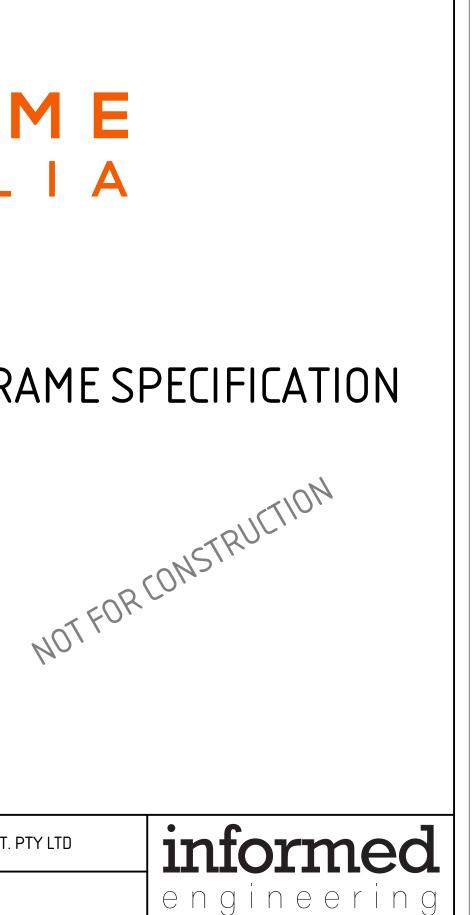


# METFRAME AUST. PTY LTD - LIGHT GUAGE STEEL FRAME SPECIFICATION

PROPOSED RESIDENCE STREET ADDRESS SUBURB

REV 0	BY RW	ISSUE / REVISION DESCRIPTION NOT FOR CONSTRUCTION	DATE XX.XX.23	COVER PAGE	PROJECT No.	CLIENT METFRAME AUST. PTY LTD
	INF	FORMED ENGINEERING PTY LTD ABN 72641093656 PO BOX 4055, BALWYN EAST, VIC 3103		APPROVED BY RUSSELL WHITE MIE Aust CPEng NER RPEQ RBP BPB	001 A3	PROJECT



### GENERAL NOTES: Α.

- THE DETAILING, BUILDABILITY AND PURPOSE OF THESE DRAWINGS SHALL BE CHECKED BY THE CLIENT AND THEIR BUILDER IN ORDER TO VERIFY AND DETERMINE THE PRACTICALITY OF THE DESIGN HEREIN ANY ITEMS NOT CONFORMING WITH THE PROJECT ARCHITECTURAL PLAN SHALL BE REFERRED BACK TO THIS OFFICE PRIOR TO CONSTRUCTION
- USE OF THESE DRAWINGS CONFIRMS THAT THE CLIENT UNDERSTANDS THE DETAILS AND HAS THE RESPONSIBILITY TO PERFORM THE EXECUTION OF THE WORKS INVOLVED.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL PLANS AND OTHER CONSULTANTS WORKS AND/OR SPECIFICATIONS. ANY SUCH OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE DEVELOPMENT OF THE PROJECT, SHALL REFER ALL DISCREPANCIES TO THE RELEVANT CONSULTANT FOR DECISION PRIOR TO PROCEEDING WITH THE WORK
- DO NOT SCALE DIMESIONS FROM THE STRUCTURAL DRAWINGS. DIMENSIONS SHOWN ON ALL DRAWINGS 4 SHALL BE CHECKED AND VERIFIED ON SITE BY THE CLIENT
- ALL REFERENCED STANDARDS TO BE THE CURRENT VERSION AT TIME OF CONSTRUCTION.
- ALL WORKS AND MATERIALS TO CONFORM WITH THE PROVISIONS OF THE NATIONAL CONSTRUCTION CODE AND IN ACCORDANCE WITH RELEVANT BUILDING STATE AUTHORITIES
- DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A SAFE AND STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING AND WORKS ARE TO BE AS PER BUILDERS DETAIL.
- THE ENGINEER MUST BE NOTIFIED IN WRITING OF ANY CHANGES TO THE PROPOSED CONSTRUCTION OR SITE PREPARATION IN ORDER TO MAKE NECESSARY CHANGES AS WARRANTED IN THE DESIGN. SUFFICIENT TIME SHALL BE AWARDED TO PROCESS ANY CLIENT SUPPLIED INFORMATION FOR VARIATION TO THE CONTRACT.

#### FOOTINGS: В.

- ALL WORKS & MATERIALS SHALL BE IN ACCORDANCE WITH AS 2870 AND CONFORM WITH THE NATIONAL CONSTRUCTION CODE
- 2 SUITABLE FOR CLASS A, S, M OR H SITES TO AS2870.
- ANY EXCAVATIONS NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR. CONTACT THE ENGINEER
- 4 FOOTINGS SHALL BE PLACED CENTRALLY UNDER COLUMNS UNLESS OTHERWISE NOTED.
- DRAINAGE SHALL BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING. ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- IF ANY FOOTING IS LOCATED SUCH THAT A 45 DEGREE LINE (FOR CLAY AND 30 DEGREES FOR SAND) FROM ITS BASE INTERSECTS ANY UNDERGROUND SERVICE, THEN PIERS ARE REQUIRED TO BE EXTENDED.

## CONCRETE:

- ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600
- 2 REFER TO CONCRETE TABLE BELOW FOR TYPICAL VALUES.

LOCATION	CONCRETE	MIN COVER U.N.O (mm)
GROUND SLAB	N25/20/100	30 TYPICAL
GROUND SLAB	NZ57Z07100	40 TOP (EXT.)
FOOTINGS	N25/20/100	50 TYPICAL
SUSPENDED SLAB	N32/20/80	30 TYPICAL
303F LINDLD 3LAD	1452720700	20 BTM.

- ALL CONCRETE SHALL BE ADEQUATELY COMPACTED WHEN PLACED IN ACCORDANCE WITH AS3600
- ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH AS3600. ALL CONCRETE SHALL BE CURED CONTINUOUSLY BY APPROVED METHODS AFTER PLACING
- CONSTRUCTION JOINTS IN CONCRETE SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER
- ALL FORMWORK SHALL BE DESIGNED TO WITHSTAND ALL POSSIBLE LOAD COMBINATIONS DURING CONSTRUCTION.
- ALL GALVANIZED ITEMS WHICH ARE CAST INTO CONCRETE SHALL BE PASSIVATED IN ACCORDANCE WITH NCC
- SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE TO THE APPROVAL OF THE ENGINEER 8
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED, OTHER THAN TACK WELDING FOR PURPOSE OF MAINTAINING BARS IN CORRECT POSITIONS, UNLESS SPECIFICALLY NOMINATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- REINFORCEMENT SYMBOLS 10
  - DENOTES GRADE D500 HIGH STRENGTH DEFORMED BARS TO AS 4671. - DENOTES GRADE R250 HOT ROLLED PLAIN BARS TO AS 4671.
  - DENOTES HARD-DRAWN WIRE SQUARE REINFORCING FABRIC TO AS 4671
  - DENOTES HARD-DRAWN WIRE RECTANGULAR REINFORCING FABRIC TO AS 4671 RL
  - DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS 4671

- DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS 467 THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN MILLIMETRES.

- MESH REINFORCEMENT TO BE LAPPED AT LEAST 2 PARALLEL WIRES PLUS 25mm. 11. REINFORCEMENT SHALL BE PLACED WITH ACCURATE COVER AS NOTED
- 12 ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS GENERALLY AT NOT GREATER THAN 800 CENTRES IN ORDER TO MAINTAIN THE NOMINATED POSITION AND COVER BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS WITH WIRE TIES

## STRUCTURAL STEELWORK: D.

- ALL WORKS AND MATERIALS TO CONFORM WITH AS 4100 STEEL STRUCTURES AS/NZS 4600 COLD-FORMED STEEL STRUCTURES, ALL ALUMINIUM WORK TO AS1664, ALL WORK GENERALLY IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE AND ALL RELEVANT BUILDING STANDARDS AND CODES. ALL WORK ON THIS PROJECT SHALL BE UNDERTAKEN BY COMPETENT PERSONNEL STEELWORK SHALL BE FABRICATED BY FABRICATORS CERTIFIED UNDER THE ASI 'NATIONAL STRUCTURAL STEELWORK COMPLIANCE SCHEME' (NSSCS) (see http://www.scacompliance.com.au/).
- ALL STEELWORK SHALL BE TEMPORARILY BUT SECURELY BRACED, TO MAINTAIN THE STRUCTURE IN A SAFE AND STABLE CONDITION DURING CONSTRUCTION.
- MATERIALS USED FOR GROUTING UNDER STEEL BASE PLATES AND BEARING PLATES SHALL MEET THE REQUIREMENTS DEFINED 3 IN AS/NZS 5131 MINIMUM GROUT STRENGTH (f'c) SHALL BE 30 MPa AND SHALL BE DRY PACK MORTAR RAMMED IN, APPROVED NON-SHRINK GROUT ARE ACCEPTABLE.
- ALL STRUCTURAL STEEL MATERIAL SHALL CONFORM TO THE FOLLOWING TABLE UNO:

COMPONENT	TO CONFORM TO AUST. STANDARDS	MIN GRADE
HOT ROLLED STEEL SECTIONS	AS/NZS 3679.1 TS102	300
PLATE	AS/NZS 3678 TS102	250
FLATS	AS/NZS 1594 TS102	300
HOLLOW SECTIONS	AS/NZS 1163 TS102	
CIRCULAR CHS		C350L0
SQUARE SHS		C350L0
RECTANGULAR RHS		C350L0
WELDED BEAMS & COLUMNS	AS/NZS 3679.2 TS102	300
SHEAR STUDS	AS/NZS 1554.2	380
QUENCHED/TEMPERED PLATE	AS/NZS 3597	690
PURLINS & GIRTS	AS/NZS 1397	450

- WELDING SHALL BE CARRIED OUT BE AN EXPERIENCED OPERATOR IN ACCORDANCE WITH THE PROVISIONS OF AS/NZS 1554.1 5 NON DESTRUCTIVE WELD EXAMINATION IS REQUIRED AND SHALL INCLUDE 100% VISUAL INSPECTION AND FURTHER ADDITIONAL TESTING AS STIPULATED IN AS/NZS 1554 ALL WELDS SHALL BE 6mm CFW SP CATEGORY U.N.O.
- MIN BOLTS SIZE SHALL BE M20 DIAMETER U.N.O. BOLT CATEGORY IS TO BE 8.8/S COMPLYING WITH AS 4100, AS/NZS 1252 & 6 AS/NZS 4291.1. U.N.O. EVIDENCE OF COMPLIANCE WITH THESE CODES SHALL BE NOTED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANISED TO AS/NZS 1214. ALL BOLTS, NUTS AND WASHERS, INCLUDING HOLD DOWN BOLTS, CAST-IN FERRULES AND MASONRY ANCHORS ARE TO BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE ALL GALVANISED COMPONENTS TO BE CAST INTO CONCRETE MUST BE PASSIVATED.
- CURRENT EDITIONS OF THE 'DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL' AND THE ASI STANDARDISED STRUCTURAL CONNECTION DETAILS CONTAINED THEREIN. PLATES ARE TO BE 12mm THICK, CUT FROM STANDARD FLAT BARS U.N.O.
- THE STEEL FABRICATOR SHALL PROVIDE THE ENGINEER WITH A COPY OF WORKSHOP, DRAWINGS FOR CERTIFICATION AT 8 LEAST 7 DAYS BEFORE FABRICATION IS STARTED. STEELWORK IS NOT TO BE FABRICATED UNTIL WORKSHOP DRAWINGS ARE APPROVED
- ACCORDANCE WITH NCC VOL. 2 TABLE 3 4 4 2 'PROTECTIVE COATINGS FOR STEEL WORK'
- INDICATED WITH SPLICE LOCATIONS SHOWN ON THE STRUCTURAL DRAWING. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION COMMENCING.
- ALL MEMBERS HAVING A NATURAL CAMBER WITHIN THE STRAIGHTNESS TOLERANCE SHALL BE ERECTED WITH THE NATURAL CAMBER UP
- 13. TECHNICAL NOTE - SITE TESTING GUIDELINES VOLUMES 1 TO 4 (available at ww.aefac.org.au/resources)
- 14 MANUFACTURER'S SPECIFICATIONS
- PENETRATIONS OR CUT-OUTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL
- SCHEME SUCH AS THE ACRS SCHEME (see http://steelcertification.com/). ALTERNATIVE SOURCING OF THIRD PARTY CERTIFIED STRUCTURAL STEEL SHALL BE SUBMITTED FOR REVIEW AND MUST BE APPROVED PRIOR TO THE COMMENCEMENT OF PROCUREMENT
- (PROOF TESTING). A MINIMUM TEST SAMPLE POPULATION SHALL BE THREE SPECIMENS OR 2.5% OF THE TOTAL RELEVANT ANCHOR POPULATION, WHICHEVER IS GREATER. IF A SINGLE FAILURE IS RECORDED, THE MINIMUM TEST SAMPLE POPULATION SHALL BE INCREASED TO SIX TEST SPECIMENS OR 5% OF THE TOTAL RELEVANT ANCHOR POPULATION, WHICHEVER IS GREATER, IF TWO OR MORE TEST SAMPLES FAIL ALL ANCHORS IN THE RELEVANT ANCHOR POPULATION SHALL BE TESTED

# **GENERAL DESIGN CRITERIA:**

IN ACCORDANCE WITH THE FOLLOWING: AS1170 PART 0 & 1 DEAD AND LIVE LOADS AS1170 PART 2 WIND LOADS AS1170 PART 4 EARTHQUAKE LOADS WIND LOADS FOR HOUSING AS4055

50 YEAR STRUCTURE DESIGN WORKING LIFE WIND REGION A TERRAIN CATEGORY 2 IMPORTANCE LEVEL 2 ULT. LIMIT STATE WIND SPEED OF 45m/s SERVICEABILITY LIMIT STATE WIND SPEED OF 37m/s

DESIGN COMPONENT	DESIGNATION	NOTES
WIND CLASS	N2 ASSUMED	IN ACCORDANCE WITH AS4055
ULT. LIMIT STATE WIND SPEED	40m/s	IN ACCORDANCE WITH AS4055
SERV. LIMIT STATE WIND SPEED	26m/s	IN ACCORDANCE WITH AS4055
AVERAGE STRUCTURE HEIGHT	6.5m MAX.	
ROOF CLADDING	STEEL SHEET	
WALL CLADDING	LIGHTWEIGHT SHEET	
EARTHQUAKE HAZARD FACTOR	0.08	IN ACCORDANCE WITH AS1170.4
LIVE LOAD - GROUND FLOOR	1.5kPa (GENERAL)	IN ACCORDANCE WITH AS1170.1
LIVE LOAD - SUSPENDED FLOORS	1.5kPa, 2.0kPa (BALCONY)	IN ACCORDANCE WITH AS1170.1
LIVE LOAD - ROOFS	0.25kPa UNO	IN ACCORDANCE WITH AS1170.1

# SPECIFICATION NOTES

COLD FORMED STEEL FRAMING WORKS (INCL. ROOF/WALL/FLOOR TRUSS FRAMING SYSTEMS)

CARE SHALL BE TAKEN AT ALL TIMES THAT FRAMES ARE NOT DAMAGED IN ANY WAY. ANY DAMAGE TO THE FRAMES' GALVANIZED COATING SHALL BE REPAIRED BY USING COLD GALVANIZING PRIMER DIRECT FIX CEILING CLADDINGTO TRUSSES SPACED AT 600CRS MAX. IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS WINDOWS OR DOORS ARE NOT TO BE ATTACHED OR APPLY WIND LOADS TO HEADER SILL. STUD HEIGHT IS MEASURED FROM FLOOR LEVEL TO CEILING RESTRAINT LEVEL. (U.N.O.). PRIOR TO PROCEEDING

2

10.

- ALL SHS/RHS/CHS HOLLOW SECTIONS TO BE G350 MIN UNO. 6
- STRUCTURES/SERVICES OCCURS ON THIS SITE (OR ADJACENT SITES).
- CERTIFICATION DOES NOT EXTEND TO CERTIFICATION OF EXISTING STRUCTURES.
- ERECTION AND INSTALLATION

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT		
0	RW	NOT FOR CONSTRUCTION	XX.XX.23	SPECIFICATION	XXXXXX	METFRAME AUST. PTY LTD		
				STEERIEATION				
				APPROVED BY		PROJECT		
				RUSSELL WHITE	NTS 101 A3	XXXXXX		
	INF	ORMED ENGINEERING PTY LTD ABN 72641093656 PO BOX 4055, BALWYN EAST, VIC 3103		MIE Aust CPEng NER RPEQ RBP BPB				

- A MINIMUM OF TWO THREADS SHALL EXTEND PAST THE NUT
- ALL DETAILING WHERE NOT SPECIFICALLY SHOWN SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STEEL INSTITUTE 7.

THE ENDS OF HOLLOW SECTION MEMBERS SHALL BE SEALED WITH NOMINAL THICKNESS PLATES AND CONTINUOUS SEAL WELDED UNLESS NOTED OTHERWISE. IF HOLLOW SECTIONS ARE TO BE HOT-DIP GALVANIZED, VENT AND DRAINAGE HOLES SHALL BE PROVIDED CONFORMING TO THE REQUIREMENTS.

- ALL DIMENSIONS ARE MILLIMETRES U.N.O. 9
- UNLESS NOTED OTHERWISE, PROTECTIVE COATINGS FOR STEELWORK SHALL BE TREATED IN
- ALL STRUCTURAL STEELWORK MEMBERS SHALL BE SUPPLIED IN A SINGLE LENGTH, EXCEPT WHERE OTHERWISE
- - ALL SITE TESTING OF POST-INSTALLED ANCHORS SHALL BE UNDERTAKEN ACCORDING TO THE REQUIREMENTS OF AEFAC
  - PROPRIETARY ITEMS (E.G. PURLINS, ROOF/WALL SHEETING, FERRULES) SHALL BE INSTALLED IN ACCORDANCE WITH THE
- ALL CUTTING HOLING AND SHAPING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131 15.
- ALL STRUCTURAL STEEL SHALL BE SOURCED FROM MILLS WITH A RELEVANT JAS ANZ ACCREDITED THIRD PARTY CERTIFICATION
- SITE TESTING SHALL BE PERFORMED ON MECHANICAL AND CHEMICAL ANCHORS TO VALIDATE CORRECT INSTALLATION

THE DESIGN SPECIFICATION IS ONLY SUITABLE FOR THE ADDRESS SHOWN IN THE TITLEBLOCK. THIS DESIGN SPECIFICATION IS SUITABLE FOR ONE BUILDING ONLY UND. PLEASE CONFIRM WITH INFORMED ENGINEERING THAT THESE DRAWINGS HAVE BEEN APPROVED. THE NOTES MAY BE LIMITED IN NATURE AND THE STRUCTURES

SUITABILITY MUST BE CONFIRMED AS THE LIMITATIONS CAN BE EXCEEDED. THIS DESIGN SPECIFICATION IS ADDRESS SPECIFIC AND IS NOT AUTHORISED TO BE USED AT ANY TIME FOR ANY I OCATION OTHER THAN THE STRUCTURE SPECIFIED ON THE CERTIFICATE OF COMPLIANCE IF THE STRUCTURE IS MOVED OF THE GEOMETRICAL CONFIGURATION IS CHANGED THEN A NEW CERTIFICATION IS TO BE ISSUED. IF ANY OF THE SPECIFIED LIMITS ARE EXCEEDED THE ENGINEER IS TO BE CONTACTED BEFORE PROCEEDING.

DESIGN LOAD ACTIONS (PERMANENT, LIVE, WIND) INCLUDED IN THE DESIGN OF THE STRUCTURE ARE DEFINED

ALL FRAMING SECTIONS TO BE MANUFACTURED FROM CONTINUOUS GALVANISED SHEET STEEL CONFORMING TO AS1397. ANY WELDING OF FRAMES SHALL BE BY THE METAL INERT GAS TECHNIQUE (MIG). CONFORMING TO AS 1554.

ALL FRAMES SHALL BE CHECKED ON SITE FOR COMPLIANCE WITH MANUFACTURER'S SPECIFICATION.

CUTTING OR DRILLING INTO FRAMES OR MODIFICATION IN ANY WAY OTHER THAN AS SHOWN ON THESE PLANS SHALL ONLY BE DONE WITH THE EXPRESS AUTHORITY OF THE ENGINEER HOLES FOR PLUMBING OR ELECTRICAL SERVICES MAY BE EITHER PLAIN HOLES OR FLANGED HOLES TO A MAXIMUM OF 50mm DIAMETER PROVIDED NOT MORE THAN 2 HOLES ARE EMPLOYED. THE HOLES CANNOT BE ADJACENT TO ONE ANOTHER AND MUST BE LOCATED WITHIN 100mm OFF END AND MIDSPAN POINTS OF THE STUD

SEATING FOR TRUSSES SHALL BE TRUE TO LINE AND LEVEL BEFORE ERECTION COMMENCES TO ENSURE EVEN, UNIFORM BEARING AND SUCH SEATINGS SHALL NOT BE LESS THAN 70mm MIN. IN LENGTH AND THAN THAT SHOWN ON THE DRAWINGS, WHICHEVER GREATER. WHERE SCREWS PROTRUDE BELOW BOTTOM OF TRUSSES. WAFER HEAD TEKS ARE TO BE USED INSTEAD OF HEX HEAD TEKS.

ALL SIGNED DRAWINGS INDICATE THAT DRAWINGS ARE TO BE BUILT TO THE CORRESPONDING CERTIFIED SPECIFICATION PROVIDED.

IF ANY OF THESE CRITERIA ARE EXCEEDED AND NOT MARKED ON THE ENGINEERS PLAN. REFER BACK TO THE ENGINEER FOR ADVICE

ALL FABRICATION AND ERECTION OF STEELWORK TO BE IN ACCORDANCE WITH AS4100, AS4600 AND A 1614 FUR ALUMINIUM REFER NASH STANDARD - DESIGN SOLUTIONS PART 2 FOR GUIDELINES FOR INSTALLATION (ANUALS. REPAIR ALL WELDS WITH COLD GALVANIZING PAINT. ALL COATINGS AND HARDWARE, BOLLS, SCREWS TO SUIT EXPOSURE

ALL TIMBER WORKS AND MATERIALS ARE TO COMPLY WITH THE PROVISION OF AS 584 WD AS 1720. IT IS THE RESPONSIBILITY OF THE CLIENT TO INFORM THE OWNER OF THE IMPORTANCE OF MAINTAINING EXTERNAL STRUCTURAL TIMBERS BY WAY OF PAINTING OR SIMILAR PROTECTION..

SEAL ALL OPEN ENDS OF HOLLOW SECTIONS WITH 3PL SEAL OLD PILATES OR TO BUILDERS DETAILS. PROVIDE Ø5 DRAIN HOLE IN SEAL PLATES AS REQUIRED. REMOVE ALL SHARP LIDEES ANI BURRS. ALL DISSIMILAR METALS TO BE ISOLATED WITH COAD-BEARING PLASTIC WASHERS, SPACERS AND SLEEVES TO BUILDER'S DETAILS.

A COMPLIANCE INSPECTION OF THE AS-CONSTRUCTED PROJECT SHALL BE PERFORMED BY A REPRESENTATIVE OF THIS OFFICE, SHOULD A CERTIFICATE OF INSPECTION BE OF UIK 10. ALL STRUCTURAL WORK MUST BE INSPECTED AND APPROVED IN WRITING. THE CLIENT IS FULLY RESPONSIBLE FOR ENSURING VALSECT INSPECTIONS ARE ARRANGED WITH AND CONDUCTED BY THE ENGINEER.

THE DESIGN IS TO BE ERECTED STRICTLY IN ACCORDANCE WITH THE CERTIFIED SITE PLAN AND STANDARD DRAWINGS SUPPLIED BY THIS OFFICE. CONFORMITY WITH ALL STATUTORY OR LOCAL BUILDING AUTHORITY REGULATIONS IS THE BUILDER'S RESPONSIBILITY.

CONTACT THE STRUCTURAL ENGINEER FOR PROPER ADVICE WHEN SURCHARGING OR UNDERMINING OF EXISTING

ANY EXISTING STRUCTURE IS TO BE BY OTHERS ALL EXISTING FLEMENTS ARE TO BE DETERMINED AS STRUCTURALLY ADEQUATE IN ORDER TO CARRY THE IMPOSED LOADING OF THE PROPOSED STRUCTURES, BY A CERTIFED PRACTICING ENGINEER. THIS DESIGN

THE MEMBER SIZES SHOWN ON THIS DESIGN ARE THE MINIMUM SIZES DEEMED NECESSARY TO FULFILL THE INTENT OF THE STRUCTURAL DESIGN. REFER BACK TO THIS OFFICE SHOULD ANY ITEMS BE DEVIATED FROM DURING THE COURSE OF FABRICATION,



# WALL FRAME FIXING CRITERIA AND SPECIFICATION

THE WALLFRAME SPECIFICATION IS BASED ON WIND REGION A. TC3 AND ROOF LOAD WIDTH (RLW) = 4.5m

	SECTION	FASTENER (UNO)	SPACING	TIE DOWN AND ADDITIONAL NOTES	
1. BOTTOM PLATE				AND TO SUIT MANUFACTURER SPECIFICATION	A 2x M16 CHEMSET ANCHORS,
EXTERNAL	90x0.75 G550 STUD	NA	NA		150mm MIN EMBEDMENT.
INT. LOAD BEARING	90x0.75 G550 STUD	NA	NA		
INT. NON LOAD BEARING	90x0.55 G550 STUD	NA	NA		
2. TOP PLATE				AND TO SUIT MANUFACTURER SPECIFICATION	- AAAAAA
EXTERNAL	90x0.75 G550 STUD	NA	NA		
INT. LOAD BEARING	90x0.75 G550 STUD	NA	NA		
INT. NON LOAD BEARING	90x0.75 G550 STUD	NA	NA		
3. VERTICAL (STUDS) UP TO 2.75m STUD HEIGHT				AND TO SUIT MANUFACTURER SPECIFICATION	
EXTERNAL	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT. MAX 1200CTS SPACING.	STEEL COLUMN SUPPORT
INT. LOAD BEARING	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
INT. NON LOAD BEARING	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. MAX 1200CTS SPACING.	NOTE 65mm CONCRETE EDGE DISTANCE UNO
EACH STUD AT END OF K-BRACE (EXT.)	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT. MAX 1200CTS SPACING.	6511111 CONCRETE EDGE DISTANCE ONG
EACH STUD AT END OF K-BRACE (INT.)	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
EACH STUD AT END OF SINGLE STRAP BRACE (INT.)	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
EACH STUD AT END OF SINGLE STRAP BRACE (EXT.)	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	1M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
EACH STUD AT END OF DOUBLE STRAP BRACE (INT.)	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	2M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
EACH STUD AT END OF DOUBLE STRAP BRACE (EXT.)	) 90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	2M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
4. VERTICAL (STUDS) TO SIDES OF OPENINGS UP TO 2.	.75m STUD HEIGHT			AND TO SUIT MANUFACTURER SPECIFICATION	
1.3m MAX. WIDTH	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	NA	1M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT.	
3.3m MAX. WIDTH	2/90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	NA	1M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT.	
4.8m MAX. WIDTH	3/90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	NA	2M10 RAMSET ANKASCREW, 90mm MIN EMBEDMENT.	
4.8m MAX. WIDTH	89 x 3.5mm SHS	FULLY WELD EACH END	NA	2M12 RAMSET CHEMSET REO 502 PLUS TYP 8.8 GRADE THREADED ROD, 90mm MIN EMBEDMENT. MAX 1200CTS SPACING.	
5. WINDOW SILL MEMBER					
SILL MEMBER	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	NA	AND TO SUIT MANUFACTURER SPECIFICATION	
6. WINDOW HEAD WEBS AND VERTICALS (MIN 35° DIA	AGONAL SLOPE)	2			$\wedge$
WEB MEMBER	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	AND TO SUIT MANUFACTURER SPECIFICATION	
* HEAD DEPTH LESS THAN 250mm REQUIRES STEEL B	BEAM OR LINTEL PLATE SPECIFIED & FIX	ED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.			$\leq$
7. STUDS UNDER SILLS	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	600cts MAX.	AND TO SUIT MANUFACTURER SPECIFICATION	
8. NOGGIN	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	1350cts MAX.	AND TO SUIT CLADDING MANUFACTURER SPECIFICATION	
9. BRACE	90x0.75 G550 STUD	2/M6 Framing screws (each stud each end)	NA	SEE BRACE WALL/CEILING CONNECTION DETAILS	
7. <b>D</b> . <b>N</b> . <b>C</b> .				REFER DETAILS FOR BRACE LOCATIONS	
10. FIXING TO MIN. 25MPa CONCRETE SLAB IN ACCORD	DANCE WITH AS3600 BOI TS TO BE MAY	50mm FROM FACE OF STUD WEB			
PLACE ALL BOLTS IN DESIGNATED LOCATIONS PRIOR					
85mm CONCRETE SLAB WITH MIN 300mm DEEP THICKE					

LOCATION TIE DOWN UNO ADDITIONAL NOTES END OF FRAMES 1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT, FOOTING REQUIRED TO SUIT LARGER OPENINGS CONTACT ENGINEER STUDS UNDER TRUSS POINT LOADS 1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. 2M12 RAMSET CHEMSET REO 502 PLUS TYP 8.8 GRADE THREADED ROD, 90mm MIN EMBEDMENT. ADJACENT SHS/RHS SECTIONS BASEPLATE REQUIRED OTHERWISE MAX. 1200mm SPACINGS \* 1M10 RAMSET ANKASCREW, 50mm MIN EMBEDMENT. \* NO WASHER IS REQUIRED FOR FIXING OF INTERNAL NON LOAD BEARING WALLS. WASHERS ARE ALWAYS REQUIRED AT BOTH ENDS OF A BRACE OR ADJACENT TO AN OPENING. \*\* Ø14mm HOLE TYP. IN 50x3mm G300+ WASHER, MIN 50mm CONCRETE EDGE DISTANCE TO ALL BOLTS UNO.

11. FIXING TO STEEL FLOOR, UNO TEKS 50mm MAX. FROM FACE OF WEB, SPACED EVENLY ACROSS PLATE

TEKS TO BE PLACED MIN 15mm FROM ANY EDGE AND ADJACENT TEKS. STEEL JOIST MEMBER THICKNESS, 1.6mm BMT G450. STEEL TRUSS JOIST MEMBER THICKNESS, 0.95mm BMT G550

PROVIDE TRIMMERS TO MATCH JOIST SIZE, BETWEEN JOIST MEMBERS, TO SUIT WALL BRACING WHEN FIXING REQUIRED BETWEEN JOIST SUPPORTS. REFER DETAILS FOR BRACE LOCATIONS, FIXING TO MANUFACTURERS SPECIFICATION

Location	TIE DOWN UNO	ADDITIONAL NOTES		STL	at		
END OF FRAMES	2x No 12-14 teks	600cts MAX. SPACING				HEADE	ER BOT
VERTICAL (STUDS) UP TO 2.75m STUD HEIGHT							
EXTERNAL	2x No 12-14 teks	600cts MAX. SPACING	TOP PLATE	III T	$\rightarrow$	<del></del>	-
INT. LOAD BEARING	2x No 12-14 teks	600cts MAX. SPACING			۱	M	-   K
INT. NON LOAD BEARING	2x No 12-14 teks	1200cts MAX. SPACING		\ \ '		1	
1.3m MAX. WIDTH	4x No 12-14 teks			_// '	ıl		
3.3m MAX. WIDTH	4x No 12-14 teks		NOGGIN	VV			
4.8m MAX. WIDTH	4x No 12-14 teks *	* ADDITIONAL 30x0.8 PGI STRAP AND 6Nº12 TEK SCREWS. ENSURE MIN 3Nº12 TEKS IS THROUGH STRAP AND INTO THE UPPER FLOOR STUD.		NII N	1		
EACH STUD AT END OF K-BRACE (EXT.)	4x No 12-14 teks			INI '	N	V/	
EACH STUD AT END OF K-BRACE (INT.)	4x No 12-14 teks			IIN '		17	
EACH STUD AT END OF SINGLE STRAP BRACE	4x No 12-14 teks *	* ADDITIONAL 30x0.8 PGI STRAP AND 6Nº12 TEK SCREWS. ENSURE MIN 3Nº12 TEKS IS THROUGH STRAP AND INTO THE UPPER FLOOR STUD.				Λ	
EACH STUD AT END OF DOUBLE STRAP BRACE	4x No 12-14 teks *	* ADDITIONAL 30x0.8 PGI STRAP AND 6Nº12 TEK SCREWS. ENSURE MIN 3Nº12 TEKS IS THROUGH STRAP AND INTO THE UPPER FLOOR STUD.			⊨=-\/ <i>⊨</i>		-
TEKS MAY BE SUBSTITUED WITH No12 SERIES 500 T/	IEKS FOR FIXING TO STEEL GREATER THAN 3mm THICKNESS			-         · ·			
NOTE LARGER OPENINGS REQUIRE SPECIFIC DETAILS	S, CONTACT ENGINEER			-         · ·	// \`		$\mathbf{V}$
			STRAP BRACE REFER DETAIL	1 II I	// <b>\</b>		
			ALL LIV DETAIL	IN LL		MY 2.	

12. WALLFRAME JUNCTIONS

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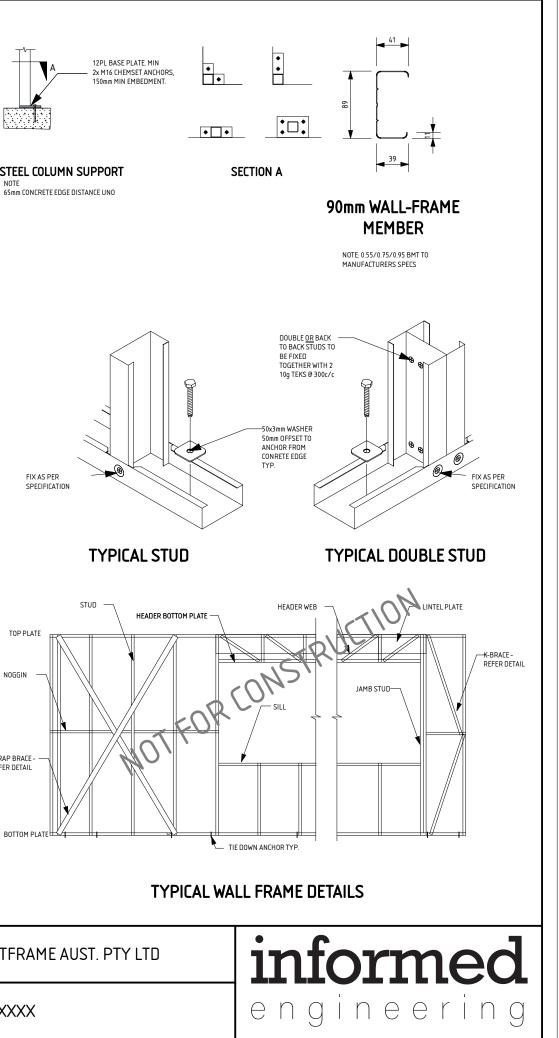
FIX FRAMES TOGETHER USING 2No 12-14 TEKS AT TOP, BOTTOM AND ALL NOGGIN PLATE LOCATIONS. ALT. AT TOP PROVIDE 150mm x 75mm x 1mm BMT PLATE. FIX WITH 4 No 12 TEKS.

## 12. LINTEL PLATE - MIN 1mm BMT G550 x 180mm MIN DEPTH.

FIX LINTEL PLATE USING M6 TEK SCREW (PAN HEAD) OR No 10-16 TEK SCREW OR 2359NG GRIPSHANK SUPERSHARP NAILS AT 200mm MAX SPACINGS TO TOP PLATE LOCATIONS. ADDITIONAL 4x FASTENERS EVENELY SPACED PER VERTICAL AND WEB MEMBER.

#### **ISSUE / REVISION DESCRIPTION** DATE TITLE PROJECT No. CLIENT ΒY RW NOT FOR CONSTRUCTION XX.XX.23 XXXXXX METFRAME AUST. PTY LTD WALL FRAME DETAILS APPROVED BY PROJECT RUSSELL WHITE NTS 201 Α3 XXXXXX MIE Aust CPEng NER RPEQ RBP BPB INFORMED ENGINEERING PTY LTD PO BOX 4055, BALWYN EAST, VIC 3103 ABN 72641093656

AND TO SUIT MANUFACTURER SPECIFICATION

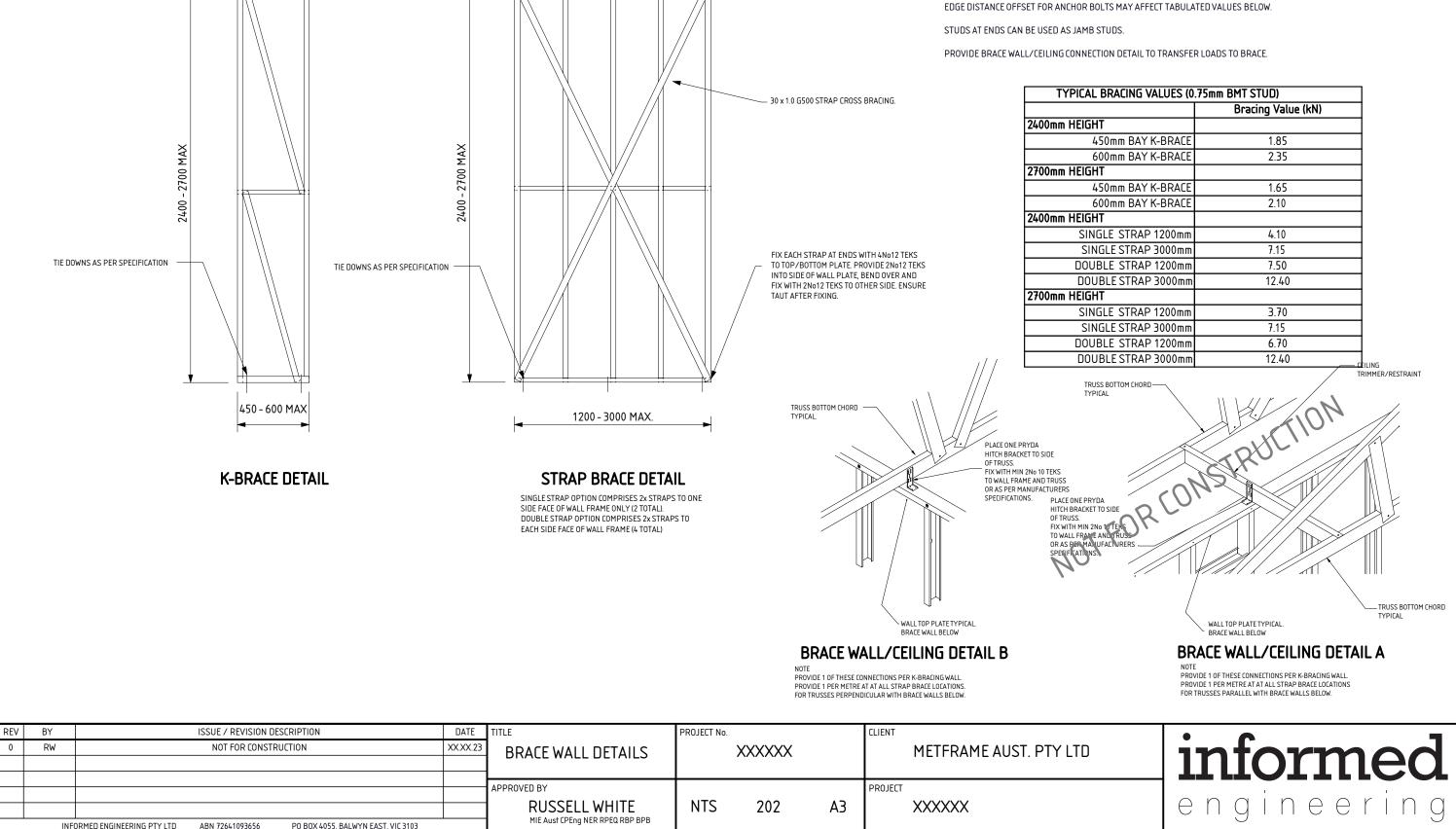


REFER TO AS 1684 AS A GUIDE TO SPACING REQUIREMENTS OF BRACE WALLS. BUILDING WIDTH/LENGTH TO BE CONFIRMED FROM WALLS THAT ARE FROM FULL WIDTH OF THE BUILDING BEING CONSIDERED. SPACING OF BRACE WALLS > 9000mm REQUIRES STRAP CEILING BRACING TO SUIT. EVEN DISTRIBUTION OF BRACING FORCES MUST BE MAINTAINED ACROSS THE BUILDING.

FOR A K BRACE REFER TO A WALL BRACE THAT EXTENDS ACROSS MINIMUM OF 1BAY, AVERAGE WALL FRAME HEIGHT 2.75m. MINIMUM MEMBER SIZE TO BE 90x0.75 STUD. REFER TO K BRACE DETAIL AND TABLE BELOW FOR NOMINAL BRACING CAPACITY.

AVERAGE WALL FRAME HEIGHT 2.45m TO 2.75m. CAPACITY. APPLY STRAP TENSIONER IN ACCORDANCE WITH MANUFACTURER'S SPECS.

ALL VALUES ARE BASED ON CONNECTION CAPACITY INTO 25MPa CONCRETE (REFER TO WALL FRAMES SPECIFICATION). BUT VARIES TO SUIT LENGTH OF BRACE. SMALLER SPACING MAY BE ACCEPTABLE WHEN LOCATION IS MARKED ON THE ENDORSED PLANS.



FOR A STRAP BRACE REFER TO A WALL BRACE THAT EXTENDS ACROSS A MINIMUM OF 1200mm TO A MAXIMUM OF 3000mm,

MINIMUM MEMBER SIZE TO BE 90x0.75 STUD. REFER TO STRAP BRACE DETAIL AND TABLE BELOW FOR NOMINAL BRACING

ING VALUES (0	.75mm BMT STUD)	
	Bracing Value (kN)	
BAY K-BRACE	1.85	
BAY K-BRACE	2.35	
BAY K-BRACE	1.65	
BAY K-BRACE	2.10	
TRAP 1200mm	4.10	
TRAP 3000mm	7.15	
STRAP 1200mm	7.50	
STRAP 3000mm	12.40	
TRAP 1200mm	3.70	
TRAP 3000mm	7.15	
STRAP 1200mm	6.70	
STRAP 3000mm	12.40	ILING

