


STRUCterre consulting

SHIRE OF MANJIMUP

PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP

INDEX TO SHEETS

SHEET	TITLE
S-000	COVER SHEET & DRAWING LIST
S-001	NOTES & SPECIFICATIONS - SHEET 1
S-002	NOTES & SPECIFICATIONS - SHEET 2
S-003	FOOTING DETAILS
S-101	GROUND FLOOR REMEDIATION PLAN
S-102	GROUND FLOOR GENERAL ARRAGEMENT PLAN
S-201	FIRST FLOOR REMEDIATION PLAN
S-202	FIRST FLOOR GENERAL ARRAGEMENT PLAN
S-210	ELEVATIONS 1 & 2
S-211	ELEVATIONS 3 & 3B
S-212	ELEVATIONS 4
S-301	ROOF PLAN

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP
 Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as StrucTerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA W.A. 6021 TEL (08) 9205 4500 EMAIL: commercial@strucTerre.com.au			
PROJECT		PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP	
TITLE		COVER SHEET & DRAWING LIST	
CLIENT		SHIRE OF MANJIMUP	
TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS		
AUTHORISED BY:		SCALE	
		N/A	
		DRAWING REF. No.	REV
		1.21.16706-S-000	B

COPYRIGHT STRUCterre CONSULTING ENGINEERS: THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS.

SHEET SIZE A3

GENERAL NOTES

- THESE DOCUMENTS DESCRIBE THE STRUCTURAL DESIGN OF THE COMPLETED STRUCTURE ONLY.
- CHECK ALL DIMENSIONS ON SITE.
- ALL MATERIAL AND WORK SHALL CONFORM TO THE BUILDING CODE OF AUSTRALIA.
- READ ALL ENGINEERING DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES BETWEEN ENGINEERING AND ARCHITECTURAL DRAWINGS SHALL BE CONFIRMED PRIOR TO COMPLETING TENDER/CONSTRUCTION.
- IN ACCORDANCE WITH THE REQUIREMENTS OF AS/NZS 5131 THE CONSTRUCTION CATEGORIES FOR THIS PROJECT ARE:

ELEMENT	IMPORTANCE LVL	SERVICE CAT	FABRICATION CAT	CONSTRUCTION CAT.
ALL STRUCTURAL STEELWORK	IL2	SC1	FC1	CC2

- DO NOT SCALE FROM THESE DRAWINGS.
- THE METHOD OF CONSTRUCTION & THE MAINTENANCE OF SAFETY DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. IF ANY STRUCTURAL ELEMENT PRESENTS DIFFICULTY IN RESPECT OF CONTRACTIBILITY OR SAFETY, THE MATTER SHALL BE REFERRED TO THE STRUCTURAL ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION & NO PART SHALL BE OVERLOADED. TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR IN ORDER TO KEEP THE BUILDING WORKS & EXCAVATIONS STABLE AT ALL TIMES.
- AT END OF BUILDING SERVICE LIFE, BUILDING OWNER TO ENGAGE A QUALIFIED & REGISTERED REMEDIATION CONTRACTOR TO SAFELY DEMOLISH THE STRUCTURE. A QUALIFIED STRUCTURAL ENGINEER SHOULD ALSO BE ENGAGED TO ASSIST WITH CONDITION ASSESSMENT & SAFE REMEDIATION PROCEDURES.

DESIGN CRITERIA

- LOADS INCLUDED IN THE DESIGN OF THE STRUCTURE ARE AS DEFINED IN AS1170 PART 1: 2002 - DEAD AND LIVE LOADS, AS1170 PART 2: 2011 - WIND LOADS AND AS1170 PART 4: 2007 - EARTHQUAKE LOADS AND LISTED BELOW.
- LIVE LOADS:

LOCATION	LIVE LOAD (kN/sqm)
GROUND SLAB	5.0kPa
SUSPENDED FLOOR (UNO)	3.0kPa
ROOF	0.25kPa
BALCONY	0.25kPa

- WIND LOADS:
WIND REGION A, TERRAIN CATEGORY 2.5
 $M_s = 1.0$ (NO SHIELDING), $M_e = 1.0$ (NOT LOCATED ON WINDWARD SIDE OR CREST OF A HILL).
ULTIMATE = 45 m/s, VSERVICE = 37 m/s
- EARTHQUAKE LOADING: IMPORTANCE LEVEL 2, Z = 0.09 (MANJIMUP), EDCII IN ACCORDANCE WITH AS1170.4 - EARTHQUAKE ACTIONS IN AUSTRALIA.
- BEARING PRESSURE. FOOTINGS HAVE BEEN DESIGNED BASED ON A MINIMUM ALLOWABLE BEARING PRESSURE OF 100kPa.

CONCRETE NOTES

- ALL CONCRETE SHALL BE IN ACCORDANCE WITH AS 3600 - CONCRETE STRUCTURES CODE. BLENDED CEMENT SHALL CONFORM WITH AS 3972.
- REFER TO TABLE FOR CONCRETE STRENGTH.
- REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
R INDICATES PLAIN REINFORCING BAR R250N TO AS/NZS 4671.
L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
RL INDICATES DEFORMED RECTANGULAR MESH D500RL TO AS/NZS 4671.
SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
S INDICATES DEFORMED BARS D250N TO AS/NZS 4671.
TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.
- REINFORCEMENT SHALL BE PLACED WITH ACCURATE COVER AS PER TABLE BELOW.
- ALL GALVANIZED ITEMS WHICH ARE CAST INTO CONCRETE ARE TO BE PASSIVATED IN A 0.2% SODIUM DICHROMATE SOLUTION OR EQUIVALENT.
- ALL FORMWORK SHALL BE RIGIDLY CONSTRUCTED OF APPROVED MATERIAL. FORMWORK AND SUPPORTS SHALL BE DESIGNED TO WITHSTAND ALL POSSIBLE LOAD COMBINATIONS DURING CONSTRUCTION.
- UNLESS OTHERWISE SHOWN, CONSTRUCTION JOINTS IN CONCRETE SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER.
- ALL SLAB CONCRETE SHALL BE CURED BY APPROVED METHODS FOR AT LEAST THE PERIOD SHOWN IN THE TABLE BELOW.
- PLACE 2N16 BARS x 2000 LONG AT 200 CRS U.N.O. ACROSS ALL RE-ENTRANT CORNERS, INCLUDING AT ALL STORMWATER & OTHER SERVICE MANHOLES AND AT BUILDING COLUMNS.
- NO PENETRATION THROUGH CONCRETE WITHOUT PRIOR APPROVAL OF DESIGN ENGINEER.
- NOT LESS THAN 24 HOURS MUST PASS BETWEEN ADJACENT SLAB POURS.
- CONCRETE IS TO BE COMPACTED WITH IMMERSION TYPE VIBRATORS. PARTICULAR ATTENTION TO BE PAID TO AREAS AROUND ANY CAST-IN FIXTURES.
- ALL JOINTS TO BE FILLED WITH BOSTIK SEAL-N-FLEX FC OR EQUIVALENT NOT LESS THAN 56 DAYS AFTER POURING OF SLAB. JOINT TO BE CLEAN AND DRY, AND SEALANT AND BACKING ROD INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S
- THE SLAB SHALL BE FINISHED TO THE LEVELS AND SURFACE FINISH REQUIREMENTS OF THE ARCHITECTS SPECIFICATION.
- THIS DESIGN IS NOT SUITABLE FOR A POLISHED (OR HONED) CONCRETE FINISH UNLESS SPECIFICALLY STATED ON THE FLOOR PLANS. SHOULD SUCH FINISHES BE REQUIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION.

CONCRETE TABLE				
LOCATION	CONCRETE	CEMENT TYPE	COVER TO REINP'	MIN CURING TIME
GROUND SLAB (INT)	N25/20/100	GB OR GP	30	3 DAYS
FOOTINGS	N25/20/100	GB OR GP	50	3 DAYS

FOOTING NOTES

- SITE ASSUMED TO BE CLASS 'M' (MODERATELY REACTIVE, AS DEFINED IN AS 2870 "RESIDENTIAL SLABS AND FOOTINGS". FOOTING DETAILS MAY BE ALTERED SUBJECT TO SITE ASSESSMENT. BUILDER TO CONFIRM ONSITE CONDITIONS OF REPORT TO ENGINEER PRIOR TO CONSTRUCTION.
- PRIOR TO CUTTING BASE, REMOVE ALL VEGETATION, TOPSOIL AND DELETERIOUS FILL MATERIAL.
- NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES, DISCREPANCIES OR SIGNIFICANT VARIATIONS IN SOIL TYPE OVER THE BUILDING AREA WHICH MAY BECOME EVIDENT DURING EARTHWORKS. DO NOT PROCEED WITH CONSTRUCTION UNTIL PROPER ADVICE ACHIEVED.
- PRIOR TO PLACING SAND FILL, ENSURE PREPARED BASE IS DRY.
- SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- ALL SAND TO BE COMPACTED IN WELL WATERED 300mm LAYERS USING CLEAN WELL GRADED SAND TO PROVIDE STANDARD PENETROMETER READINGS OF 7 BLOWS PER 300mm. COMPACT BOTTOMS OF ALL FOOTING TRENCHES WHERE NATURAL SAND PROVIDES PENETROMETER READINGS LESS THAN 6 BLOWS PER 300mm.
- ROOF WATER AND STORMWATER TO BE TAKEN AWAY AND NOT ALLOWED TO PERCOLATE UNDER FOOTINGS. IF NECESSARY CONNECT INTO SUBSOIL DRAIN SYSTEM.
- SURFACE WATER NOT TO POND IMMEDIATELY ADJACENT TO FOOTINGS.
- WHERE PLUMBING PIPES PASS THROUGH THE FOOTINGS, INCREASE FOOTING DEPTH LOCALLY BY AN AMOUNT AT LEAST EQUAL TO THE PIPE DIAMETER.
- BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- ENSURE NO EXISTING STRUCTURES OR SERVICES ON THIS OR ADJACENT PROPERTIES WILL BE SURCHARGED OR UNDERMINED BY THESE WORKS. IF UNSURE, CONTACT THE STRUCTURAL ENGINEER FOR PROPER ADVICE PRIOR TO PROCEEDING
- BUILDER/CONTRACTOR TO CONTACT 'DIAL BEFORE YOU DIG' & CONFIRM LOCATION OF UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF ANY GROUND WORKS.

SOIL PREPARATION NOTES

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS FILL MATERIAL. FILL ALL HOLES WITH CLEAN SAND FILL.
- ALL SUBGRADE SOIL TO BE COMPACTED TO ACHIEVE MIN 8 BLOWS/300mm FOR THE TOP 900mm WHEN TESTED WITH A PERTH SAND PENETROMETER. ALL FILL TO BE COMPACTED FOR ITS FULL DEPTH.
- (a) PROVIDE MIN 150mm COMPACTED CRUSHED LIMESTONE SUB-BASE OF COMPACTED SUB-GRADE.
(b) LIMESTONE TO BE FREE FROM SAND, ROOTS AND OTHER DELETERIOUS MATTER WITH MAX SPALLS SIZE 75mm.
(c) COMPACT SUB-BASE TO ACHIEVE MIN 95% OF MODIFIED MAXIMUM DRY DENSITY, OR AS OTHERWISE SPECIFIED BY THE GEOTECHNICAL REPORT.
(d) SUB-BASE TO BE FINISHED TO ENSURE CONCRETE THICKNESS DOES NOT VARY BY MORE THAN 5%. A 50mm (NOMINAL) LAYER OF CRUSHED FINES MAY BE PROVIDED AS REQUIRED TO SUIT. FINES ARE TO BE COMPACTED TO ACHIEVE MIN 95% OF MODIFIED MAXIMUM DRY DENSITY.

MASONRY NOTES

- ALL MASONRY SHALL COMPLY WITH AS 3700. MORTAR TO BE M3 EXCEPT PROJECTS LOCATED WITHIN 1km OF THE OCEAN MORTAR TO BE M4 CLASSIFICATION. CEMENTS OTHER THAN TYPE GP PORTLAND CEMENT & 100% WHITE PORTLAND CEMENTS SHALL NOT BE USED.
- PROVIDE TWO LAYERS OF PGI OVER SLAB LOADED WALLS EXCEPT RETAINING & SHEAR WALLS. BEAR ONTO CLEAN BRICKWORK FOR TOP OF RETAINING & SHEAR WALLS.
- BUILDER TO ASSESS ALL HORIZONTAL CHASING TO ENSURE THAT STRUCTURE IS NOT JEOPARDIZED. CONTACT THE ENGINEER IF UNSURE.
- ALL STEELWORK TO BE MINIMUM GRADE 300 (MPa) IN ACCORDANCE WITH AS/NZS 3679.1.
- A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. A BLOCK COURSE IS STANDARD 200 HIGH.
- MASONRY WALLS DESIGNED TO COMPLY WITH AS3700 AND PROVISION P2.1 OF THE NCC.
- L6 WIRES TO HAVE 20 COVER FROM FACE OF BRICKWORK. MIN 500 LAP LENGTHS.
- WIRES IN BRICKWORK SHALL BE TREATED FOR CORROSION PROTECTION IN ACCORDANCE WITH TABLE 3.4.4.2 "PROTECTIVE COATINGS FOR STEELWORK" OF THE NCC.
- ALL WALLS SUPPORTING UPPER FLOOR TO HAVE A MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH FOR MASONRY UNIT OF 12MPa IN ACCORDANCE WITH AS3700.
- ALL BRICKS ARE TO BE LAID ON A FULL BED OF MORTAR AND ALL PERPENDS ARE TO BE FULLY MORTARED.

TIMBER FRAMING NOTES

- ALL TIMBERWORK TO BE IN ACCORDANCE WITH:
(a) AS1684 - 'RESIDENTIAL TIMBER FRAMED CONSTRUCTION'.
(b) AS1720.1 - 'TIMBER STRUCTURES PART 1: DESIGN METHODS'.
(c) NATIONAL CONSTRUCTIONS CODE SERIES (NCC)
- ROOF TIMBER TO TIMBER CONNECTION TO BE VIA 10 PL ANGLE CLEAT AND BOLTS TO EACH LEG AS NOTED BELOW. U.N.O.

SECTION SIZE	END DISTANCE	BOLTS
UP TO 200	60	2M12
UP TO 300	80	2M16
UP TO 360	80	3M16
OVER 360	80	4M16

- ROOF TO BE TIED DOWN TO RESIST UPLIFT, AS REQUIRED IN AS1684 - 'RESIDENTIAL TIMBER FRAMED CONSTRUCTION'.
- PARAPET FLASHING TO BE OVER PARAPET, NOT THROUGH. ALL GUTTERS, FLASHING AND CLADDING TO ARCHITECTURAL DETAILS.
- ROOF BEAMS TO BE PLACED HORIZONTALLY U.N.O. AND MAY BE USED TO SUPPORT INDEPENDENT CEILING MEMBERS.
- ALL STRUTTING BEAMS TO BE LATERALLY RESTRAINED IN ACCORDANCE WITH AS1684 AND MANUFACTURER'S REQUIREMENTS.
- TIMBER WALL PLATES FIXED TO SIDE OF PARAPET WALL (INCLUDING CEILING WALL PLATES) TO BE CONNECTED USING M10 MEDIUM DUTY ANCHORS AT 600 c/c INTO BRICKWORK. U.N.O.
- TIMBER WALL FRAMES TO BE MANUFACTURED IN ACCORDANCE WITH NOTE 1. & TO STANDARD BUILDING PRACTICE.
- LOCATE DOUBLE STUD (DS) UNDER ALL ROOF BEAMS.
- TIMBER TOP PLATES OVER MASONRY WALLS TO BE CONNECTED AT 1000 CENTRES U.N.O. USING ONE OF THE FOLLOWING ALTERNATIVES:
(a) M10 MEDIUM DUTY CHEMICAL ANCHORS MINIMUM 150mm INTO BRICKWORK.
(b) PLACE 12mm DIA ROUND BARS INTO BRICKWORK (THROUGH TOP PLATE) MINIMUM 150mm. PROTRUDE MIN 5mm THROUGH TOP OF TOP PLATE. HOLE DRILLED THROUGH TOP PLATE AND INTO BRICKWORK NOT TO EXCEED 1mm OVERSIZE DIAMETER.
- TOP WALL PLATE TO BE CONTINUOUS OR SPLICED AS PER MASONRY WALL PLATE SPLICE DETAIL.
- ALL LVL END SPLAYS ARE TO BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
- SPECIFIC STRUCTURAL BRACING TO WALL FRAMES IS SHOWN SHADED ON THE ELEVATIONS.
- (a) PROVIDE CENTRAL BLOCKING TO ALL JOIST SPANS OVER 2500. BLOCKING TO BE SKEWED NAILED, NOT END GRAIN NAILED.
(b) FIX FLOOR SHEETING TO JOISTS TO MANUFACTURER'S SPECIFICATIONS. GLUE JOISTS PRIOR TO FASTENING.
- (a) D.J. DENOTES DOUBLE JOIST FIXED TOGETHER WITH M10 BOLTS AT 600 c/c MAXIMUM. ALTERNATIVELY, FIX JOISTS TOGETHER VIA N#14 TYPE 17 BUGLE HEAD TEKs @ 450 c/c.
(b) PROVIDE DOUBLE JOISTS (DJ) UNDER ALL LOAD BEARING WALLS PARALLEL TO THE JOISTS U.N.O.
- DO NOT STRUT ROOF FRAME ONTO WALLS WHICH ARE NOT SUPPORTED BY BEAMS OR DOUBLE JOISTS DIRECTLY BELOW, UNLESS NOTED OTHERWISE. REFER TO ROOF PLAN.
- (a) TIE DOWN FLOOR FRAME TO AS1684.
(b) TIE DOWN FLOOR FRAME AT EXTERNAL WALLS USING 25 x 1.2 G300 STRAPS x 20c LONG (OR 2N# 30 x 0.9 316 STAINLESS STEEL STRAPS FOR WIND CLASSIFICATION 'N3'. TIE DOWNS NOT REQUIRED FOR 'N1' OR 'N2' WIND CLASSIFICATION. FOR WIND CLASSIFICATION 'N4' OR HIGHER, REFER BACK TO THIS OFFICE FOR FURTHER ADVICE.
- IT IS RECOMMENDED THAT ALL SUSPENDED FLOORS SHOULD BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE FLOOR SHEETING IS FIXED.

UPPER STOREY LINTELS

- REFER TO 'UPPER STOREY LINTEL TABLE' FOR LINTEL SIZES.
- LINELES ARE DESIGNED TO SUPPORT UP TO 10c OF BRICKWORK & UP TO 3.6m OF A TILED ROOF OR 6.6m OF METAL ROOF & A CEILING.
- DO NOT SUPPORT ROOF STRUTTING BEAMS OR OTHER POINT LOADS OVER THE LINTEL UNO.
- ALL STEELWORK TO BE MINIMUM GRADE 300 (MPa) IN ACCORDANCE WITH AS/NZS 3679.1.

UPPER STOREY LINTEL TABLE				
METAL ROOF				
EFFECTIVE ROOF LOAD WIDTH				
3600 mm		6600 mm		
OPENING	LINTEL	BEARING	LINTEL	BEARING
UP TO 1500	75 x 75 x 6.0 EA	100	75 x 75 x 6.0 EA	100
UP TO 1800	75 x 75 x 8.0 EA	100	90 x 90 x 6.0 EA	120
UP TO 2200	100 x 100 x 6.0 EA	110	125 x 75 x 6.0 UA	150
UP TO 2400	100 x 100 x 8.0 EA	120	125 x 75 x 8.0 UA	165
UP TO 2700	125 x 75 x 8.0 UA	135	125 x 75 x 10.0 UA	180
UP TO 3000	125 x 75 x 10.0 UA	150	150 x 90 x 8.0 UA	200
UP TO 3300	150 x 90 x 8.0 UA	165	150 x 100 x 10.0 UA	250

ANCHOR NOTES

- "MEDIUM DUTY ANCHORS" WHERE SPECIFIED ARE REQUIRED TO ACHIEVE MINIMUM LOAD CAPACITIES AS SPECIFIED IN THE FOLLOWING TABLE FOR THE APPROPRIATE ANCHOR SIZE AND FIXING SUBSTRATE:

MEDIUM DUTY ANCHOR MINIMUM CAPACITY TABLE		
FIXING SUBSTRATE: CONCRETE (25MPa MIN)		
ANCHOR	PULL OUT (kN)	SHEAR (kN)
M8	4.00	5.00
M10	5.00	6.00
M12	7.00	10.00
M16	9.00	15.00
FIXING SUBSTRATE: MASONRY (12MPa MIN)		
ANCHOR	PULL OUT (kN)	SHEAR (kN)
M8	0.65	3.80
M10	0.65	4.20
M12	0.70	4.20
M16	1.00	4.20

- REFER TO THE MANUFACTURER TO CONFIRM CAPACITIES.
- INSTALL ALL ANCHORS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- MINIMUM SPACING AND EDGE DISTANCE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- REFER BACK TO THE ENGINEER IN THE EVENT THAT THESE CAPACITIES CAN NOT BE ACHIEVED.
- ALL CHEMICAL AND MECHANICAL ANCHORS ARE TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF THE NCC.

REMEDICATION NOTES

- NO EXISTING STRUCTURAL SUPPORTING MEMBERS ARE TO BE REMOVED OR MODIFIED UNTIL ALL OF THE NEW PERMANENT STRUCTURE IS FULLY ERECTED AND CAN FULLY SUPPORT THE EXISTING STRUCTURE TO BE RETAINED.
- EXISTING STRUCTURAL SUPPORTING MEMBERS ARE ONLY TO BE REMOVED ONCE THE REQUIREMENTS OF NOTE 1 ABOVE ARE MET, AND THE BUILDER HAS HAD A QUALIFIED ENGINEER INSPECT THE WORKS.
- IF ANY EXISTING STRUCTURAL SUPPORTING MEMBER IS TO BE REMOVED OR MODIFIED PRIOR TO THE PERMANENT STRUCTURE BEING FULLY ERECTED, THEN A FULLY QUALIFIED/CERTIFIED/LICENSED REMEDIATION CONTRACTOR MUST BE USED WHO WILL CARRY OUT NECESSARY DOCUMENTATION WORK PROCEDURES, WORK METHODS AND HAVE THEIR OWN QUALIFIED ENGINEER CHECK ALL ASPECTS OF THE WORK AS REQUIRED BY THE RELEVANT OCCUPATIONAL HEALTH AND SAFETY STANDARDS.
- THE BUILDER IS TO ALLOW FOR TEMPORARY PROPPING, BRACING, SHORING, STABILISATION AND THE LIKE OF ALL PARTS OF THE EXISTING STRUCTURE DURING THE WORKS.
- BUILDER TO ALLOW FOR THEIR STRUCTURAL ENGINEER TO PROVIDE INSPECTIONS AND OR DETAILS AND REPORTS AS REQUIRED DURING THE COURSE OF THE WORK, TO ENSURE THE EXISTING AND NEW WORK IS STRUCTURALLY STABLE AND SAFE AT ALL TIMES AND THE REQUIREMENTS OF ALL THESE NOTES ARE MET.
- THE BUILDER MUST CHECK ALL ELEMENTS FOR STRENGTH AND SOUNDNESS AT ALL TIMES PRIOR TO WORK COMMENCING ON A PARTICULAR AREA. THE BUILDER IS TO ALLOW FOR THEIR STRUCTURAL ENGINEER FOR ADVICE ON REPAIR OR STABILISATION IF REQUIRED.
- THE DRAWINGS PROVIDE LIMITED DETAIL OF THE EXISTING STRUCTURE. THE BUILDER SHALL VERIFY THE INFORMATION AND DETAILS OF ELEMENTS AT THE TIME OF OPENING UP THE WORKS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER IMMEDIATELY AS THEY ARE DISCOVERED.

EXISTING STRUCTURE NOTES

- IT IS CONSIDERED THAT THE PROPOSED ALTERATIONS AND ADDITIONS WILL NOT HAVE AN ADVERSE EFFECT ON THE OVERALL STRUCTURAL STABILITY OF THE BUILDING.
- ADDITIONAL DEFLECTIONS TO THE EXISTING STRUCTURE MAY OCCUR AS A RESULT OF THE INSTALLATION AND USE OF THE PROPOSED REFURBISHMENT WORKS. THESE ADDITIONAL DEFLECTIONS ARE EXPECTED TO BE OF AESTHETIC CONSEQUENCE ONLY (NON-STRUCTURAL) HOWEVER MAY RESULT IN CRACKING OF BRITTLE FINISHES.
- ADDITIONAL DEFLECTIONS TO THE EXISTING STRUCTURE MAY OCCUR AS A RESULT OF THE PROPOSED ALTERATIONS AND ADDITIONS. THESE ADDITIONAL DEFLECTIONS ARE EXPECTED TO BE OF AESTHETIC CONSEQUENCE ONLY (NON-STRUCTURAL), HOWEVER MAY RESULT IN CRACKING OF BRITTLE FINISHES.
- SCAN EXISTING CONCRETE ELEMENTS (CONCRETE SLAB, BEAMS, COLUMNS AND WALLS) TO DETERMINE THE LOCATION OF REINFORCEMENT PRIOR TO DRILLING FOR FIXINGS OR POST INSTALLED REINFORCEMENT/DOWEL BAR. DRILL ANY HOLES INTO THE EXISTING STRUCTURE WITH A CONCRETE/MASONRY DRILL BIT (DO NOT DIAMOND CORE HOLES). **DO NOT CUT OR DAMAGE THE EXISTING REINFORCEMENT** IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, STOP IMMEDIATELY AND CONTACT THIS OFFICE FOR FURTHER ADVICE PRIOR TO PROCEEDING.

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF The Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

PROJECT
**PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP**

TITLE
NOTES & SPECIFICATIONS - SHEET 1

CLIENT
SHIRE OF MANJIMUP

TITLE	NAME	DATE	STATUS	
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION	
DESIGNER:	PAUL COLLEY	JULY 21		
ENGINEERING CHECK:	JON SANDERS			
AUTHORISED BY:			SCALE N/A	
			DRAWING REF. No. 1.21.16706-S-001	REV B

SPECIFICATION FOR THE REPAIR OF CORRODED LINTELS

WINDOW LINTELS THAT ARE CORRODING AND CAUSING CRACKING OF BRICKWORK MAY BE REPAIRED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE. NOTE THAT IT IS ALMOST IMPOSSIBLE TO PREVENT FURTHER CORROSION FROM OCCURRING ONCE IT HAS COMMENCED DUE TO ACCESS RESTRICTIONS TO THE STEELWORK, HENCE FURTHER DETERIORATION IS TO BE EXPECTED OVER TIME AND LINTEL REPLACEMENT MAY BE REQUIRED AT THE SAME POINT. AT THE BUILDER'S/CLIENT'S DISCRETION, IT IS LIKELY THAT MANY OF THE LINTELS WILL NEED REPLACEMENT IN THE NEAR TERM, IN ALIGNMENT WITH THE PROPOSED REFURBISHMENT WORKS & CAPITALISATION OF THIS PROJECT.

- CAREFULLY REMOVE THE EXTERNAL GROUT ALONG THE BEARING LENGTH OF THE LINTEL TO EXPOSE THE EMBEDDED PORTION OF THE LINTEL.
- REMOVE ANY EXISTING SURFACE SCALE FROM THE EXPOSED SURFACES OF THE LINTEL USING MECHANICAL MEANS SUCH AS POWERED ROTARY WIRE BRUSH.
- CLEAN EXPOSED STEEL SURFACE WITH MINERAL TURPENTINE TO REMOVE ALL TRACES OF WAX, GREASE, SILICONE, OIL AND DIRT.
- IF ANY RUST PRODUCTS ARE STILL VISIBLE AND CANNOT BE REMOVED DUE TO ACCESS RESTRICTIONS, COAT LIBERALLY WITH *HICHEM RUST CONVERTER & PRIMER SEALER* (OR APPROVED EQUIVALENT).
- PRIME THE STEEL SURFACES WITH *HICHEM SUPER ETCH PRIMER* (OR APPROVED EQUIVALENT) TO ENSURE FULL BONDING.
- MIX (B) PARTS *HICHEM RUST NOTANTI-CORROSIVE EPOXY PAINT* TO (1) PART *HICHEM ENAMEL HARDENER* (OR APPROVED EQUIVALENT) AND THIN WITH MINERAL TURPENTINE IF REQUIRED.
- BRUSH APPLY 3 COATS (MINIMUM) OF *HICHEM RUST NOT (CODE RNW - WHITE)* (OR APPROVED EQUIVALENT) ANTI-CORROSIVE EPOXY PAINT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. RECOMMENDED DRY FILM THICKNESS IS 35 MICRONS. ALLOW 16 HOURS MINIMUM DRYING TIME BETWEEN EACH COAT. SAND EACH COAT LIGHTLY BEFORE APPLICATION OF SUBSEQUENT COAT. DO NOT APPLY IN DAMP CONDITIONS OR WHEN TEMPERATURE IS LESS THAN 10°C.
- ALLOW THE FINAL COAT TO DRY FOR 24 HOURS MINIMUM, THEN REPOINT MORTAR JOINTS AROUND THE WINDOW LINTEL WITH M4 MORTAR, ENSURING MORTAR IS WELL PACKED INTO THE JOINTS AND STRUCK OFF TO MINIMISE PONDING OR INGRESS OF MOISTURE.
- COMPLY WITH THE MANUFACTURER'S SPECIFICATIONS FOR PREPARATION AND APPLICATION OF ALL PRODUCTS. IF ANY INCONSISTENCY IS FOUND BETWEEN THE MANUFACTURER'S SPECIFICATIONS AND THIS REPAIR SPECIFICATION, CONTACT THE DESIGN ENGINEER FOR FURTHER ADVICE.

ALL WINDOW LINTELS SHOULD THEN BE CLOSELY INSPECTED EVERY FIVE YEARS (BY AN ABSEIL CONTRACTOR) FOR SIGNS OF FURTHER DETERIORATION. REMEDIATION OF ANY FURTHER DAMAGE SHOULD BE IN ACCORDANCE WITH THIS SPECIFICATION, AND IF SIGNIFICANT DETERIORATION IS NOTED IN ANY ONE INSPECTION THEN THE INSPECTION INTERVAL SHOULD BE REDUCED TO TWO YEARS. SIMILAR PRODUCTS FROM DIFFERENT MANUFACTURERS MAY BE USED AT THE CONTRACTOR'S DISCRETION. NOTE THAT REPAIRS SHOULD BE CARRIED OUT USING PRODUCTS FROM ONLY ONE MANUFACTURER, E.G. HICHEM, SIKA, ETC.

BUILDER NOTE - COMPLIANCE INSPECTIONS

- AS PART OF THE BUILDING LICENCE FOR THIS PROJECT, THE BUILDER MAY BE REQUIRED TO HAVE THE STRUCTURAL ENGINEER INSPECT AND REPORT ON WHETHER STRUCTURAL ASPECTS OF THE COMPLETED STRUCTURE HAVE BEEN BUILT IN ACCORDANCE WITH THE APPROVED DRAWINGS AND/OR WITH ANY SUBSEQUENT WRITTEN INSTRUCTIONS.
- IF STRUCTURER CONSULTING ENGINEERS ARE TO PROVIDE THIS INSPECTION & REPORTING SERVICE, THE BUILDER MUST ARRANGE FOR STRUCTURER TO INSPECT EACH OF THE STRUCTURAL ITEMS AT APPROPRIATE STAGES. THESE ITEMS AND STAGES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
 - CONCRETE REINFORCEMENT, PRIOR TO POURING OF CONCRETE IN:
 - FOOTING EXCAVATIONS
 - SLABS ON GROUND
 - STRUCTURAL STEELWORK PRIOR TO ANY CLADDING BEING FIXED.
- THE BUILDER IS TO PROVIDE STRUCTURER WITH MINIMUM 48 HOURS NOTICE PRIOR TO REQUIRED INSPECTION TIME TO ENSURE WE CAN INCLUDE THE SITE VISIT IN OUR SCHEDULE.
- THE BUILDER MUST PROVIDE APPROPRIATE EVIDENCE THAT THE SPECIFIED CONCRETE HAS BEEN SUPPLIED FOR EACH CONCRETE ELEMENT.
- THE BUILDER MUST PROVIDE EVIDENCE THAT THE REQUIRED LEVELS OF FOUNDATION COMPACTION HAVE BEEN ACHIEVED, AS PER FOOTING NOTE 6 OR AS FURTHER SPECIFIED IN THE GEOTECHNICAL REPORT.
- WHERE THE GEOTECHNICAL ENGINEER HAS MADE SPECIFIC RECOMMENDATIONS, EVIDENCE THAT THESE HAVE BEEN ACHIEVED MUST BE PROVIDED.
- UNLESS FEES FOR OUR INSPECTIONS AND CERTIFICATIONS HAVE BEEN PREVIOUSLY NEGOTIATED WITH STRUCTURER BY OTHERS, THESE FEES WILL BE THE BUILDER'S RESPONSIBILITY. IT IS REQUIRED THAT THE BUILDER NEGOTIATE THESE FEES WITH THE ENGINEER AT TENDER STAGE.
- IF THE BUILDER REQUIRES THE FABRICATION DRAWINGS TO BE CHECKED AND CERTIFIED BY THE PROJECT ENGINEER, THE COSTS ASSOCIATED WITH THIS WILL BE THE BUILDER'S RESPONSIBILITY, UNLESS THESE FEES HAVE BEEN PREVIOUSLY NEGOTIATED WITH STRUCTURER BY OTHERS. THIS MUST BE CONFIRMED BY THE BUILDER.
- FOR ALL ENQUIRIES REGARDING THESE DRAWINGS, THE BUILDER IS TO CONTACT THE DESIGN ENGINEER, AS NOTED IN THE TITLE BLOCK. THE DESIGN ENGINEER WILL ADVISE THE BUILDER REGARDING OUR NOMINATED CONTACT(S) FOR THE PROJECT.

STEEL NOTES

- ALL FABRICATION OF STEEL WORK AND TOLERANCES SHALL BE IN ACCORDANCE WITH AS/NZS 5131 - STRUCTURAL STEELWORK - FABRICATION AND ERECTION. STEELWORK SHALL BE FABRICATED BY FABRICATORS CERTIFIED UNDER THE ASI 'NATIONAL STRUCTURAL STEELWORK COMPLIANCE SCHEME' (NSSCS).
 - TOLERANCES CLASS FOR FUNCTIONAL TOLERANCES SHALL BE 'CLASS 1' U.N.O.
 - ALL STRUCTURAL STEEL MATERIAL SHALL CONFORM TO THE FOLLOWING:

COMPONENT	CONFORM TO STANDARD	MINIMUM GRADE
HOT ROLLED STEEL SECTION	AS/NZS 3679.1	300
PLATE	AS/NZS 3678	250
FLATS	AS/NZS 1594	300
HOLLOW SECTIONS:	AS/NZS 1163	
(CIRCULAR (CHS)		C350L0
SQUARE (SHS)		C350L0
RECTANGULAR (RHS)		C350L0
WELDED BEAMS & COLUMNS	AS/NZS 3679.2	300
SHEAR STUDS (COMPOSITE SLABS)	AS/NZS 1554.2	380
QUENCH & TEMPERED PLATE	AS 3597	690
PURLINS & GIRTS	AS 1397	450

- ALL COLD FORMED SECTIONS OTHER THAN THOSE COMPLYING TO AS 1163, TO BE MANUFACTURED FROM CONTINUOUS GALVANIZED SHEET STEEL (GSS) CONFORMING TO AS 1397 AND CONFORM TO THE REQUIREMENTS OF AS/NZS 5131.
 - DOCUMENTATION SUPPLIED WITH MATERIALS AND COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131.
 - ALL STRUCTURAL STEELWORK SHALL BE SOURCED FROM MILLS WITH RELEVANT JAS ANZ ACCREDITED THIRD-PARTY CERTIFICATION SCHEME SUCH AS ACSRS SCHEME. ALTERNATIVE SOURCING OF THIRD-PARTY CERTIFIED STRUCTURAL STEEL SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT.
- ALL WELDING SHALL BE MINIMUM WELD CATEGORY GP (GENERAL PURPOSE) IN ACCORDANCE WITH AS 1554.1 - STRUCTURAL STEEL WELDING. STRUCTURAL STEEL > 500 MPa TO BE IN ACCORDANCE WITH AS 1554.4.
 - THE NOMINAL TENSILE STRENGTH (f_w) OF WELD CONSUMABLES SHALL BE:
 - ALL STEEL WITH GRADE <= 300 MPa - 430 MPa
 - ALL STEEL WITH 300 < GRADE <= 450 MPa - 490 MPa
 - ALL STEEL WITH 450 < GRADE <= 690 MPa - 760 MPa
 - WHERE BOTH PLATES TO BE WELDED ARE GREATER THAN 2.5mm THICK, THE MINIMUM WELD IS TO BE 6mm FILLET CFW ALL ROUND.
 - WHERE EITHER OF THE PLATES TO BE WELDED ARE LESS THAN 2.5mm THICK, WELDING SHALL BE BY THE METAL INERT GAS TECHNIQUE (MIG) CONFORMING TO AS 1554.
 - JOINTS INDICATED AS 'LT SUSCEPTIBLE' (LAMELLAR TEARING) SHALL BE SUPPLIED ULTRASONICALLY TESTED TO AS 1710 CLASS 1.
 - SUPPLEMENTARY ULTRASONIC TESTING TO AS 2207 AND AS/NZS 1554.1 IS REQUIRED FOR PLATES 40mm THICKNESS & OVER.
 - NON-DESTRUCTIVE EXAMINATION OF WELDS SHALL BE AS DEFINED IN TABLE 13.6.2.2(A) OF AS/NZS 5131.
 - ALL STRUCTURAL STEELWORK MEMBERS SHALL BE SUPPLIED IN A SINGLE LENGTH, EXCEPT WHERE INDICATED WITH A SPLICE ON THE STRUCTURAL DRAWINGS. SPLICES AT OTHER LOCATIONS AT OTHER LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.

STEEL NOTES (CONTINUED)

- ALL CUTTING, HOLLING AND SHAPING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131. PENETRATIONS OR CUT-OUTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL.
- BOLTING DESIGNATION IS AS FOLLOWS:

4.6/S	COMMERCIAL GRADE 4.6 BOLTS TO AS 1111 SNUG TIGHT TO AS/NZS 5131
8.8/S	HIGH STRENGTH STRUCTURAL BOLTS GRADE 8.8 TO AS 1252.1 SNUG TIGHT TO AS/NZS 5131
8.8/TB	HIGH STRENGTH STRUCTURAL BOLTS GRADE 8.8 TO AS 1252.1 FULLY TENSIONED TO AS/NZS 5131 AS A BEARING JOINT
8.8/TF	HIGH STRENGTH STRUCTURAL BOLTS GRADE 8.8 TO AS 1252.1 FULLY TENSIONED TO AS/NZS 5131 AS A FRICTION JOINT

- HIGH STRENGTH BOLTS SHALL BE VERIFIED TO AS/NZS 1252.2 INCLUDING THE 'SUPPLIER DECLARATION OF CONFORMITY'.
 - /TB & /TF BOLT CATEGORIES SHALL BE INSTALLED USING EITHER THE PART TURN METHOD OR DIRECT TENSION INDICATOR METHOD TO AS/NZS 5131.
 - /TF BOLTS SHALL BE FREE FROM PAINT OR FINISHES AND PREPARED IN ACCORDANCE WITH AS/NZS 5131. THE CONTRACTOR SHOULD SUBMIT TO THE ENGINEERS FOR APPROVAL 2 COPIES OF THE SHOP DRAWINGS BEFORE COMMENCING FABRICATION.
 - ALL COLUMN BASE PLATES SHALL BE SET ON 20mm MIN OF PORTLAND CEMENT GROUT. FOOTING BOLTS AND GROUTING UNDER STEEL BASE PLATES SHALL MEET THE REQUIREMENTS OF AS/NZS 5131.
 - EXCEPT WHERE OTHERWISE SHOWN IN THE DETAILS ALL STEEL TO STEEL CONNECTIONS SHALL BE 10PL CLEAT AND SHALL HAVE A MINIMUM OF 2M16 (8.8/S) BOLTS.
- ALL STRUCTURAL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATION & AS 2312 AS FOLLOWS:
 - INTERNAL STEELWORK WITH A MINIMUM 75 MICRONS (DRY FILM THICKNESS) RED OXIDE ZINC PHOSPHATE
 - EXTERNAL STEELWORK WITH A MINIMUM 75 MICRONS (DRY FILM THICKNESS) INORGANIC ZINC SILICATE
 - ALL PAINTED SURFACES TO BE PREPARED TO TREATMENT GRADE 'P2' IN ACCORDANCE WITH AS/NZS 5131.
 - COATING QUALITY LEVELS ARE TO BE ASSESSED TO AS/NZS 5131 AS FOLLOWS:
 - INTERNAL STEELWORK: PC1
 - EXTERNAL STEELWORK: PC1
 - STRUCTURAL STEELWORK TO BE GALVANIZED SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131 AND AS 2312.
 - ALL BOLTS SHALL BE IN ACCORDANCE WITH AS 1214 AND BE CADMIUM PLATED OR GALVANIZED, UNO.
 - ALL HOLDING DOWN BOLTS TO BE HOT DIP GALVANIZED (600g/sqm) UNO. EPOXY COAT ALL STEELWORK BELOW GROUND LEVEL.
 - ARCHITECTURALLY EXPOSED STEELWORK (AESS) SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131 AND THE AESS CATEGORY NOMINATED IN THE ARCHITECT'S SPECIFICATION. AESS COMPONENTS SHALL BE MINIMUM AESS 2 UNO. IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM AESS REQUIREMENTS PRIOR TO PROCUREMENT.
 - PROVIDE HOLES OR FIXING CLEATS FOR OTHER TRADES AS DIRECTED IN THE SPECIFICATION OR SHOWN ON THE ARCHITECTURAL DRAWINGS.
 - PROVIDE APPROVED BRICK TIES TO ALL STEEL COLUMNS ETC. WHERE FACES ABUT BRICKWORK OR BLOCKWORK SEE DETAILS.
 - SEAL ALL OPEN ENDS OF PIPES OR RHS MEMBERS. GRIND OFF ALL VISIBLE WELDS AND BRAND MARKS TO NEAT APPEARANCE WHERE SPECIFIED.
 - MASONRY AND CONCRETE ANCHORS WILL GENERALLY NOT BE CONSIDERED AS A SUITABLE ALTERNATIVE TO CAST-IN FERRULES EXCEPT AS SPECIFICALLY NOTED ON THE DRAWINGS.
 - ALL MASONRY AND CONCRETE ANCHORS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131. THE BUILDER MUST ENSURE THE ANCHOR LENGTH IS ADEQUATE TO ENSURE CORRECT EMBEDMENT, BEARING IN MIND THE THICKNESS OF THE PART BEING FASTENED. (ALL ANCHORS FOUND TO BE INSTALLED INCORRECTLY WILL BE REJECTED.)
 - SITE TESTING SHALL BE PERFORMED ON MECHANICAL AND CHEMICAL ANCHORS TO VALIDATE CORRECT INSTALLATION (PROOF TESTING) WITH A MINIMUM 3 TESTS OR A 2.5% SAMPLE POPULATION, WHICHEVER IS GREATER. IF A FAILURE IS RECORDED, INCREASE TO MINIMUM 6 OR A 5% SAMPLE POPULATION. SITE TESTING OF POST INSTALLED ANCHORS SHALL BE UNDERTAKEN ACCORDING TO THE REQUIREMENTS OF AEFAC TECHNICAL NOTE - SITE TESTING GUIDELINES VOLUME 1 TO 4.
 - ALL DISSIMILAR METAL CONTACT TO BE ELECTRICALLY ISOLATED BY USE OF NON-CONDUCTIVE LOAD BEARING SPACERS TO MANUFACTURER'S SPECIFICATION.
 - ALL SITE WELDS TO BE MIN 6mm CONTINUOUS FILLET WELDS ALL ROUND UNO. PROPERLY CLEANED AND PREPARED BEFORE WELDING. POWER TOOL CLEAN TO CLASS 2 FOLLOWING WELDING AND PAINT WITH 2 COATS OF ZINC RICH PAINT AND TOP COAT TO MATCH EXISTING.
 - THE CONTRACTOR SHALL REMAIN RESPONSIBLE AT ALL TIMES FOR PROVIDING ALL NECESSARY TEMPORARY BRACING AND OTHER SUPPORTS DURING ERECTION, TO STABILISE THE PARTIALLY CONSTRUCTED BUILDING.
 - PARTICULAR ATTENTION MUST BE PAID TO THE BUCKLING STABILITY OF BEAMS AND COLUMNS PRIOR TO THE CONNECTION OF PURLINS, GIRTS, FLYBRACES AND OTHER BRACING ELEMENTS.
 - IT IS THE RESPONSIBILITY OF THE BUILDER TO OBTAIN PROPER TECHNICAL ADVICE WHEREVER NECESSARY TO ENSURE THE PARTIALLY COMPLETED STRUCTURE IS SAFE FROM COLLAPSE.
 - THE INSTALLATION OF STATIC SAFETY LINE FIXING POINTS (WHERE REQUIRED BY THE RELEVANT AUTHORITIES) SHALL BE THE BUILDER'S RESPONSIBILITY.
 - ALL MEMBERS HAVING A NATURAL CAMBER WITHIN THE STRAIGHTNESS TOLERANCE SHALL BE ERECTED WITH THE NATURAL CAMBER UP.
 - ERECTION TOLERANCES SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131.
 - PROPRIETARY ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
 - INSPECTION AND TEST PLANS (ITP) SHALL BE PREPARED IN ACCORDANCE WITH AS/NZS 5131 APPENDIX B4 FOR:
 - MATERIALS AND COMPONENTS
 - PREPARATION AND ASSEMBLY
 - WELDING
 - MECHANICAL FASTENING
 - CORROSION PROTECTION TO AS/NZS 5131 APPENDIX D AND THE NOMINATED COATING QUALITY LEVEL (NOTE 9c)
 - ERECTION
 - BUILDER TO ENGAGE QUALIFIED SAFETY CONSULTANT TO DESIGN & INSTALL STATIC ANCHOR POINTS FOR SAFE ACCESS FOR WORKING AT HEIGHT BOTH DURING CONSTRUCTION & IN-SERVICE. (SUCH AS ROOF ACCESS).

BCA COMPLIANT STRUCTURAL MATERIALS


THE DESIGN ASSUMES THAT ALL STRUCTURAL MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT (INCLUDING, BUT NOT LIMITED TO, STEEL (STRUCTURAL AND REINFORCING), CONCRETE, MASONRY (INCLUDING BRICKS / BLOCKS AND THE ASSOCIATED MORTAR AND TIMBER) COMPLY IN ALL RESPECTS TO THE BUILDING CODE OF AUSTRALIA. THIS GENERALLY MEANS THAT THEY MUST COMPLY WITH THE REQUIREMENTS OF THE APPROPRIATE AUSTRALIAN STANDARDS FOR THAT MATERIAL.

IF THE BUILDER PROPOSES TO USE ANY STRUCTURAL MATERIALS THAT ARE SOURCED FROM OUTSIDE AUSTRALIA, IT WILL BE THE BUILDERS ABSOLUTE RESPONSIBILITY TO VERIFY THAT THEY COMPLY WITH THE BUILDING CODE OF AUSTRALIA. STRUCTURER MUST BE INFORMED OF ANY STRUCTURAL MATERIALS PROPOSED TO BE SOURCED FROM OUTSIDE AUSTRALIA AND ALL SUPPORTING DOCUMENTATION REGARDING THEIR COMPLIANCE WITH THE BCA AND / OR THE RELEVANT AUSTRALIAN STANDARDS MUST BE SUPPLIED TO STRUCTURER FOR ASSESSMENT.

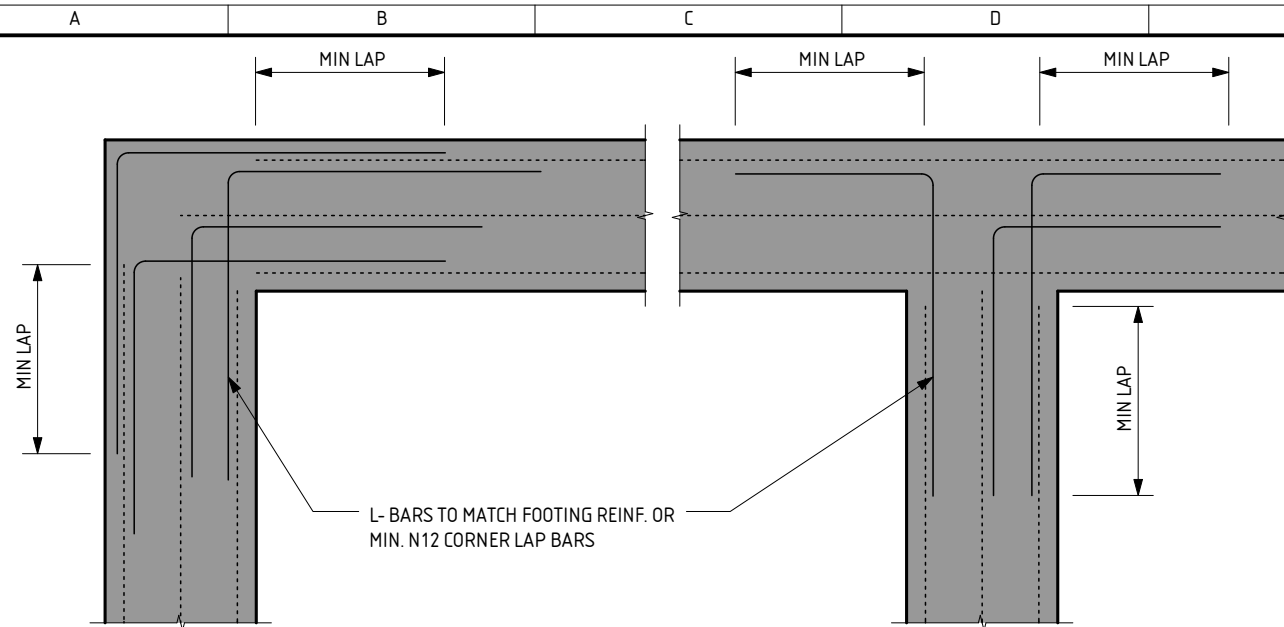
THE BUILDER MUST UNDERSTAND THAT THERE MAY BE SIGNIFICANT STRENGTH AND STIFFNESS DEFICIENCIES (COMPARED WITH THOSE ASSUMED IN DESIGN) IN MATERIALS SOURCED FROM OUTSIDE AUSTRALIA AND THAT THESE COULD SEVERELY IMPACT ON THE SAFETY AND SERVICEABILITY OF THE STRUCTURE.

STRUCTURER RESERVES THE RIGHT TO CHARGE A FEE TO MAKE THE APPROPRIATE ASSESSMENT AND TO ALTER OUR DESIGN SHOULD THIS BE A NECESSARY CONSEQUENCE.

IT IS ACKNOWLEDGED THAT SOME OF THE AUSTRALIAN STANDARDS AND VOLUMES OF THE NATIONAL CONSTRUCTION CODE SERIES REFERENCED ON THIS SPECIFICATION ARE TYPICALLY LIMITED TO CLASS 1 OR 10a BUILDINGS. STRUCTURER CERTIFIES THAT THESE STANDARDS ARE DEEMED TO BE APPLICABLE WHERE REFERENCED ON THESE SPECIFICATIONS. FURTHER SPECIFICATIONS WILL BE PROVIDED WHERE THIS IS NOT THE CASE.

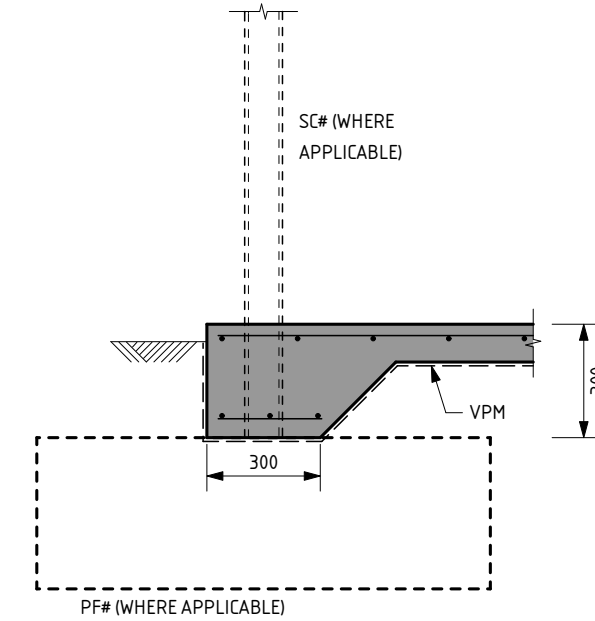
B		24/09/21	ISSUED FOR CLIENT REVIEW	PC
A		30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE		ISSUE / REVISION DESCRIPTION	APP
 <p>Zemia Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA W.A. 6021 TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au</p>				
PROJECT		<p>PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP</p>		
TITLE		<p>NOTES & SPECIFICATIONS - SHEET 2</p>		
CLIENT		<p>SHIRE OF MANJIMUP</p>		
TITLE	NAME	DATE	STATUS	
DRAFTSPERSON:	ROBERT BURNS	JULY 21	<p>NOT FOR CONSTRUCTION</p>	
DESIGNER:	PAUL COLLEY	JULY 21		
ENGINEERING CHECK:	JON SANDERS			
AUTHORISED BY:		SCALE		
		N/A		
		DRAWING REF. No.		REV
		1.21.16706- S-002		B

COPYRIGHT STRUCTURER CONSULTING ENGINEERS. THESE DRAWINGS ARE SOLE PROPERTY OF STRUCTURER CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCTURER CONSULTING ENGINEERS.

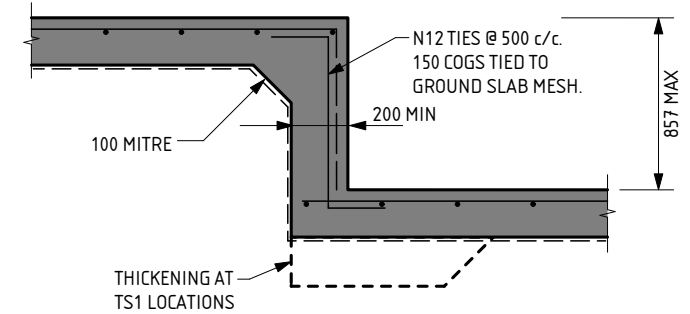


TYPICAL EDGE THICKENING CORNER DETAILS

- SEE REINFORCEMENT LAP TABLE S-101 FOR LAP LENGTHS
- WHERE TRENCH MESH IS USED, LAPPING OF THE MESH MAY ALTERNATIVELY BE IN ACCORDANCE WITH AS2870 c15.3(d)

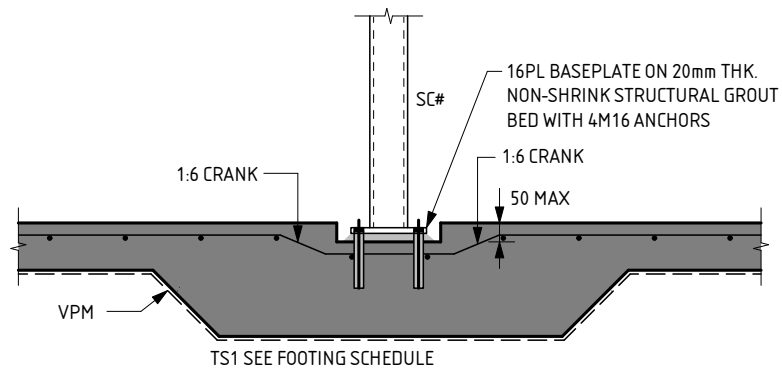


TYPICAL EDGE THICKENING (ET1) DETAIL

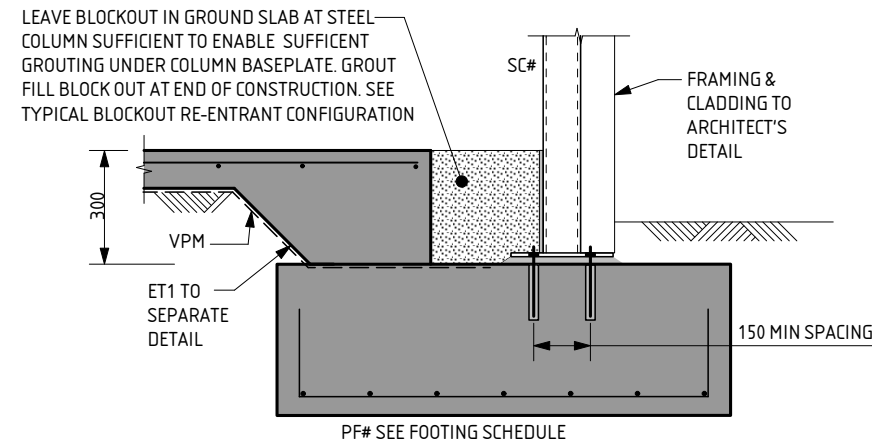


TYPICAL SLAB STEP DETAIL

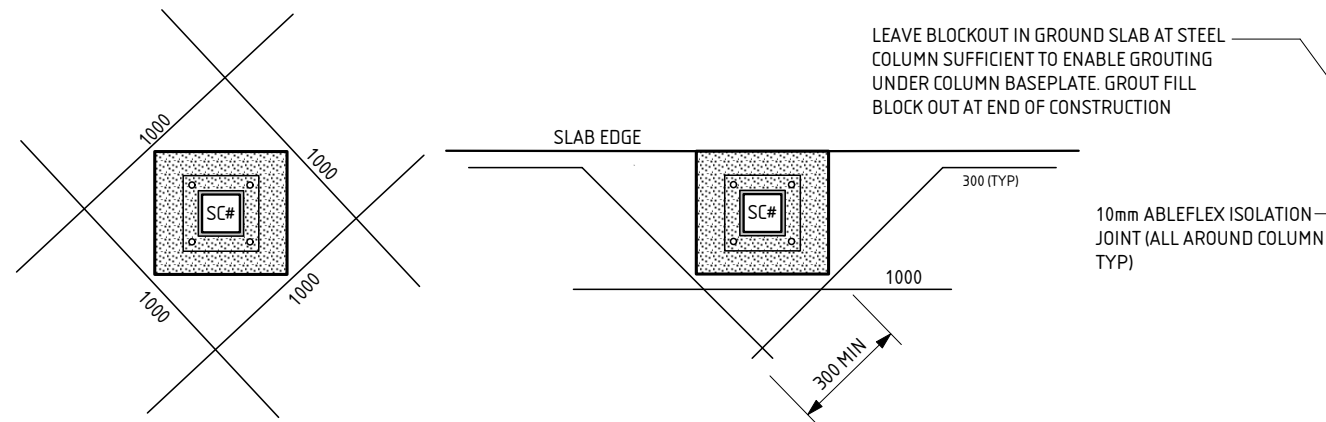
- WHERE SLAB STEP IS 514mm OR LESS, N12 TIES NOT REQUIRED AND THROAT THICKNESS MAY BE REDUCED TO 150 MIN. TURN DOWN MESH FROM UPPER LEVEL SLAB. MAINTAIN COVER



TYPICAL COLUMN TO SLAB DETAIL (TS1)



TYPICAL COLUMN AT PAD FOOTING DETAIL



TYPICAL BLOCKOUT RE-ENTRANT CONFIGURATION

- N12 TRIMMER RE-ENTRANT BAR (LENGTH TO SUIT 1000 MIN TIED UNDER SLAB MESH)
- TYPICAL TO ALL COLUMNS/BOLLARDS OVER SLAB
- COAT PORTION OF COLUMN TO BE ENCASED INTO CONCRETE WITH BITUMINOUS PAINT TO 20mm ABOVE FLOOR LEVEL

REFER TO GROUND FLOOR GENERAL ARRANGEMENTS PLAN FOR SLAB MESH AND THICKNESS.

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP



Zemia Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

PROJECT
**PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP**

TITLE
FOOTING DETAILS

CLIENT
SHIRE OF MANJIMUP

TITLE NAME DATE STATUS
DRAFTSPERSON: ROBERT BURNS JULY 21 **NOT FOR CONSTRUCTION**

DESIGNER: PAUL COLLEY JULY 21
ENGINEERING CHECK: JON SANDERS
AUTHORISED BY:

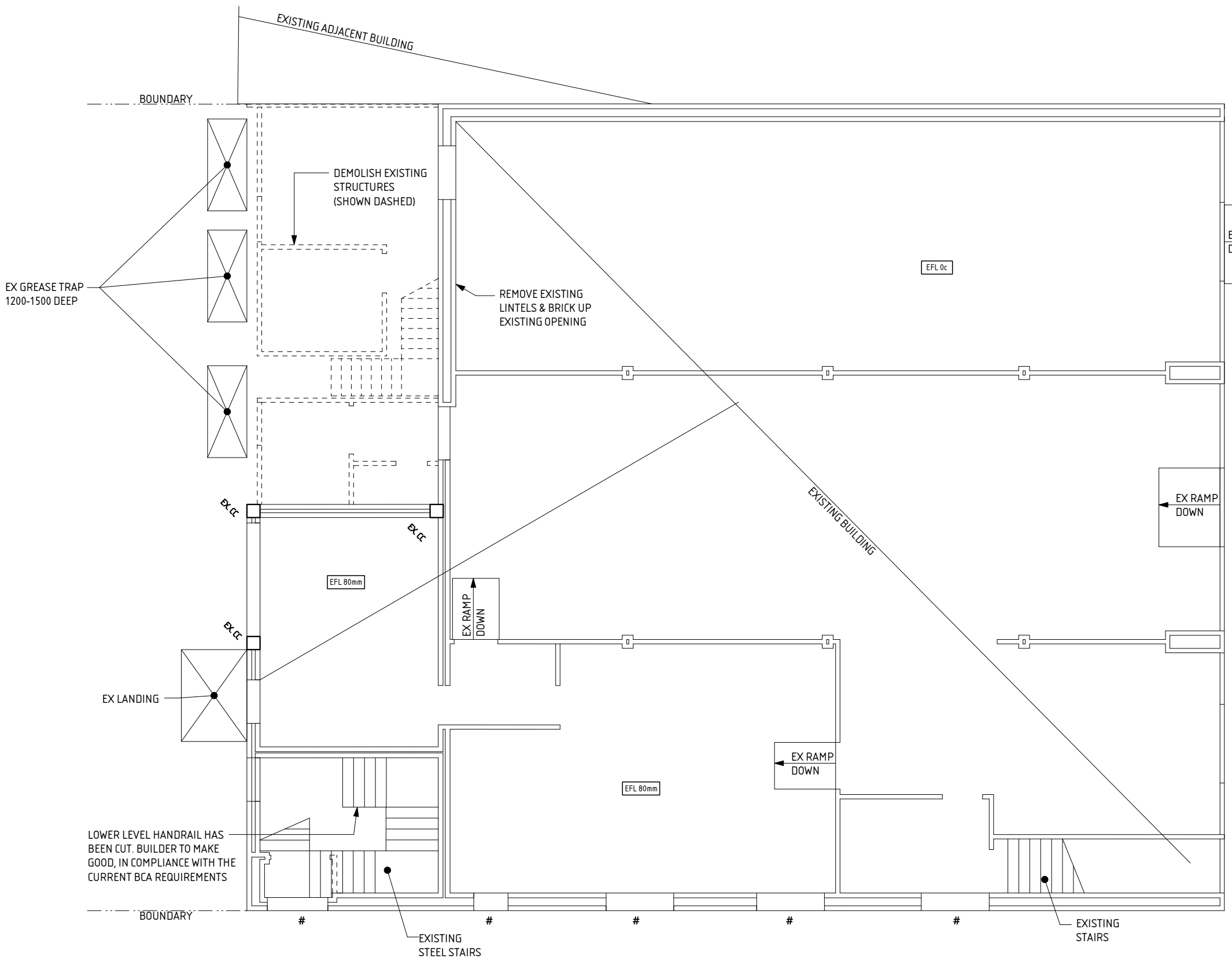
SCALE
1:20

DRAWING REF. No. 1.21.16706-S-003 REV B

COPYRIGHT STRUCterre CONSULTING ENGINEERS: THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS. SHEET SIZE A3



LEGEND	
SYMBOL	DESCRIPTION
#	EXISTING LINTELS TO BE REPAIRED/REPLACED. SEE LINTEL REPAIR NOTES S-002



GROUND FLOOR REMEDIATION PLAN 1:100

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP

STRUCterre consulting

Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as StrucTerre Consulting Engineers

1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 EMAIL: commercial@strucTerre.com.au

PROJECT: **PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP**

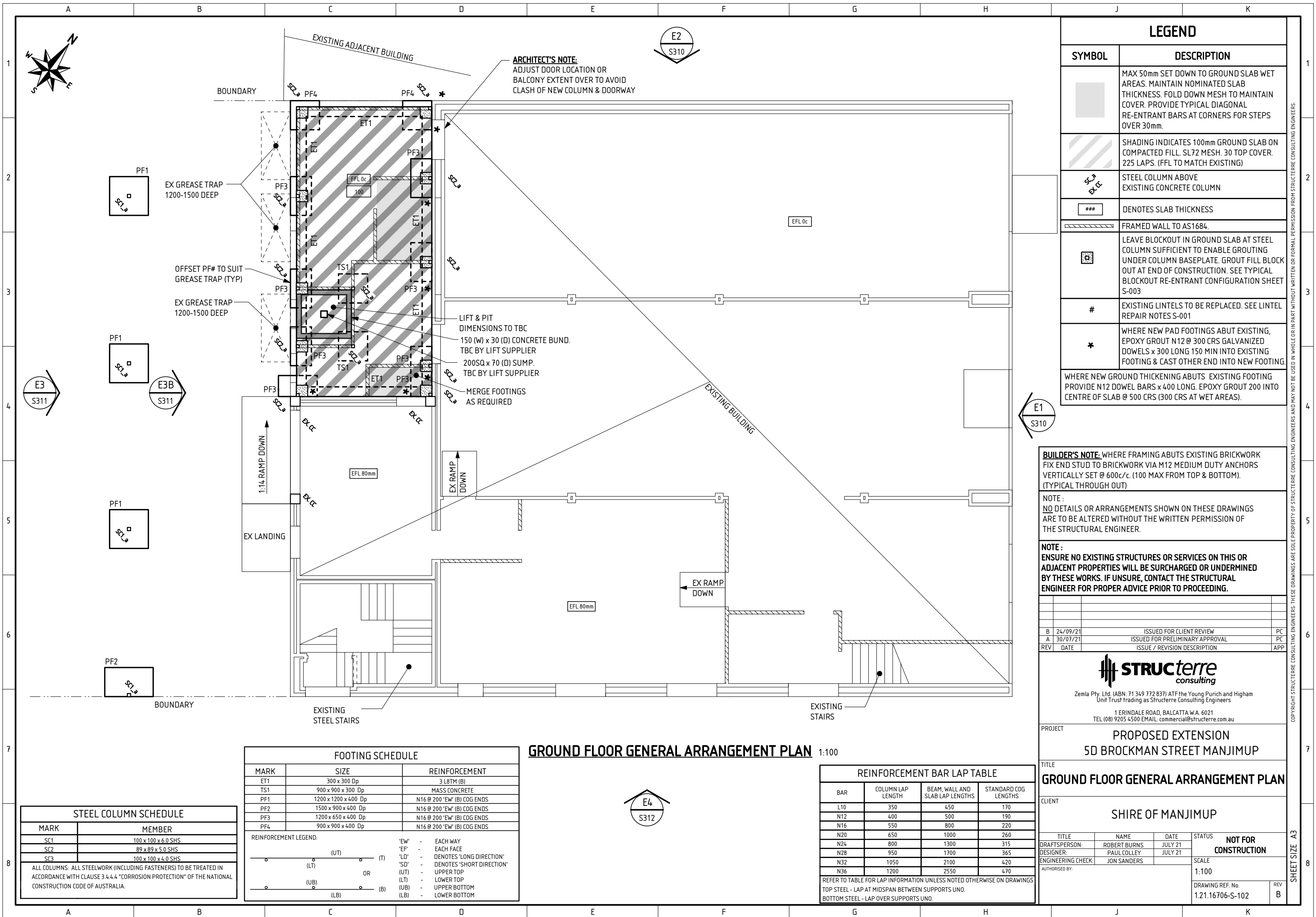
TITLE: **GROUND FLOOR REMEDIATION PLAN**

CLIENT: **SHIRE OF MANJIMUP**

TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS	JULY 21	
AUTHORISED BY:			SCALE
			1:100
			DRAWING REF. No.
			1.21.16706-S-101
			REV
			B

COPYRIGHT STRUCterRE CONSULTING ENGINEERS: THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterRE CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterRE CONSULTING ENGINEERS.

SHEET SIZE A3



ARCHITECT'S NOTE:
 ADJUST DOOR LOCATION OR
 BALCONY EXTENT OVER TO AVOID
 CLASH OF NEW COLUMN & DOORWAY

LEGEND	
SYMBOL	DESCRIPTION
[Grey Box]	MAX 50mm SET DOWN TO GROUND SLAB WET AREAS. MAINTAIN NOMINATED SLAB THICKNESS. FOLD DOWN MESH TO MAINTAIN COVER. PROVIDE TYPICAL DIAGONAL RE-ENTRANT BARS AT CORNERS FOR STEPS OVER 30mm.
[Hatched Box]	SHADING INDICATES 100mm GROUND SLAB ON COMPACTED FILL. SL72 MESH. 30 TOP COVER. 225 LAPS. (FFL TO MATCH EXISTING)
[SC2]	STEEL COLUMN ABOVE EXISTING CONCRETE COLUMN
[###]	DENOTES SLAB THICKNESS
[Hatched Box]	FRAMED WALL TO AS1684.
[Blockout]	LEAVE BLOCKOUT IN GROUND SLAB AT STEEL COLUMN SUFFICIENT TO ENABLE GROUTING UNDER COLUMN BASEPLATE. GROUT FILL BLOCK OUT AT END OF CONSTRUCTION. SEE TYPICAL BLOCKOUT RE-ENTRANT CONFIGURATION SHEET S-003
[#]	EXISTING LINTELS TO BE REPLACED. SEE LINTEL REPAIR NOTES S-001
[*]	WHERE NEW PAD FOOTINGS ABUT EXISTING, EPOXY GROUT N12 @ 300 CRS GALVANIZED DOWELS x 300 LONG 150 MIN INTO EXISTING FOOTING & CAST OTHER END INTO NEW FOOTING.
WHERE NEW GROUND THICKENING ABUTS EXISTING FOOTING PROVIDE N12 DOWEL BARS x 400 LONG. EPOXY GROUT 200 INTO CENTRE OF SLAB @ 500 CRS (300 CRS AT WET AREAS).	

BUILDER'S NOTE: WHERE FRAMING ABUTS EXISTING BRICKWORK FIX END STUD TO BRICKWORK VIA M12 MEDIUM DUTY ANCHORS VERTICALLY SET @ 600c/c. (100 MAX FROM TOP & BOTTOM). (TYPICAL THROUGH OUT)

NOTE:
 NO DETAILS OR ARRANGEMENTS SHOWN ON THESE DRAWINGS ARE TO BE ALTERED WITHOUT THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.

NOTE:
 ENSURE NO EXISTING STRUCTURES OR SERVICES ON THIS OR ADJACENT PROPERTIES WILL BE SURCHARGED OR UNDERMINED BY THESE WORKS. IF UNSURE, CONTACT THE STRUCTURAL ENGINEER FOR PROPER ADVICE PRIOR TO PROCEEDING.

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP

STRUCterre consulting
 Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as StrucTerre Consulting Engineers
 1 ERINDALE ROAD, BALCATTA W.A. 6021
 TEL (08) 9205 4500 EMAIL: commercial@strucTerre.com.au

PROJECT
**PROPOSED EXTENSION
 5D BROCKMAN STREET MANJIMUP**

TITLE
GROUND FLOOR GENERAL ARRANGEMENT PLAN

CLIENT
SHIRE OF MANJIMUP

TITLE	NAME	DATE	STATUS	NOT FOR CONSTRUCTION
DRAFTSPERSON:	ROBERT BURNS	JULY 21		
DESIGNER:	PAUL COLLEY	JULY 21		
ENGINEERING CHECK:	JON SANDERS			
AUTHORISED BY:				
SCALE				1:100
DRAWING REF. No.				1.21.16706-S-102
REV				B

FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
ET1	300 x 300 Dp	3 L8TM (B)
TS1	900 x 900 x 300 Dp	MASS CONCRETE
PF1	1200 x 1200 x 400 Dp	N16 @ 200 'EW' (B) COG ENDS
PF2	1500 x 900 x 400 Dp	N16 @ 200 'EW' (B) COG ENDS
PF3	1200 x 650 x 400 Dp	N16 @ 200 'EW' (B) COG ENDS
PF4	900 x 900 x 400 Dp	N16 @ 200 'EW' (B) COG ENDS

REINFORCEMENT LEGEND:

(UT)	(T)	'EW' - EACH WAY
(LT)	OR	'EF' - EACH FACE
(UB)	(B)	'LD' - DENOTES 'LONG DIRECTION'
(LB)	(B)	'SD' - DENOTES 'SHORT DIRECTION'
		(UT) - UPPER TOP
		(LT) - LOWER TOP
		(UB) - UPPER BOTTOM
		(LB) - LOWER BOTTOM

GROUND FLOOR GENERAL ARRANGEMENT PLAN 1:100

REINFORCEMENT BAR LAP TABLE			
BAR	COLUMN LAP LENGTH	BEAM, WALL AND SLAB LAP LENGTHS	STANDARD COG LENGTHS
L10	350	450	170
N12	400	500	190
N16	550	800	220
N20	650	1000	260
N24	800	1300	315
N28	950	1700	365
N32	1050	2100	420
N36	1200	2550	470

REFER TO TABLE FOR LAP INFORMATION UNLESS NOTED OTHERWISE ON DRAWINGS
 TOP STEEL - LAP AT MIDSPAN BETWEEN SUPPORTS UNO.
 BOTTOM STEEL - LAP OVER SUPPORTS UNO.

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC1	100 x 100 x 6.0 SHS
SC2	89 x 89 x 5.0 SHS
SC3	100 x 100 x 4.0 SHS

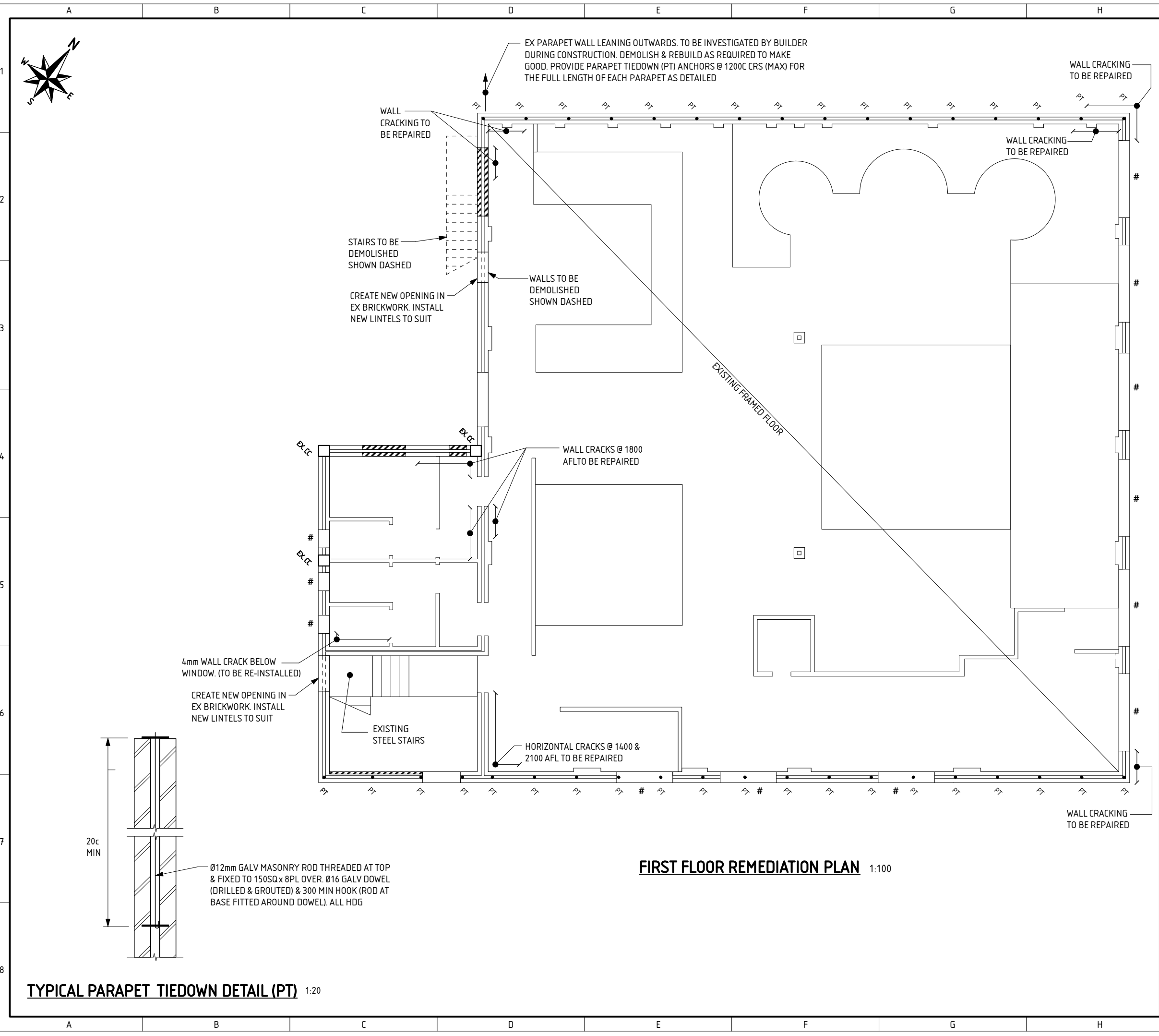
ALL COLUMNS: ALL STEELWORK (INCLUDING FASTENERS) TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA.

COPYRIGHT STRUCterre CONSULTING ENGINEERS: THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS.

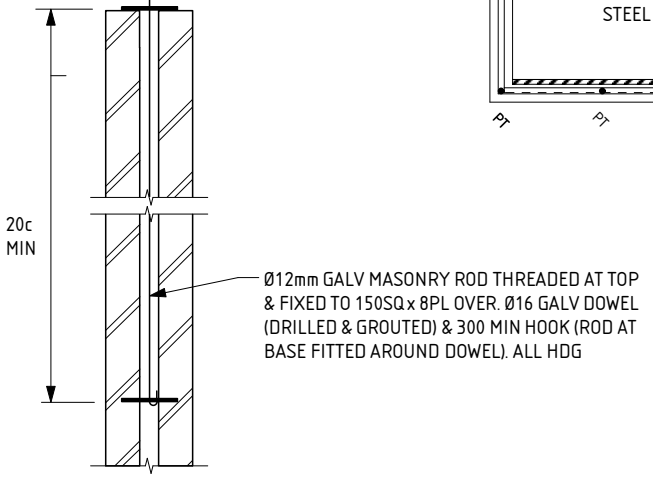
SHEET SIZE A3



LEGEND	
SYMBOL	DESCRIPTION
#	EXISTING LINTELS TO BE REPAIRED/REPLACED. SEE LINTEL REPAIR NOTES S-002
	NEW BRICK WALL



FIRST FLOOR REMEDIATION PLAN 1:100



TYPICAL PARAPET TIEDOWN DETAIL (PT) 1:20

B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
REV	DATE	ISSUE / REVISION DESCRIPTION	APP

Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers
 1 ERINDALE ROAD, BALCATTA W.A. 6021
 TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

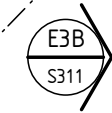
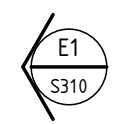
PROJECT: **PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP**
 TITLE: **FIRST FLOOR REMEDIATION PLAN**
 CLIENT: **SHIRE OF MANJIMUP**

TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS		
AUTHORISED BY:			SCALE: 1:100, 1:20
			DRAWING REF. No. 1.21.16706-S-201
			REV B

COPYRIGHT STRUCterre CONSULTING ENGINEERS. THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS. SHEET SIZE A3

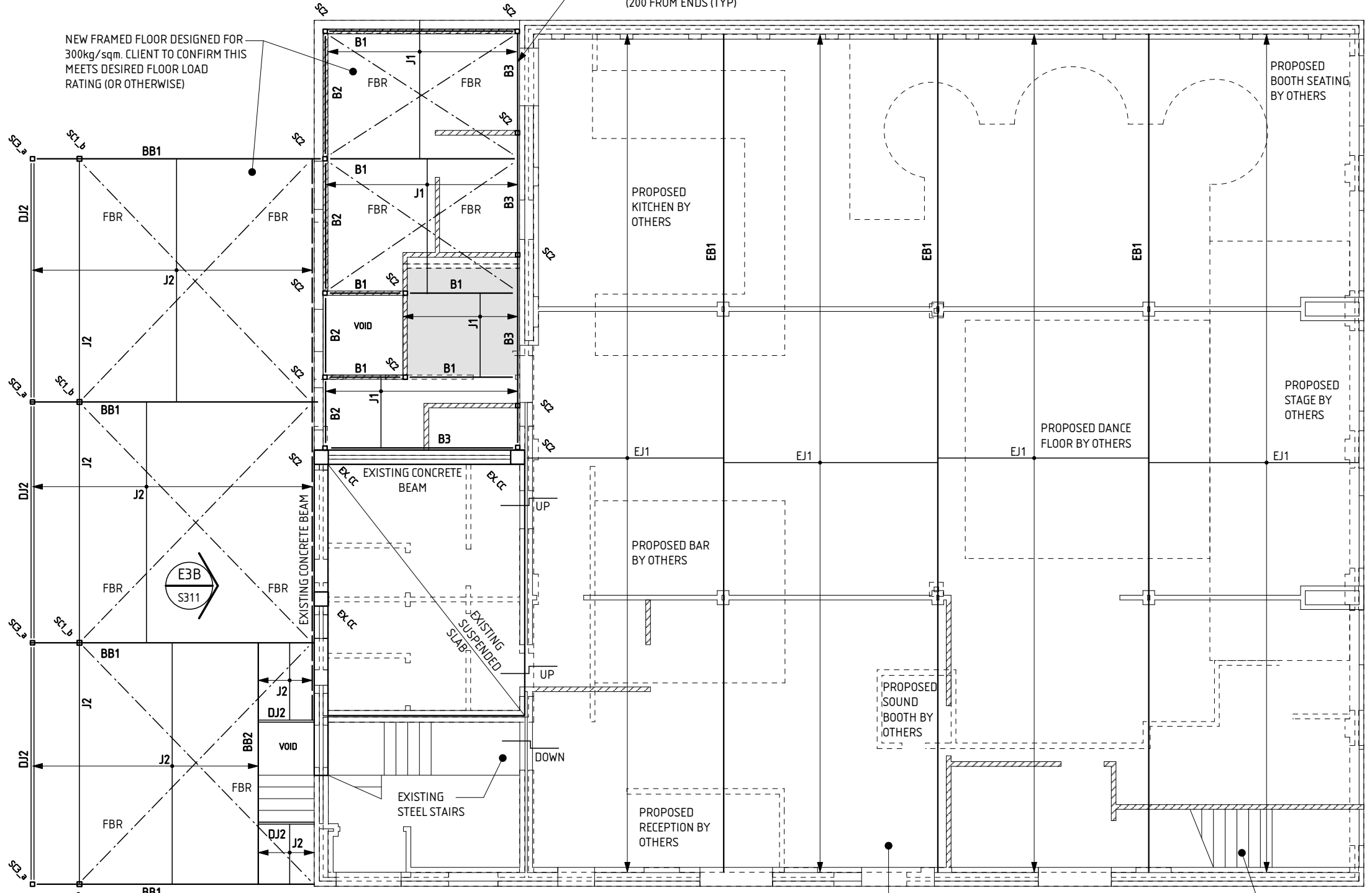


LEGEND	
SYMBOL	DESCRIPTION
	20mm SET DOWN. CUT DOWN JOISTS AS NOTED
	INDICATES EXISTING STEEL BEAM
	DENOTES STEP IN FLOOR
	CONTINUOUS STEEL COLUMN STEEL COLUMN BELOW STEEL COLUMN ABOVE STEEL COLUMN EXISTING CONCRETE COLUMN
	FRAMED WALL UNDER TO AS1684.
	50 x 1.2 GSS STRAP BRACING. FIX UNDER JOISTS WITH 1No 10 TEK. FIX TO BEAMS/COLUMNS AT ENDS WITH 3No 12 SERIES 500 TEKS. ENSURE STRAIGHT AND TAUT PRIOR TO FIXING
	JOIST SIZED WALL PLATE. FIX TO EXISTING BRICKWORK VIA M12 MEDIUM DUTY ANCHORS @ 600 c/c MAX (100mm FROM ENDS). FIX JOIST TO WALL PLATE VIA JOIST HANGERS OR EQUIVALENT.



FIX B3 TO EX BUILDING WITH M12 CHEM ANCHORS @ 600 CRS (MAX) (200 FROM ENDS (TYP))

NEW FRAMED FLOOR DESIGNED FOR 300kg/sqm. CLIENT TO CONFIRM THIS MEETS DESIRED FLOOR LOAD RATING (OR OTHERWISE)



NOTE:
NO DETAILS OR ARRANGEMENTS SHOWN ON THESE DRAWINGS ARE TO BE ALTERED WITHOUT THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.

REV	DATE	ISSUE / REVISION DESCRIPTION	APP
B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers
1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

PROJECT: PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP

TITLE: FIRST FLOOR GENERAL ARRANGEMENTS PLAN

CLIENT: SHIRE OF MANJIMUP

TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS		

SCALE: 1:100
DRAWING REF. No. 1.21.16706-S-202

SUSPENDED FLOOR MEMBER SCHEDULE	
MARK	MEMBER
B1	200 UB 25
B2	200 UB 22
B3	200 PFC
BB1	310 UB 40 (BALCONY BEAM)
BB2	310 UB 32 (BALCONY BEAM)
J1	200 x 45 LVL @ 450 CRS (CUT DOWN 20mm MAX AT WET AREAS)
J2	300 x 45 LVL @ 450 CRS
DJ#	DOUBLE JOIST/TRIMMER (NAIL LAMINATED TO AS1684)
EB1	EXISTING 360 UB 45
EJ1	EXISTING 250 x 50 F17 JOISTS @ 450 CRS

FIRST FLOOR GENERAL ARRANGEMENTS PLAN 1:100

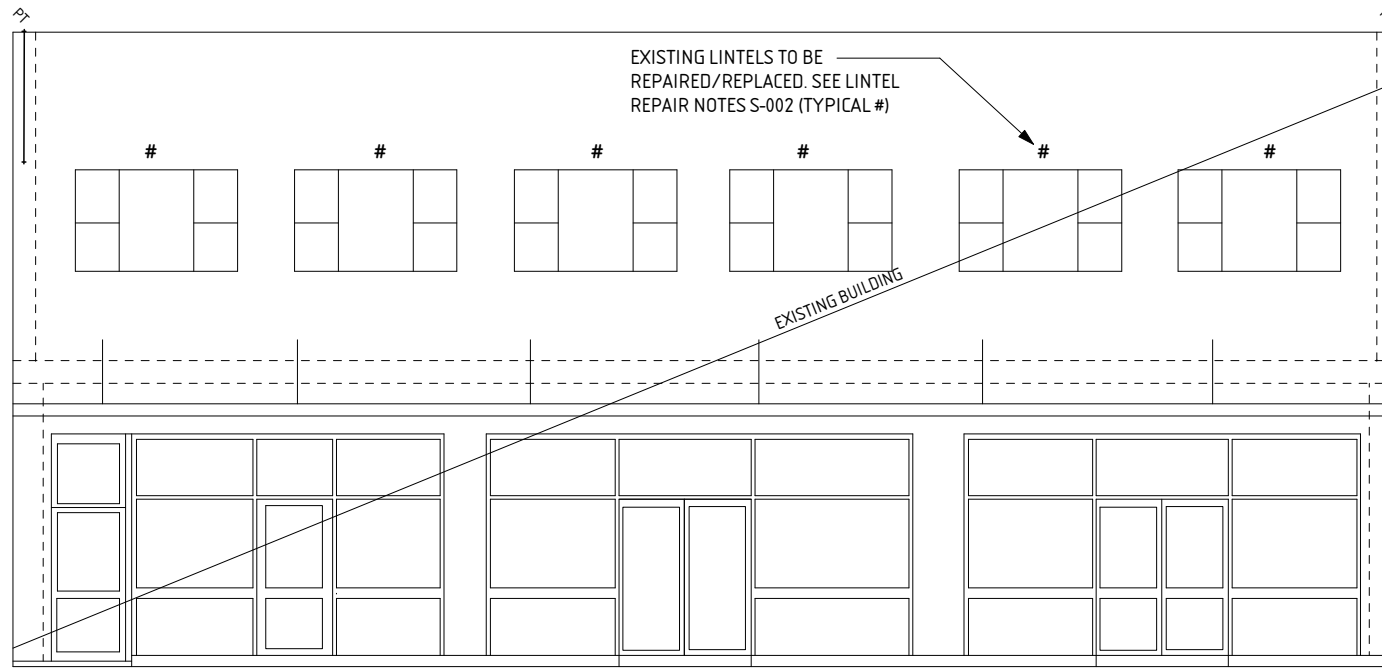
- EXISTING FLOOR LOAD RATING = 3.0kPa
- LOCALISED AREAS OF FLOOR MAY HAVE THEIR RATING INCREASED TO 5.0kPa (BY INTRODUCING ADDITIONAL 250 x 50 F17 JOISTS @ 450 CRS AT 225 OFFSET FROM THE EXISTING JOISTS) AS REQUIRED TO MEET DESIGN LOADS OF AS1170.1 TABLE 3.1 FOR THEIR INTENDED USE. MAKE GOOD ALL EXISTING JOIST BRIDGING (AS REQUIRED).
- EXTENT OF STRENGTHENING WORKS TO BE CONFIRMED BY CLIENT FOR STRUCTURAL APPROVAL PRIOR TO CONSTRUCTION

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC1	100 x 100 x 6.0 SHS
SC2	89 x 89 x 5.0 SHS
SC3	100 x 100 x 4.0 SHS

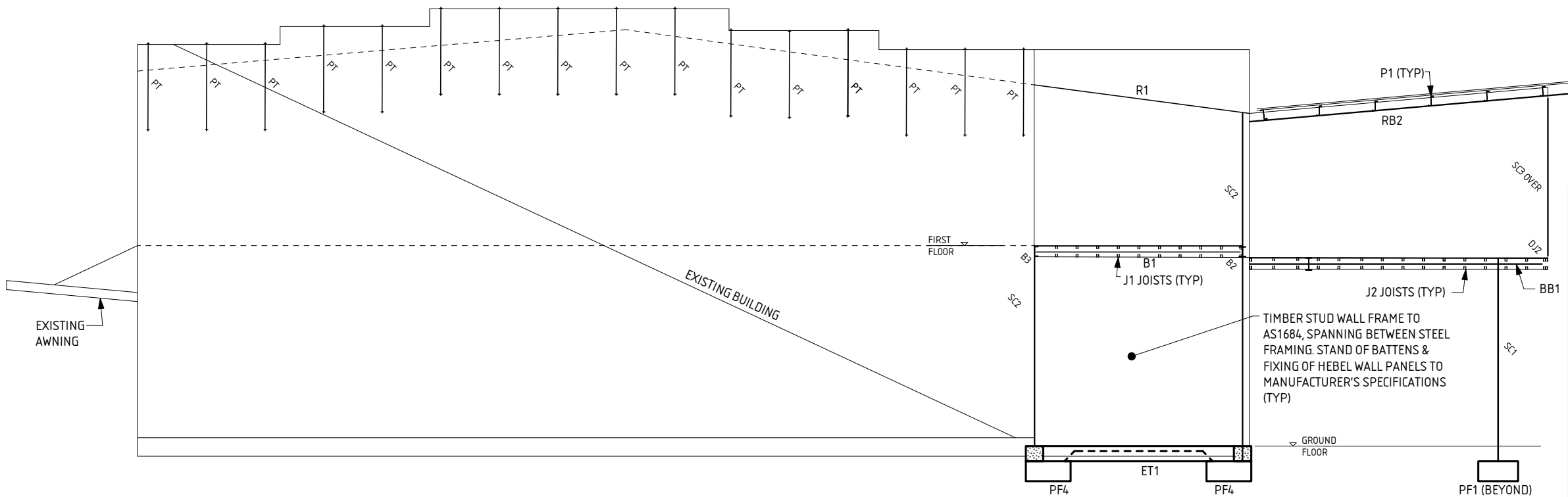
ALL COLUMNS: ALL STEELWORK (INCLUDING FASTENERS) TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA.

COPYRIGHT STRUCTERRE CONSULTING ENGINEERS. THESE DRAWINGS ARE SOLE PROPERTY OF STRUCTERRE CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCTERRE CONSULTING ENGINEERS.

SHEET SIZE A3



ELEVATION **E1**
1:100 **S101**

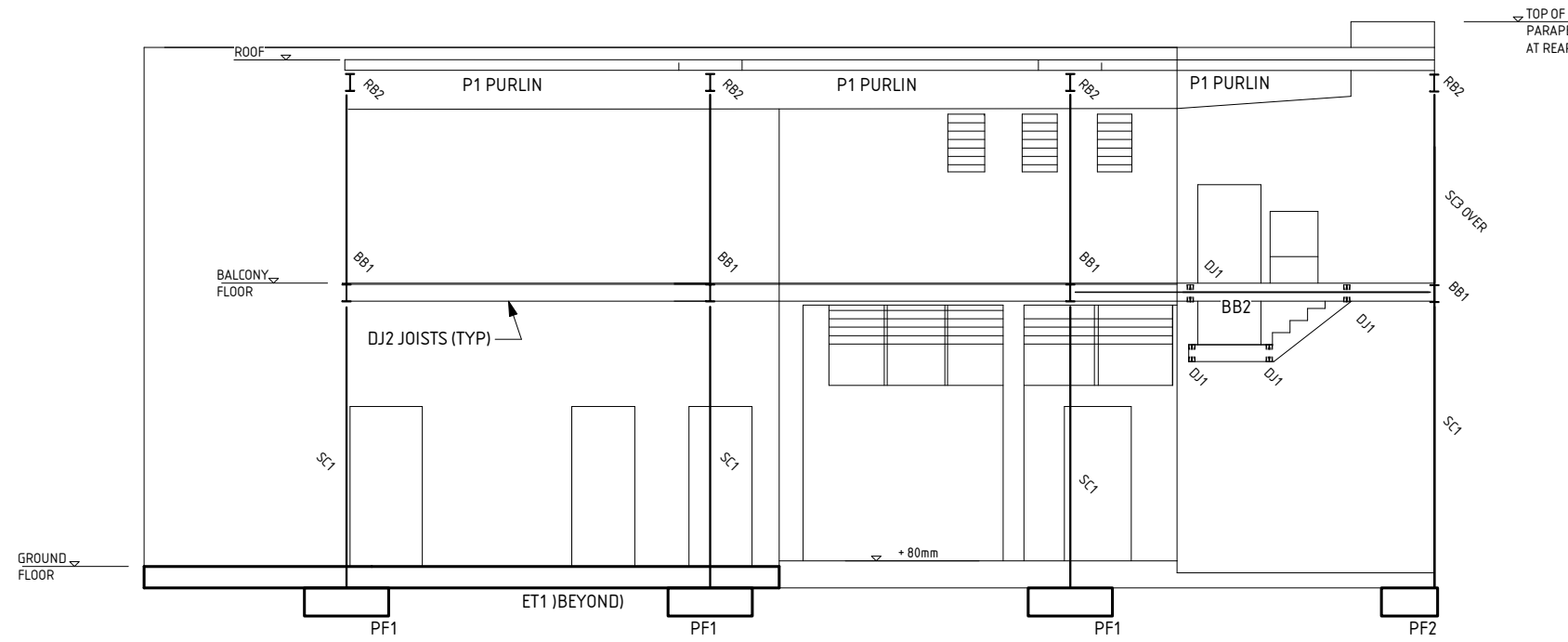


ELEVATION **E2**
1:100 **S101**

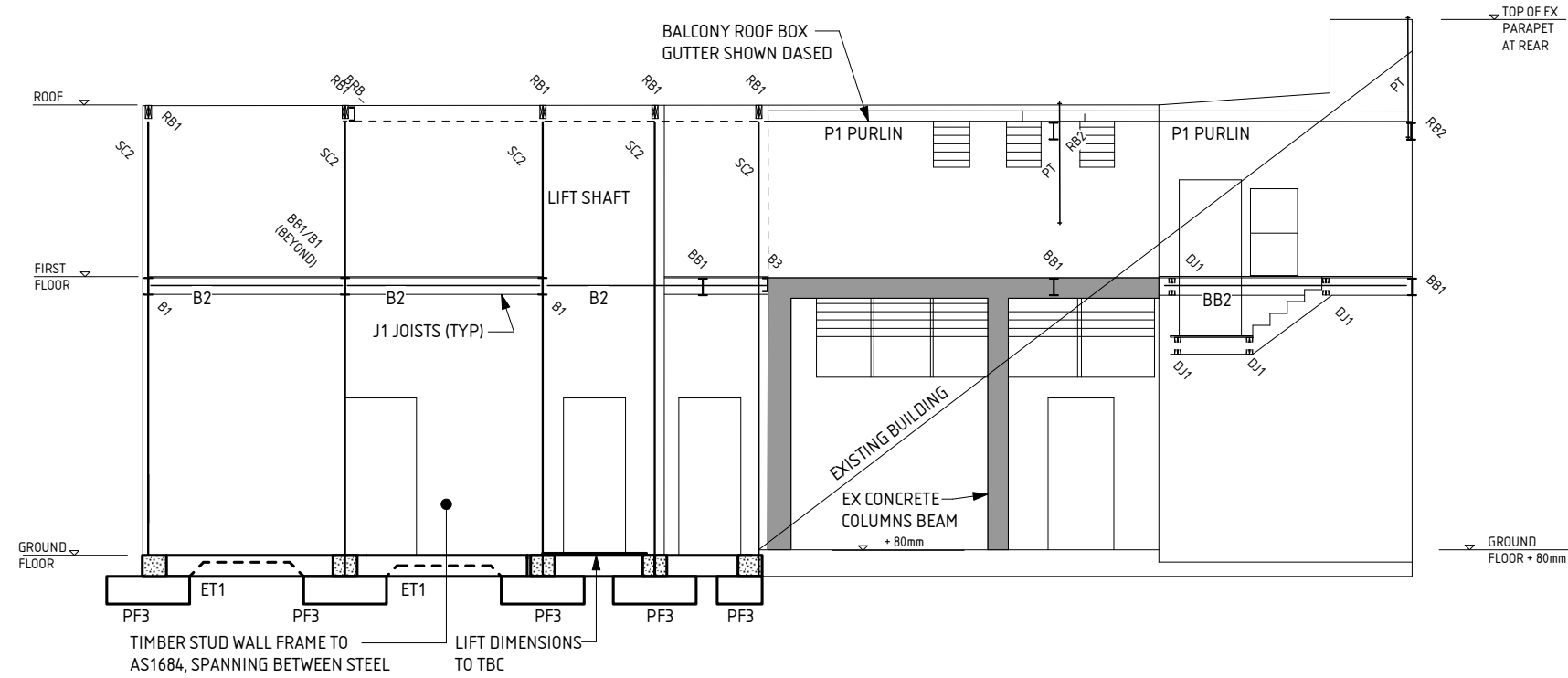
B	24/09/21	ISSUED FOR CLIENT REVIEW	PC	
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC	
REV	DATE	ISSUE / REVISION DESCRIPTION	PC	APP
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA W.A. 6021 TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au				
PROJECT	PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP			
TITLE	ELEVATIONS 1 & 2			
CLIENT	SHIRE OF MANJIMUP			
TITLE	NAME	DATE	STATUS	NOT FOR CONSTRUCTION
DRAFTSPERSON:	ROBERT BURNS	JULY 21		
DESIGNER:	PAUL COLLEY	JULY 21		
ENGINEERING CHECK:	JON SANDERS			
AUTHORISED BY:			SCALE	
			1:100	
			DRAWING REF. No.	REV
			1.21.16706-S-210	B

COPYRIGHT STRUCterre CONSULTING ENGINEERS. THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS.

SHEET SIZE A3



ELEVATION **E3**
1:100 **S101**



ELEVATION **E3B**
1:100 **S101**

• STEEL BALCONY/EXISTING STAIRS NOT SHOWN FOR CLARITY
 • ARCHITECTURAL DRAWINGS CLARIFYING PROPOSED OPENINGS TO ELEVATIONS REQUIRED PRIOR TO COMPLETION OF WALL BRACING DESIGN (TYP)

HOLD

REV	DATE	ISSUE / REVISION DESCRIPTION	APP
B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
			APP

STRUCterre consulting
 Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers
 1 ERINDALE ROAD, BALCATT A W.A. 6021
 TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

PROJECT: **PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP**

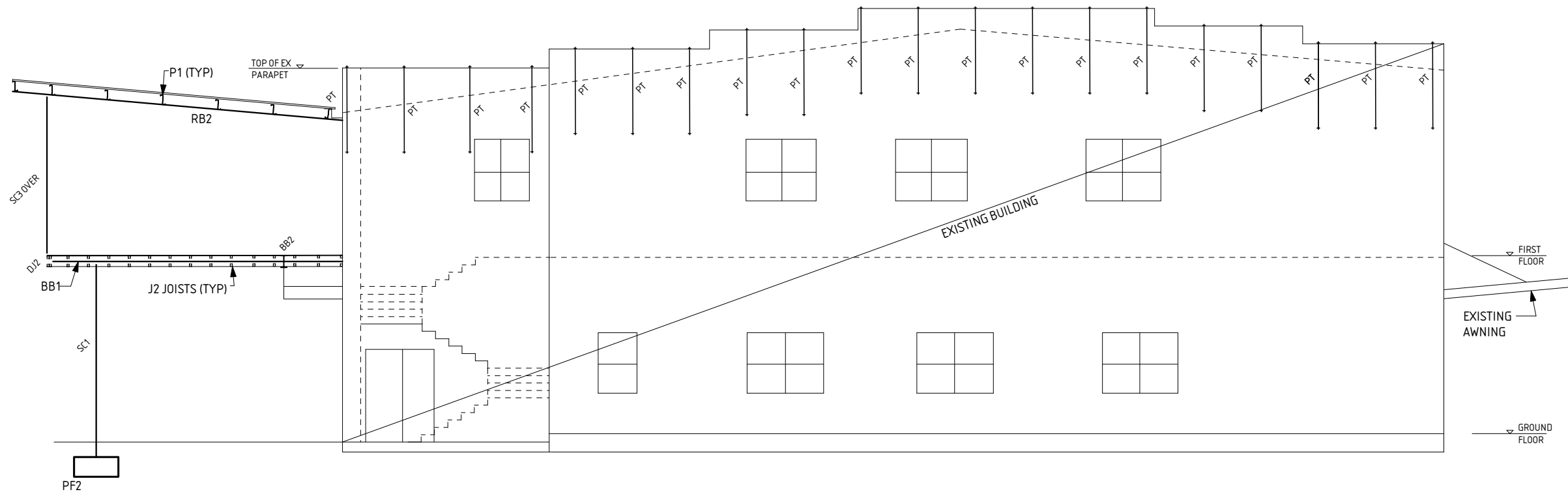
TITLE: **ELEVATIONS 3 & 3B**

CLIENT: **SHIRE OF MANJIMUP**

TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS		
AUTHORISED BY:			SCALE: 1:100
			DRAWING REF. No. 1.21.16706-S-211
			REV B

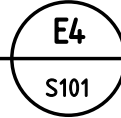
COPYRIGHT STRUCterre CONSULTING ENGINEERS. THESE DRAWINGS ARE SOLE PROPERTY OF STRUCterre CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCterre CONSULTING ENGINEERS.

SHEET SIZE A3



ELEVATION

1:100



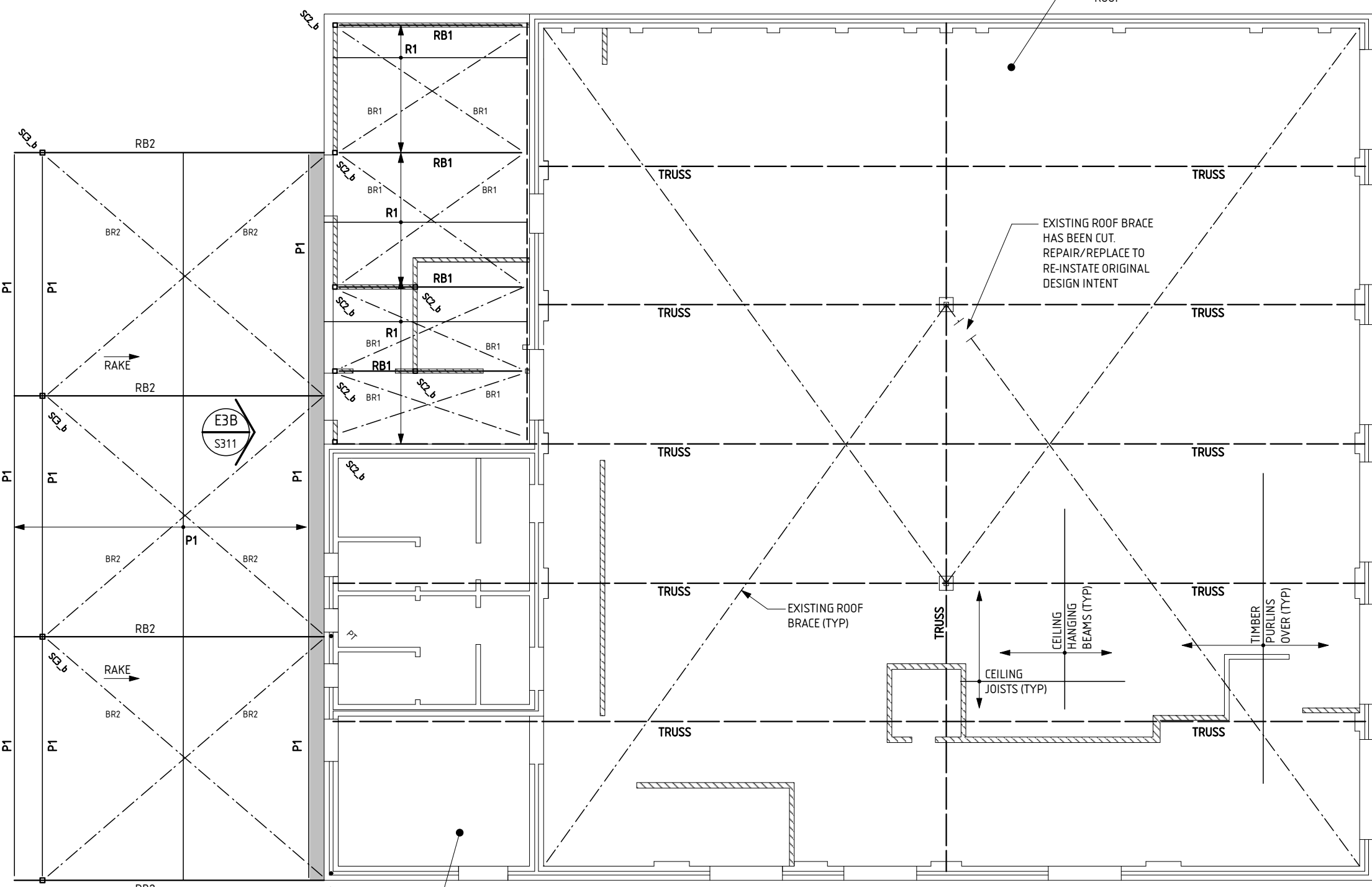
REV	DATE	ISSUE / REVISION DESCRIPTION	APP
B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC
<p>Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA W.A. 6021 TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au</p>			
PROJECT		PROPOSED EXTENSION 5D BROCKMAN STREET MANJIMUP	
TITLE		ELEVATION 4	
CLIENT		SHIRE OF MANJIMUP	
TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS	JULY 21	
SCALE			1:100
DRAWING REF. No.			REV
1.21.16706-S-212			B

COPYRIGHT STRUCTERRE CONSULTING ENGINEERS THESE DRAWINGS ARE SOLE PROPERTY OF STRUCTERRE CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCTERRE CONSULTING ENGINEERS.

SHEET SIZE A3



LEGEND	
SYMBOL	DESCRIPTION
	STEEL COLUMN BELOW
	TIMBER FRAMED WALLS UNDER TO AS1684
	50 x 1.2 GSS STRAP BRACING. FIX UNDER RAFTERS WITH 1No 10 TEK. FIX TO BEAMS/COLUMNS AT ENDS WITH 3No 12 SERIES 500 TEKS. ENSURE STRAIGHT AND TAUT PRIOR TO FIXING
	50 x 1.2 GSS STRAP BRACING. FIX UNDER PURLINS WITH 1No 10 TEK. FIX TO BEAMS/COLUMNS AT ENDS WITH 3No 12 SERIES 500 TEKS. ENSURE STRAIGHT AND TAUT PRIOR TO FIXING
	RAFTER SIZED WALL PLATE. FIX TO EXISTING BRICKWORK VIA M12 MEDIUM DUTY ANCHORS @ 600 c/c MAX (100mm FROM ENDS). FIX RAFTER TO WALL PLATE VIA TRIP-L-GRIP CONNECTORS OR EQUIVALENT.
	BOX GUTTER TO BUILDER'S DETAIL



NOTE:
NO DETAILS OR ARRANGEMENTS SHOWN ON THESE DRAWINGS ARE TO BE ALTERED WITHOUT THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.

WIND CLASSIFICATION: EQUIVALENT TO N2

ROOF COVER: METAL

IT IS THE RESPONSIBILITY OF THE BUILDER TO INFORM THE OWNER OF THE IMPORTANCE OF MAINTAINING EXTERNAL STRUCTURAL TIMBERS BY WAY OF PAINTING OR SIMILAR PROTECTION.

REV	DATE	ISSUE / REVISION DESCRIPTION	APP
B	24/09/21	ISSUED FOR CLIENT REVIEW	PC
A	30/07/21	ISSUED FOR PRELIMINARY APPROVAL	PC



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers
1 ERINDALE ROAD, BALCATTA W.A. 6021
TEL (08) 9205 4500 EMAIL: commercial@structerre.com.au

PROJECT: PROPOSED EXTENSION
5D BROCKMAN STREET MANJIMUP

TITLE: ROOF PLAN

CLIENT: SHIRE OF MANJIMUP

TITLE	NAME	DATE	STATUS
DRAFTSPERSON:	ROBERT BURNS	JULY 21	NOT FOR CONSTRUCTION
DESIGNER:	PAUL COLLEY	JULY 21	
ENGINEERING CHECK:	JON SANDERS		SCALE
AUTHORISED BY:			1:100
			DRAWING REF. No. 1.21.16706-S-301
			REV B

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC1	100 x 100 x 6.0 SHS
SC2	89 x 89 x 5.0 SHS
SC3	100 x 100 x 4.0 SHS

ALL COLUMNS: ALL STEELWORK (INCLUDING FASTENERS) TO BE TREATED IN ACCORDANCE WITH CLAUSE 3.4.4.4 "CORROSION PROTECTION" OF THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA.

ROOF MEMBER SCHEDULE	
MARK	MEMBER
RB1	DOUBLE RAFTER (NAIL LAMINATE TO AS1684)
RB2	200 UB 22 OR 360 x 75 LVL
R1	MIN 190 x 45 MGP10 RAFTERS @ 900 CRS
P1	Z150.12 OR 240 x 45 LVL PURLINS @ 1200 CRS

- LAP STEELPURLINS 900 OVER SUPPORTS. CENTRAL BRIDGING. FIX PURLINS TO 8PPL CLEATS & 2M12 PURLIN BOLTS

ROOF PLAN 1:100



COPYRIGHT STRUCTERRE CONSULTING ENGINEERS: THESE DRAWINGS ARE SOLE PROPERTY OF STRUCTERRE CONSULTING ENGINEERS AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN OR FORMAL PERMISSION FROM STRUCTERRE CONSULTING ENGINEERS.

SHEET SIZE A3