

ENGINEERING SCHEDULE

CERTIFIED STEEL PORTAL FRAME SHED DESIGN IN ACCORDANCE WITH NCC 2022 FOR SITE WIND SPEED "38.81m/s", WIND REGION "A5", TERRAIN CATEGORY "2.59", IMPORTANCE LEVEL "2"

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

Main Building: Span: 8, Length: 16, Height: 3.6, Roof Pitch: 22 degrees
The length being comprised of 4 bays, the largest bay is 4m bays.
Left LeanTo: NA
Right LeanTo: NA

Total Kit Weight: 3790.28kg

INTERNAL PORTALS	END PORTALS
Column: 2C15024 Rafter: 2C15024 Knee Brace: NA Knee Brace Length: NA Apex Brace: 2C10010 Apex Brace Length: 3000	Column: C15024 Rafter: C15024 Knee Brace: NA Knee Brace Length: NA Apex Brace: NA Apex Brace Length: NA Endwall Mullion: C15024

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

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

PURLINS AND GIRTS			
Eave Purlin: C10010			
Side Wall Girts: TH64100	Max Spacing: 1250	Overlap: 10%	
Front End Wall Girts: TH64100	Max Spacing: 1250	Overlap: 10%	
Back End Wall Girts: TH64100	Max Spacing: 1250	Overlap: 10%	
Roof Purlins: TH64100	Max Spacing: 1050	Overlap: 10%	

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

FASTENERS
Sleeve Anchor Bolts: M12x75 Sleeve Anchor Yellow Zinc Frame Bolts: M12x30 Purlin Assembly Zinc (Mild) Frame Screws: Frame Screw 14x14x22 Cross Bracing Strap: 32mm x 1.2 strap Open Bay Header Height: NA

COLOUR SCHEDULE
Roof Sheets: Off White External Wall Sheets: Off White Roller Doors: Off White Flashings: Off White PA Doors: Off White Windows: Off White

DOMESTIC & LIGHT INDUSTRIAL STEEL PORTAL FRAME SHED STRUCTURES

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

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

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

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

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

ENGINEERING

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

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

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

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

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

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

CONSTRUCTION

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

Occupational Health and Safety Regulations and with plans provided.

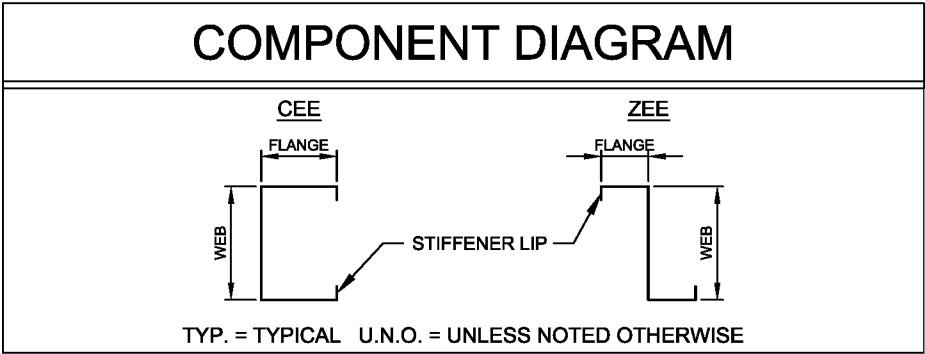
GENERAL

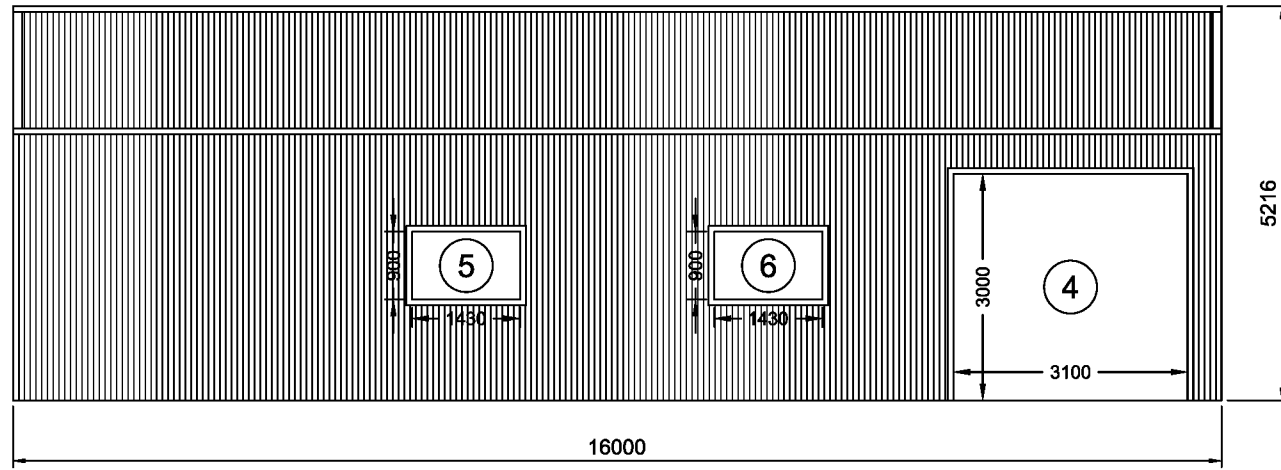
The designs as portrayed on the drawings remain the intellectual property of Best Sheds Pty Ltd and are provided for building approval and construction purposes only.

SNOW LOAD

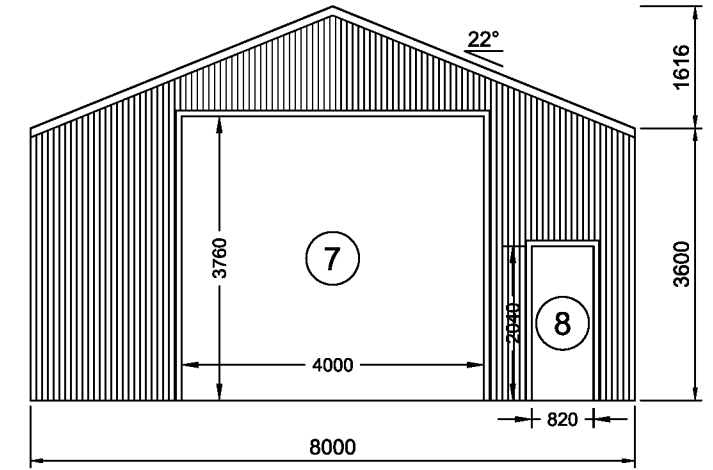
Following conditions only apply to buildings with snow loading:

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

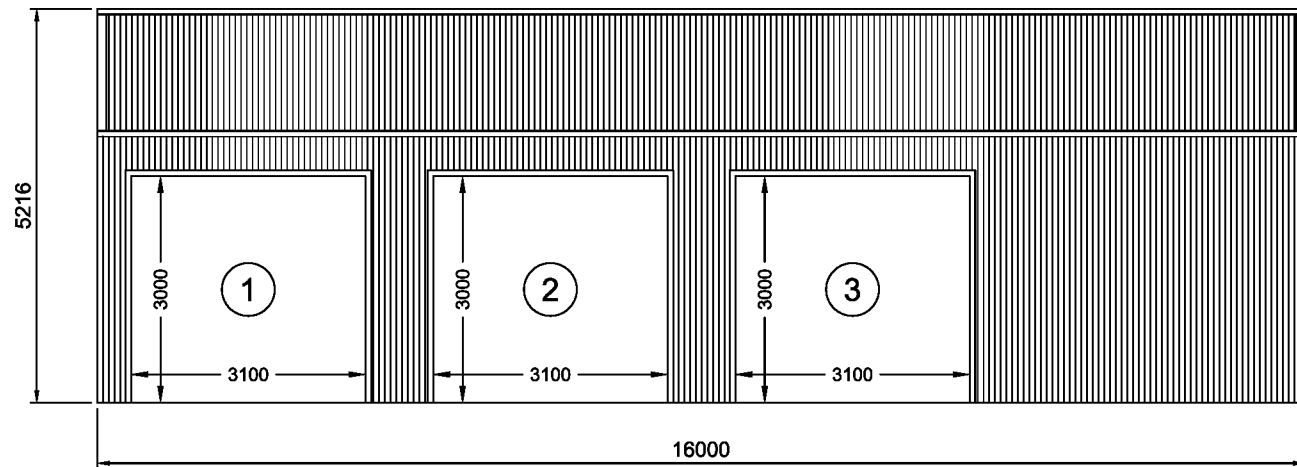




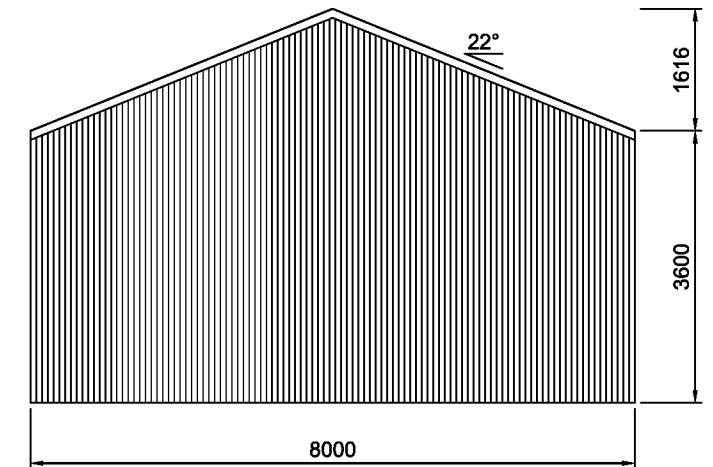
2 LEFT ELEVATION
SCALE: 1:100



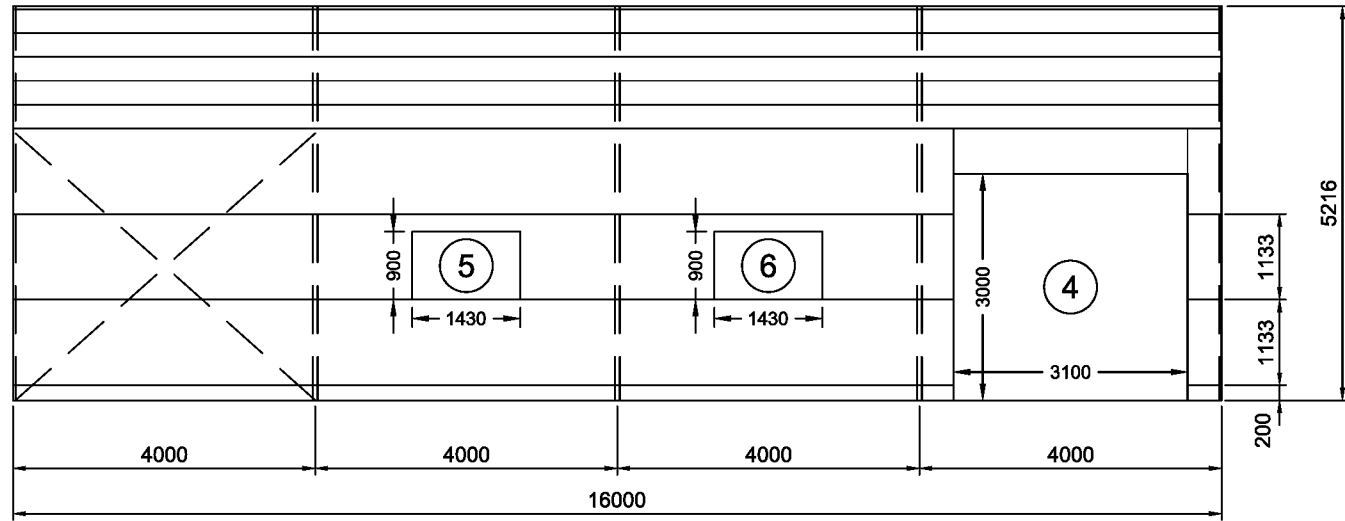
3 REAR ELEVATION
SCALE: 1:100



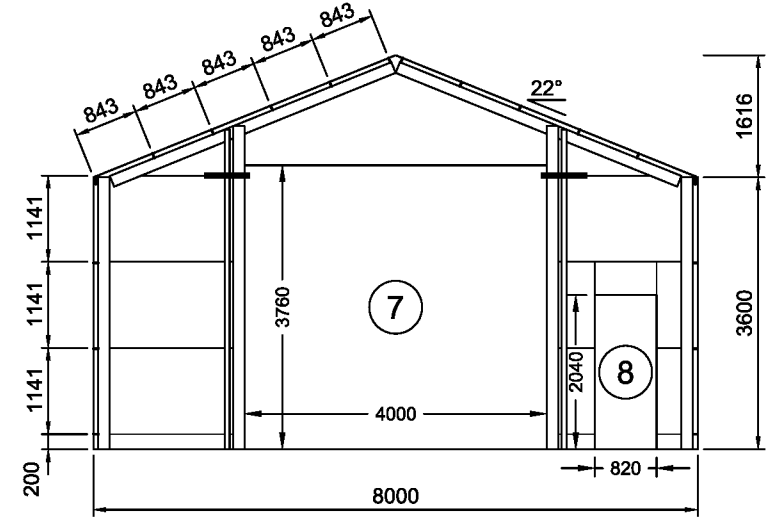
1 RIGHT ELEVATION
SCALE: 1:100



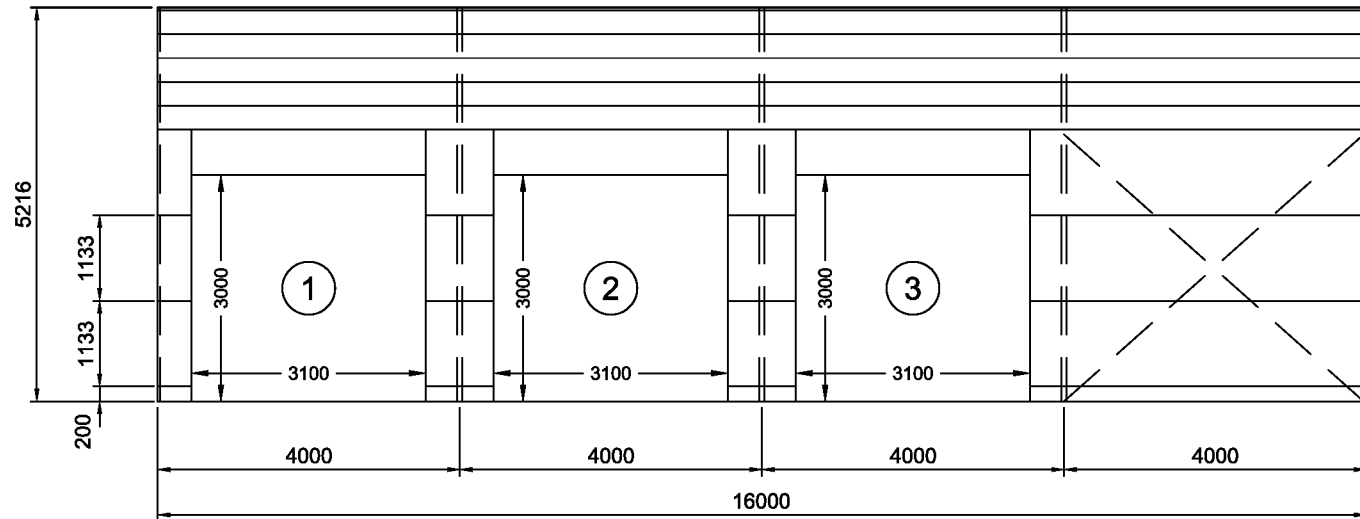
4 FRONT ELEVATION
SCALE: 1:100



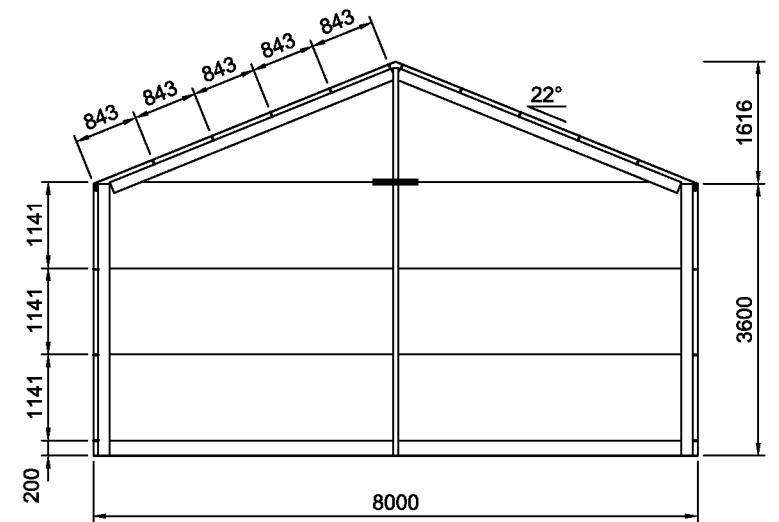
2 LEFT ELEVATION
3 SCALE: 1:100



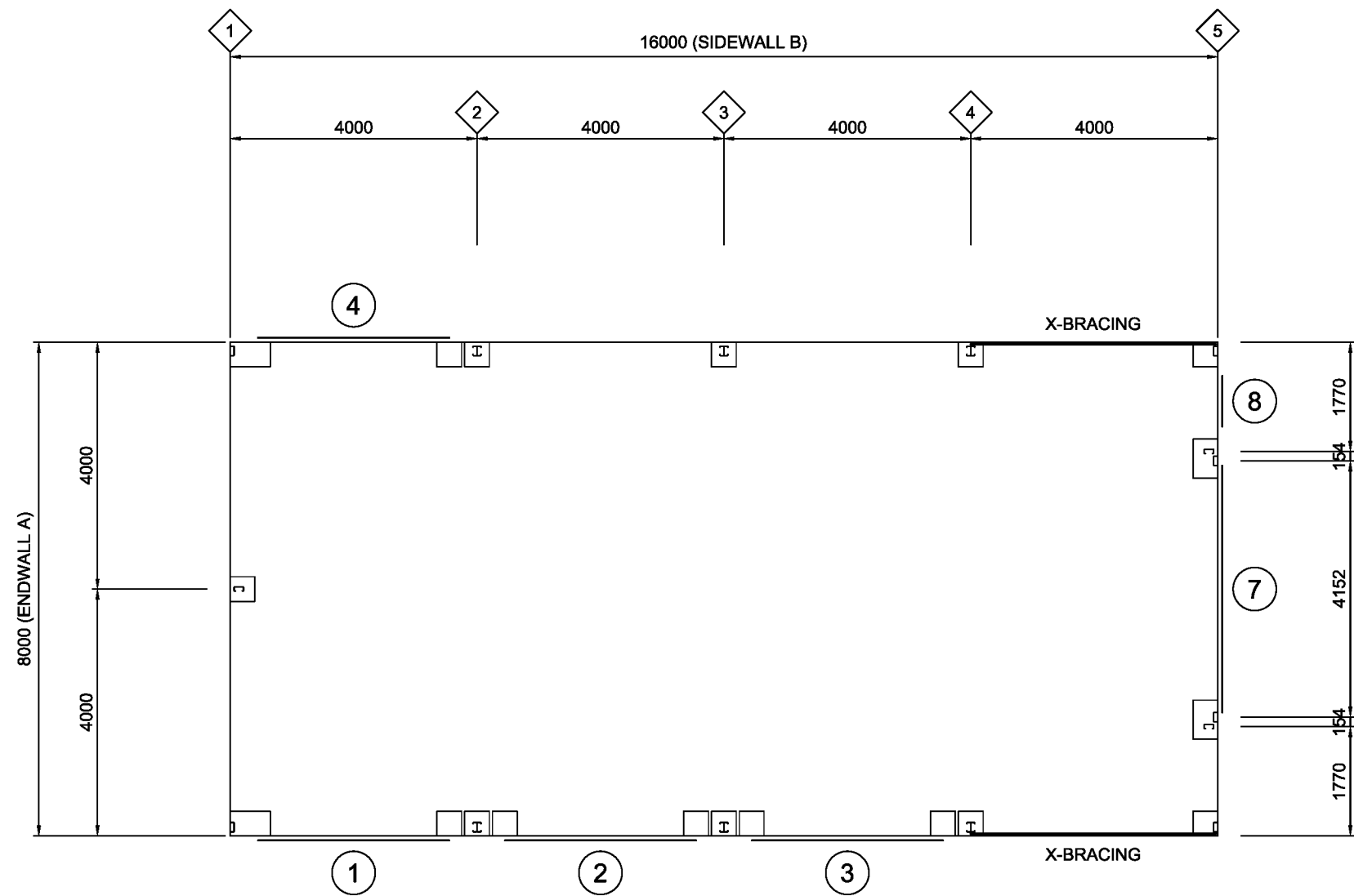
3 REAR ELEVATION
3 SCALE: 1:100 FRAME #5



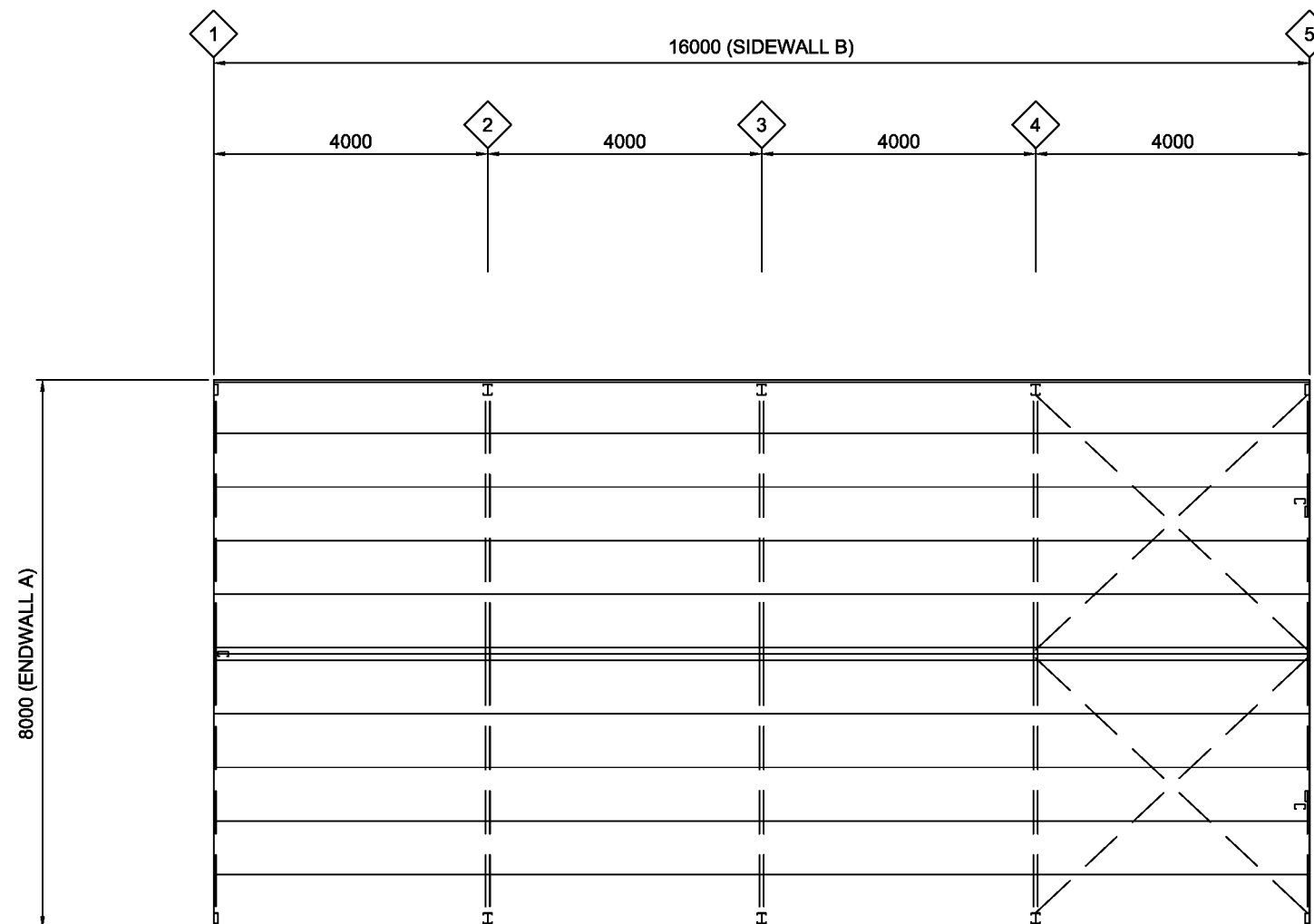
1 RIGHT ELEVATION
3 SCALE: 1:100



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



1 FLOOR PLAN
 4 SCALE: 1:100



1 5

ROOF FRAMING PLAN

SCALE: 1:100

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

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

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

STRENGTH: 25mPa

2 x M12 BOLTS

2 X 12MM DIA SLEEVE ANCHORS, 10MM DIA INTERNAL ROD-MIN 75MM LONG

REFER TO SLAB TABLE FOR MESH TYPE - 30MM COVER

100

DEPTH

WIDTH

POLYTHENE WATERPROOF MEMBRANE ON CONSOLIDATED SUB-BASE SHOWN DASHED

2C15024 COLUMN

NOTE: ENSURE EARTH/SOIL IS KEPT CLEAR OF WALL CLADDING AT ALL TIMES.

900

450

2 x 14G TEK SCREWS ABOVE & BELOW IN SIDE OF PURLIN - UNDERSIDE SCREW NOT VISIBLE IN DETAIL

2 x 14G TEK SCREWS PER COLUMN - UNDERSIDE SCREW NOT VISIBLE IN DETAIL

2 x 14G TEK SCREWS ABOVE & BELOW IN SIDE OF PURLIN - UNDERSIDE SCREW NOT VISIBLE IN DETAIL

10G X 16MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

2 x 14G TEK SCREWS

SHEETING

C10010

12G X 35MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

C15024 COLUMN

Z

ALTERNATE PIER DETAIL

RAFTER/EAVE PURLIN

6 x 14G TEK SCREWS

COLUMN

COLUMN ADJACENT TO ROLLER DOOR AFTER NOTCHED OUT

G

TOP HAT CONNECTION

TOPHAT 64 ROOF PURLIN WITH 10% MINIMUM OVERLAP

12G X 35MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

C15024 RAFTER

4 X 14G TEK SCREW

H

EAVE CONNECTION

10G X 16MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

TOPHAT 64 WALL GIRT WITH 10%MM MINIMUM OVERLAP

2C15024 COLUMN

4 X 14G TEK SCREWS

Y

SLAB DETAIL

INDICATES 12 mmØ GRADE 4.6 BOLT

2C15024 FRAME RAFTER

4 X 14G TEK SCREWS

DBL. 1.9mm 22' HAUNCH BRACKET (SAME DEPTH AS MEMBERS)

2C15024 FRAME COLUMN

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

D

ENDWALL MULLION ROTATED

2C15024 FRAME RAFTER

DBL. 1.9mm 22' APEX BRACKET, WITH (8) 12 mmØ GRADE 4.6 BOLTS PER BRACKET

4 X 14G TEK SCREWS

1450 mm

(2) 12 mmØ GRADE 4.6 BOLTS AT EACH END OF APEX BRACE

2C10010 APEX BRACE (OMIT AT ENDWALLS), 3000 mm LONG

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

E

PURLIN CONNECTION

C15024 ENDWALL RAFTER

6 X 14G TEK SCREWS INTO RAFTER WEB AND 0 X 14G TEK SCREWS INTO ENDWALL MULLION BRACKET

C15024 (OPEN SIDE OF CEE MAY FACE EITHER DIRECTION, U.N.O.)

F

GIRT CONNECTION

ATTACH OUTSIDE FLANGE OF ENDWALL MULLION TO APEX BRACKET WITH 5 X 14G TEK SCREWS

C15024 (OPEN SIDE OF CEE MAY FACE EITHER DIRECTION, U.N.O.)

C15024 ENDWALL RAFTER

NOTE: SEE DETAIL M/7 FOR ENDWALL MULLION BASE CONNECTION

A

HAUNCH CONNECTION

B

APEX CONNECTION

C1

ENDWALL MULLION TO RAFTER

C3

ENDWALL MULLION TO RAFTER PEAK CONDITION

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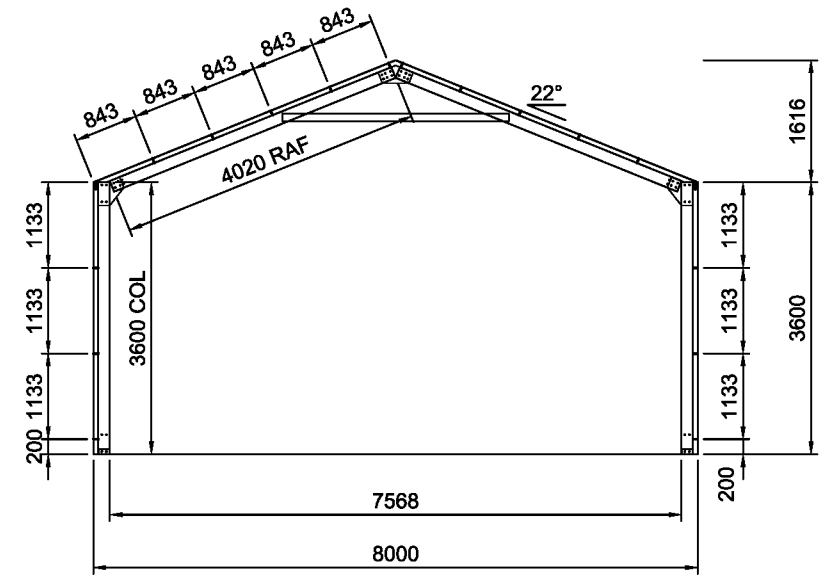
DESIGN & CONSTRUCTION

CIVIL & STRUCTURAL ENGINEERS

COMMERCIAL - INDUSTRIAL - RESIDENTIAL - FORENSIC - STEEL DETAILING

DATE 25-11-2025
JOB NO. 7131746882
SHEET 6 of 8

Q END DOOR HEADER AND JAMB	R PA DOOR STYLE CONNECTION	S FLYBRACE	
M ENDWALL MULLION BASE	N ROTATED ENDWALL MULLION BASE	O ENDWALL GIRT BRACKET	P SIDE DOOR HEADER AND JAMB
I ROOF SHEETING	J WALL SHEETING	K CORNER COLUMN BASE	L INTERNAL COLUMN BASE



1 TYP. FRAME CROSS-SECTION
8 SCALE: 1:100 FRAMES 2-4