

ENGINEERING SCHEDULE

CERTIFIED STEEL PORTAL FRAME SHED DESIGN FOR "REGION A" TERRAIN CATEGORY 2.0, 2.5 & 3.0 - IMPORTANCE LEVEL 2.

Internal Pressure: 0.5

Design Snow Load: 0.00 KPa, Roof Snow Load: 0.00 KPa

Customer: Mudgee Aero Club Inc

Site Address: Mudgee Airport, Mudgee NSW 2850

Main Building: Span: 18, Length: 24, Height: 3.2, Roof Pitch: 11 degrees

The length being comprised of 4 bays, the largest bay is 6m bays.

Left LeanTo: NA

Right LeanTo: NA

Total Kit Weight: 8082.6kg

INTERNAL PORTALS
Column: 2C30024
Rafter: 2C30024
Knee Brace: 2C15024
Knee Brace Length: 3000
Apex Brace: 2C15024
Apex Brace Length: 4600

END PORTALS
Column: C30024
Rafter: C30024
Knee Brace: C15024
Knee Brace Length: 3000
Apex Brace: C15024
Apex Brace Length: 4600
Endwall Mullion: C30024

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

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

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

PURLINS AND GIRTS
Eave Purlin: TH120100
Side Wall Girts: TH120100
Front End Wall Girts: NA
Back End Wall Girts: TH120100
Roof Purlins: TH120100
Max Spacing: 1200
Overlap: 10%
Max Spacing: NA
Overlap: NA
Max Spacing: 1200
Overlap: 10%
Max Spacing: 1200
Overlap: 10%

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

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

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

DOMESTIC & LIGHT INDUSTRIAL STEEL PORTAL FRAME SHED STRUCTURES

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

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

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

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

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

ENGINEERING

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

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

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

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

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.

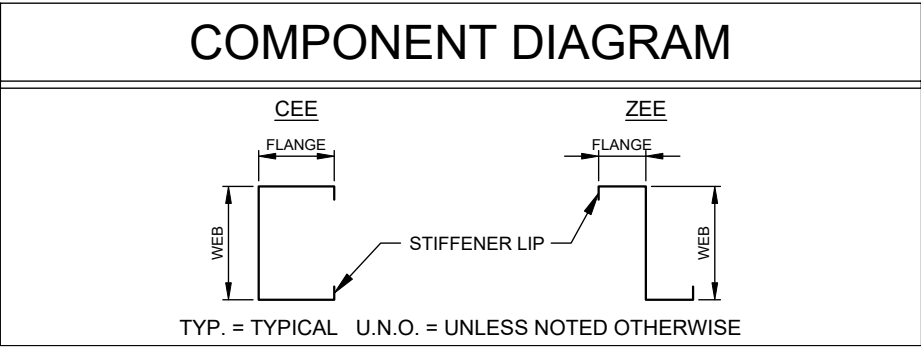
GENERAL

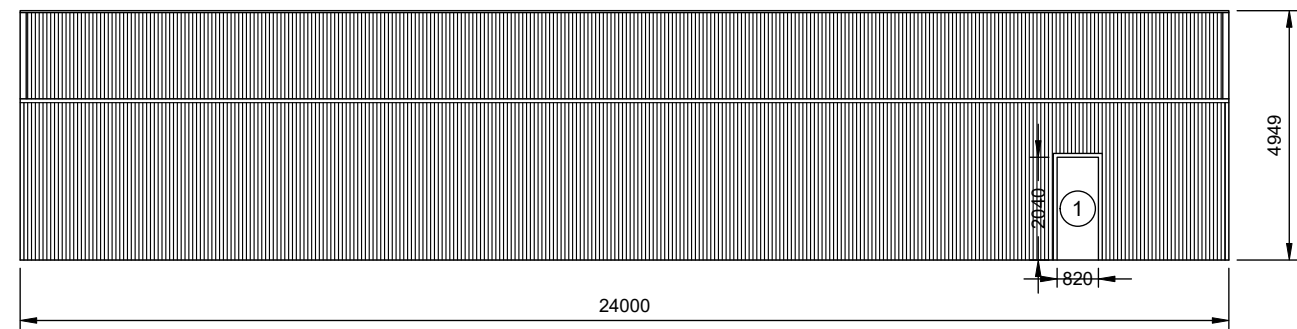
The designs as portrayed on the drawings remain the intellectual property of Best Sheds Pty Ltd and are provided for building approval and construction purposes only and are only valid when blue ink signed and dated by the engineer.

SNOW LOAD

Following conditions only apply to buildings with snow loading:

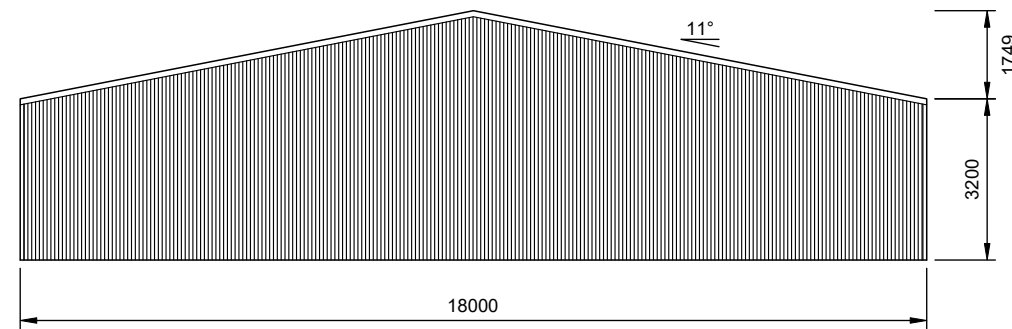
- No maintenance or roof traffic permitted on the roof while there is snow present.
- No other structure to be erected within 500mm of the gutters of this building.





2 LEFT ELEVATION

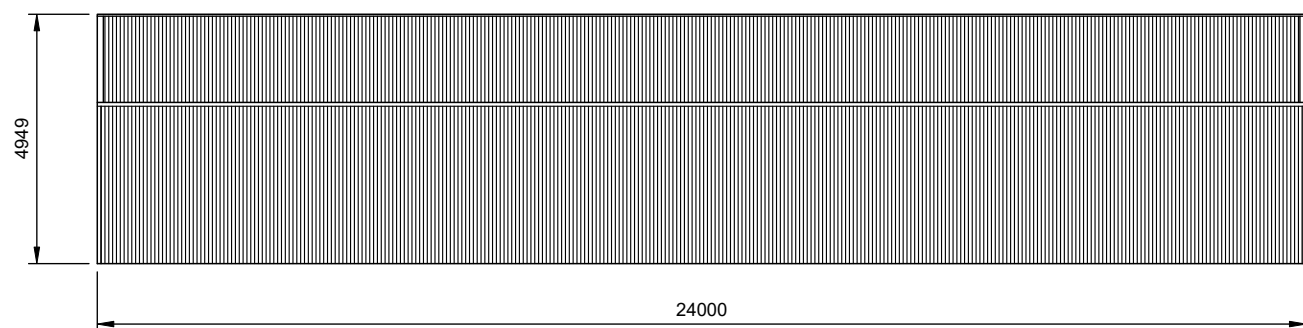
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3 REAR ELEVATION

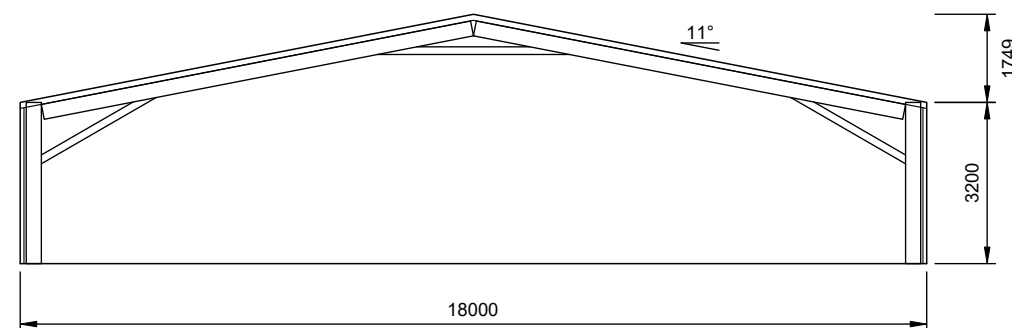
2 SCALE: 1:150

FRAME #5



1 RIGHT ELEVATION

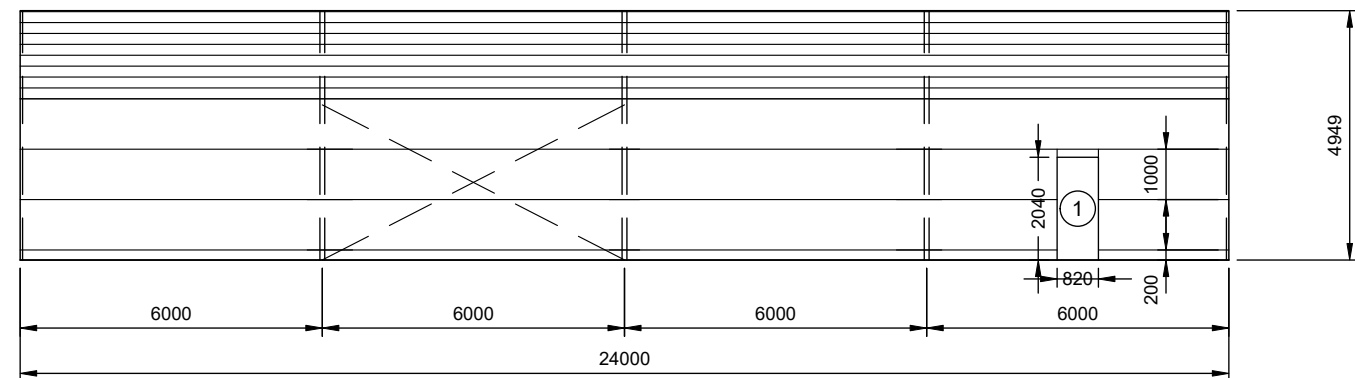
2 SCALE: 1:150



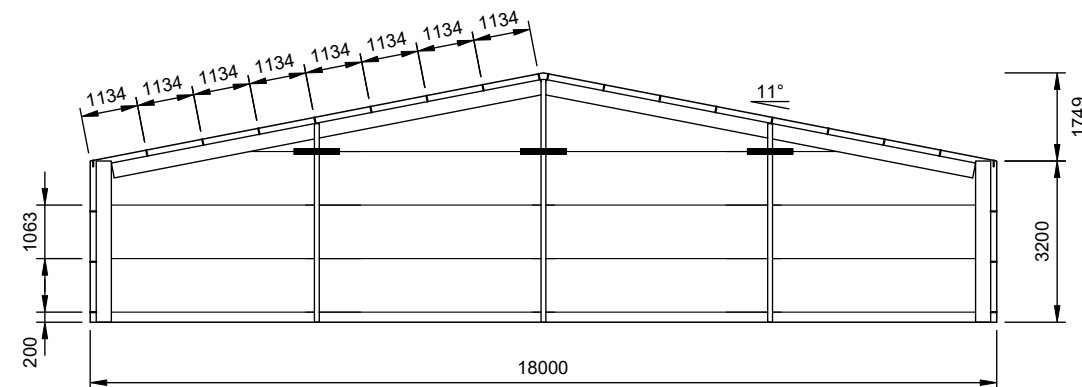
4 FRONT ELEVATION

2 SCALE: 1:150

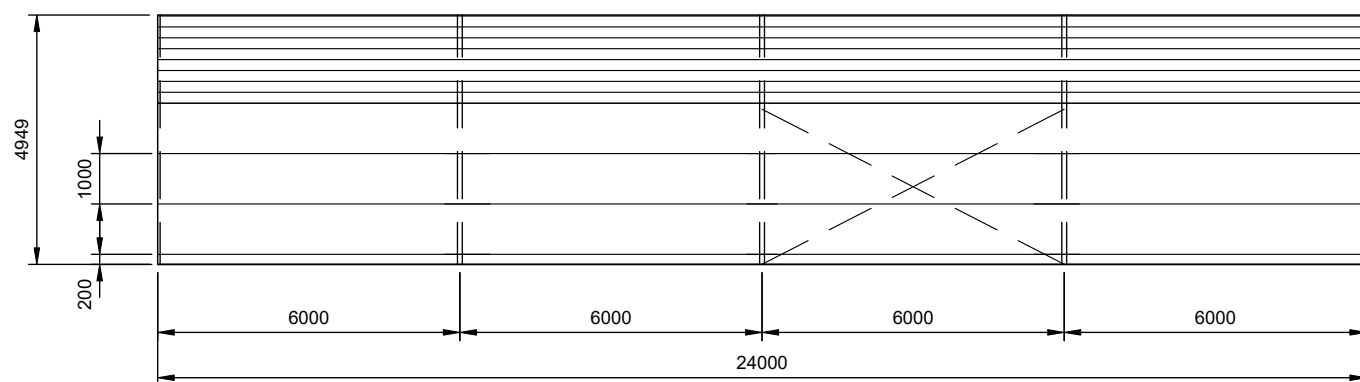
FRAME #1



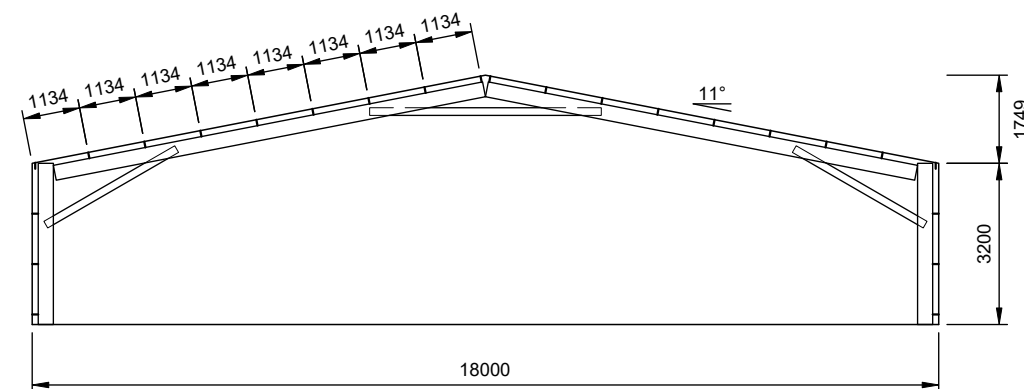
2 LEFT ELEVATION
3 SCALE: 1:150



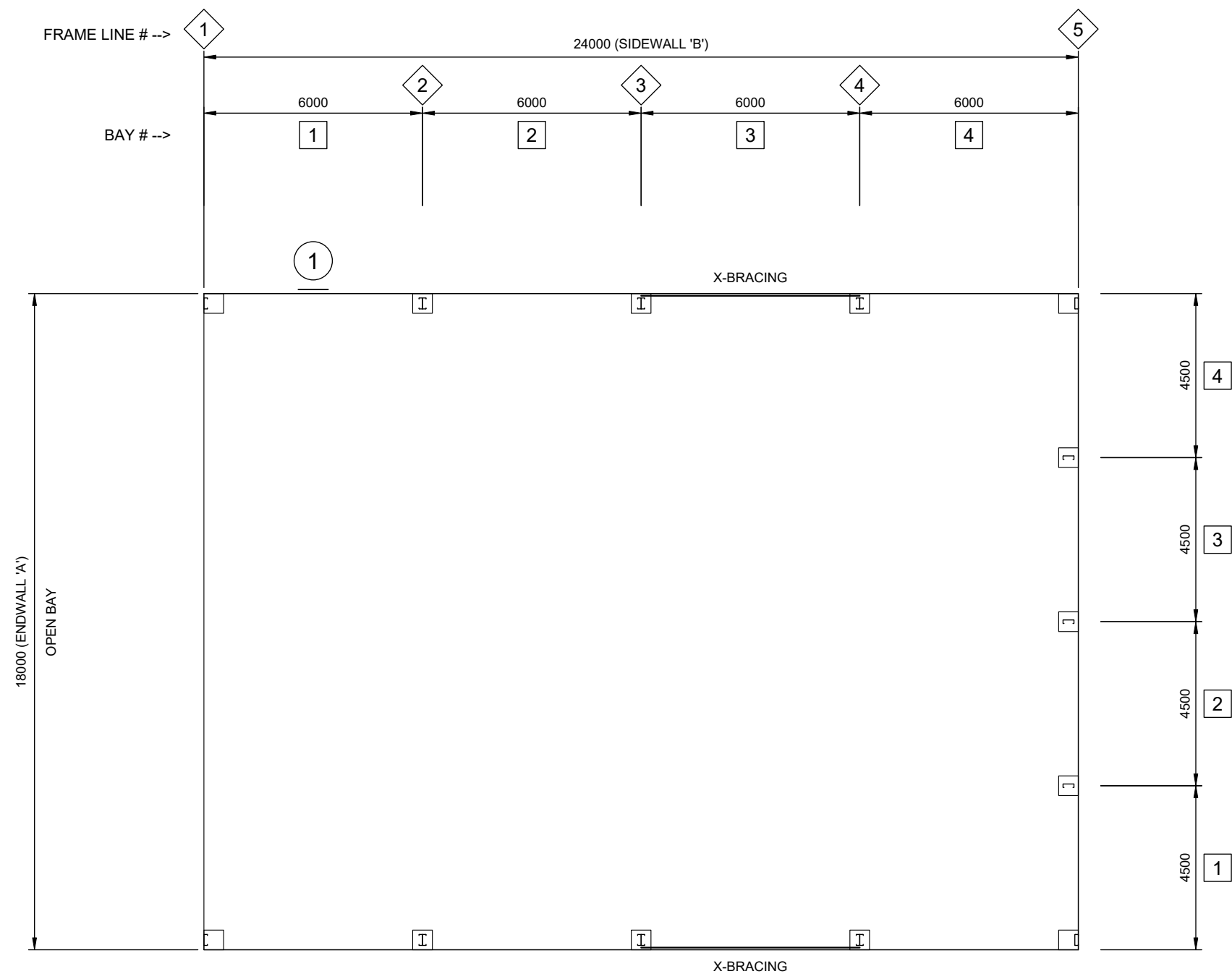
3 REAR ELEVATION
3 SCALE: 1:150 FRAME #5



1 RIGHT ELEVATION
3 SCALE: 1:150

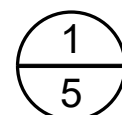
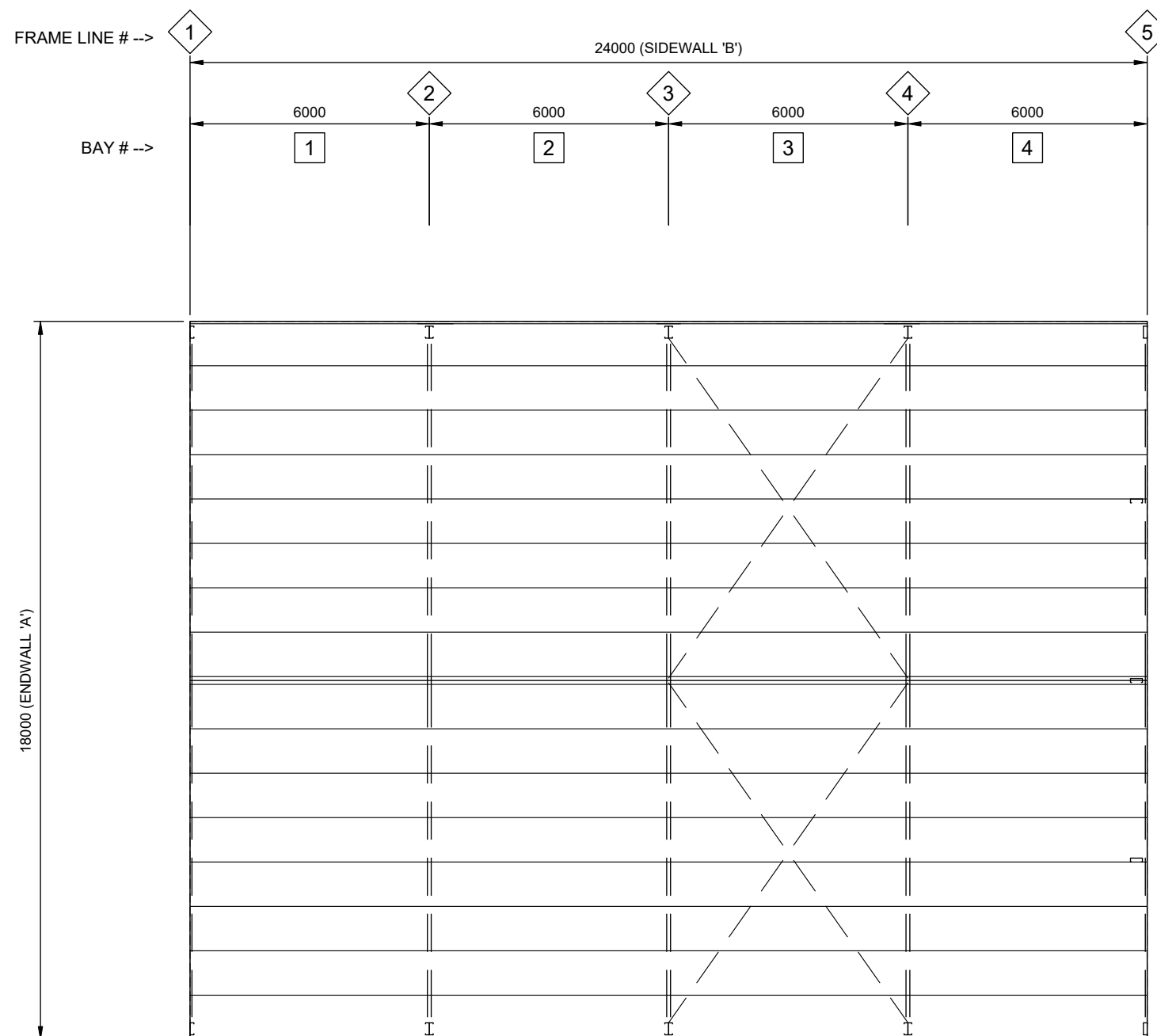


4 FRONT ELEVATION
3 SCALE: 1:150 FRAME #1



1 FLOOR PLAN

SCALE: 1:150



ROOF FRAMING PLAN

SCALE: 1:150



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Customer Name: Mudgee Aero Club Inc
Site Address: Mudgee Airport
Mudgee,
NSW, 2850

DATE 14-09-2022
JOB NO. 1514666018
SHEET 5 of 7

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 M16 BOLTS

2 X 16MM DIA SLEEVE ANCHORS, 12MM DIA INTERNAL ROD-MIN 110MM LONG

REFER TO SLAB TABLE FOR MESH TYPE - 30MM COVER

POLYTHENE WATERPROOF MEMBRANE ON CONSOLIDATED SUB-BASE SHOWN DASHED

DEPTH

WIDTH

100

2C30024 COLUMN

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

1500

600

TOPHAT 64

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

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

TOPHAT 120

SHEETING

2 x 14G TEK SCREWS

C30024 COLUMN

12g x14 x 35mm LONG ROOF SCREWS

RIDGE PURLIN

INTERMEDIATE PURLIN

EAVE PURLIN

0.42 BMT CORRUGATED ROOF SHEETING

Y

SLAB DETAIL

○ INDICATES 16 mmØ GRADE 4.6 BOLT

2C30024 FRAME RAFTER

2C30024 FRAME COLUMN

DBL. 3mm 11" HAUNCH BRACKET (SAME DEPTH AS MEMBERS)

1981 mm TO TOP OF CONCRETE FOUNDATION

8 X 14G TEK SCREWS

2C15024 KNEE BRACE, 3000 mm LONG (OMIT AT ENDWALLS, U.N.O.)

(2) 16 mmØ GRADE 4.6 BOLTS AT EACH END OF KNEE BRACE

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

E

PURLIN CONNECTION

2C30024 FRAME RAFTER

DBL. 3mm 11" APEX BRACKET, WITH (8) 16 mmØ GRADE 4.6 BOLTS PER BRACKET

8 X 14G TEK SCREWS

2250 mm

(2) 16 mmØ GRADE 4.6 BOLTS AT EACH END OF APEX BRACE

2C15024 APEX BRACE (OMIT AT ENDWALLS, U.N.O.), 4600 mm LONG

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

F

GIRT CONNECTION

C30024 ENDWALL RAFTER

NOTE: 1) SEE DETAIL M/7 FOR BASE CONNECTION OF ENDWALL MULLION. 2) SEE DETAIL C2/6 FOR PEAK CONDITION OF ENDWALL MULLION.

50mm x 200mm x 200mm TALL MFA BRACKET WITH 8 X 14G TEK SCREWS INTO RAFTER WEB AND 12 X 14G TEK SCREWS INTO MULLION WEB

C30024 (OPEN SIDE OF CEE MAY FACE EITHER DIRECTION, U.N.O.)

G

TOP HAT CONNECTION

50mm x 200mm x 200mm TALL MFA BRACKET WITH 8 X 14G TEK SCREWS INTO APEX BRACKET AND 12 X 14G TEK SCREWS INTO MULLION

C30024 (OPEN SIDE OF CEE MAY FACE EITHER DIRECTION, U.N.O.)

C30024 ENDWALL RAFTER

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

A

HAUNCH CONNECTION

B


APEX CONNECTION

C1


ENDWALL MULLION TO RAFTER

C2

ENDWALL MULLION TO RAFTER PEAK CONDITION

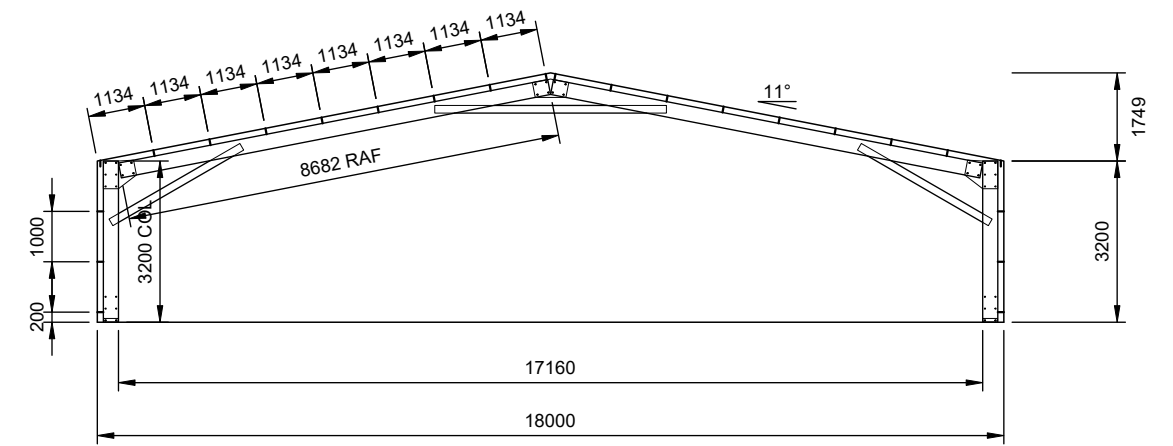


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SHEET 6 of 7



1
7
TYP. FRAME CROSS-SECTION
 SCALE: 1:150 FRAMES 2-4

N	ENDWALL GIRT BRACKET	O	FLYBRACE
J	WALL SHEETING	K	CORNER COLUMN BASE
L	INTERNAL COLUMN BASE	M	ENDWALL MULLION BASE