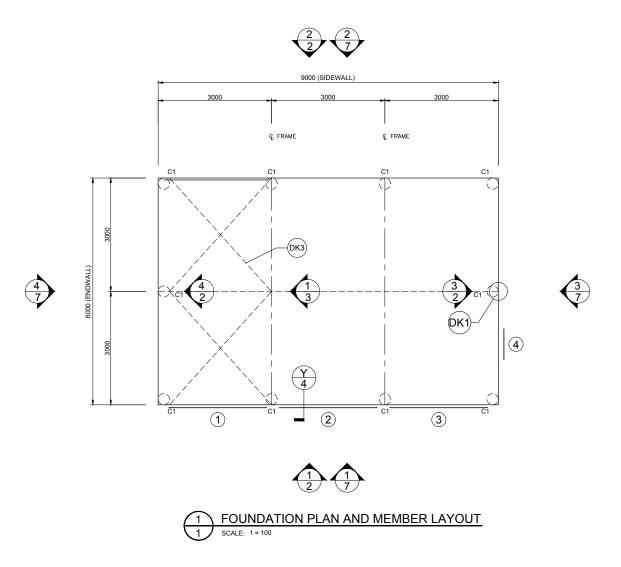
IF IN DOUBT, ASK.



ROOF STRAP BRACING TO BE CONNECTED TO THE PURLIN CLOSEST TO THE LINE OF THE END WALL MULLION

NORTHERN CONSULTING

Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812

Fax: 07 4725 5850 Email: design@nceng.com.au ABN 341 008 173 56

Registered on the NPER in the areas of practice of Civil & Structural National Professional **Engineers Register** 

Mr Timothy Roy Messer BE MIEAust RPEQ

MEMBER LEGEND C1 C15015

ALL DIMENSIONS TO BE VERIFIED ON SITE.

DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY.

M.A. STEEL PTY. LTD. (LIC 225516C)

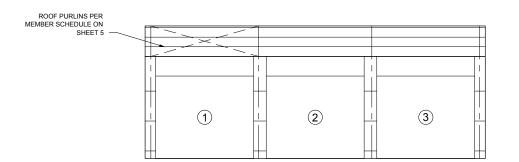
02 6382 4387

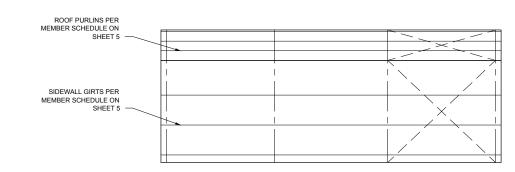
TERRY METCALFE FOR FDS TM  $\infty$ 102 CLARK STREET HARDEN

fairdinkum SHEDS

stered Chartered Professional Engineer stered Professional Engineer (Civil & Structural) QLD stered Certifying Engineer (Structural) N.T. stered Engineer - (Civil) VIC stered Engineer - (Civil) TAS

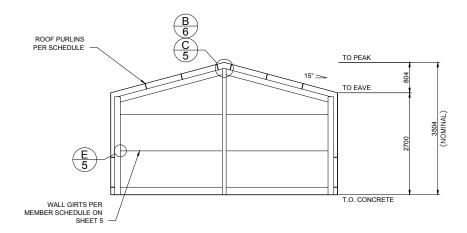
Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

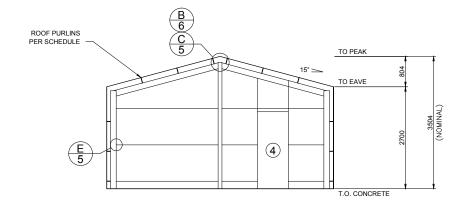




SIDEWALL EXTERIOR ELEVATION SCALE: 1 = 100

SIDEWALL EXTERIOR ELEVATION SCALE: 1 = 100

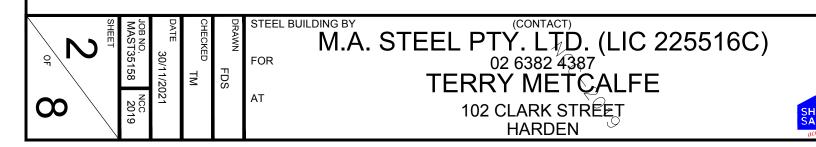




4 ENDWALL INTERIOR ELEVATION
2 SCALE: 1 = 100

**ENDWALL INTERIOR ELEVATION** SCALE: 1 = 100

X BRACING IS REQUIRED IN 1 SIDE BAY(S) AND 1 ROOF BAY(S) (BOTH SIDES).







Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812 Fax: 07 4725 5850 Email: design@nceng.com.au

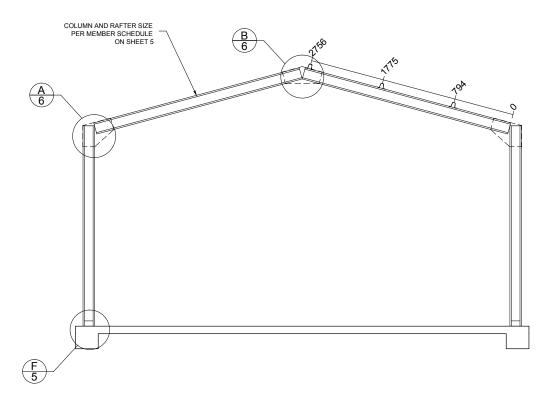
30/11/2021

ABN 341 008 173 56 stered Chartered Professional Engineer stered Professional Engineer (Civil & Structural) QLD stered Certifying Engineer (Structural) N.T. stered Engineer - (Civil) VIC stered Engineer - (Civil) TAS

Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

Registered on the NPER in the areas of practice of Civil & Structural National Professional **Engineers Register** 

Mr Timothy Roy Messer BE MIEAust RPEQ





Refer to Sheet #4 for concrete specification.

STEEL BUILDING BY M.A. STEEL PTY. LTD. (LIC 225516C)

OF ONE OF OTHER OF ONE OF OTHER OF ONE OF OTHER OF ONE OF ONE OF ONE OF ONE OF ONE OF OTHER OF OTHER OF ONE OF OTHER O





stered Chartered Professional Engineer stered Professional Engineer (Civil & Structural) QLD stered Certifying Engineer (Structural) N.T. stered Engineer - (Civil) VIC stered Engineer - (Civil) TAS

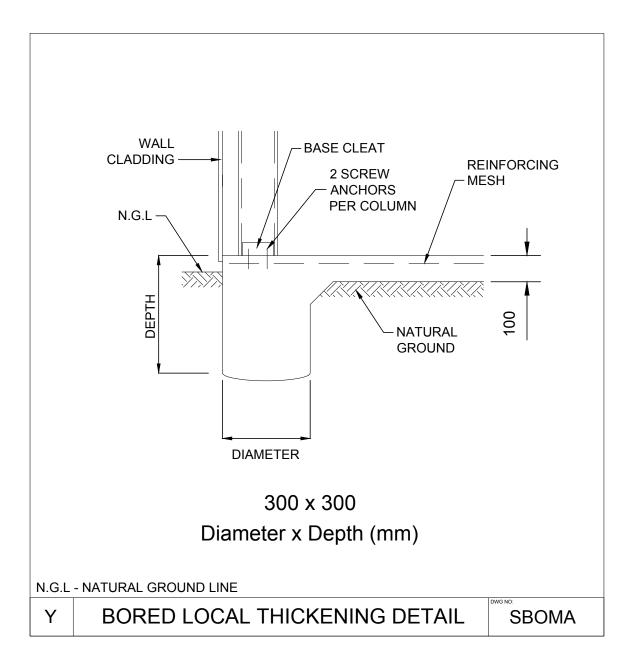
Civil & Structural Engineers
50 Punari Street
Currajong, Qld 4812
Fax: 07 4725 5850
Email: design@nceng.com.au
ABN 341 008 173 56

Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

ngineers ri Street Old 4812 Mr Timothy Roy Messer BE MIEAust RPEQ

Date ......30/11/2021

Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register



- 1. GOVERNING CODE : NATIONAL CONSTRUCTION CODE (NCC), LOADING TO AS1170 ALL SECTIONS. BUILDING SUITABLE AS EITHER A PRIVATE CARACE CLASS 10A, OR A FARM SHED (CLASS 7 OR 8), UNLESS OTHERWISE SPECIFICALLY NOTED. FOR USE AS A FARM SHED, IT MUST MEET THE FOLLOWING REQUIREMENTS:

   BE LESS THAN 2000 SQM IN AFRA (INCLUSIVE OF ANY MEZZANINE FLOOR AREA).

   MUST BE LOCATED ON A FARM AND USED IN CONNECTION WITH FARMING PURPOSES BY PROPIE, WITH A MAXIMUM OF 1 FERSON PER 200 SQM OR 2 PERSONS MAXIMUM IN TOTAL WHICHEVER IS THE LESSER.
- CERTIFICATION IS ONLY VALID WHEN BUILDING IS SUPPLIED BY A DISTRIBUTOR OF FBHS. DRAWINGS ARE PROVIDED FOR THE DUAL PURPOSE OF OBTAINING BUILDING PERMITS AND AIDING CONSTRUCTION. ANY OTHER USE OR REPRODUCTION IS PROHIBITED WITHOUT WRITTEN APPROVAL FROM FBHS.

NEAFROCCTION IS PROHIBITED WITHOUT WRITTEN APPROVAL FROM.

TRESS DRAWINGS ARE NOT VALID UNLESS SIGNED BY THE ENGINEER. THE ENGINEER ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DRAWINGS WITHOUT A SIGNATURE. EACH TITLE BLOCK CONTAINS A WATER MARK UNDER THE CUSTOMERS NAME CONTAINING THE DATE OF PRODUCTION OF THE DRAWINGS; THE DRAWINGS ARE TO BE SUBMITTED TO COUNCIL WITHIN 21 DAYS OF THIS DATE. THIS IS TO ENSURE THAT ONLY CURRENT DRAWINGS ARE IN CIRCULATION.

CONCIL WITHIN 21 DAYS OF THIS DATE. THIS IS TO ENSURE THAT ONLY CURRENT DRAWINGS ARE IN CIRCULATION.

CONTRACTOR RESPONSIBILITIES:

CERTIFIER AND CONTRACTOR TO CONFIRM [ON SITE] THAT THE WIND LOADINGS APPLIED TO THIS DESIGN ARE TRUE
AND CORRECT FOR THE ADDRESS STATED IN THE TITLE BLOCK.

CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND DIMENSIONS. ENGINEER SHALL BE NOTIFIED
OF ANY DISCREPANCIES BETWEEN DRAWINGS AND EXISTING CONDITIONS PRIOR TO START OF WORK.

CONTRACTOR MUST NOT MAKE ANY DEVIATION FROM THE PROVIDED PLANS WITHOUT FIRST DETRAINING WRITTEN APPROVAL

PROMICANE THE INTERECTATION PROVIDEDS. THE ENVINEED OF DRAW TO DESPONDED THY PRO
CURRENT THE INTERECTATION OF THE PROVIDED PLANS WITHOUT FIRST DETRAINING WRITTEN APPROVAL

PROVIDED THE INTERECTATION PROVIDEDS. THE ENVINEED OF DRAW TO DESPONDED THE TOP OF THE PROVIDED THE PROVIDED THE PROVIDED PROVIDED THE PROVIDED OF THE PROVIDED THE PROVIDED OF THE PROVIDED OF THE PROVIDED THE PROVIDED OF THE PROVID FROM ONE THE UNDERSIGNING ENGINEERS. THE ENGINEER / FBHS TAKE NO RESPONSIBILITY FOR CHANGES MADE WITHOUT WRITTEN APPROVAL.

CONTRACTOR IS RESPONSIBLE FOR ENSURING NO PART OF THE STRUCTURE BECOMES OVERSTRESSED DURING

CONSTRUCTION.

BUILDING IS NOT STRUCTURALLY ADEQUATE UNTIL THE INSTALLATION OF ALL COMPONENTS AND DETAILS SHOWN IS
COMPLETED IN ACCORDANCE WITH THESE DRAWINGS.
THE INDICATED DRAWING SCALES ARE APPROXIMATE. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES.
FOR FUTHER DIRECTIONS ON CONSTRUCTION THE CONTRACTOR SHOULD CONSULT THE APPROPRIATE INSTRUCTION MANUAL.

THE ENGINEER / FBHS ARE NOT ACTING AS PROJECT MANAGERS FOR THIS DEVELOPMENT, AND WILL NOT BE PRESENT

DURING CONSTRUCTION.
THE UNDERSIGNING ENGINEERS HAVE REVIEWED THIS BUILDING FOR CONFORMITY ONLY TO THE STRUCTURAL DESIGN FORTIONS OF THE GOVERNING CODE. THE PROJECT MANAGER IS RESPONSIBLE FOR ADDRESSING ANY OTHER CODE REQUIREMENTS APPLICABLE TO THIS DEVELOPMENT.
THESE DOCUMENTS ARE STAMPED ONLY AS TO THE COMPONENTS SUPPLIED BY FBHS. IT IS THE RESPONSIBILITY OF THE

THESE DOOMENTS ARE STANDED ONLY AS TO THE COMPONENTS SUPPLIED BY HEHS. IT'S THE RESENCIBILITY OF THE PURCHASER TO COORDINATE DRAWINGS PROVIDED BY HEHS THIT OTHER PLANS AND/OR OTHER COMPONENTS THAT ARE PART OF THE OVERALL PROJECT. IN CASES OF DISCREPANCIES, THE LATEST DRAWINGS PROVIDED BY FEHS SHALL GOVERN. NO ALTERATIONS TO THIS STRUCTURE (INCLUDING REMOVAL OF CLADDING) ARE TO BE UNDERTAKEN WITHOUT THE CONSENT OF THE CERTIFYING ENGINEER.

OPENINGS SUCH AS WINDOWS AND DOORS NEED TO BE INSTALLED AS PER THE PRODUCT MANUFACTURER'S INFORMATION/DETAILS.

6. INSPECTIONS:
NO SPECIAL INSPECTIONS ARE REQUIRED BY THE GOVERNING CODE ON THIS JOB. ANY OTHER INSPECTIONS REQUESTED NO SPECIAL INSPECTIONS ARE REQUIRED BY THE COMMENT SPECIAL PROPERTY. SPECIAL INSPECTIONS REQUESTED THE COMMENT SPECIAL PROPERTY.

SOIL REQUIREMENTS: :
SITE CLASSIFICATION TO BE A, S OR M ONLY. SOIL SAFE BEARING CAPACITY VALUE INDICATED ON DRAWING SHEET 4 SITE CLASSIFICATION TO BE A, S OR M ONLY. SOIL SAFE BEARING CAPACITY VALUE INDICATED ON DRAWING SHEET 4 COCURS AT 170ST 100TH BELOW FINISH GRADE, OR AT FROST DEPTH SECCIFED BY LOCAL BUILDING DEPARTMENT, WHICHEVER IS THE LOWEST ELEVATION. REGARDLESS OF DETAIL Y ON SHEET 4 THE MINIMUM FOUNDATION DEPTH SHOULD BE 100MM INTO NATURAL GROUND OR BELOW FROST DEPTH SPECIFIED BY LOCAL COUNCIL. ROLLED OR COMPACTED FILL MAY BE USED UNDER SLAB, COMPACTED IN 150rm LAYERS TO A MAXIMUM DEPTH OF 900rm. CONCRETE FOUNDATION EMBELMENT DEPTHS DO NOT APPLY TO LOCATIONS WHERE ANY UNCOMPACTED FILL OR DISTURBED GROUND EXISTS OR WHERE MALLS OF THE EXCAVATION WILL NOT STAND WITHOUT SUPPLEMENTAL SUPPORT, IN THIS CASE SEEK FURTHER ENGINEERING ADVICE.

### CLASS 10a or Class 7 FOOTING DESIGNS:

CLASS 10a or Class 7 FOOTING DESIGNS:
THE FOUNDATION DOCUMENTED IS ALSO APPROPRIATE FOR CLASS 10a or CLASS 7 BUILDING DESIGNS ON 'M-D', 'H',
'H-D' OR 'E' CLASS SOILS, IF TOTAL SLAB AREA IS UNDER 100m SQUARE AND THE MAXIMUM SLAB DIMENSION (LENGTH
AND WIDTH) IS LESS THAN OR EQUAL TO 12m.
PLEASE BE AWARE THAT THE SLAB DESIGN FOR H & E CLASS SOILS IN THESE INSTANCES ARE DESIGNED TO
EXPERIENCE SOME CRACKING. THIS CRACKING IS NOT CONSIDERED A STRUCTURAL FLAW OR DESIGN ISSUE, AND IS
SIMPLY COMMENTED IN NATURE. IF THIS IS A CONCENT TO THE CLIENT IT IS ADVISED THEY DISCUSS OTHER OPTIONS
WITH THE RELEVANT DISTRIBUTOR FRIOR TO THE POURING OF THE SLAB.

CONCERTE REQUIREMENTS:

WITH THE RELEVANT DISTRIBUTOR PRIOR TO THE POURING OF THE SLAB.

CONCRETE REQUIREMENTS:

ALL CONCRETE DETAILS AND PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH AS2870 AND AS3600.

CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 20MPA FOR EXPOSURE A1 & B1, 25MPA FOR EXPOSURE A2 & B2 AND 32MPA FOR EXPOSURE C, IN ACCORDANCE WITH SECTION 4, AS3600. CEMENT TO BE TYPE A. MAX AGGREGATE SIZE OF 20mm. SLUMP TO BE 80mm +-15mm. SLABS TO BE CURED FOR 7 DAYS BY WATERING OR COVERING WITH A PLASTIC MEMBRANE, AFTER WHICH CONSTRUCTION CAN BEGIN, DUE CARE GIVEN NOT TO OVER-TIGHTEN HOLD DOWN BOLTS. GIVEN ALLOWABLE SOIL TYPES 1 LAYER OF SL7Z REINFORCING WESH IS TO BE INSTALLED ON STANDARD SLABS WITH A MINIMUM 30MM COVER FROM CONCRETE SURFACE. CONCRETE REINFORCING TO CONFORM TO AS 1302, AS1303 & AS 1304. ALL REINFORCING COVER TO BE A MINIMUM OF 30mm.

STRUCTURAL STEEL REQUIREMENTS:

10. STRUCTURAL STEEL REQUIREMENTS:

ALL STRUCTURAL STEEL, INCLUDING SHEETING THOUGH EXCLUDING CONCRETE REINFORCING, SHALL CONFORM TO AS 1397 (GAUGE <= 1mm fy = 550MPa, GAUGE >= 1.5mm fy = 450MPa).

NO WELDING IS TO BE PERFORMED ON THIS BUILDING.

ALL STRUCTURAL MEMBERS AND CONNECTIONS DESIGNED TO AS4600. ALL BOLT HOLE DIAMETERS TO STRAMIT GENERAL

- 11. FOOT TRAFFIC:
  FOR ERECTION AND MAINTENANCE PLEASE NOTE THE FOLLOWING DEFINED FOOT TRAFFIC ZONES:
   CORRUGATED: WALK ONLY WITHIN 200MM OF SCREW LINES. FEET SPREAD OVER AT LEAST TWO RIBS.
   MONOCLAD: WALK ONLY IN PANS, OR ON RIBS AT SCREW LINES.

# PROJECT DESIGN CRITERIA

ROOF LIVE LOAD: 0.25 kPa

BASIC WIND SPEED: VR 45 m/s SITE WIND SPEED: VsitB 34.2 m/s

WIND REGION: Reg A

TOPOGRAPHY FACTOR, Mt: 1 SHIELDING FACTOR, Ms: 0.91

MAX GROUND SNOW LOAD: N/A MAX ROOF SNOW LOAD: N/A

SITE ALTITUDE: N/A

TERRAIN CATEGORY: TCat 2.94

SOIL SAFE BEARING CAPACITY: 100 kPa

RETURN PERIOD: 1:500 LIMITING CPL 1: -0.5 LIMITING CPI 2: 0.5 IMPORTANCE LEVEL: 2

# **DETAIL KEYS**

(DK1) ENDWALL VERTICAL MULLION (SEE DETAIL C/5 FOR TOP CONN. AND F/5 FOR BASE CONN.)

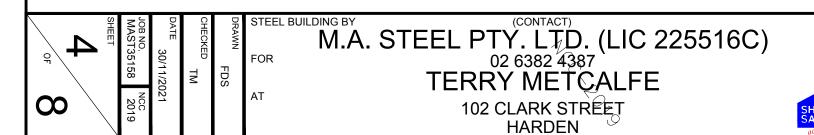
(DK2) FLYBRACING PER DETAIL L/5

(DK3) X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)

(DK4) DOUBLE X-BRACING IN ROOF ABOVE (SEE DETAIL M/5)

# SCHEDULE OF OPENINGS

DOOR	OPENING	SIZE MAX	OI LINING	HEADER	OPENING	WIND
5	WIDTH	HEIGHT	TYPE	GIRT	JAMBS	RATED
1	2590	2180*	2.20H X 2.65 CB *SERIES A #	SINGLE >	(SRDTS643	) NO
2	2590	2180*	2.20H X 2.65 CB *SERIES A #	SINGLE >	SRDTS643	) NO
(3)	2590	2180*	2.20H X 2.65 CB *SERIES A #	SINGLE >	(SRDTS643	) NO
4	820	2040	EXTERNAL PA DOOR 180 DEG	SINGLE		YES







ered Certifying Engineer (Structural) N.T.

ered Engineer - (Civil) VIC

Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812 Fax: 07 4725 5850 Email: design@nceng.com.au

Mr Timothy Roy Messer BE MIEAust RPEQ

Signature .

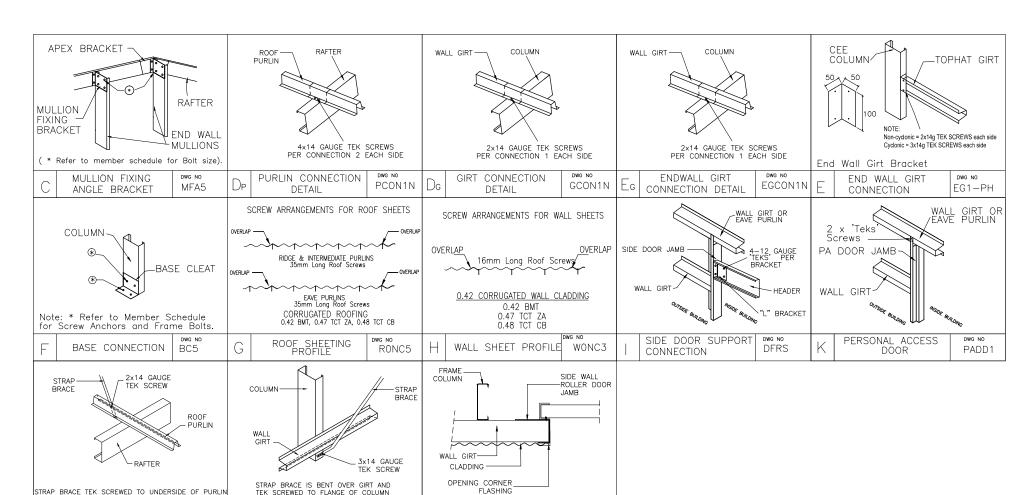
Registered on the NPER in the areas of practice of Civil & Structural National Professional

**Engineers Register** 

Regn. No. EC36692

ABN 341 008 173 56 Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES

<sup>\*</sup> ROLLER DOOR OPENING HEIGHT DEPENDENT ON FINAL BUILD LOCATION



SIDEWALL ROLLER

DOOR JAMB

**HARDEN** 

DWG NO SRDJ

### MEMBER AND MATERIAL SCHEDULE

1	END WALL RAFTER	Single C15015
2	C.S. FRAME RAFTER	Single C15015
3	END FRAME COLUMN (C1)	Single C15015
4	C.S. FRAME COLUMN (C1)	Single C15015
5	MULLION (C1)	Single C15015
6	ANCHOR BOLTS (# PER DETS.)	Screw Anchor 12mm x 100 Galv
7	EAVE PURLIN	C15012 (Eave Purlin 49mm above top of column)
8	TYP. ROOF PURLIN SIZE	Tophat 64 x 0.75
9	MAIN BLDG. PURLIN SPACING	0.981 m. (3 rows) (Max Allow. 1.000m)
10	MAIN BLDG. PURLIN LENGTH	3.1 m. (0.1m Overlap)
11	TYP. SIDEWALL GIRT SIZE	Tophat 64 x 0.75
12	MAIN BLDG. SIDEWALL GIRT SPACING	0.791 m. (3 rows) (Max Allow. 1.200m)
13	MAIN BLDG. SIDEWALL GIRT LENGTH	3.1 m. (0.1m Overlap)
14	TYP. ENDWALL GIRT SIZE	Tophat 64 x 0.75
15	MAIN BLDG. ENDWALL GIRT SPACING	0.961 m. (3 rows) (Max Allow. 1.200m)
16	MAIN BLDG. ENDWALL GIRT LENGTH	2.88 m. (0.1m Overlap)
7	FRAME SCREW FASTENERS	14-13x22 Hex C/S (SP HD 5/16' Hex Drive)
18	FRAME BOLT FASTENERS	Purlin Assy M12x30 Z/P
19	X-BRACING STRAP AND FASTENERS	Single Bracing Strap Per Roll Light
20	WALL COLOUR	CLASSIC_CREAM
21	ROOF COLOUR	CLASSIC_CREAM
22	ROLLER DOOR COLOUR	MANOR_RED
23	P.A. DOOR COLOUR	CLASSIC_CREAM
24	DOWNPIPE COLOUR	CLASSIC_CREAM
25	GUTTER COLOUR	MANOR_RED
26	CORNER FLASHING COLOUR	CLASSIC_CREAM
27	BARGE FLASHING COLOUR	MANOR_RED
28	OPENING FLASHING COLOUR	MANOR_RED
29	OPEN BAY HEADER HEIGHT	0.35

"C.S." = CLEARSPAN "L." = LEFT "R." = RIGHT



STRAP BRACING

GTSB

STRAP BRACING

PTSB





Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812 Fax: 07 4725 5850 Email: design@nceng.com.au

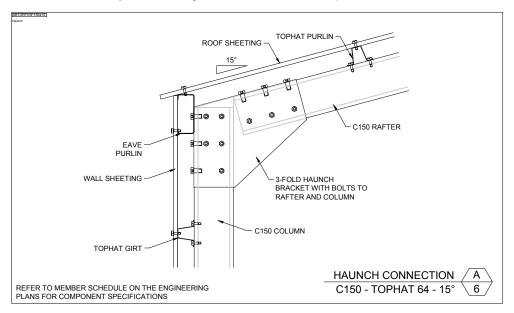
ABN 341 008 173 56 egistered Chartered Professional Engineer egistered Professional Engineer (Civil & Structural) QLD egistered Certifying Engineer (Structural) N.T. egistered Engineer - (Civil) VIC egistered Engineer - (Civil) TAS Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

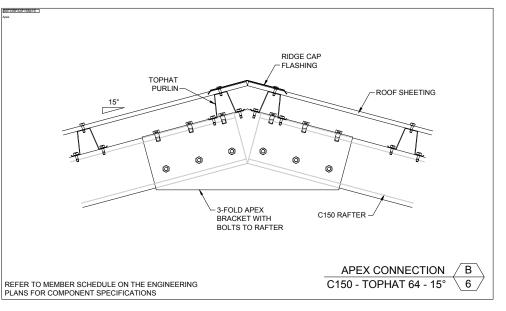
Mr Timothy Roy Messer BE MIEAust RPEQ

Signature 30/11/2021

Registered on the NPER in the areas of practice

of Civil & Structural National Professional **Engineers Register** 





M.A. STEEL PTY. LTD. (LIC 225516C)

02 6382 4387

TERRY METCALFE 0 FOR FDS TM  $\infty$ 102 CLARK STREET HARDEN





Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812 Fax: 07 4725 5850

Email: design@nceng.com.au ABN 341 008 173 56

egistered Chartered Professional Engineer egistered Professional Engineer (Civil & Structural) QLD egistered Certifying Engineer (Structural) N.T. egistered Engineer - (Civil) VIC egistered Engineer - (Civil) TAS

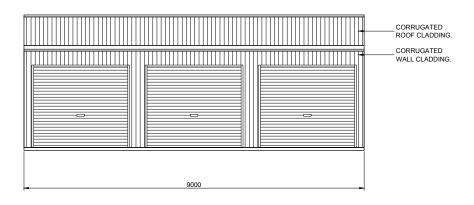
Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

Mr Timothy Roy Messer BE MIEAust RPEQ

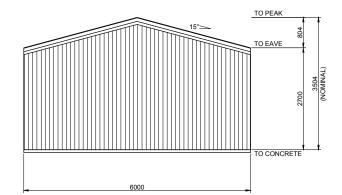
Signature

30/11/2021

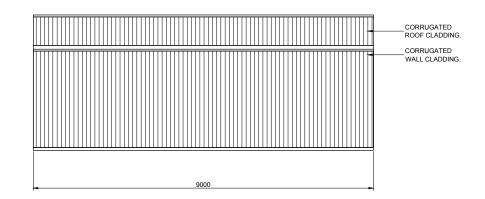
Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register



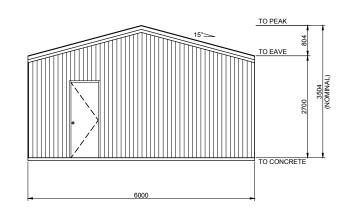














BUILDING COLOURS					
WALL	CLASSIC CREAM				
ROOF	CLASSIC CREAM				
ROLLER DOOR	MANOR RED				
P.A. DOOR	CLASSIC CREAM				
DOWNPIPE	CLASSIC CREAM				
GUTTER	MANOR RED				
CORNER FLASHING	CLASSIC CREAM				
BARGE FLASHING	MANOR RED				
OPENING FLASHING	MANOR RED				
•					

M.A. STEEL PTY. LTD. (LIC 225516C)

02 6382 4387

TERRY METCALFE T35158 FOR FDS MT  $\infty$ 102 CLARK STREET HARDEN





Civil & Structural Engineers 50 Punari Street Currajong, Qld 4812 Fax: 07 4725 5850

Email: design@nceng.com.au ABN 341 008 173 56

30/11/2021

Registered on the NPER in the areas of practice of Civil & Structural National Professional Engineers Register

Mr Timothy Roy Messer BE MIEAust RPEQ



stered Chartered Professional Engineer stered Professional Engineer (Civil & Structural) QLD stered Certifying Engineer (Structural) N.T. stered Engineer - (Civil) VTAS

Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692 Regn. No. CC5648M

The design and detail shown on these drawings are applicable to this project only and may not be reproduced in whole or any part or be used for any other purpose without the written permission of FBHS (Aust) Pty Limited with whom copyright resides. The local distributor you are dealing with is an authorised independent distributor of Fair Dinkum Sheds.

### NOTES:

BRACING MATERIALS - THE SHED ERECTOR TO SUPPLY SPECIFIC BRACING. SUITABLE RIGID MEMBERS CAPABLE OF TENSION AND COMPRESSION OR OPPOSING CHAINS OR OPPOSING LOAD RATED RATCHET STRAPS TO BE USED. (RIGID BRACING AS SHOWN ON DIAGRAM) ROPE BRACING SUITABLE ONLY FOR SMALLER STRUCTURES IN IDEAL CONDITIONS.

**BRACING LOCATION - TEMPORARY BRACING TO BE ERECTED AS CLOSE** TO 45 DEGREE ANGLE AND FIXED TO THE TOP OF THE COLUMN OR MULLION TO ACHIEVE THE OPTIMUM EFFECTIVENESS. IF THERE IS NOT ENOUGH SPACE FOR A 45 DEGREE ANGLE, THEN 20 DEGREE ANGLE IS TO BE THE MINIMUM ANGLE ALLOWED (REFER TO DIAGRAM). RIGID TEMPORARY BRACING MEMBER TO BE BOLTED TO HEAVY ANGLE PEGS HAMMERED INTO THE GROUND OR TO A BRACKET, MASONRY ANCHORED TO THE SLAB.

**BRACING REMOVAL - TEMPORARY BRACING TO REMAIN IN PLACE UNTIL** CLADDING IS FULLY INSTALLED WHERE POSSIBLE. IN NO CASE SHOULD TEMPORARY BRACING BE REMOVED UNTIL ALL PURLINS, GIRTS (AND PERMANENT CROSS BRACING WHERE USED) ARE FIXED.

SITE SAFETY - DUE CONSIDERATION TO BE GIVEN TO SITE SAFETY IN REGARD TO LOCATIONS OF BRACING AND PEGS.

**GUIDE APPLICATION - TEMPORARY BRACING AS DESCRIBED IS A MINIMUM** REQUIREMENT FOR AN AVERAGE, STANDARD SITE CONDITION. PROVIDE ADDITIONAL BRACING FOR MORE SEVERE AND/OR HIGH EXPOSURE SITE CONDITIONS. ADDITIONAL BRACING TO BE USED AS AND WHERE NECESSARY TO ENSURE THAT ENTIRE FRAME IS RIGID THROUGHOUT CONSTRUCTION. RESPONSIBILITY FOR ENSURING STABILITY OF STRUCTURE REMAINS WITH THE BUILDER.

# **TILT UP METHOD**

# FOR STRUCTURES UNDER 9M SPAN, LESS THAN 3M HIGH AND LESS THAN 12M LONG

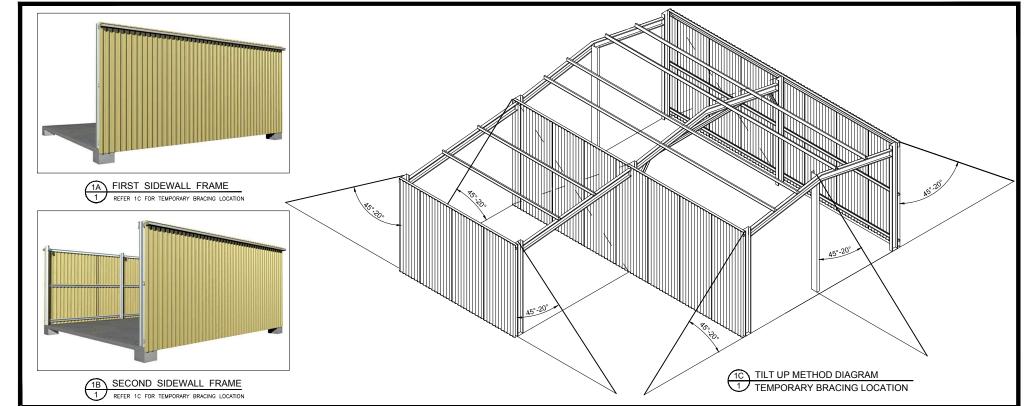
- A. ASSEMBLE THE FIRST SIDEWALL FRAME (COMPLETE WITH WALL SHEETING, BRACING AND GUTTER) ON THE GROUND AND LIFT ASSEMBLED SIDEWALL FRAME INTO POSITION. FIX OFF TEMPORARY SIDE BRACING TO EACH END (REFER TO DIAGRAM). FIX BASE CLEATS.
- B. ASSEMBLE THE SECOND SIDEWALL FRAME AS PER FIRST SIDEWALL FRAME. LIFT INTO POSITION. FIX OFF TEMPORARY WALL BRACING TO EACH END (REFER TO DIAGRAM) FIX BASE CLEATS.
- C. FIX GABLE END RAFTERS TO COLUMNS TO TIE WALLS. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
- D. INSTALL REMAINING RAFTERS. AS EACH RAFTER PAIR IS INSTALLED, AT LEAST ONE PURLIN PER 3M OF RAFTER LENGTH IS TO BE INSTALLED TO SECURE RAFTERS.
- E. INSTALL REMAINING PURLINS
- F. INSTALL KNEE AND APEX BRACES IF AND WHERE APPLICABLE.
- G. REPEAT FOR LEANTO'S.

### FRAME FIRST METHOD

# FOR STRUCTURES OVER 9M SPAN, GREATER THAN 3M HIGH AND GREATER THAN 12M LONG

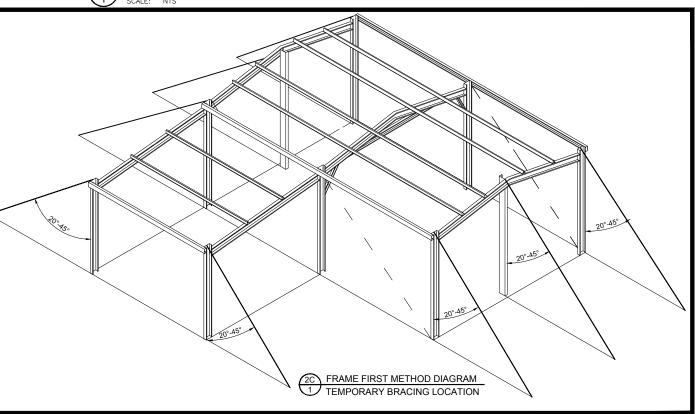
- A. ASSEMBLE PORTAL FRAMES ON THE GROUND (WITH KNEE AND APEX BRACES IF AND WHERE APPLICABLE). LIFT THE FIRST PORTAL FRAME ASSEMBLY INTO POSITION. FIX OFF TEMPORARY END BRACING (REFER TO DIAGRAM). FIX BASE CLEATS.
- B. PROP APEX UNTIL ENDWALL MULLION AND APEX TEMPORARY BRACE ARE FIXED OFF. IF NO MULLION IS REQUIRED THEN PROP AND BRACE APEX UNTIL CLADDING IS COMPLETE.
- C. THE SECOND PORTAL FRAME ASSEMBLY TO BE LIFTED INTO POSITION. FIX EAVE PURLINS AND AT LEAST ONE PURLIN PER 3M OF RAFTER TO SECURE FRAME ASSEMBLY. FIX BASE CLEATS. FIX TEMPORARY SIDEWALL BRACING.
- D. STAND REMAINING PORTAL FRAME ASSEMBLY AS PER STEP C, FIXING TEMPORARY SIDE WALL BRACING TO EVERY SECOND BAY. BRACE OTHER END PORTAL FRAME AS PER FIRST PORTAL FRAME.
- E. INSTALL REMAINING PURLINS AND GIRTS.
- F. REPEAT FOR LEANTO'S.





1 TILT UP METHOD DIAGRAM SCALE: NTS





FRAME FIRST METHOD DIAGRAM SCALE: NTS

M.A. STEEL PTY. LTD. (LIC 225516C)

02 6382 4387

TERRY METCALFE  $\infty$ FOR ML102 CLARK STREET  $\infty$ 





tered Certifying Engineer (Structural) N.T. tered Engineer - (Civil) VIC tered Engineer - (Civil) TAS

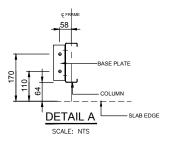
Civil & Structural Engineers 50 Punari Street

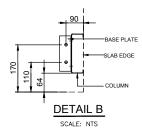
Regn. No. 2558980 Regn. No. 9985 Regn. No. 116373ES Regn. No. EC36692

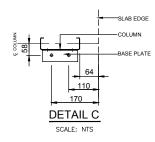
Currajong, Qld 4812 Fax: 07 4725 5850 Email: design@nceng.com.au ABN 341 008 173 56

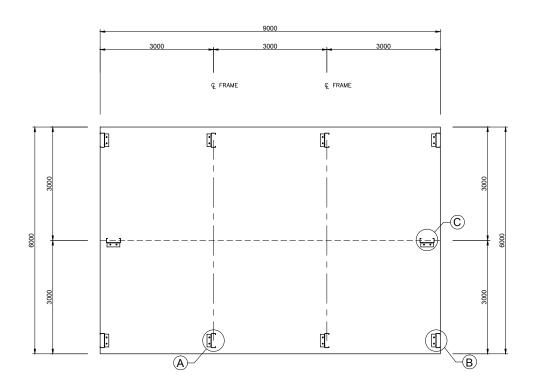
Mr Timothy Roy Messer BE MIEAust RPEQ

Registered on the NPER in the areas of practice of Civil & Structural National Professional **Engineers Register** 











IF YOU HAVE A ROLLER DOOR IN THE GABLE END OF YOUR SHED, CONTACT YOUR DISTRIBUTOR TO SEE IF MULLION NEEDS TO BE ROTATED FOR USE AS A DOOR JAMB.

NOT PART OF COUNCIL APPLICATION DOCUMENTATION

30/11/2021

M.A. STEEL PTY. LTD. (LIC 225516C)

FOR 02 6382 4387

TERRY METCALFE 102 CLARK STREET HARDEN





**BOLT LAYOUT PLAN** 

# COMPLIANCE CERTIFICATE FOR BUILDING DESIGN

#### **Property Description** 102 CLARK STREET Street address (include number street, suburb/locality & postcode) Postcode: 2587 HARDEN Description of Component/s Certified Steel Portal Frame Structure. Clearly describe the extent of work covered by this certificate. 6m span $\times$ 9m O/A length $\times$ 2.7m eaves height. Consisting of 3 bays at 3m spacing. **Basis of Certification** Australian Standards (list) AS/NZS 4600-2018, AS/NZS 1170.0,.1-2002, 1170.2-2011, 1170.3-2003, Detail the basis for giving the certificate and the extent to which tests, specifications 1170.4-2007, AS2870-2011, AS3600-2018 rules, standards, codes of practice and other publications, were relied upon. NCC Building Classification: Class 10 2019 National Construction Code of Australia Amendment 1 Factor for Region = NA Region AS1170.2 = Reg A NCC Equivalent Wind class = N/A NCC Importance Level = 2 Annual Probability Exceedance wind = 1:500 Design Roof Live Load = 0.25 kPa Regional 3 s Gust Wind Speed for annual probability of exceedance V <sub>R</sub>= 45 m/s Wind directional multipliers for the 8 cardinal directions Md = 1.00 Terrain/Height multiplier (Mz, Cat) = 0.83 Shielding Multiplier Ms= 0.91 Topographic multiplier Mt = 1 Design Wind Speed = 34 m/s Ext. Pressure Coefficient cpe = -1.15, 1.20 Int. Pressure Coefficient cpi = -0.5, 0.5 Reference Documentation Drawing Nos: 'Fair Dinkum Sheds' Structural Design Drawing Clearly identify any relevant documentation. e.g numbered structural engineering plans To be read in conjunction with Pages 1 to 8 For Job Number: MAST35158 **DATED**: 30/11/2021 Specifications: Computations: Test Reports: Other Documentation: Competent Person Details Timothy Roy Messer A competent person for building work, means a person who is assessed by the Company Name (If applicable): Northern Consulting Engineers building certifier for the work as competent to practise in aspect of the design, building Postal Address: 50 Punari Street, Currajong 4812 or inspection of the building work because of the person's skill and experience in the Timothy Roy Messer Contact Person: aspect. The competent person must also be registered or licensed under a law applying 07 4725 5550 Telephone Number: in the state to practice the aspect A COPY OF A CURRENT CV AND Mobile Number: N/A PROFESSIONAL REGISTRATION DETAILS MUST BE PROVIDED Fax Number: 07 4725 5850 WITH THE CERTIFICATE Fmail Address: design@nceng.com.au License or Registration Number: 2558980 Copy of CV Attached: Tick Box Y or N X Signature of Competent Person I certify that the item/s described above, if installed or carried out in accordance with the information This form may be used by competent conatined in this certificate, including any referenced documentation, will comply with the National persons to certify the design of a material, Construction Code of Australia/relevant Australian or International Standard. system, method of building, building element design or other thing Signature of competent person: **Date**: 30/11/2021 If the competent person is a licensed company the authorised person of the company is to sign the form.

Reference Number/s

LOCAL GOVERNMENT USE ONLY

Date received