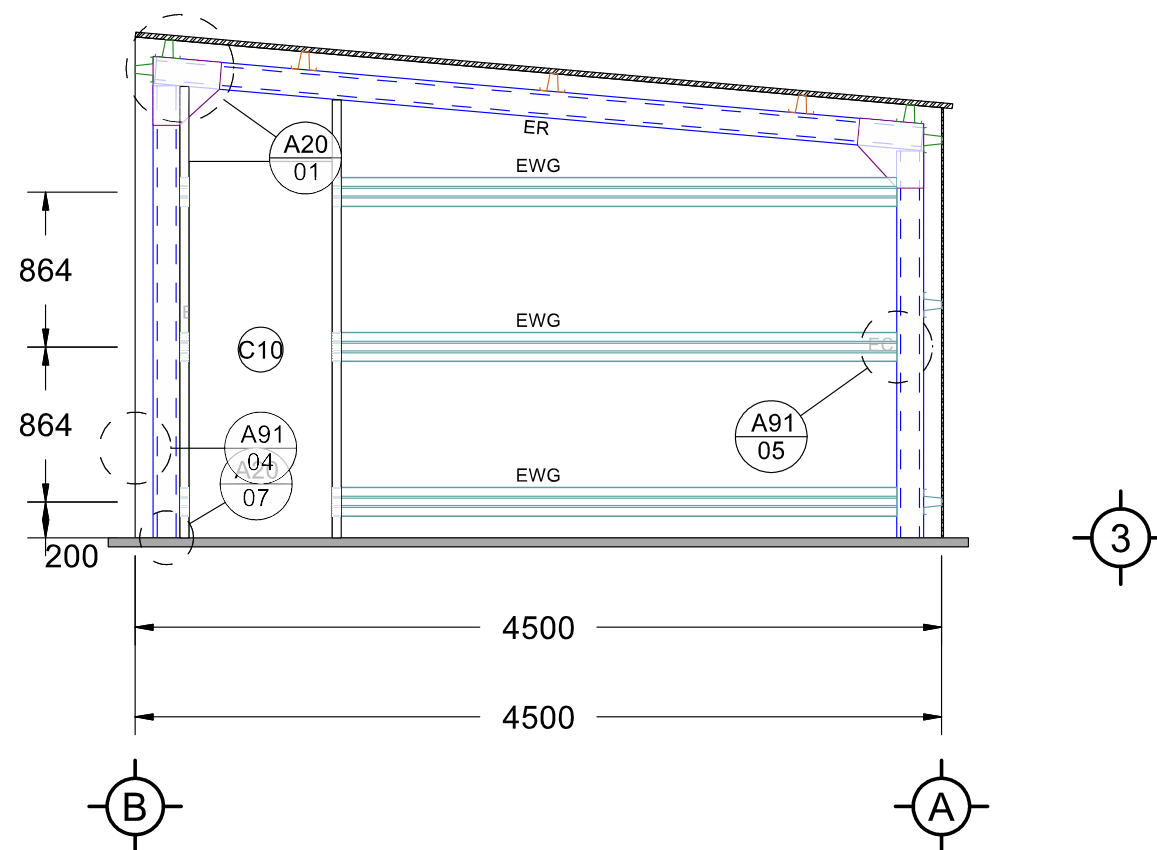
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		ROOF ELEVATION	Job Number: SZI210316103515	
	Scale: 1:30		Date: 1/06/2021	
	Original Size: A3	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: 5 of 9	



FRONT ELEVATION



REAR ELEVATION

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Scale: 1:42
Original Size:
A3

Customer Name: Arthur Brown Construction
Site Address: 27 County Drive

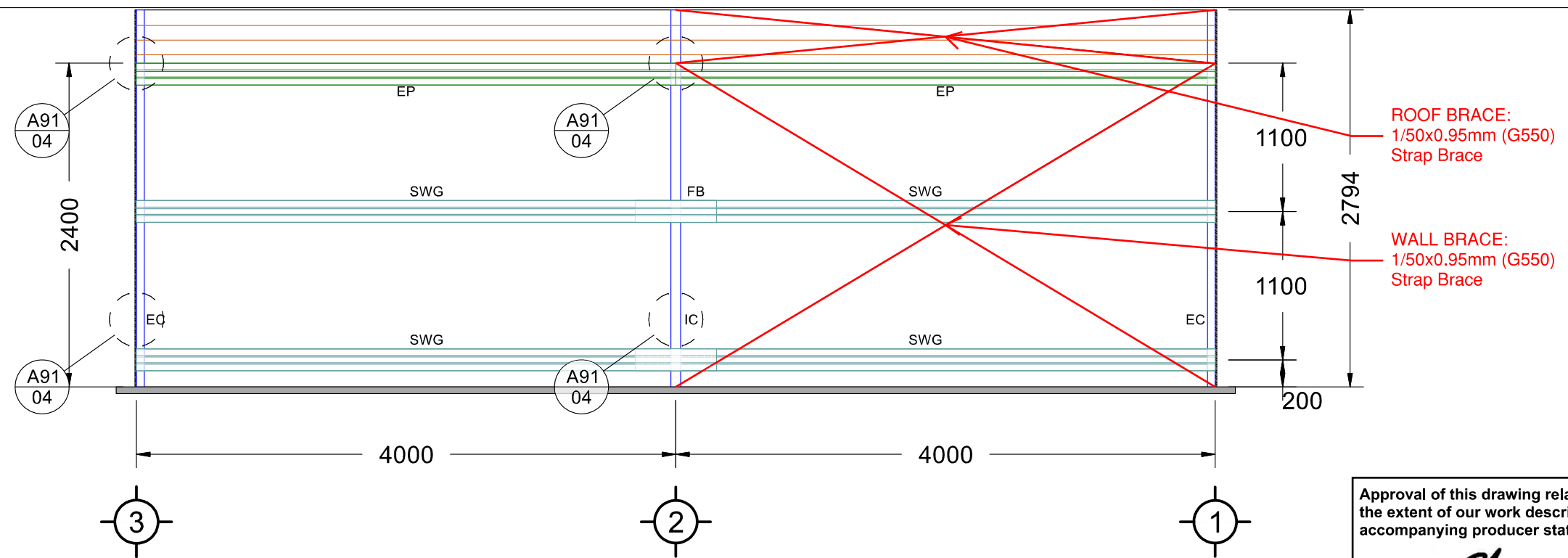
End Frame Elevations

Job Number:
SZI210316103515

Date: 1/06/2021


Page Number:
6 of 9



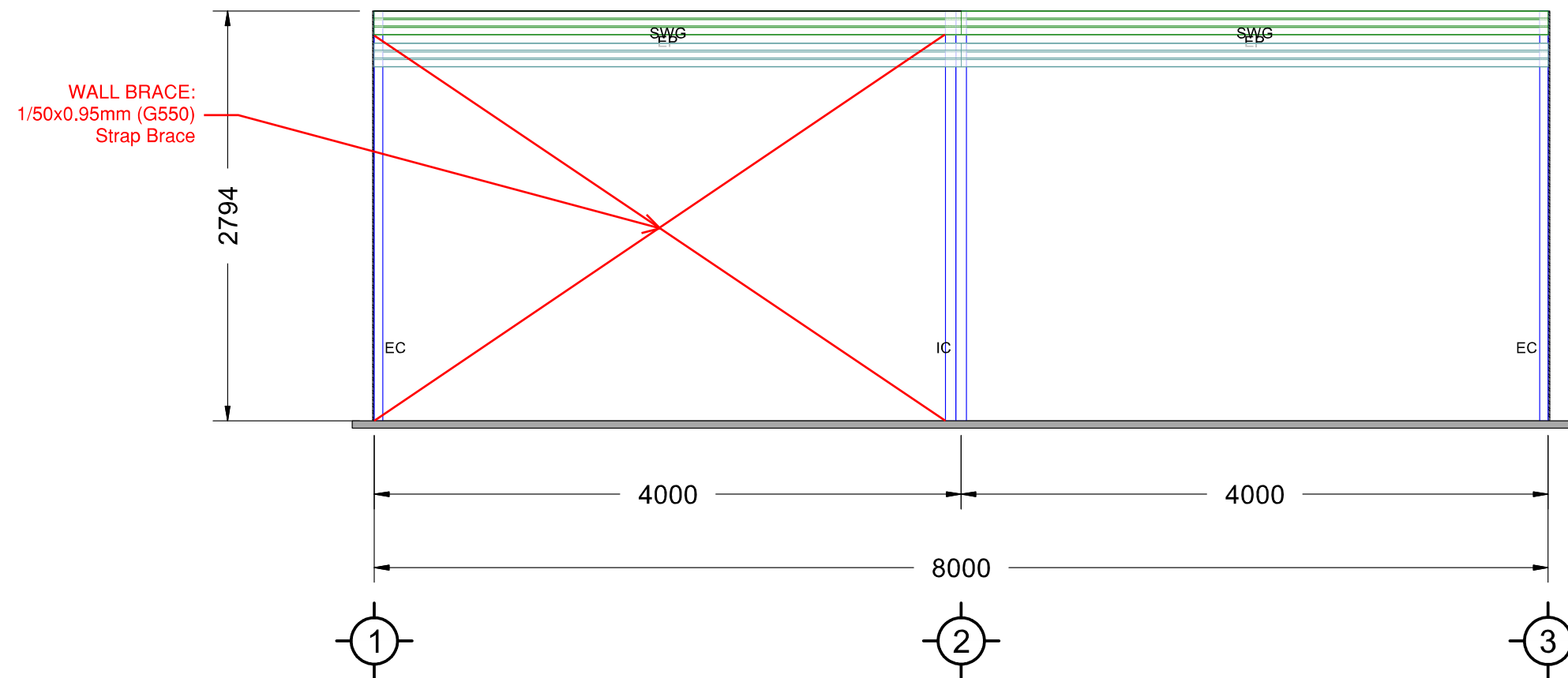


LEFT ELEVATION

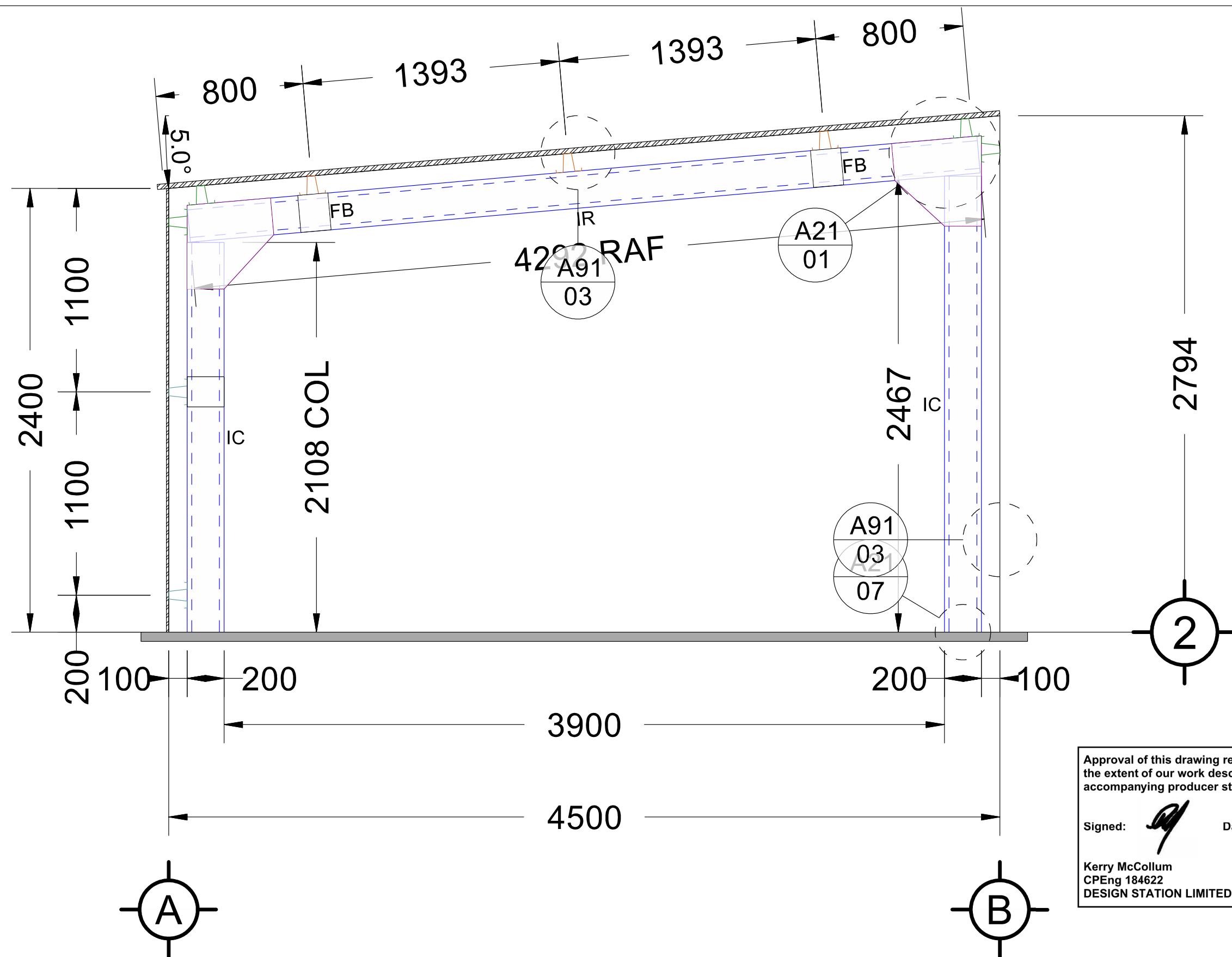
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RIGHT ELEVATION




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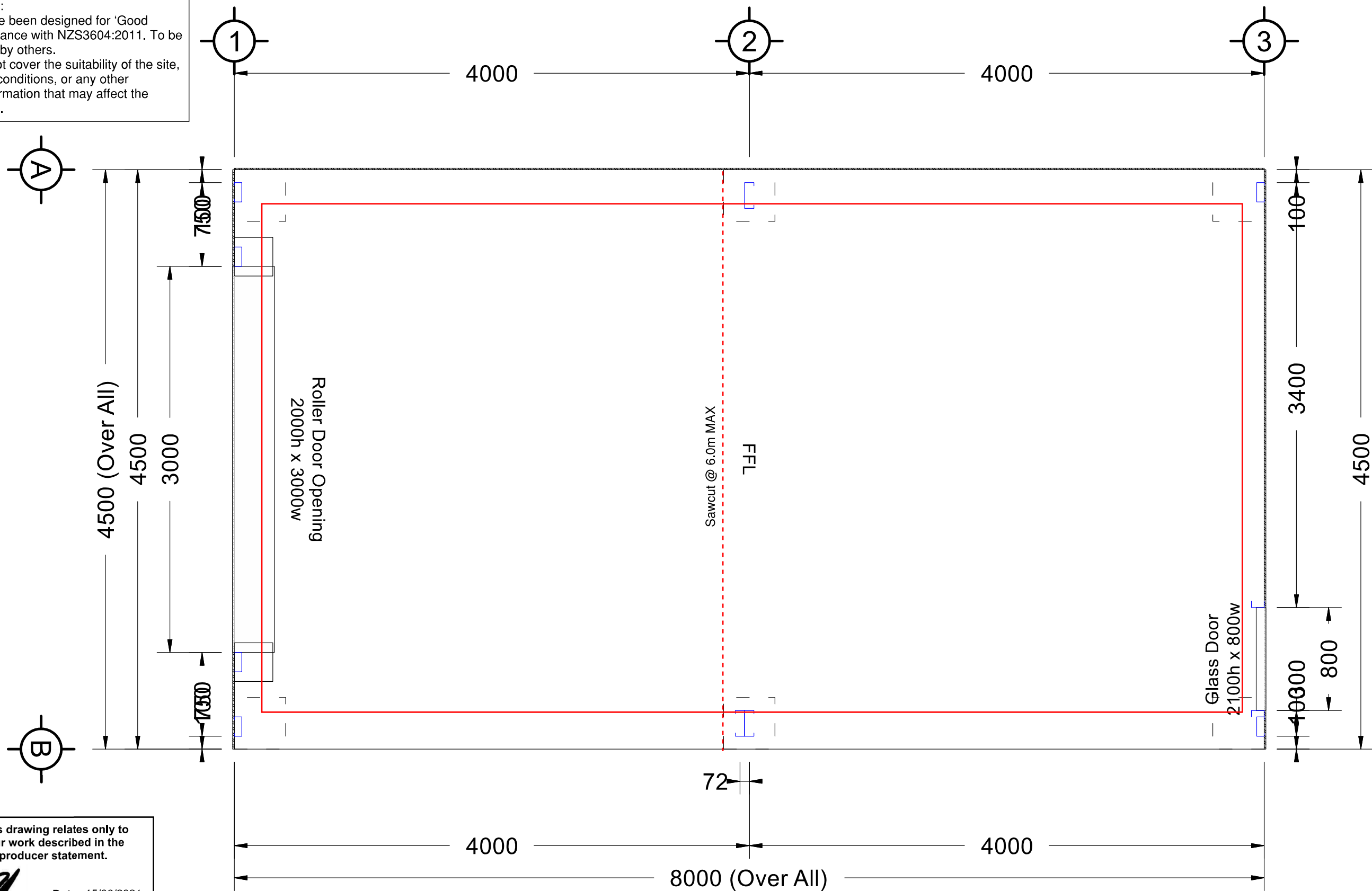
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INTERMEDIATE ELEVATION

		Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Job Number: SZ1210316103515 Date: 1/06/2021 Page Number: 8 of 9	
	Scale: 1:22			
	Original Size: A3			

Cross Section (2)

Foundation Notes:
•Foundations have been designed for 'Good Ground' in accordance with NZS3604:2011. To be confirmed on site by others.
•The PS1 does not cover the suitability of the site, stability, sub-soil conditions, or any other Geotechnical information that may affect the foundation design.



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FOUNDATION PLAN

		Foundation Plan	Job Number: SZI210316103515	
	Scale: 1:31		Date: 1/06/2021	
	Original Size: A3	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: 9 of 9	

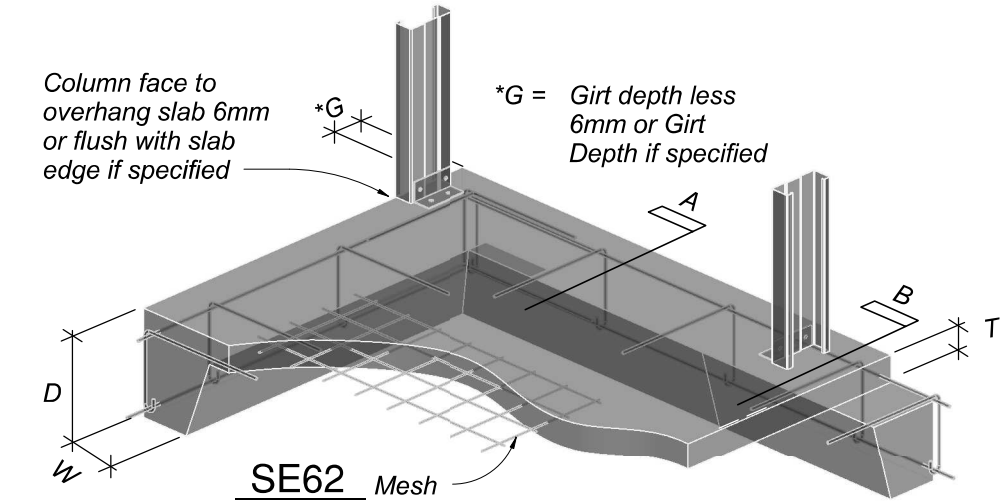
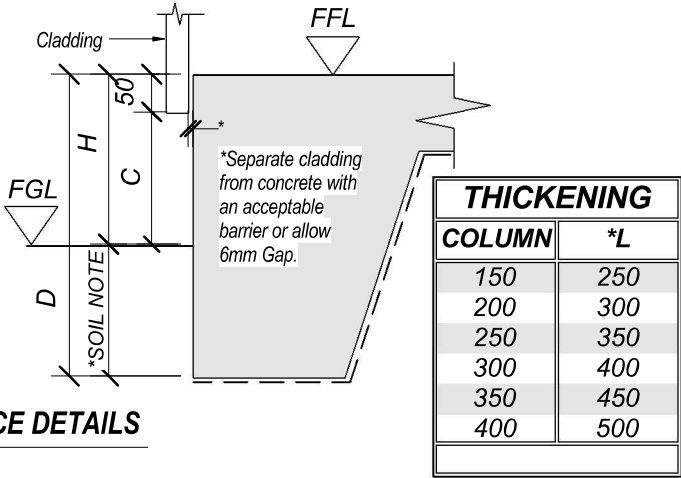
FOUNDATION PARAMETER							
H	D	W	X	Y	T	S1	L
125mm	300mm	200mm	-	-	100mm	H12	300mm
Measurements in mm u.n.o. * For expansive soils - see Soil Note.							

MINIMUM RECOMMENDED CONCRETE STRENGTH
20 MPa

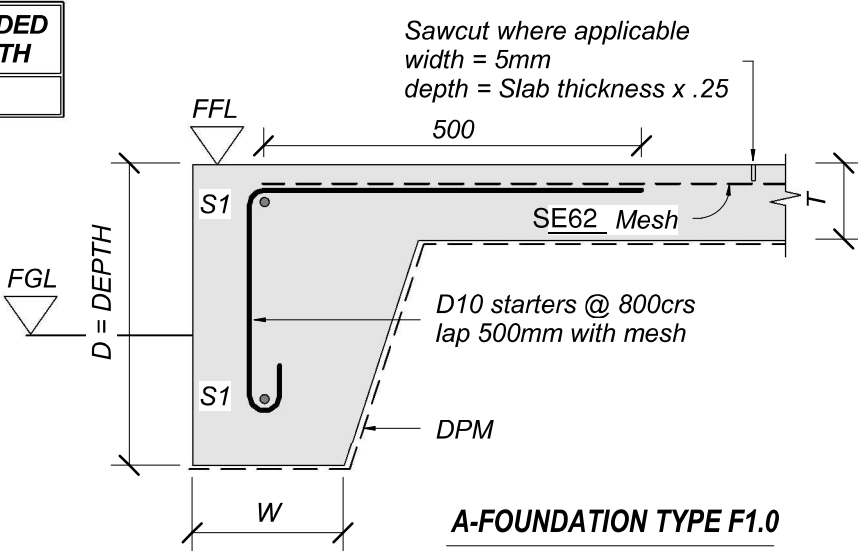
***SOIL NOTE:**
For expansive soils, portal column footings and slab edge shall be a minimum depth below ground level of :
300mm for slightly expansive
450mm for moderately expansive
600mm for highly expansive

MINIMUM CLEARANCE DIMENSIONS		
BUILDING & FGL TYPE	H	C
Unlined Bldg.-Unpaved ground	125	75
Lined Bldg.- Paved surface	150	100
Habitable Bldg.- Paved surface	150	100
Lined Bldg.- Unpaved ground	225	175
Habitable Bldg.- Unpaved	225	175
(Measurements are in mm)		

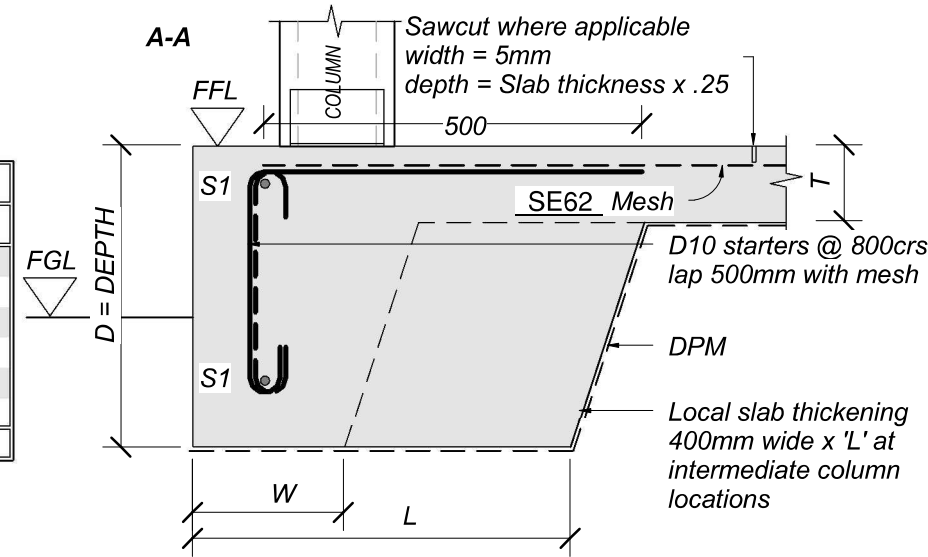
GROUND CLEARANCE DETAILS



SLAB FOOTING




A-FOUNDATION TYPE F1.0



B-DETAIL AT COLUMN

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CONCRETE NOTES:


- All construction detailing shall comply with NZS 3604:2011, unless modified within the structural drawings.
- Foundation Soil is assumed to have an ultimate geotechnical bearing pressure of 300kPa (allowable bearing pressure of 100kPa) in accordance with NZS 3604 definition for 'good ground.' The builder is to notify the engineer if it is suspected that the ground beneath foundations will not achieve 300kPa ultimate bearing pressure.
- Consolidate the base of all excavations for foundations by compacting plate, rollers or other appropriate methods
- Any fill material shall be fit for purpose, placed and compacted in layers of no greater than 150mm to a maximum fill depth of 600mm
- All concrete and workmanship shall comply with, NZS 3109 concrete construction.
- Concrete shall have a minimum 28 day strength of 20MPa unless the site is within a seaspray zone where 25MPa concrete strength shall be adopted. For 150mm slabs a minimum of 30MPa shall be adopted. Higher strength concrete may be required for industrial and commercial use buildings, refer to the engineer.
- Reinforcing bars are denoted by the following:-
-D - grade 300E, Deformed bar
-H - grade 500E, Deformed bar
-R - grade 300E, Plain bar
-HR -grade 500E, Plain bar
- Reinforcing cover shall be as follows:
• Concrete Cast against natural ground - 75mm
• Concrete Cast against formwork in ground or against DPM - 50mm
• Internal cover for bars & mesh for
- T = 100mm, provide 30mm cover
- T = 125mm, provide 50mm cover
- T = 150mm, provide 55mm cover
- T = 200mm, provide 75mm cover
- Reinforcing and mesh shall be supported on plastic 'chairs' or 'spacers' to maintain the required cover.
- Slabs shall be reinforced using 500e mesh as follows:
• 100mm Slabs - 2.27kg/m² - SE62 mesh or equivalent
• 125mm Slabs - 2.50kg/m² - SE72 mesh or equivalent
• 150mm Slabs - 3.21kg/m² - SE82 mesh or equivalent
- DPM shall consist of a single layer of polyethylene not less than 0.25mm thick. Lap joints shall be not less than 150mm wide, sealed with pressure sensitive plastic tape not less than 50mm wide
- Floors shall have a minimum slab thickness of 100mm
- Curing of the concrete slab must take place immediately after finishing the slab by ponding or continuous sprinkling of water for a minimum period of 7days. Buildings may be constructed on the slab within 7 days with due care not to overtighten fixing anchors.
- Shrinkage control joints, free joints, construction joints and saw cuts shall be located as shown on the drawings.
- Sawcuts are to coincide with major changes of plan and placed at a maximum spacing of 6m. Sawcuts shall be placed to create slab panels with length:width ratios of no greater than 2:1. Sawcuts are to be made no later than 24 hours following the slab pour. Sawcuts shall be 5mm wide x 0.25 slab thickness unless noted otherwise.
- A free joint (or use of a propriety dowel joint system) shall be provided at a maximum of 24m spacing.

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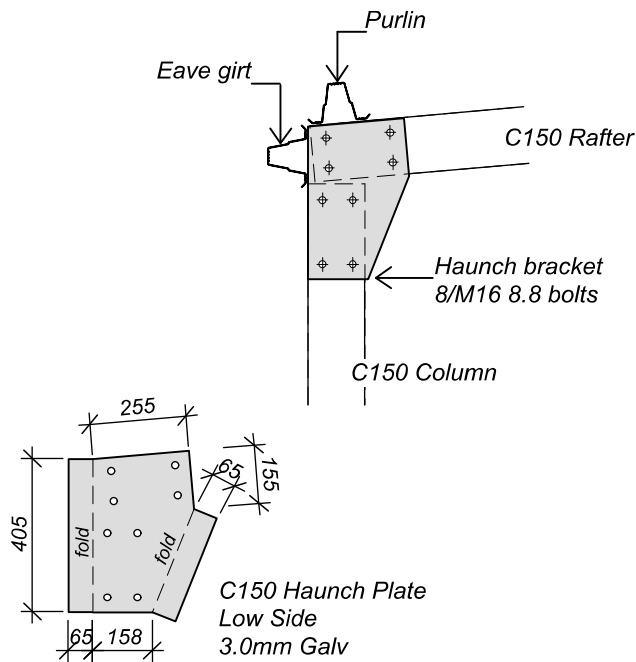
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	issue no. 060716		date:
original size A3	project name: Arthur Brown Construction 27 County Drive		page no.



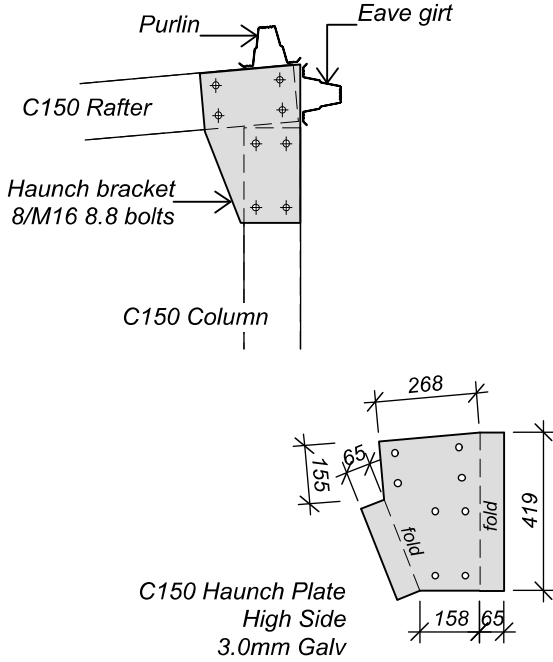
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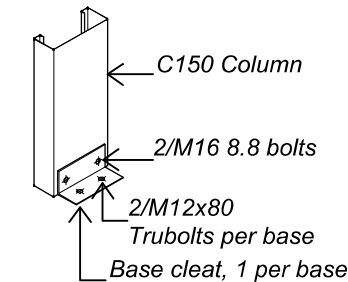
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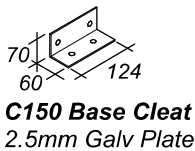
LOW SIDE HAUNCH BRACKET AND CONNECTION (Detail 01)



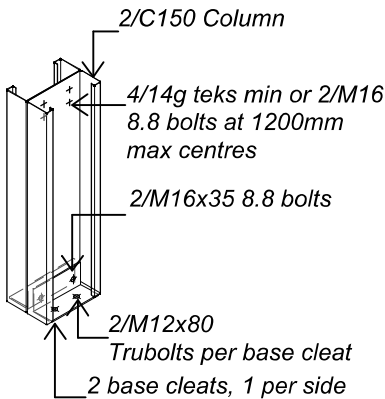
HIGH SIDE HAUNCH BRACKET AND CONNECTION (Detail 02)



BASE CLEAT AND CONNECTION SINGLE COLUMN (Detail 07)



C150 Base Cleat
2.5mm Galv Plate



BASE CLEAT AND CONNECTION DOUBLE OPEN COLUMN (Detail 08)

NOTES:
Cold formed C-sections shall comply with AS 4203:1992 and AS/NZS 1252:1996.
Buildings may be constructed on concrete floor slab within 7 days with due care not to over tighten fixing anchors.
Structure to be maintained in a stable condition with due care not to overstress any part during construction.
All dimensions are in millimeters unless otherwise stated.
Tek screws and 8.8 bolts to be installed as per manufactures instructions. 8.8 bolts to be fully tensioned by snug tightening then fully tensioned another 1/3 turn rotation of nut.
Fly bracing fixed to closest girt/purlin from Eave Purlin, then every second row thereafter.
Roof and wall cladding to be fixed as per manufactures instructions.
Engineering responsibility only covers items shown in these drawings.

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file no.
A20

231019

original size
A3

BRACKET CONNECTIONS - C150 Monopitch

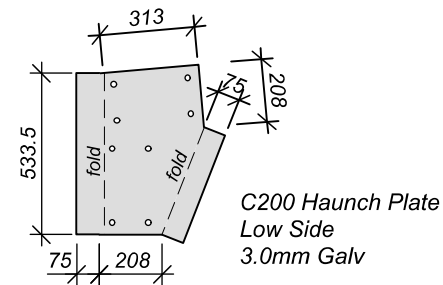
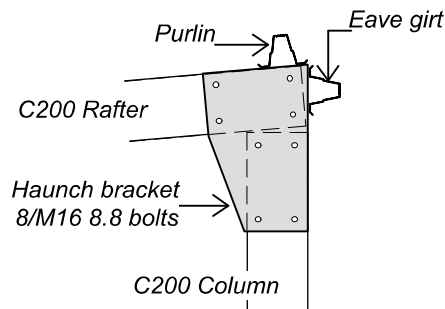
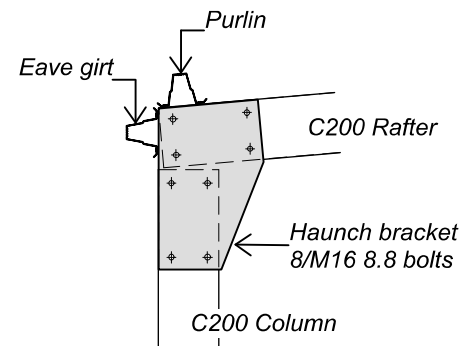
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Site Address : 27 County Drive

drawing no.
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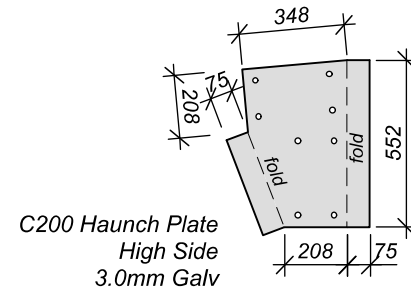
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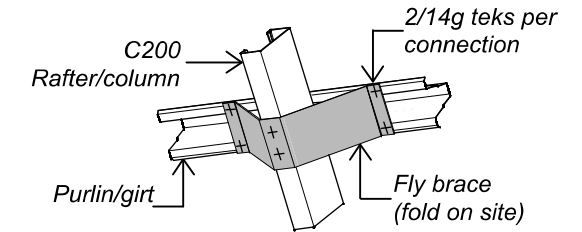




LOW SIDE HAUNCH BRACKET AND CONNECTION (Detail 01)



HIGH SIDE HAUNCH BRACKET AND CONNECTION (Detail 02)

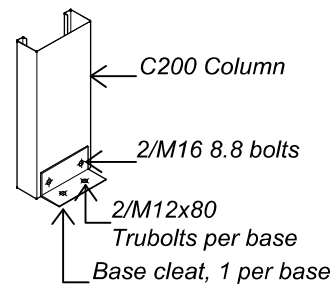


FLY BRACE CONNECTION (Detail 04)

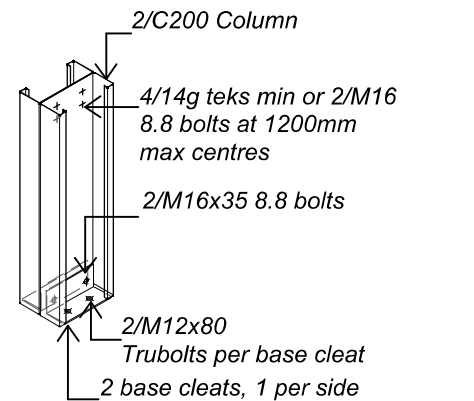
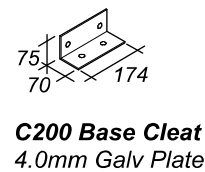
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BASE CLEAT AND CONNECTION SINGLE COLUMN (Detail 07)



BASE CLEAT AND CONNECTION DOUBLE OPEN COLUMN (Detail 08)

NOTES:
Cold formed C-sections shall comply with AS 4203:1992 and AS/NZS 1252:1996. Buildings may be constructed on concrete floor slab within 7 days with due care not to over tighten fixing anchors. Structure to be maintained in a stable condition with due care not to overstress any part during construction. All dimensions are in millimeters unless otherwise stated. Tek screws and 8.8 bolts to be installed as per manufactures instructions. 8.8 bolts to be fully tensioned by snug tightening then fully tensioned another 1/3 turn rotation of nut. Fly bracing fixed to closest girt/purlin from Eave Purlin, then every second row thereafter. Roof and wall cladding to be fixed as per manufactures instructions. Engineering responsibility only covers items shown in these drawings.

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file no.
A21

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original size
A3

BRACKET CONNECTIONS - C200 Monopitch

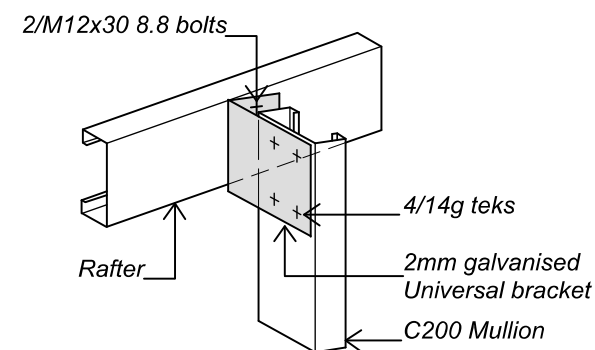
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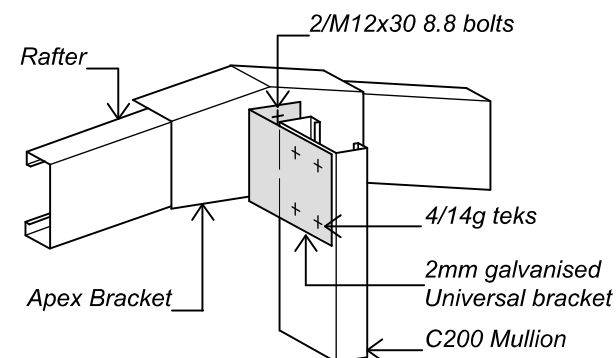
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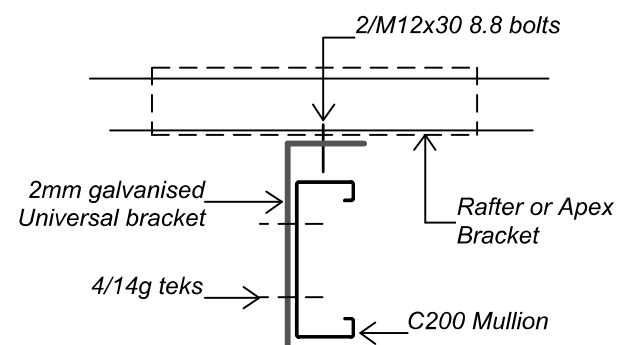




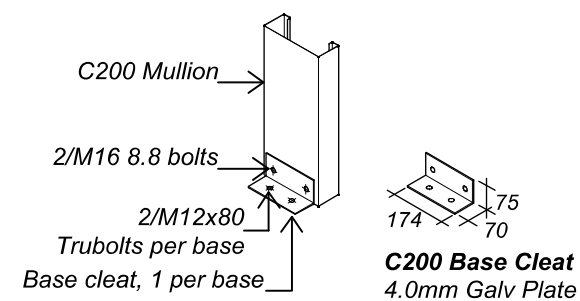
MULLION/RAFTER CONNECTION



MULLION/APEX CONNECTION



MULLION TOP CONNECTION (Detail 2b)



MULLION BASE (Detail 2a)

C200 MULLION (Detail 2)

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A41

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A3

MULLION CONNECTIONS

Customer : Arthur Brown Construction
Site Address : 27 County Drive


drawing no.
A41

date:

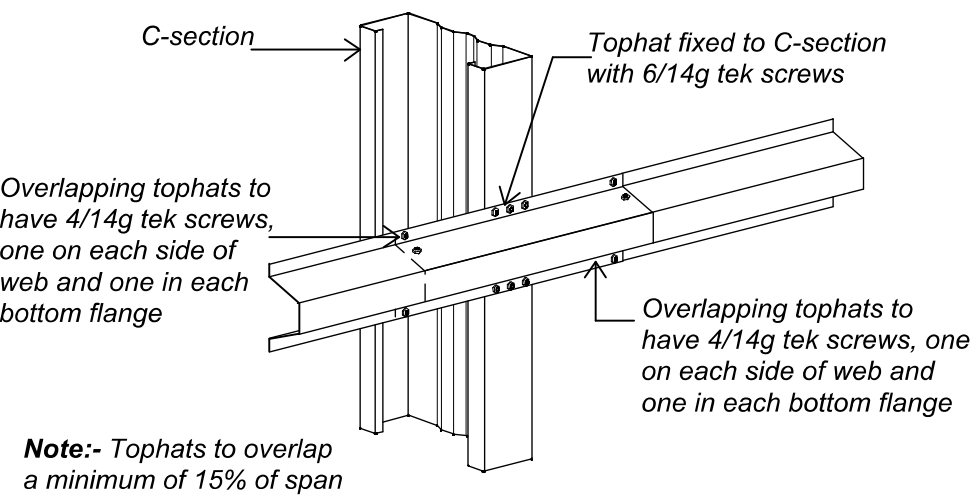
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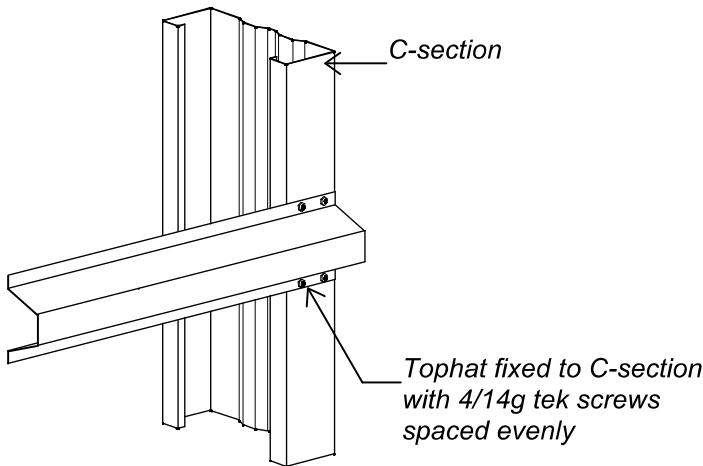
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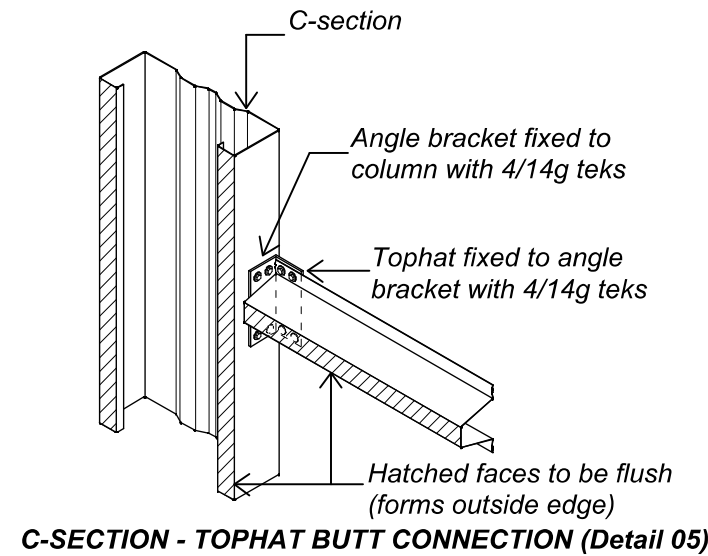
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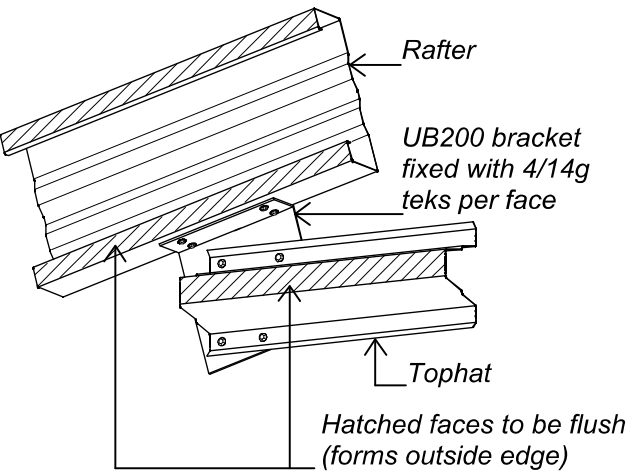
SINGLE C-SECTION - LAPPED TOPHAT (Detail 03)



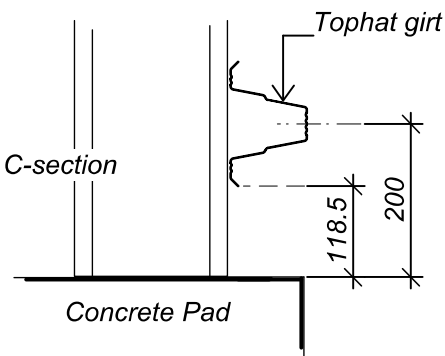
SINGLE C-SECTION - SINGLE TOPHAT (Detail 04)



C-SECTION - TOPHAT BUTT CONNECTION (Detail 05)



RAFTER/GIRT CONNECTION (Detail 06)



GIRT LOCATION (Detail 07)
Typical distance to first tophat girt from Finished Floor Level

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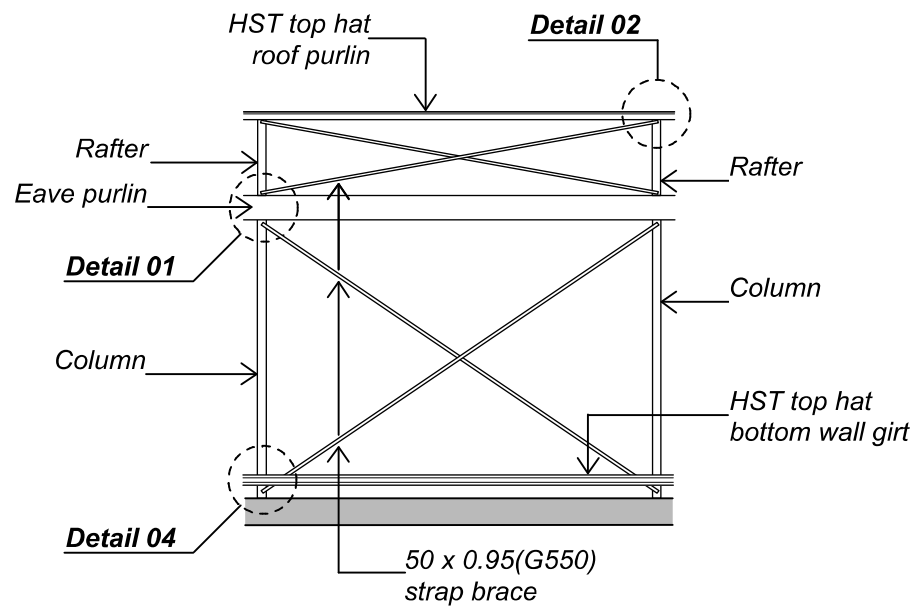
file no.
A91
231019
original size
A3

TOPHAT CONNECTIONS - 100mm

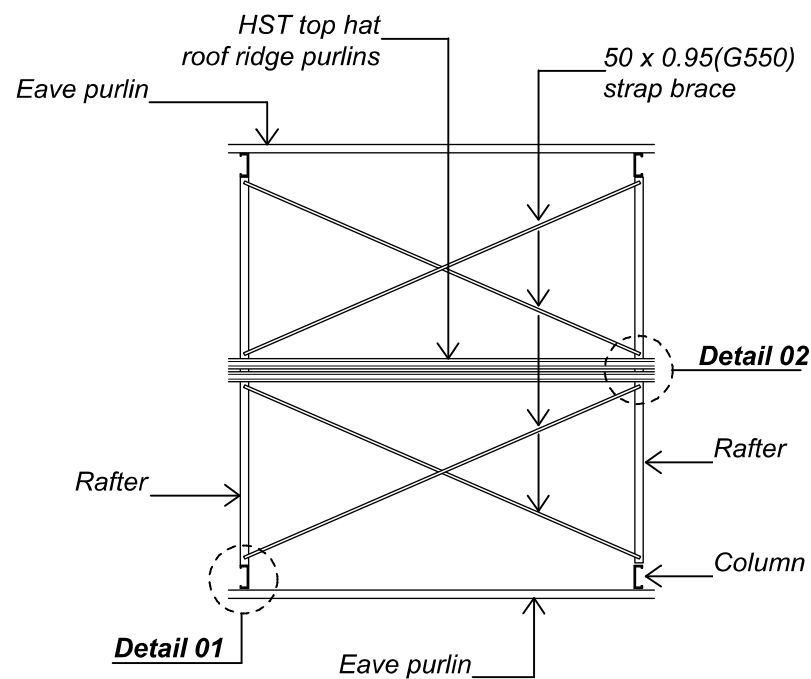
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Site Address : 27 County Drive

drawing no.
A91
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page no.

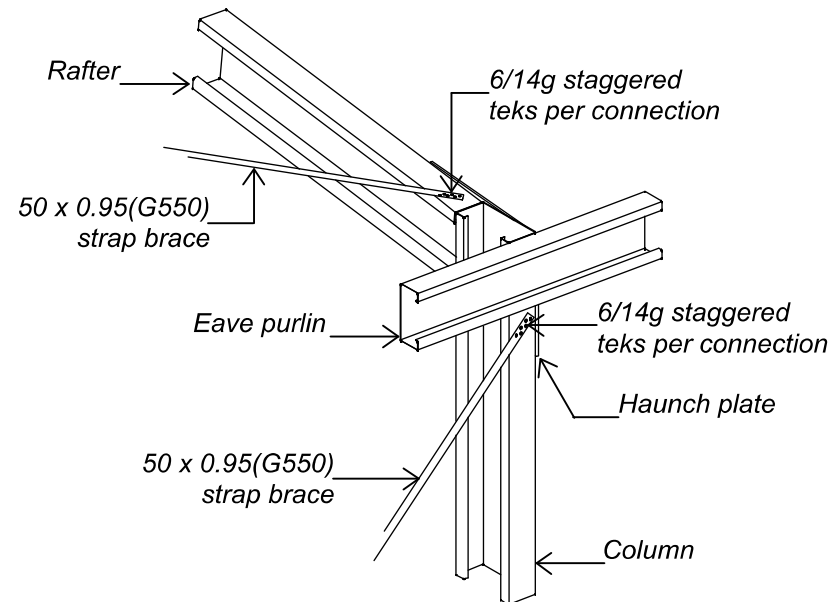




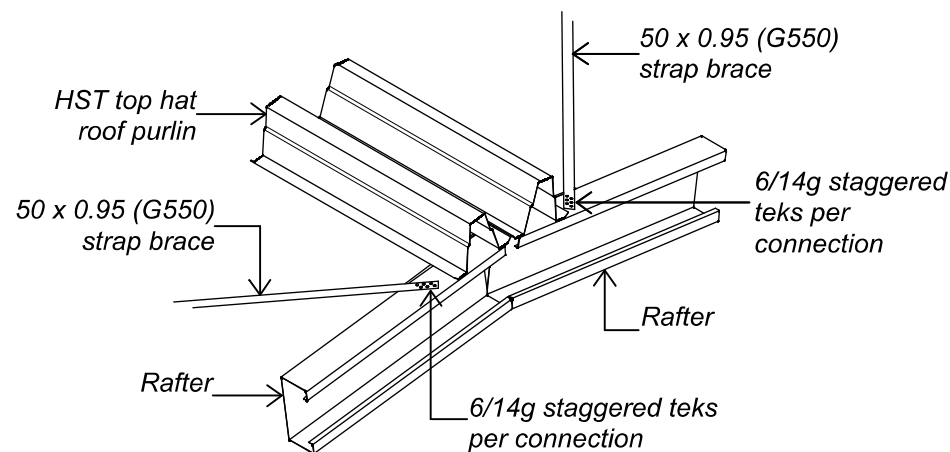
WALL BRACE CONNECTIONS Note: Additional wall girts removed for clarity



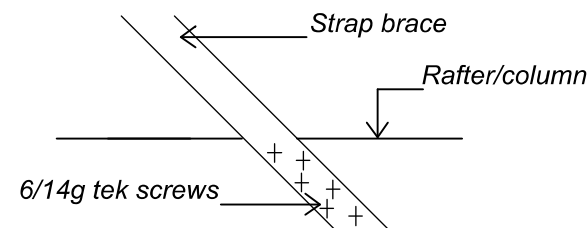
ROOF BRACE CONNECTIONS Note: Additional roof purlins removed for clarity



BRACE CONNECTION TO COLUMN AND RAFTER (Detail 01)




BRACE CONNECTION TO RAFTERS AT APEX (Detail 02)

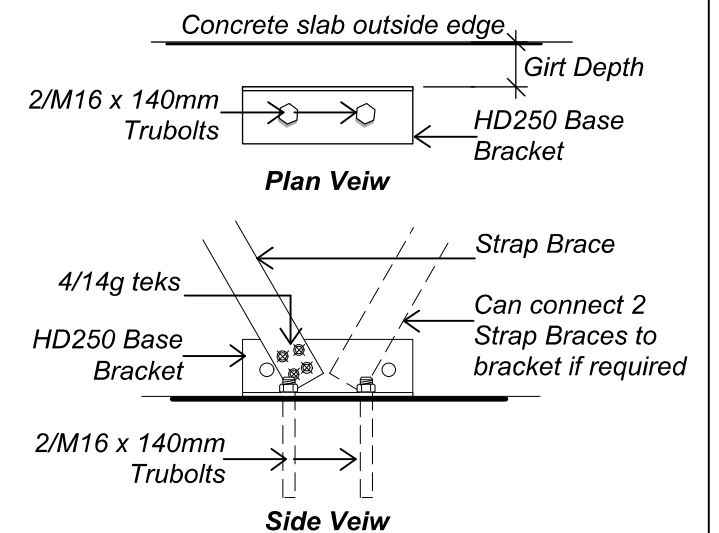


STAGGERED TEK PATTEN (Detail 03)

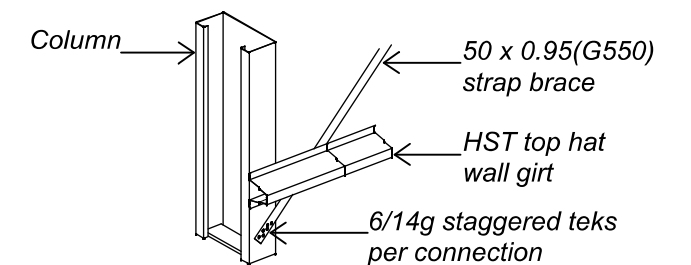
Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 15/06/2021

Kerry McCollum
CPEng 184622
DESIGN STATION LIMITED



BRACE BRACKET DETAIL (Detail 05)



BRACE CONNECTION TO FOOT OF COLUMN (Detail 04)

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file no.
B2

231019

original size

A3

STRAP BRACE CONNECTION (50 x 0.95mm G550 STRAP BRACING)

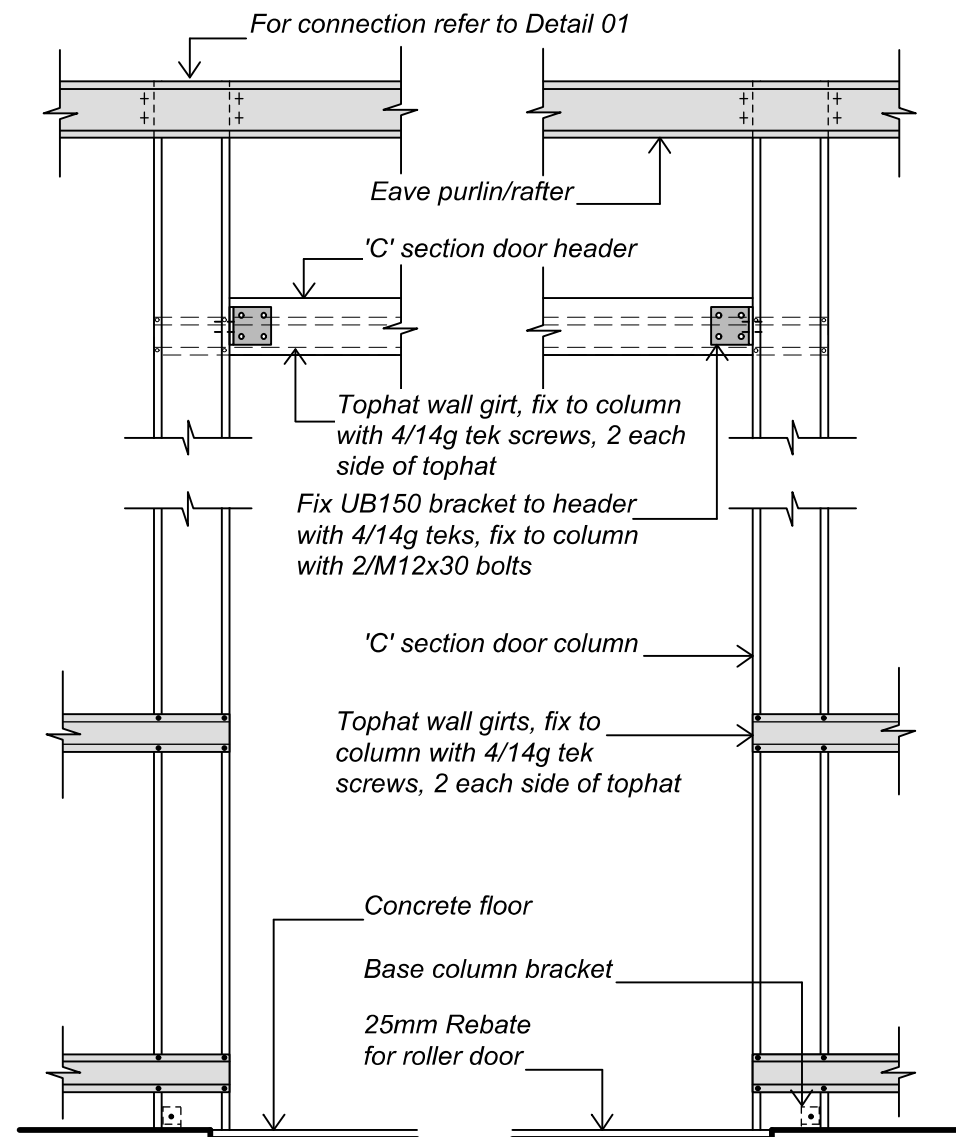
Arthur Brown Construction
27 County Drive

drawing no.
B2

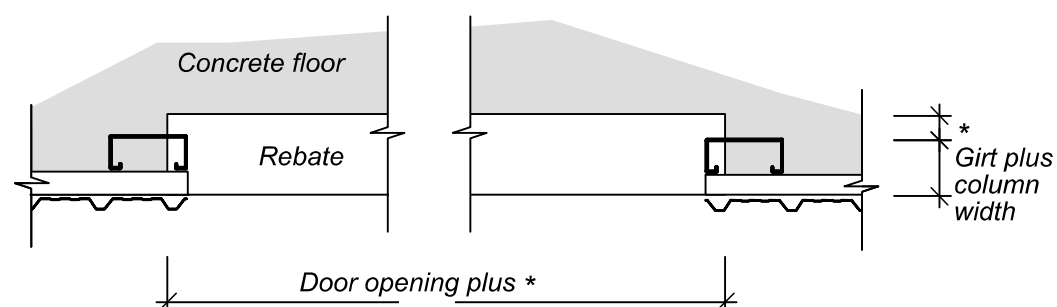
date:

page no.



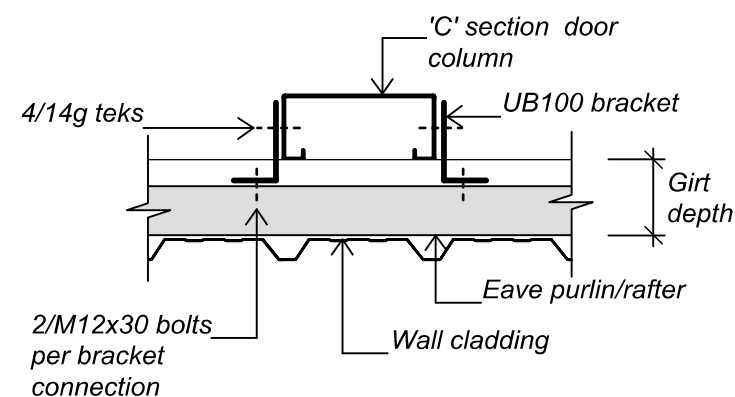


ELEVATION VIEW




PLAN VIEW

* - as per manufacturers specifications

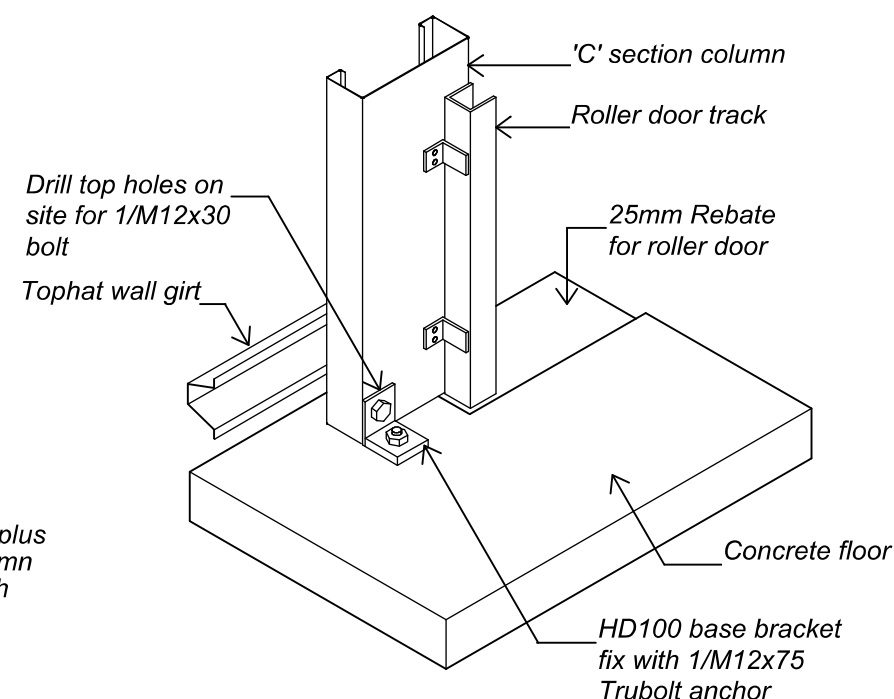


EAVE PURLIN/RAFTER FIXING (Detail 01)

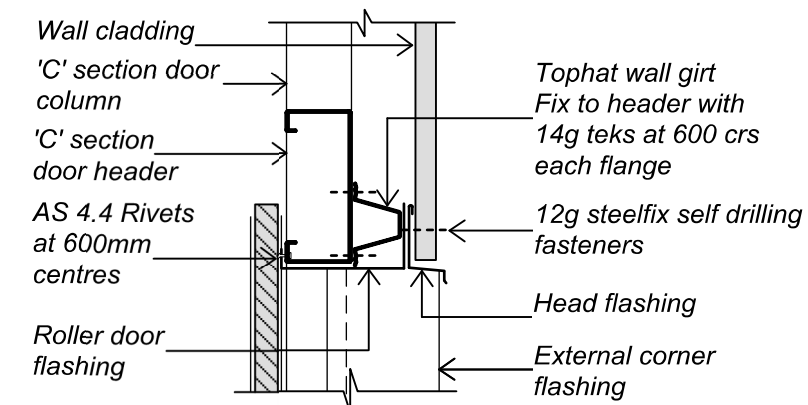
Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 15/06/2021

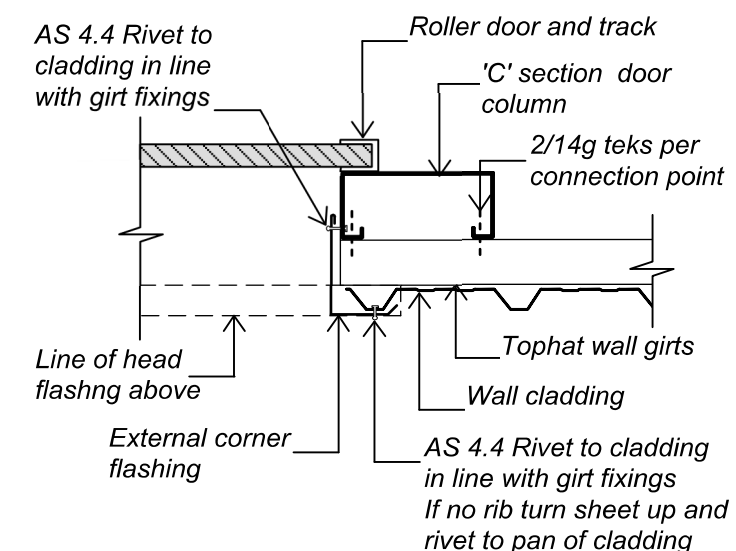
Kerry McCollum
CPEng 184622
DESIGN STATION LIMITED



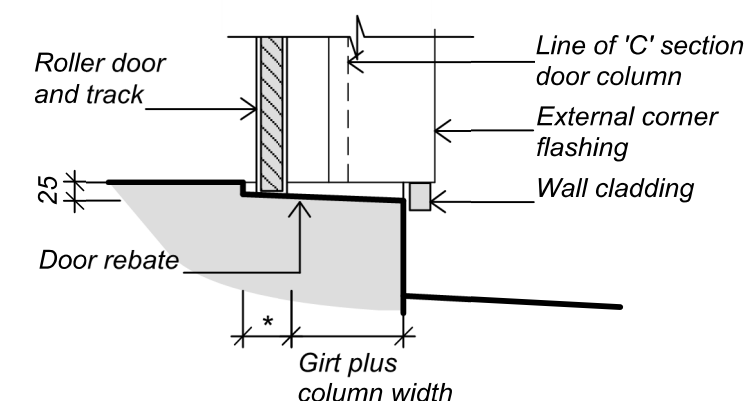
ROLLER DOOR BASE BRACKET (Detail 02)



ROLLER DOOR HEAD (Detail 03)



ROLLER DOOR JAMB (Detail 04)



ROLLER DOOR REBATE (Detail 05)

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file no.
B30

231019

original size
A3

C150 ROLLER DOOR COLUMN AND FLASHING DETAILS

Customer : Arthur Brown Construction
Site Address : 27 County Drive

drawing no.
B30

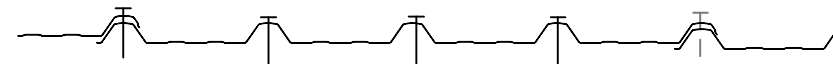
date:

page no.

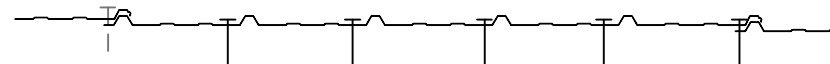





End of Sheet Fixing Pattern - Fixing to end purlin, 4 per purlin:
every rib

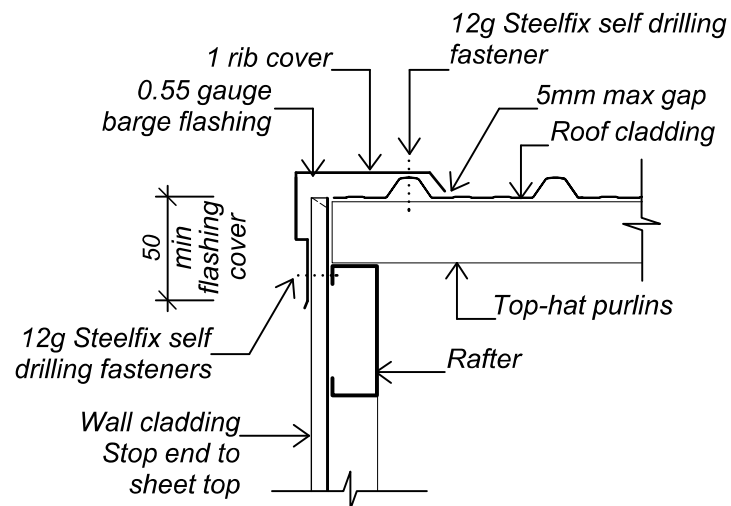


Mid Sheet Fixing Pattern - 4 per purlin: every rib
Fixing - 12g Steelfix self drilling fasteners
Purlin Spacing - End span 960mm max, intermediate span 1450mm max
ROOF SHEET FIXING - TRIMRIB 0.40BMT

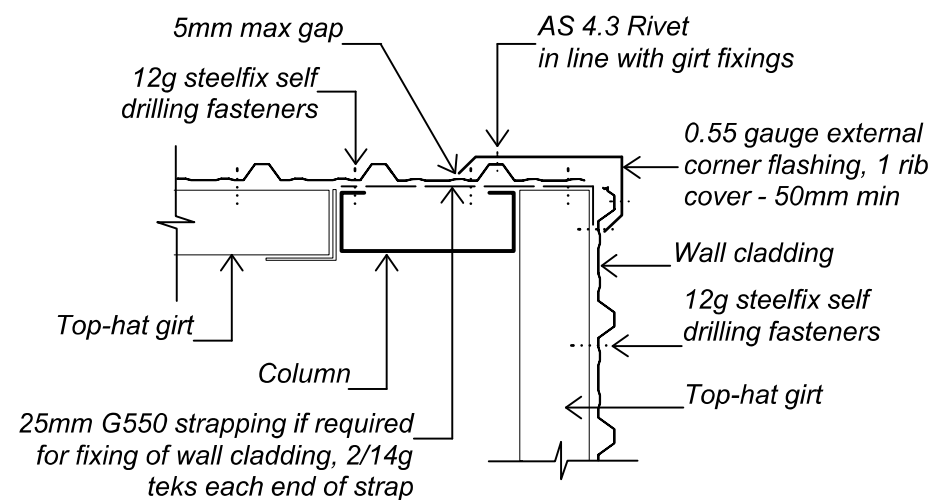


Fixing Pattern - In pan beside rib - 5 per girt: every pan
Fixing - 12g Steelfix self drilling fasteners
Girt Spacing - 1450mm max
WALL SHEET FIXING - SLIMCLAD 0.40BMT

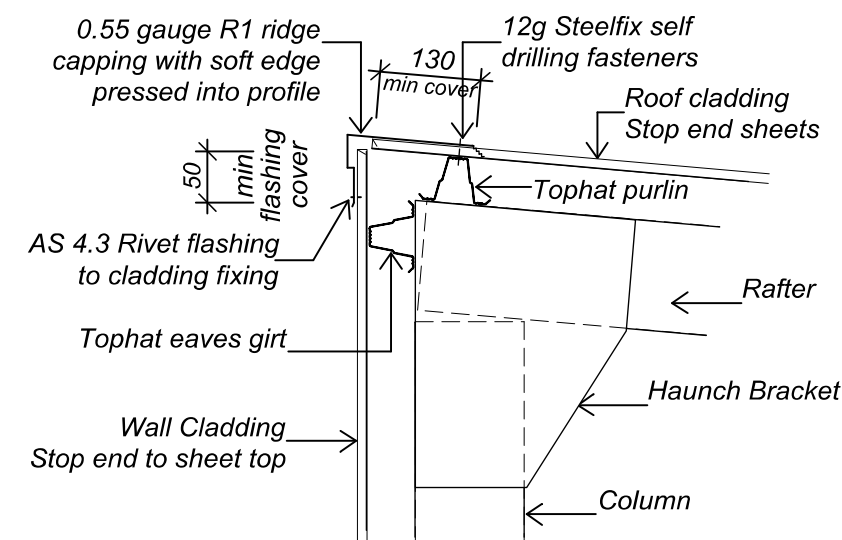
	file no. B41	ROOF AND WALL FIXING High and Very High Wind Zone	drawing no. B41	
	231019		date:	
	original size A3	Customer : Site Address : Arthur Brown Construction 27 County Drive	page no.	



BARGE FLASHING (Detail 02)

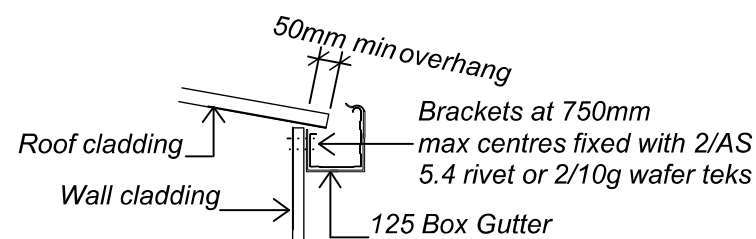


CLAD WALL CORNER FLASHING (Detail 05)



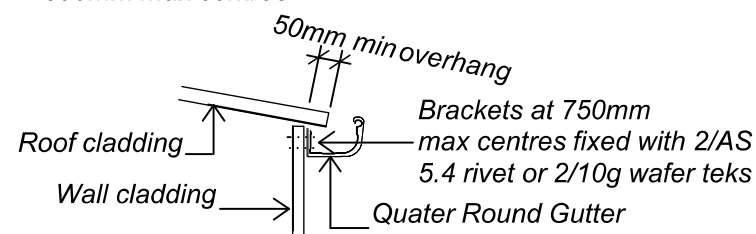
Note:- 200mm denotes min flashing cover over roof cladding

APEX FLASHING (Detail 06)



GUTTER VERGE (Detail 07)

Note:- For Snow Loading fix brackets and snow straps at 600mm max centres

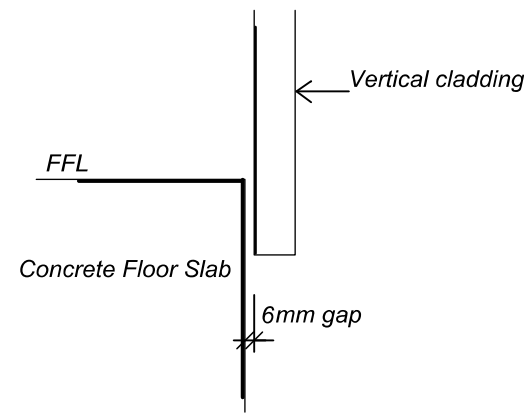


GUTTER VERGE (Detail 07)

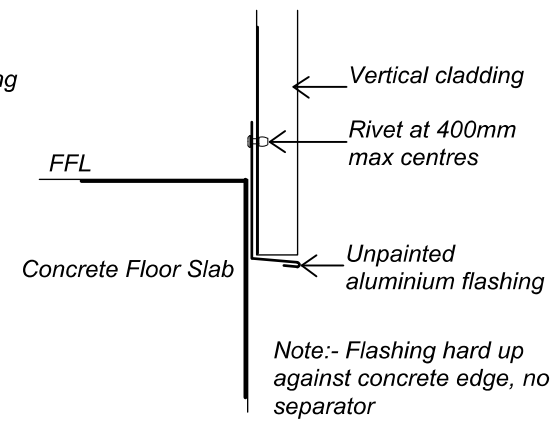
Note:- For Snow Loading fix brackets and snow straps at 600mm max centres

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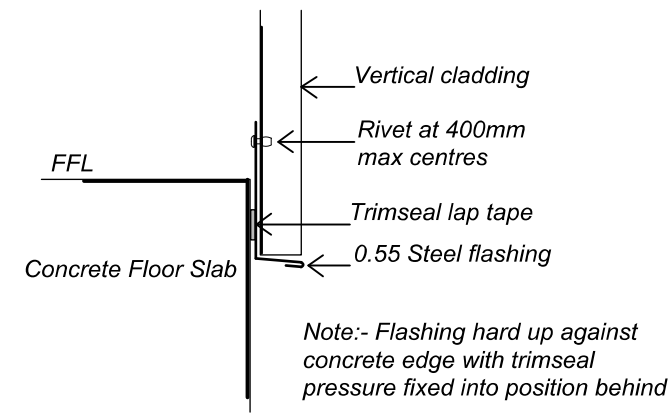
	<i>file no.</i> B71	FLASHING AND FIXING DETAILS - LOW, MEDIUM AND HIGH WIND ZONES	<i>drawing no.</i> B71	
	231019		<i>date:</i>	
	<i>original size</i> A3	Customer : Arthur Brown Construction Site Address : 27 County Drive	<i>page no.</i>	



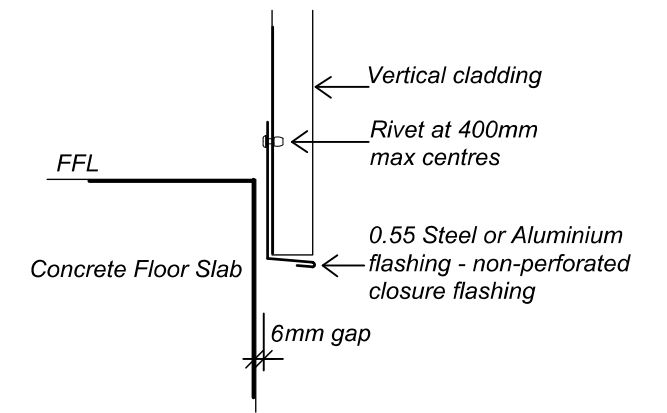
6mm GAP (Detail 01)



ALUMINIUM FLASHING ONLY (Detail 02)




0.55 STEEL FLASHING AND TRIMSEAL (Detail 03)

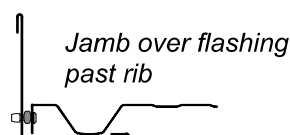
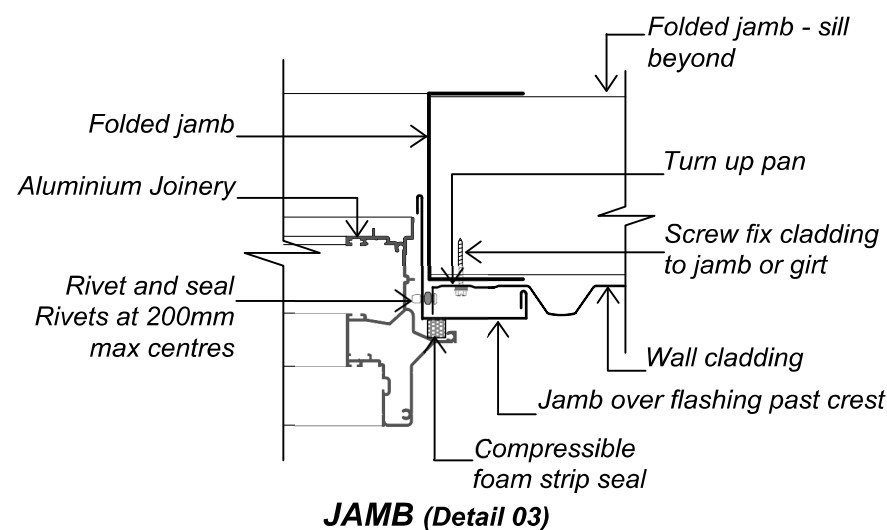
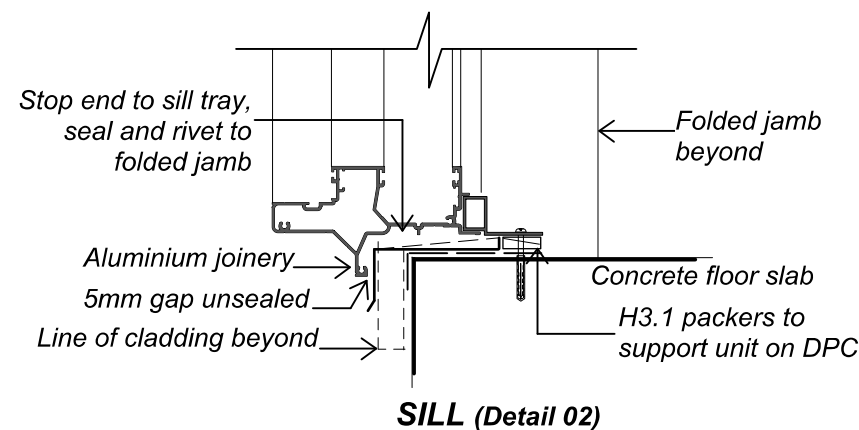
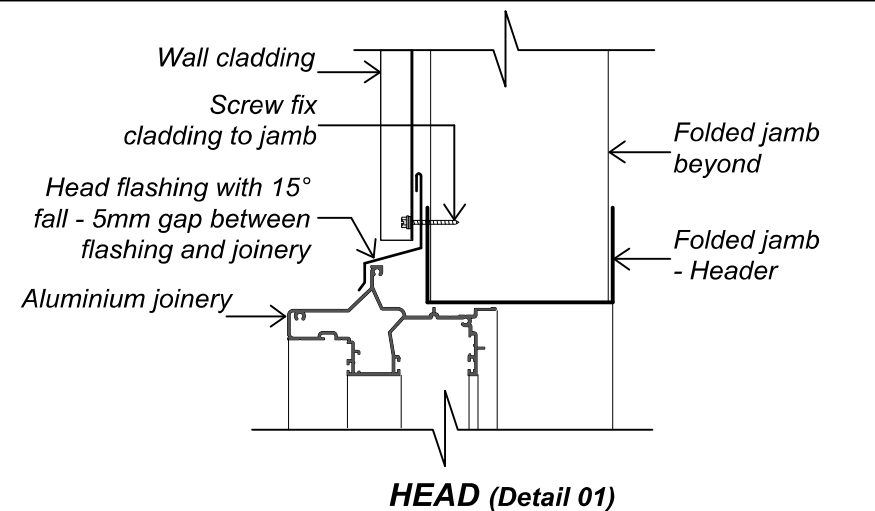


0.55 STEEL FLASHING FOR LINED AND HABITABLE BUILDINGS (Detail 04)

Note:-
 - Unlined Buildings - All Details
 - Lined Building - Detail 04


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	file no. B80	Acceptable Cladding Base Barrier	drawing no. A5	
	231019		date:	
	original size A3		page no.	
		Customer : Arthur Brown Construction Site Address : 27 County Drive		

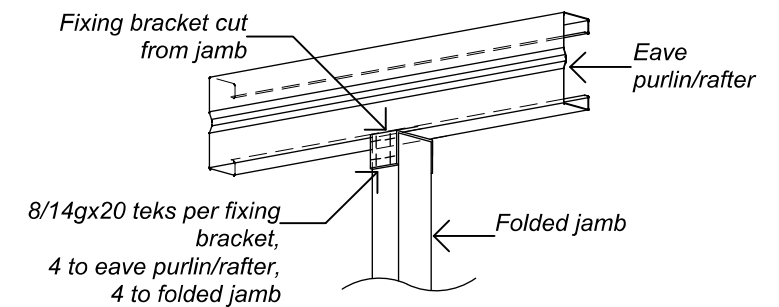


ALTERNATIVE JAMB FLASHING

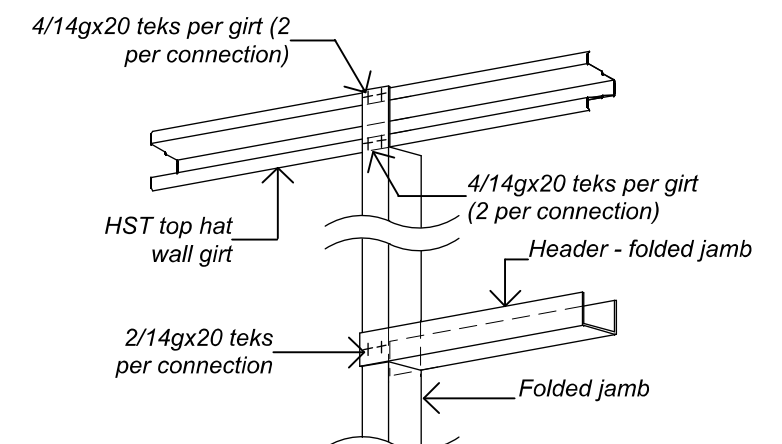
Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 15/06/2021

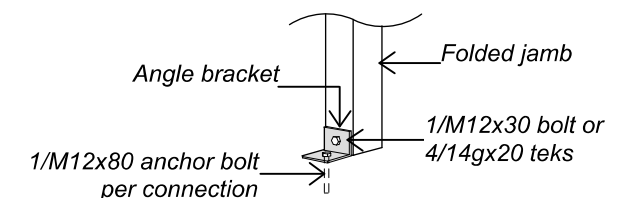
Kerry McCollum
CPEng 184622
DESIGN STATION LIMITED



DOOR JAMB TO EAVE PURLIN/RAFTER CONNECTION (Detail 04)



DOOR HEADER FIXING/WINDOW JAMB TO GIRT CONNECTION (Detail 05)



FOLDED JAMB TO FLOOR CONNECTION (Detail 06)

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file no.
C10

231019

original size
A3

RANCHSLIDER/ENTRANCE DOOR FLASHING AND FIXING DETAILS (UNLINED)

Customer : Arthur Brown Construction
Site Address : 27 County Drive

drawing no.
C10

date:

page no.



PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.engineeringnz.org)

ISSUED BY: Design Station Limited
(Design Firm)

TO: KiwiSpan South Taranaki
(Owner/Developer)

TO BE SUPPLIED TO: South Taranaki District Council
(Building Consent Authority)

IN RESPECT OF: KiwiSpan Shed (DSL Reference: KS19823)
(Description of Building Work)

AT: 27 County Drive
(Address)

Town/City: Hawera
(Address) **LOT** 42 **DP** 412125 **SO**

We have been engaged by the owner/developer referred to above to provide:

Structural design of the steel structure, foundations and floor slab

(Extent of Engagement)

services in respect of the requirements of Clause(s) **B1/VM1 & VM4, B2/AS1** of the Building Code for:

☐ All or ☒ Part only (as specified in the attachment to this statement), of the proposed building work.

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

☒ Compliance Documents issued by the Ministry of Business, Innovation & Employment **B1/VM1 & VM4, B2/AS1** or
(verification method/acceptable solution)

☐ Alternative solution as per the attached schedule

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

KiwiSpanNZ Arthur Brown Construction and numbered **1,5-9,F1,A20,21,41,91,B2,30,C10**, 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 **See attached Schedule to PS1**
(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) 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 and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

☐ CM1 ☐ CM2 ☐ CM3 ☐ CM4 ☐ CM5 (Engineering Categories) or ☒ as per agreement with owner/developer (Architectural)

I, **Kerry McCollum** am: ☒ CPEng **184622** # ☐ Reg Arch #
(Name of Design Professional)

I am a member of: ☒ Engineering New Zealand ☐ NZIA and hold the following qualifications: **BE(Hons)**

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACENZ: ☐

SIGNED BY: **Kerry McCollum** (Signature) **Kerry McCollum**
(Name of Design Professional) Digitally signed by Kerry McCollum
Date: 2021.06.15 14:50:36 +12'00'

ON BEHALF OF Design Station Limited Date: **15/06/2021**
(Design Firm)

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 \$200,000.*

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, ENGINEERING NEW ZEALAND AND NZIA



15 June 2021
JOB NUMBER: KS19823
JOB NAME: ARTHUR BROWN CONSTRUCTION
27 COUNTY DRIVE
HAWERA
LOT: 42 DP: 412125

SCHEDULE to PS1

1. **Foundation Notes:**
 - Foundations have been designed for 'Good Ground' in accordance with NZS3604:2011. To be confirmed on site by others.
 - The PS1 does not cover the suitability of the site, stability, sub-soil conditions, or any other Geotechnical information that may affect the foundation design.
2. **Design has been based on the following site specific and/or building specific items:**
 - Building Importance Level = "1"
 - Design Life for structural elements = 50 years
 - Design Wind Speed = 37.3m/s (for design of the Building)(Wind Zone = "High") - in accordance with AS/NZS1170.2:2011
 - Earthquake Zone = "1" in accordance with NZS3604:2011
 - Corrosion Zone = "C" in accordance with NZS3604:2011
3. **Weathertightness:**
 - The PS1 does not cover weathertightness.
4. **Construction Monitoring:**
 - All building inspections to be carried out by the Territorial Authority – unless agreed with the owner/developer otherwise.
 - Note: Design Station Ltd are not undertaking any construction monitoring – so are unable to provide a PS4 – Construction Review.

B2 COMPLIANCE

Compliance is shown on a material-by-material basis see below for compliance paths.

Structural Steel (B2/AS1 cl 3.6.1)

Life to first maintenance for Z450 Galvanized coating.

Surface-specific atmospheric corrosivity categories Appendix A. (Table 2 SNZ TS 3404:2018)

Building

External Exposed:C2, Expected Life to first maintenance = 36+ years

External Sheltered:C3, Expected Life to first maintenance = 12-36 years

Internal:C3, Expected Life to first maintenance = 12-36 years



Concrete (B2/AS1 cl 3.1.1)

Concrete covers have been selected in accordance with NZS 3101, Part 1, Section 3

Painting of Steel to Concrete Interfaces for Long-Term Durability

Additional Coating for Embedded Column / Concrete Interface (External).

(Refer to Altex Coatings Limited Specification)

Apply a band of Chem-Bar 3500 at 75um DFT (a good brushed or rolled coat) direct on to the galvanized coating after a degrease and light sand (refer to specification). The band of Chem-Bar 3500 shall extend a minimum of 50mm above and 100mm below the concrete interface for any exposed Embedded Column surface. Seal around the exposed Embedded Column / concrete interface with mastic sealant. Slope Concrete surface away from steelwork, wherever possible.

NOTE: Any damage to the galvanized coating shall be spot primed with Carbozinc 858 prior to coating with Chem-Bar 3500 (refer to specification for surface preparation).

Additional Coating for Column / Concrete Interface (External).

(Refer to Altex Coatings Limited Specification)

Apply to the underside and edges of steel plate with Chem-Bar 3500 at 75um DFT (a good brushed or rolled coat) direct on to the galvanized coating after a degrease and light sand (refer to specification). The Chem-Bar 3500 shall extend a minimum of 100mm in from the edges to the top face of the plate. Chamfer and place mastic bead when interface between steel and concrete is clearly visible.

NOTE: Any damage to the galvanized coating shall be spot primed with Carbozinc 858 prior to coating with Chem-Bar 3500 (refer to specification for surface preparation).

Limitation

This letter has been prepared solely for the benefit of KiwiSpan Ltd for building consent application. No liability is accepted by Design Station Ltd in respect of its use by any other person. Any other person who relies upon any matter contained in this letter does so entirely at their own risk.

Kerry McCollum (CPEng)

Design Station Ltd

(Part of the Donovan Group of Companies)

APPENDIX A - Extracts from SNZ TS 3404:2018

Table 2 – Surface-specific atmospheric corrosivity categories

Macroclimate corrosion category (from AS/NZS 2312.1:2014)	Typically	Location	Characterised by	Surface-specific atmospheric corrosivity				
				External			Internal	
				Exposed	Sheltered	Wet	Dry	Damp
C5-M	Within 200 metres of breaking surf on the west and south coasts of the South Island Within 100 metres of breaking surf on west and south coasts of the North Island Within 50 metres of breaking surf on all other coasts This environment may be extended inland by prevailing winds and local conditions	All coasts	Heavy salt deposits Almost constant smell of salt sea spray in the air	C5-M			C1	C4
C4	Within 500 metres inland of breaking surf Within 50 metres of calm salt water such as harbour foreshores This environment may be extended inland by prevailing winds and local conditions	All coasts	Medium salt deposits Frequent smell of salt sea spray in the air	C4	C5-M			C3
C3	Within 20 km of breaking surf	West and south coasts of South Island	Minor salt deposits	C3	C5-M			C4
	Within 5 km of salt water	East coast of both islands, west and south coasts of North Island, and all harbours	Occasional smell of salt in the air					

Table 2 – Surface-specific atmospheric corrosivity categories (continued)

Macroclimate corrosion category (from AS/NZS 2312.1:2014)	Typically	Location	Characterised by	Surface-specific atmospheric corrosivity				
				External			Internal	
				Exposed	Sheltered	Wet	Dry	Damp
	More than 20 km to 50 km from salt water	West and south coasts of South Island		C2	C3	C4		
C2	More than 5 km to 50 km from salt water	East coast of both islands, west and south coasts of North Island, and all harbours	No marine influence	C2	C3	C4		C3
C2	Inland, more than 50 km from salt water	North and South Islands		C2		C3	C1	
See note 3	Close to geothermal source < 500 metres	Geothermal zone	Constant smell of hydrogen sulphide	See note 3				C4
-	Beyond 500 metres to geothermal source		Mild geothermal influence					C3

NOTE –

- (1) The atmospheric corrosivity categories given provide an indication of the environment corrosivity to assist in the selection of a suitable corrosion protection system; taking into account the macroclimate and where required microclimate effects.
- (2) For confirmation of a site-specific atmospheric corrosivity category (for example, for sites that are sheltered from marine influence by the local topography), then site-specific testing is required as described in HERA Report R4-133.
- (3) For areas in the geothermal zones, both the macroclimate and the surface-specific corrosivity categories are dependent on the level of geothermal activities and distance from the geothermal source. The corrosivity category could range up to CX with considerable variation; thus in those areas site-specific corrosivity assessment is recommended. For areas that are more than 500 metres beyond the geothermal source or boundary (such as Sulphur Bay, Rotorua), and that have been assessed using the smell test as having minimal or non-existent geothermal influence, the other corrosion zones or categories apply based on distance from the sea.



Amendment to Building Consent - Form 2 - 200394.02

Submission Details

Submission Ref	STDC062850
Status	Inspections
Consent Number	200394.02
Is Complete	Yes
Date Submitted	Tue 22 Jun 2021, 2:36 PM
Legal Description	Lot 42 DP 412125
Building Consent Authority	South Taranaki District Council
Site Address	27 County Drive, Hawera 4610
Building Complexity	R1
Submitter	Arthur Brown Construction (2017) (Matt Phillips)
Date Issued	Mon 27 Sep 2021, 2:43 PM

Amendment to Building Consent - Form 2

Application for amendment to building consent - Form 2

[Section 33](#) or [section 45](#), Building Act 2004

Building Consent Information

Building consent number *

200394

Issued by *

STDC

What Building Work Are You Doing

What type of building work are you doing *

<input checked="" type="radio"/> Residential	<input type="radio"/> Multi-Residential	<input type="radio"/> Commercial / Industrial
--	---	---

Residential *

<input type="checkbox"/> New detached dwelling	<input type="checkbox"/> Plumbing works	<input type="checkbox"/> Major alterations / additions - any work that includes altering or attaching to the exterior of a building
<input type="checkbox"/> Minor alterations - any internal work that does not include altering the exterior of the building	<input checked="" type="checkbox"/> Garage / detached carport	<input type="checkbox"/> Seismic strengthening
<input type="checkbox"/> Other		

Select all applicable boxes. If your building work is not listed, select Other and provide details.

Where Is The Building Work

What is the street address *

Legal Description *

LOT	42
-----	----

Deposited Plan

DP	412125
----	--------

Building Name

Location of building within site/block including near street access

Are you building in a zone that requires a land-use Resource Consent *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Is the subdivision of an existing site involved *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Does the building or site have any cultural or heritage significance, or is it a marae? *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Who Owns The Building Or Land

Owner name *

Raewyn Stockman

Owner title

Mss

If the property is owned by an organisation, capture the organisation's name.

Owner's contact person

Matt Phillips

Owner email address *

stockys@xtra.co.nz

Required if the owner is an organisation

Owner contact number *

274468006

Owner mobile number

Owner's street address *

27 county drive Hawera

Owner mailing address

Proof of Ownership

The [Building \(Forms\) Regulations 2004](#) requires evidence of ownership to be provided, proof of ownership less than 3 months old ensures the ownership is current.

Proof of ownership *

☒ Record of Title (RT)

☐ Other

Request a Record of Title (RT) from the Building Consent Authority (BCA) or Council *

☒ Yes

☐ No

Check with the Building Consent Authority (BCA) before requesting a RT directly from them.

Who Is The Applicant

Is the application being made on behalf of the owner *

☒ Yes

☐ No

Agent Contact Information

Please note that the nominated first point of contact must be in New Zealand.

Who is the first point of contact for further correspondence *

☐ Owner

☒ Agent

☐ Other

Who should the invoice be sent to? *

☒ Owner

☐ Agent

☐ Other

Who should invoices be made out to? *

Raewyn Stockman

Agent name *

Matt Phillips

Agent title

Mr

If the agent is an organisation, capture the organisation's name

Agent's contact person

Agent's relationship to owner *

Project Manager

Required if the agent is an organisation

Agent email address *

matt.abc@xtra.co.nz

Agent contact number *

021 743 790

Agent mobile number

Agent's street address *

108 Wilson Street Hawera

Agent mailing address

PO Box 266

Who's Involved In The Build

Select who's involved *

☒ Licensed Building Practitioner ☐ Other

Are non licenced building practitioners involved in the project? Select Other and provide their details.

Licensed Building Practitioner/s (LBP)

Name *

Matt Phillips

Company

Email address

Contact number

Street address

Mailing address

Licensed Building Practitioner *

Carpenter

Other

License class *

Brick and Block Laying
Carpentry
Design 1
Design 2
Design 3
External Plastering
Foundations
Roofing
Site 1
Site 2

LBP registration number *

130111

Select one or more licence classes in the list

What Are The Specifics Of The Site

What is the wind zone *

<input type="radio"/> Low	<input type="radio"/> Medium	<input checked="" type="radio"/> High	<input type="radio"/> Very High	<input type="radio"/> Extra High	<input type="radio"/> Specific Design
---------------------------	------------------------------	---------------------------------------	---------------------------------	----------------------------------	---------------------------------------

What is the exposure zone *

<input type="radio"/> Low(B)	<input checked="" type="radio"/> Medium(C)	<input type="radio"/> High/Sea spray(D)
------------------------------	--	---

Does the proposed building work cover two or more allotments *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Are there public drains on the site *

<input checked="" type="radio"/> Yes	<input type="radio"/> No
--------------------------------------	--------------------------

Is the site subject to natural or created hazards such as erosion, subsidence, flooding, slips, cut and fill or contamination *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Are there any alterations to land contours (e.g. earthworks) *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Are there new or altered connections to public utilities *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Are there new or altered locations and/or external dimensions of buildings *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Is there new or altered access for vehicles *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Is the building work over or adjacent to any road or public place *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Does the building work involve the disposal of storm-water or wastewater *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Is the building work over any existing drains or sewers or in close proximity to wells or water mains *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Are there any other matters known to the applicant that may require authorisation from the territorial authority *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

What Are The Details Of The Building Work

Original building consent application description *

New Dwelling on timber piles

Provide a full description of the building work for the amendment

Adding 83 x 4.5m kiwispan garage

Will the amendment change the original applications estimated value *

<input checked="" type="radio"/> Additional value	<input type="radio"/> Decrease value	<input type="radio"/> Not applicable
---	--------------------------------------	--------------------------------------

Original building consent application estimated value for the building work (including GST) *

\$	300000	inc GST
----	--------	---------

Additional value from the original applications estimated value (including GST) *

\$	330000	inc GST
----	--------	---------

What is the intended life of the building *

<input checked="" type="radio"/> 50+ years	<input type="radio"/> Limited Life
--	------------------------------------

Proposed Use

You must select at least one of the following seven proposed use 'types'. Where you select Housing, Communal residential or Communal non-residential, you must also specify a proposed use 'sub type'

- ☐ **Housing**
- ☐ **Communal residential**
- ☐ **Communal non-residential**
- ☐ **Commercial**
- ☐ **Industrial**
- ☒ **Outbuildings**
- ☐ **Ancillary**

Will the building work affect an existing building and/or parts of an existing building *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Total number of floor levels *

1

Levels below ground (if applicable)

--

Total floor area *

32	m2
----	----

Is the building used for anything other than a single household unit? *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Does the project include Restricted Building Work *

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Have you discussed this project with the Building Consent Authority prior to applying?

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Does the building work involve a swimming pool?

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

Does the building work involve any Recladding?

<input type="radio"/> Yes	<input checked="" type="radio"/> No
---------------------------	-------------------------------------

What Clauses Of The Building Code Does Your Work Comply With

☒ * I understand that this application is to be assessed against Acceptable Solutions, unless otherwise stated in this section.

☒ B - Stability

☒ B1 - STRUCTURE

☒ B2 - DURABILITY

Verification Methods

Include relevant code clauses and means of compliance

Alternative Solutions

Include relevant code clauses and means of compliance or details of any waiver and modifications (including applicable code clauses)

Additional information

☐ C - Protection from fire

☐ D - Access

☒ E - Moisture

☒ E1 - SURFACE WATER

☒ E2 - EXTERNAL MOISTURE

☐ E3 - INTERNAL MOISTURE

Verification Methods

Include relevant code clauses and means of compliance

Alternative Solutions

Include relevant code clauses and means of compliance or details of any waiver and modifications (including applicable code clauses)

Additional information

☐ F - Safety of users

☐ G - Services and facilities

☐ H - Energy efficiency

☐ Specific Buildings

What Specified Systems Are In The Building?

Does your building work involve or affect any Specified Systems (SS)? *

☐ Yes

☒ No

Have You Attached All Required Documentation

Do you have documents to upload for a Project Information Memorandum? *

☐ Yes

☒ No

☒ * I have the documentation ready and combined into the appropriate categories

Do you have structural engineering documents? *

☒ Yes

☐ No

Residential Document Upload

Architectural Plans - Arthur_Brown_Engineered_Plans.pdf

Residential Structural Document Upload

Structural Plans - Arthur_Brown_-_PS1.pdf

Do you have any other documents not related to the above categories? *

☐ Yes

☒ No

Declaration

Privacy Information

The information you have provided on this form is required so that your application can be processed under the Building Act 2004. The Council, Territorial Authority (TA) or Building Consent Authority (BCA) collates statistics relating to building work and has a statutory obligation to provide information to third parties. The information is stored on a public register, which must be supplied to whoever requests the information. Under the Privacy Act 2020, you have the right to see, and correct personal information Councils, TAs and BCAs holds about you.

You can view the Simpli [Privacy Statement here](#)

In providing this information, you agree to your details being used for customer surveys carried out by the Council, BCA or TA.

Terms of Use

By making this submission you agree to the Simpli portal [terms and conditions](#).

Your application fees

The Council, BCA or TA may charge fees for your application. These will include statutory levies to BRANZ and the Ministry of Business, Innovation & Employment.

A fee schedule can be found on the BCA's website, refer to the link in the details panel on the right. Your fees will be advised when the BCA accepts your submission.

You must not commence the building work until the consent has been issued and uplifted.

☒ * I acknowledge and agree with the above statements.

Name *

Matt Phillips

Date

22/06/2021

Submitter Declaration

Submitter Name

Matt Phillips

Date

22/06/2021

I understand that by ticking the following boxes, I am agreeing to the following statements:

- ☒ *** As the agent I confirm that I am submitting this application on behalf of and with the authority of the owner and confirm that all the information within the application is, to the best of my knowledge, true and correct.**
- ☒ *** I request that you issue an amendment to the building consent for the building work described in this application.**

BUILDING CONSENT AMENDMENT

Application No: 200394.02

Description of Project: AMENDMENT: Addition to Dwelling of a Kiwispan Garage

Consent Issue Date: 27 September 2021

The Building

Street Address: 27 County Drive, Hawera 4610
Legal Description: Lot 42 DP 412125
Valuation Number: 1227064462
Location of building within site:
Building Name:
Level/Unit Number:

The Owner

Name: Raewyn Pamela Stockman
Contact Person:
Mailing Address: 65 Egmont Street, Hawera 4610
Street Address/Registered Office:
Phone:
Mobile:
Email:

First point of contact for communications with the building consent authority

Name: Central Housemovers
Mailing Address: 86 Bridge Street, Bulls 4818
Street Address/Registered Office:
Phone: 06 322 1860
Mobile: 027 244 5560
Email: kiri@centralhousemovers.co.nz

Attachments

Copies of the following documents are attached to this building consent amendment:

- Advice notes for building consent and amendment
- Stamped approved amended building consent plans

Signature:



Date: 27 September 2021

Name: Wilson Collin

Position: Building Control Officer

On behalf of: The South Taranaki District Council

BUILDING CONSENT ADVICE NOTES

Application No: 200394.02

Description of Project: AMENDMENT: Addition to Dwelling of a Kiwispan Garage

Commencement of Work

The owner or person undertaking the building work shall give at least 2 working days' notice of the intended commencement of building work.

Inspection Notification

The request for inspections is to be made at least 24 hours before any inspection is required.

The contact person is to ensure that someone is on site at the time of the inspection.

Compliance

This building consent confirms compliance with the New Zealand Building Code. It does not give approval to commence building work until all other approvals have been obtained.

Completion Advice

The owner shall as soon as practical after completion of the building work, notify the Hawera Administration Office that the work has been completed in accordance with this building consent by completing and returning the Application for Code Compliance Certificate (Form 6).

Lapsing of Consent

This Consent shall lapse and be of no effect if the building work has not started within 12 months from date of issue.

BUILDING CONSENT REQUIRED ITEMS

Application No: 200394.02

Description of Project: AMENDMENT: Addition to Dwelling of a Kiwispan Garage

Required Inspections

24 hours' notice is required for all inspection bookings.

#	Inspection Name	Notes
1	Footing/Foundation/Slab	
1	Final-Non-Habitable	
2	Total Inspections	

Required Documents

The following documents are to be supplied to the building authority (STDC) on completion of the building work:

Documentation Required	Notes
Application form for CCC	
As-built drainage plan	
Engineer's ground bearing report	For construction monitoring by Engineer
PS4 (Specify)	For construction monitoring by Engineer (X2)

Licensed Building Practitioner Documentation

Tax Invoice: 19767

GST Reg. No: 52-769-477

Invoice Date: 27 September 2021

Address: Private Bag 902
Hawera

R P Stockman
27 County Drive
Hawera 4610

Phone: 06 278 0555
Free Phone: 0800 111 323
Facsimile: 06 278 8757
Email: contact@stdc.govt.nz
Website: www.southtaranaki.com

Application Number: BC200394.02
Description: AMENDMENT: Addition to Dwelling of a Kiwispan Garage
Location Address: 27 County Drive Hawera 4610

Charge Description	Charge	GST	Amount
Building Consent Administration Fee	\$130.43	\$19.57	\$150.00
Dept Building & Housing Levy	\$48.71	\$7.31	\$56.02
Dept Building & Housing STDC commission	\$1.50	\$0.23	\$1.73
BRANZ Levy	\$32.01	\$0.00	\$32.01
BRANZ STDC Commission	\$0.86	\$0.13	\$0.99
Inspection Fee*	\$295.65	\$44.35	\$340.00
Building Consent Processing/Plan Checking	\$221.74	\$33.26	\$255.00
Planning Assessment	\$36.96	\$5.54	\$42.50
Total	\$767.86	\$110.39	\$878.25

**Inspection fee calculated @ \$170.00 x 2 inspections*

Remittance Advice

Please email to payments@stdc.govt.nz

Or post to:

South Taranaki District Council
Private Bag 902
Hawera 4640

If you wish to pay online details are as follows – 03-0647-0220100-03
Please quote the Application Number as the reference

Application Number: BC200394.02

Applicant: R P Stockman

Amount Due: \$878.25

Due Date:

We reserve the right to charge overdue fees and collection costs on all accounts not paid by their due date.

Lot 41
DP 412125

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27/09/2021 - Page 1 of 32

STDC - Planning Approved
24/06/2021

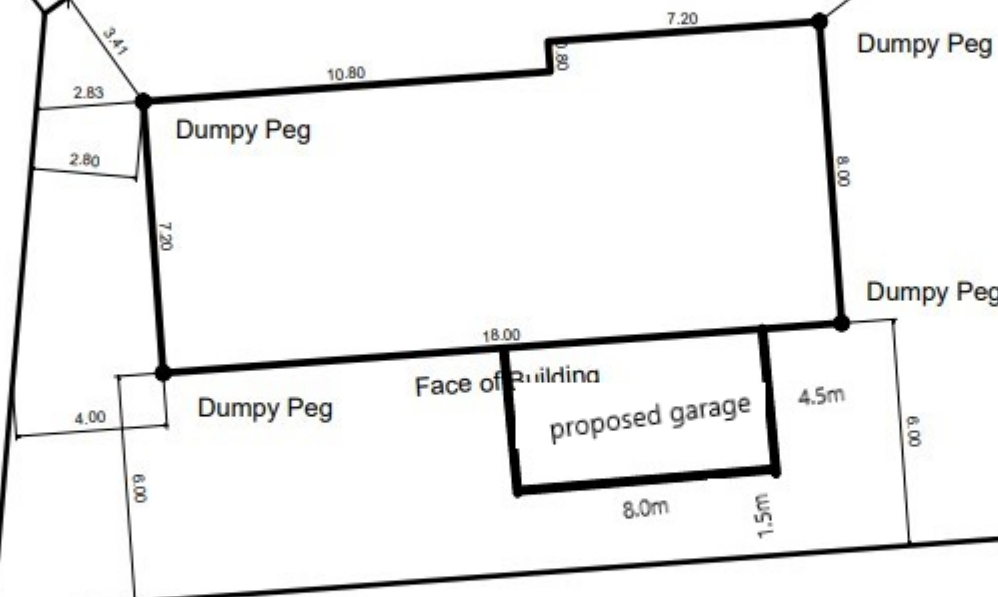
Lot 40
DP 412125

Lot 42
DP 412125

County Drive

Lot 39
DP 412125

Lot 43
DP 412125



BOUNDARY DEFINITIONS IN URBAN LOCATIONS
In all cases where a building is to be sited closer than two metres from any site boundary it will be a requirement when the first building inspection takes place, for the Building Official to either:

1. Sight survey pegs and to have the boundaries identified to enable the measurement from the boundary to the proposed building footprint; or
2. To provide a Registered Surveyor's certification that the proposed building footprint is correctly sited in accordance with the approved Building Consent plans.



79 Princes Street
PO Box 66, Hawera 4610
info@juffermans.co.nz

www.juffermans.co.nz

Client: Hamish Scott
Site Address: 27 County Drive Hawera

Drawing Title:

BUILDING LOCATION SETOUT DIAGRAM

Territorial Authority:	STDC	Job No:	20166
Comprised in:	445017	A3 Scale:	1:200
Drawing No:	01	Date:	22/10/2020
		Rev:	-


Design has been based on the following site specific and/or building specific items:

- Building Importance Level = “1”
- Design Life for structural elements = 50 years
- Design Wind Speed = 37.3m/s (for design of the Building)(Wind Zone = “High”) - in accordance with AS/NZS1170.2:2011
- Earthquake Zone = “1” in accordance with NZS3604:2011
- Corrosion Zone = “C” in accordance with NZS3604:2011

Design Assumptions:
Kiwispans part and House part are designed as separate structures and deflections kept low to not transfer the loads to the other part.

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27/09/2021 - Page 2 of 32

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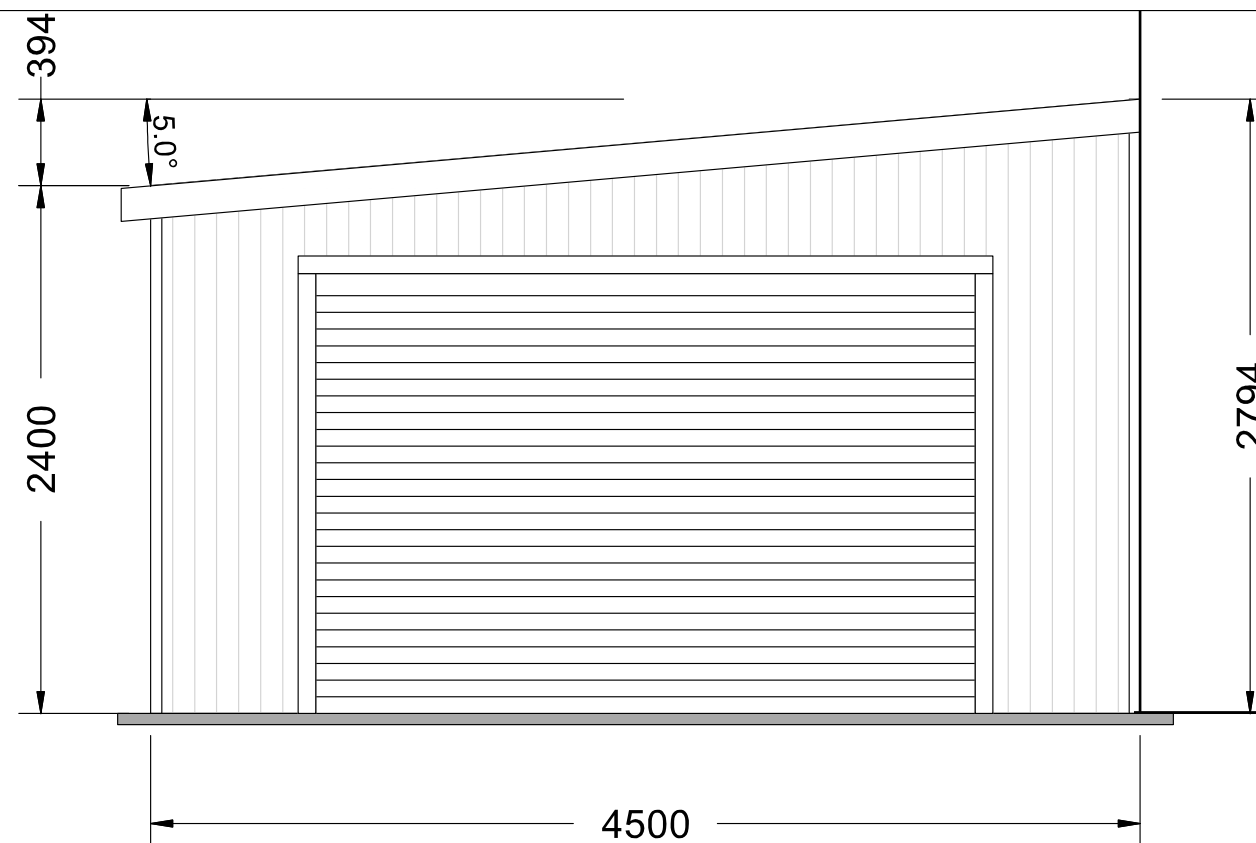
Signed:  Date: 15/06/2021

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DESIGN STATION LIMITED

Member Schedule Summary

End Column (EC):	C15012 Single C15019
End Rafter (ER):	C15012 Single C15019
Internal Column (IC):	C20019 Single
Internal Rafter (IR):	C20019 Single
End Wall Mullion (EWM):	NA
Knee Brace (KB):	NA
Apex Brace (AB):	NA
End Roller Door Post:	C15019 Single
Eave Purlin (EP):	TH100075
Open Bay Column:	C20019
End Wall Girt (EWG):	TH100075 (Max Spacing: 1200, Over Lap: 15%)
Side Wall Girt (SWG):	TH100075 (Max Spacing: 1450, Over Lap: 15%)
Roof Purlins (RP):	TH100075 (Max Spacing: 1450, Over Lap: 15%)
Wall Cladding Type:	Slimclad 0.40
Roof Cladding Type:	Trimrib 0.40
Wall Colour:	Endura, TBC
Roof Colour:	Endura, TBC
Barge Colour:	Endura, TBC
Gutter Colour:	Endura, TBC
Downpipe Colour:	Endura, TBC

- This specific design, engineering calculations and connection details are the exclusive property of KiwiSpan 2017 Ltd and is licensed to the client for use on this project.
- The contractor shall verify all dimensions on site prior to commencing construction.
- Do not scale dimensions from these drawings. If in doubt, ask.
- Reproduction for other purposes without the permission of KiwiSpan 2017 Ltd is Prohibited.



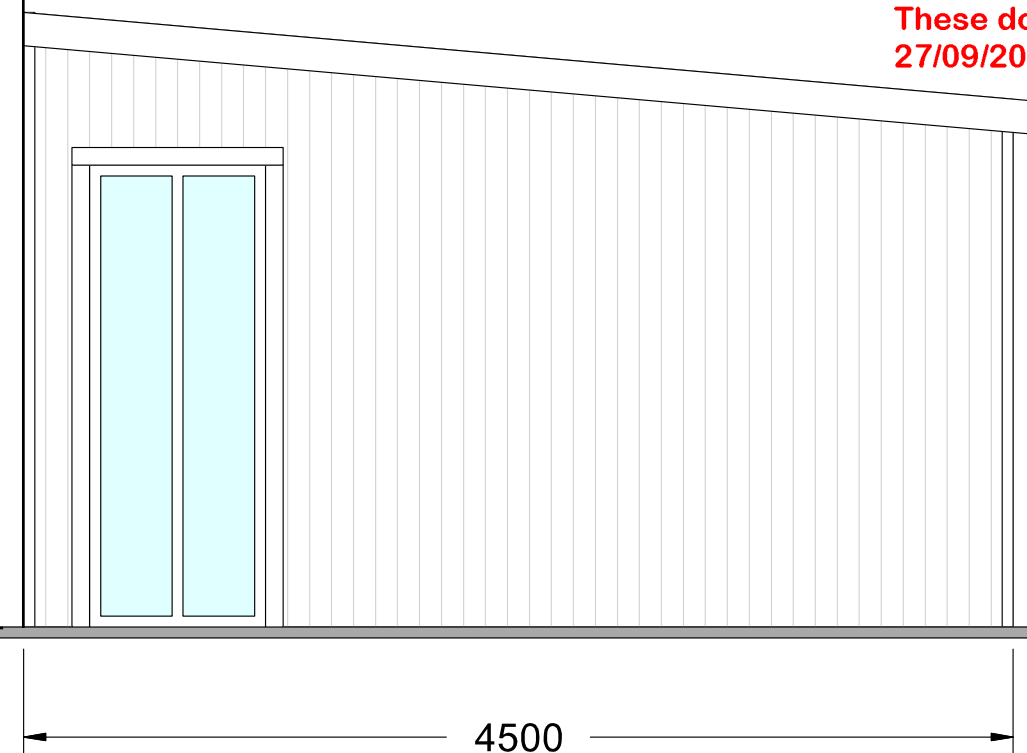
FRONT ELEVATION

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Existing House



REAR ELEVATION

End Elevations

Scale: 1:34

Original Size:
A3

Customer Name: Arthur Brown Construction
Site Address: 27 County Drive

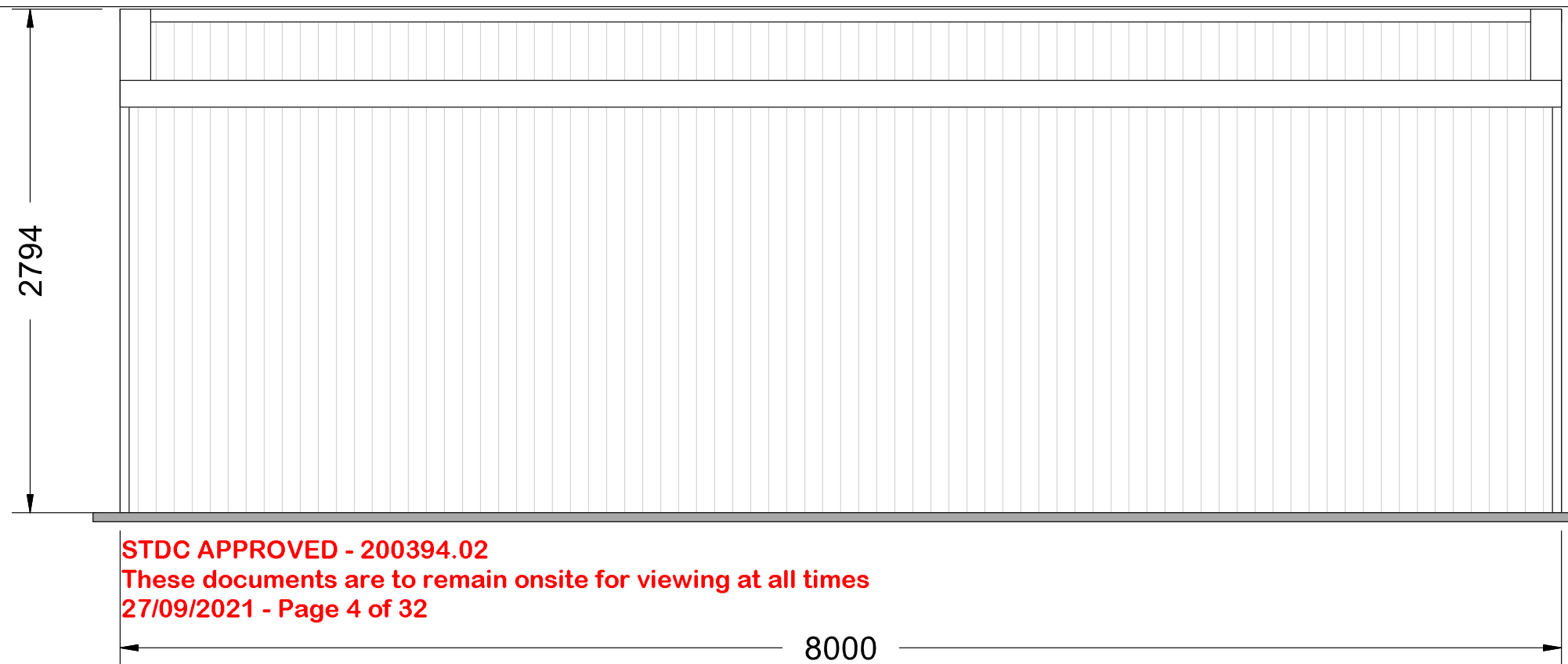
Job Number:
SZI210316103515

Date: 1/06/2021

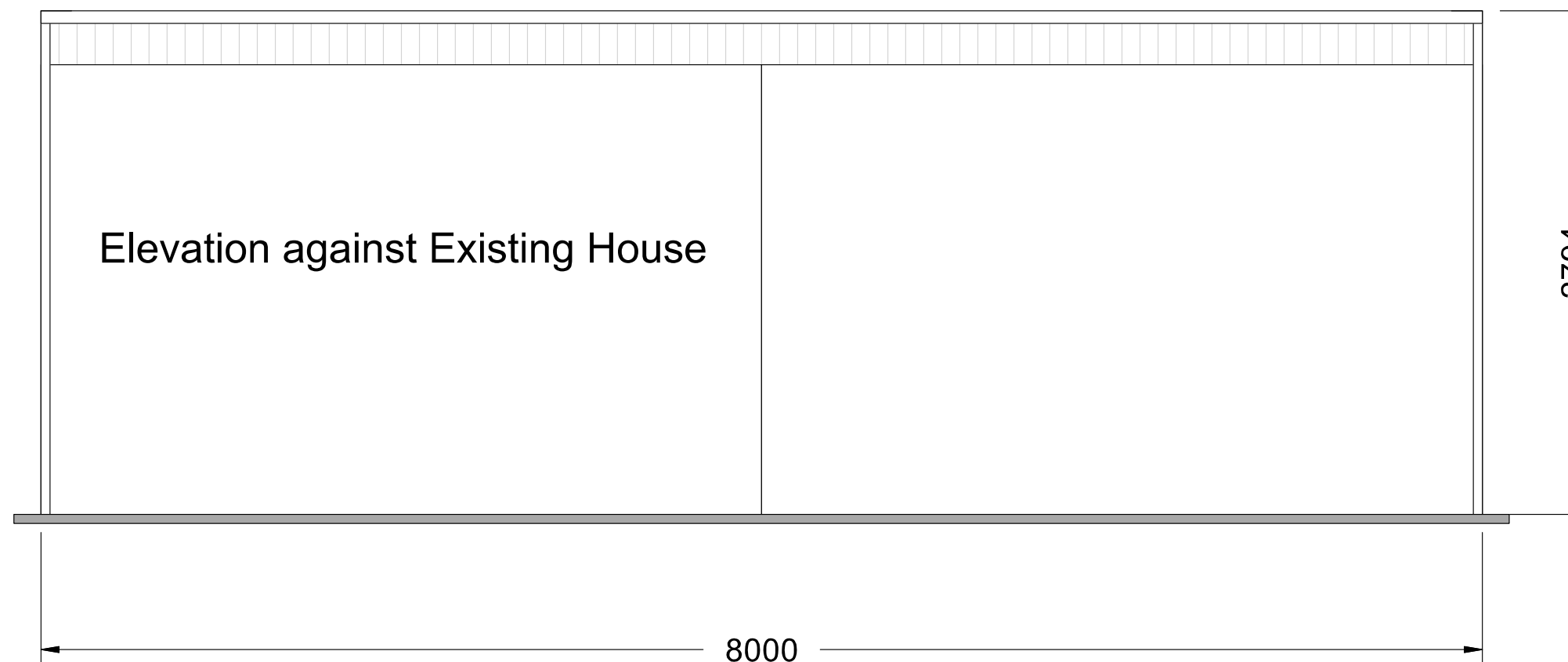
Page Number:
2 of 9




KIWISPAN

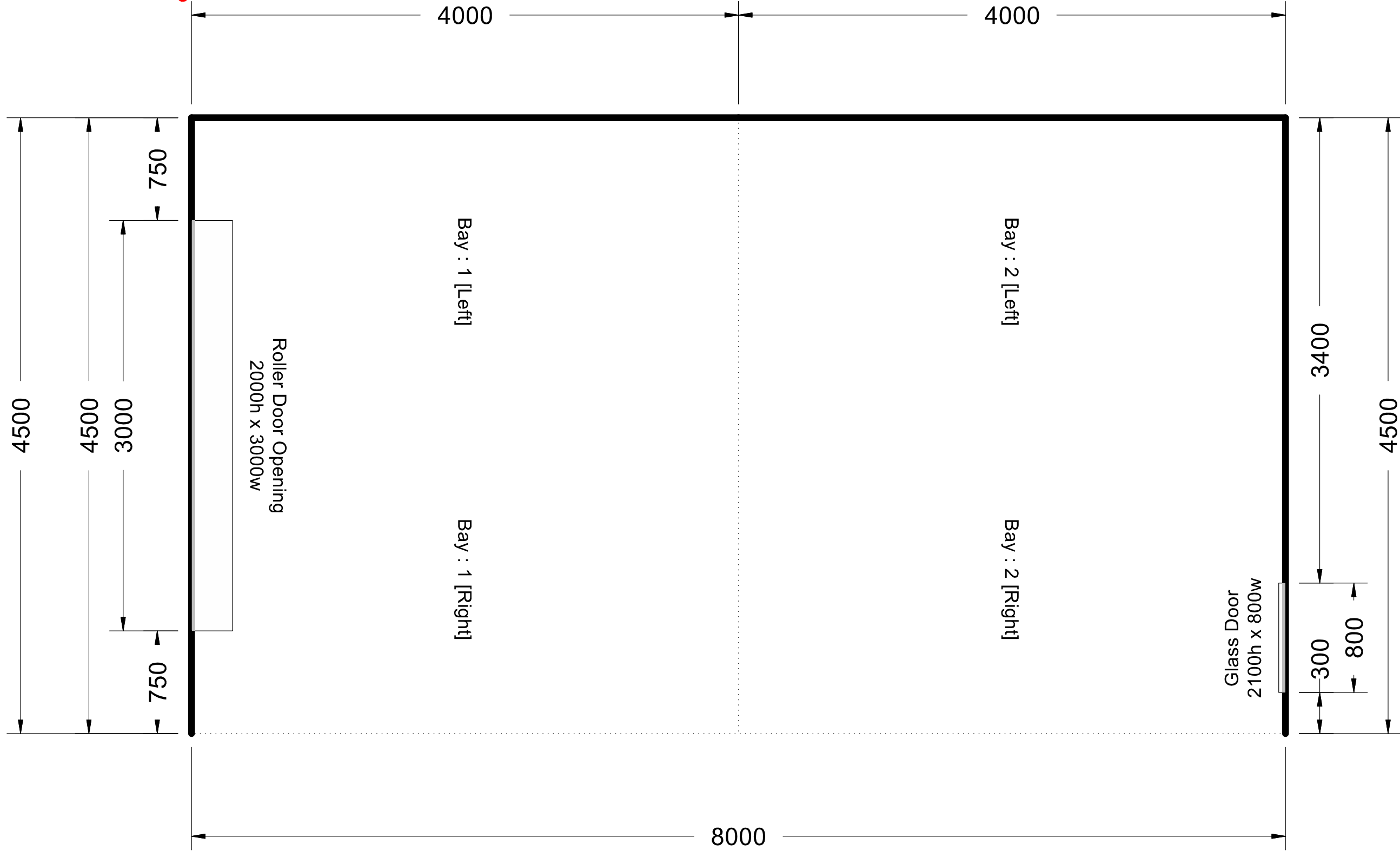


LEFT ELEVATION



RIGHT ELEVATION

		<i>Side Elevations</i>	Job Number: SZI210316103515	
	Scale: 1:33		Date: 1/06/2021	
	Original Size: A3	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: 3 of 9	



FLOOR PLAN

		<i>Floor Plan</i> (Unlined Building)	Job Number: SZI210316103515	
	Scale: 1:30		Date: 1/06/2021	
	Original Size: A3	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: 4 of 9	

Technical drawing of a roof structure. The drawing shows a rectangular area with a 5-degree fall indicated by a vertical arrow labeled "5 Deg Fall". The roof is divided into two sections by a vertical line. The left section is labeled "4000" and the right section is labeled "4000". The total width is "8000". The roof height is "4500". The roof is divided into two sections by a vertical line. The left section is labeled "4000" and the right section is labeled "4000". The total width is "8000". The roof height is "4500". The roof is divided into two sections by a vertical line. The left section is labeled "4000" and the right section is labeled "4000". The total width is "8000". The roof height is "4500".

ROOF BRACE:
1/50X0.95mm (G550)
Strap Brace

4000 4000 8000

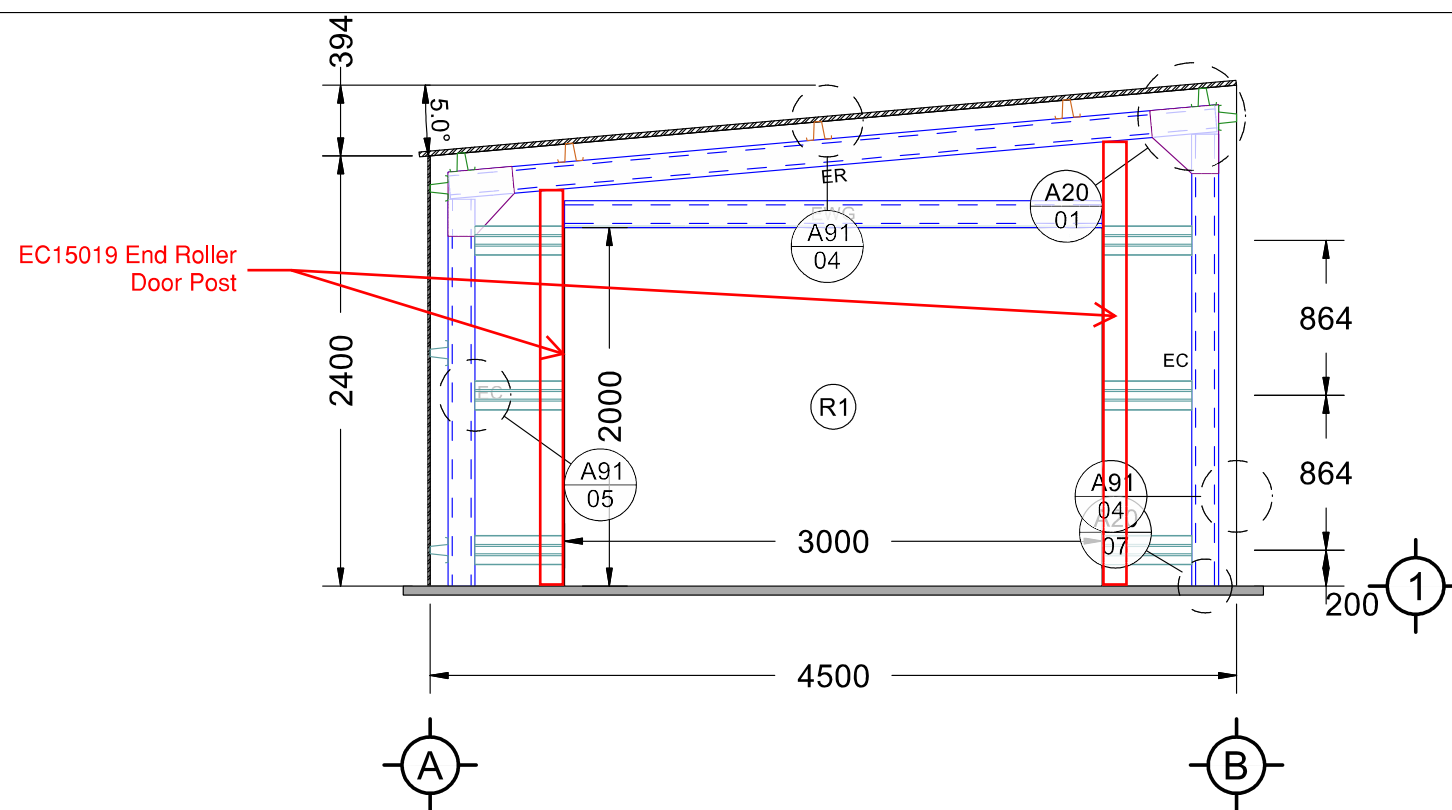
4500 4500 3000 750 750 4500 3400 300 800 4500

5 Deg Fall

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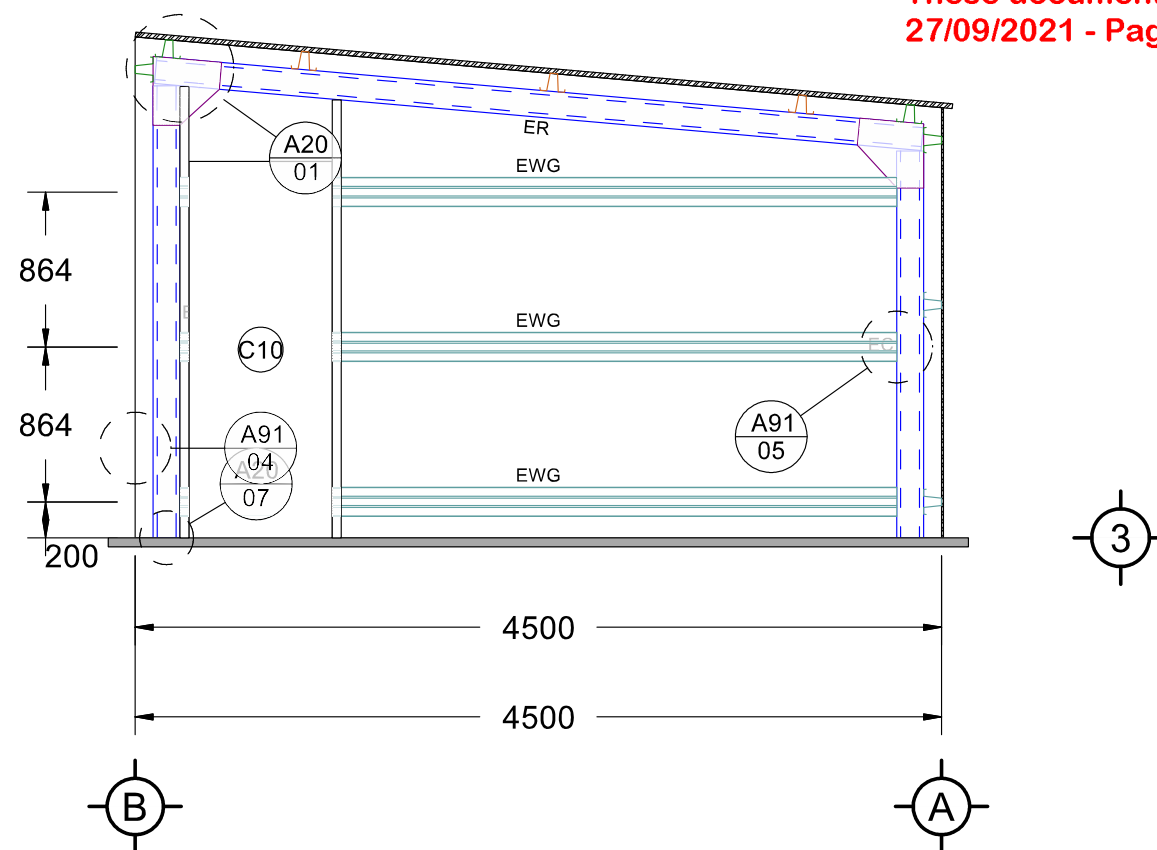
	<h1 style="margin: 0;">ROOF ELEVATION</h1>		Job Number: <i>SZ1210316103515</i>
Scale: 1:30			Date: 1/06/2021
Original Size: <div style="font-size: 2em; font-weight: bold;">A3</div>	Customer Name: Arthur Brown Construction Site Address: 27 County Drive	Page Number: <i>5 of 9</i>	





FRONT ELEVATION

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REAR ELEVATION

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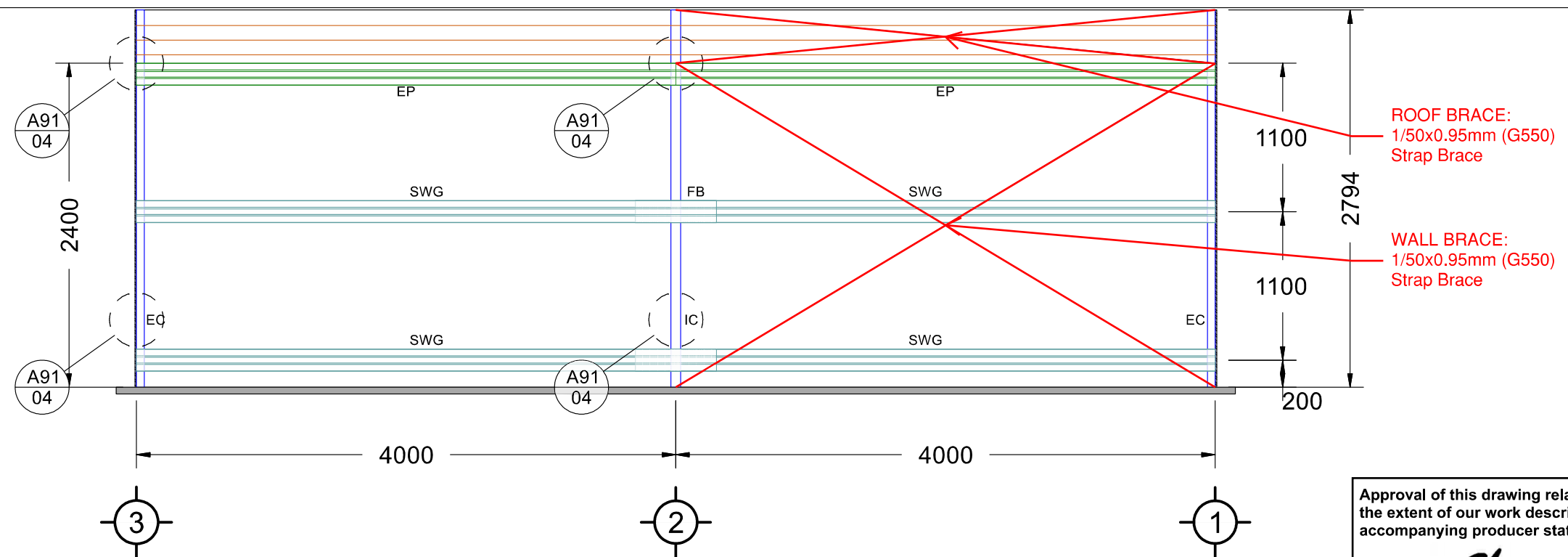
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Scale: 1:42
 Original Size:
A3

Customer Name: Arthur Brown Construction
 Site Address: 27 County Drive

Job Number:
 SZ1210316103515
 Date: 1/06/2021
 Page Number:
 6 of 9






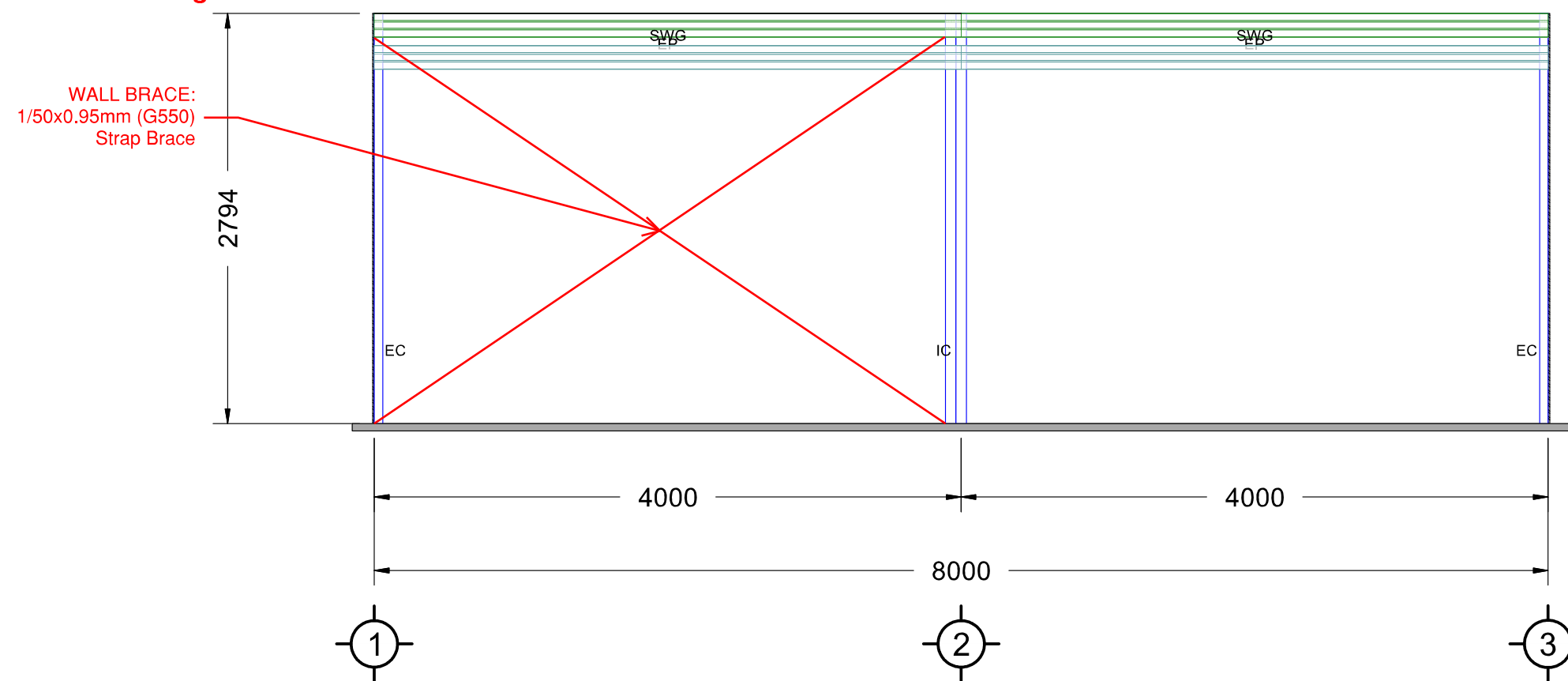
LEFT ELEVATION

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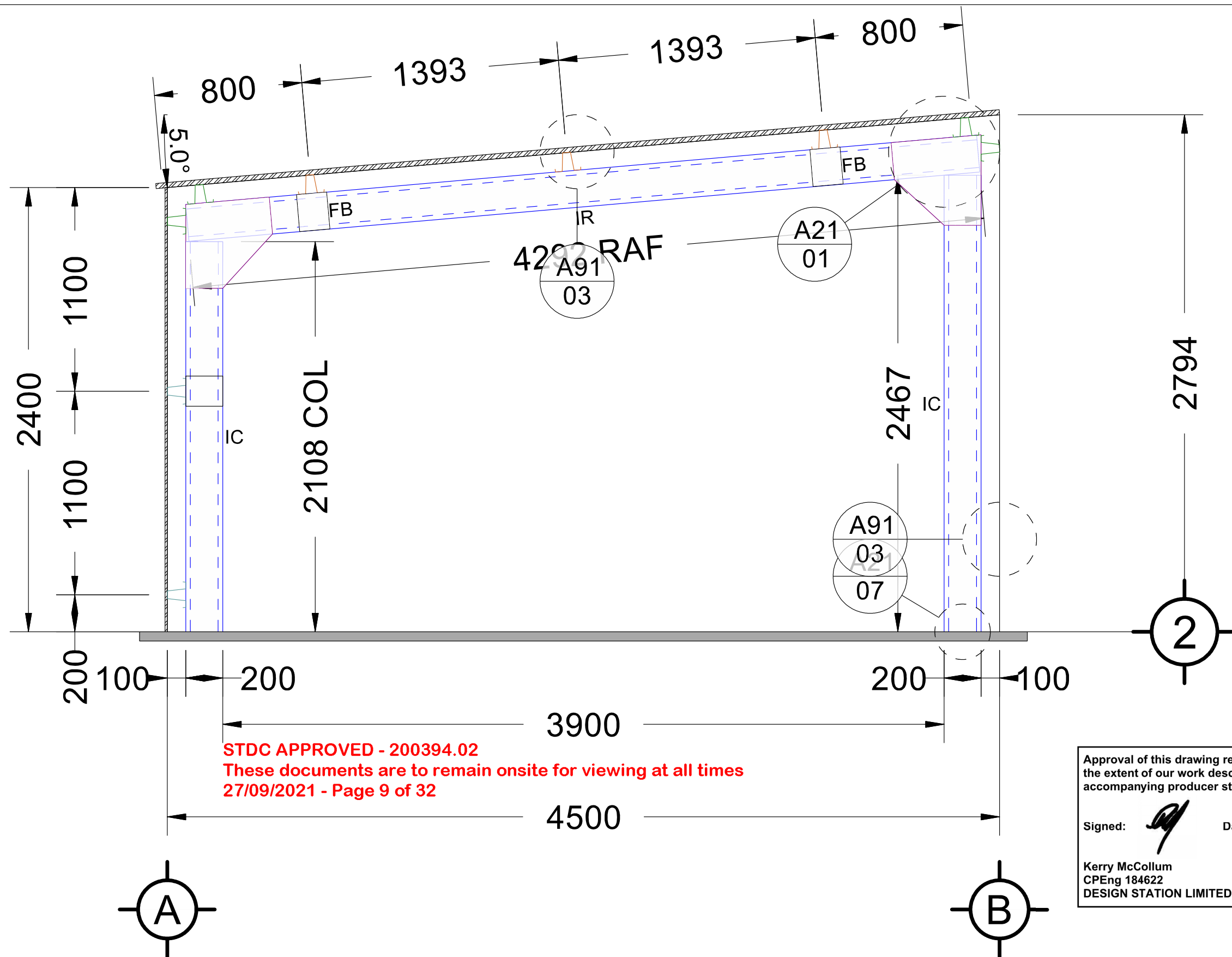
Signed:  Date: 15/06/2021

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RIGHT ELEVATION

		<i>Side Frame Elevations</i>		Job Number: SZI210316103515	
Scale: 1:41				Date: 1/06/2021	
Original Size: A3		Customer Name: Site Address:	Arthur Brown Construction 27 County Drive	Page Number: 7 of 9	



INTERMEDIATE ELEVATION

Cross Section (2)

Scale: 1:22

Original Size:
A3

Customer Name: Arthur Brown Construction
Site Address: 27 County Drive

Job Number:
SZI210316103515

Date: 1/06/2021

Page Number:
8 of 9



•Foundation ground improvements for Ribraft: RED JACKET, Ref: CAL-4104-01, Date: 25 November 2020.

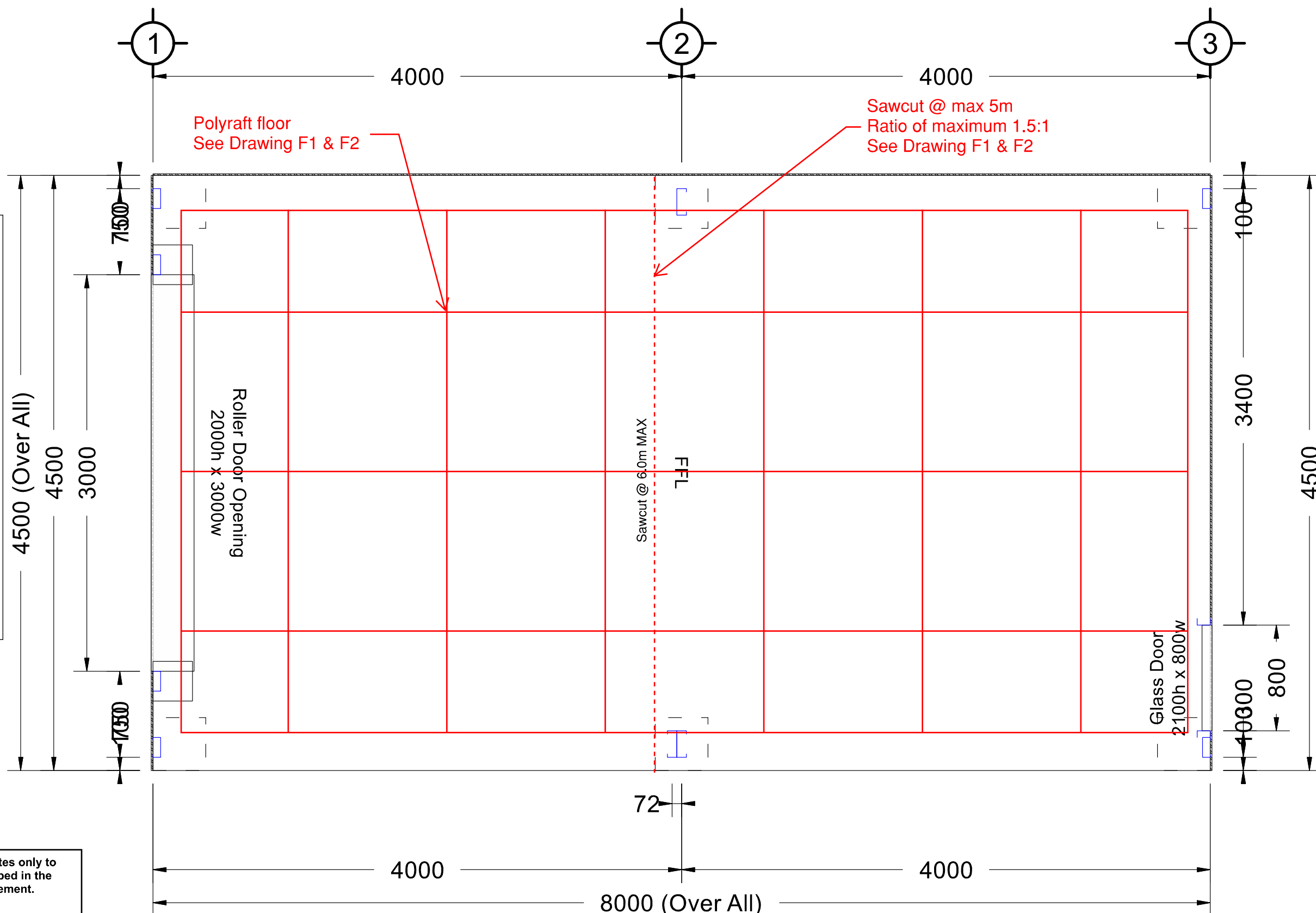
The following specification is recommended:
 •1. Use 300mm thick hardfill raft.
 •2. Proof roll subgrade before laying AP65. Compacted AP65 Hardfill. Compact in 150mm layers. Top with crusher fines to produce smooth surface for damp proof membrane. Extend hardfill 1000mm beyond building footprint.
 •3. Suitably qualified engineer to inspect cleared subgrade and final compaction.

•Following from recommendations in above Geotech Report the foundations have been designed for an ultimate foundation bearing capacity of 135kPa at subgrade.
 •Earthworks and Inspections as per above Report.
 •The PS1 does not cover the suitability of the site, stability, sub-soil conditions, or any other Geotechnical information that may affect the foundation design.

Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 23/09/2021

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FOUNDATION PLAN

Foundation Plan

Scale: 1:31

Original Size:
 A3

Customer Name: Arthur Brown Construction
 Site Address: 27 County Drive

Job Number:
 SZI210316103515

Date: 1/06/2021

Page Number:
 9 of 9

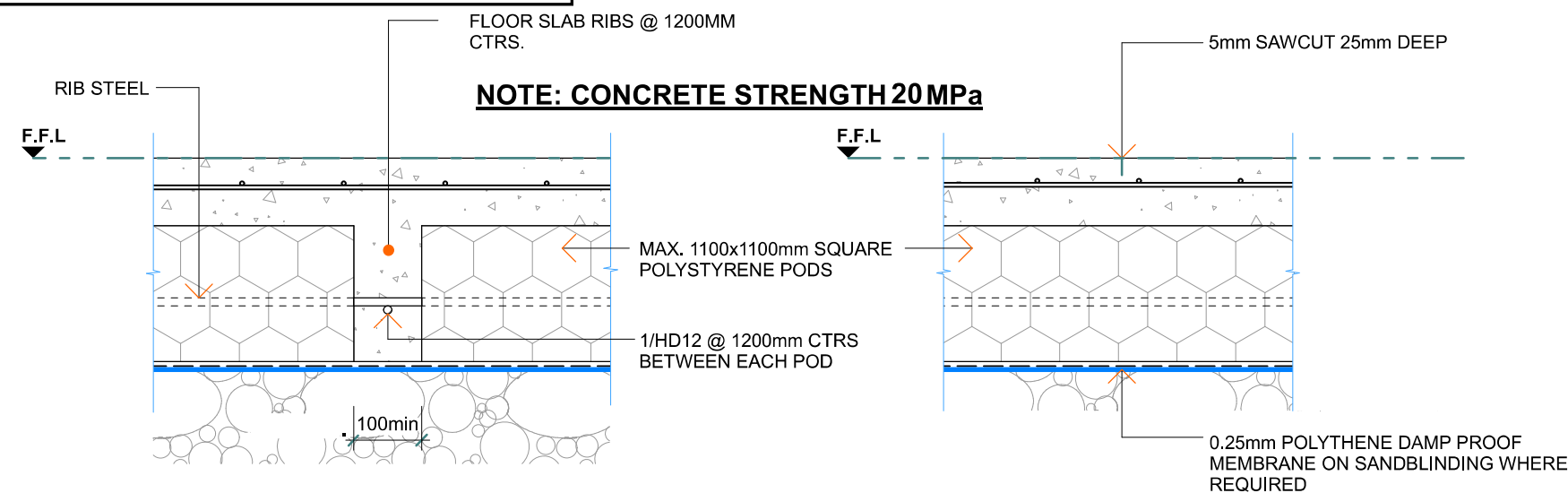


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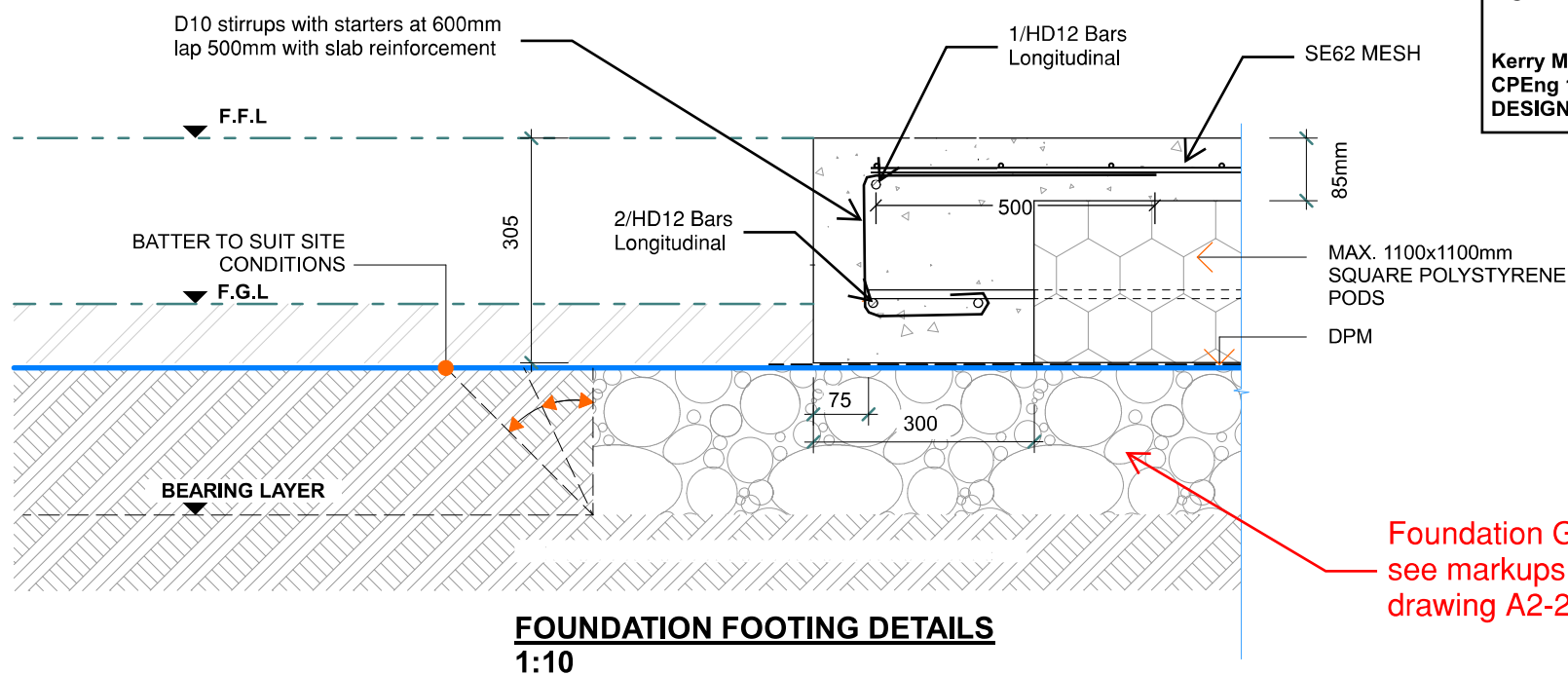
Foundation Notes:
See Foundation Plan.



TYPICAL RIB DETAIL
1:10


TYPICAL SAW CUT DETAIL
1:10

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27/09/2021 - Page 11 of 32



FOUNDATION FOOTING DETAILS
1:10

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CONCRETE NOTES:

1. All construction detailing shall comply with NZS 3604:2011, unless modified within the structural drawings.
2. Consolidate the base of all excavations for foundations by compacting plate, rollers or other appropriate methods
3. Any fill material shall be fit for purpose, placed and compacted in layers of no greater than 150mm to a maximum fill depth of 600mm unless modified within the structural drawings.
4. All concrete and workmanship shall comply with, NZS 3109 concrete construction.
5. Concrete shall have a minimum 28 day strength of 20MPa unless the site is within a seaspray zone where 25MPa concrete strength shall be adopted.
6. Higher strength concrete may be required for industrial and commercial use buildings, refer to the engineer.
7. Reinforcing bars are denoted by the following:-
 - D - grade 300E, Deformed bar
 - H - grade 500E, Deformed bar
 - R - grade 300E, Plain bar
 - HR -grade 500E, Plain bar
8. Reinforcing cover shall be as follows:
 - Concrete Cast against natural ground 75mm
 - Concrete Cast against formwork in ground or against DPM 50mm
 - Internal cover for bars & mesh for
 - T = 85mm, provide 30mm cover
9. Reinforcing and mesh shall be supported on plastic 'chairs' or 'spacers' to maintain the required cover.
10. Slab reinforcement
SE62 MESH
11. DPM shall consist of a single layer of polyethylene not less than 0.25mm thick. Lap joints shall be not less than 150mm wide, sealed with pressure sensitive plastic tape not less than 50mm wide
12. Curing of the concrete slab must take place immediately after finishing the slab by ponding or continuous sprinkling of water for a minimum period of 7 days. Buildings may be constructed on the slab within 7 days with due care not to overtighten fixing anchors.
13. Shrinkage control joints, free joints, construction joints and saw cuts shall be located as shown on the drawings.
14. Sawcuts are to coincide with major changes of plan and placed at a maximum spacing of 5m. Sawcuts shall be placed to create slab panels with length:width ratios of no greater than 1.5:1 Sawcuts are to be made no later than 24 hours following the slab pour. Sawcuts shall be 5mm wide x 0.25 slab thickness unless noted otherwise. Shrinkage control joints shall be placed over 100mm wide internal ribs wherever possible.
15. A free joint (or use of a propriety dowel joint system) shall be provided at a maximum of 30m spacing.
16. Polyraft floor in accordance with Firth Ribraft manual unless noted otherwise

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DESIGN STATION LIMITED
P.O.BOX 1069, WHANGAREI
Ph: +64 9 4381562 Fx: +64 9 4381647

file no.

Ribraft Details

original size
A3

Arthur Brown Construction
27 County Drive

drawing no.

F1

date:

page no.

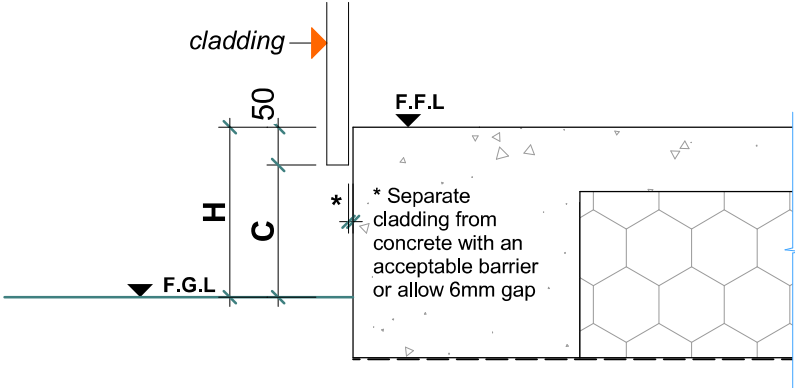


Foundation Notes:
See Foundation Plan.

MINIMUM CLEARANCE DIMENSIONS		
BUILDING & FGL TYPE	H	C
Unlined Building- Unpaved ground	125	75
Lined Building- Paved surface	150	100
Habitable Building- Paved surface	150	100
Lined Building- Unpaved ground	225	175
Habitable Building- Unpaved ground	225	175

(Measurements in mm)


THICKENING	
COLUMN	*L
150	300
200	350
250	400
300	450
350	500
400	550



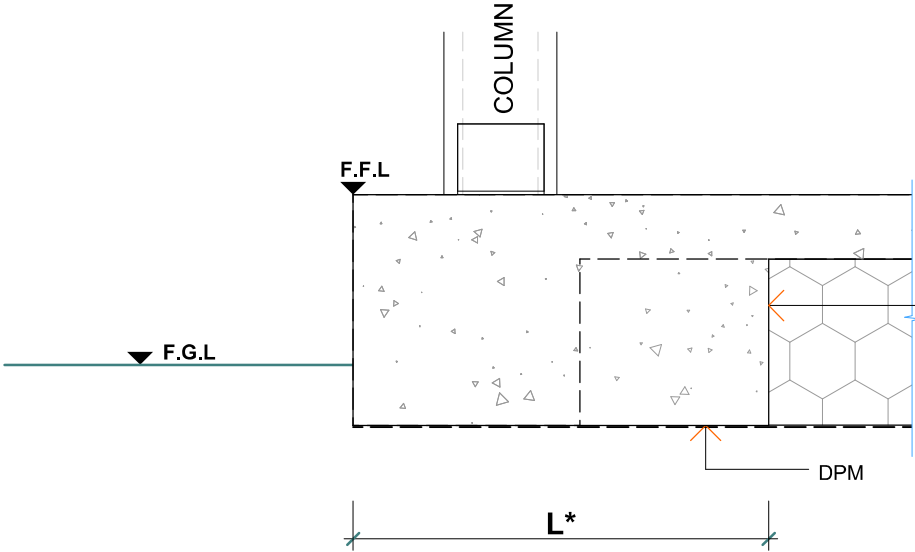
GROUND CLEARANCE DETAILS

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27/09/2021 - Page 12 of 32

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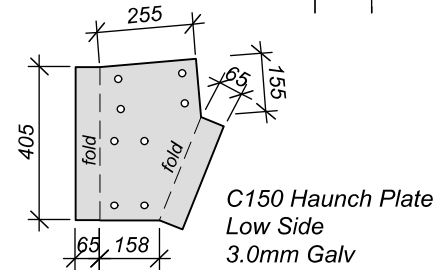
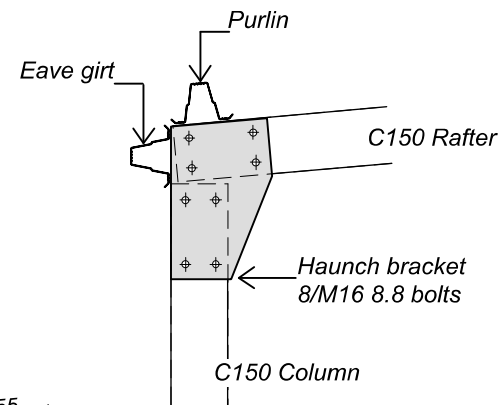
Signed:  Date: 23/09/2021

Kerry McCollum
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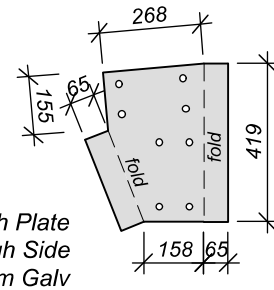
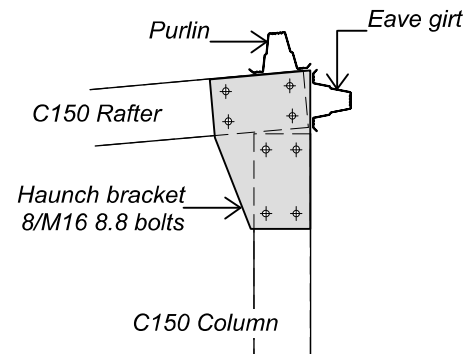


COLUMN FOUNDATION DETAILS

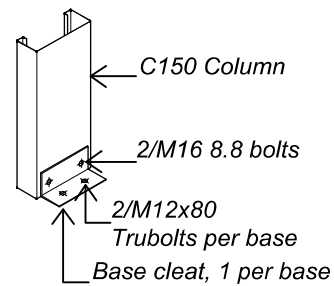
LOCAL SLAB THICKENING 400mm
WIDE x L @ INTERMEDIATE
COLUMN LOCATIONS



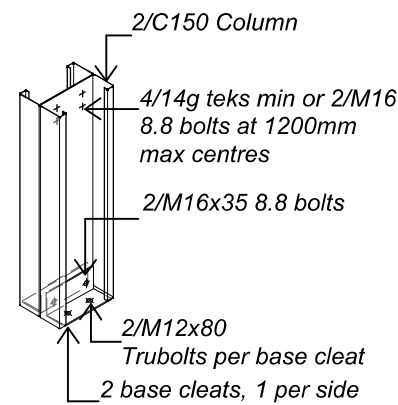
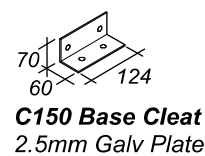
LOW SIDE HAUNCH BRACKET AND CONNECTION (Detail 01)



HIGH SIDE HAUNCH BRACKET AND CONNECTION (Detail 02)



BASE CLEAT AND CONNECTION SINGLE COLUMN (Detail 07)



BASE CLEAT AND CONNECTION DOUBLE OPEN COLUMN (Detail 08)

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Signed:  Date: 15/06/2021

Kerry McCollum
 CPEng 184622
 DESIGN STATION LIMITED

NOTES:

Cold formed C-sections shall comply with AS 4203:1992 and AS/NZS 1252:1996. Buildings may be constructed on concrete floor slab within 7 days with due care not to over tighten fixing anchors. Structure to be maintained in a stable condition with due care not to overstress any part during construction. All dimensions are in millimeters unless otherwise stated. Tek screws and 8.8 bolts to be installed as per manufactures instructions. 8.8 bolts to be fully tensioned by snug tightening then fully tensioned another 1/3 turn rotation of nut. Fly bracing fixed to closest girt/purlin from Eave Purlin, then every second row thereafter. Roof and wall cladding to be fixed as per manufactures instructions. Engineering responsibility only covers items shown in these drawings.

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file no.
 A20

231019

original size
A3

BRACKET CONNECTIONS
- C150 Monopitch

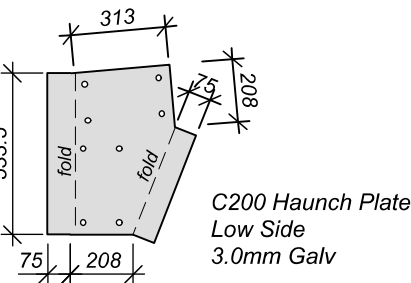
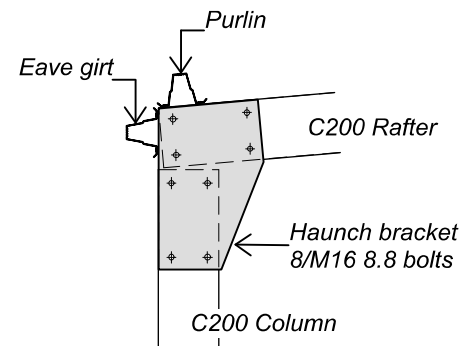
Customer : Arthur Brown Construction
 Site Address : 27 County Drive

drawing no.
A20

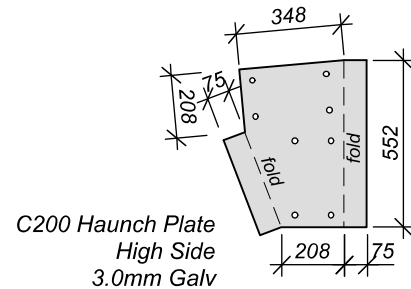
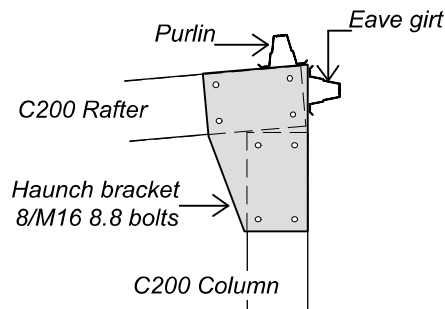
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page no.

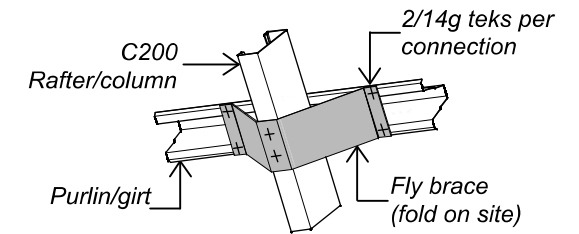




LOW SIDE HAUNCH BRACKET AND CONNECTION (Detail 01)



HIGH SIDE HAUNCH BRACKET AND CONNECTION (Detail 02)



FLY BRACE CONNECTION (Detail 04)

Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:

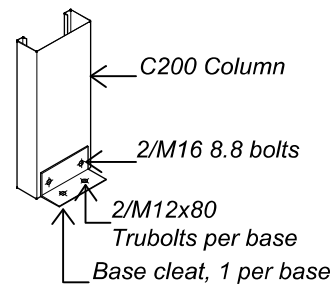
Date: 15/06/2021

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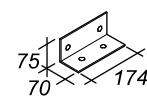
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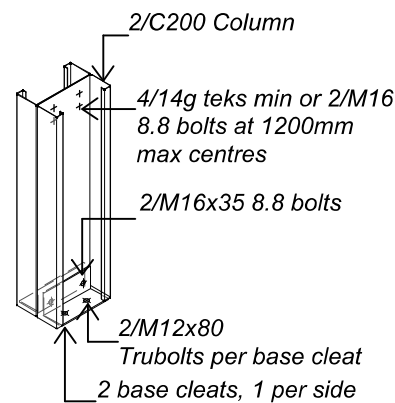
27/09/2021 - Page 14 of 32



BASE CLEAT AND CONNECTION SINGLE COLUMN (Detail 07)



C200 Base Cleat 4.0mm Galv Plate



BASE CLEAT AND CONNECTION DOUBLE OPEN COLUMN (Detail 08)

NOTES:

Cold formed C-sections shall comply with AS 4203:1992 and AS/NZS 1252:1996. Buildings may be constructed on concrete floor slab within 7 days with due care not to over tighten fixing anchors. Structure to be maintained in a stable condition with due care not to overstress any part during construction. All dimensions are in millimeters unless otherwise stated. Tek screws and 8.8 bolts to be installed as per manufactures instructions. 8.8 bolts to be fully tensioned by snug tightening then fully tensioned another 1/3 turn rotation of nut. Fly bracing fixed to closest girt/purlin from Eave Purlin, then every second row thereafter. Roof and wall cladding to be fixed as per manufactures instructions. Engineering responsibility only covers items shown in these drawings.

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file no.
A21

231019

original size
A3

BRACKET CONNECTIONS
- C200 Monopitch

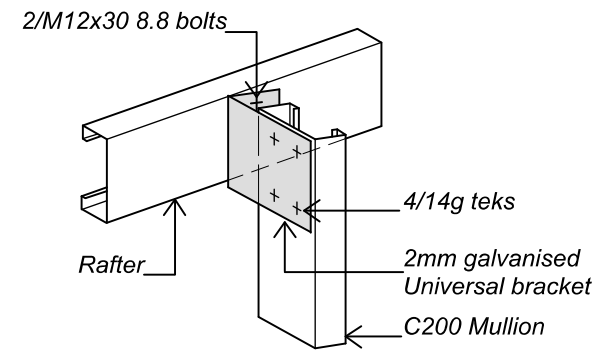
Customer : Arthur Brown Construction
Site Address : 27 County Drive

drawing no.
A21

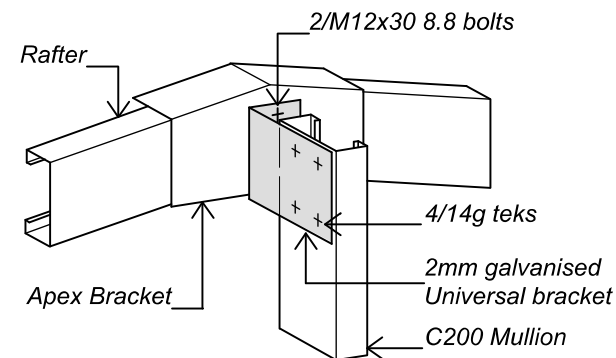
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page no.

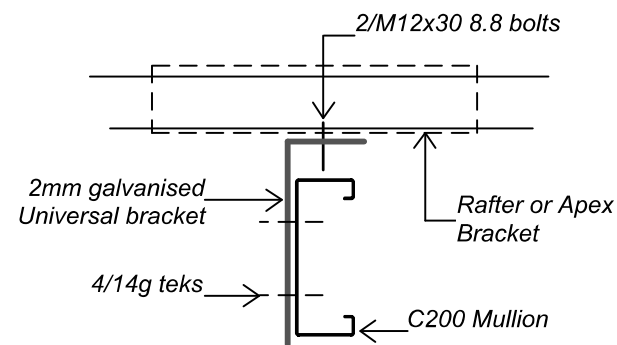




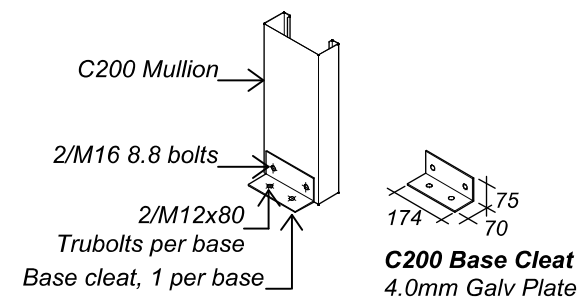
MULLION/RAFTER CONNECTION



MULLION/APEX CONNECTION



MULLION TOP CONNECTION (Detail 2b)



MULLION BASE (Detail 2a)

C200 MULLION (Detail 2)

Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:

Date: 15/06/2021

Kerry McCollum
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file no.
A41

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original size
A3

MULLION CONNECTIONS

Customer : Arthur Brown Construction
Site Address : 27 County Drive


drawing no.
A41

date:

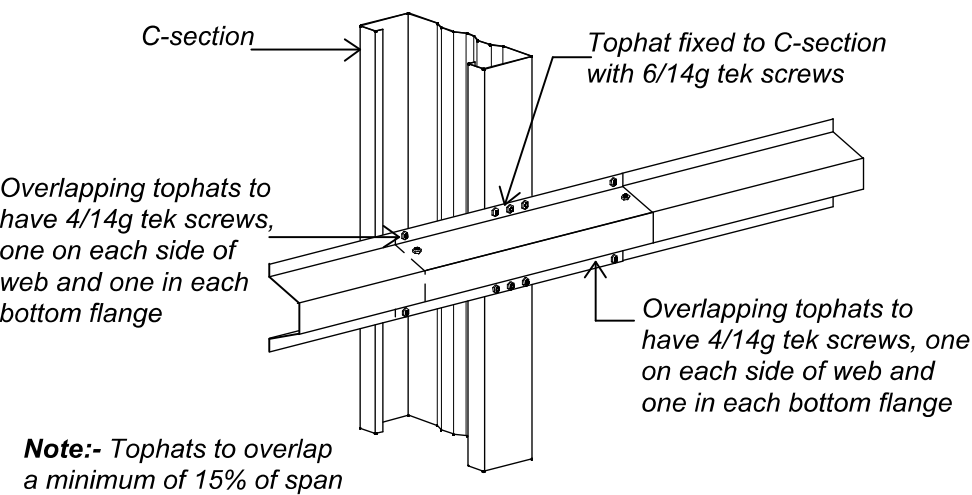
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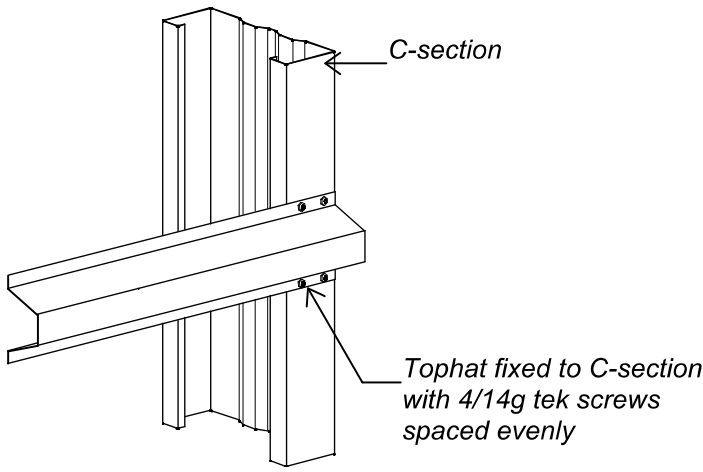
Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 15/06/2021

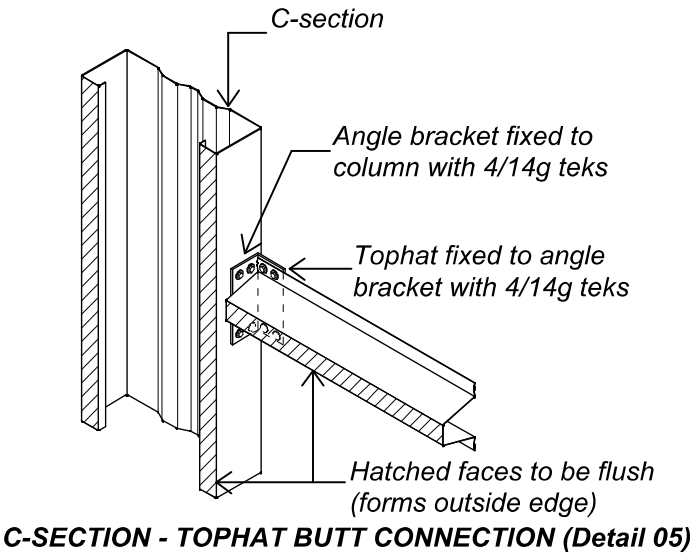
Kerry McCollum
CPEng 184622
DESIGN STATION LIMITED



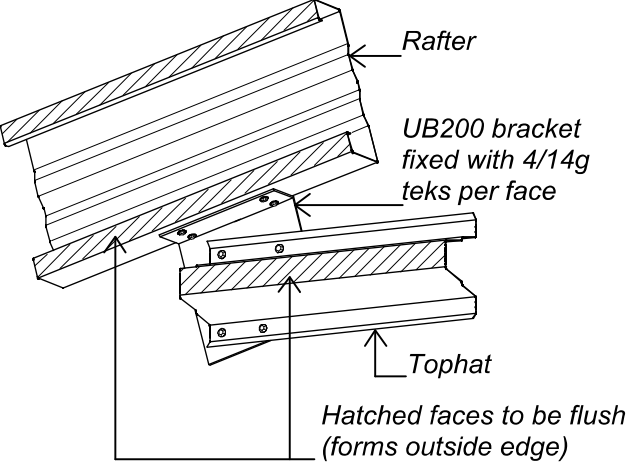
SINGLE C-SECTION - LAPPED TOPHAT (Detail 03)



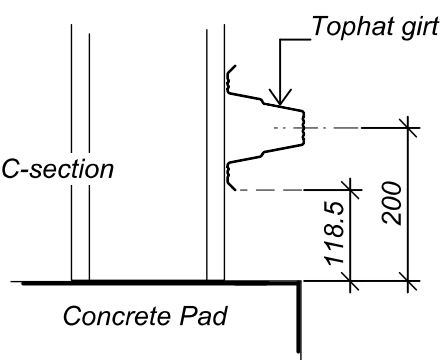
SINGLE C-SECTION - SINGLE TOPHAT (Detail 04)



C-SECTION - TOPHAT BUTT CONNECTION (Detail 05)

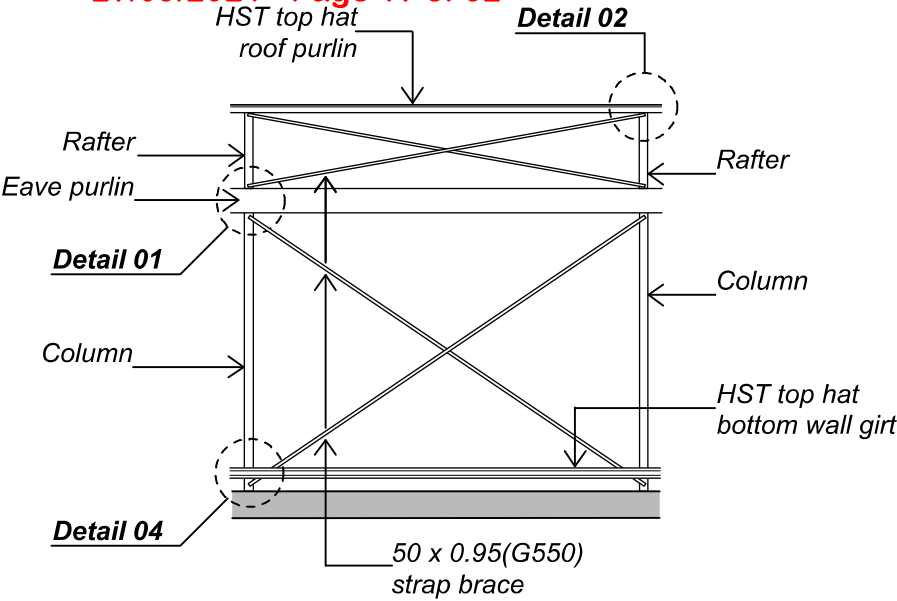


RAFTER/GIRT CONNECTION (Detail 06)

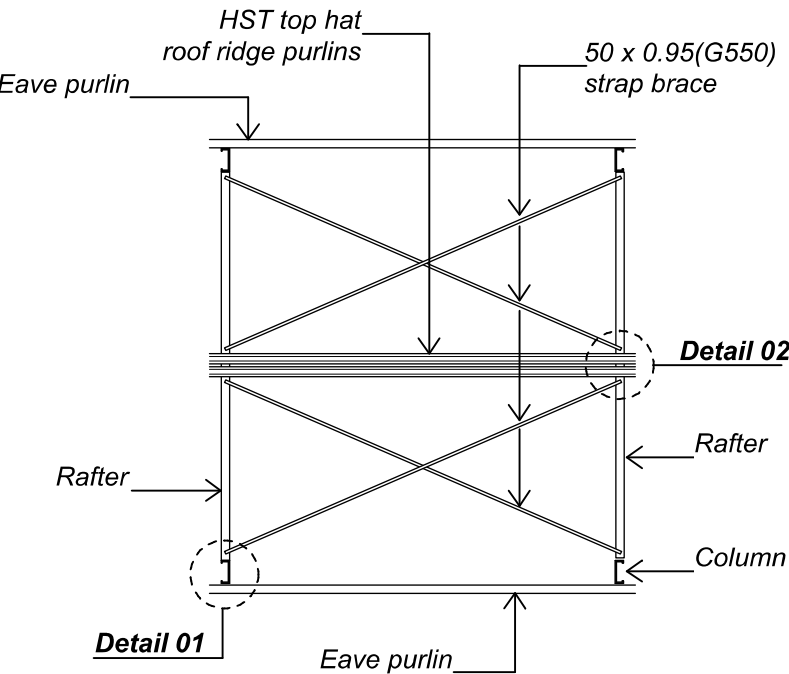


GIRT LOCATION (Detail 07)
Typical distance to first tophat girt from Finished Floor Level

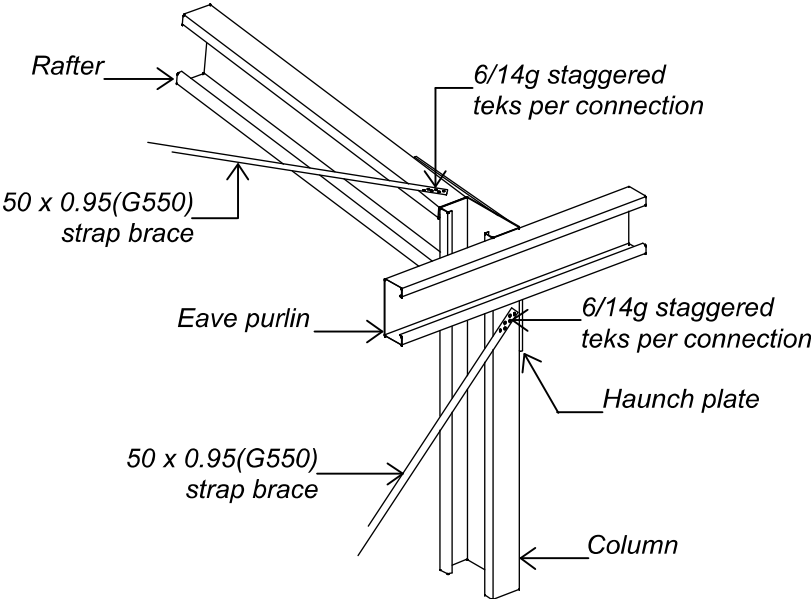
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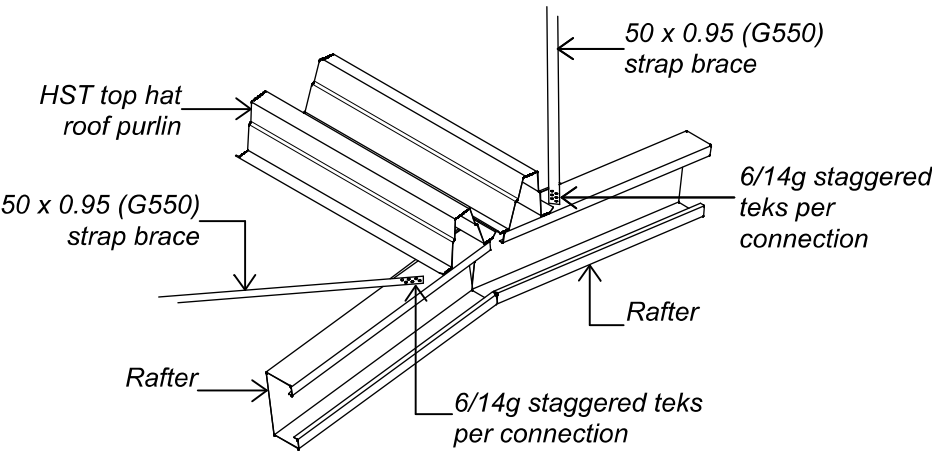
WALL BRACE CONNECTIONS Note: Additional wall girts removed for clarity



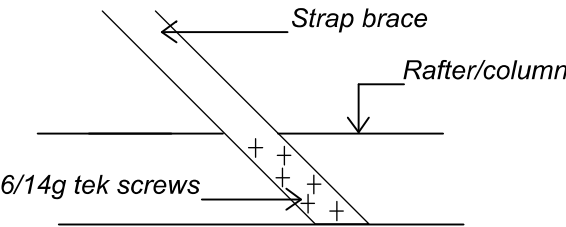
ROOF BRACE CONNECTIONS Note: Additional roof purlins removed for clarity



BRACE CONNECTION TO COLUMN AND RAFTER (Detail 01)




BRACE CONNECTION TO RAFTERS AT APEX (Detail 02)

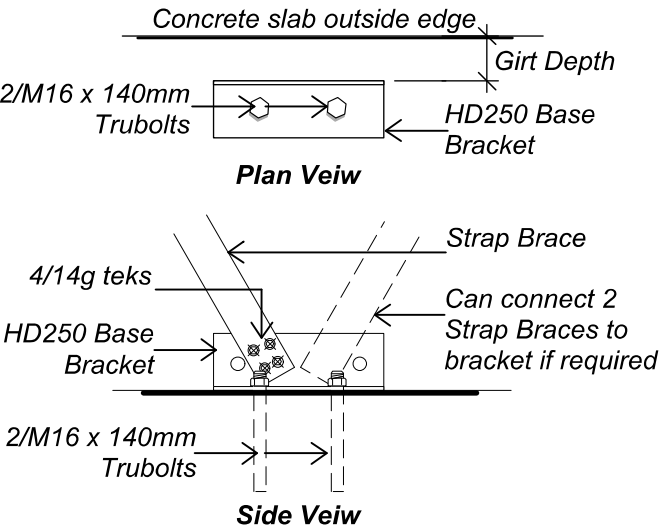


STAGGERED TEK PATTEN (Detail 03)

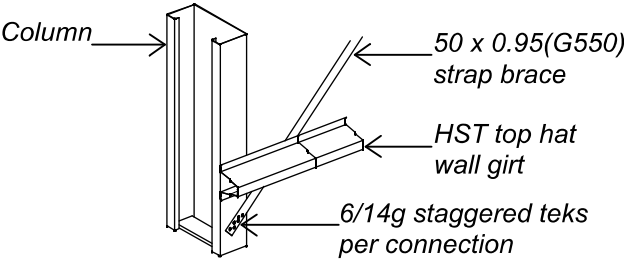
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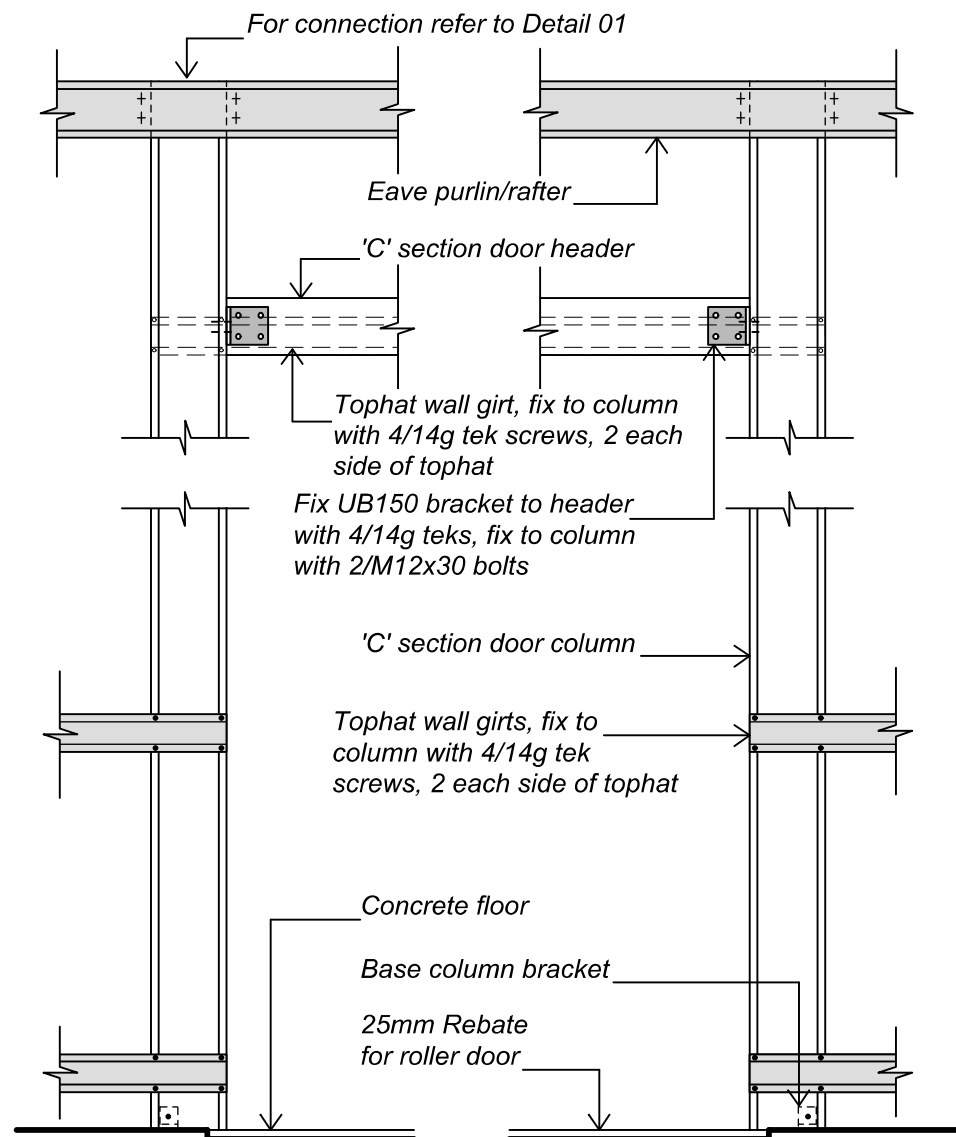


BRACE BRACKET DETAIL (Detail 05)



BRACE CONNECTION TO FOOT OF COLUMN (Detail 04)

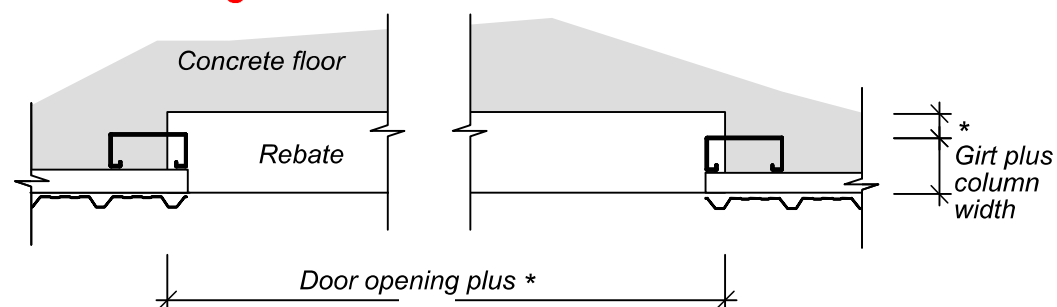
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ELEVATION VIEW

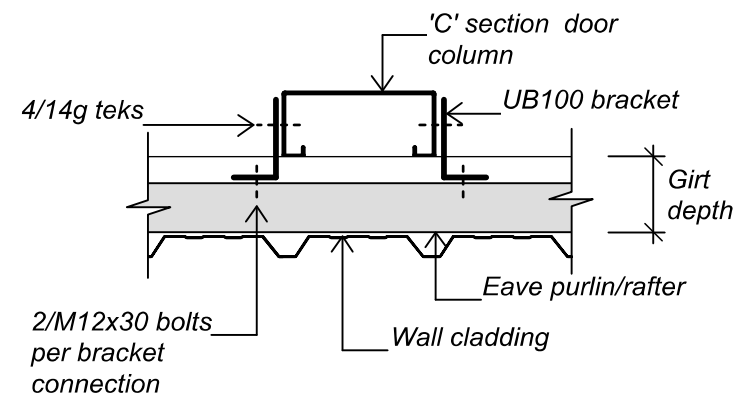
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PLAN VIEW

* - as per manufacturers specifications



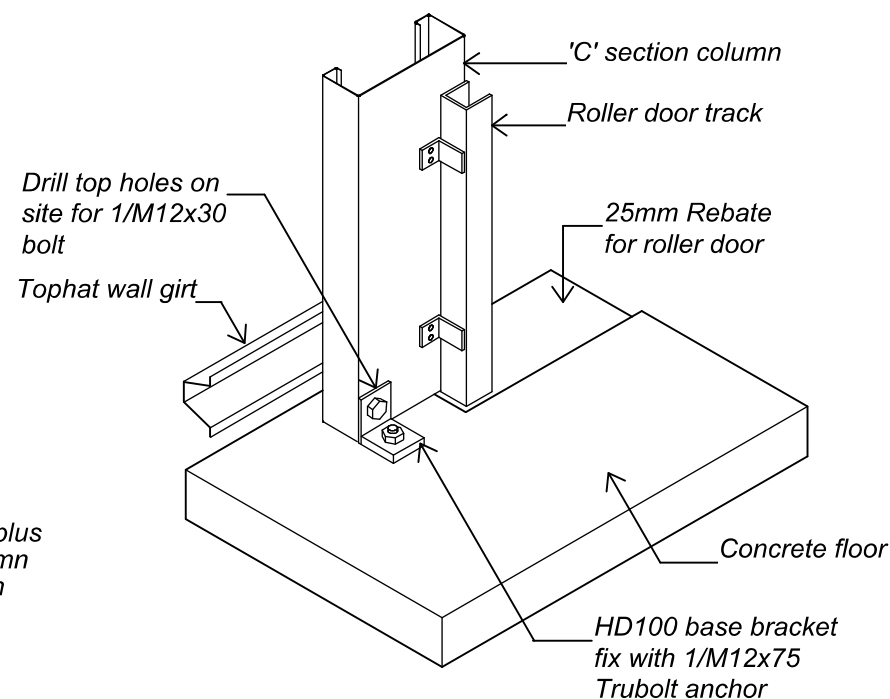
EAVE PURLIN/RAFTER FIXING (Detail 01)

Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

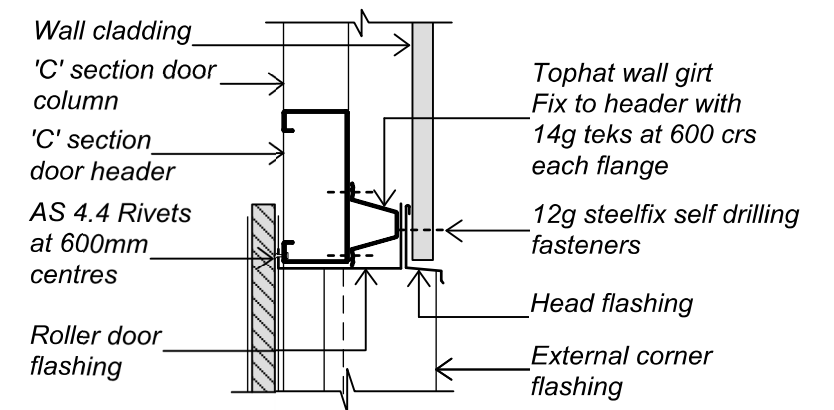
Signed:

Date: 15/06/2021

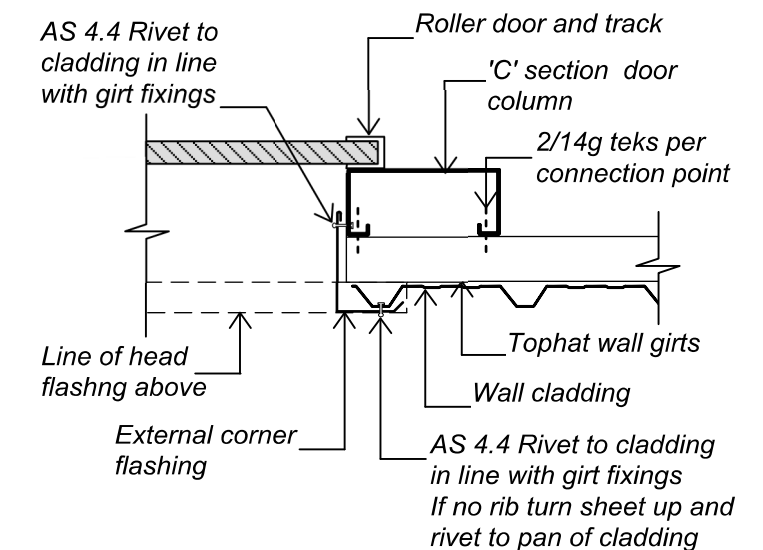
Kerry McCollum
CPEng 184622
DESIGN STATION LIMITED



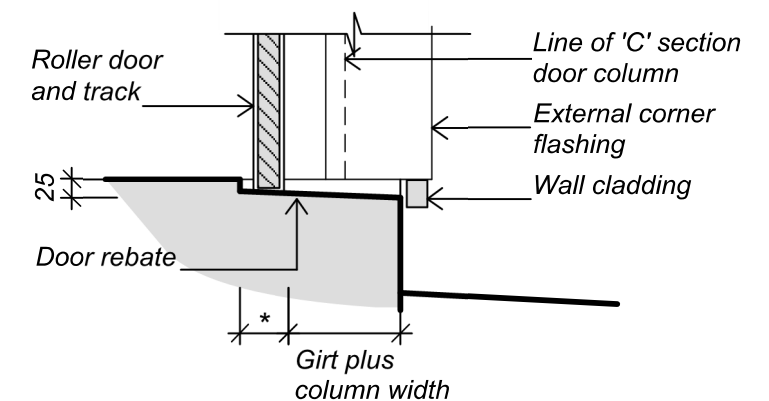
ROLLER DOOR BASE BRACKET (Detail 02)



ROLLER DOOR HEAD (Detail 03)



ROLLER DOOR JAMB (Detail 04)



ROLLER DOOR REBATE (Detail 05)

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file no.
B30

231019

original size
A3

C150 ROLLER DOOR COLUMN AND FLASHING DETAILS

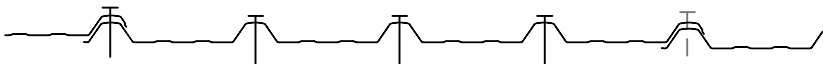
Customer : Arthur Brown Construction
Site Address : 27 County Drive

drawing no.
B30

date:

page no.

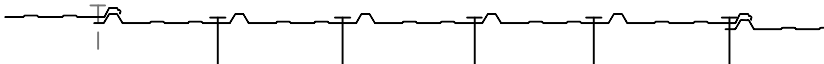





End of Sheet Fixing Pattern - Fixing to end purlin, 4 per purlin:
every rib

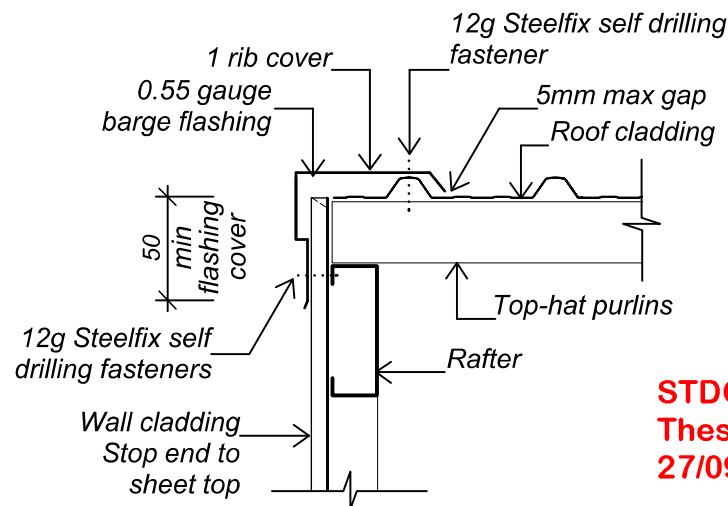


Mid Sheet Fixing Pattern - 4 per purlin: every rib
Fixing - 12g Steelfix self drilling fasteners
Purlin Spacing - End span 960mm max, intermediate span 1450mm max
ROOF SHEET FIXING - TRIMRIB 0.40BMT



Fixing Pattern - In pan beside rib - 5 per girt: every pan
Fixing - 12g Steelfix self drilling fasteners
Girt Spacing - 1450mm max
WALL SHEET FIXING - SLIMCLAD 0.40BMT

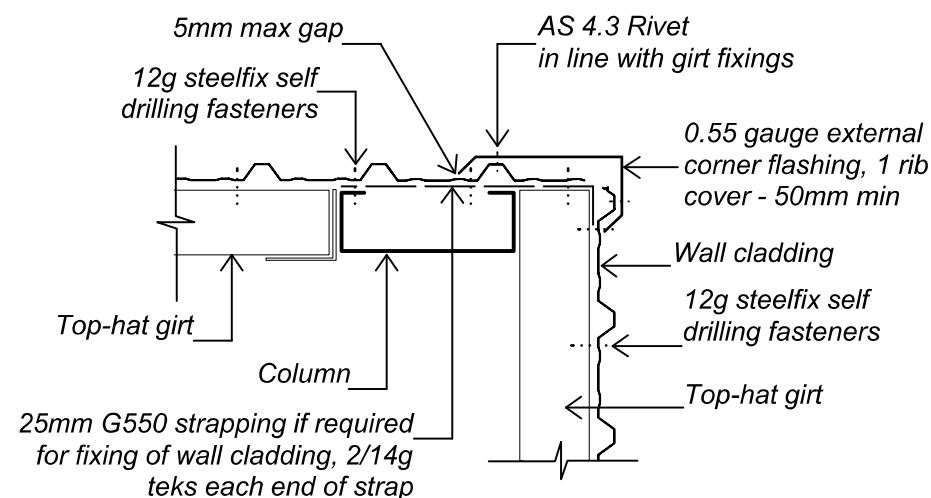
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	231019		date:	
	original size A3	Customer : Site Address : Arthur Brown Construction 27 County Drive	page no.	



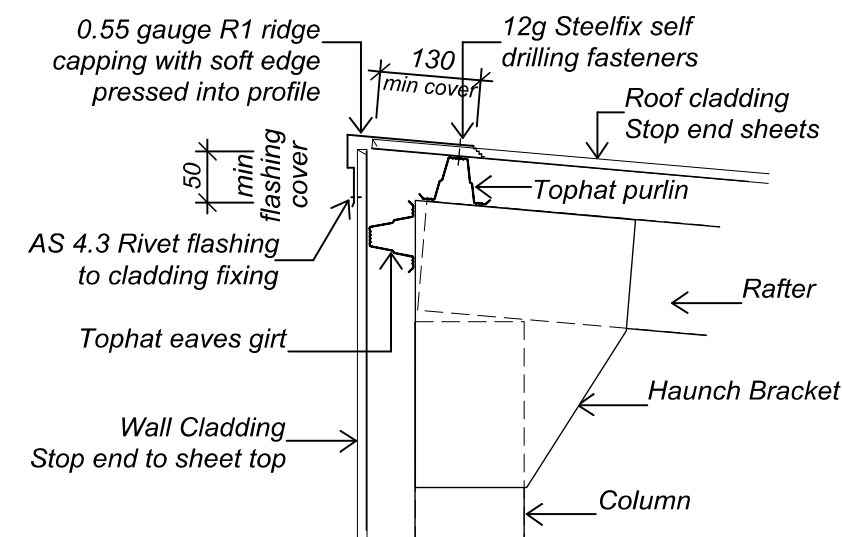
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BARGE FLASHING (Detail 02)

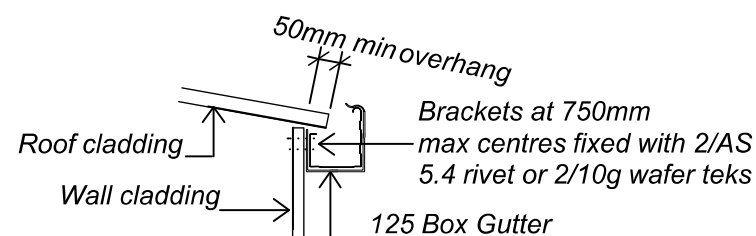


CLAD WALL CORNER FLASHING (Detail 05)



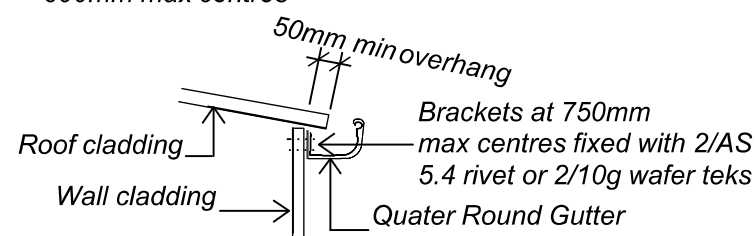
Note:- 200mm denotes min flashing cover over roof cladding

APEX FLASHING (Detail 06)



GUTTER VERGE (Detail 07)

Note:- For Snow Loading fix brackets and snow straps at 600mm max centres

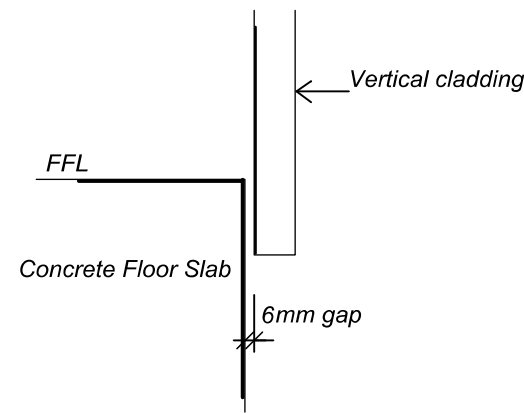


GUTTER VERGE (Detail 07)

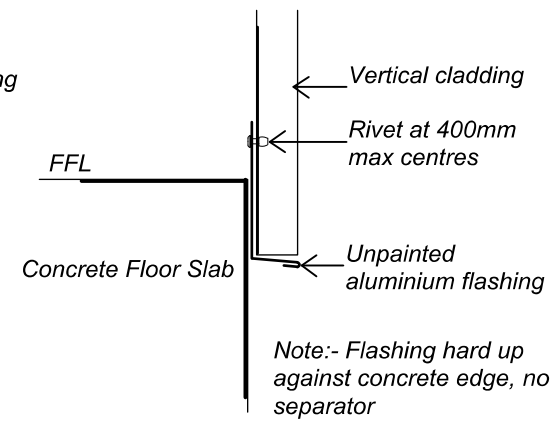
Note:- For Snow Loading fix brackets and snow straps at 600mm max centres

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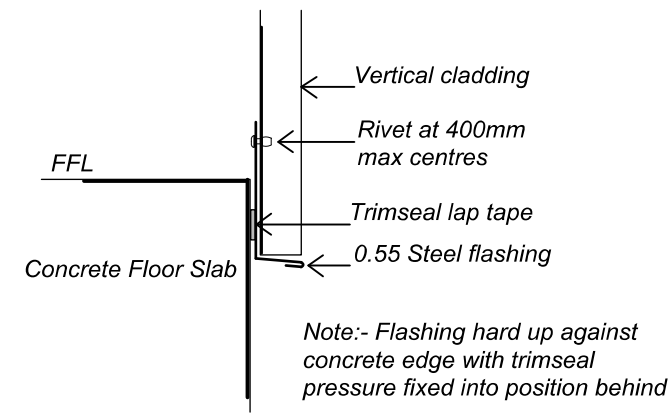
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	231019		date:	
	original size A3	Customer : Arthur Brown Construction Site Address : 27 County Drive	page no.	



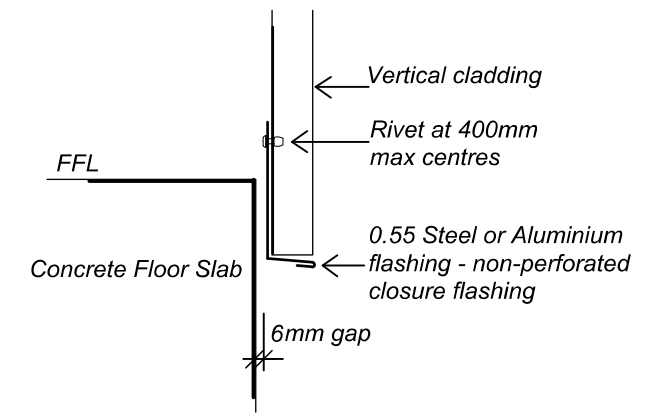
6mm GAP (Detail 01)



ALUMINIUM FLASHING ONLY (Detail 02)



0.55 STEEL FLASHING AND TRIMSEAL (Detail 03)




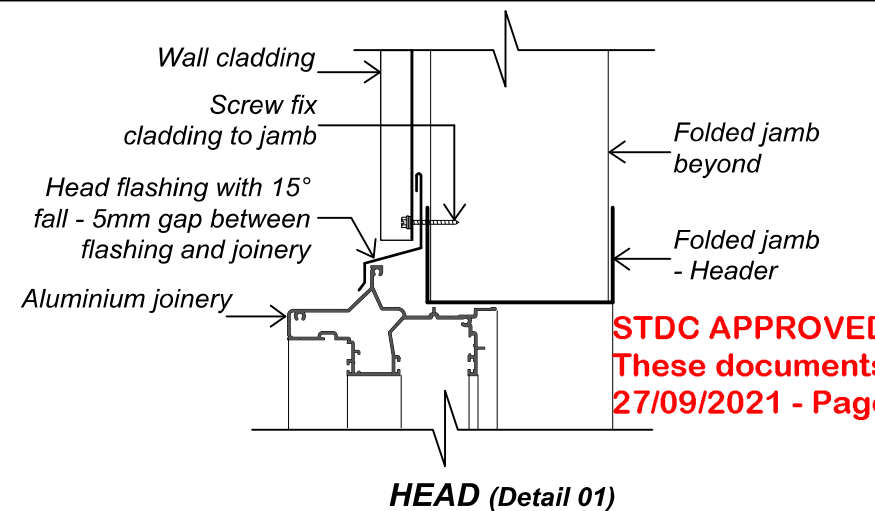
0.55 STEEL FLASHING FOR LINED AND HABITABLE BUILDINGS (Detail 04)

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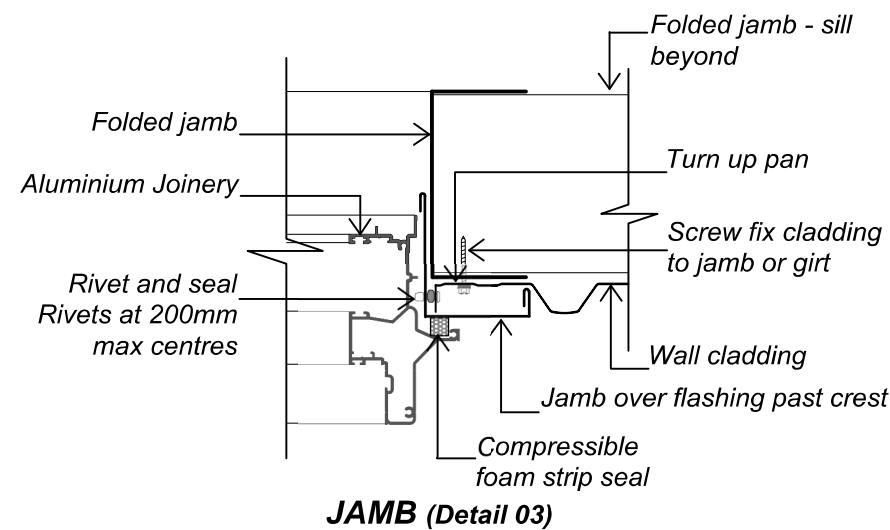
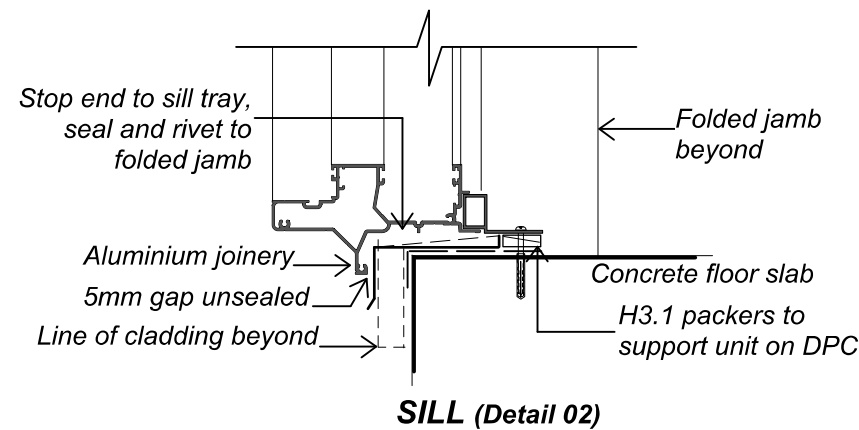
Note:-
 - Unlined Buildings - All Details
 - Lined Building - Detail 04

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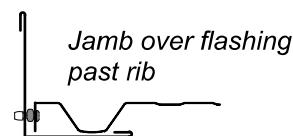
	file no. B80	Acceptable Cladding Base Barrier	drawing no. A5	
	231019		date:	
	original size A3	Customer : Arthur Brown Construction Site Address : 27 County Drive	page no.	



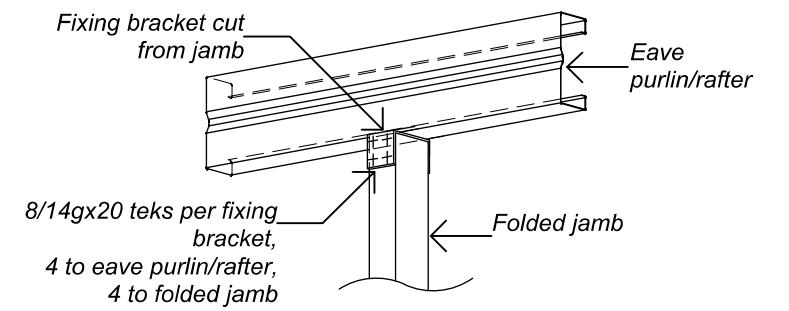
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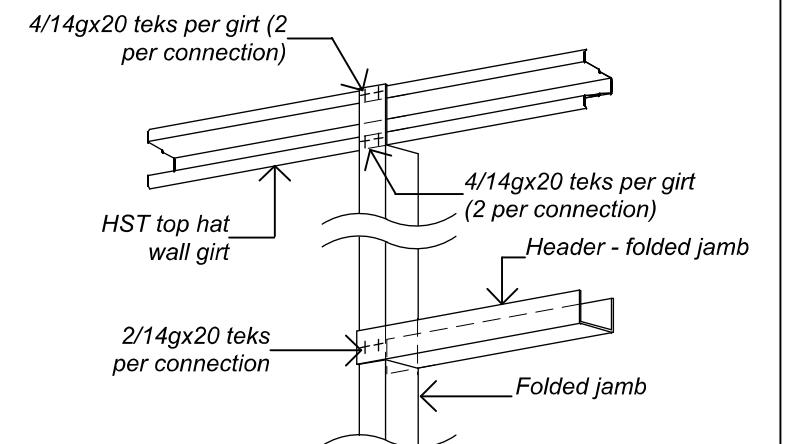
JAMB (Detail 03)



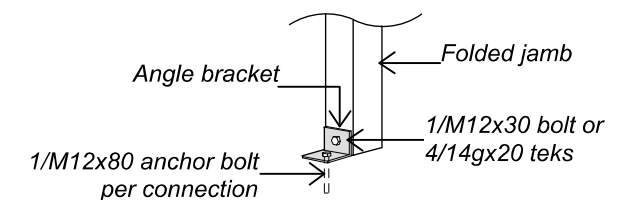
ALTERNATIVE JAMB FLASHING



DOOR JAMB TO EAVE PURLIN/RAFTER CONNECTION (Detail 04)




DOOR HEADER FIXING/WINDOW JAMB TO GIRT CONNECTION (Detail 05)



FOLDED JAMB TO FLOOR CONNECTION (Detail 06)

Approval of this drawing relates only to the extent of our work described in the accompanying producer statement.

Signed:  Date: 15/06/2021

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CPEng 184622
DESIGN STATION LIMITED

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file no.
C10

231019

original size
A3

RANCHSLIDER/ENTRANCE DOOR FLASHING AND FIXING DETAILS (UNLINED)

Customer : Arthur Brown Construction
Site Address : 27 County Drive

drawing no.
C10

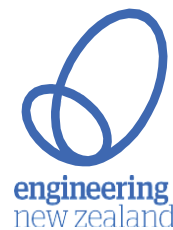
date:

page no.





CERTIFICATE OF DESIGN WORK MEMORANDUM FROM LICENSED BUILDING PRACTITIONER



Section 300 and Section 45, Building Act 2004

The Building

Street address 27 County Drive

Suburb

Town/City HAWERA

Postcode

Building consent no.

The Owner

Name(s) Arthur Brown Construction

Email hawera@arthurbrown.co.nz

Address 108 Wilson Street - Hawera

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27/09/2021 - Page 23 of 32

Phone 06-2785199

Basis for providing this memorandum

I am providing this memorandum in my role as the specialist designer who carried out or supervised specific Primary structure elements of restricted work (RBW) design work as described in this memorandum. Other designers will provide memoranda covering the remaining RBW design work. Refer to the attached PSI.

Identification of restricted building work (RBW) design work

I, Andrew Fraser, carried out or supervised the following RBW design work:

Primary structure: B1

Design work that is RBW	Description (as required) and reference to plans and specifications	Carried out or supervised
-------------------------	---	---------------------------

Foundations and subfloor framing



Foundation ground improvements for rib raft floor as designed by others

Supervised

~~Retaining walls~~



.

~~Beams~~



.

~~Portal~~



.

~~Bracing~~



.

~~Other (primary)~~



.

Note: SED = Elements subject to Specific Engineering Design outside of the scope of NZS 3604:2011, unless otherwise noted

Initial: _____

Date: 25 November 2020

Waivers and modifications

Are waivers or modifications of the Building Code required? No

If yes, please provide details of the waivers or modifications:

Building Code Clause	Waiver/modification required
----------------------	------------------------------

NA

NA

Issued by

Name Andrew Fraser

Design entity/company Red Jacket

Chartered status CPEng

Chartered no. 96197

Email info@redjacket.nz

Website www.redjacket.nz

Phone (daytime) 06 759 0999

Phone (after hours)

Mobile 027 257 9970

Postal address PO Box 904, New Plymouth, 4340

Physical address 3 Davidson Street, New Plymouth

Declaration

I, Andrew Fraser, LBP state that I have applied the skills and care reasonably required of a competent professional in carrying out or supervising the RBW described in this memorandum and that based on this, I certify that the RBW described in this memorandum:

- Complies with the Building Code; or
- Complies with the Building Code subject to any waiver or modification or the Building Code described in this memorandum.

Signature: _____



Date: 25 November 2020

**RESIDENTIAL BUILDING
27 COUNTY DRIVE
HAWERA**

STRUCTURAL CALCULATIONS

File Ref. CAL-4104-01

REV.	DATE	ISSUED FOR
A	25/11/2020	Issued for Building Consent

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Date: 25/11/2020	Job No. 4104
By: W ADLAM	Page No. 2 of 16

Job Name:

27 COUNTY DRIVE HAWERA

File Ref.

CAL-4104-01

Scope of Work

Structural design for ground improvements to support the residential garage on ribraft floor foundation

Basis of Design

- ☒ AS/NZS 1170 Loading Standard
- ☐ ~~NZS 3404 Steel Structures~~
- ☐ ~~NZS 3603 Timber Structures~~
- ☐ ~~NZS 3101 Concrete Structures~~
- ☐ ~~NZS 4320 Reinforced Concrete Masonry Structures~~
- ☒ NZS 3604 Timber-Framed Buildings
- ☒ B1/VM4
- ☐

References

- Arch Drawings by Mannor Build 27 October 2020
-

Job Title 27 COUNTY DRIVE - HAWERA.

- RESIDENTIAL GARAGE IS TO BE LOCATED ON GROUND WHICH DOESN'T MEET NZS3604 'GOOD GROUND' REQUIREMENTS

- IT IS PROPOSED TO INSTALL 200mm THICK HARDFILL RAFT UNDER THE SLAB TO SUPPORT RIBRAFT SLAB AND REDUCE BEARING PRESSURE ON SUBGRADE.

LOADS

GARAGE FLOOR

$$G = 2.5 \text{ kPa}$$

$$G_{SOL} = 0.5 \text{ kPa}$$

$$Q = 2.5 \text{ kPa} \times 13 \text{ kN}$$

- 13 kN POINT LOAD WILL GOVERN.

- ASSUME POINT LOAD WILL BEAR ON 2 x 1.0m OF RIBS $A_k = 2 \times 0.1 = 0.2 \text{ m}^2$.

- LOAD COMBINATIONS.

$$\begin{aligned} \text{ULS} &= 1.2G + 1.5Q = 1.2 \times 3 \text{ kPa} + 1.5 \times 13 \text{ kN} \\ &= 3.6 \text{ kPa} + 19.5 \text{ kN} \end{aligned}$$

$$= 23.1 \text{ kN}$$

$$\therefore \frac{23.1}{0.2 \text{ m}^2} = q_{ULS} = 116 \text{ kPa} \text{ ULS.}$$

$$\begin{aligned} \text{SLS} &= G + 0.4Q = 3.6 + 0.4 \times 13 \\ &= 8.8 \text{ kN} \end{aligned}$$

$$q_{SLS} = 44 \text{ kPa}$$

Job Title 27 COUNTY DRIVE, HAWERA.

CURRENT SUBGRADE BEARING CAPACITY

FROM TST-4101-1 SCALA AVERAGE 75mm/BLOW.

REFER ALLOWABLE BEARING PRESSURE STOCKWELL
NEXT PAGE.

$$q_{ult} = \frac{3 \times 45 \text{ kPa}}{2} = 68 \text{ kPa}.$$

TRY 300 THICK LAP65 RAFT WITH 100 THK
RIB $B = 0.1$

$$\frac{q}{q_{ult}} = 0.15 \quad \therefore q_{ult} \text{ AT SUBGRADE} = 110 \times 0.15 = 17.4 \text{ kPa} < q_{ult}.$$

\therefore OK.

$$q_{ult} \text{ AT SUBGRADE} = 44 \times 0.15 = 6.6 \text{ kPa}.$$

\therefore OK.

USE 300 THK THARDFILL RAFT.

- REFER MARKED UP PLANS ATTACHED.

- SUITABLY QUALIFIED ENGINEER TO INSPECT
CLEARED SUBGRADE AND FINAL COMPACTION.



ref. N.Z. Engineering 15 June 1977
M. J. Stockwell

P.34
125mm/BLOW
CBR 2/3.

156 FOUNDATION ANALYSIS

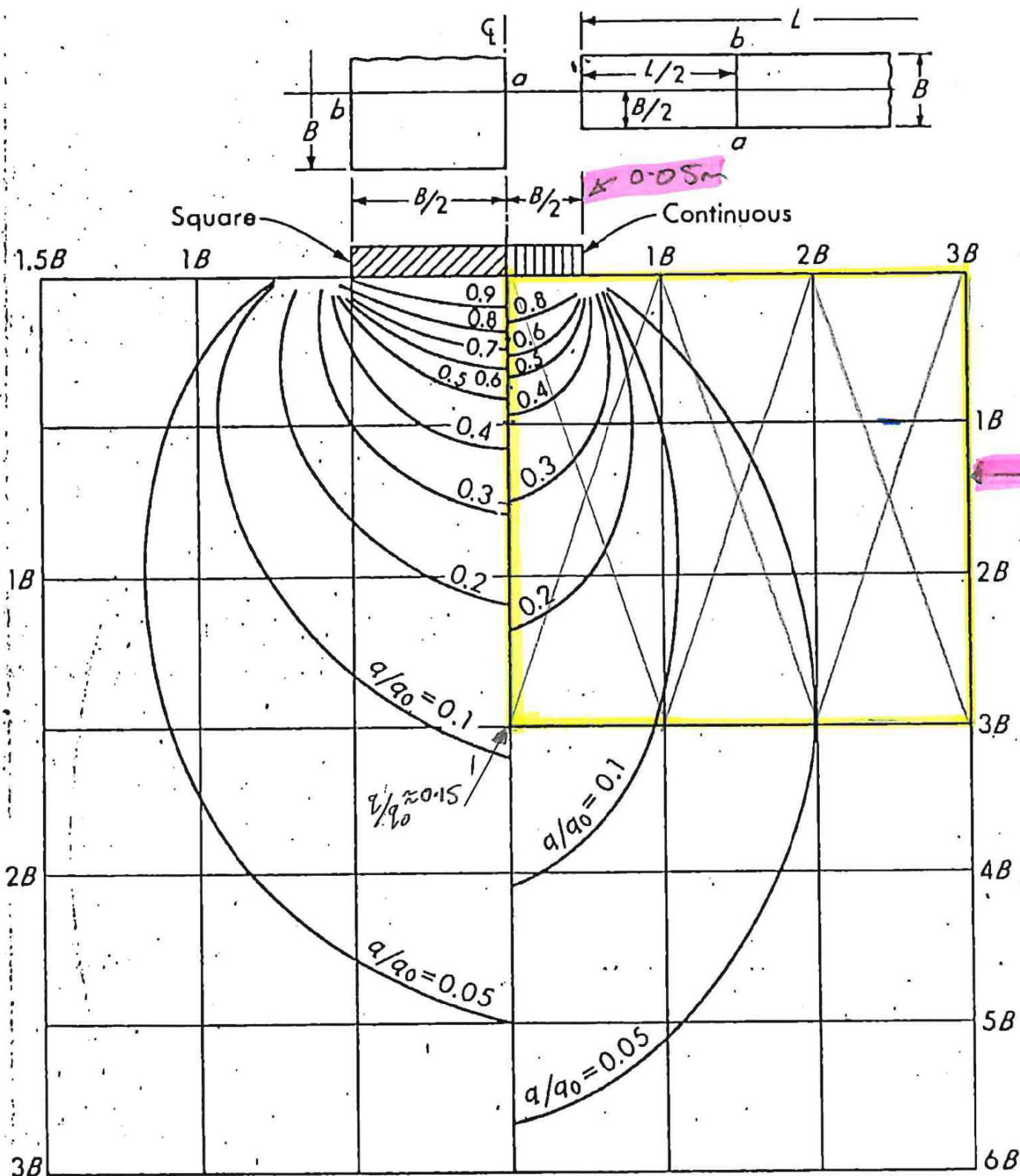


Figure 5-6. Pressure isobars based on the Westergaard equation for square and long continuous footings of dimension $B \times B$ or $B \times L$. Values for the continuous footings are at the point $L/2$ from the end. Chart constructed from Fig. 5-5 ($\mu = 0$). Applicable along line ab as shown.

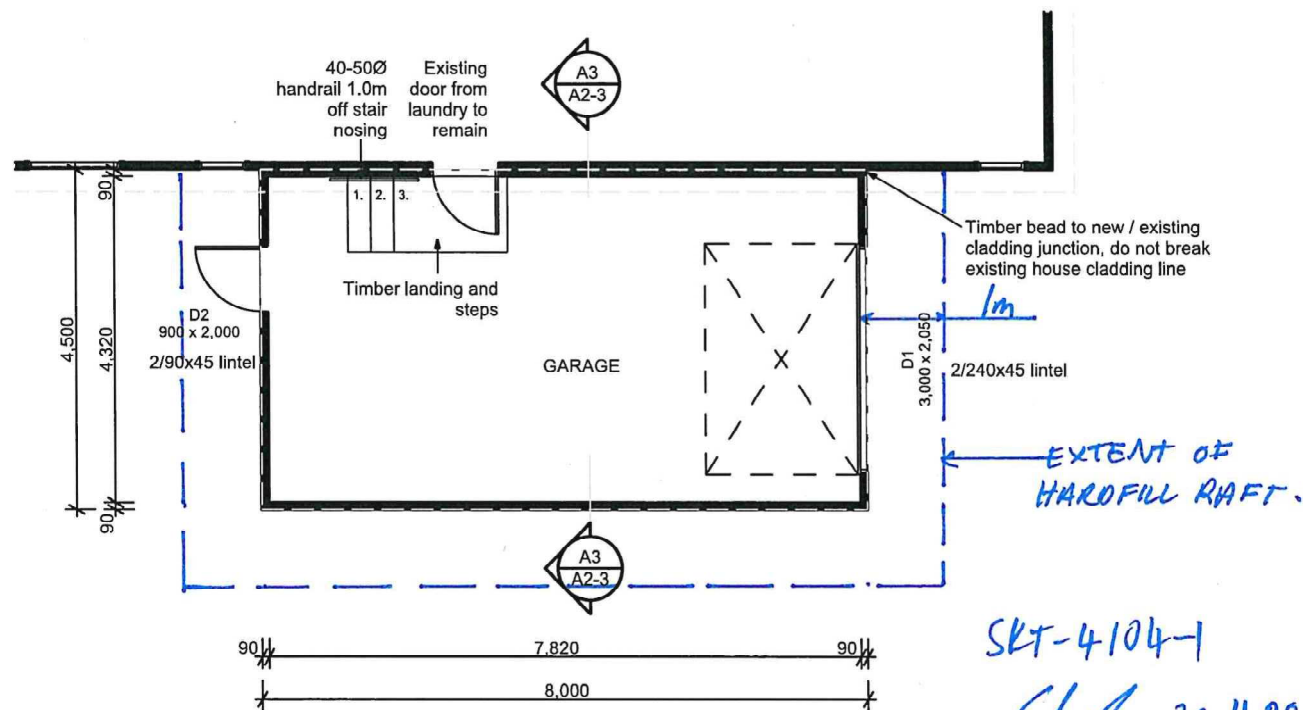
AB scale shown on the chart, and thus the chart includes only 160 of the 200 units used to establish the influence value.

Figure 5-6 is a set of isobars prepared from Fig. 5-5 to obtain stresses at a point beneath continuous and square foundations. Figure 5-5 may be used for round contact areas.

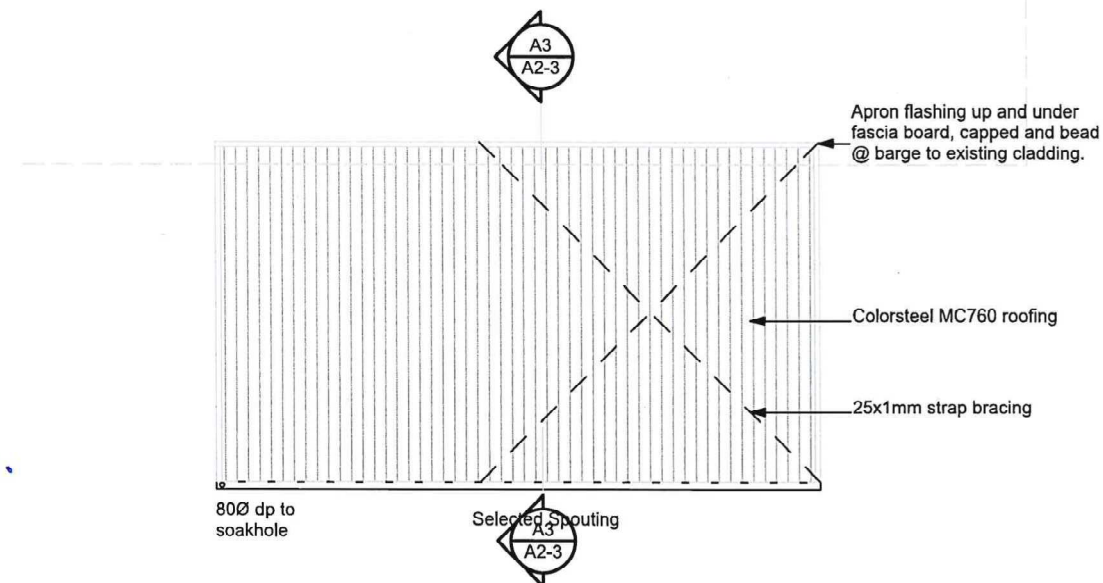
A numerical procedure may be used to solve Eq. (5-8) on the computer in a similar manner to the Boussinesq equation.

In comparing the Boussinesq and Westergaard methods for vertical stresses, one finds that

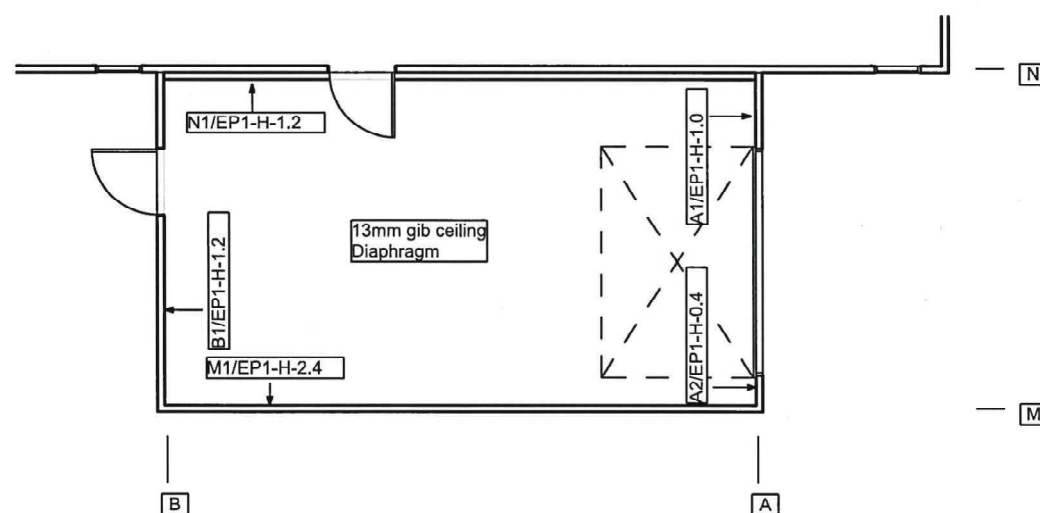
1. At small r/z (close to footing) the Boussinesq equation gives larger stress intensity.
2. At r/z about 1.8 both values are approximately equal.
3. At r/z greater than 1.8 the Westergaard equation gives larger stresses.



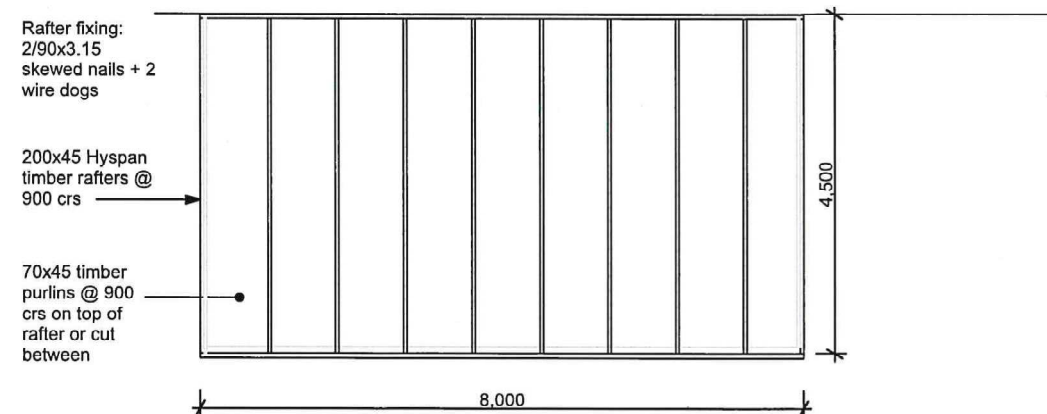
FLOOR PLAN
Scale 1:100



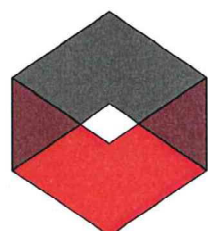
ROOF PLAN
Scale 1:100



BRACING PLAN
Scale 1:100



ROOF FRAMING PLAN
Scale 1:100



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#Notes

client:
LOWE

project:
RELOCATE PERMIT

design by: Manor Build

scale: As Noted

date: 27/10/2020

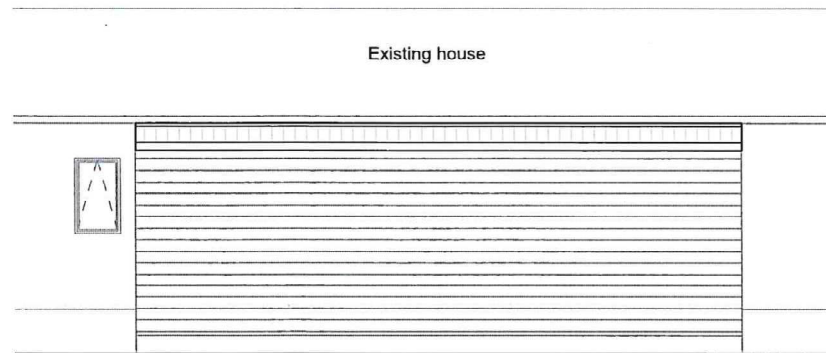
PLANS

job no:

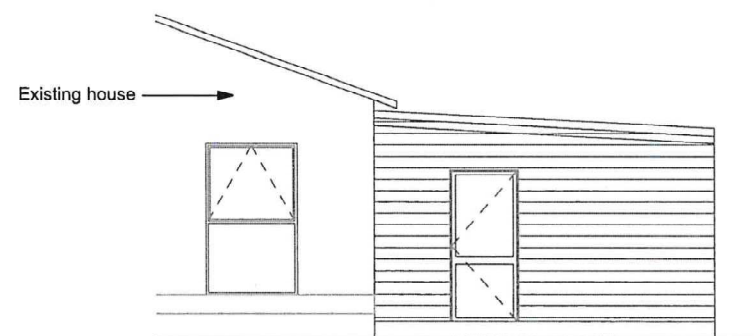
MG181

sheet no:

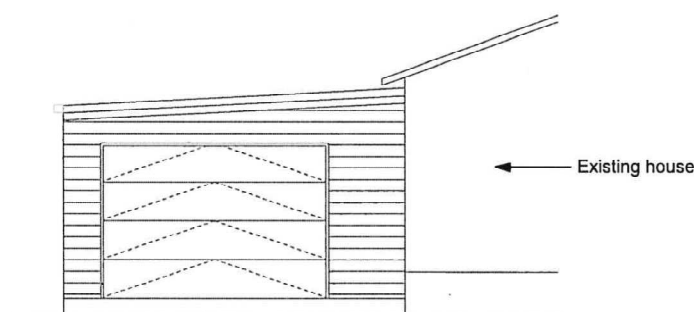
A2-2



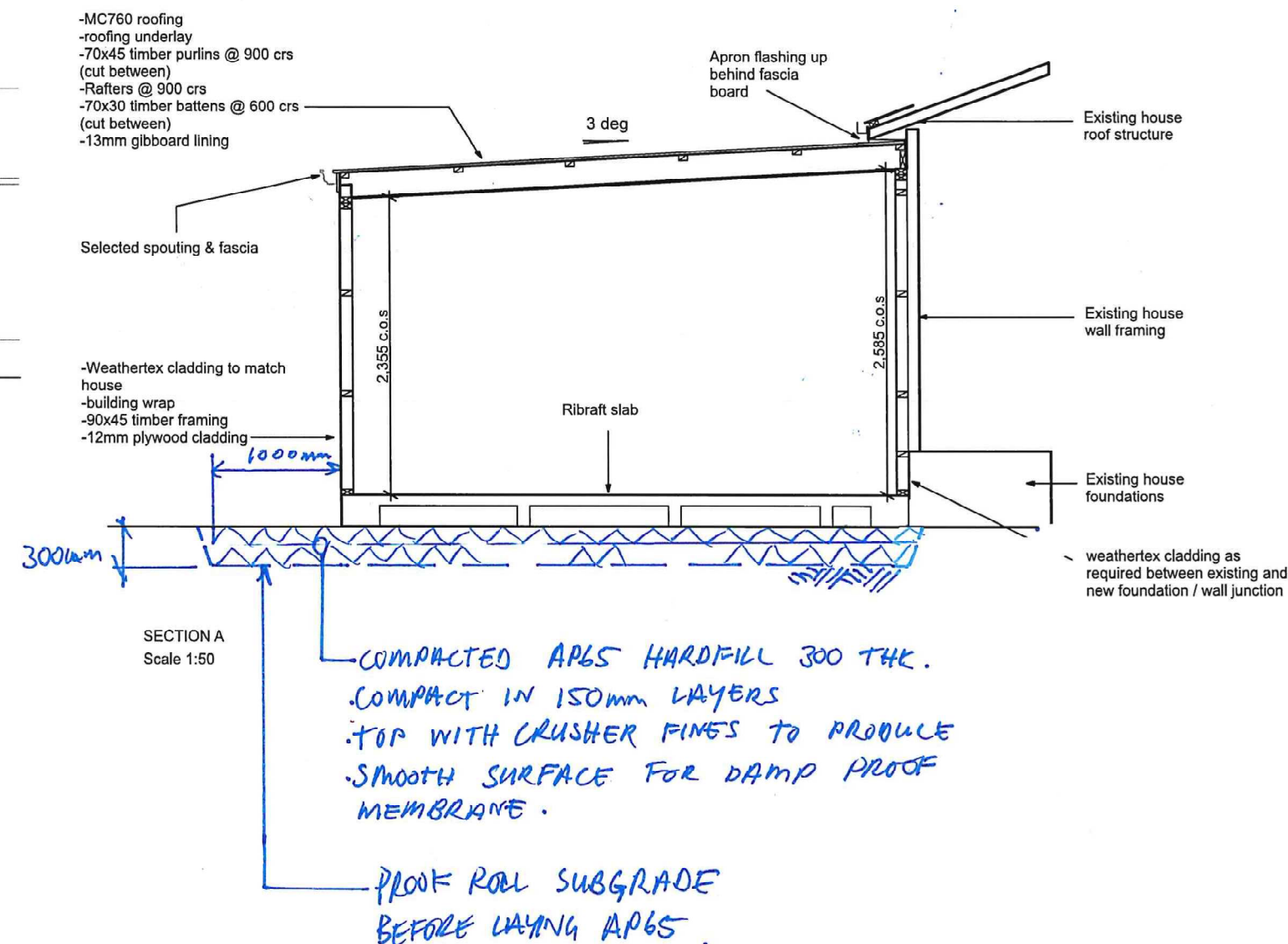
ELEVATION E1
Scale 1:100



ELEVATION E2
Scale 1:100



ELEVATION E3
Scale 1:100



26.11.20 SKT-4104-1
ghl



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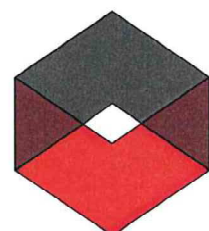
ELEVATIONS

job no:

MG181

sheet no:

A2-3



STDC APPROVED - 200394.02

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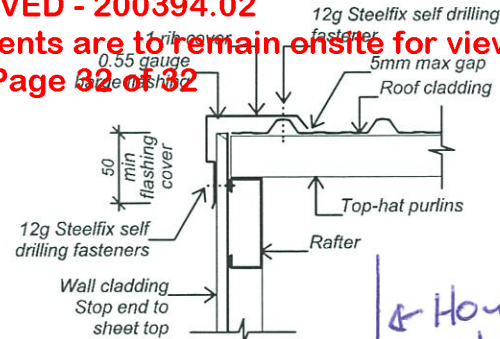
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HOUSE NOT PART OF PERMIT

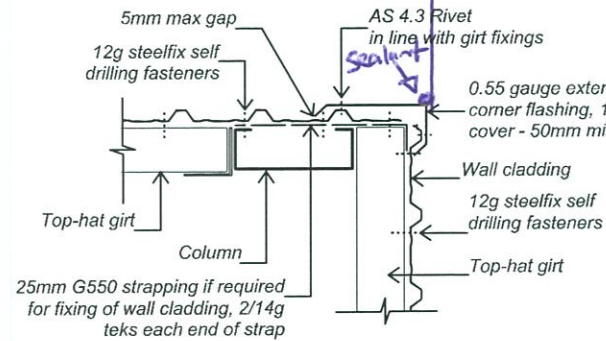
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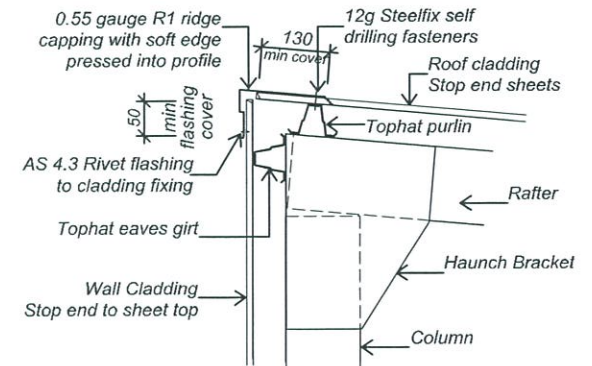
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BARGE FLASHING (Detail 02)

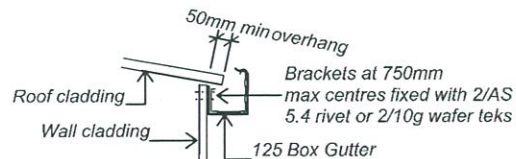


CLAD WALL CORNER FLASHING (Detail 05)



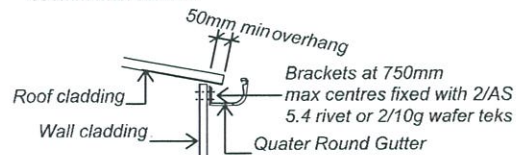
Note:- 200mm denotes min flashing cover over roof cladding

APEX FLASHING (Detail 06)



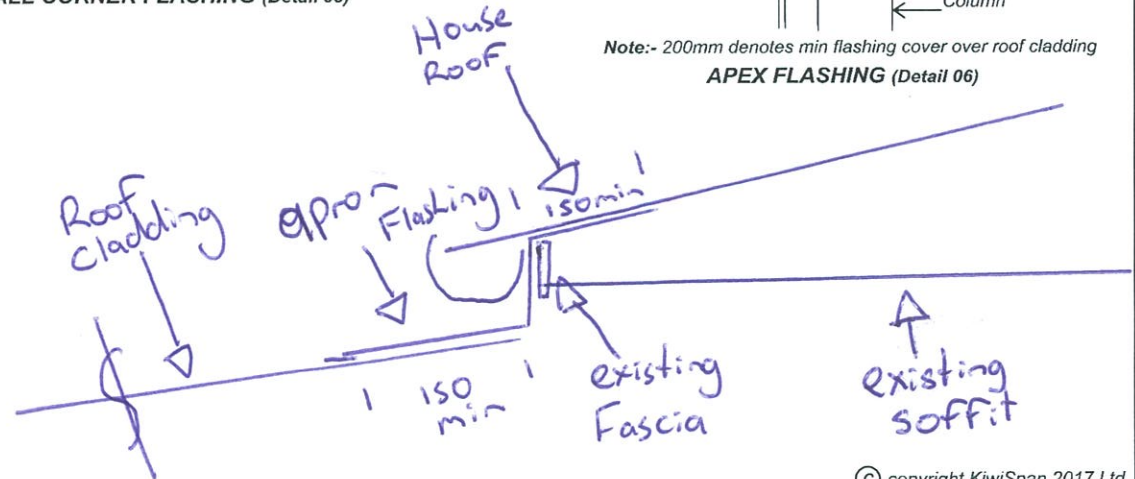
GUTTER VERGE (Detail 07)

Note:- For Snow Loading fix brackets and snow straps at 600mm max centres




GUTTER VERGE (Detail 07)

Note:- For Snow Loading fix brackets and snow straps at 600mm max centres



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	file no. B71 231019 original size A3	FLASHING AND FIXING DETAILS - LOW, MEDIUM AND HIGH WIND ZONES Customer : Arthur Brown Construction Site Address : 27 County Drive	drawing no. B71 date: page no.	
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