

PROPOSED ALTERATIONS & ADDITIONS

at: 5 RONALD AVENUE, HARBORD 2096 NSW

for

PHILIP JOHNSTON

STRUCTURAL DRAWINGS

7183-S0.00.....STRUCTURAL NOTES SHT 1 of 2
 7183-S0.01.....STRUCTURAL NOTES SHT 2 of 2
 7183-S1.00.....GARAGE & ROOF LEVEL SLAB PLAN
 7183-S1.01.....GARAGE DETAILS - SHEET 1 of 2

7183-S1.02.....GARAGE DETAILS - SHEET 2 of 2
 7183-S2.00.....GROUND FLOOR FRAMING PLAN
 7183-S3.00.....FIRST FLOOR & ROOF FRAMING PLANS
 7183-S3.01.....FIRST FLOOR & ROOF FRAMING DETAILS

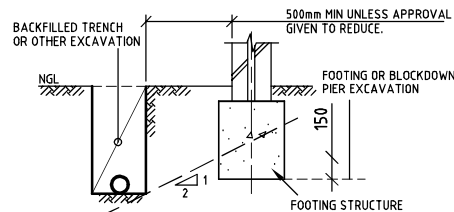
STRUCTURAL NOTES

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 DURING THE COURSE OF THE CONTRACT.
- G2 THE INFORMATION CONTAINED ON THESE DRAWINGS IS FOR STRUCTURAL ENGINEERING PURPOSES ONLY. IN ALL OTHER MATTERS, THE APPROVED ARCHITECTS DRAWINGS SHALL TAKE PRECEDENCE. ALL DISCREPANCIES THAT COULD RESULT IN CHANGES TO THE STRUCTURAL DETAILS SHALL BE REFERRED TO THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- G3 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES.
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G5 THE BUILDER SHALL GIVE 48 HOURS NOTICE FOR ALL ENGINEERING INSPECTIONS.
- G6 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE.
- G7 THE STRUCTURAL COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND LOCAL GOVERNMENT ORDINANCES.
- G8 WIND LOADS ARE DETERMINED IN ACCORDANCE WITH AS4055 FOR WIND CLASSIFICATION: 'N3' WITH A TILED ROOF.

FOUNDATIONS & EARTHWORKS

- F1 FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING INTENSITY OF 600kPa ON WEATHERED SANDSTONE BEDROCK. FOUNDATION MATERIAL TO BE CONFIRMED ON SITE. STIFFENED RAFT SLAB FOOTING DESIGNED FOR A CLASS 'A' SITE IN ACCORDANCE WITH AS 2870.
- F2 TOPSOIL INCLUDING GRASS ROOTS IS TO BE REMOVED FROM THE AREA TO SUPPORT SLABS AND FOOTINGS. FOOTINGS TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE. TRENCHES TO BE DEWATERED & CLEANED OUT PRIOR TO CONCRETE PLACEMENT.
- F3 UNLESS OTHERWISE APPROVED BY THE ENGINEER, THE LIMITS OF EXCAVATIONS NEAR EXISTING FOOTINGS SHALL BE AS SET OUT IN THE DETAIL BELOW.



PRIOR TO ANY EXCAVATION NEAR EXISTING FOOTINGS, THE BUILDER SHALL DETERMINE THE DEPTH OF FOUNDING OF EXISTING FOOTINGS BY LOCAL INVESTIGATORY EXCAVATION. GENERAL EXCAVATION SHALL NOT PROCEED BELOW A LEVEL 150mm ABOVE THE UNDERSIDE OF EXISTING FOOTINGS UNTIL INSTRUCTION IS OBTAINED FROM THE ENGINEER ON PROCEDURES & PRECAUTIONS TO BE TAKEN.

- F4 CONTROLLED FILL: SAND FILL UP TO 0.8m DEEP, WELL COMPACTED IN NOT MORE THAN 300mm THICK LAYERS BY A VIBRATING PLATE OR VIBRATING ROLLER. NON-SAND FILL UP TO 0.4m DEEP, WELL COMPACTED IN LAYERS NOT MORE THAN 150mm DEEP BY A MECHANICAL ROLLER. CLAY FILL SHALL BE MOIST DURING COMPACTION.

REINFORCEMENT

- R1 ALL REINFORCING BARS SHALL BE GRADE D500N TO AS4671 UNLESS NOTED OTHERWISE. ALL MESH SHALL BE GRADE 500L TO AS4671 AND SHALL BE SUPPLIED IN FLAT SHEETS.
- R2 REINFORCEMENT NOTATION SHALL BE AS FOLLOWS IN THE FOLLOWING ORDER
 NUMBER OF BARS IN GROUP
 17N20-250 BAR GRADE AND TYPE
 SPACING IN mm
 NOMINAL BAR SIZE IN mm
- R3 REINFORCEMENT SYMBOLS:
 'N' - DENOTES GRADE 500 N BARS TO AS4671 GRADE N.
 'R' - DENOTES GRADE 250 R HOT ROLLED PLAIN BARS TO AS1302.
 'F' - DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS4671.
 'W' - DENOTES HARD-DRAWN PLAIN WIRE TO AS1303.
 'SL' or 'RL' - DENOTES WELDED GRADE 500 REINFORCING FABRIC TO AS 4671
- R4 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER. LAPS SHALL BE IN ACCORDANCE WITH AS 3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR.

BAR DIA	SPlice SCHEDULE	
	TENSION SPlice LENGTH	COMPRESSION SPlice LENGTH
N 12	4 75	4 50
N 16	7 50	6 00
N 20	1 0 00	7 50
N 24	1 1 00	9 00

- R5 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- R6 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER.
- R7 FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF THE WIRE.
- R8 SLAB REINFORCEMENT SHALL EXTEND AT LEAST 65mm ONTO MASONRY SUPPORT WALLS AND 50% OF BOTTOM REINFORCEMENT SHALL BE COGGED TO ACHIEVE ANCHORAGE AT SIMPLY SUPPORTED ENDS. IF THIS CANNOT BE ACHIEVED DUE TO COVER REQUIREMENTS THEN ALL THE BARS SHALL BE COGGED. FOR FABRIC THE LAST WELDED CROSS ROD SHALL BE LOCATED OVER THE WALL AND 50mm MINIMUM BEYOND THE FACE OF THE WALL.

REINFORCEMENT Cont

- R9 WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-400 SPLICED WHERE NECESSARY AND LAP WITH MAIN BARS 400MM UNLESS NOTED OTHERWISE.
- R10 NO OPENINGS IN BEAMS OR COLUMNS SHALL BE MADE OTHER THAN THOSE SPECIFICALLY DETAILED. FOR OPENINGS IN SLABS UP TO 300mm SQUARE THE REINFORCEMENT SHALL BE DISPLACED TO THE SIDES. FOR OPENINGS BETWEEN 300mm SQUARE AND 600mm SQUARE THE REINFORCEMENT CROSSING THE PROPOSED OPENING SHALL BE CUT AND THE HOLES TRIMMED USING 2M2 BARS TOP AND BOTTOM EXTENDING 1500mm PAST EACH SIDE OF OPENING. OPENINGS LARGER THAN 600mm SQUARE SHALL BE DETAILED BY THE ENGINEER.
- R11 JOGGLES TO BARS SHALL COMPRISE A LENGTH OF 12 BAR DIAMETERS BETWEEN BEGINNING AND END OF AN OFFSET OF 1 BAR DIAMETER.
- R12 ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1 METRE CENTRES BOTH WAYS, AND 800 EACH WAY FOR FABRIC. WHEN POURED ON GROUND AS FORMWORK PROVIDE PLATES UNDER ALL BAR CHAIRS.
- R13 PLASTIC TIPPED STEEL CHAIRS SHALL NOT BE USED ON EXPOSED FACES IN EXPOSURE CLASSIFICATION B1, B2 AND C ONLY PLASTIC OR CONCRETE CHAIRS.
- R13 SITE BENDING OF REINFORCEMENT SHALL BE AVOIDED IF POSSIBLE. WHERE SITE BENDING IS UNAVOIDABLE IT SHALL BE CARRIED OUT COLD, WITHOUT THE APPLICATION OF HEAT, AND IN ACCORDANCE WITH THE PRACTICE NOTE 'RPNI' OF THE STEEL REINFORCEMENT INSTITUTE OF AUSTRALIA USING MECHANICAL BENDING TOOLS.

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ISSUED FOR CONSTRUCTION

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			DESIGN: S.W. DATE: JUNE 2008 DRAWN: J.C. SCALE: N/A FILENAME: 7183-S0.00 To S4.00 DWG SIGNED: _____ SIZE: A3
B ISSUED FOR CONSTRUCTION A ISSUED FOR TENDER PURPOSES ONLY ISSUE DESCRIPTION BY APR DATE	JC SW 29.08.08 JC SW 24.07.08		DRAWING TITLE: STRUCTURAL NOTES-SHT 1 of 2
			DRAWING No: 7183-S0.00 REV B