352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

STRUCTURAL NOTES SHEET 1

GENERAL

G1. THESE DRAWINGS HAVE BEEN PREPARED BASED ON ARCHITECTURAL DRAWINGS NO. CC00 - CC08 - REVISION 3, DATED 23.02.2022 PREPARED BY EPW

G2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS, AND WITH SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERVISING OFFICER FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G3. DO NOT SCALE FROM THESE DRAWINGS. NO RESPONSIBILITY WILL BE TAKEN BY THE CONSULTING ENGINEER FOR DIMENSIONS OBTAINED BY SCALING STRUCTURAL DRAWINGS.

G4. ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS. SET-OUT PLANS OF ALL BUILDING SERVICES SHALL BE PROVIDED TO AVOID DAMAGES OR COMPROMISE TO STRUCTURAL INTEGRITY CAUSED BY IMPROVISED WORKS ON SITE.

G5. DIMENSIONS ON THE STRUCTURAL DRAWINGS ARE EXCLUSIVE OF FINISHES.

G6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND NEIGHBORING STRUCTURES IN SAFE AND STABLE CONDITION DURING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN INDEPENDENT CERTIFICATION FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY WORKS INCLUDING BUT NOT LIMITED TO PROPPING, SCAFFOLD, FORMWORK, BRACING, BACK PROPPING ETC.

G7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT BUILDING CODE OF AUSTRALIA AND THE LATEST VERSION OF RELEVANT AUSTRALIAN STANDARDS.

G8. PROPRIETARY PRODUCTS SPECIFIED SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S MANUALS. DO NOT SUBSTITUTE SPECIFIED PROPRIETARY PRODUCTS WITHOUT WRITTEN APPROVAL FROM THE CONSULTING ENGINEER.

G9. WHERE ADDITIONAL CONSTRUCTION LOADS, SUCH AS BRICK PALLETS, SCAFFOLDS, EXCAVATORS, MOBILE CRANES, ETC. ARE TO BE IMPOSED ON THE STRUCTURE, THE CONTRACTOR SHALL SUBMIT FULL DETAILS OF THE PROPOSED EQUIPMENTS AND ASSOCIATED ACTIVITIES TO THE ENGINEER FOR REVIEW. A MINIMUM OF 5 WORKING DAYS' NOTICE PRIOR TO COMMENCEMENT MUST BE PROVIDED FOR SUCH PROPOSED WORKS.

G10. IF THE CONTRACTOR INTENDS TO VARY THE SCOPE OR METHOD OF WORKS OR MATERIALS USED, THE CONTRACTOR SHALL SUBMIT FULL DETAILS OF THE PROPOSAL TO THE CONSULTING ENGINEER FOR DESIGN CHECK.

G11. ALL ARCHITECTURAL FITMENTS SUCH AS GLAZING, PARTITIONS, CEILINGS ETC. SHOULD ALLOW FOR THE VERTICAL AND LATERAL MOVEMENT OF STRUCTURAL ELEMENTS. AN ALLOWANCE OF SPAN/250 OR CANTILEVER/150 BUT NOT LESS THAN 20mm SHALL BE MADE FOR THE VERTICAL DELFECTION OF STRUCTURES. THE INTER-STOREY DRIFT VALUE BETWEEN FLOORS SHALL BE TAKEN AS 1.5% OF STOREY HEIGHT UNLESS NOTED OTHERWISE.

DESIGN LOAD DATA

DL1. THE STRUCTURAL ELEMENTS DETAILED ON THESE STRUCTURAL DRAWINGS ARE JOB SPECIFIC AND HAVE BEEN DESIGNED FOR THE FOLLOWING FLOOR LOADS, WIND LOADS, AND EARTHQUAKE LOADS:

DL2. WIND LOAD DESIGN PARAMETERS IN ACCORDANCE WITH AS1170.2:

- IMPORTANCE LEVEL: IL2
- REGION: A2
- WIND TERRAIN CATEGORY: TC3
- TERRAIN/HEIGHT MULTIPLIER: $M_{z,cat}$ = 0.94
- TOPOGRAPHIC MULTIPLIER: M_t = 1
- SHIELDING MULTIPLIER: M_s = 1
- WIND DIRECTION MULTIPLIER: M_d = 1
- REGIONAL SERVICE WIND SPEED: $V_{R,SLS}$ = 37m/s
- REGIONAL ULTIMATE WIND SPEED: $V_{R,ULS}$ = 45m/s
- DESIGN SERVICE WIND SPEED: $V_{des,\theta,SLS}$ = 37m/s
- DESIGN ULTIMATE WIND SPEED: $V_{des,\theta,ULS}$ = 45m/s
- WIND CLASS IN ACCORDANCE WITH AS4055: N2

DL3. EARTHQUAKE LOAD DESIGN PARAMETERS IN ACCORDANCE WITH AS1170.4:

- IMPORTANCE LEVEL: IL2
- PROBABILITY OF EXCEEDANCE: P = 1/500
- PROBABILITY FACTOR: k_p = 1.0
- HAZARD FACTOR: Z = 0.08
- SITE SUBSOIL CLASS: Be
- DUCTILITY RATIO: μ/s_p = 2.6

DL4. FLOOR LOADS IN ACCORDANCE WITH AS1170.1:

DESIGN FLOOR LOADING			
FLOOR TYPE	SDL(kPa)	LL(kPa)	NOTES
CAR PARK	0.5	2.5	(RESIDENTIAL)
BALCONIES	1.5	2.0	(RESIDENTIAL)
LOBBIES/HALL WAYS	1.5	4.0	(RESIDENTIAL)
PLANTERS	20	5.0	1m MAX SOIL + PLANTER SELF WEIGHT
PLANT ROOM	1.5	10.0	
LOADING DOCK	0.5	15.0	
METAL ROOF	0.5	0.25	
TRAFFICABLE ROOF	1.5	4.0	
PEBBLE ROOF	2.0	1.0	
WATER TANK	5.0	20.0	

FOUNDATIONS

F1. REFER TO GEOGRAPHICAL REPORT:-
TBC

F2. THE FOUNDATIONS HAVE BEEN DESIGNED TO FOUND ON CLASS IV SANDSTONE WITH AN ALLOWABLE BEARING PRESSURE OF 700kPa.

F3. THE CONTRACTOR SHALL ENGAGE A QUALIFIED (NER) GEOGRAPHICAL ENGINEER TO INSPECT THE FOUNDING MATERIAL AND VERIFY BEARING CAPACITY PRIOR TO EACH CONCRETE PLACEMENT.

F4. FOOTINGS SHALL BE CENTRALLY LOCATED UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.

F5. THE UNDERSIDE OF ALL FOOTINGS SHALL BE FREE OF LOOSE MATERIALS, BOULDERS AND ORGANIC MATTER. THE MINIMUM SOCKET DEPTH INTO FOUNDING MATERIALS SHALL BE 200mm FOR SHALLOW FOUNDATIONS AND 500mm FOR PILED FOUNDATIONS U.N.O.

F6. EXCAVATED MATERIALS ARE NOT TO BE STOCKPILED WITHIN 1200mm OF PROPOSED FOOTINGS.

F7. FOOTINGS SHALL BE INSPECTED AND FILED WITH CONCRETE AS SOON AS POSSIBLE AFTER EXCAVATION. IN WET CONDITIONS, DE-WATERING PITS SHALL BE DUG AT THE LOW POINTS OF FOOTINGS FOR DE-WATERING BEFORE CONCRETE PLACEMENT. A MINIMUM 50mm CONCRETE BLINDING LAYER SHALL BE POURED BEFORE PLACING STEEL CAGES.

SUB-GRADE PREPARATION

SB1. THE SUB-GRADE SHALL BE TRIMMED TO AN EVEN SURFACE FREE FROM ALL LOOSE MATERIALS, ROOTS, BOULDERS, TOP SOIL, ORGANIC MATER AND OTHER UNSUITABLE MATERIAL.

SB2. WHERE THE SUB-GRADE IS UNABLE TO SUPPORT CONSTRUCTION EQUIPMENT, OR IT IS NOT POSSIBLE TO COMPACT THE OVERLYING MATERIAL DUE TO A HIGH SUB-GRADE MOISTURE CONTENT, PERFORM ONE OR MORE OF THE FOLLOWING:

- ALLOW THE SUB-GRADE TO DRY UNTIL IT WILL SUPPORT EQUIPMENT AND ALLOW COMPACTION;
- LOOSEN EXITING SUB-GRADE TO A DEPTH OF 150mm, WORK AS NECESSARY TO ACCELERATE DRYING, AND RE-COMPACT WHEN THE MOISTURE CONTENT APPROXIMATES THE OPTIMUM REQUIRED LEVELS;
- EXCAVATE THE WET MATERIAL AND REMOVE TO SPOIL

SB3. BACKFILL MATERIAL SHALL BE SELECTED AND APPROVED BY THE ENGINEER TO FILL AND REPLACE OVER-EXCAVATION, INCLUDING EXCAVATION FOR GRUB HOLES AND REMOVAL OF WET OR UNSUITABLE MATERIALS WITH GRANULAR MATERIALS COMPLYING WITH THE FOLLOWING:

- MAXIMUM PARTICLE SIZE: 75mm
- PROPORTIONAL PASSING 0.075mm SIEVE(25% MAXIMUM)
- PLASTICITY INDEX ≥2.0%, ≤15%

SB4. CRUSHED ROCK OR NATURAL GRAVEL USED FOR SUB-GRADE PERPETRATION SHALL BE OF HARD, DENSE DURABLE PARTICLES OF UNIFORM QUALITY, FREE FROM DELETERIOUS MATERIALS OR COATINGS INCLUDING CLAY AND ORGANIC MATERIAL. IF THE MATERIAL IS PRODUCED BY CRUSHING ROUNDED RIVER STONES, 75% OF THE PARTICLES LARGER THAN 9.5mm MUST HAVE AT LEAST 2 FRACTURED FACES.

SB5. BEDDING SAND SHALL BE OF CLEAN COARSE SAND, FREE FROM DELETERIOUS MATERIAL INCLUDING SOLUBLE SALTS OR OTHER CONTAMINANTS LIABLE TO CAUSE EFFLORESCES OR REDUCE SKID RESISTANCE. THE SAND PARTICLES SHALL PREFERABLE BE SHARP, NOT ROUNDED.

GRADING	SIEVE SIZE	% PASSING
	9.5 mm	100
	4.75 mm	95-100
	2.36 mm	80-100
	1.18 mm	50+85
	600 microns	25-60
	300 microns	10-30
	100 microns	5-15

SINGLE-SIZED OR GAP-GRADED SANDS, OR SANDS CONTAINING AN EXCESSIVE AMOUNT OF FINES SHALL NOT BE USED.

SB6. SUB-GRADE SHALL BE COMPACTED TO 98% COMPACTION IN ACCORDANCE WITH AS1289 PRIOR TO CONCRETE PLACEMENT.

STRUCTURAL STEELWORK

SS1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100, AS 1554 AND ALL OTHER RELEVANT DOCUMENTS AND SPECIFICATIONS.

SS2. ALL STEEL, UNLESS KNOWN OTHERWISE, SHALL BE IN ACCORDANCE WITH AS 1163 - GRADE 350 FOR HOLLOW SECTIONS, AS 3678 - GRADE 250 FOR PLATES AND AS 3679 - GRADE 300 FOR HOT ROLLED SECTIONS AND BARS.

SS3. THE CONTRACTOR IS TO SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL AT LEAST 10 WORKING DAYS BEFORE FABRICATION OF PARTS IS TO COMMENCE.

SS4. ALL WELDS SHALL BE 6MM-E48XX-CATEGORY "SP" CONTINUOUS FILLET OR FULL PENETRATION BUTT WELDS TO AS 1553, AS 1554 AND AS 4100 U.N.O.

SS5. ALL GUSSET PLATES SHALL BE 10MM THICK U.N.O.

SS6. ALL BOLTS SHALL BE M20-8.8/S U.N.O.

SS7. ALL STANDARD BOLT HOLES SHALL BE OF DIAMETER 2MM MAX. GREATER THAT OF THE BOLT AND, OF DIAMETER 1MM MAX. GREATER THAT OF THE PIN OR THE HIGH STRENGTH BOLT.

SS8. SUBSTITUTIONS FOR STEEL SECTIONS ON THE DRAWINGS SHALL NOT BE MADE WITHOUT AN APPROVAL OF THE ENGINEER.

SS9. THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING OF STEEL, TIMBER AND ALL OTHER ELEMENTS TO STRUCTURAL STEEL WHETHER OR NOT DETAILED ON THE STRUCTURAL DRAWINGS..

SS10. ALL CONCRETE-ENCASED STEELWORK SHALL BE THOROUGHLY SAND OR GRIT BLASTED AND CLEANED DOWN PRIOR TO ENCASING AND WRAPPED WITH W5 WIRE AT 150MM MAX. PITCH, AND SHALL HAVE MINIMUM OF 50MM CONCRETE COVER U.N.O. MIN. INTENSITY REQUIRED IS CLASS 2 TO AS1627.2.

SS11. ALL STEELWORK NOT ENCASED IN CONCRETE SHALL BE THOROUGHLY CLEANED BY SAND OR GRIT BLASTING OF ALL WELD SPLATTER, SLAG, OIL, ETC. AND PREPARED IN ACCORDANCE WITH AS 1627.2 CLASS 2.5 PRIOR TO PAINTING U.N.O.

ALL STEELWORK NOT ENCASED IN CONCRETE SHALL BE HOT DIP GALVANISED TO AS4680 @ MIN. COAT THICKNESS OF 100M M (HDG600), OR ALTERNATIVELY TREATED AS SPECIFIED IN AS2312, IF REQUIRED TREATMENT IS GREATER THAN LISTED IN THIS CLAUSE.

NO PAINT SHALL BE APPLIED UNTIL THE PREPARATION WORK HAS BEEN INSPECTED AND PASSED BY THE ENGINEER U.N.O. APPLICATION DFT MUST BE INSPECTED/PASSED BY THE ENGINEER U.N.O.

SS12. THE PAINTWORK SPECIFICATION SHALL BE EXTENDED AS FOLLOWS FOR:
FOR AS2312 CLASSIFICATION CATEGORY 'D & E-M' (ALL EXPOSED STEELWORK EXTENDED TO WITHIN 1km FROM OCEAN):
TREATMENT HDG600 P7 (AS2312 T5.2)- HDG600
+75MM EPOXY PRIMER WITH AN INHIBITIVE PIGMENT
+125MM HIGH BUILT EPOXY
+75MM POLYURETHANE GLOSS FINISH.

THIS TREATMENT (HDG600 P7) SHALL APPLY TO ALL ITEMS BUILT-IN OR CONNECTED TO MASONRY WITHIN 2KM FROM OCEAN. ALL MASONRY ANCHORS WITHIN THIS CLASSIFICATION MUST BE GRADE 316 STAINLESS STEEL.

SS13. GROUTING FOR BASES AND BASE PLATES SHALL CONSIST OF A STIFF NON-SHRINK 40 MPa EPOXY MORTAR MIX HAMMERED INTO PLACE U.N.O.

SS14. THE ENGINEER MAY ORDER RADIOGRAPHIC OR X-RAY EXAMINATION OF THE TEST WELDS TO SEE IF THE WELDS ARE CLEAR OF INCLUSIONS OF SLAG OR OTHER INTERNAL DEFECTS. THE COST OF ALL TEST PIECES SHALL BE BORNE BY THE BUILDER/SUB-CONTRACTOR AND THE COST OF ALL TESTING SHALL BE BORNE BY THE ENGINEER/PROPRIETOR.

SS15. FOR FILLET WELDS, THE THROAT THICKNESS FOR A BASE MATERIAL THICKNESS UNDER 6MM IS NOT TO EXCEED THE MINIMUM MATERIAL THICKNESS BEING WELDED OR JOINED.

PARTS TO BE FILLET WELDED SHALL BE BROUGHT INTO AS CLOSE CONTACT AS PRACTICABLE AND THE GAP DUE TO ANY UNEVENNESS OF EDGES OR FAULTY WORKMANSHIP SHALL NOT EXCEED TWO (2) MILLIMETRES. LOCAL SEPARATION UP TO A MAXIMUM OF FIVE (5) MILLIMETRES MAY BE APPROVED IF THE SIZE OF THE FILLET WELD IS INCREASED BY THE AMOUNT OF THE GAP.

SS16. FOR BUTT WELDS, THE EFFECTIVE THICKNESS OF AN EDGE TO EDGE BUTT WELD SHALL BE THE THICKNESS OF THE THINNER PART JOINED. SURFACE CONVEXITY SHALL NOT EXCEED THREE (3) MILLIMETRES AND SHALL NOT BE CONSIDERED AS PART OF THE THROAT THICKNESS. ALL BUTT WELDS SHALL HAVE THE ROOT OF THE INITIAL LAYER GOUGED OR CHIPPED OUT ON THE BACK SIDE BEFORE WELDING IS STARTED FROM THAT SIDE. BUTT WELDS IN MEMBERS SHALL ONLY BE MADE IN THE POSITION INDICATED ON THE DRAWINGS.

IF NO POSITIONS FOR BUTT WELDS ARE SHOWN ON THE DRAWINGS, THEN THE BUILDER/SUB-CONTRACTOR SHALL SUBMIT IN WRITING DETAILS OF THE PROPOSED POSITION OF BUTT WELDS. MEMBERS MADE UP BY BUTT WELDING SHORT LENGTHS TOGETHER SHALL BE REJECTED AND SHALL BE REPLACED BY THE BUILDER/SUB-CONTRACTOR AT HIS OWN EXPENSE.

SS17. ASSEMBLY AND TIGHTENING OF HIGH STRENGTH FRICTION GRIP BOLTED CONNECTIONS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS4100 CLAUSE 14.3.6.2, 14.3.6.3. THE BOLTS SHALL BE TIGHTENED BY THE 'PART TURN METHOD' AS DETAILED IN AS4100. THE TORQUE-CONTROL METHOD OF TENSIONING IS NOT PERMITTED.

THE MATTING SURFACES SHALL BE IN EFFECTIVE CONTACT IN THE JOINT WHEN THE JOINT IS TIGHTENED TO THE 'SNUG TIGHT' CONDITION AS DEFINED IN CLAUSE 1.3 OF AS4100. THE SURFACES SHALL BE FREE OF ALL PAINT, OIL, DIRT, RUST, SCALE OR ANY OTHER DEFECTS WHICH WOULD PREVENT SOLID SEATING OF THE PARTS OR INTERFERE WITH THE DEVELOPMENT OF FRICTION BETWEEN THEM. EACH BOLT AND NUT SHALL BE ASSEMBLED WITH THE CORRECT TYPE OF WASHER UNDER THE HEAD AND NUT.

THE SURFACE AGAINST WHICH THE NUT IS TIGHTENED SHALL BE PERPENDICULAR TO THE AXIS OF THE BOLT. UNDER NO CIRCUMSTANCES WILL DRIVING OF BOLTS INTO HOLES BE PERMITTED. SPLICES SHALL BE ALIGNED WITH PARALLEL DRIFTS IN TEN PERCENT (10%) OF HOLES. THE DRIFT DIAMETER SHALL BE THE HOLE DIAMETER PLUS NIL (+0) AND/OR MINUS POINT TWO FIVE (-0.25) MILLIMETRE. EXCESSIVE DRIFTING SHALL NOT BE PERMITTED.

SS18. THE BUILDER/SUB-CONTRACTOR SHALL FURNISH ALL FACILITIES FOR THE INSPECTION OF MATERIAL AND WORKMANSHIP AND SHALL ALLOW THE ENGINEER OR HIS INSPECTOR FREE ACCESS TO PLACE OF FABRICATION TO FACILITATE INSPECTION.

SS19. NOTWITHSTANDING ANY PRIOR INSPECTION AND APPROVAL OF THE WORK, ANY MATERIAL OR FINISHED WORK FOUND TO BE DEFECTIVE MAY BE REJECTED AT ANY TIME UP UNTIL THE END OF THE MAINTENANCE PERIOD. REJECTED MATERIAL OR WORK SHALL BE PROMPTLY REPLACED AND MADE GOOD BY THE BUILDER/SUB-CONTRACTOR AT HIS OWN EXPENSE.

SS20. FABRICATIONS SHALL BE MADE ACCURATELY TO THE SHAPES AND DIMENSIONS SHOWN ON THE DRAWINGS AND, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SHALL BE WITHIN THE TOLERANCE LISTED IN AS4100 AND THOSE LISTED BELOW:-

(1) POSITIONS OF HOLES FOR CONNECTORS : 1 MM

(2) FLANGE WARPING: 1/150 OF WIDTH OR 2MM WHICHEVER IS SMALLER

(3) WEB DEVIATIONS FROM FLATNESS: 1/300 OF DEPTH OF WEB, OVER THE LENGTH EQUAL TO DEPTH OR 3MM WHICHEVER IS SMALLER

(4) DEVIATION BETWEEN CENTRE LINES OF WEB AND FLANGE OF BUILT-UP GIRDER: 3 MM MAXIMUM

SS21. ALL STEEL WORK SHALL BE APPROPRIATELY TREATED TO NCC FIRE RESISTANCE LEVEL (FRL) REQUIREMENTS

COLD-FORMED STEEL

CS1. ALL COLD-FORMED OR PRESSED SECTIONS OF 2.6MM OR THICKER STEEL SHALL BE COATED AS PER SS12. OF THESE NOTES AND THINNER SECTIONS SHALL BE FORMED OF AN APPROVED GALVANISED MATERIAL.

CS2. ALL COLD-FORMED OR PRESSED SECTIONS SHALL BE OF MIN. 450MPA STRENGTH GRADE CONFORMING TO AS 1397-G450 AND AS 4600 U.N.O.

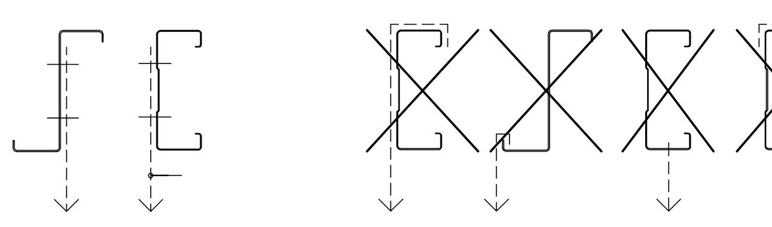
CS3. ALL PURLIN OR GIRT SECTIONS SPANNING OVER 6m SHALL BE LATERALLY RESTRAINED WITH TWO ROWS OF BRIDGING TO MANUFACTURER'S SPECIFICATION AND AS SHOWN ON THE DRAWINGS U.N.O.

CS4. COLD-FORMED STEEL MEMBERS, BEFORE ERECTION, SHALL NOT DEVIATE FROM STRAIGHTNESS OR THEIR SPECIFIED CONFIGURATION BY MORE THAN OVERALL LENGTH/1000.

CS5. THE MINIMUM SIZE OF CLEATS FOR PURLIN SUPPORTS SHALL BE OF 75mm WIDE x 8mm THICK. WHERE THE DISTANCE BETWEEN THE UNDERSIDE OF PURLIN AND THE TOP OF BEAM EXCEEDS 135mm, THE CLEATS SHALL BE MINIMUM 75X75X5 EA. UP TO A HEIGHT OF 750mm.

CS6. ALL ROOF SHEETING SHALL BE SCREWED TO PURLINS AT EACH CREST WITH NO.12 HEX. HEAD SELF TAPPING SCREWS AND NEOPRENE SEALING WASHERS U.N.O.

CS7. THE SUSPENSION OF CEILING, SERVICES AND OTHER NON-STRUCTURAL COMPONENTS SHALL BE STRICTLY MADE TO THE WEB OF COLD-FORMED STEEL SECTIONS AS ILLUSTRATED BELOW, FIXING TO TO THE FLANGES OF COLD-FORMED STEEL SECTIONS IS STRICTLY PROHIBITED.



APPROVED NON-APPROVED

CONCRETE

C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600, CURRENT ADDITION WITH AMENDMENTS, AND MANUFACTURER'S SPECIFICATIONS WHERE APPLICABLE.

C2. CONCRETE QUALITY :-
A. ALL CEMENT SHALL BE TYPE GP NORMAL PORTLAND CEMENT TO AS3972 U.N.O.
B. MAXIMUM SIZE OF THE COARSE AGGREGATE SHALL BE 20MM.
C. THE NOMINATED SLUMP AND MAXIMUM AGGREGATE SIZE FOR THE FOLLOWING STRUCTURAL ELEMENTS SHALL BE IN ACCORDANCE WITH THE TABLE BELOW:-

ELEMENT	SLUMP(mm)	MAXIMUM AGGREGATE SIZE(mm)
BEAMS, SLABS, FOOTINGS	80	20
COLUMNS	80	20
FORMED WALLS	120	10
BLOCK WALLS	180	10
AFS/DINCEL WALLS	220	10

C3. ALL CONCRETE STRENGTH MUST BE VERIFIED BY PLANT CONTROL TESTING UNLESS OTHERWISE SPECIFIED.

C4. CONCRETE THICKNESS SHOWN ARE MINIMUM AND NO REDUCTION BY DUCTS, PIPES, ETC. SHALL BE MADE WITHOUT AN APPROVAL OF THE CONSULTING ENGINEER. SIZES SHOWN ON THE DRAWINGS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.

C5. BEAM THICKNESS (DEPTH) IS WRITTEN FIRST AND INCLUDES A SLAB THICKNESS.

C6. NO PENETRATIONS OR RECESSES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT A PRIOR WRITTEN APPROVAL OF THE ENGINEER.

C7. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.

C8. THE CONCRETE SHALL BE COMPACTED USING HIGH FREQUENCY VIBRATORS.

C9. ALL SLABS SHALL BE PLACED AT THE SAME TIME AS BEAMS OF WHICH THEY FORM PART.

C10. COLUMNS, PIERS AND PEDESTALS SHALL BE PLACED 48 HOURS MINIMUM PRIOR TO CONCRETE IN THE SLABS AND BEAMS ABOVE.

C11. WET CURING OF ALL CONCRETE SURFACES SHALL COMMENCE IMMEDIATELY AFTER AFTER CONCRETE HAS HARDENED.

IMMEDIATELY THE SURFACE OF THE CONCRETE IS SCREEDED, TROWELLED OR OTHERWISE FINISHED, THE FINISHED CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR AT LEAST 7 DAYS BY ONE OF THE FOLLOWING METHODS:

A. PONDING OR CONTINUOUS SPRINKLING; OR
B. ABSORPTIVE MAT OR FABRIC OF LIGHT COLOR, SAND OR OTHER COVERING MAINTAINED CONTINUOUSLY WET; OR
C. APPLICATION OF LIQUID CURING COMPOUND CONFORMING TO AS3799 IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

C12. TESTING EQUIPMENT, LABOUR AND MATERIALS REQUIRED FOR ALL SUPPLIED CONCRETE TESTS SHALL BE SUPPLIED BY THE BUILDER. PERSONNEL INVOLVED IN SAMPLING AND TESTING SHALL BE CONVERSANT WITH THE RELEVANT STANDARDS. TEST CYLINDERS SHALL BE MARKED WITH AN IDENTIFYING NUMBER AND DATE OF CASTING. THE LOCATION OF THE CONCRETE IN THE BUILDING FROM WHICH THE SAMPLE HAS BEEN TAKEN SHALL BE RECORDED WITH THE IDENTIFYING NUMBER OF EACH CYLINDER FROM THE SAMPLE. TESTING OF SPECIMENS SHALL BE CARRIED OUT BY AN AUTHORITY APPROVED BY THE ENGINEER AND THE COSTS OF ALL SUCH TESTS SHALL BE MET BY THE BUILDER.

WHERE PUMPING EQUIPMENT IS BEING USED, CONCRETE SAMPLE SHALL BE TAKEN AT THE OUTPUT END OF THE PUMP.

THE BUILDER SHALL ALLOW A PROVISIONAL NUMBER OF TEST CYLINDERS AT THE RATE OF ONE (1) CYLINDER FOR EVERY FIVE (5) CUBIC METRES OF CONCRETE. THE MINIMUM NUMBER OF SAMPLES TO BE TAKEN FROM EACH POUR, HOWEVER, SHALL BE AS IN THE TABLE BELOW. THREE (3) STANDARD CYLINDERS SHALL BE MADE FROM EACH SAMPLE. A POUR IS DEFINED AS AN OPERATION INVOLVING THE CONTINUOUS PLACING OF CONCRETE BETWEEN CONSTRUCTION JOINTS.

READY-MIXED CONCRETE
1 TRUCK - 1 SAMPLE
2-5 TRUCKS - 3 SAMPLES
6-10 TRUCKS - 5 SAMPLES

FOR EACH ADDITIONAL 10 TRUCKS OR PART THEREOF, ONE (1) ADDITIONAL SAMPLE SHALL BE TAKEN.

SLUMP TESTS SHALL BE TAKEN FROM ANY BATCH AS DIRECTED BY THE ENGINEER. RESULTS OF COMPRESSION TESTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN ONE (1) WEEK AFTER EACH TEST IS PERFORMED. ACCEPTANCE OF CONCRETE TEST RESULTS SHALL BE BY "PROJECT CONTROL TESTING" SECTION B7 _ AS1379. THE STANDARD DEVIATION TO BE USED IN THE CALCULATION OF THESE RESULTS SHALL BE 4.5 MPA.

C13. CONCRETE SHALL NOT BE DROPPED MORE THAN 1.5 METRES. CHUTES, HOISTS OR TREMIES SHALL BE USED FOR DEEP DEPOSITS. CONCRETE PLACING SHALL BE CARRIED OUT CONTINUOUSLY BETWEEN CONSTRUCTION JOINTS AND IN SUCH A MANNER THAT A "WET EDGE" IS MAINTAINED.

DEPOSITION OF CONCRETE IN WATER WILL NOT BE PERMITTED. ANY FLOW OF WATER INTO EXCAVATIONS SHALL BE DIVERTED THROUGH PROPER SIDE DRAINS TO A SUMP OR BE REMOVED BY OTHER APPROVED METHODS. ADEQUATE PROVISION FOR DRAINAGE SHALL BE TAKEN TILL CONCRETE HAS ATTAINED ITS INITIAL SET.

C14. CLEAR CONCRETE COVER TO REINFORCEMENT INCLUDING TIES AND STIRRUPS SHALL BE AS FOLLOWS IN THE TABLE BELOW UNLESS SPECIFIED OTHERWISE:

MINIMUM COVER(mm) TO REINFORCEMENT TO COMPLY WITH DURABILITY REQUIREMENTS AND/OR 90min. FRL.				
STRUCTURAL ELEMENT	CONCRETE STRENGTH (MPa)	CONDITION A2 EXPOSED TO NON-AGGRESSIVE SOIL AND NON-INDUSTRIAL AND >50km FROM COAST LINE	CONDITION B1 1 TO 50km FROM COAST LINE OR INDUSTRIAL	CONDITION B2 LESS THAN 1km FROM COAST LINE
FOOTINGS, PILES, PILE CAPS	25	50	65	--
	32	40	50	60
	40	30	40	50
COLUMNS, BEAMS, SLABS	25	30	--	--
	32	30	40	--
	40	30	30	45
WALLS	25	35	--	--
	32	35	40	--
	40	35	35	45

WHERE CONCRETE IS CAST AGAINST THE GROUND IN THE NON-RESIDENTIAL CONSTRUCTION, THE COVER GIVEN IN THE TABLE ABOVE SHALL BE INCREASED BY 20MM TO THE SURFACE IN CONTACT WITH THE GROUND OR 10MM IF THAT SURFACE IS PROTECTED BY A DAMP-PROOF MEMBRANE (W.P.M.).

CONCRETE REINFORCEMENT

C15. REINFORCEMENT SYMBOLS:-

R	DENOTES PLAIN BAR GRADE R250N TO AS4671 AND GRADE 250 TO AS3679
DW	DENOTES DEFORMED WIRE GRADE D500L TO AS4671
W	DENOTES PLAIN GRADE R500L TO AS4671
F	DENOTES WELDED WIRE MESH GRADE 450F TO AS1304
S	DENOTES DEFORMED BAR GRADE 250S TO AS1302 AND AS3679
N	DENOTES PLAIN AND DEFORMED BAR GRADE D500N TO AS4671
RL/SL/L×TM	DENOTES PLAIN AND DEFORMED WIRE MESH GRADE D500L TO AS4671

THE NUMBER PRECEDING THE BAR SYMBOL DENOTES THE NUMBER OF BARS IN THE GROUP. THE NUMBER FOLLOWING THE BAR SYMBOL DENOTS THE DIAMETER OF THE BAR IN MM. ALL WIRE MESH DESIGNATED "F OR W" SHALL BE CONSIDERED

C16. DUCTILITY CLASS L REINFORCEMENT SHALL NOT BE USED UNLESS SPECIFICALLY AUTHORISED BY THE ENGINEER IN WRITING.

C17. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.

C18. WELDING OF REINFORCEMENT IS NOT PERMITTED UNLESS SHOWN OTHERWISE ON THE STRUCTURAL DRAWING

C19. SLAB REINFORCEMENT SHALL EXTEND AT LEAST 15 TIMES BAR DIAMETERS ONTO SUPPORT, BUT AT NO TIME LESS THAN 120mm, UNLESS SHOWN OTHERWISE.

C20. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN. THE WRITTEN APPROVAL OF THE SUPERVISING OFFICER SHALL BE OBTAINED FOR ANY OTHER SPLICES.

C21. WHERE THE LAP LENGTH IS NOT SPECIFIED, IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT AND NOT THE VALUES SPECIFIED IN THE TABLE BELOW:

BAR LAP CHART				
BAR	SLABS	VERTICALS	BEAMS TOP	BEAMS BTM
N12	450	500	500	500
N16	600	650	650	600
N20	800	800	800	750
N24	1000	1000	1200	1000
N28	1200	1200	1500	1200
N32	1500	1500	1850	1500
N36	1800	1800	2300	1800

FORMWORK

FW1. THE RESPONSIBILITY FOR THE SUFFICIENCY AND SAFETY OF THE WHOLE OF THE FORMWORK SHALL REST ENTIRELY WITH THE BUILDER AND ALL FORMWORK SHALL COMPLY WITH AS3610. FORMWORK SHALL BE OF TIMBER OR METAL AND THE FINISHED CONCRETE FACE SHALL PRESENT A PLAIN SMOOTH SURFACE.

FW2. FORMWORK SHALL BE FIRMLY FOUNDED AND SHALL BE DESIGNED AND CONSTRUCTED TO FORM THE FINISHED STRUCTURE TO THE LINES, SHAPES AND DIMENSIONS SHOWN ON THE DRAWINGS. THE DIMENSION OF THE FINISHED WORK SHALL BE WITHIN THE TOLERANCES LAID DOWN IN AS3600. ALL FORMWORK MUST BE CERTIFIED FOR STRUCTURAL ADEQUACY BY A PRACTISING STRUCTURAL ENGINEER. ENGINEERING COMPUTATIONS AND/OR DRAWINGS SHALL ACCOMPANY SUCH A CERTIFICATE OF STRUCTURAL ADEQUACY ON THE ENGINEER'S REQUEST.

FW3. ALL FORM JOINTS SHALL BE MORTAR AND WATER TIGHT AND ANY INDICATION IN THE FINISHED CONCRETE THAT THIS WAS NOT ACHIEVED WILL RENDER THAT CONCRETE LIABLE FOR REJECTION.

FW4. REMOVAL OF FORMWORK AND FORMWORK SUPPORTS FROM UNDER THE SLABS AND BEAMS NOT SUPPORTING STRUCTURES ABOVE AND NOT CARRYING SUPERIMPOSED CONSTRUCTION LOADS GREATER THAN 1.5KPA SHALL BE DONE TO THE FOLLOWING GUIDELINES:-

FORMED SURFACE	CLASSIFICATION OF THE SUPPORTING MEMBER	HOT CONDITION T > 21°C	AVERAGE CONDITION 12°C <T< 21°C	COLD CONDITION 5°C <T< 12°C
BEAMS	FORMS	5 DAYS	7 DAYS	12 DAYS
	SUPPORT FOR EFF. SPAN <3m	10 DAYS	21 DAYS	28 DAYS
	3-5m	14 DAYS	21 DAYS	28 DAYS
	>5m	14 DAYS	28 DAYS	28 DAYS
SLABS	FORMS	4 DAYS	6 DAYS	8 DAYS
	SUPPORT FOR EFF. SPAN <3m	7 DAYS	14 DAYS	21 DAYS
	3-5m	10 DAYS	21 DAYS	28 DAYS
	>5m	14 DAYS	28 DAYS	28 DAYS
WALLS	FORMS	5 DAYS	7 DAYS	9 DAYS

"SUPPORTS" DENOTES ALL FORMWORK PROPS AND FRAMES.
HALF THE ORIGINAL NUMBER OF SUPPORTS IS TO REMAIN UNDER THE BEAMS FOR THE DURATION OF THE FULL CURING CYCLE (28 DAYS).

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25						

DRAWING TITLE: STRUCTURAL NOTES SHEET 1
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

ARCHITECT: EPW
109 WOOLCOTT ST.
EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

DO NOT SCALE FROM THESE DRAWINGS.
REFER TO ARCHITECT'S DRAWINGS FOR ALL LEVELS, DIMENSION SETOUTS AND CLEARANCES.
THE ACCURACY OF SITE MEASUREMENTS AND POSITIONS, CONFORMITY TO THE DESIGN DRAWINGS AND SPECIFICATIONS REMAIN THE RESPONSIBILITY OF THE BUILDER.

JOB NO: SSCE-2401-131
DRAWING NUMBER: SN-001
REV: C
SCALES: 1:100@A1 / 1:200@A3

352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

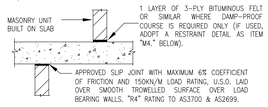
STRUCTURAL NOTES SHEET 2

MASONRY

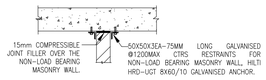
M1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700-MASONRY STRUCTURES, CURRENT ADDITION WITH AMENDMENTS AND MANUFACTURER'S SPECIFICATIONS WHERE APPLICABLE. AS4773 SHALL BE USED FOR APPLICABLE STRUCTURES. HOWEVER, WHERE THE REQUIREMENT GIVEN IN THESE DESIGN DRAWINGS & NOTES ARE MORE STRINGENT THAN THOSE CONTAINED IN AS4773, THEN MORE STRINGENT REQUIREMENT PROVIDED FOR HEREIN MUST APPLY.

M2. CLAY MASONRY UNITS SHALL COMPLY TO AS4455
CALCIUM SILICATE MASONRY UNITS SHALL COMPLY TO AS4455
NATURAL STONE MASONRY UNITS SHALL COMPLY TO AS5390
CONCRETE BLOCK MASONRY UNITS SHALL COMPLY TO AS4455

M3. HORIZONTAL JOINTS AT CONCRETE SLAB SHALL BE IN ACCORDANCE WITH DETAILS PROVIDED BELOW:- (UNLESS DETAILED OTHERWISE ON STRUCTURAL DRAWINGS).



M4. NON-LOAD BEARING MASONRY TOP RESTRAINT DETAILS:-



M5. WALL TIES SHALL BE MEDIUM/HEAVY DUTY GRADE 316 (R4) STAINLESS STEEL WALL TIES CONFORMING TO AS3700 AND AS2699 - SAA WALL TIES FOR MASONRY CONSTRUCTION. TIES SHALL BE GENERALLY SPACED AS PER SECTION 12 OF AS3700. 'R3' GALVANISED TIES MAY BE USED FOR AS2312 CLASSIFICATION CATEGORY 'A-C'.

M6. UNLESS SPECIFIED OTHERWISE THE MORTAR MIX SHALL BE 1 : 0.25 : 3 (C : L : S) COMPOSITION TO AS 3700 CLASSIFICATION "M4".

M7. DAMP-PROOF COURSE MATERIAL SHALL BE AT LEAST 20MM WIDER THAN THE THICKNESS OF THE MASONRY IN WHICH IT IS PLACED.

M8. OVER-FLASHING, WHERE APPLICABLE, SHALL BE SET INTO MORTAR JOINTS RAKED TO THE DEPTH OF AT LEAST 15MM INTO MASONRY.

M9. VERTICAL ARTICULATION JOINTS SHALL BE PROVIDED AT CENTRES SPECIFIED IN NCC VOL.2 AND/OR AS4773, BUT NOT GREATER THAN 5 m MAX CENTRES UNLESS OTHERWISE SHOWN IN THE DRAWING.

M10. WEEP HOLES (OR 10MM DRAINAGE TUBES FOR GROUTED MASONRY) SHALL BE PROVIDED AT VERTICAL JOINTS SPACED AT 1000 MAX. CTRS. IN THE EXTERNAL MASONRY WALLS; OPEN FULL HEIGHT ABOVE THE DAMP-PROOF COURSE OR FLASHING.

M11. EXPOSED JOINTS SHALL BE RAKED TO THE DEPTH NOT GREATER THAN 3MM U.N.O. DO NOT RAKE OUT JOINTS TO CONCRETE BLOCKWORK OR HOLLOW MASONRY.

M12. MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERVISING OFFICER.

M13. NO CHASES SHALL BE CUT INTO LOAD BEARING MASONRY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER U.N.O.

M14. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE MASONRY WALLS UNDER CONSTRUCTION ARE BRACED OR OTHERWISE STABILISED AS REQUIRED TO RESIST WIND AND OTHER LATERAL FORCES.

M15. MASONRY SHALL NOT BE SUBJECT TO ANY LOAD UNTIL IT HAS GAINED SUFFICIENT STRENGTH TO CARRY SUCH LOAD OR 7 DAYS WHICHEVER IS GREATER.

M16. ALL CAVITIES SHALL BE LEFT FREE FROM MORTAR DROPPINGS OR OTHER MATERIAL WHICH MIGHT BRIDGE OR BLOCK THE CAVITY.

M17. FRESHLY LAID MASONRY SHALL NOT BE USED TO SUPPORT SCAFFOLDING, FORMWORK OR ANY OTHER EQUIPMENT.

M18. FLASHING MUST BE PROVIDED AT ALL CAVITY INTERRUPTIONS, ALONG WITH WEEP HOLES OR DRAINAGE OUTLETS AS PER CLAUSE 'M10.' OF THESE NOTES.

M19. ALL LOAD BEARING BRICKWORK AND UNREINFORCED CONCRETE MASONRY SHALL HAVE GALVANISED WOVEN WIRE MESH PLACED INTO MORTAR AT EVERY SECOND HORIZONTAL JOINT TO FIRST 4 JOINTS ABOVE THE SLAB AND WHERE REQUIRED BY THE STANDARD SPECIFICATION AND GOOD BUILDING PRACTICES.

M20. GENERALLY ALL BRICKWORK MASONRY UNITS SHALL BE OF AT LEAST SALT ATTACK RESISTANCE GRADE IN ACCORDANCE WITH CLAUSE 5.3 OF AS3700, BUT NOT LESS THAN:

"GENERAL PURPOSE" FOR INTERNAL, UNEXPOSED CONSTRUCTION;
"EXPOSURE" FOR ALL OTHER USES.
TEST CERTIFICATE TO AS4456.10 SHALL BE PROVIDED.

M21. WHEN REQUESTED BY THE ENGINEER, ALL IN-SITU MASONRY SHALL BE TESTED IN ACCORDANCE WITH CLAUSE 11.11 OF AS3700.

M22. INSTALL 10MM COMPRESSIBLE EXPANSION JOINT BETWEEN ANY VERTICAL MASONRY AND A BUTT END TERMINATION OF TIMBER, STEEL OR CONCRETE ELEMENT.

M23. ALL STEELWORK ENCASED IN OR IN CONTACT WITH MASONRY SHALL BE HOT DIP GALVANISED TO HDG600 (AS2312):

M24. THE TREATMENT SPECIFICATION SHALL BE EXTENDED FOR AS2312 CLASSIFICATION CATEGORY D & E-M (ALL STEELWORK WITHIN 1.5KM FROM OCEAN) TO TREATMENT HDG600 P7 (AS2312 T5.2)

GRADE 316 MATERIAL MAY BE USED AS AN ALTERNATIVE

ALL MASONRY ANCHORS WITHIN THE CLASSIFICATION CATEGORY D & E MUST BE GRADE 316 STAINLESS STEEL.

M25. STANDARD LINTELS FOR BRICKWORK

LINTELS FOR BRICKWORK SHALL BE OF THE SIZES LISTED BELOW U.N.O:

SPAN(mm)	LINTEL SIZE
A) NON-LOAD BEARING WALLS PER SINGLE LEAF	
<600mm	75x10 FLAT BAR
600-900mm	75x50x6L
900-1200mm	75x50x6L
1200-1800mm	75x75x8L
1800-2100mm	100x75x8L
2100-2400mm	100x75x10L
2400-2700mm	100x75x10L
2700-3000mm	125x75x10L
B) LOAD BEARING WALLS PER SINGLE LEAF	
<600mm	75x10 FLAT BAR
600-900mm	75x75x8L
900-1200mm	100x75x8L
1200-1800mm	125x75x10L
1800-2100mm	150x90x10L
2100-2400mm	150x90x10L
2400-2700mm	150x100x12L
2700-3000mm	250 PFC

NOTES TO THE TABLE:

A. THIS TABLE IS TO BE READ IN CONJUNCTION WITH STRUCTURAL STEELWORK NOTES.

B. ALL LINTELS TO HAVE A MINIMUM BEARING LENGTH OF 110MM EACH END UNDER 1200MM IN LENGTH AND 230MM FOR THE REMAINDER, AND SHALL BE HOT DIP GALVANISED TO AS4680, MIN. THICKNESS 100 MICRONS. THE TREATMENT SHALL BE EXTENDED AS PER CLAUSE 33 OF THESE NOTE WHERE APPLICABLE.

C. ALL ITEMS BEYOND THE SCOPE OF THE TABLE ABOVE AND ANY AND ALL SPECIFIC CASES SHOULD BE REFERRED TO THE STRUCTURAL ENGINEER.

MASONRY BLOCKS

M26. UNLESS NOTED OTHERWISE THE CORES OR CAVITIES OF REINFORCED MASONRY SHALL BE FILLED WITH CONCRETE HAVING A CHARACTERISTIC COMPRESSIVE STRENGTH AT 28 DAYS OF 25 MPa AND COMPLYING TO AS3600 WITH MIN. 300KG/CU.M CEMENT.

M27. WHEN PLACED, CONCRETE (OR GROUT) SHALL NOT BE DROPPED FROM THE HEIGHT OF MORE THAN 1.5M AND SHALL HAVE A SLUMP OF 150-175MM AND IT SHALL BE FULLY COMPACTED WITH A SMOOTH ROUND BAR.

M28. MAXIMUM COARSE AGGREGATE SIZE IN CONCRETE USED TO FILL CORES OR CAVITIES SHALL NOT BE GREATER THAN 10MM.

M29. MINIMUM REINFORCEMENT COVER SHALL BE 30MM TO COMPLY TO AS 3700 CLASSIFICATION "R4" AND THE REQUIREMENT FOR A FIRE-RESISTANCE PERIOD OF 120MIN OR AS MAY BE REQUIRED BY OTHER AUTHORITIES.

M30. ALL REINFORCED BLOCKWORK MUST BE PROVIDED WITH THE INSPECTION AND CLEAN-OUT HOLES.

M31. ALL REINFORCING BARS IN EXTERNAL AND RETAINING WALLS MUST BE GALVANISED WITH MIN. COATING MASS 600G/SQ.M (HDG 600), HORIZONTAL BARS PLACED CENTRALLY, SO AS NOT TO INTERFERE WITH THE PLACEMENT OF VERTICAL REINFORCEMENT U.N.O.

M32. THE SPLICES SHOULD BE LOCATED JUST ABOVE THE FOOTINGS SO THAT THE VERTICAL REINFORCEMENT MAY BE TIED TO STARTER BARS THROUGH CLEAN-OUT HOLES.

M33. ALL ADDITIONAL SPLICES AND CLEAN-OUT HOLES SHOULD BE PLACED AT THE INTERMEDIATE HEIGHTS, CORRESPONDING TO THE GROUTING BREAKS.

TIMBER

T1. ALL RESIDENTIAL TIMBER FRAMING MATERIAL AND CONSTRUCTIONS SHALL BE IN ACCORDANCE WITH AS1684. ALL OTHER TYPES OF TIMBER CONSTRUCTION SHALL CONFORM TO AS1720 SERIES.

T2. THE USE OF UNSEASONED TIMBER MEMBERS ARE IS NOT PERMITTED UNLESS NOTED OTHERWISE.

T3. ALL TIMBER BEAMS/LINTELS SHALL HAVE MINIMUM 70mm BEARING UNLESS NOTED OTHERWISE.

T4. THE MINIMUM STRUCTURAL GRADE TIMBER FRAMING MEMBERS SHALL BE EQUIVALENT TO OR OF HIGHER GRADE THAN F7 AND MGP10.

T5. ROOF MEMBERS SUPPORTING LIGHT WEIGHT STEEL ROOF SHALL BE TIED DOWN TO SUPPORTING WALLS WITH 2 x PRYDA MULTIGRIPS EACH END.

T6. THE BOTTOM PLATE OF UPPER FLOOR WALLS SHALL BE TIED DOWN TO THE TOP PLATE OF LOWER FLOOR WALLS WITH M12 THREADED RODS AT 1200mm CENTRES AND AT EACH END OF OPENING AND BRACING WALLS.

T7. WALLS SUPPORTED OFF CONCRETE SLABS/FOOTINGS SHALL BE TIED DOWN TO THE SLAB/FOOTING WITH M12x150 RA,SET ANKASCREW WITH A MIN. 40X40X5mm SQUARE WASHER AT 1200 CENTRES AND AT EACH END OF OPENING AND BRACING WALLS.

T8. ALL STRUCTURAL BOLTS SHALL BE USED IN CONJUNCTION WITH 55x3mm ROUND WASHERS OR 50x50x3mm SQUARE WASHER UNLESS NOTED OTHERWISE.

T9. ALL TIMBER STUD WALLS SHALL HAVE NOGGINS INSTALLED AT MAXIMUM 1350mm CENTRES.

T10. THE CONTRACTOR SHALL HAVE APPROPRIATE TERMITE MANAGEMENT METHODS IN PLACE FOR TIMBER FRAMED STRUCTURES IN ACCORDANCE WITH AS3660.1 AND 3660.2.

T11. LAMINATED VENEER LUMBER SHALL NOT BE USED IN AREAS SUBJECTED TO PERIODIC WETTING REGARDLESS OF THE TIMBER'S HAZARD RESISTANCE LEVEL.

T12. ALL TIMBER FRAMING MEMBERS SHALL BE NATURALLY TERMITE RESISTANT OR TREATED USING LOSP OR ACQ CHEMICALS TO A MINIMUM HAZARD RESISTANCE LEVEL H2 IN ACCORDANCE WITH AS1604.1. THE MINIMUM HAZARD RESISTANT LEVEL OF TIMBER MEMBERS SHALL BE SELECTED AS FOLLOWS:-

H2 INTERIOR USE, ABOVE GROUND.
H3 EXTERIOR USE, ABOVE GROUND.
H5 EXTERIOR USE, IN-GROUND OR IN FRESH WATER.
H6 EXTERIOR USE, IMMERSION IN SEA WATER

SWIMMING POOLS

SP1. DIMENSIONS:
GOVERNING DIMENSIONS SHALL BE DETERMINED ON SITE.
CONCRETE SIZES INDICATED ARE NET EXCLUSIVE OF FINISH AND SHALL NOT BE VARIED NOR SHALL MEMBERS BE HOLED WITHOUT APPROVAL FROM THE ENGINEER.

SP2. FOUNDATION:
FOUNDATION MATERIALS SHALL BE APPROVED PRIOR TO PLACING CONCRETE FOR A SAFE BEARING PRESSURE OF 150kPa AND AT LEAST CLASS 'M' UNDER CLAUSE AS 2870-2011

SP3. REINFORCEMENT:
GENERAL:
REINFORCEMENT SHALL BE STRUCTURAL GRADE DEFORMED ROD LAPPED 450mm AT JOINTS, TIED SECURELY WITH 18swg ANNEALED WIRE AND SHALL BE ACCURATELY MAINTAINED IN POSITION BY APPROVED CHAIRS OR CONCRETE BLOCKS AT 900mm MAX. CENTERS.

CONCRETE COVER: MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE 50mm FROM WATER FACE IN THE CANTILEVERED WALKWAYS SHALL BE PLACED 50mm FROM TOP OF FINISHED CONCRETE OR AS DIRECTED BY THE ENGINEER.

SP4. SKIMMER BOX:
MINIMUM REINFORCEMENT AROUND SKIMMER BOX SHALL BE 2-S12 VERTICAL SPLICES FROM WALL TO BACK OF SKIMMER AND 2-S12 HORIZONTAL SPLICES FORM WALL AROUND BACK OF SKIMMER AND EACH BOND BEAM BAR TO BE SPLICED.

SP5. CONCRETE:
CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF F'c 40MPa AT 28 DAYS USING 10mm ANGULAR COARSE AGGREGATE, CLEAN SHARP SAND PORTLAND CEMENT AND FRESH WATER, SLUMP TEST SHALL NOT EXCEED 75mm. THE SUPPLIER SHALL PROVIDE THE NECESSARY EXCESS STRENGTH TO COMPLY WITH AS3600.

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: STRUCTURAL NOTES SHEET 2
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: SN-002
REV: C
SCALES: 1:100@A1 / 1:200@A3

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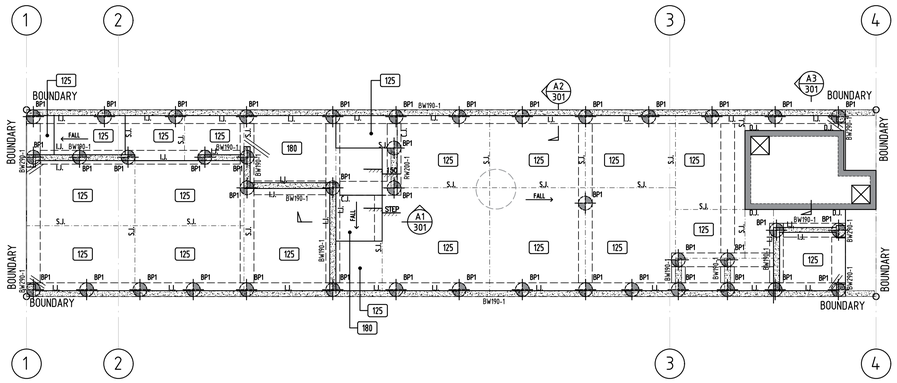
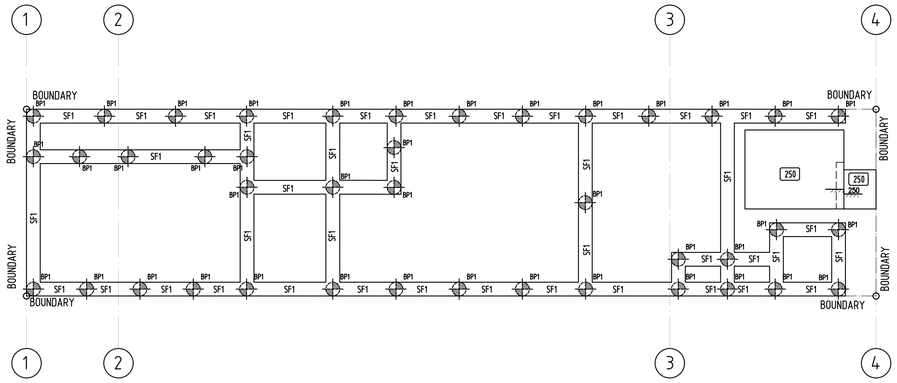


GROUND FLOOR GENERAL ARRANGEMENT PLAN

SCALE: 1:100@A1

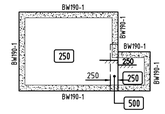


FOOTING AND PILING GENERAL ARRANGEMENT PLAN

SCALE: 1:100@A1

GROUND FLOOR SLAB NOTES

- f'c = N32
- 180 THK SLAB TO BE REINFORCED WITH SL82 TOP AND BTM
- 125 THK SLAB TO BE REINFORCED WITH SL82 TOP
- START CURING PROCESS AS SOON AS CONCRETE HAS HARDENED WITH SIKA ANTISOL AC CURING COMPOUND.
- PROVIDE HEAVY DUTY WATERPROOF MEMBRANE TO EXTERNAL AREAS INCLUDING ROOF
- REFER TO S401 FOR ALL AFS REDIWALL DETAILS
- REFER TO S301 FOR FOOTING DETAILS



OSD BASE PLAN

SCALE: 1:100@A1

PILE SCHEDULE

MARK	DIAMETER	f'c	BEARING MATERIAL				REINF.	WORKING LOAD
			SOIL TYPE	ALLOWABLE END BERING PRESSURE	ALLOWABLE SHAFT ADHESION	SOCKET LENGTH IN ROCK		
	mm	Mpa		kPa	kPa	mm		kN
BP1	450	32	SHALE	1000	NA	300	MASS CONC.	160

PILE NOTES:
- REFER TO GEOTECHNICAL REPORT TBC
- ALL PILES TO FOUND ON BEDROCK WITH 1000 kPa BEARING CAPACITY.
- PROVIDE WHEEL SPACERS AND ENSURE MINIMUM 75mm COVER TO PILE REINFORCEMENT.
- ALL FOOTING AND PILES MUST BE INSPECTED PRIOR TO CONCRETE PLACEMENT.

FOOTING SCHEDULE

MARK	SIZE	TOP REINF.	BTM REINF.	TIE
FOOTING BEAMS / STRIP FOOTINGS				
SF1	450W x 450D	L12TM4	L12TM4	R10-400

DRAWING LEGEND

- 125 — DENOTES SLAB THICKNESS
- 100 — DENOTES SLAB STEP
- DENOTES 20mm WET AREA SETDOWN
- DENOTES VOID/PENETRATION. PROVIDE TRIMMER BARS AS REQUIRED
- DENOTES SPAN DIRECTION OF BONDEK SLAB
- C30/37 — DENOTES LOAD-BEARING CONCRETE ELEMENT OVER
- DENOTES LOAD-BEARING ELEMENTS UNDER
- C30/37 — DENOTES LOAD-BEARING CONCRETE ELEMENTS OVER AND UNDER
- DENOTES LOAD-BEARING MASONRY WALLS OVER
- DENOTES LOAD-BEARING STUD WALLS OVER
- SC100 — DENOTES STEEL COLUMNS OVER
- SC100 — DENOTES STEEL COLUMNS UNDER
- SC100/100 — DENOTES STEEL COLUMNS UNDER AND OVER
- DENOTES 32X1.2 G300 ROOF CROSS STRAPS PROVIDE 1 TENSIONER TO EACH STRAP

DRAWING NOTES

- DO NOT SCALE FROM THESE DRAWINGS.
- ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.
- DIMENSIONS ON THE THESE DRAWINGS ARE EXCLUSIVE OF FINISHES.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL LEVELS, STEPS, FALLS AND DIMENSION SET OUTS
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL REBATES, HOBS AND WATERPROOFING DETAILS

CONCRETE NOTES

- REFER TO NOTES ON COVER SHEET
- CONTACT ENGINEER FOR INSPECTION PRIOR TO EACH CONCRETE PLACEMENT
- MIN. CONCRETE STRENGTH

STRUCTURAL ELEMENT	f'c
SLAB ON GROUND	N32
FOOTING BEAMS	N32
MASS CONCRETE PILES	N32
AFS WALLS	N32
BLOCK WALLS	N32
REINFORCED PILES	N40
SUSPENDED SLAB	N40

- FIRE RESISTANCE LEVEL

STRUCTURAL ELEMENT	FRL(min.)
1ST FLOOR SLAB	180/180/180
2ND FLOOR SLAB	60/60/60
AFS WALLS	180/180/180
190/290 BLOCK WALLS	180/180/180

- MIN. COVER TO REINFORCEMENT

LOCATION	COVER(mm)
FOOTINGS	50
PILES	75
SLABS TOP	40
SLABS BTM	40
COLUMNS	40

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: GROUND FLOOR AND FOOTING PLAN
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: S101
REV: C
SCALES: 1:100@A1 / 1:200@A3

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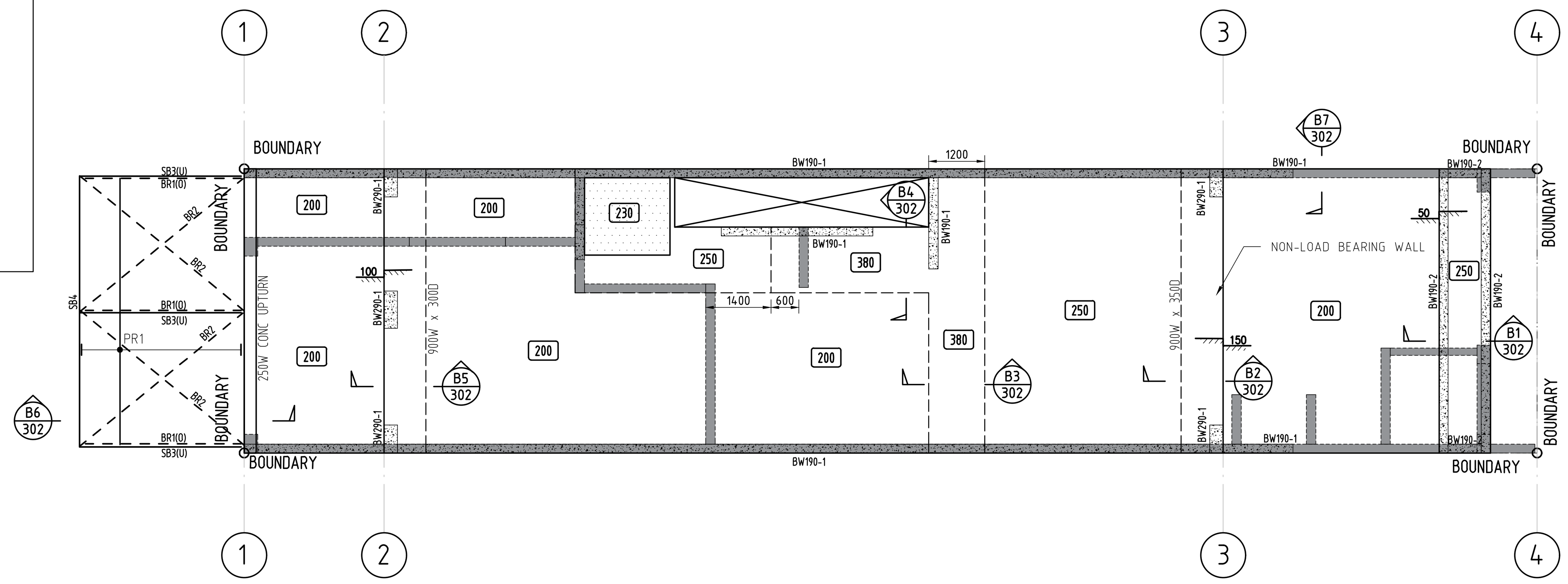
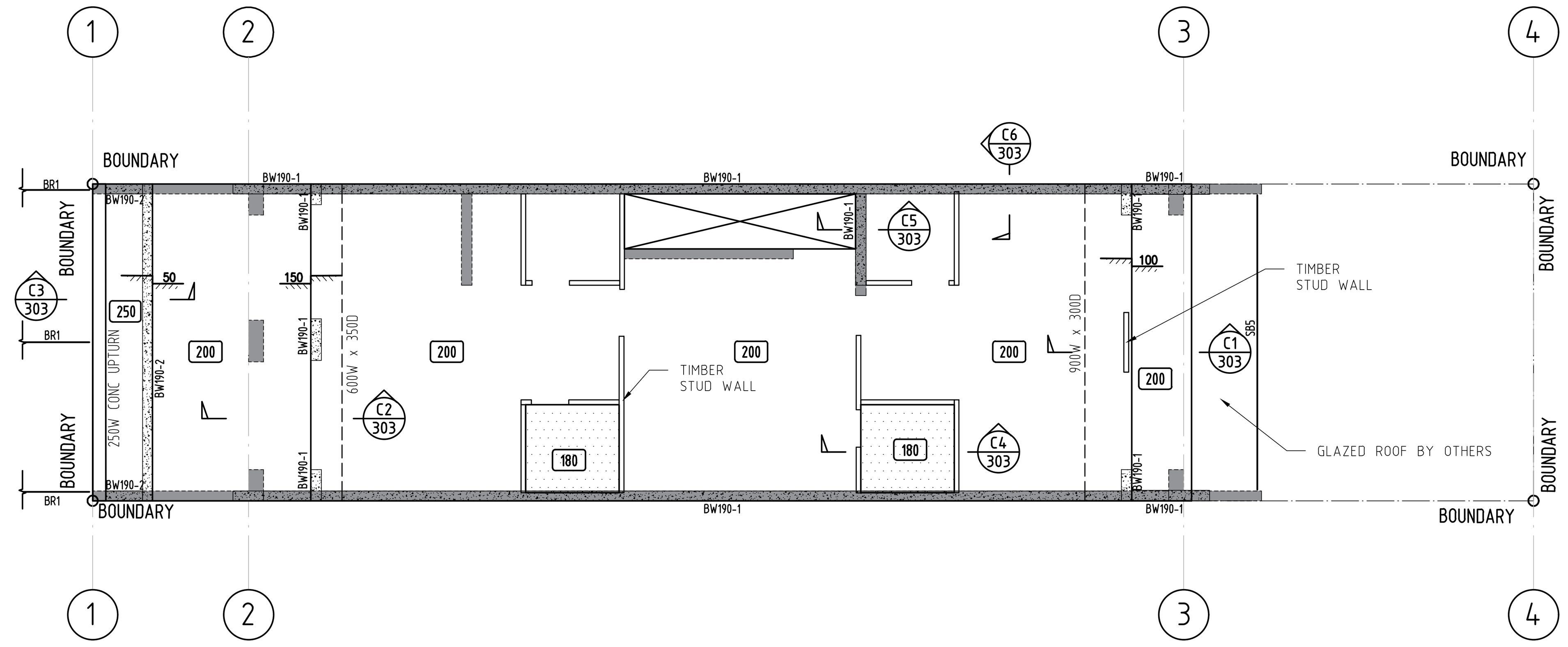


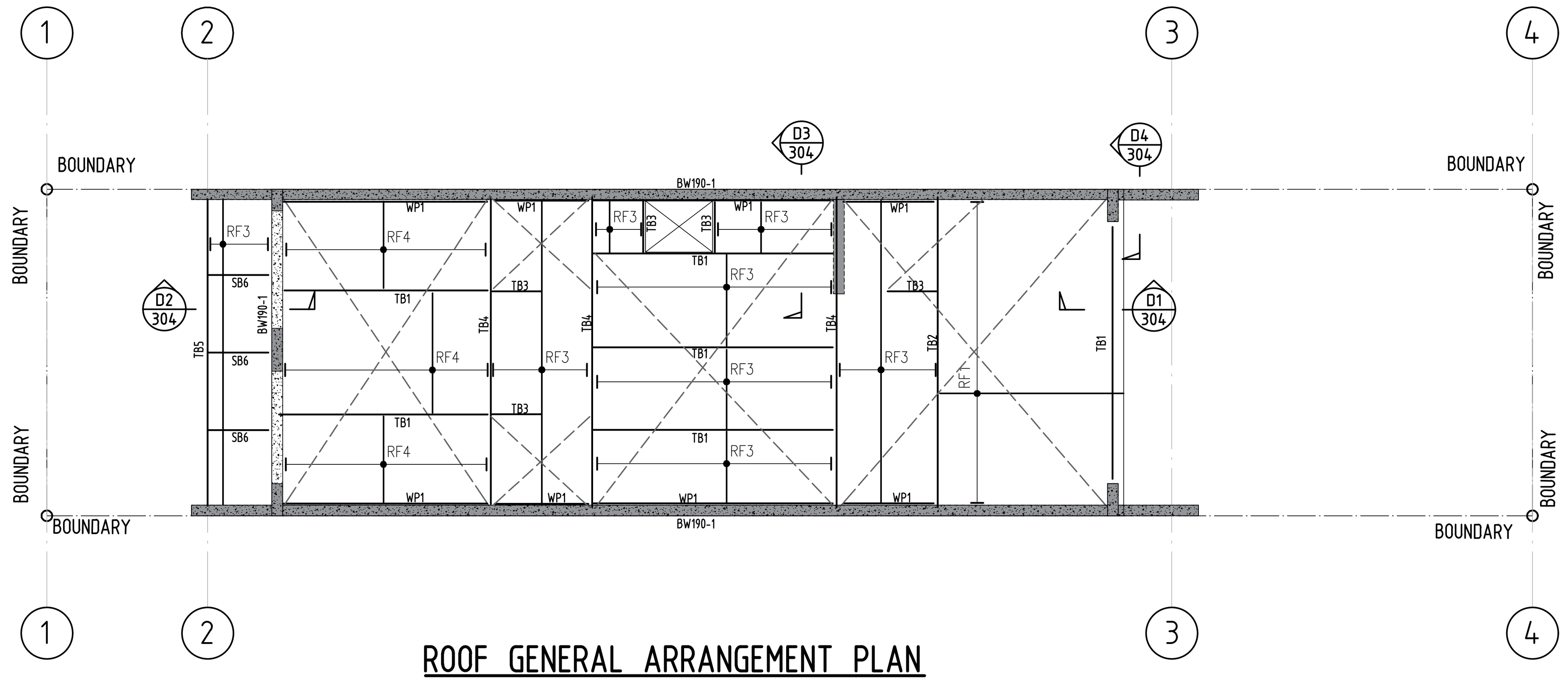
FIRST FLOOR GENERAL ARRANGEMENT PLAN

SCALE: 1:100@A1



SECOND FLOOR GENERAL ARRANGEMENT PLAN

SCALE: 1:100@A1



ROOF GENERAL ARRANGEMENT PLAN

SCALE: 1:100@A1

FIRST/SECOND FLOOR SLAB NOTES

- f'c = N40
- FIRST/SECOND FLOOR SLAB TO BE 200mm THK U.N.O.
- PROVIDE 1 EXTRA LAYER OF SL62 MESH ON TOP FOR ALL EXTERNAL SLABS
- START THE CURING PROCESS AS SOON AS THE CONCRETE HAS HARDENED WITH SIKA ANTISOL AC CURING COMPOUND.
- PROVIDE HEAVY DUTY WATERPROOF MEMBRANE TO EXTERNAL AREAS INCLUDING ROOF
- REFER TO S401 FOR ALL AFS REDIWALL DETAILS

TIMBER MEMBER SCHEDULE

MARK	SIZE
RF1	150X45 LVL @ 900 CTS
RF2	140X45 MGP10 @ 600 CTS
RF3	90X45 MGP10 @ 600 CTS
RF4	140X45 MGP10 @ 600 CTS
TB1	2/240X45 LVL
TB2	2/190X45 MGP10
TB3	140X45 MGP10
TB4	2/240X45 MGP10
TB5	240X45 MGP10
WP1	140X45 MGP10 WALING PLATE BOLT TO CONCRETE WALL

NOTES TO THE TABLE:
- ALL TIMBER FRAMING IN ACCORDANCE WITH AS1684.2
- ALL COMMON STUDS TO BE 90X45 MGP10 @600 FOR WALLS <2700mm
- ALL COMMON STUDS TO BE 90X45 MGP10 @300 FOR WALLS >2700mm <3300mm

STEEL MEMBER SCHEDULE

MARK	SIZE
SB1	180UB 18
SB2	150 PFC
SB3	200 UB 25.4
SB4	380 PFC
SB5	STRUTTING BEAM BY GLAZING CONTRACTOR MINIMUM 20kN STRUTTING FORCE (TENSION/COMPRESSION)
SB6	150UB 18
BR1	76.1 x 5.9 CHS
BR2	16mm ROD WITH TURNBUCKLE
PR1	C10015 PURLIN @ 600 CTS

NOTES TO THE TABLE:
- ALL STEELWORK AND MASONRY LINTELS TO BE HDG 390
- ALL STEEL WORK TO BE GRADE 300 PLUS U.N.O.
- ALL WELDS TO BE 6mm CFW UNO.
- SHOPDRAWINGS TO BE APPROVED BY STRUCTURAL ENGINEER PRIOR TO FABRICATION

DRAWING LEGEND

125	DENOTES SLAB THICKNESS
100	DENOTES SLAB STEP
	DENOTES 20mm WET AREA SETDOWN
	DENOTES VOID/PENETRATION. PROVIDE TRIMMER BARS AS REQUIRED
	DENOTES SPAN DIRECTION OF BONDEK SLAB
	DENOTES LOAD-BEARING CONCRETE ELEMENT OVER
	DENOTES LOAD-BEARING ELEMENTS UNDER
	DENOTES LOAD-BEARING CONCRETE ELEMENTS OVER AND UNDER
	DENOTES LOAD-BEARING MASONRY WALLS OVER
	DENOTES LOAD-BEARING STUD WALLS OVER
	DENOTES STEEL COLUMNS OVER
	DENOTES STEEL COLUMNS UNDER
	DENOTES STEEL COLUMNS UNDER AND OVER
	DENOTES 32X1.2 G300 ROOF CROSS STRAPS PROVIDE 1 TENSIONER TO EACH STRAP

DRAWING NOTES

- DO NOT SCALE FROM THESE DRAWINGS.
- ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.
- DIMENSIONS ON THE THESE DRAWINGS ARE EXCLUSIVE OF FINISHES.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL LEVELS, STEPS, FALLS AND DIMENSION SET OUTS
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL REBATES, HOBS AND WATERPROOFING DETAILS

CONCRETE NOTES

- REFER TO NOTES ON COVER SHEET
- CONTACT ENGINEER FOR INSPECTION PRIOR TO EACH CONCRETE PLACEMENT

- MIN. CONCRETE STRENGTH

STRUCTURAL ELEMENT	f'c
SLAB ON GROUND	N32
FOOTING BEAMS	N32
MASS CONCRETE PILES	N32
AFS WALLS	N32
BLOCK WALLS	N32
REINFORCED PILES	N40
SUSPENDED SLAB	N40

- FIRE RESISTANCE LEVEL

STRUCTURAL ELEMENT	FRL(min.)
1ST FLOOR SLAB	180/180/180
2ND FLOOR SLAB	60/60/60
AFS WALLS	180/180/180
190/290 BLOCK WALLS	180/180/180

- MIN. COVER TO REINFORCEMENT

LOCATION	COVER(mm)
FOOTINGS	50
PILES	75
SLABS TOP	40
SLABS BTM	40
COLUMNS	40

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: FIRST FLOOR, SECOND FLOOR AND ROOF PLANS

PROJECT: PROPOSED SHOPTOP HOUSING

ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

ARCHITECT: EPW
109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

DO NOT SCALE FROM THESE DRAWINGS.
REFER TO ARCHITECT'S DRAWINGS FOR ALL LEVELS, DIMENSION SETOUTS AND CLEARANCES.
THE ACCURACY OF SITE MEASUREMENTS AND POSITIONS, CONFORMITY TO THE DESIGN DRAWINGS AND SPECIFICATIONS REMAIN THE RESPONSIBILITY OF THE BUILDER.

JOB NO: SSCE-2401-131

DRAWING NUMBER: S102 REV: C

SCALES: 1:100@A1 / 1:200@A3

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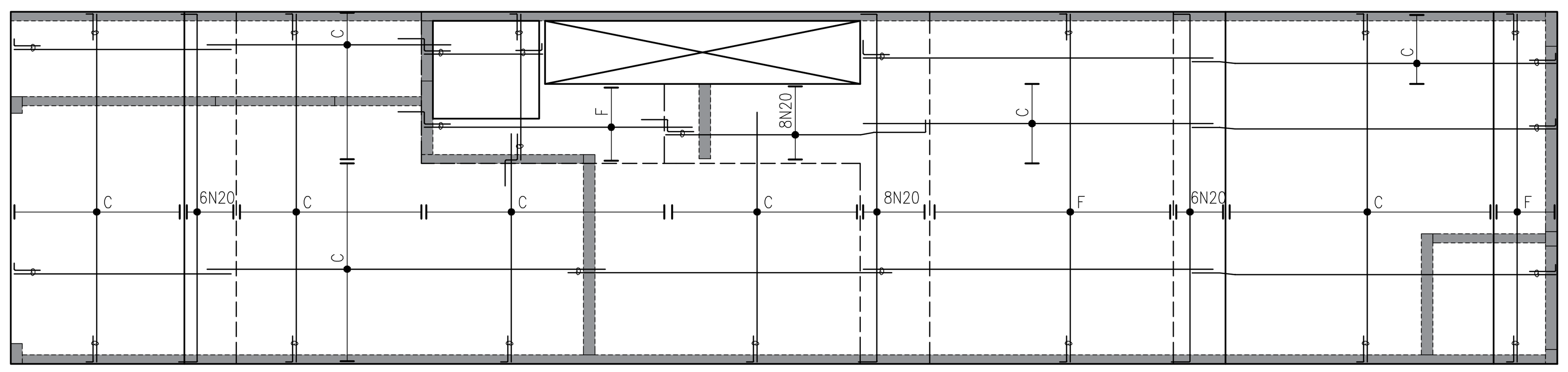
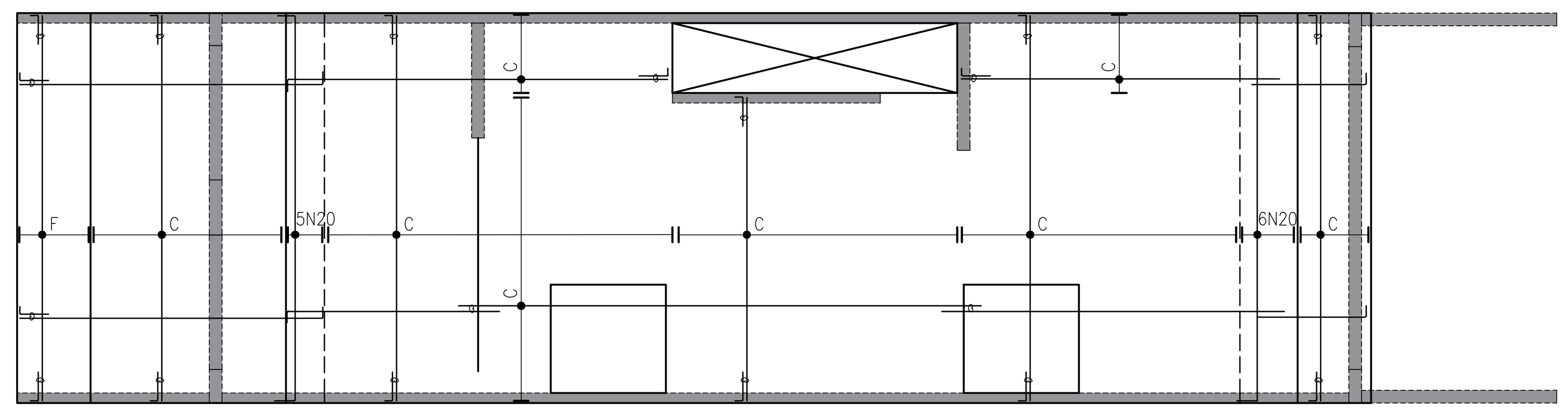


FIRST FLOOR BOTTOM REINFORCEMENT PLAN

SCALE: 1:100



SEOND FLOOR BOTTOM REINFORCEMENT PLAN

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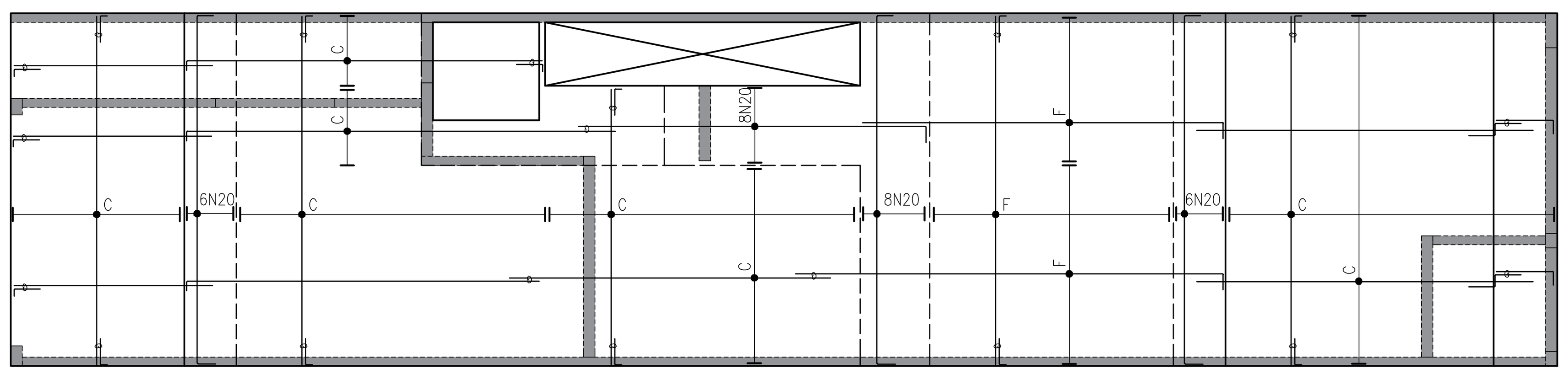

FIRST FLOOR TOP REINFORCEMENT PLAN

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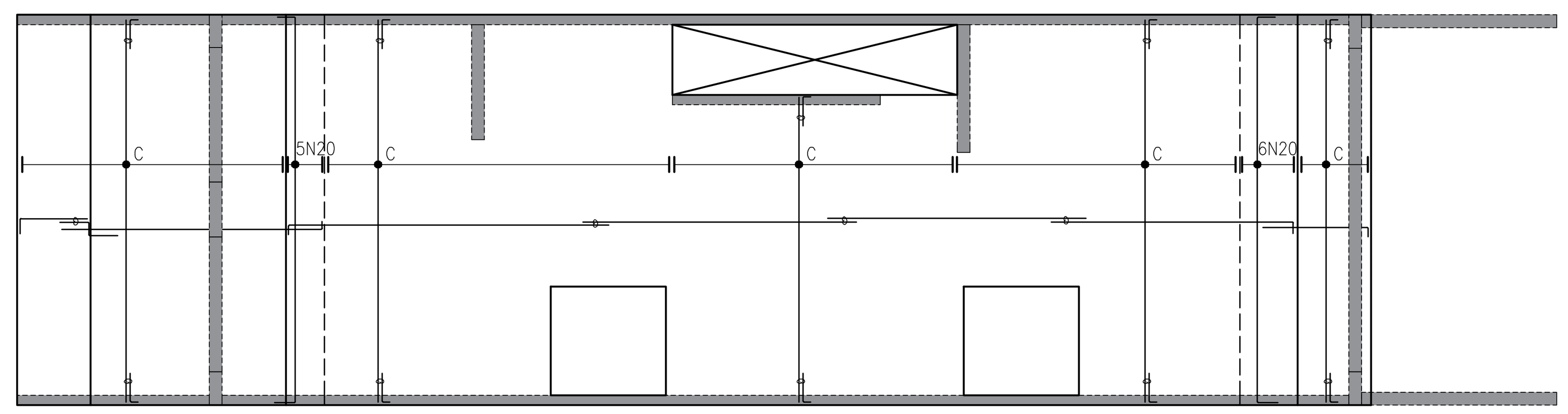

SEOND FLOOR BOTTOM REINFORCEMENT PLAN

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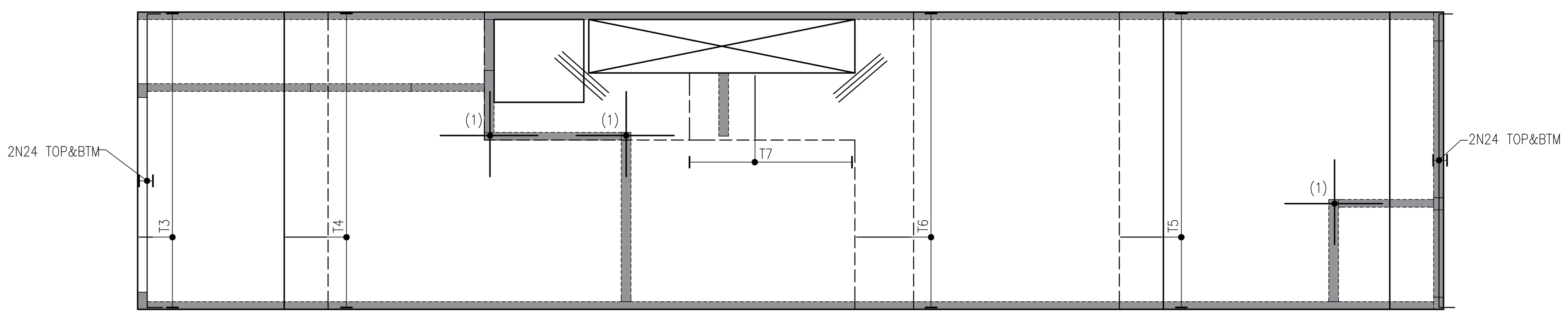
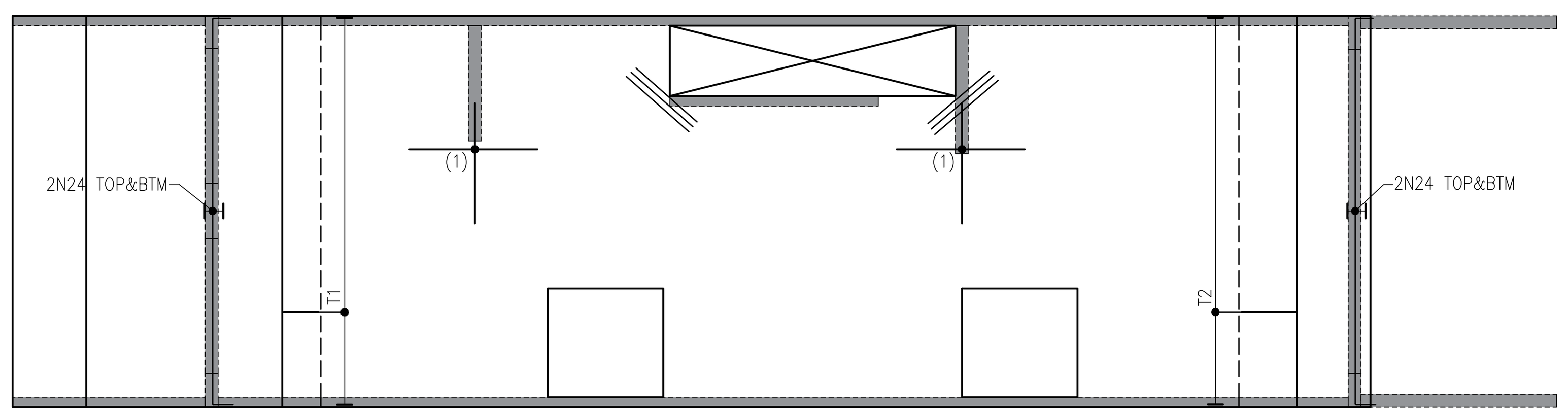


FIRST EXTRA REINFORCEMENT PLAN

SCALE: 1:100



SEOND FLOOR EXTRA REINFORCEMENT PLAN

SCALE: 1:100

DRAWING LEGEND

- DENOTES SLAB THICKNESS
- DENOTES SLAB STEP
- DENOTES 20mm WET AREA SETDOWN
- DENOTES VOID/PENETRATION. PROVIDE TRIMMER BARS AS REQUIRED
- DENOTES SPAN DIRECTION OF BONDEK SLAB
- DENOTES LOAD-BEARING CONCRETE ELEMENT OVER
- DENOTES LOAD-BEARING ELEMENTS UNDER
- DENOTES LOAD-BEARING CONCRETE ELEMENTS OVER AND UNDER
- DENOTES LOAD-BEARING MASONRY WALLS OVER
- DENOTES LOAD-BEARING STUD WALLS OVER
- DENOTES STEEL COLUMNS OVER
- DENOTES STEEL COLUMNS UNDER
- DENOTES STEEL COLUMNS UNDER AND OVER
- DENOTES 32X1.2 G300 ROOF CROSS STRAPS PROVIDE 1 TENSIONER TO EACH STRAP

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CONCRETE NOTES

- REFER TO NOTES ON COVER SHEET
- CONTACT ENGINEER FOR INSPECTION PRIOR TO EACH CONCRETE PLACEMENT

- MIN. CONCRETE STRENGTH

STRUCTURAL ELEMENT	f'c
SLAB ON GROUND	N32
FOOTING BEAMS	N32
MASS CONCRETE PILES	N32
AFS WALLS	N32
BLOCK WALLS	N32
REINFORCED PILES	N40
SUSPENDED SLAB	N40

- FIRE RESISTANCE LEVEL

STRUCTURAL ELEMENT	FRL(min.)
1ST FLOOR SLAB	180/180/180
2ND FLOOR SLAB	60/60/60
AFS WALLS	180/180/180
190/290 BLOCK WALLS	180/180/180

- MIN. COVER TO REINFORCEMENT

LOCATION	COVER(mm)
FOOTINGS	50
PILES	75
SLABS TOP	40
SLABS BTM	40
COLUMNS	40

FIRST/SECOND FLOOR EXTRA REINFORCEMENT SCHEDULE

MK.	EXTRA REINFORCEMENT DETAILS
(1)	5N16 2000LG @200 CTS EW (TOP)
T1	N12-200 CLOSE TIES
T2	N16-200 CLOSE TIES
T3	N12-200 CLOSE TIES
T4	N16-200 CLOSE TIES
T5	N16-200 CLOSE TIES
T6	N12-200 CLOSE TIES (4 LEGS)
T7	N16-200 CLOSE TIES
///	3N12 1200LG RE-ENTRANT CORNER BARS (TOP AND BTM)

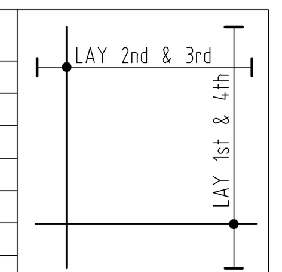
NOTE: PROVIDE 1 EXTRA LAYER OF SL62 MESH MESH ON TOP TO ALL BALCONY AND NON-TRAFFICABLE ROOF AREAS

BAR LAP CHART

BAR	SLABS	VERTICALS	BEAMS TOP	BEAMS BTM
N12	450	550	500	500
N16	600	700	650	600
N20	800	900	800	750
N24	1000	1200	1200	1000
N28	1200	1500	1500	1200
N32	1500	1850	1850	1500
N36	1800	2200	2300	1800

REINFORCEMENT SCHEDULE

MK.	SIZE	SPACING	MK.	SIZE	SPACING
A	N12	300	J	N20	300
B	N12	250	K	N20	250
C	N12	200	L	N20	200
D	N12	150	M	N20	150
E	N16	250	P	N20	100
F	N16	200	Q	N16	100
H	N16	150	R	N12	100



LAYING SEQUENCE

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25						

DRAWING TITLE
FIRST FLOOR AND SECOND FLOOR REINFORCEMENT PLANS

PROJECT
PROPOSED SHOPTOP HOUSING

ADDRESS
352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT
SITACO DEVELOPMENTS

ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

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JOB NO
SSCE-2401-131

DRAWING NUMBER
S103

REV
C

SCALES
1:100@A1 / 1:200@A3

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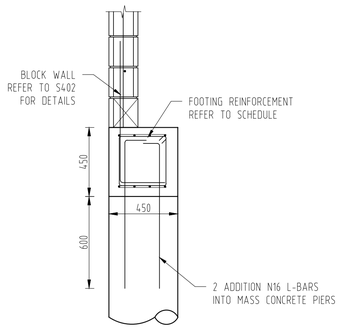
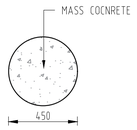
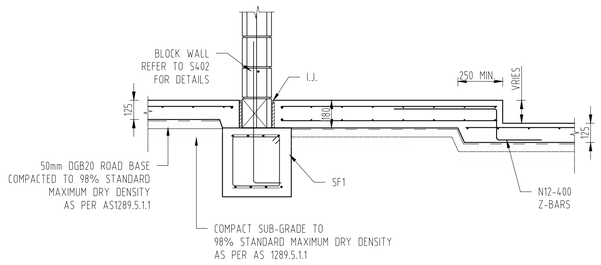


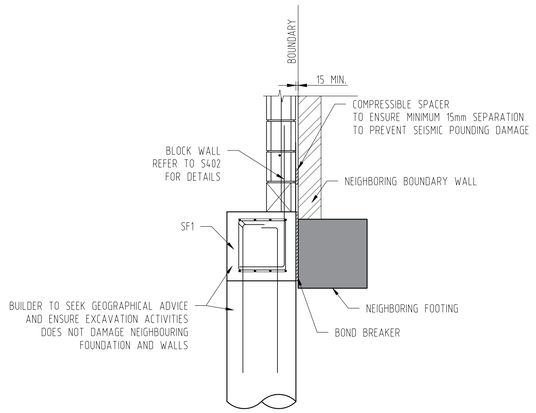
SF1 DETAIL
SCALE: 1:20



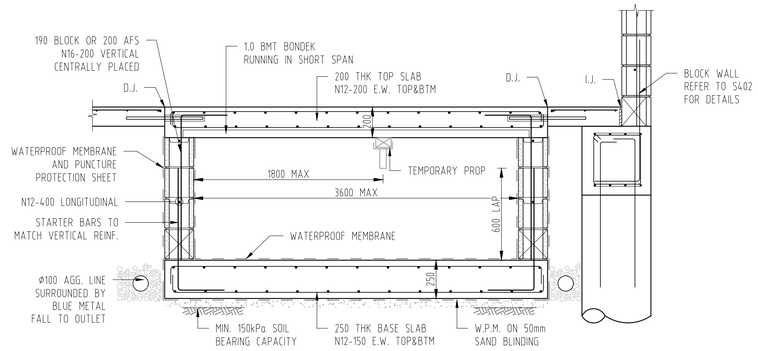
BP1 DETAIL
SCALE: 1:20



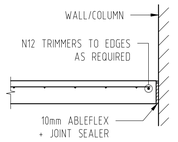
SECTION A1/101
SCALE: 1:20



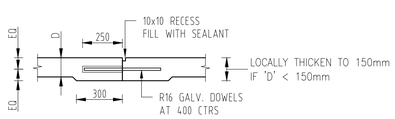
SECTION A2/101
SCALE: 1:20



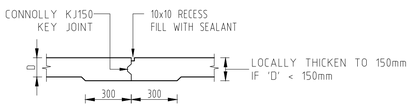
SECTION A3/101
SCALE: 1:20



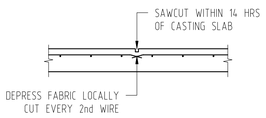
I.J. - ISOLATION JOINT
SCALE: 1:20



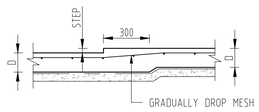
D.J. - DOWEL JOINT
SCALE: 1:20



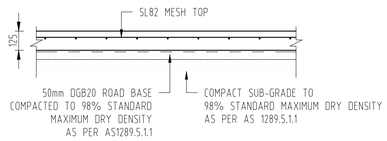
K.J. - KEYED JOINT
SCALE: 1:20



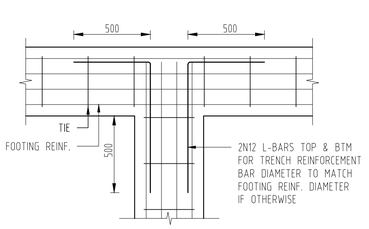
S.J. - SAWN JOINT
SCALE: 1:20



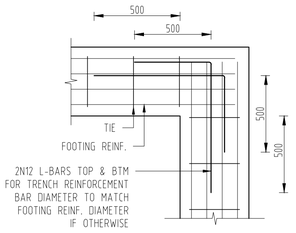
WET AREA STEP DETAIL
FOR SLAB ON GROUND
SCALE: 1:20



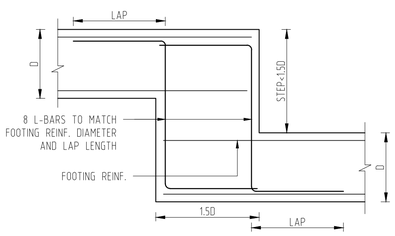
TYPICAL GROUND FLOOR SLAB DETAIL
SCALE: 1:20



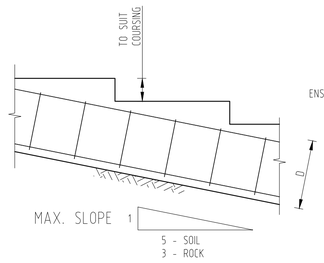
FOOTING 'T' JUNCTION DETAIL
SCALE: 1:20



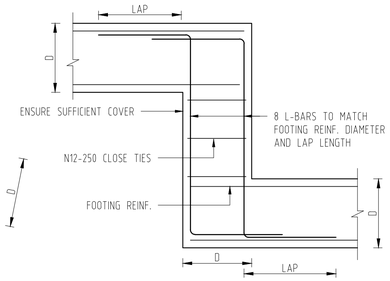
FOOTING 'L' JUNCTION DETAIL
SCALE: 1:20



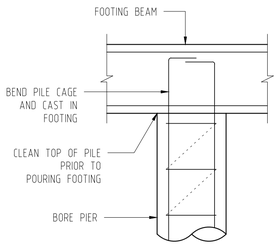
FOOTING BEAM STEP DETAIL
SCALE: 1:20



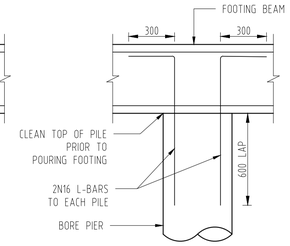
STEP DETAIL FOR GENTLE SLOPES
SCALE: 1:20



STEP DETAIL FOR STEEP SLOPES
SCALE: 1:20



PILE TO FOOTING DETAIL
OPTION 1
N.T.S.



PILE TO FOOTING DETAIL
OPTION 2
N.T.S.

SOLUTION STRUCTURAL
& CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

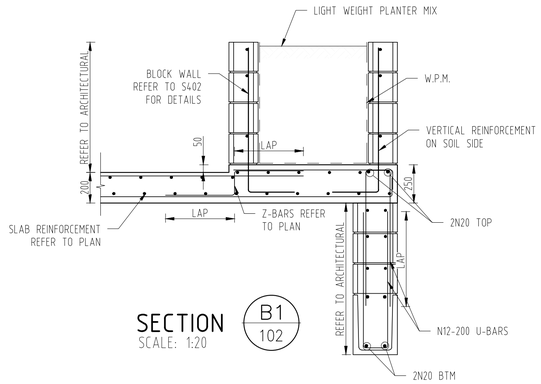
DRAWING TITLE: GROUND FLOOR SECTIONS AND DETAILS
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

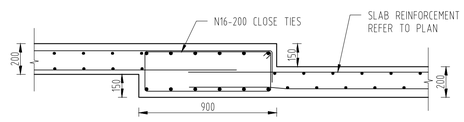
ARCHITECT
EPW
109 WOOLCOTT ST.
EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: S301 REV: C
SCALES: 1:100@A1 / 1:200@A3

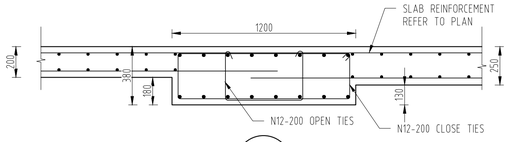
1m 0 1000 2000 3000 4000



SECTION B1/102
SCALE: 1:20



SECTION B2/102
SCALE: 1:20



SECTION B3/102
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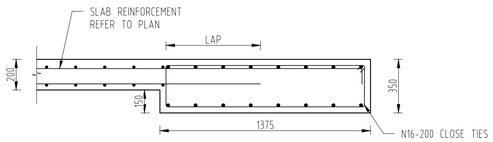

SECTION B4/102
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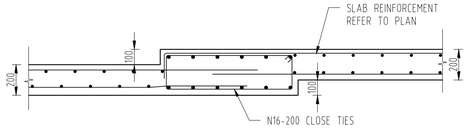
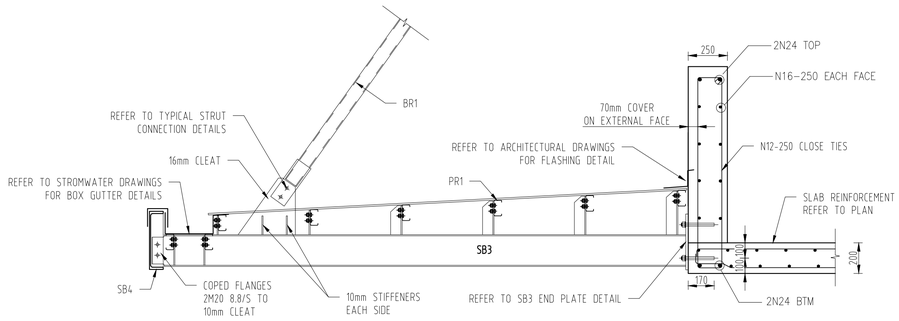
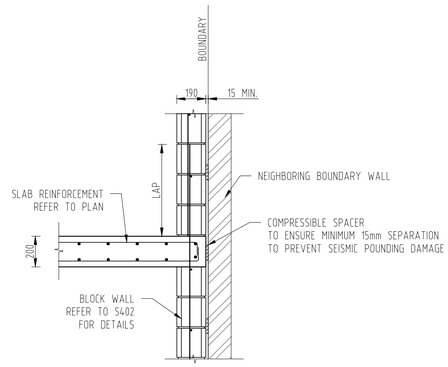


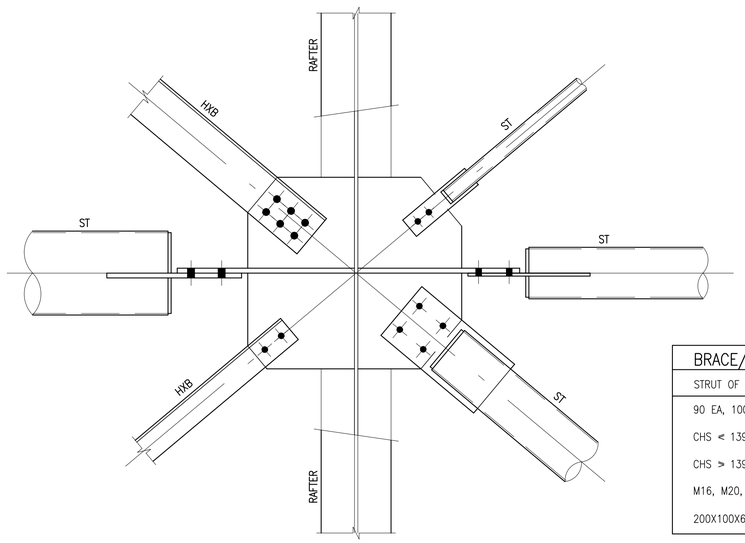
SECTION B5/102
SCALE: 1:20



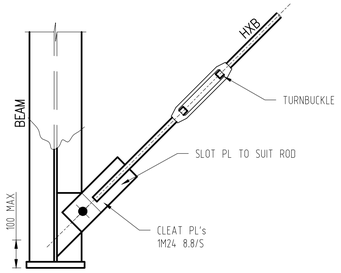
SECTION B6/102
SCALE: 1:20



SECTION B7/102
SCALE: 1:20

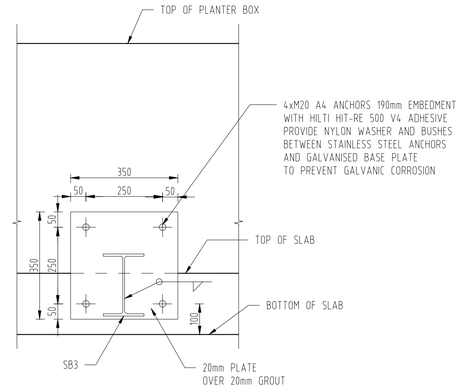


TYPICAL STRUT/BRACING FIXING DETAILS
1:10



TYPICAL HORIZONTAL CROSS BRACE FIXING DETAIL
1:10

BRACE/STRUT FIXING SCHEDULE	
STRUT OF BRACE SIZE.	BOLTS
90 EA, 100 EA	2–M20 8.8/TF
CHS < 139.7 O.D.	2–M20 8.8/TF
CHS > 139.7 O.D.	2–M24 8.8/TF
M16, M20, M24 ROD	2–M20 8.8/TF
200X100X6 RHS	2–M24 8.8/TF



SB3 END PLATE DETAIL
SCALE: 1:10

NOTES:
1. ADDITIONAL MESH FOR EXTERNAL AREAS NOT SHOWN FOR CLARITY
2. REFER TO PLAN WHEN THERE IS A DISCREPANCY BETWEEN PLAN AND SECTION

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: FIRST FLOOR SECTIONS AND DETAILS
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209
CLIENT: SITACO DEVELOPMENTS

ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: S302 REV: C
SCALES: 1:100@A1 / 1:200@A3

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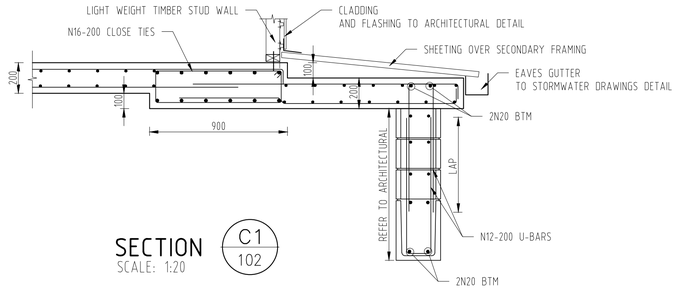

SECTION C1/102
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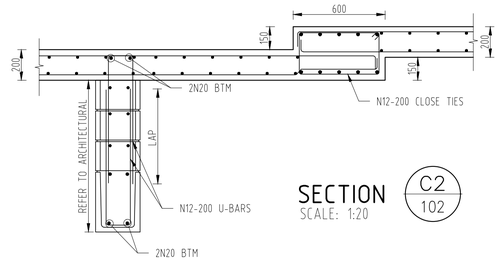

SECTION C2/102
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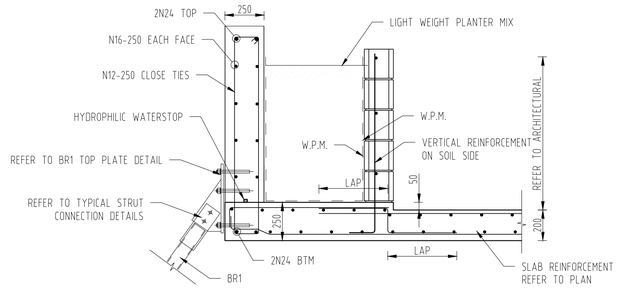

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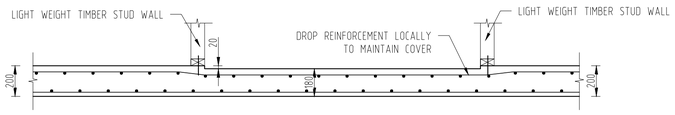

SECTION C4/102
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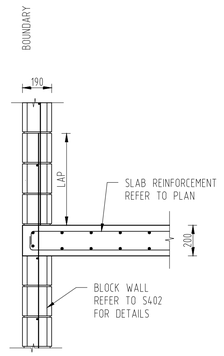

SECTION C5/102
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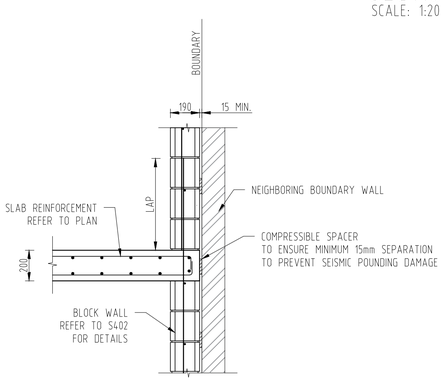

SECTION C6/102
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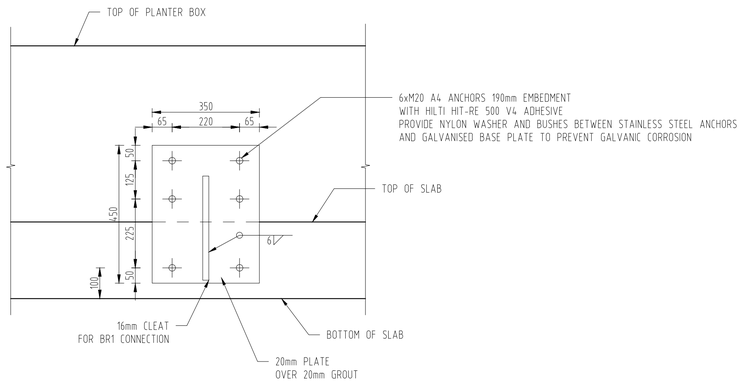

BR1 TOP PLATE DETAIL
SCALE: 1:10

NOTES:
1. ADDITIONAL MESH FOR EXTERNAL AREAS NOT SHOWN FOR CLARITY
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SOLUTION STRUCTURAL
& CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

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C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE
SECOND FLOOR SECTIONS AND DETAILS

PROJECT
PROPOSED SHOPTOP HOUSING

ADDRESS
352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT
SITACO DEVELOPMENTS

ARCHITECT
EPW
109 WOOLCOTT ST.
EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO
SSCE-2401-131

DRAWING NUMBER S303 REV C

SCALES
1:100@A1 / 1:200@A3

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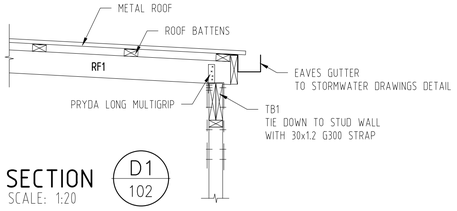
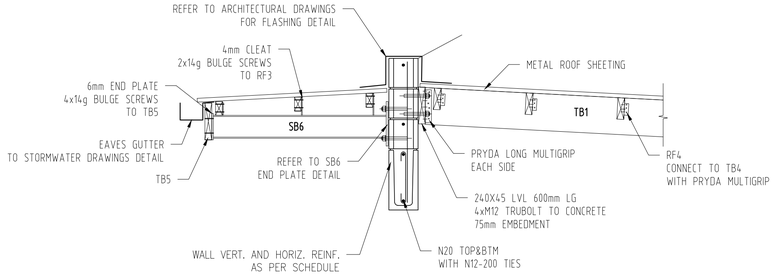


SECTION D1/102
SCALE: 1:20



SECTION D2/102
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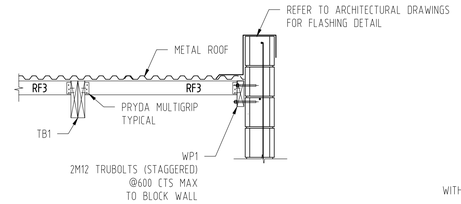

SECTION D3/102
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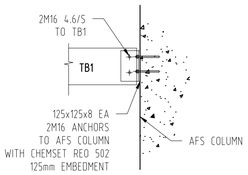

SECTION D4/102
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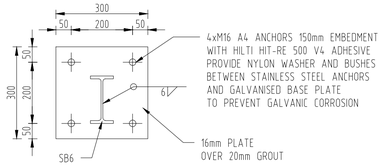
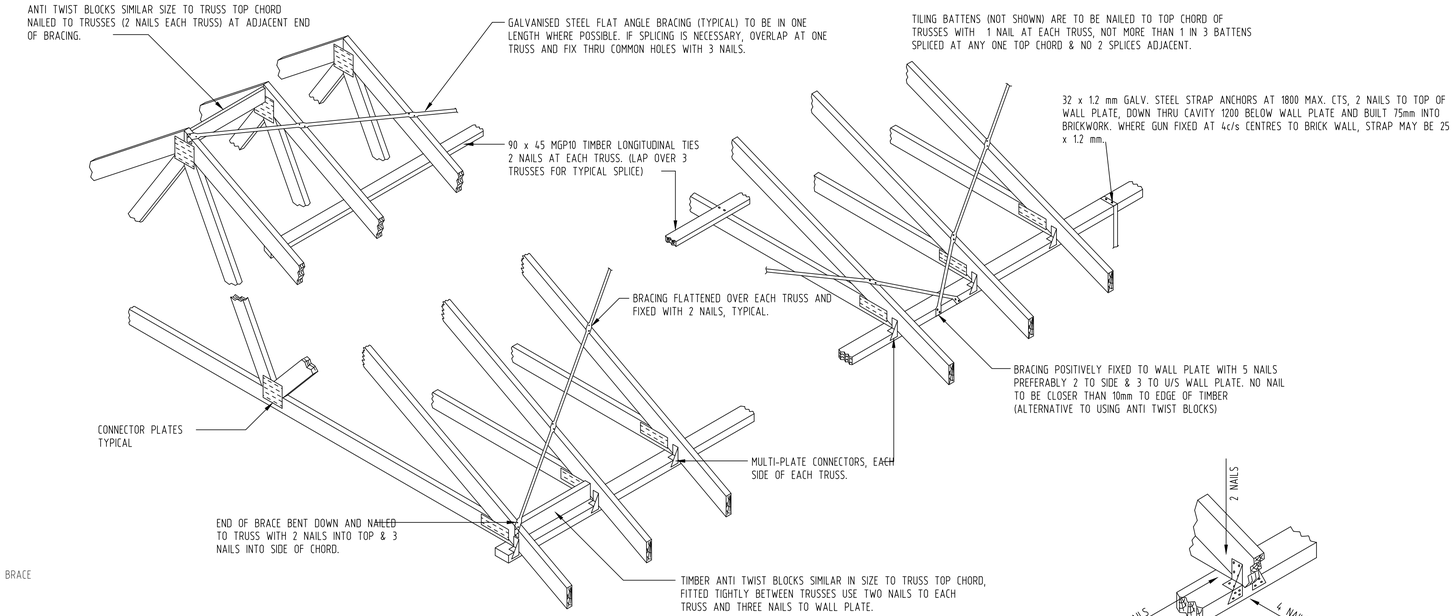
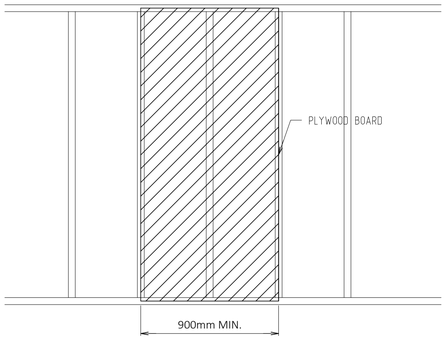


SB6 END PLATE DETAIL
SCALE: 1:10



TYPICAL TIMBER ROOF BRACING DETAILS
SCALE 1:20

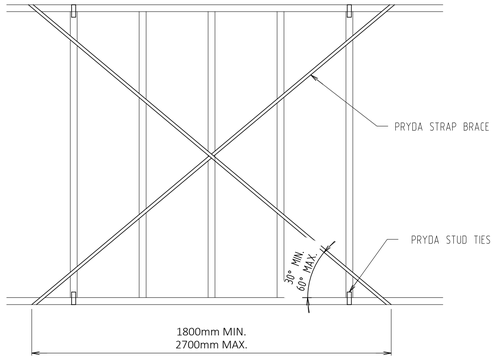
POLYWOOD BRACING
1.FIX POLYWOOD PANELS WITH 30X28mmø MIN. OR EQUIVALENT GALVANISED FLATHEAD NAILS @50 mm CENTERS ALONG TOP AND BOTTOM PLATES, 150mm CENTRES ALONG VERTICAL EDGES AND NOGGINGS
2.NAILS SHALL BE LOCATED A MINIMUM OF 7mm FROM VERTICAL EDGES
3. POWER DRIVEN GALVANISED NAILS OR COATED STAPLES MAY BE USED WHERE THEY PROVIDED AT LEAST THE EQUIVALENT STRENGTH TO HAND DRIVERS 30X2.8mmø GALVANISED CLOUTS OR FLATHEAD NAILS.IN THE CASE OF POWER DRIVEN STAPLES STAPLE SPACING SHALL BE 50mm CENTRES AT TOP AND BOTTOM PLATES, 100mm CENTRES AT VERTICAL PLYWOOD EDGES AND 100mm CENTRES ALOND INTERMEDIA STUDS.



NOTES:
1.AS 1684.2-2010 TYPE(H) METHOD B. RACKING CAPACITY=6.0KN/m
2.PANEL EDGES SHALL BE SUPPORTED BY STUDS
3.F11 4.5mm PLYWOOD THICKNESS.
4. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.

PLYWOOD WALL BRACING 'PWB' DETAILS

METAL TENSION STRAP BRACING
1.PRYDA STRAP BRACE OR DPEEDBRACE FIXED WITH 1/35x3.15mmø GALVANISED FLATHED NAILS TO EACH STUD AND 4/35x3.15ø GALVANISED FLATHED NAILS TO PLATE.
2.4/35x3.15mmø GALVANISED FLATHEAD NAILS TO EACH END OF THE STRAP RETURN OVER THE TOP PLATE AND UNDER THE BOTTOM PLATE.



NOTES:
1.AS 1684.2-2010 TYPE(D) . RACKING CAPACITY=3.0kN/m
2. NOGGINGS HAVE BEEN OMITTED FOR CLARITY.

STRAP WALL BRACING 'SWB' DETAILS

TYPICAL TIPLEGRIP CONNECTORS DETAIL
SCALE 1:20

NOTES:
1. ADDITIONAL MESH FOR EXTERNAL AREAS NOT SHOWN FOR CLARITY
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SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

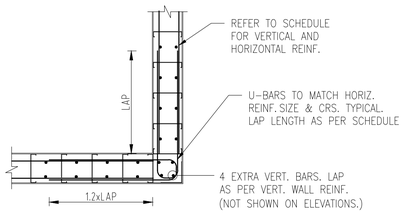
REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: ROOF SECTIONS AND DETAILS
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209
CLIENT: SITACO DEVELOPMENTS

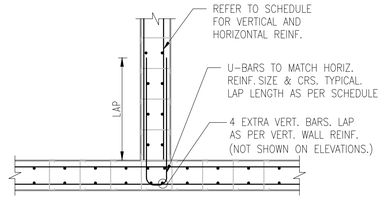
ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: S304
REV: C
SCALES: 1:100@A1 / 1:200@A3

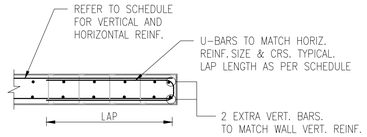
1m 0 1000 2000 3000 4000



PLAN – CORNER DETAIL

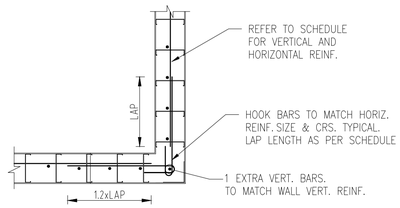


PLAN – T–JUNCTION DETAIL

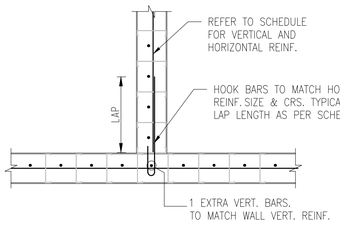


PLAN – END DETAIL

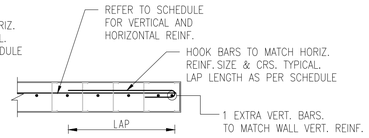
TYPICAL AFS WALL INTERSECTION DETAILS (AFS200 OR AFS275 DOUBLE REINFORCED)



PLAN – CORNER DETAIL



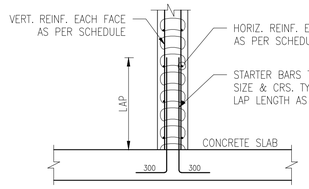
PLAN – T–JUNCTION DETAIL



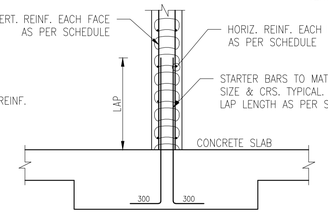
PLAN – END DETAIL

TYPICAL AFS WALL INTERSECTION DETAILS (AFS200 SINGLE REINFORCED)

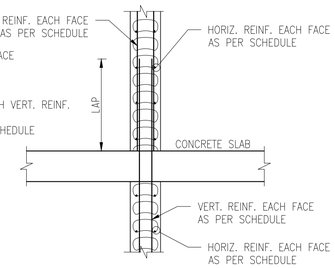
AFS STRUCTURAL WALL SCHEDULE				
MARK	SIZE	REINFORCEMENT		CONCRETE ($F'c$)
		VERTICAL	HORIZONTAL	
RW200–1	REDIWALL 200	N16–250 EACH FACE	N12–250 EACH FACE	40 MPa



AFS WALL STARTER DETAIL

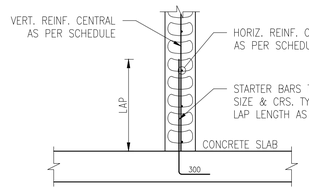


AFS WALL STARTER DETAIL
(WITH SLAB THICKENING)

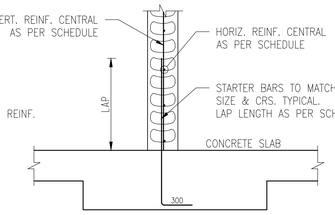


AFS WALL SPLICE DETAIL

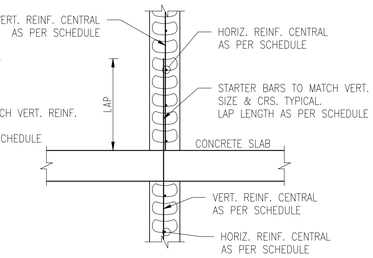
TYPICAL AFS WALL STARTER DETAILS (AFS200 DOUBLE REINFORCED, AFS256 SIMILAR)



AFS WALL STARTER DETAIL

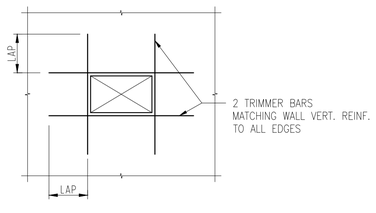


AFS WALL STARTER DETAIL
(WITH SLAB THICKENING)

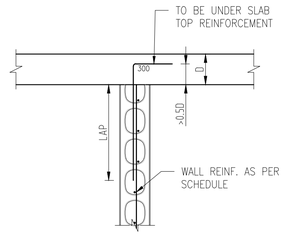


AFS WALL SPLICE DETAIL

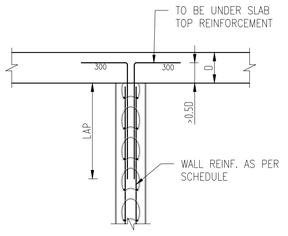
TYPICAL AFS WALL STARTER DETAILS (AFS200 SINGLE REINFORCED, AFS156 SIMILAR)



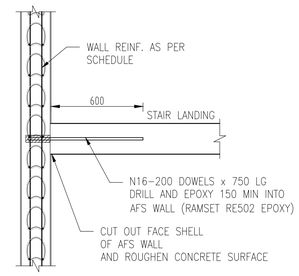
AFS WALL PENETRATION DETAIL (ELEVATION)



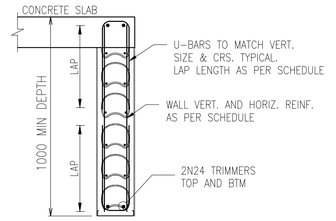
AFS TOP OF WALL DETAIL 1



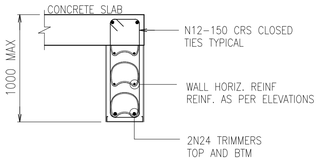
AFS TOP OF WALL DETAIL 2



STAIRS LANDING TO AFS WALL DETAIL



AFS WALL DEEP LINTEL DETAIL



AFS WALL SHALLOW LINTEL DETAIL

NOTES:
1. FOR DIMENSIONS OF WALL REFER ARCHITECTS DRAWINGS
2. DOORS AND WINDOWS OPENINGS TO ARCHITECTS DRAWINGS.
3. ALL WALL DETAILS TO BE READ IN–CONJUNCTION TO MANUFACTURERS DETAILS.
4. FIRE RATING TO AFS MANUFACTURES REQUIREMENTS.

SOLUTION STRUCTURAL
& CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

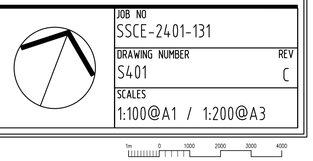
REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

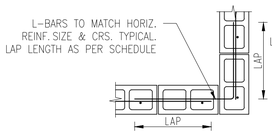
DRAWING TITLE: AFS WALL DETAILS
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

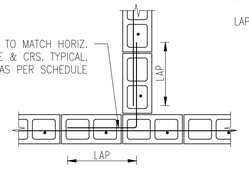
ARCHITECT
EPW 109 WOOLCOTT ST.
EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

JOB NO: SSCE-2401-131
DRAWING NUMBER: S401
REV: C
SCALES: 1:100@A1 / 1:200@A3

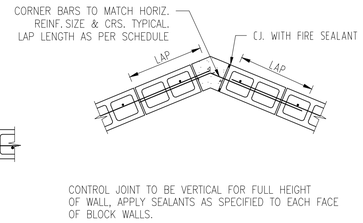




PLAN – 90 DEG CORNER DETAIL



PLAN – T-JUNCTION DETAIL

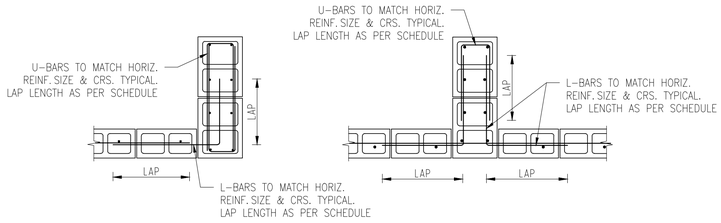


CONTROL JOINT TO BE VERTICAL FOR FULL HEIGHT OF WALL, APPLY SEALANTS AS SPECIFIED TO EACH FACE OF BLOCK WALLS.

PLAN – CORNER DETAIL

TYPICAL BLOCK WALL INTERSECTION DETAILS

FOR 140 AND 190 BLOCK



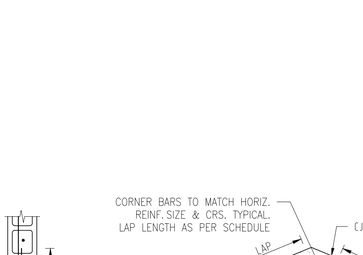
PLAN – 90 DEG CORNER DETAIL

PLAN – T-JUNCTION DETAIL

TYPICAL BLOCK WALL INTERSECTION DETAILS

FOR 140/190 BLOCK INTERSECTING 290 BLOCK

UNREINFORCED BLOCKWORK TO CONCRETE

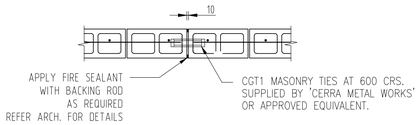


REINFORCED BLOCKWORK TO CONCRETE

TYPICAL BLOCK WALL TO CONCRETE CONNECTION DETAIL

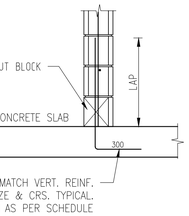
BLOCK STRUCTURAL WALL SCHEDULE				
MARK	SIZE	REINFORCEMENT		CONCRETE (F'c)
		VERTICAL	HORIZONTAL	
BW190-1	190 SERIES	N16-200 CENTRAL	N12-400 CENTRAL	32 MPa
BW190-2	190 SERIES	N12-400 CENTRAL	N12-400 CENTRAL	32 MPa
BW290-1	290 SERIES	N16-200 EACH FACE	N12-400 EACH FACE	32 MPa

WALL LAP CHART	
N12	550
N16	700
N20	900
N24	1200
N28	1500
N32	1800
N36	2200

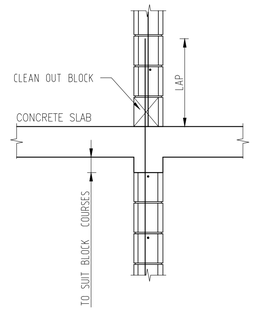


BLOCK WALL CONTROL JOINT DETAIL(WCJ)

MAXIMUM 7500 CTRS TYPICALL IF NOT SHOWN ON PLAN
CONTROL JOINT TO BE VERTICAL FOR FULL HEIGHT
OF WALL, APPLY SEALANTS AS SPECIFIED TO EACH FACE
OF THE BLOCK WALL.

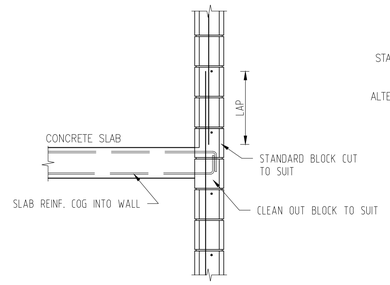


REINFORCED BLOCK STARTER DETAIL



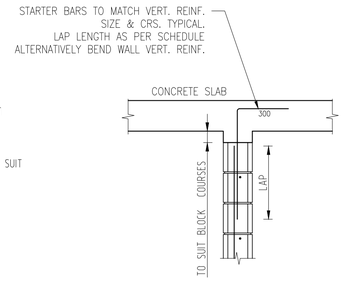
REINFORCED BLOCK THROUGH SLAB DETAIL 1

NOTE: BLOCKWALL SHALL NOT INTRUDE INTO SOFFIT OF SLAB BY MORE THAN 10mm.



REINFORCED BLOCK THROUGH SLAB DETAIL 2

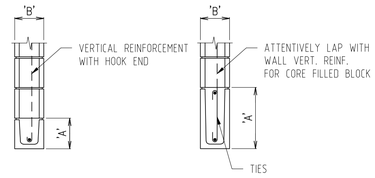
NOTE: BLOCKWALL SHALL NOT INTRUDE INTO SOFFIT OF SLAB BY MORE THAN 10mm.



REINFORCED BLOCK TERMINATION DETAIL

NOTE: BLOCKWALL SHALL NOT INTRUDE INTO SOFFIT OF SLAB BY MORE THAN 10mm.

TYPICAL BLOCK WALL STARTER DETAILS



LINTEL SCHEDULE

SPAN	DIM 'A'	DIM 'B'	REINFORCEMENT			END BEARING
			BOTTOM	TOP	TIES	
UP TO 500	200	150, 200	1N12	–	–	200 MIN.
501–1800	300	200	1N16	–	–	200 MIN.
501–3000	400	150	1N20	1N20	1N12	200 MIN.
1801–3000	400	200	1N20	1N20	1N12	200 MIN.
3001–3600	400	300	2N20	2N20	2N12	200 MIN.

TYPICAL BLOCK WALL LINTEL DETAIL

NOTES:
1. FOR DIMENSIONS OF WALL REFER ARCHITECTS DRAWINGS
2. DOORS AND WINDOWS OPENINGS TO ARCHITECTS DRAWINGS.
3. ALL WALL DETAILS TO BE READ IN–CONJUNCTION TO MANUFACTURERS DETAILS.

SOLUTION STRUCTURAL & CIVIL ENGINEERS
M: +61 478 223 383
E: info@solutioneng.com.au
W: www.solutioneng.com.au

REV	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
C	FOR CC APPROVAL	HH	TW	JG	17.05.25

DRAWING TITLE: BLOCK WALL DETAILS
PROJECT: PROPOSED SHOPTOP HOUSING
ADDRESS: 352 KING GEORGES RD, BEVERLY HILLS, NSW 2209

CLIENT: SITACO DEVELOPMENTS

ARCHITECT
EPW 109 WOOLCOTT ST. EARLWOOD NSW 2206
P (02) 9591 5292
M 0402206326
E epwdesigns@gmail.com

DO NOT SCALE FROM THESE DRAWINGS.
REFER TO ARCHITECT'S DRAWINGS FOR ALL LEVELS, DIMENSION SETOUTS AND CLEARANCES.
THE ACCURACY OF SITE MEASUREMENTS AND POSITIONS, CONFORMITY TO THE DESIGN DRAWINGS AND SPECIFICATIONS REMAIN THE RESPONSIBILITY OF THE BUILDER.

JOB NO: SSCE-2401-131
DRAWING NUMBER: S402 REV: C
SCALES: 1:100@A1 / 1:200@A3

1m 0 1000 2000 3000 4000