GENERAL

1.05 SCALE AT A3: 1:100

2.0 DESIGN DATA

2.04 THE CONCRETE ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING EXPOSURE CLASSIFICATIONS IN ACCORDANCE WITH AS 3600:

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTERIOR CONCRETE</td>
<td>A1</td>
</tr>
</tbody>
</table>

3.0 BULK EARTHWORKS

3.01 ALL EXCAVATION WORK TO BE CARRIED OUT TO THE SATISFACTION OF THE GEOFECTICAL CONSULTANT INCLUDING MAINTENANCE OF TEMPORARY DRAINAGE, APPROVAL OF ALL DRAWINGS AND CONSTRUCTION CONDITIONS.

3.02 REFER TO THE GEOTECHNICAL REPORT FOR EXCAVATION CONDITIONS, INCLUDING SOIL MATERIALS AND LEVELS.

3.03 REFER TO SURVEY DRAWINGS FOR EXISTING SERVICES AND LEVELS.

3.04 ALL LEVELS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM.

3.05 V.R.C. INDICATES VERTICAL ROCK CUT, ROCK TO BE CUT NEAR VERTICAL FROM LOWER BENCH AT 90° TO 95° WITH HORIZON UNLESS NOTED OTHERWISE.

3.06 OVERBURDUN OCCURRING ABOVE ROCK SHALL BE BATTERED BACK AT 2:1 AS REQUIRED.

3.07 SITE SURFACE CONTOURS SHOWN ARE INDICATIVE ONLY. FOR TRUE SURFACE LEVELS REFER SURVEY DRAWINGS.

4.0 SLAB ON GRADE

4.01 REMOVAL OF ALL TOP SOIL INCLUDING ROOTS AND ANY OTHER ORGANIC MATTER. STORE TOP SOIL AS REQUIRED.

4.02 WHERE SHOWN ON THE DRAWINGS, BASE AND SAND BACKING ARE TO BE PLACED AND COMPACTED AS SPECIFIED.

4.03 EXCAVATE TO THE REQUIRED FORMATION LEVEL AND PROOF ROLL FORMATION WITH A PASSAGE OF A 10 TONNE SMOOTH WHEELED ROLLER. SOFT AREAS TO BE REMOVED AND REPLACED WITH SUITABLE FILL COMPACTED TO THE SITES NOMINATED BELOW.

4.04 CONTROLLED FILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. PLACE IN MAXIMUM 150mm THICK LAYERS TO 90% STANDARD COMPACTION IN ACCORDANCE WITH AS 1988.1-1 MAXIMUM DEPTH OF FILL IS TO BE 400mm FOR COHESIVE FILL AND 800mm FOR GRANULAR FILL.

4.05 CLAY SUBGRADE FORMATION IS TO BE MAINTAINED AT OPTIMUM MOISTURE CONTENT. USE DOWSING TO PREVENT OVER-EXCAVATION.

5.0 FOUNDATIONS

5.01 FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING ALLOWABLE PRESSURES:

<table>
<thead>
<tr>
<th>FLOOR USAGE</th>
<th>SUPERIMPOSED DEAD LOADS (kN/m²)</th>
<th>LIVE LOAD (kN/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENTIAL</td>
<td>0.50</td>
<td>1.5</td>
</tr>
<tr>
<td>WET AREAS</td>
<td>1.00</td>
<td>1.5</td>
</tr>
<tr>
<td>BALCONIES</td>
<td>0.50</td>
<td>2.0</td>
</tr>
</tbody>
</table>

5.02 THE FOUNDATION MATERIAL SHALL BE APPROVED BY THE GEOFECTICAL ENGINEER FOR THIS BEARING CAPACITY BEFORE PLACING ANY MEMBRANE, REINFORCEMENT OR CONCRETE. WHERE NEEDED, THE FOOTING DESIGN MAY BE ALTERED.

5.03 SITE CLASSIFICATION IS ASSUMED Class A in ACCORDANCE WITH AS2247. THIS IS TO BE CONFIRMED ON SITE AFTER EXCAVATION HAS TAKEN PLACE.

5.04 THE BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXCAVATIONS TO A STABLE CONDITION WITHOUT ADVERSELY AFFECTING SURROUNDING PROPERTIES INCLUDING SERVICES. THIS INCLUDES OBTAINING ALL NECESSARY PERMITS FOR SHORING AND ANY OTHER SYSTEMS.

5.05 FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND CORNERS UNLESS NOTED OTHERWISE.

5.06 FOOTINGS NEAR BOUNDARIES MUST NOT BE LOCATED HIGHER OR LOWER THAN FOOTINGS OF ADJACENT PROPERTIES UNLESS APPROVED.

6.0 CONCRETE

6.01 ALL WORKSHOPS AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1379. CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

6.02 PRE-MIXED CONCRETE SUPPLY SHALL COMPLY WITH AS 1379.

6.03 NO ADJUSTMENTS SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.

6.04 CONCRETE MIX DESIGNS TO BE SUBMITTED FOR REVIEW PRIOR TO USE OF CONCRETE.

6.05 ENSURE CLEAR COVER TO RENFORCEMENT IS AS DETAILED UNLESS OTHERWISE SPECIFIED.

6.06 CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.

6.07 DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.

6.08 FOR CHAMBERS, DRIP GROOVES, RAISED JOISTS, ETC., REFER TO ARCHITECTURAL DETAILS.

6.09 NO HOLES, CHASING OR EMBLEM IN PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

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

6.11 THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS. CURVING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 7 DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS THAT COMPLY WITH AS 3799 MAY BE USED WHERE HUMID WEATHER CONDITIONS WILL NOT BE AFFECTED (REFER MANUFACTURER SPECIFICATION). POLYTHENE SHEETING OR WET HESSIAN MAY BE USED TO RETAIN CONCRETE MOISTURE WHERE PROTECTED FROM WIND AND WEATHER.

7.07 WHERE FOOTINGS ARE OVER-EXCAVATED, FOLLOW OVER-EXCAVATED AREAS WITH BULKING CONCRETE GRADE SAME AS FOOTINGS TO A MINIMUM THICKNESS OF 50mm.

8.08 KEEP FOOTINGS CLEAN AND FREE OF LOOSE MATERIAL BEFORE INSPECTION. IMMEDIATELY PRIOR TO POURING OF CONCRETE, AND DURING POURING.

9.09 DO NOT EXCEED A RISE OF 100mm in A RUN OF 300mm FOR THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS.

10.01 DO NOT BACKFILL RETAINING WALLS (OTHER THAN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED. ENSURE FREE DRAINING BASEMENT AND DRAINAGE IS IN PLACE.

11.01 FOOTINGS TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE.

12.01 FOR FOOTINGS FOUND ON CONTROLLED FILL REFER TO NOTE 4.04.

STRAWFIELD NSW 2135

15 MELVILLE AVE
7.0 REINFORCEMENT
7.01 REINFORCEMENT SYMBOLS
S DENOTES GRADE 250 S HOT ROLLED DEFORMED BARS TO AS 4100
S1 & S2 DENOTES GRADE 250 S HOT ROLLED PLAIN BARS TO AS 4100
R DENOTES GRADE 250 HOT ROLLED PLAIN BARS TO AS 4100
DENOTES HARD DRAWN PLAIN WIRE AS 4100
DW DENOTES COLD ROLLED RIBBED WIRE AS A 4100

7.02 ALL REINFORCEMENT SHALL BE FINISH SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1 METER CENTRES BOTH WAYS. BARS SHALL BE TIED AT INTERSECTIONS TO REDUCE EXPOSURE CONDITIONS GREATER THAN 81 UNLESS ONLY PLASTIC CHAIRS.

7.03 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN_TRUE_PROJECTION.

7.04 SLAB REINFORCEMENT SHALL EXTEND AT LEAST 75 MM ONTO MASONRY SUPPORT WALLS AND ALL PERCENTAGE OF BOTTOM REINFORCEMENT SHALL BE COGGED TO ACHIEVE ANCHORAGE AT SIMPLY SUPPORTED ENDS.

7.05 SPACES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING by THE ENGINEER. LAVS SHALL BE IN ACCORDANCE THE FOLLOWING:

Fabric shall be lapped in REINFORCEMENT SUCH THAT THE OUTER MOST WIRES OF ONE SHEET OVERTAKE THE OUTER MOST WIRES OF THE OTHER SHEET BY 25MM MINIMUM.

8.0 STRUCTURAL MASONRY
8.01 ALL WORKSHIPS AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700 CURRENT ADDITION WITH AMENDMENTS AND OTHER RELEVANT CODES.
8.02 MORTAR ADHESIVES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
8.03 NON LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY 25MM GAP. PROVIDE JOINT SEALER TO THE ARCHITECTS’ DETAILS.
8.04 NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.
8.05 REINFORCED BRICKWORK SHALL COMPLY WITH THE FOLLOWING U.N.O.:
(i) ALL BED JOINTS AND PERPENDS WITH MORTAR EXCEPT AT WHEEL HOLES
(ii) PROVIDE CLEAN-OUTS AT BASE OF REINFORCED CORES AND CAVITIES. REMOVE MORTAR PROTRUSIONS BEFORE OR CORE CAVITY FILLING.
(iii) COMPACT GROUT FILLING BY RODDING OR MECHANICAL VIBRATION.
(iv) MAXIMUM HEIGHT OF FLOWER FOR CAVITY FILLED WALLS TO BE 1200MM.
8.06 WATERPROOF REAR FACE OF RETAINING WALLS AS SPECIFIED BY THE ARCHITECT.
8.07 UNLESS NOTED OTHERWISE, PROVIDE VERTICAL JOINTS AT 12.5CM MAXIMUM CENTRES, AND 6CM MAXIMUM FROM CORNERS IN ALL MASONRY CORES U.N.O.
8.08 BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL. U.N.O. PROVIDE SUBSOIL DRAIN OR WEEP HOLES.
8.09 ALL CAVITY CONSTRUCTION TO HAVE GALVANISED WALL TIES INSTALLED AT 1/2CM SQUARE & RECTANGULAR MESH RESPECTIVELY AS 4100.

9.0 STRUCTURAL STEELWORK
9.01 ALL WORKSHOPS AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 AS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
9.02 UNLESS NOTED OTHERWISE, ALL STEEL SHALL BE IN ACCORDANCE WITH AS 3691 GRADE 250, OR AS 3691 GRADE 350, OR AS 1183 GRADE C350 AS APPLICABLE.
9.03 TWO (2) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF THE FABRICATION. FABRICATION IS NOT COMPLIANCE WITH THE ARCHITECTS’ DETAILS.
9.04 BOLT CATEGORY: COMMENTS
4.6/S COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111
8.8/S HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 SNUG TIGHTENED
9.05 UNLESS NOTED OTHERWISE ALL PLATE BOLTS SHALL BE MINIMUM 10MM THICK.
9.06 UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE M20 CATEGORY 8.8/S, NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANISED. UNLESS NOTED OTHERWISE, ALL HOLDING DOWN BOLTS SHALL BE M20 CATEGORY 4.6/S. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANISED.

9.07 UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE M20 CATEGORY 8.8/S, NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANISED. UNLESS NOTED OTHERWISE, ALL HOLDING DOWN BOLTS SHALL BE M20 CATEGORY 4.6/S. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANISED.
9.08 FABRICATION SHALL COMPLY WITH AS 4100, SECTION 14.
9.09 ERECTION SHALL COMPLY WITH AS 4100, SECTION 15.
9.10 UNLESS NOTED OTHERWISE, ALL FALLET WELDS SHALL BE 6MM CONTINUOUS CATEGORY GP USING E6011/E6015 ELECTRODES. ALL BUTT WELDS SHALL BE COMPLETE WITH 6MM CONTINUOUS BUTT WELDS CATEGORY SP TO AS 1554.1.
9.11 UNLESS NOTED OTHERWISE, ALL PURPLE CLEAR WELS SHALL BE 6MM CONTINUOUS CATEGORY GP USING E6110/E6115 ELECTRODES.
9.12 THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL HOLES WHICH ARE UNDERNEATH THE STRUCTURE FOR FIXING STEEL TO STEEL AND TO BOLT TO STEEL OR TO CONCRETE OBTAINED FROM THE STRUCTURE TO BE ENTERED UNDER THE STRUCTURE.
9.13 THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL HOLES WHICH ARE UNDERNEATH THE STRUCTURE FOR FIXING STEEL TO STEEL AND TO BOLT TO STEEL OR TO CONCRETE OBTAINED FROM THE STRUCTURE TO BE ENTERED UNDER THE STRUCTURE.

10.0 STRUCTURAL TIMBER
10.01 ALL TIMBER DESIGN, CONSTRUCTION AND MATERIAL TO BE AS 1720.5 AND AS 1720.2 U.N.O.
10.02 AS 1720.5 SHALL BE APPLIED TO DOMESTIC CONSTRUCTION IN SHELTERED LOCATIONS.
10.03 SOFTWOOD TO BE MINIMUM GRADE F7 U.N.O. HARDWOOD TO BE MINIMUM GRADE F14.
10.04 EXTERNAL TIMBER TO BE EITHER HARDWOOD DURABILITY CLASS 1 OR CLASS 2 AS PER AS 1720.2 OR IMPREGNATED PINE GRADE F7, PRESSURE TREATED TO AS 1604 AND RE-DRIED PRIOR TO USE. SUPPLEMENTARY TREATMENT SHALL BE APPLIED TO ALL CUT SURFACES. SUPPLY SUPPORTING DOCUMENTATION FOR PRESERVATIVE TREATMENT.
10.05 TIMBER TRUSSES TO BE PRE-CAMBERED AN AMOUNT EQUAL TO DEAD LOAD DEFLECTION. THREE (3) COPIES OF SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL CLEARLY SHOWING THE DESIGN LOADS, LIVE LOADS, MINIMUM DIMENSIONS AND CLEATING AND TRUSS MODED ПОРОД LOADS AND PRECAMBER.
10.06 ALL BOLTS IN TIMBER CONSTRUCTION TO BE MINIMUM M12 U.N.O.
10.07 TIMBER DIMENSIONS ON THE FINISHED WIDTH AND THICKNESS TO BE:
(i) SEASONED HARDWOOD: +2.5, -2.5mm
(ii) SEASONED SOFTWOOD: +3.0, -3.0mm
(iii) UNSEASONED HARDWOOD: +2.5, -2.5mm
(iv) UNSEASONED SOFTWOOD: +4.0, -4.0mm
10.08 ALL TIMBER JIANTS AND NOTCHES ARE TO BE 100MM MINIMUM AWAY FROM LOOSE WOOD, SEVERE SLOPING GRAIN, GREY VENS OR OTHER MINOR DEFECTS.
STRIP FOOTING PLAN

SCALE: 1:100

- BRICK WALL OVER ONLY
- BRICK WALL UNDER ONLY
- BRICK WALL OVER & UNDER

EXISTING SWIMMING POOL SHOWN HATCHED

NEW SLAB TO BE AT THE SAME LEVEL OF THE EXISTING SLAB

CONCRETE MIX TABLE

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>EXPOSURE CLASSIFICATION (AS 3600)</th>
<th>STRENGTH (MPa)</th>
<th>F'c AT 28 DAYS</th>
<th>COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOTINGS</td>
<td>A1</td>
<td>32</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>SLABS ON GROUND</td>
<td>A1</td>
<td>32</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>INTERNAL SUSPENDED SLABS</td>
<td>A1</td>
<td>32</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>EXTERNAL SUSPENDED SLABS</td>
<td>B1</td>
<td>32</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>PILES</td>
<td>A1</td>
<td>32</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

NEW SLAB TO BE AT THE SAME LEVEL OF THE EXISTING SLAB

IF SOFT CLAY IS ENCOUNTERED PLEASE CONTACT THE ENGINEER FOR REVISED FOOTING DEPTHS.

ARTICULATION JOINTS ARE TO BE PLACED AT 6m MAXIMUM CENTERS AT WEAK POINT OF THE WALL AND AT NEW/OLD WALL INTERSECTIONS

P1: 450DIA MASS CONCRETE PIER TO 300KPa BEARING OR TO HARD STRATA (SCREW PILES MAY ALSO BE USED)

EXISTING SLAB
NEW SLAB TO BE PLACED OVER EXISTING POOL COVING

EXISTING SWIMMING POOL SHOWN HATCHED

EXISTING SLAB

GROUND FLOOR SLAB ON GRADE PLAN

SCALE 1:100

SLAB THICKNESS TO BE 120mm
ONE LAYER OF MESH SL82 TOP
MIN COVER 30mm TOP, f_t = 32 MPa

SEE TYPICAL SECTIONS FOR DETAILS

120 DENOTES SLAB THICKNESS

W DENOTES 20mm WET AREA SET DOWN

TR DENOTES 2N16 TRIMMER BARS EXTENDING 600mm PAST CORNERS (1500 MIN. LENGTH)

NOT BE USED FOR ANY OTHER PURPOSE THAN FOR WHICH SUPPLIED.
IS THE PROPERTY OF DANMOR CONSULTING ENGINEERS P/L AND MAY COPYRIGHT 1999.

15 MELVILLE AVE
STRATHFIELD NSW 2135

15/07/16

MR JOE SALIBA

PROPOSED DWELLING

15/07/16

DANNY MORCHED

CONSULTING ENGINEERS

P/ (02) 8678 2629
F/ (02) 4744 2479
E/ info@danmorconsulting.com.au
A/ PO BOX 489 St Marys NSW 1790

1:100
TYPICAL EXTERNAL SF1

4-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED

TYPICAL EXTERNAL SF4

4-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED

TYPICAL EXTERNAL STEP DOWN

4-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED

TYPICAL INTERNAL SF2

4-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED

TYPICAL INTERNAL SF3

3-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED

TYPICAL STEPDOWN SF5

4-L12 TRENCH MESH TOP & BOT. WITH R10 TIES @ 900 C/C 50mm COVER MIN.

SL92 MESH TOP MIN. COVER 30 mm.

COMPACT FILL

WATER PROOFING MEMBRANE ON 50mm SAND BED
**FOUNDATIONS:**
F1 Footings have been designed for an allowable bearing intensity as follows:

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>STRATA</th>
<th>BEARING PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strip footings</td>
<td>CLAY CLASS M</td>
<td>150 kPa</td>
</tr>
<tr>
<td>Slab on ground</td>
<td>COMPACTED FILL</td>
<td>100 kPa</td>
</tr>
</tbody>
</table>

F2 The builder shall obtain the Engineer's approval of the foundation material before placing concrete.

**CONCRETE:**
C1 All concrete work shall comply with AS 1480 (current edition) and the specification.
C2 Concrete Quality Fc at 28 days:

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>Fc MPa</th>
<th>MAX SIZE AOG.</th>
<th>NOM SLUMP</th>
<th>CEMENT TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOTINGS</td>
<td>25</td>
<td>20</td>
<td>80</td>
<td>A</td>
</tr>
<tr>
<td>SLAB ON GROUND</td>
<td>25</td>
<td>20</td>
<td>80</td>
<td>A</td>
</tr>
<tr>
<td>SUSPENDED SLABS</td>
<td>32</td>
<td>20</td>
<td>80</td>
<td>A</td>
</tr>
</tbody>
</table>

C3 Provide the following clear cover to all reinforcement unless noted otherwise on the drawings (clear cover to ties)

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>MIN. COVER (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRIP FOOTINGS</td>
<td>50</td>
</tr>
<tr>
<td>SLABS (INTERNAL)</td>
<td>20</td>
</tr>
<tr>
<td>SLABS (EXTERNAL)</td>
<td>40</td>
</tr>
<tr>
<td>SLABS (ON GROUND)</td>
<td>40</td>
</tr>
</tbody>
</table>

G1 Read these drawings in conjunction with all architectural and service drawings and specification.
G2 All dimensions shall be checked on site before fabrication or shop work drawings are commenced.
G3 Do not obtain dimensions by scaling the structural drawings.
G4 All dimensions are in millimetres unless noted otherwise on the drawings.
G5 At the connection line of internal and external slabs on ground DJ must be used.
G6 SC2c for external slabs on ground Max. 6.0m apart.

**GENERALS:**

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>APPROVED</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ISSUED FOR CONSTRUCTION CERTIFICATE</td>
<td>15/07/16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SCALE AT A3: 1:100**
CONCRETE MIX TABLE

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>EXPOSURE CLASSIFICATION (AS 3600)</th>
<th>STRENGTH (MPa)</th>
<th>U.N.O.</th>
<th>PL AT 28 DAYS</th>
<th>COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footings</td>
<td>A1</td>
<td>25</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slabs on Ground</td>
<td>A1</td>
<td>25</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Suspended Slabs</td>
<td>A1</td>
<td>32</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Suspended Slabs</td>
<td>B1</td>
<td>32</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piles</td>
<td>A1</td>
<td>25</td>
<td>75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DENOTES SLAB THICKNESS

FIRST FLOOR SLAB GA PLAN

SCALE 1:100

SLAB THICKNESS TO BE 200mm UNO
f’c = 32 MPa
SEE TYPICAL SECTIONS FOR DETAILS

DENOTES 20mm WET AREA SET DOWN
REINFORCEMENT NOTES

TRIMMER DETAIL (ALL PENETRATIONS AND BALCONY EDGES UNO)

DISTRIBUTION REINFORCEMENT TO BE N12-200 U.N.O.

COVER TO REINFORCEMENT:
- 20mm BOTTOM (INTERNAL)
- 20mm TOP (INTERNAL)
- 20mm BOTTOM (EXTERNAL)
- 40mm TOP (EXTERNAL)

REFER TO SECTIONS FOR ANY ADDITIONAL REINFORCEMENT NOT SHOWN ON PLAN.

Provide 2N16 T&B trimmer bars extend 600mm past each edge of openings/penetrations, unless noted otherwise on plan, layering to suit adjacent reinforcement.

FIRST FLOOR SLAB BOTTOM REINFORCEMENT PLAN

SCALE 1:100

BAR LAYING SEQUENCE (U.N.O)

BAR LAYING SEQUENCE (U.N.O)

TYPICAL COG DETAILS

TO BE PLACED AT ALL ENDS OF REINF.

TOP REINF.

BOT. REINF.

BRICK WALL OVER ONLY

BRICK WALL UNDER ONLY

BRICK WALL OVER & UNDER

REINFORCEMENT THAT RUNS INTO A PENETRATION IS TO BE TERMINATED EACH SIDE OF PENETRATION & COGGED

DANNY MORCHED
B.E CIVIL
M.E STRUCTURAL
CPEng, MIEAust, NPER
MEMB. NO: 2320868

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A/ PO BOX 489 St Marys NSW 1790

ISSUED FOR CONSTRUCTION CERTIFICATE
1

CLIENT:
MR JOE SALIBA
PROJECT:
PROPOSED DWELLING
15 MELVILLE AVE
STRATFEBD NSW 2135

AMENDMENTS

NO. DESCRIPTION
1 ISSUED FOR CONSTRUCTION CERTIFICATE

DATE: 15/07/16

DRAWN: PB
DESIGNED: PB

APPROVED: DANNY MORCHED
B.E CIVIL
M.E STRUCTURAL
CPEng, MIEAust, NPER
MEMB. NO: 2320868

DATE: 15/07/16

SCALE AT A3: 1:100

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A/ PO BOX 489 St Marys NSW 1790

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ALL DIMENSIONS IN 'mm'
ISSUED FOR CONSTRUCTION CERTIFICATE
NOT BE USED FOR ANY OTHER PURPOSE THAN FOR WHICH SUPPLIED.
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THIS DRAWING AND THE INFORMATION SHOWN HEREON

UUNLESS OTHERWISE STATED

15/07/16
15/07/16
15/07/16
15/07/16
REINFORCEMENT NOTES

DISTRIBUTION REINFORCEMENT TO BE N12-200 U.N.O.

COVER TO REINFORCEMENT
- 20mm Bottom (Internal)
- 20mm Top (Internal)
- 40mm Bottom (External)
- 40mm Top (External)

REFER TO SECTIONS FOR ANY ADDITIONAL REINFORCEMENT NOT SHOWN ON PLAN.

TRIMMER DETAIL (ALL PENETRATIONS AND BALCONY EDGES UNO)

PROVIDE 2N16 TOP & BOT. TRIMMER BARS EXTEND 500mm PAST EACH EDGE OF OPENINGS/PENETRATIONS, UNLESS NOTED OTHERWISE ON PLAN.

LAYERING TO SUIT ADJACENT REINFORCEMENT

BARS AT PENETRATIONS

REINFORCEMENT THAT RUN INTO A PENETRATION IS TO BE TERMINATED EACH SIDE OF PENETRATION & COGGED

BAR LAYING SEQUENCE (U.N.O)

TO BE PLACED AT ALL ENDS OF REINF.

TOP REINF.

BOT. REINF.

TYPICAL COG DETAILS

TO BE PLACED AT ALL ENDS OF REINF.

BOT. REINF.

TOP REINF.

FIRST FLOOR SLAB TOP REINFORCEMENT PLAN

SCALE 1:100

<table>
<thead>
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DRAWN: DANNY MORCHED
DESIGNED: DANNY MORCHED

PROJECT: PROPOSED DWELLING
15 MELVILLE AVE
STRATHFIELD NSW 2135

CLIENT: MR JOE SALIBA

TITLE: FIRST FLOOR SLAB TOP REINFORCEMENT

SCALE AT A3: 1:100
FOR EVERY TWO BARS STOPPED BY PENETRATION ADD ONE BAR EACH SIDE OF SAME SIZE AND GRADE. WHERE NO TOP AND BOTTOM BARS ARE SHOWN, ADD 2N16 TOP AND BOTTOM EACH SIDE OF PENETRATION.

TYPICAL 600

 THESE DETAILS APPLY UNLESS SPECIFICALLY NOTED OTHERWISE. REFER ARCHITECTURAL AND HYDRAULIC DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS. LOCATION OF PENETRATIONS SHALL BE APPROVED BY THE ENGINEER. FOR PENETRATIONS LESS THAN 300 x 300mm, MAIN BARS TO BE DISPLACED EACH SIDE OF THE PENETRATION. ADDITIONAL TRIMMING REINFORCEMENT NOT REQUIRED.

STANDARD SUSPENDED SLAB PENETRATION DETAILS

NOTES:
- THESE DETAILS APPLY UNLESS SPECIFICALLY NOTED OTHERWISE.
- REFER ARCHITECTURAL AND HYDRAULIC DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS.
- LOCATION OF PENETRATIONS SHALL BE APPROVED BY THE ENGINEER.
- FOR PENETRATIONS LESS THAN 300 x 300mm, MAIN BARS TO BE DISPLACED EACH SIDE OF THE PENETRATION. ADDITIONAL TRIMMING REINFORCEMENT NOT REQUIRED.
S = GREATER THAN 0.65T

S = UP TO 0.65T

WET AREA SETDOWN (option 1)

WET AREA SETDOWN (option 2)

SUSPENDED SLAB STEP DETAILS
MEMBER SCHEDULE

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
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<tbody>
<tr>
<td>RJ1</td>
<td>200x45 hySPAN LVL</td>
<td>AT 600 CTS</td>
</tr>
<tr>
<td>RJ2</td>
<td>200x45 hySPAN LVL</td>
<td>AT 400 CTS</td>
</tr>
<tr>
<td>B1</td>
<td>230BT37</td>
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<tr>
<td>B2</td>
<td>240x9.5 (V) 250x8 (B) CAVI-T-BAR</td>
<td>-</td>
</tr>
<tr>
<td>B3</td>
<td>180x8 (V) 250x8 (B) CAVI-T-BAR</td>
<td>-</td>
</tr>
<tr>
<td>B4</td>
<td>300x45 hySPAN LVL</td>
<td>-</td>
</tr>
<tr>
<td>B5</td>
<td>150x100x6 ANGLE BAR</td>
<td>-</td>
</tr>
<tr>
<td>B6</td>
<td>100x100x6 ANGLE BAR</td>
<td>-</td>
</tr>
<tr>
<td>B7</td>
<td>240x45 hySPAN LVL</td>
<td>-</td>
</tr>
<tr>
<td>B8</td>
<td>200x10 TRADITIONAL T-BAR</td>
<td>-</td>
</tr>
<tr>
<td>B9</td>
<td>400x63 hySPAN LVL OR 2/300x63 hySPAN LVL</td>
<td>-</td>
</tr>
<tr>
<td>B10</td>
<td>200x7 MULTI-RIB T-BAR</td>
<td>-</td>
</tr>
<tr>
<td>C1</td>
<td>50x50x5 SHS</td>
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<tr>
<td>DS</td>
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NOTES:
1. ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANISED
2. WALL STUDS TO BE 100x50 FT @ 450 C/C
3. ALL TIMBER TO BE SEASONED
4. ALL BEAMS TO HAVE MINIMUM 150mm BEARING
5. hySPAN LVL TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS
6. EXTERNAL hySPAN LVL TO BE H2-S TREATED FOR TERMITE PROTECTION
7. WALL BRACING AND TIMBER FRAMING TO AS1684
8. TIMBER BEAM TO TIMBER BEAM CONNECTIONS TO BE WITH PRAYA BEAM HANGERS UNO
9. STEELWORK CUT ON SITE TO BE PAINTED WITH COLD-GAL OR EQUIVALENT
10. ALL WELDS 6mm SP CFW UNO
11. DOUBLE JOIST TO BE PLACED UNDER WALLS PARALLEL TO JOISTS
12. ALL EXTERNAL TIMBER TO BE TREATED
13. BEAMS DOUBLED UP TO BE BOLTED WITH M10-600 STAGGERED BOLTS
14. ALL BEAMS/JOISTS SPANNING MORE THAN 3m TO HAVE CENTRAL AND END BLOCKING

FIRST FLOOR FRAMING PLAN

SCALE 1:100

NOTES:
- DOUBLE STUD TO BE PLACED UNDER BEAM ENDS U.N.O

SEE TYPICAL SECTIONS FOR DETAILS
ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANISED
WALL STUDS TO BE 100x50 F7 @ 450 C/C
NOTES:
1. ALL TIMBER TO BE SEASONED
3. ALL BEAMS TO HAVE MINIMUM 150mm BEARING
5. hySPAN LVL TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS
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SCALE 1:100

ROOF FRAMING PLAN

NOTES:
- DOUBLE STUD TO BE PLACED UNDER BEAM ENDS U.N.O

SEE TYPICAL SECTIONS FOR DETAILS

DANNY MORCHED
B.E CIVIL
M.E STRUCTURAL
CPEng, MIEAust, NPR
MEMB. NO: 2320868

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A/ PO BOX 489 St Marys NSW 1790

ISSUED FOR CONSTRUCTION CERTIFICATE
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PROJECT:
PROPOSED DWELLING
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STRATHFIELD NSW 2135

CLIENT:
MR JOE SALIBA

TITIE:
ROOF FRAMING PLAN

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DBMG CONSULTING ENGINEERS

TOP DANNY MORCHED PROPOSED DWELLING 15 MELVILLE AVE STRATHFIELD NSW 2135

AWARD OF CONTRACT
15 MELVILLE AVE
CONTRACT NO: 15/16R98