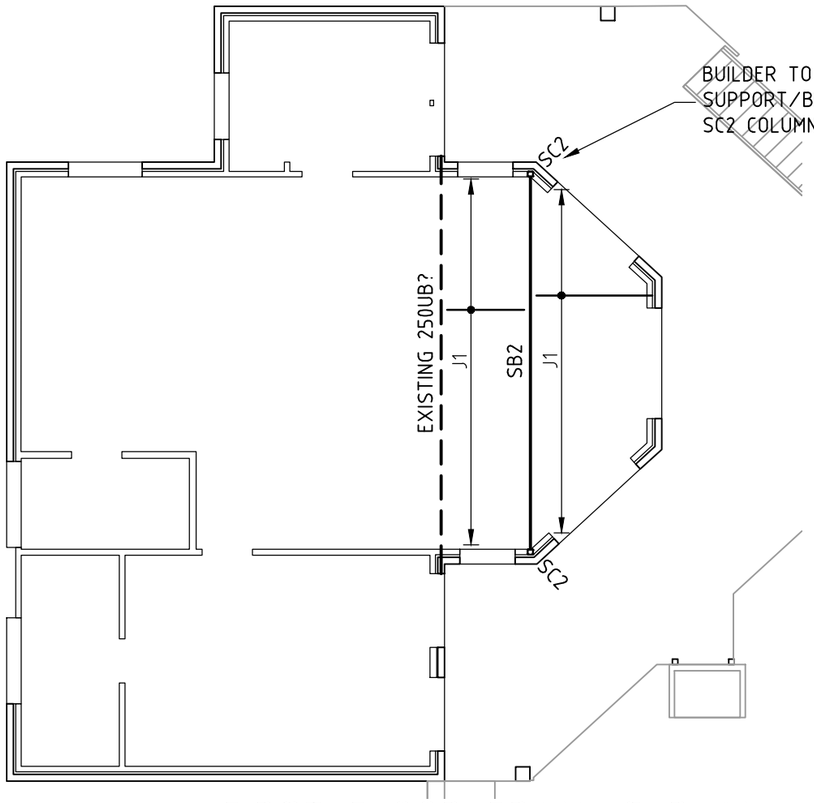
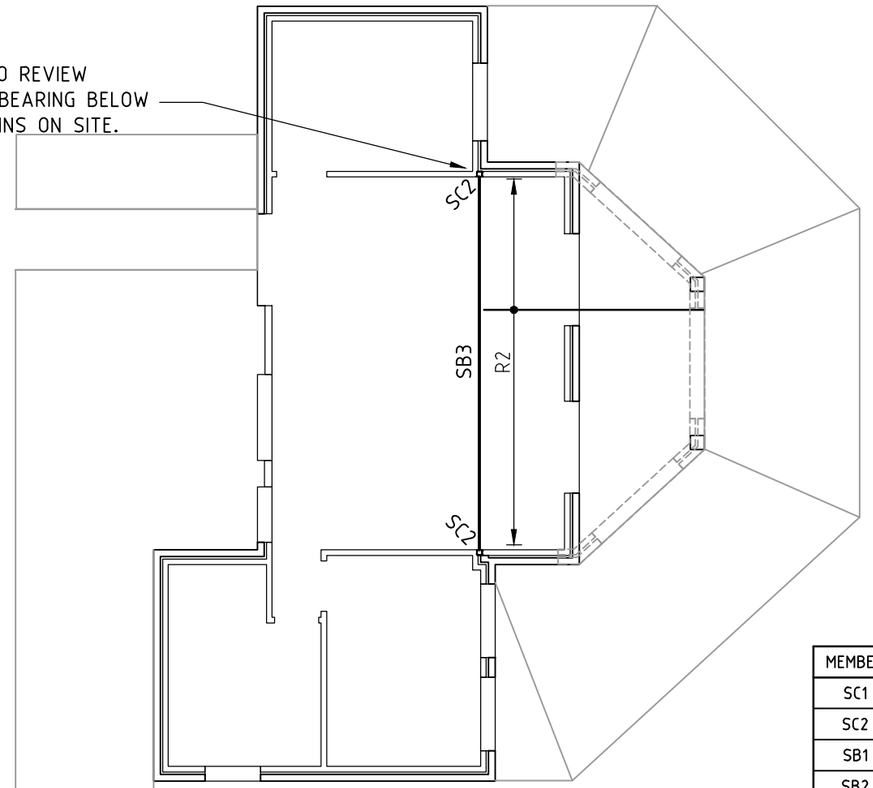


FIRST FLOOR FRAMING PLAN

SCALE 1:100



ROOF FRAMING PLAN

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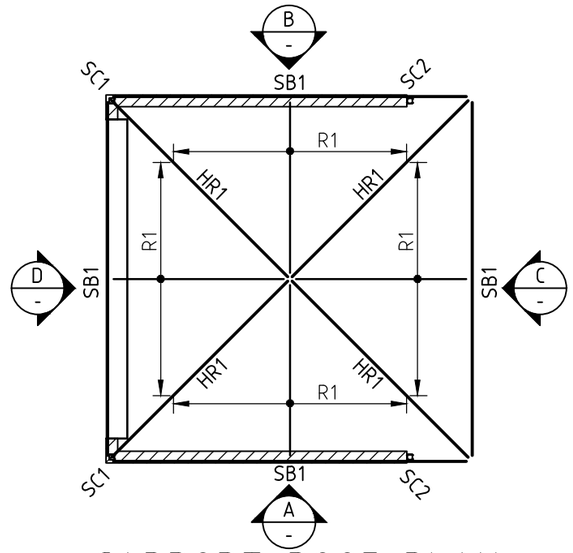
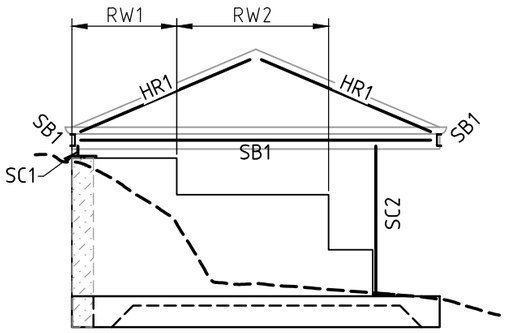


CARPORT ROOF PLAN

SCALE 1:100

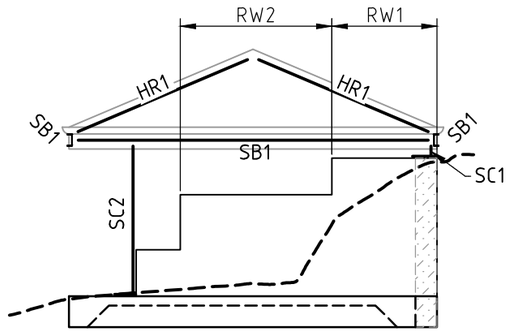
MEMBER SCHEDULE

MEMBER	SIZE	COMMENTS
SC1	89x89x6SHS	STEEL COLUMN
SC2	89x89x6SHS	STEEL COLUMN
SB1	200PFC	STEEL BEAM
SB2	310UB46	STEEL BEAM
SB3	310UB40	STEEL BEAM
J1	170x45 LVL	TIMBER JOISTS @ 450 c/c
R1	150x45 LVL	TIMBER RAFTERS @ 600 c/c
R2	170x45 LVL	TIMBER RAFTERS @ 600 c/c
HR1	2/200x63 LVL	TIMBER HIP RAFTERS



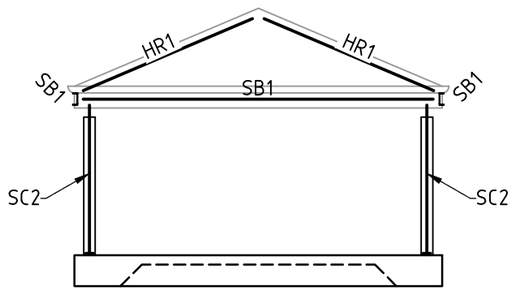
ELEVATION A

SCALE 1:100 — S02



ELEVATION B

SCALE 1:100 — S02



ELEVATION C

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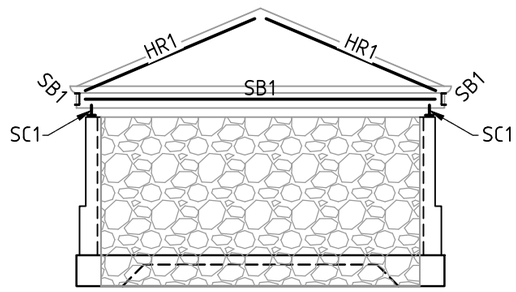

ELEVATION D

SCALE 1:100 — S02

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	29/01/24	ISSUED FOR REVIEW

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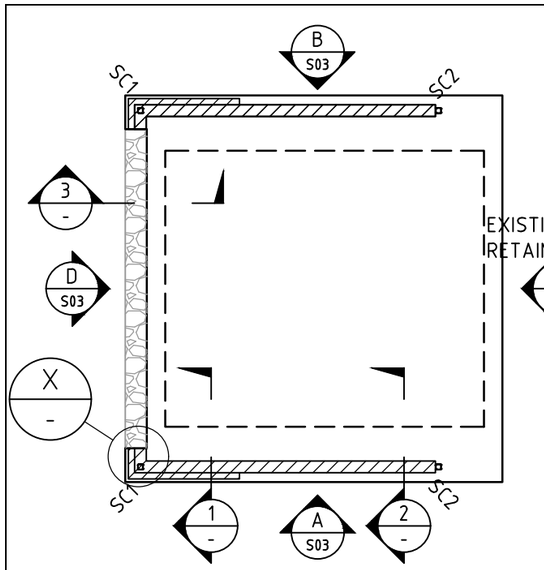
CLIENT:

PROJECT:
159 Hudson Parade Clareville NSW

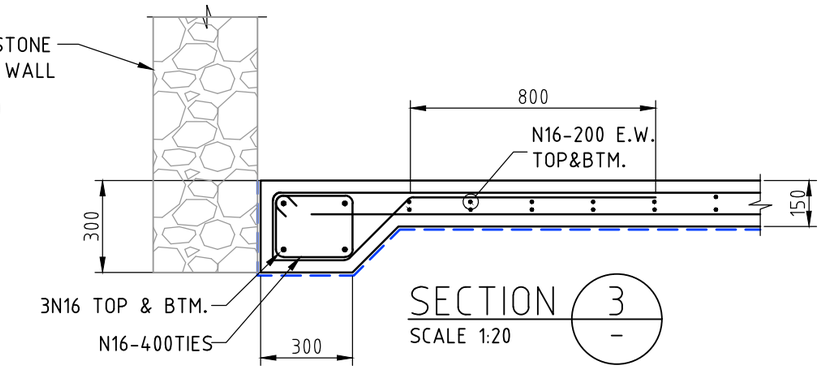
TITLE:
GROUND FLOOR PLAN
CARPORT PLAN

DRAWN ras	DESIGN J.B.	DATE: Jan'24
JOB NO: 23257		DWG NO: S03
SCALE @ A3: AS SHOWN		REV: A



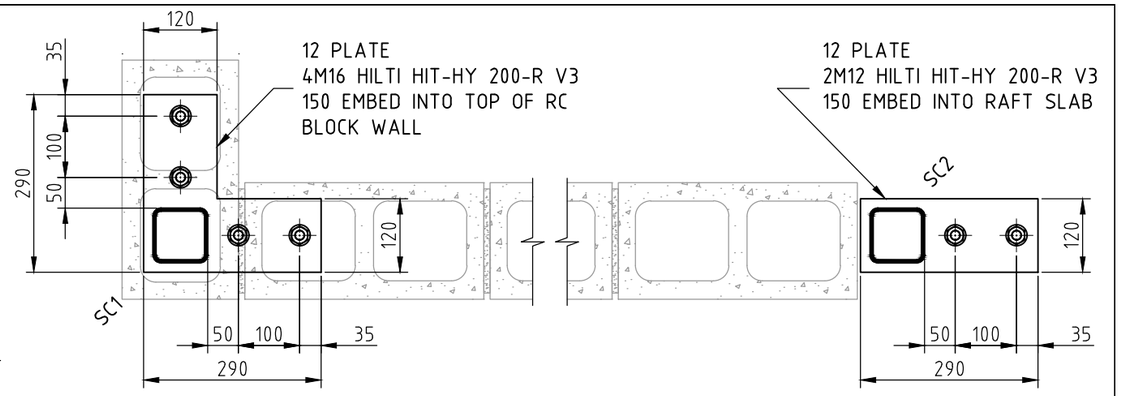
CARPORT SLAB PLAN

SCALE 1:100



SECTION 3 –

SCALE 1:20

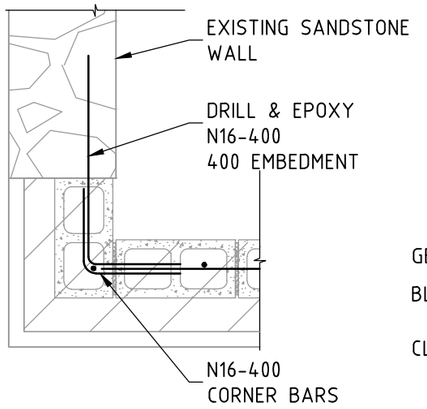


SC1 BASEPLATE

SCALE 1:10

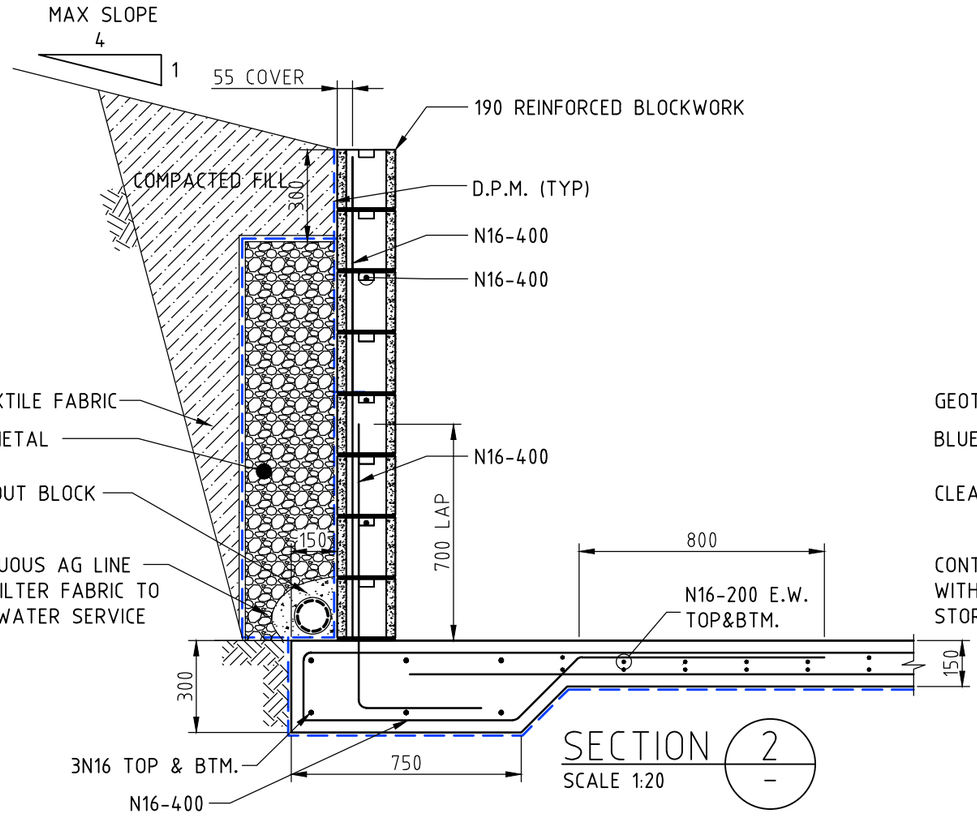
SC2 BASEPLATE

SCALE 1:10



DETAIL X –

SCALE 1:20

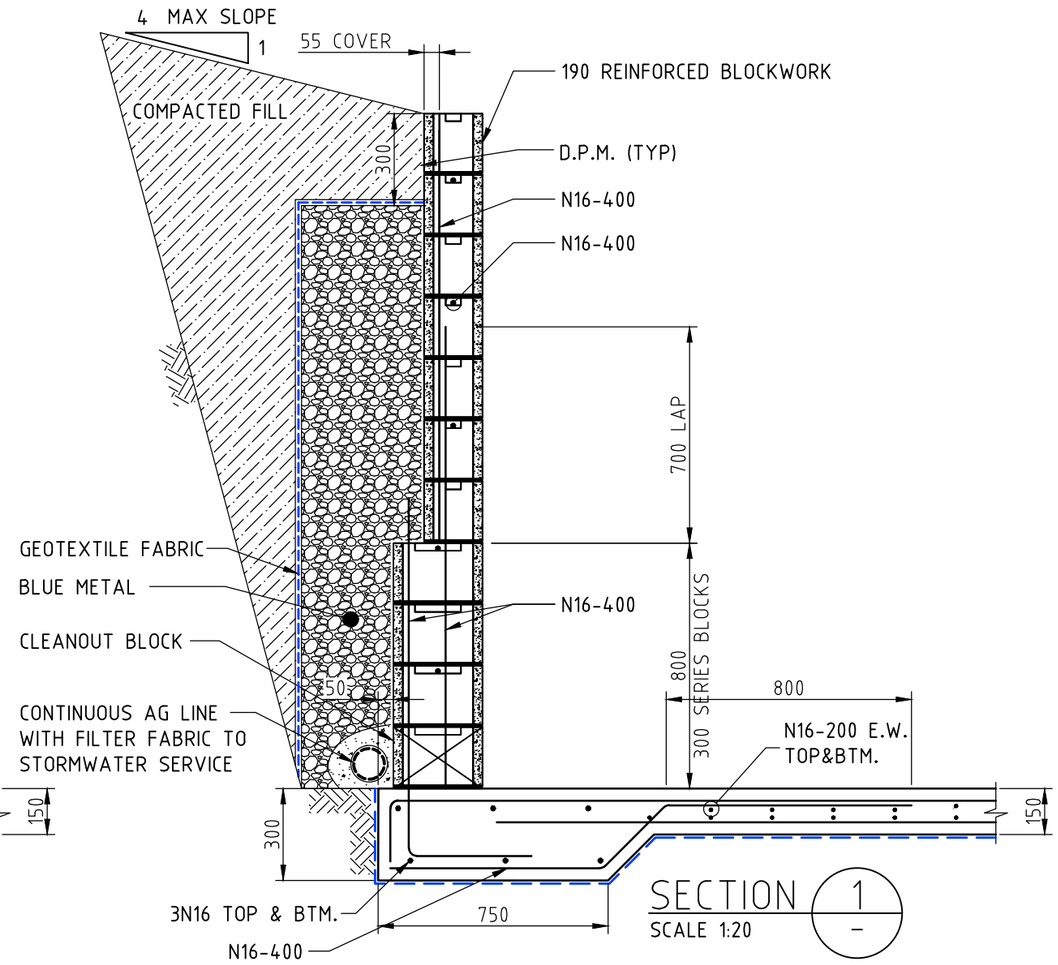


SECTION 2 –

SCALE 1:20

RETAINING WALL RW2

SCALE 1:20



SECTION 1 –

SCALE 1:20

RETAINING WALL RW1

SCALE 1:20

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
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Dennis Bunt Consulting Engineers Pty Ltd

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ABN 23 039 013 724

CLIENT:

PROJECT:
159 Hudson Parade Clareville NSW

TITLE:
GROUND FLOOR PLAN
CARPORT PLAN

DRAWN ras	DESIGN J.B.	DATE: Jan'24
JOB NO: 23257		DWG NO: S02
SCALE @ A3: AS SHOWN		REV: A

GENERAL

G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.

G2. ANY QUERIES OR DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER OR PROJECT MANAGER FOR A DECISION PRIOR TO PROCEEDING WITH THE WORK.

G3. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD AND THE BCA AS AMENDED.

G4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

G5. ALL DIMENSIONS SHALL BE VERIFIED BY THE BUILDER ON SITE PRIOR TO ANY FABRICATION OR CONSTRUCTION.

G6. DIMENSIONS AND SITE SETOUT SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.

G7. TEMPORARY BRACING OR PROPPING TO ENSURE THE STRUCTURE IS KEPT IN A STABLE STATE IS THE RESPONSIBILITY OF THE BUILDER.

G8. THE STRUCTURAL ELEMENTS SHOWN ON THESE DRAWINGS HAVE BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:

STRUCTURAL ELEMENT	LIVE LOAD kPa
FLOORS	1.5

G9. WIND LOADS TO AS1170.2
WIND TERRAIN CATEGORY = 3 REGION A
REGION WIND SPEED ULS V_{500} = 45m/s
REGION WIND SPEED SLS V_{25} = 37m/s

G10. DILAPIDATION INSPECTIONS TO BE CONDUCTED IN ADJOINING PROPERTIES PRIOR TO EXCAVATION.

G11. ALL APPROVALS TO BE GAINED FROM RELEVANT AUTHORITIES.

FOUNDATIONS

F1. THE FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 1000 KPa. ONTO ROCK.

F2. APPROVAL OF THE FOUNDING MATERIAL SHALL BE OBTAINED FROM THE ENGINEER OR GEOTECHNICAL ENGINEER PRIOR TO PLACING THE CONCRETE.

F3. EXCAVATION NEAR FOOTINGS SHALL NOT EXTEND BELOW THE BASE OF THE FOOTINGS WITHOUT THE APPROVAL OF THE ENGINEER.

F4. THE BUILDER IS RESPONSIBLE FOR MAINTAINING ANY EXCAVATION IN A STABLE CONDITION WITHOUT AFFECTING SURROUNDING PROPERTY FOR SERVICES. BUILDER TO ALLOW FOR ALL SHORING REQUIRED FOR EXCAVATION OF PILE CAPS.

F5. BUILDER TO ALLOW FOR REMOVAL OF ALL SPOIL FROM SITE FROM EXCAVATIONS, PILING AND PIERING.

F6. ALL TOP-SOIL & LOOSE MATERIAL TO BE REMOVED FROM THE SLAB AREA. COMPACTED FILL IN ACCORDANCE WITH AS2870 SECTION 6.4 IF REQUIRED.

TIMBER

T1. ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH AS1684 AND AS1720.

T2. MEMBERS TO HAVE STRENGTHS AS SHOWN ON STRUCTURAL DRAWINGS.

T3. TIMBER DURABILITY SHALL BE IN ACCORDANCE WITH AS1684.2 APPENDIX B, TABLE B1.

T4. ALL TIMBER SHALL BE FREE OF KNOT HOLES, POCKETS OR SPLITS WITHIN 300mm OF CONNECTIONS.

T5. ALL NUTS, BOLTS AND WASHERS SHALL BE HOT DIP GALVANISED. NUTS TO BE RE-TIGHTENED 6 MONTHS AFTER INSTALLATION.

T6. TIE DOWN RAFTERS, TOP PLATES, FLOORS ETC AS DETAILED IN AS1684.2.

T7. ALL FLOOR JOISTS TO HAVE ROWS OF NOGGINS IN ACCORDANCE WITH AS1684.2.

CONCRETE

C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF AS3600.

C2. 'READYMIX' CONCRETE SHALL COMPLY WITH AS1379 AND HAVE THE FOLLOWING QUALITY.

STRUCTURAL ELEMENT	AS3600, f'c (Mpa) AT 28 DAYS	SLUMP (mm)	AGG SIZE (mm)
FOOTINGS	32	80	20
SLABS/BEAMS ON GROUND	32	80	20

C3. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF THE CONCRETE.

C4. THE DESIGN, CONSTRUCTION, INSPECTION AND CERTIFICATION OF THE FALSEWORK, FORMWORK, PROPPING OR LOADING OF STRUCTURES DURING CONSTRUCTION BY THE FALSEWORK OR PROPPING SHALL BE THE RESPONSIBILITY OF THE BUILDER AND SUB-CONTRACTORS.

C5. CLEAR CONCRETE COVER TO THE REINFORCEMENT SHALL BE AS FOLLOWS:

STRUCTURAL ELEMENT	COVER INTERNAL (mm)	COVER EXTERNAL (mm)
FOOTINGS	45 TOP, 45 BTM, 45 SIDE	
SLABS/BEAMS ON GROUND	20 TOP, 30 BTM, 30 SIDE	-

C6. LAPPED SPLICE LENGTHS FOR HORIZONTAL BARS WITH MORE THAN 300mm CONCRETE CAST BELOW THE BAR & SPACED AT ≥ 150mm CENTRES TO COMPLY WITH THE FOLLOWING U.N.O:-

COVER	fc	N12	N16	N20	N24	N28	N32
≥25	≥20	770	1150	1570	-	-	-
≥30	≥25	630	980	1350	1740	-	-
≥40	≥32	510	770	1100	1440	1810	2230
≥50	≥40	460	630	890	1200	1530	1890

DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS.
LAPPED SPLICE LENGTHS FOR BARS IN COLUMNS REFER TO AS3600 OR SUPERINTENDENT.
EPOXY COATED BARS, BARS IN LIGHTWEIGHT CONCRETE & SLIP FORMED CONCRETE WILL REQUIRE LONGER SPLICE LENGTHS. REFER TO AS3600 OR SUPERINTENDENT.

C7. LAPPED SPLICE LENGTHS FOR VERTICAL BARS (& HORIZONTAL BARS WITH LESS THAN 300mm CONCRETE CAST BELOW THE BAR) SPACED AT ≥150mm CENTRES TO COMPLY WITH THE FOLLOWING:-

COVER	fc	N12	N16	N20	N24	N28	N32
≥25	≥20	590	890	1210	-	-	-
≥30	≥25	490	750	1040	1340	-	-
≥40	≥32	390	600	840	1110	1400	1710
≥50	≥40	350	480	690	920	1180	1450

NOT APPLICABLE FOR BARS IN COLUMNS.
DO NOT INTERPOLATE INTERMEDIATE VALUES OF SPLICE LENGTHS.
LAPPED SPLICE LENGTHS FOR BARS IN COLUMNS REFER TO AS3600 OR SUPERINTENDENT.
EPOXY COATED BARS, BARS IN LIGHTWEIGHT CONCRETE & SLIP FORMED CONCRETE WILL REQUIRE LONGER SPLICE LENGTHS. REFER TO AS3600 OR SUPERINTENDENT.

CONCRETE (CONTINUED)

C8. PROVIDE MINIMUM MESH LAPS TO CROSS WIRES OF REINFORCING MESH, SO THAT TWO OUTERMOST WIRES OF ONE SHEET OVERLAP TWO OUTERMOST WIRES OF ADJACENT SHEET BY AT LEAST 25mm, THUS:-

MESH TYPE	END LAP	SIDE LAP
RECTANGULAR MESHES	225	125
SQUARE MESHES SL102 TO SL42	225	225
SL81	125	125
TRENCH MESH	500	N/A

USE LAP LENGTHS BASED ON LARGEST WIRE SPACING. DO NOT LAP MORE THAN THREE SHEETS AT ANY ONE POINT.

C9. REINFORCEMENT SHALL NOT BE HEATED OR WELDED ON SITE WITHOUT THE APPROVAL OF THE ENGINEER.

C10. ALLOW FOR N12-300 SUPPORT BARS PERPENDICULAR TO ALL REINFORCEMENT WHERE NO PERPENDICULAR BARS ARE SHOWN ON PLAN.

C11. REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS1302 AND AS4671 FOR 500 MPa REINFORCEMENT AND DUCTILITY CLASS N.
IN ACCORDANCE WITH AS1303, 1304 AND AS4671 FOR 500 MPa REINFORCEMENT DUCTILITY CLASS L.

C12. ALL INTERNAL FLOOR SLABS ON GROUND SHALL BE DETAILED ON MOISTURE BARRIER DAMP PROOF MEMBRANE (D.P.M.). TURNED UP AROUND THE PERIMETER & TURNED DOWN INTO FOOTINGS, WITH ALL JOINTS LAPPED & SEALED.

C13. DAMP PROOF MEMBRANE (D.P.M.) SHALL BE EQUIVALENT TO 300 MICRON 'FORTECON' ORANGE POLYTHENE.

C14. [250] INDICATES SUSPENDED SLAB THICKNESS.

C15. (250) INDICATES SLAB ON GROUND THICKNESS.

STRUCTURAL STEEL

S1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS4100, AS1554 AND AS4600.

S2. STEEL MEMBERS TO HAVE THE FOLLOWING GRADES:

MEMBER	GRADE
HOT ROLLED SECTIONS UB's, UC's, PFC's AND ANGLES	300
HOLLOW SECTIONS CHS, SHS AND RHS	350, 250
COLD FORMED PURLINS AND GIRTS	400
FLAT BARS AND RODS	250

S3. BOLT DESIGNATION:

4.6/S	GRADE 4.6 BOLTS TO AS1111 SNUG TIGHTENED
8.8/S	HIGH STRENGTH GRADE 8.8 TO AS1252 SNUG TIGHTENED
8.8/TB	HIGH STRENGTH GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A BEARING JOINT
8.8/TF	HIGH STRENGTH GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A FRICTION JOINT WITH CONTACT SURFACES LEFT UNCOATED

S4. ALL BOLTS TO BE M20 GRADE 8.8/S U.N.O ON STRUCTURAL DRAWINGS.
NO STEEL TO STEEL CONNECTION TO HAVE LESS THAN 2 BOLTS.

S5. ALL PLATES, GUSSETS, FINS ETC TO BE 10mm THICK MINIMUM.
ALL WELDS TO BE 6mm CONTINUOUS FILLET WELDS ALL AROUND U.N.O.
BUTT WELDS TO BE FULL PENETRATION.
ELECTRODES TO BE E48XX/W50X U.N.O.

S6. ALL WELDS TO BE STRUCTURAL PURPOSE (SP) U.N.O.

S7. ALL WELDS TO BE MINIMUM 6mm CFW OR EQUIVALENT TO STEEL THICKNESS, WHICHEVER IS LESSER.

S8. THE BUILDER SHALL PROVIDE ALL CLEATS AND HOLES NECESSARY FOR ALL ATTACHMENTS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.

S9. ALL STEEL PORTAL COLUMNS & BEAMS SHALL BE FIXED TO ADJACENT TIMBER VERTICAL STUDS AND RAFTER/CEILING JOISTS VIA SHOT-FIRED NAILS AT 450 CENTRES. WHERE PORTAL COLUMNS OCCUR IN MASONRY WALLS, MET TIES SHALL BE ADOPTED AT EVERY 5TH COURSE EACH SIDE.

S10. PROVIDE HOOK BOLTS FROM BRACING TO PURLINS AT BRACING MID POINT TO PREVENT SAG IN BRACING.

S11. THE BUILDER SHALL MAINTAIN THE STRUCTURE AND STRUCTURAL STEEL IN A STABLE CONDITION DURING THE CONSTRUCTION AND SHALL PROVIDE TEMPORARY BRACING, FALSEWORK OR PROPPING AS REQUIRED TO ACHIEVE THIS. THIS BRACING ETC SHALL BE AT THE COST OF THE BUILDER.

S12. THE BUILDER SHALL PROVIDE 4 COPIES OF STRUCTURAL STEEL SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER 14 DAYS PRIOR TO FABRICATION.

S13. STRUCTURAL STEELWORK TO HAVE THE FOLLOWING SURFACE TREATMENT:

ELEMENT	SURFACE TREATMENT	SURFACE COATING
EXTERNAL OR IN CAVITIIES	PICKLE TO AS1627 PART 5	HOT DIP GALVANIZE 600g PER SQUARE METRE & 50um OF TWO PACK EPOXY PRIMER, PLUS 200um OF HIGH BUILD EPOXY MICACEOUS IRON OXIDE (TWO PACK) ALL TO AS2699.3
INTERNAL	BLAST CLEAN TO CLASS 2 TO AS1627	2 COATS RED OXIDE PRIMER

S14. ALL SITE WELDED GALVANIZED STEELWORK TO BE PAINTED WITH:-
- MODERATE ATMOSPHERIC CORROSIVITY ZONES = 2 COATS OF 'GALVANITE' EPOXY ZINC RICH PRIMER OR EQUIVALENT TO 125-155μm DFT.
- SEVERE ATMOSPHERIC CORROSIVITY ZONES = 2 COATS OF 2 PACK EPOXY ZINC TO AS3750.9 TO 150μm DFT FOLLOWED BY 2 PACK EPOXY ENAMEL TO 150μm DFT.

S15. ALLOW FOR ALL STEELWORK TO BE FIRE RATED TO NCC/FIRE ENGINEERS REQUIREMENTS.

NOT FOR CONSTRUCTION

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CLIENT:

PROJECT:
159 Hudson Parade Clareville NSW

TITLE:
STRUCTURAL NOTES

DRAWN ras	DESIGN J.B.	DATE: Jan'24
JOB NO: 23257		DWG NO: S01
SCALE @ A3: AS SHOWN		REV: A