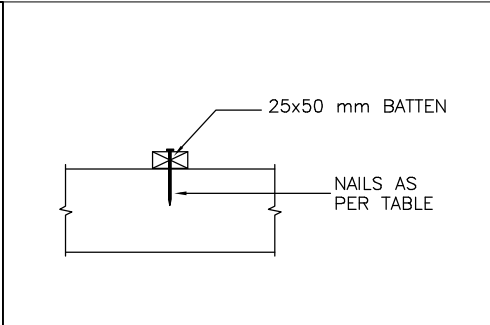
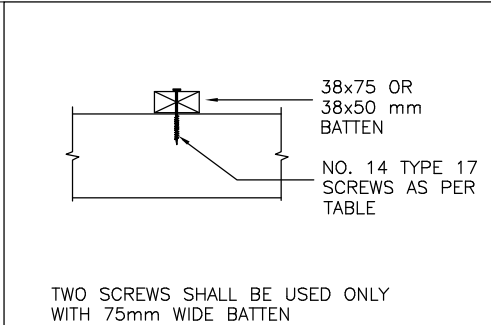
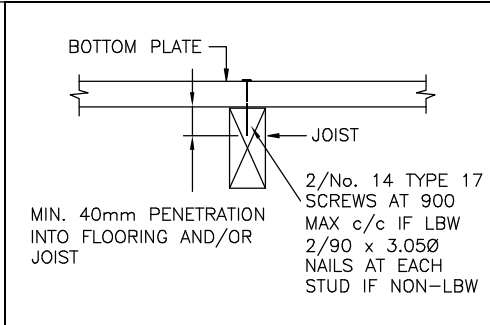
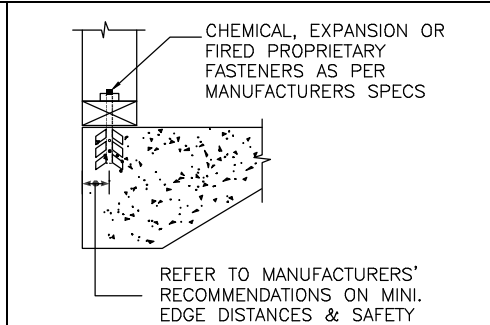
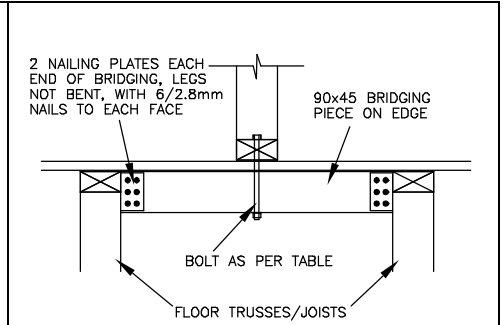
 <p>30x0.8 G.I. STRAP 2.8Ø NAILS EACH END AS NOTED</p> <p>a>100 OR LONGER TO PREVENT SPLITTING FOR NUMBER OF NAILS USED.</p> <p>TO</p>	 <p>25x50 mm BATTEN</p> <p>NAILS AS PER TABLE</p>	 <p>38x75 OR 38x50 mm BATTEN</p> <p>NO. 14 TYPE 17 SCREWS AS PER TABLE</p> <p>TWO SCREWS SHALL BE USED ONLY WITH 75mm WIDE BATTEN</p>	 <p>BOTTOM PLATE</p> <p>JOIST</p> <p>2/No. 14 TYPE 17 SCREWS AT 900 MAX c/c IF LBW 2/90 x 3.05Ø NAILS AT EACH STUD IF NON-LBW</p> <p>MIN. 40mm PENETRATION INTO FLOORING AND/OR JOIST</p>	 <p>CHEMICAL, EXPANSION OR FIRED PROPRIETARY FASTENERS AS PER MANUFACTURERS SPECS</p> <p>REFER TO MANUFACTURERS' RECOMMENDATIONS ON MINI. EDGE DISTANCES & SAFETY</p>	 <p>2 NAILING PLATES EACH END OF BRIDGING, LEGS NOT BENT, WITH 6/2.8mm NAILS TO EACH FACE</p> <p>90x45 BRIDGING PIECE ON EDGE</p> <p>BOLT AS PER TABLE</p> <p>FLOOR TRUSSES/JOISTS</p>
TOP/BOTTOM PLATES TO STUDS	TOP HAT BATTEN (PURLIN) TO RAFTER/TRUSS (GENERAL)	BOTTOM PLATE TO TIMBER FLOOR	BOTTOM PLATE TO SLAB	BOTTOM PLATE FIXING DETAILS	
				M10 BOLT-12kn JD5	M10 BOLT-9kn JD6
				M12 BOLT-15kn JD5	M12 BOLT-12kn JD6

N1/N2 SHEET ROOF-FIXINGS & TIEDOWNS AS PER AS1684.2 SECTION 9

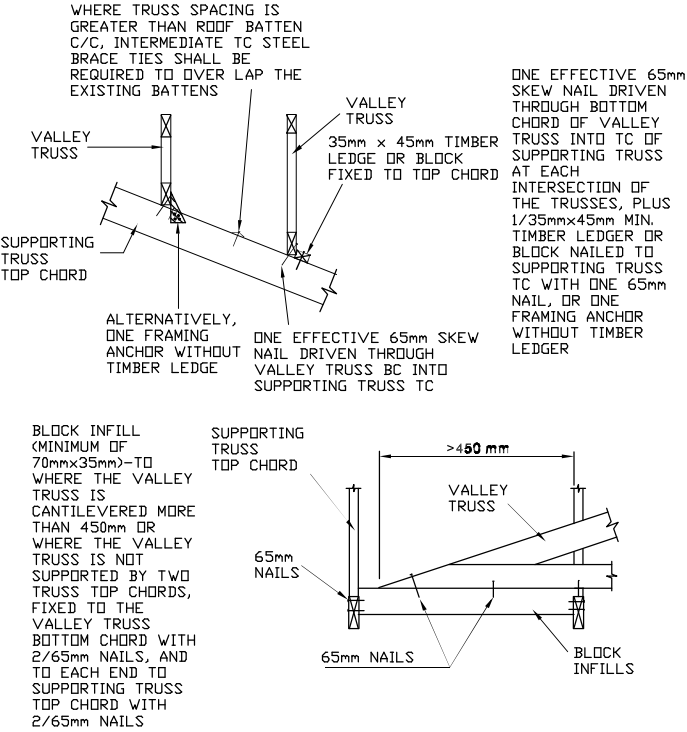
CONNECTIONS AS PER AS4440 SECTION 5

REFER TO MANUFACTURER'S INSTALLATION GUIDE AND FASTNERS SPECS DETAILS

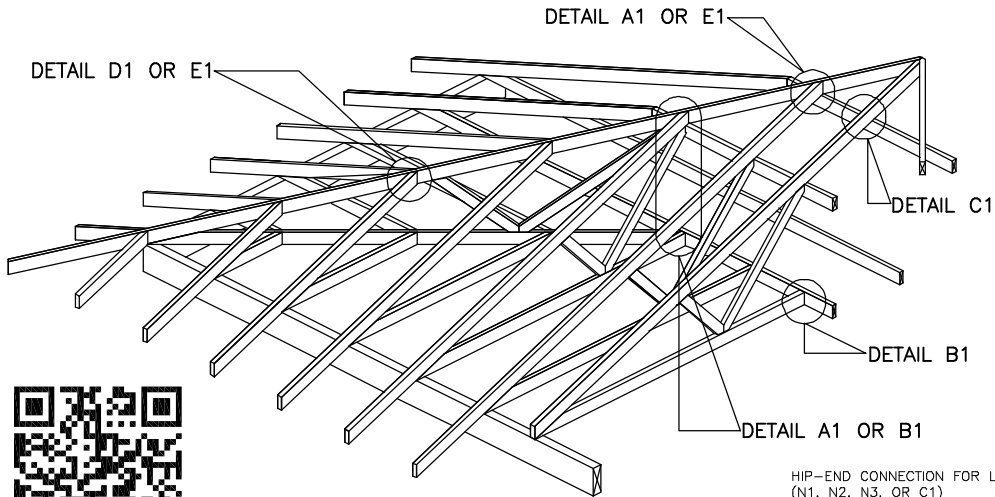
ASIDE OF THE SCOPE'S CASE MUST BE CHECKED BY 'WOODSON ENGINEERING'

FOR N1/N2 TILED ROOF, FIXINGS & TIEDOWNS AS PER AS1684.2 SECTION 9

CONNECTIONS AS PER AS4440 SECTION 5

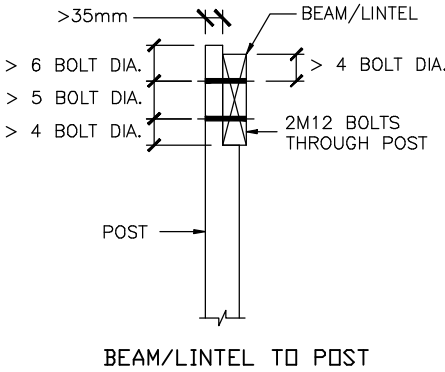
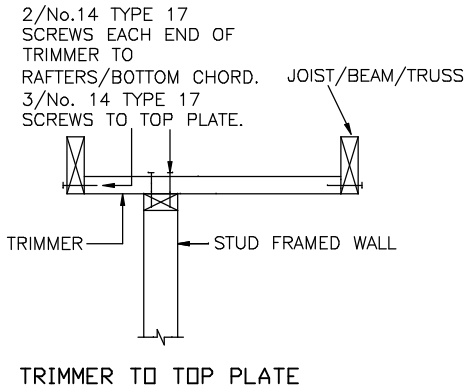


LOCATION OF TIE DOWN	TYPE OF TIE DOWN -ULW DEFINATION REFER TO AS1684.2 FIGURE 9.5
BOTTOM PLATE TO SLAB	M10 DYNABOLT or SCREW-BOLT @ 1200 c/c I.A.W MANUFACTURER'S RECOMMENDATIONS
STUDS TO PLATES-LOAD BEARING WALLS	2/90x3.05mm MACHINE DRIVEN NAILS @ 600mm c/c
STUDS TO BOTTOM PLATES-LOAD BEARING WALLS	1/30x0.8mm G.I STRAP 6 NAILS PER LEG @ 1200mm c/c
NOGGINGS TO STUDS	2/75mm NAILS @ 600mm c/c
TRUSS/RAFTER FIXING TO TOP PLATE	3/2.8Ø NAILS & 2/30x0.8 STRAP (ULW UP TO 6M) 5/2.8Ø NAILS & 1/30x0.8 (LOOPED)STRAP (ULW 6M TO 7M)
OPENINGS UP TO 1210 TO WALL FRAME	1/30x0.8 STRAP 6 NAILS PER LEG & 1/M10 BOLT EACH END (ULW UP TO 6M) 2/30x0.8 STRAP 4 NAILS PER LEG & 1/M10 BOLT EACH END (ULW 6M TO 7M)
OPENINGS UP TO 2410 TO WALL FRAME	2/30x0.8 STRAP 4 NAILS PER LEG & 1/M10 BOLT EACH END (ULW UP TO 4M) 2/30x0.8 STRAP 6 NAILS PER LEG & 1/M12 BOLT EACH END (ULW 4M TO 6M) M10 BOLT FIX LINTEL TO PLATE (ULW 6M TO 7M)
OPENINGS UP TO 3010 TO WALL FRAME	2/30x0.8 STRAP 6 NAILS PER LEG & 1/M12 BOLT EACH END (ULW UP TO 5M) M10 BOLT FIX LINTEL TO PLATE (ULW 5M TO 7M)
OPENINGS UP TO 4210 TO WALL FRAME	M10 BOLT FIX LINTEL TO PLATE (ULW UP TO 5M) M12 BOLT FIX LINTEL TO PLATE (ULW 5M TO 7M)
BEAMS/LINTELS TO POSTS	2/M12 BOLTS
ROOF BATTEN/PURLIN - END SPACING 1200	1/NO.14 x 90 mm TYPE 17 SCREW
GENERAL AREA	1/NO.14 x 90 mm TYPE 17 SCREW
CEILING JOIST TO TOP PLATE	2/75mm NAILS



HIP-END CONNECTION FOR LOW WIND AREA (N1, N2, N3, OR C1)

CONNECTION OF JACKS, CREEPER, AND HIP TRUSSES AT THE HIP-END ROOF FOR DIFFERENT WIND CLASS SHALL BE IN ACCORDANCE WITH THE TRUSS LAYOUTS, INSTALLATION GUIDE, AND DETAILS OF AS4440



Woodson Design

Engineering & Building Services

© 2022

Woodson Engineering Pty Ltd

Consulting Engineers

ABN 45 663 987 424

P.O. BOX 2033, HILTON, SA 5033

Telephone: (08) 8120 0211

Email: woodson@woodsondesign.com

Website: www.woodsondesign.com.au

G1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ARCHITECT'S AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.

G2. IF IN DOUBT, VERIFY WITH THE RELEVANT PARTY AS NECESSARY.

G3. REFER ANY DISCREPANCY, AMBIGUITY, OMISSION OR INCONSISTENCY TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK

G4. DO NOT OBTAIN DIMENSIONS BY SCALING THE STRUCTURAL ELEMENTS.

G5. VERIFY ALL SETTING OUT DIMENSIONS WITH THE CONTRACT ADMINISTRATOR.

G6. SETTING OUT DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO CONSTRUCTION/FABRICATION, WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.

G7. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (BCA), THE APPROPRIATE AUSTRALIAN STANDARDS, THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

G8. IT IS THE BUILDER'S RESPONSIBILITY TO CHECK AND CONFIRM ALL DETAILS ON THE LAYOUTS, LISTS AND DETAILS SHEETS BEFORE MANUFACTURE. WOODSON ENGINEERING WILL NOT ACCEPT RESPONSIBILITY FOR ERRORS AND/OR OMISSIONS. WOODSON ENGINEERING PROVIDES NO CONDITION, WARRANTY OR REPRESENTATION WHATSOEVER AND ANY RELIANCE ON THIS FRAME DESIGN BY YOU SHALL BE AT YOUR OWN RISK.

G9. WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL WORKCOVER REQUIREMENTS AND THE WORK HEALTH AND SAFETY ACT AND THE WORK HEALTH AND SAFETY REGULATION.

G10. CONSTRUCTION SHALL NOT COMMENCE UNTIL THE RELEVANT CONSTRUCTION CERTIFICATE IS ISSUED BY THE PRINCIPAL CERTIFYING AUTHORITY.

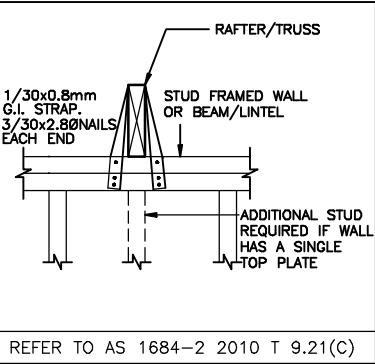
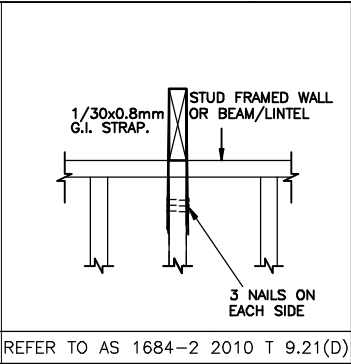
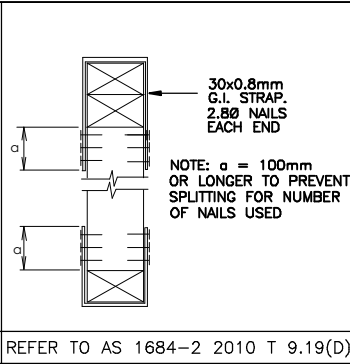
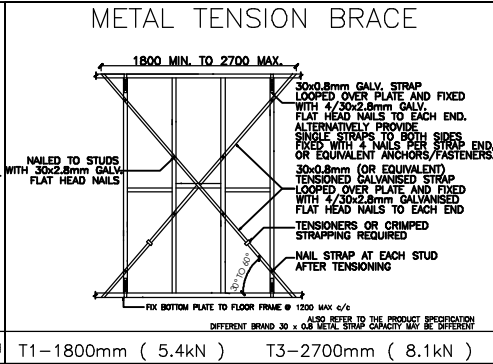
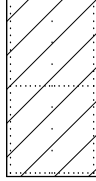
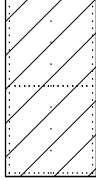
G11. SERVICES SHOWN ON DRAWINGS ARE INDICATIVE ONLY. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION WORKS, THE CONTRACTOR IS TO IDENTIFY ALL EXISTING SERVICES. ANY DAMAGES TO THE EXISTING SERVICES ARE TO BE RECTIFIED AT THE CONTRACTOR'S EXPENSE.

G12. THE DRAWINGS MAY NOT SHOW ALL DETAILS OF FIXTURES, INSERTS, SLEEVES, OPENINGS ETC. REQUIRED BY THE VARIOUS TRADES. ALL SUCH DETAILS, INCLUDING RECESSES AND CHASES, ARE TO BE APPROVED BY THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE CONSTRUCTION.

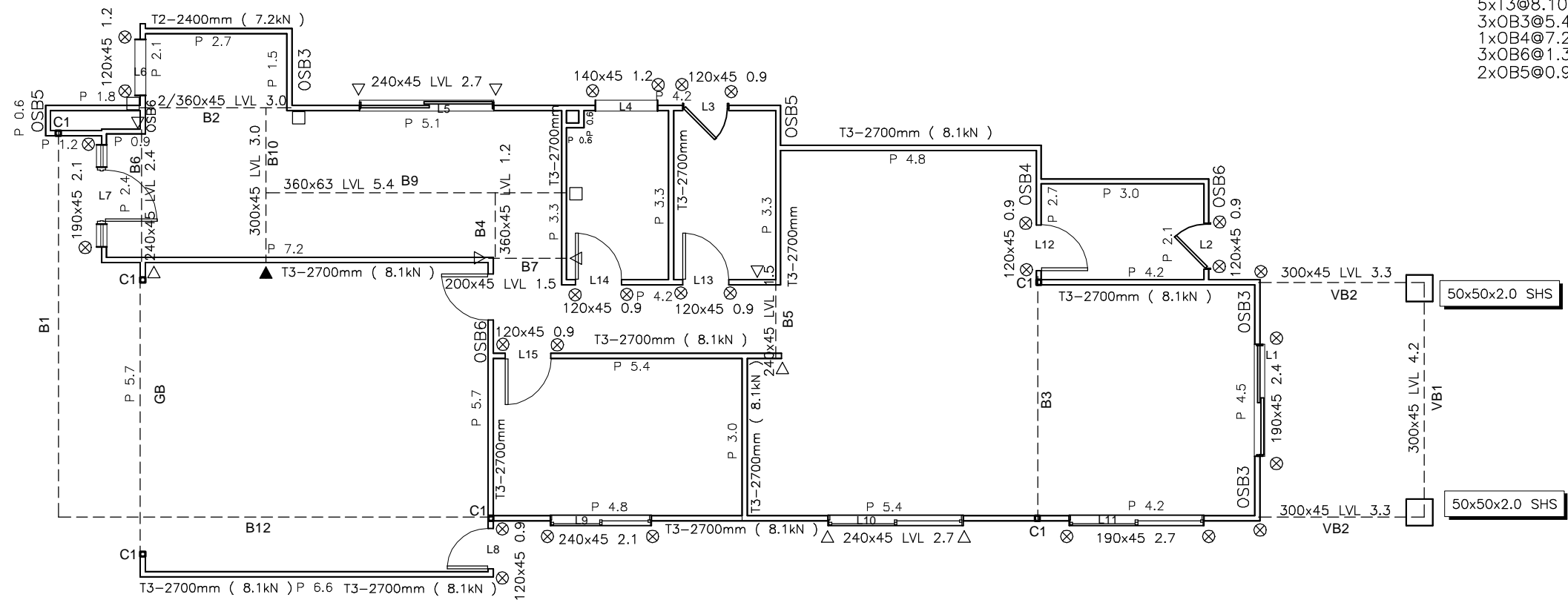
G13. THE CONTENTS OF THESE DOCUMENTS CONTAIN CONFIDENTIAL AND INTELLECTUAL INFORMATION, WHICH IS THE ABSOLUTE PROPERTY OF WOODSON ENGINEERING PTY LTD. YOU MUST AT ALL TIMES PRESERVE, KEEP SECRET AND NOT PUBLISH, DISCLOSE OR DIVULGE THE CONTENTS OF THESE DOCUMENTS. ANY BREACH OF THIS CLAUSE MAY RENDER YOU LIABLE TO ACTION INCLUDING WITHOUT LIMITATION CIVIL PROCEEDINGS FOR INJUNCTIVE RELIEF AND/OR DAMAGES SUSTAINED BY WOODSON DESIGN AND/OR ASSOCIATED ENTITIES. YOUR OBLIGATIONS PURSUANT TO THE FOREGOING ARE ONGOING.

G14. WHERE STRUCTURAL INSPECTIONS ARE REQUIRED FOR CERTIFICATION, THE INSPECTIONS ARE TO BE PERFORMED BY THE STRUCTURAL ENGINEER FROM WOODSON ENGINEERING PTY LTD. THE CONTRACTOR IS REQUIRED TO ALLOW TIME FOR THE STRUCTURAL ENGINEER TO INSPECT. INSPECTIONS BY ENGINEERS FROM OTHER COMPANIES BASED ON OUR DRAWINGS AND ENGINEERING DESIGNS MAY NOT BE RECOGNIZED.

G15. ALL CONNECTIONS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. SIMILAR OR ALTERNATIVE CONNECTIONS ARE ALLOWED SUBJECT TO PRIOR APPROVAL FROM WOODSON DESIGN'S ENGINEERS.

				<p>OS BRACE TYPE 3</p> <p>AS PER MANUFACTURERS DETAILS</p> <p>(NAILED TO FRAME USING 30x2.8mm Diam.GALV. NAILS)</p> <p>-NAIL MIN 15mm FROM EDGES & 8mm AT BUTT JOINTS.</p> <p>-NAIL 150mm CTRS AT VERTICAL EDGES & 300mm CTRS TO INTERMEDIATE STUDS.</p> <p>-NAIL 40mm CTRS ALONG BUTT JOINTS BOTH EDGES.</p> <p>-NAIL 40mm CTRS AT TOP & BOTTOM PLATE.</p> <p>-FIX BOTTOM PLATE TO FLOOR FRAME OR SLAB WITH 1 x M10 BOLT OR 2 x #14 TYPE 17 SCREWS OR EQUIVALENT FIXING @ 1200mm MAX CTRS & WITHIN 100mm OF STUDS.</p> 	<p>OS BRACE TYPE 4</p> <p>AS PER MANUFACTURERS DETAILS</p> <p>(NAILED TO FRAME USING 30x2.8mm Diam.GALV. NAILS)</p> <p>-NAIL MIN 15mm FROM EDGES.</p> <p>-NAIL 150mm CTRS AT VERTICAL EDGES</p> <p>-NAIL 80mm CTRS AT TOP & BOTTOM PLATE.</p> <p>-M10 COACH SCREWS 70mm LONG WITH 50x50x3mm WASHER TO ALL 4 CORNERS OF SHEET.</p> <p>-FIX BOTTOM PLATE TO FLOOR FRAME OR SLAB WITH NOMINAL FIXING ONLY.</p> 
REFER TO AS 1684-2 2010 T 9.21(C)	REFER TO AS 1684-2 2010 T 9.21(D)	REFER TO AS 1684-2 2010 T 9.19(D)	T1-1800mm (5.4kN) T2-2400mm (7.2kN) T3-2700mm (8.1kN)	OSB3 - 900mm (5.4kN) OSB4 - 1200mm (7.2kN)	OSB5 - 450mm (0.99kN) OSB6 - 600mm (1.32kN)

GROUND FLOOR WALL LAYOUT



WIND DIRECTION A	
REQUIRED	ACHIEVED
31.4 kN	63.90 kN (203%)
	1xT2@7.20=7.20kN
	7xT3@8.10=56.70kN

WIND DIRECTION B	
REQUIRED	ACHIEVED
68.9 kN	69.84 kN (101.3%)
	5xT3@8.10=40.50kN
	3xOB3@5.4=16.2kN
	1xOB4@7.2=7.2kN
	3xOB6@1.32=3.96kN
	2xOB5@0.99=1.98kN

WALLFRAME DETAILS

DESIGN WIND SPEED = N1
ALL MATERIALS ALLOWED AS PER AS 1684-2010

FLOOR TO CEILING = 3020mm

- LOAD BEARING WALLS
 - TOP PLATES = 90x35 MGP10
 - BOTTOM PLATES = 90x35 MGP10
 - COMMON STUDS = 90x35 MGP10
 - WET AREA 600 c/c 450 c/c
- NON-LOAD BEARING WALLS
 - TOP PLATES = 90x35 MGP10
 - BOTTOM PLATES = 90x35 MGP10
 - COMMON STUDS = 90x35 MGP10
 - WET AREA 600 c/c 450 c/c
- NON-LOAD BEARING WALLS UNDER TRUSSES SETDOWN 20mm
- OPENING STUDS/POINT LOAD STUDS AS SHOWN BELOW

× 1/90x45 MGP10
⊗ 2/90x35 MGP10
△ 2/90x45 MGP10
▲ 3/90x35 MGP10
□ 3/90x45 MGP10

WIND DIRECTION A → WIND DIRECTION B ↑

- BRACING

WIND DIRECTION A RESISTANCE

REQUIRED - 31.4 kN
ACHIEVED - 63.9 kN

- BRACING

WIND DIRECTION B RESISTANCE

REQUIRED - 68.9 kN
ACHIEVED - 69.84 kN

SHEET BRACING VALUES GIVEN HAVE BEEN REDUCED BY 16% AS PER MANUFACTURERS DETAILS FOR JD5 TIMBER

NOTE: IF WALL HAS A SINGLE TOP PLATE TRUSSES AND RAFTERS TO BE POSITIONED DIRECTLY OVER STUDS

DATE	REVISION	ISSUE
0/0/0000	0	FOR APPROVAL

CLIENT: EXAMPLE

PROJECT: EXAMPLE

JOB No: 00000
DRAWING No:

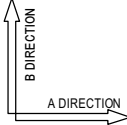


Woodson Engineering Pty Ltd
ABN 45 663 987 424
P.O. BOX 2033, HILTON, SA 5033
Telephone: (08) 8120 0211
Email: woodson@woodsondesign.com
Website: www.woodsondesign.com.au

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

NO.	ENGINEER:CF/AH	DRAWN BY: GL	REV
SCALE A3 1:100	SHEET 1 OF 1	DATE NOV'23	0

COLUMNS & BEAMS SCHEDULE	
MARK	SIZE
C1	89x89x3.5 SHS
B1	250 PFC
B12	300 PFC
GB	300 PFC
B3	300 PFC



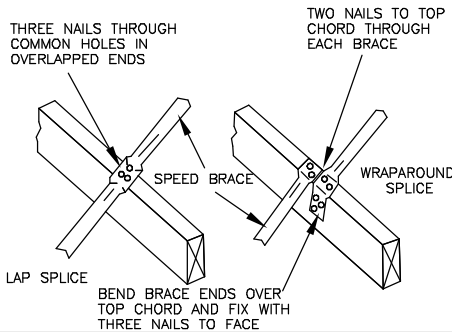
- T/C RESTRAINT: REFER TO TRUSS LAYOUT & CALCS
- B/C RESTRAINT 1800mm MAX C/C
- PURLINS STEEL BY OTHERS AS PER TRUSS LAYOUT/CALCS

DETAIL REFER TO AS4440
FIGURE 4.20
FIGURE 4.21
FIGURE 4.22
FIGURE 4.23
TRUSSES DETAILS REFER TO TRUSS CALCS & LAYOUT

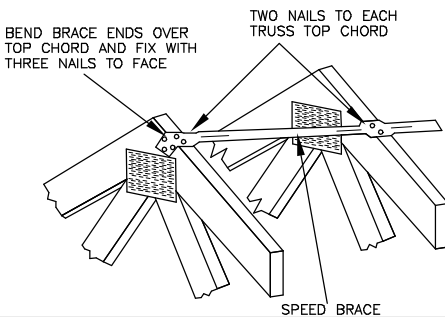
A/C DETAILS
WEIGHT: 100 Kg MAX
SIZE OF OPENING TO BE
CONFIRMED BY CONTRACTOR.

A/C - APPROX A/C LOCATION

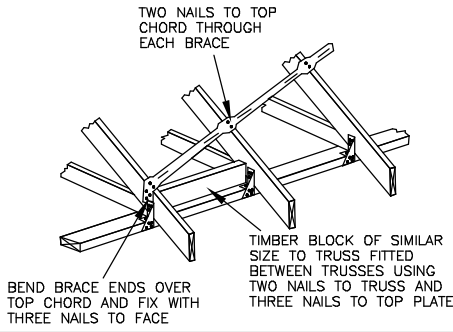
SPEED BRACE SPlicing DETAILS



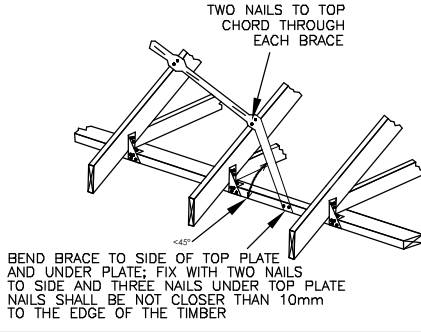
SPEED BRACE FIXING DETAILS AT APEX



SPEED BRACE FIXING DETAILS AT HEEL (ALTERNATIVE)



SPEED BRACE FIXING DETAILS AT HEEL



ROOF FRAME DETAILS

- DESIGN WIND SPEED = N1
ALL MATERIALS ALLOWED AS PER AS 1684-2010
- RIDGE = 190x35 MGP10
 - HIPS = 190x35 MGP10
 - VALLEY TRIM = 90x35 MGP10
 - CEILING JOISTS = 90x35 MGP10 600 c/c
 - RAFTERS = 120x35 MGP10
 - HANGING BEMS = 120x35 MGP10 1800 c/c
 - B/C TIES = 90x35 MGP10

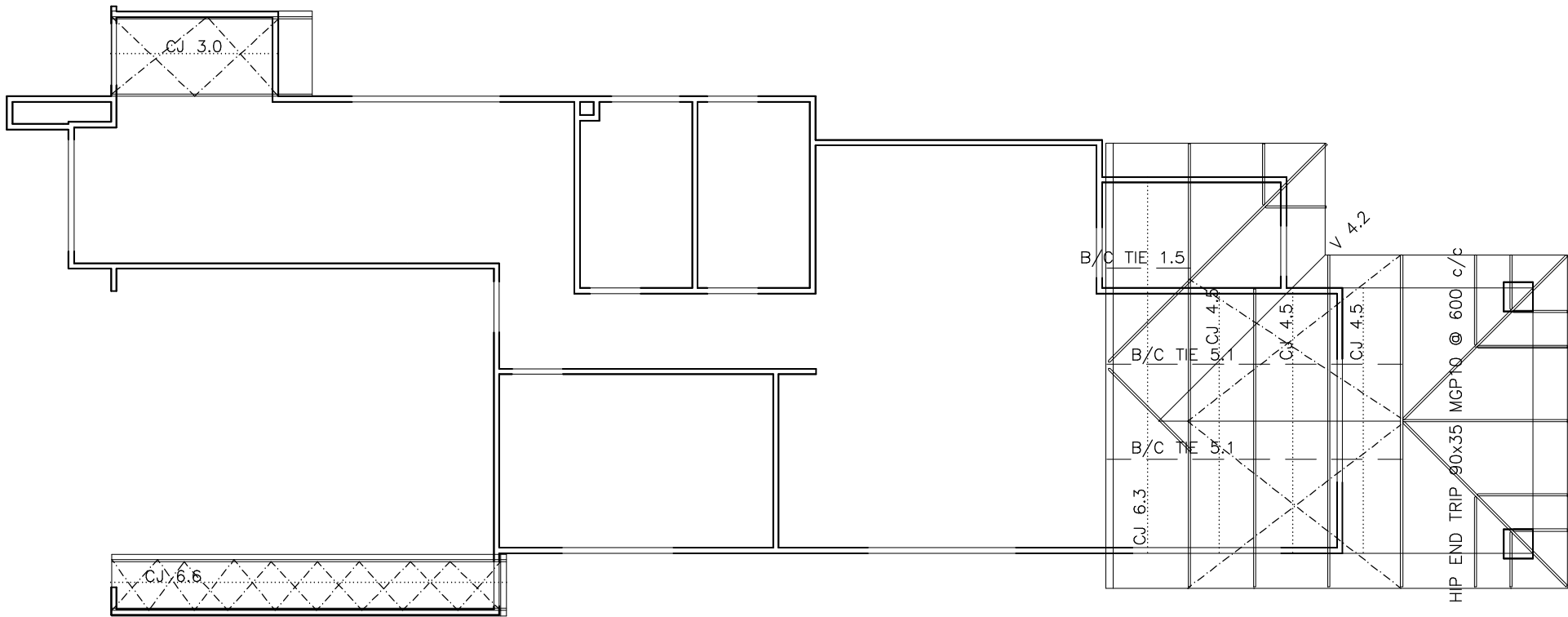
TRUSSES & BRACING TO BE INSTALLED, ERECTED & BRACED IN ACCORDANCE WITH AS4440

- - SPEED BRACE
- - HANGING BEAMS
- - B/C TIE
- - CEILING JOISTS

NOTE: TRUSSES AND RAFTERS TO BE POSITIONED DIRECTLY OVER STUDS IF WALL HAS A SINGLE TOP PLATE & OVERHANG TIED BACK TO WALL FRAME

THE ROOF TRUSS CALCS UPLIFT REPORT FOR THIS SITE CONTAINS OTHER RELEVANT DETAILS ALL FRAMING TO BE JD5 MATERIAL UNLESS NOTED OTHERWISE. THIS MEANS THAT UNIDENTIFIED IMPORTED SOFTWOODS SHAL NOT BE SUBSTITUTED FOR AUSTRALIAN RADIATA PINE.

UNLESS SHOWN OTHERWISE ON LAYOUT, NO SPECIAL LOADS HAVE BEEN ALLOWED. FOR EXAMPLE - A/C UNITS, SOLAR PANELS, HOT WATER SYSTEMS ETC.



DATE	REVISION	ISSUE
0/0/0000	0	FOR APPROVAL

CLIENT:
EXAMPLE

PROJECT:
EXAMPLE

JOB No: 00000
DRAWING No:

Woodson Design
Engineering & Building Services

Woodson Engineering Pty Ltd
ABN 45 663 987 424
P.O. BOX 2033, HILTON, SA 5033
Telephone: (08) 8120 0211
Email: woodson@woodsondesign.com.au
Website: www.woodsondesign.com.au

TRUSS DETAILS
REFER TO
LAYOUTS FROM

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

NO.	DETAILER:EL	DRAWN BY: EL	REV
SCALE	SHEET 1 OF 1	DATE NOV'23	0