GENERAL NOTES

G1 These drawings shall be read in conjunction with other consultants' drawings and specifications and with other such written instructions as may be issued during the course of the Contract. Any discrepancy shall be referred to the Engineer before proceeding with the work.
G2 All dimensions are in millimetres, UNO (unless noted otherwise).
G3 No dimension shall be obtained by scaling the drawings.
G4 All levels and setting out dimensions shown on the drawings shall be checked on site prior to the commencement of the work.
G5 During construction the structure shall be maintained in a stable condition and no part shall be overstressed.
G6 Damp-proofing & sealing details shall be in accordance with Architect's details. All joints in concrete elements shall be suitably sealed or damp-proofed.

FOUNDATIONS

F1 Assumed classification of site: M (Moderately Reactive Site) UNO.
F2 Footings have been designed for an allowable bearing pressure of 150 kPa UNO. All foundations must be stable and uniform throughout.
F3 Foundation material shall be inspected and approved for the above site classification and allowable bearing pressure by a Geotechnical Engineer before placing footing reinforcement.
F4 Footings shall be placed centrally under walls and columns, UNO.

LOADING

L1 Superimposed floor loads are generally in accordance with AS 1170.1 or as noted in Table L4.
L2 Wind loads are in accordance with AS/NZS 1170.2 as follows:
Region : A 2 Regional Wind Velocity, V500 : 45 m/s Category : 3, UNO.
L3 Earthquake loads are in accordance with AS 1170.4 as follows:
a = 0.08 S = 1.0 I = 1.0, UNO.
L4 Live loads & additional dead loads: (to AS/NZS 1170.1)

Area subject to loading	Live Load		Add. dead load
	Uniform	Point	
Floors - Internal	1.50 kPa	1.80 kN	0.50 kPa
Floors - External & Garage	3.00 kPa	1.80 kN	1.00 kPa
Roof Areas	0.25 kPa	1.40 kN	0.15 kPa

SITE PREPARATION FOR SLABS ON GROUND

P1 Strip topsoil containing organic matter. Proof roll fill sub grade and remove any soft zones.
P2 Where additional fill is required to the underside of slabs on ground, non cohesive materials such as sand and gravel dust shall be placed by "controlled" compaction in horizontal layers of 200 mm (loose) maximum depth. This fill shall be compacted to at least 95% of Standard Maximum Dry Density (SMDD), in accordance with AS 1289.
P3 For slabs on ground, sand 50 mm approximate thickness is to be spread as a levelling layer and well watered down.
P4 Damp-proofing membrane unpunctured and taped at laps, is to be placed over the sand, sufficient membrane being provided at edges to return under brickwork. Where no brickwork, tape membrane to side of footing below ground.

FOUNDATION MAINTENANCE

FOUNDATION SOILS : All soils are affected by water. Silts are weakened by water and some sands can settle if heavily watered, but most problems arise on clay foundations. Clays swell and shrink due to changes in moisture content and the potential amount of the movement is implied in the site classification in Australian Standard AS2870, which is specified as follows:

A Stable (Non-reactive).
S Slightly Reactive.
M Moderately Reactive.
H Highly Reactive.
E Extremely Reactive.

CLASS A & S SITES : Sands, silts and clays shall be protected from becoming extremely wet by adequate attention to site drainage and prompt repair of plumbing leaks.

CLASS M, H & E SITES : Sites classified as M, H, or E shall be maintained at essentially stable moisture conditions and extremes of wetting and drying prevented. This will require attention to the following :

Drainage of the site : The site shall be graded or drained so that water cannot pond against or near the house. The ground immediately adjacent to the house shall be graded to a uniform fall of 50 mm minimum away from the house over the first metre. The sub floor space for houses with suspended floors shall be graded or drained to prevent ponding where this may affect the performance of the footing system. The site drainage requirements shall be maintained for the economic life of the building.

Limitations on gardens : The development of the gardens shall not interfere with the drainage requirements or the sub floor ventilation and weep hole drainage systems. Garden beds adjacent to the house should be avoided. Care should be taken to avoid over watering of gardens close to the house footings.

Restrictions on trees and shrubs : Planting of trees should be avoided near the foundation of a house or neighbouring house on reactive sites as they can cause damage due to drying of the clay at substantial distances. To reduce, but not eliminate, the possibility of damage, tree planting should be restricted to a distance from the house of :

1.50 x mature height for Class E sites
1.00 x mature height for Class H sites
0.75 x mature height for Class M sites

Where rows or groups of trees are involved, the distance from the building should be increased. Removal of trees from the site can also cause similar problems.

Repair of leaks : Leaks in plumbing, including storm water and sewerage drainage should be repaired promptly.

The level to which these measures are implemented depends on the reactivity of the site. The measures apply mainly to masonry houses and masonry veneer houses. For frame houses clad with timber or sheeting, lesser precautions may be appropriate.

REINFORCED CONCRETE

C1 All workmanship and materials shall be in accordance with AS 3600 current edition, except where varied by the contract documents.
C2 Concrete quality shall be as follows (subject to note C4 being satisfied):

Element	Slump mm	Max. Agg. Size mm	Cement Type	f'c at 28 Days MPa
Footings	80	20	Normal Portland Type A	20
Slabs on Ground	80	20		25
Suspended Floors	80	20		32

C3 Engineer to approve any admixtures used in concrete mix.
C4 Cover to reinforcement shall be obtained by the use of approved bar chairs. All chairs to be placed at 750 maximum centres.

C5 Minimum clear concrete cover to reinforcement including ties and stirrups (other than residential slabs on ground or footings) shall be as follows uno.

Exposure Classification	Minimum Cover (mm)				
	Concrete Strength (f'c)				
	20 MPa	25 MPa	32 MPa	40 MPa	>50 MPa
A1	20	20	20	20	20
A2	(50)	30	25	20	20
B1	-	(60)	40	30	25
B2	-	-	(65)	45	35
C	-	-	-	(70)	50

For bracketed figures refer to AS 3600 current edition table 4.10.3.2

C6 Residential slab on ground and footings cover requirements:
(Minimum concrete grade N20)
- Unprotected ground: 40 mm
- External exposure: 40 mm
- Membrane in contact with ground: 30 mm
- Internal surface: 20 mm
- Strip & pad footing: 40 mm

C7 All concrete shall be mechanically vibrated. Vibrators shall not be used to spread concrete.
C8 Sizes of concrete elements do not include thickness of applied finishes.
C9 No holes or chases other than those shown on the structural drawings shall be made in concrete members without the prior approval of the Engineer.
C10 Construction joints where not shown shall be located to the approval of the Engineer.
C11 Curing 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 gradual drying out. Approved sprayed on compounds may be used where no floor finishes are proposed. Polythene sheeting or wet hessian may be used if protected from wind and traffic.
C12 Construction support propping is to be left in place where needed to avoid over stressing the structure due to construction loading. No masonry or partition walls are to be constructed on suspended levels until all propping is removed and the slab has absorbed its dead load deflection.
C13 Conduits, pipes, etc. shall only be placed in the middle one third of slab depth and spread at not less than 3 diameters.
C14 Reinforcement symbols :
N - Denotes deformed grade 500 normal ductility reinforcing bars to AS/NZS 4671.
R - Denotes plain round grade 250 normal ductility reinforcing bars to AS/NZS 4671.
SL - Denotes deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
RL - Denotes deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
L--TM - Denotes deformed grade 500 low ductility trench mesh to AS/NZS 4671.
C15 Reinforcement is represented diagrammatically; it is not necessarily shown in true projection.
C16 Splices in reinforcement shall be made only in positions shown or otherwise approved by the Engineer.
C17 Fabric reinforcement shall have splices made so that the overlap, measured between the outermost transverse wires of each sheet of fabric, is not less than the spacing of those wires plus 25 mm.
C18 Welding of reinforcement shall not be permitted unless shown on the structural drawings or approved by the Engineer.

MASONRY

M1 All workmanship and materials shall be in accordance with AS 3700.
M2 The design strength of masonry shall be as follows u.n.o. :

Durability Requirements			
Mortar	Salt Attack Resistance Grade	Built In Component	Min. Cover to Reinforcement & Tendons in Grouted Cavities
M2	Protected	R1 (Galv'd 300 g/m² each side)	5
M3	General Purpose	R3 (Galv'd 470 g/m² each side)	15
M4	Exposure	R4 (Stainless)	30

MASONRY (cont.)

M3 All masonry walls supporting slabs and beams shall have a pre-greased two layer galvanised steel slip joint between concrete and masonry.
M4 All masonry walls supporting or supported by concrete floors shall be provided with vertical joints to match any control joints in the concrete.
M5 Non load bearing walls shall be separated from concrete above by 12 mm thick closed cell polyethylene strip.
M6 Provide vertical control joints at 8 metres maximum centres, and 4 metres maximum from corners in masonry walls, and between new & existing brickwork.
M7 Masonry retaining walls are to be backfilled with either of the following material:
- Coarse grained soil with low silt content
- Residual soil containing stones
- Fine silty sand
- Granular materials with low clay content

M8 Brick ties shall be in accordance with the following:
- Not greater than 600 mm in each direction.
- Adjacent to lateral supports and control joints, and around openings in the masonry at a spacing of not more than 300 mm average and 400 mm maximum along the line of the lateral support or the control joint or around the perimeter and located within 300 mm from that line of support, control joint or perimeter of opening.
- For each story of a veneer connected to a flexible structural backing, the top row of ties shall be located within 250 mm from the top of the veneer, and the number of ties in the top row shall be double that required for the nominal spacing elsewhere in the wall. When the veneer is continuous past a horizontal floor support, the first row of ties above this support shall be located 250 mm from the support, and the number of ties above this support shall be double that required for the nominal spacing elsewhere in the wall.

STRUCTURAL STEEL

S1 All workmanship and materials shall be in accordance with AS 4100, AS 1163, AS 1554.1 and AS/NZS 4600.
S2 The structural design has been based on the following steel grades, UNO:
Hot rolled universal beams, columns, channels & angles: 300PLUS
Circular, square & rectangular hollow sections: C350/C450LO
Cold formed open DuraGal profiles: C400/C450LO
Cold formed lipped Cee & Zed purlins: G550/G500/G450
S3 The structural design has been based on MBPMA nominal size Cee & Zed lipped purlins. All purlin profiles shall be in accordance with the MBPMA specifications.
S4 Qualifications of welding procedures and personnel shall conform to Section 4 of AS 1554.1. Non destructive testing of welds shall include 100% visual inspection and additional testing as shown on the drawings.
S5 All welds shall be 6 mm continuous fillet type SP, UNO. All butt welds shall be complete penetration in accordance with AS 1554.1, UNO.
S6 Bolt designation:
4.6/S: Commercial bolts to AS 1111, snug tightened
8.8/S: High strength structural bolts to AS 1562, snug tightened
8.8/TB: High strength structural bolts to AS 1562, fully tensioned bearing joint to AS 1511
8.8/TF: High strength structural bolts to AS 1562, fully tensioned friction joint to AS 1511
All bolts shall be M16 8.8/S, with a minimum of 2 bolts per connection, UNO.
S7 High strength TF & TB bolts shall be installed using approved load indicator washers, or in accordance with the part turn method nominated in AS 4100.
S8 Gusset plates shall be 10 mm thick, grade 300PLUS steel, UNO.
S9 Concrete encased steelwork shall be wrapped with SL41 fabric and shall have a minimum of 50 mm cover, UNO.
S10 Steelwork not encased shall have the following surface treatment :

Exposure Classification	Steelwork Protection Required
A1 / A2	Power tool clean to AS1627 Class 1 1 Coat Alkyd Primer (Zinc Phosphate)
B1	Abrasive blast to AS1627 Class 2.5 1 Coat Inorganic Zinc Silicate
B2	Hot Dipped Galvanised to AS4680

S11 Where sealed tube members are hot dip galvanised, the fabricator shall provide drill holes as necessary.
S12 All transport and erection damage, site welds etc., shall be reinstated to an equivalent finish to adjacent steelwork

FOUNDATION NOTE

THE FOOTINGS SHALL BE FOUNDED ON **STIFF CLAY** MATERIAL WITH A MINIMUM SAFE BEARING CAPACITY OF **150 kPa.**

BORED PIER NOTE

BORED PIERS SHALL BE USED IN ACCORDANCE WITH THE FOLLOWING:

- SET OUT AS PER THE ADJACENT PLAN.
- FOUNDED OFF **VERY STIFF CLAY** THAT IS UNIFORM & STABLE THROUGHOUT.
- FOUNDED A MINIMUM OF **1500** BELOW EXISTING GROUND LEVEL.
- MINIMUM SAFE **END BEARING OF 400 KPA & SKIN FRICTION OF 20 KPA**.
- WHERE ROCK IS ENCOUNTERED, ALL PIERS TO BE FOUNDED OFF ROCK THAT IS UNIFORM & STABLE WITH A MINIMUM SAFE END BEARING OF **600 KPA.**

DESIGN SUMMERY

SITE SOIL CLASSIFICATION : **ASSUMED CLASS M** (REFER NOTE BELOW)
SITE WIND CLASSIFICATION : **N2**
EARTHQUAKE DESIGN CATEGORY: **H1**
CONSTRUCTION TYPE: **ARTICULATED MASONRY VENEER**
(MASONRY SHALL BE ARTICULATED IN ACCORDANCE WITH TECHNICAL NOTE 61 FROM THE CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA)
ROOF FRAMING: **MANUFACTURED TRUSSES (INTERNAL WALLS NON LOAD BEARING)**

NOTE: THE SUPERINTENDENT SHALL HAVE THE SITE SOIL CLASSIFICATION CONFIRMED (BY INSPECTION OF TEST PIER HOLE 1500 MIN DEEP OR TO AUGER REFUSAL, WHICHEVER IS LESS) BY THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION.
WHERE THE CLAY EXTENDS FOR 1500 OR MORE THE SUPERINTENDENT SHALL HAVE THE SITE CLASSIFICATION CONFIRMED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO COMMENCING CONSTRUCTION.

EXPOSURE CLASSIFICATION

CONCRETE :
INTERIOR SURFACES : **A1**
EXTERIOR SURFACES : **B1**

MASONRY :
MASONRY DURABILITY REQUIREMENTS : **M2**

REVISION	ISSUE DATE	AMENDMENT DESCRIPTION
A	24.08.2023	ISSUED FOR APPROVAL

LEADING ENGINEERS
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CLIENT
CAMPBELL HILL GROUP PTY LTD.

DISCIPLINE
STRUCTURAL DESIGN

DRAWING TITLE
GENERAL NOTES

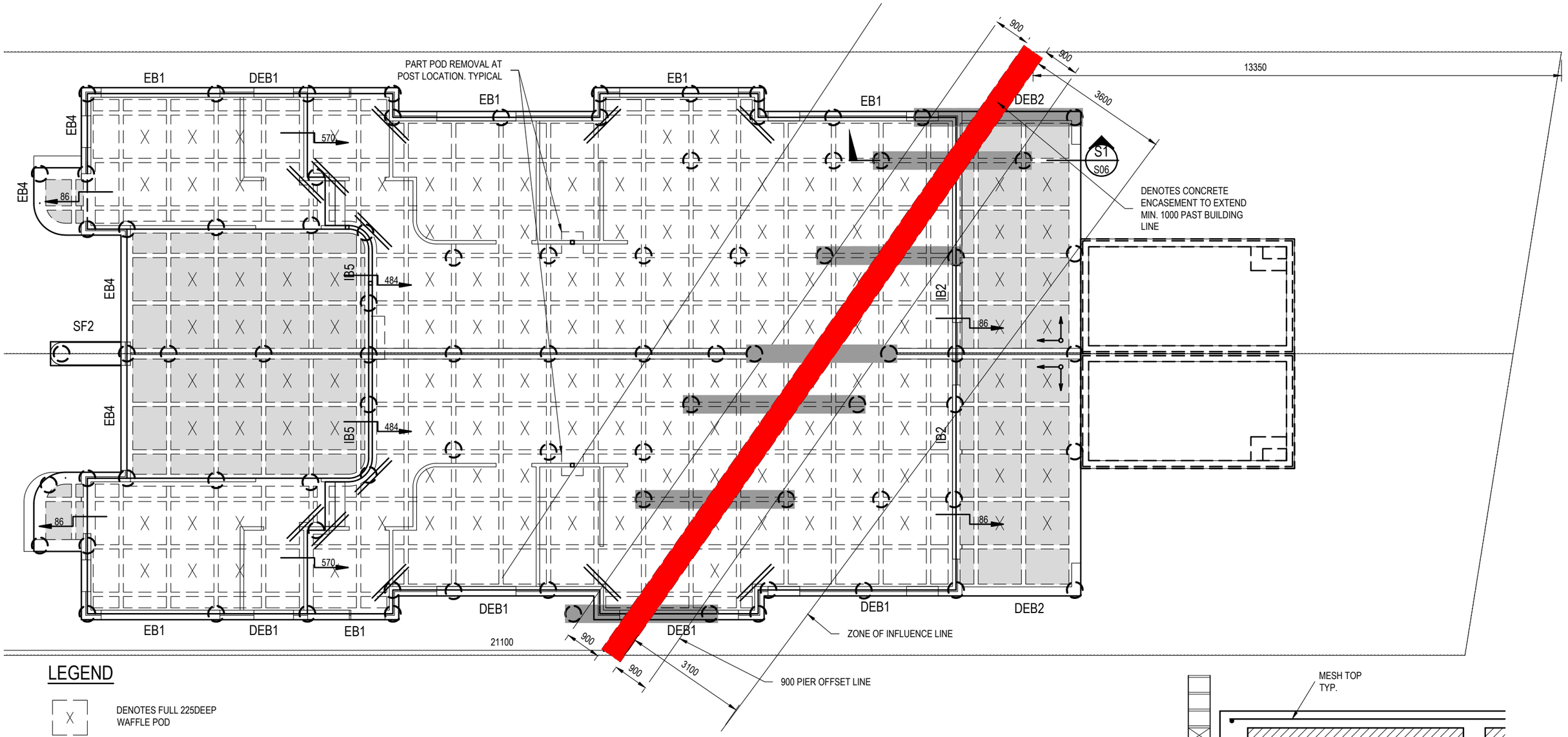
PROJECT
DUAL OCCUPANCY

ADDRESS
43 ARAB ROAD PADSTOW

PROJECT DETAILS

DRAWN	MF
DESIGN	MF
DATE	AUG 23
DRG SIZE	A3
SCALE	1:100

2405
S-01A



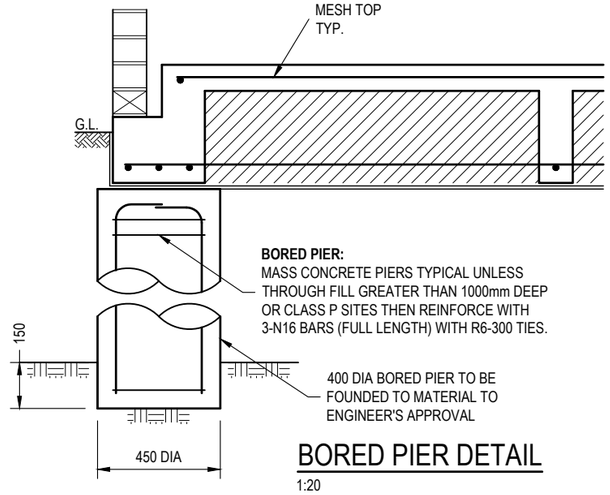
LEGEND

- DENOTES FULL 225DEEP WAFFLE POD
- DENOTES CUT 225 DEEP WAFFLE POD
- DENOTES FULL 150 DEEP WAFFLE POD
- DENOTES CUT 150 DEEP WAFFLE POD
- DENOTES START POINT FOR LAYING OF WAFFLE PODS
- 170 — DENOTES HEIGHT OF STEP DOWN IN SLAB
- DENOTES 400 DIA CONCRETE PIER (APPROX DEPTH 1500 mm)
- 2-N12 (75 SPACING 1200 LONG) TRIMMERS TOP SHALL BE LOCATED 50 FROM ALL RE-ENTRANT CORNERS, TYPICAL

GROUND FLOOR SLAB PLAN

1:100

- ALL SLABS SHALL BE WAFFLE PODS IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN SPECIFICATIONS, BUT NOT LESS THAN **85 SLAB** THICKNESS WITH **300 DEEP** EDGE & INTERNAL BEAMS.
- **25 MPa** MINIMUM CONCRETE STRENGTH, **FOR SLAB & PIERS** TYPICAL UNLESS NOTED OTHERWISE.
- PODS SHALL BE 1090 x 1090 MAX., WITH 110 MIN WIDE INTERNAL BEAMS, UNO.
- SLAB REINFORCEMENT SHALL BE **SL92 MESH TOP** (30 COVER) MINIMUM WITH EXTRA BARS AS NOTED ON SECTIONS AND DETAILS.
- 2-N12 (1200 LONG) TRIMMERS TOP SHALL BE LOCATED AT ALL RE-ENTRANT CORNERS, TYPICAL.
- REINFORCEMENT COVER TO GROUND FLOOR SLAB SHALL BE AS FOLLOWS:
  - 40mm - TO UNPROTECTED GROUND
  - 40mm - EXTERNAL EXPOSURE
  - 30mm - TO A MEMBRANE IN CONTACT WITH GROUND
  - 30mm - INTERNAL EXPOSURE
- BORED PIERS SHALL BE SETOUT AS SHOWN ON PLAN & INSTALLED IN ACCORDANCE WITH NOTE.



BORED PIER DETAIL

1:20

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LEADING ENGINEERS
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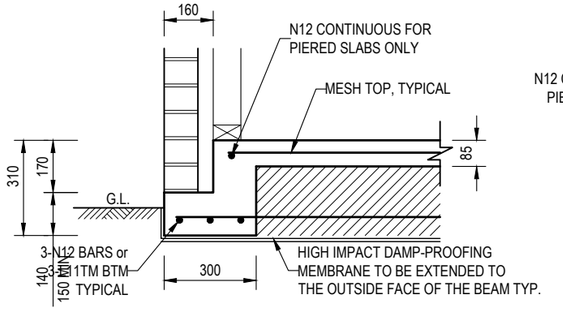
CLIENT
CAMPBELL HILL GROUP PTY LTD.

DISCIPLINE: STRUCTURAL DESIGN
DRAWING TITLE: GROUND FLOOR SLAB PLAN
PROJECT: DUAL OCCUPANCY
ADDRESS: 43 ARAB ROAD PADSTOW

PROJECT DETAILS

DRAWN	MF
DESIGN	MF
DATE	AUG 23
DRG SIZE	A3
SCALE	1:100

2405
S-02A



EDGE BEAM 'EB1'
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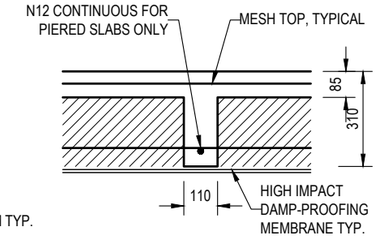

TYPICAL INTERNAL RIB DETAIL
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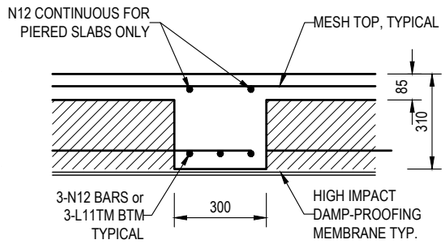

INTERNAL BEAM 'IB1'
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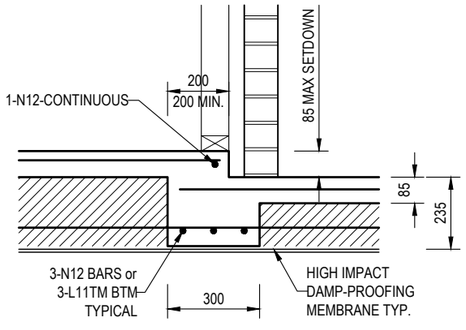

INTERNAL BEAM 'IB2 (85 MAX SETDOWN)
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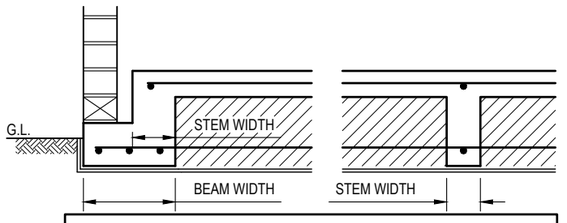
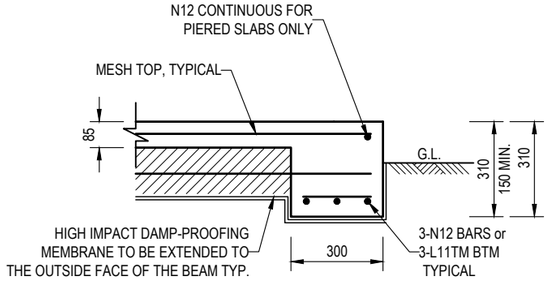


ADDITIONAL STEEL FOR EDGE & INTERNAL BEAMS

STEM WIDTH OR BEAM WIDTH	TOP STEEL (STEM WIDTH) (No. N12 BARS)	BTM STEEL (BEAM WIDTH) (No. N12 BARS)
110 TO 150	0	1
151 TO 220	1	2
221 TO 330	2	3
331 TO 440	3	4



EDGE BEAM 'EB3'
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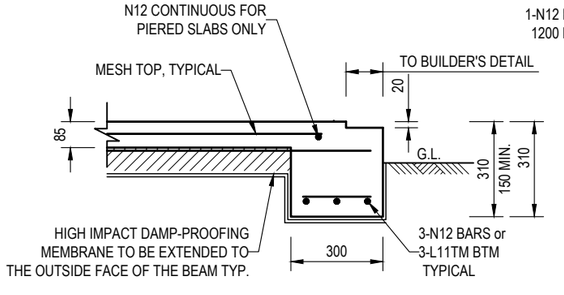

EDGE BEAM 'EB4'
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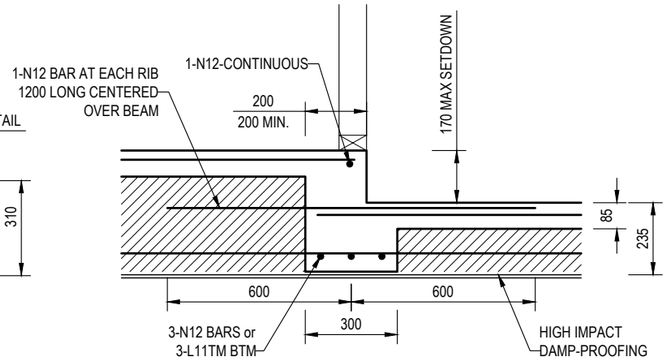
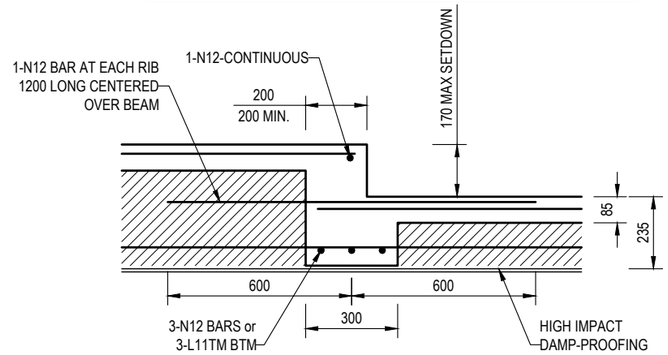


TYPICAL AT EXTERNAL WALLS



TYPICAL AT INTERNAL WALLS

INTERNAL BEAM IB3 (85 - 170 MAX SETDOWN)
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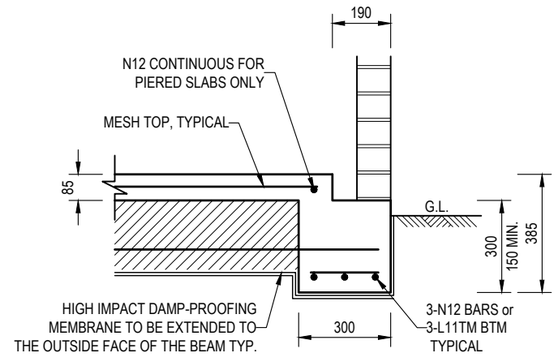

EDGE BEAM 'EB2'
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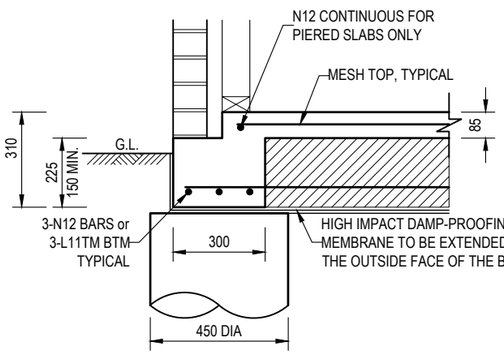

EDGE BEAM DETAIL
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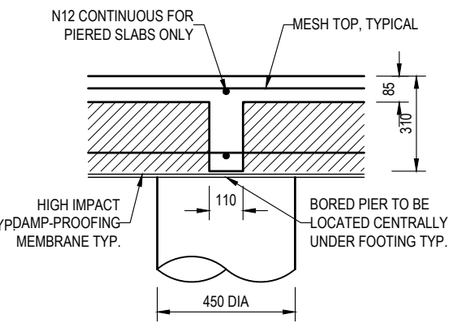
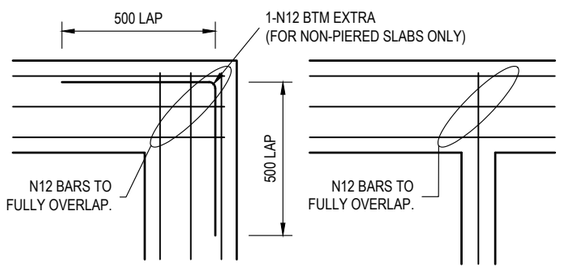
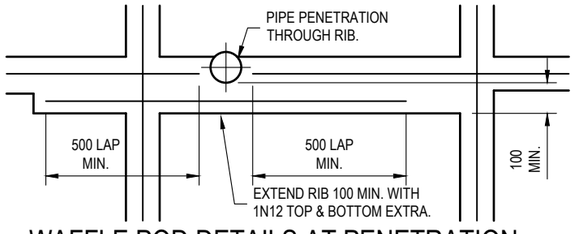


INTERNAL BEAM DETAIL
1:20

TYPICAL BEAM AT BORED PIER DETAIL
1:20



WAFFLE POD CORNER DETAILS
1:20



WAFFLE POD DETAILS AT PENETRATION
1:20

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LEADING ENGINEERS
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DISCIPLINE: STRUCTURAL DESIGN
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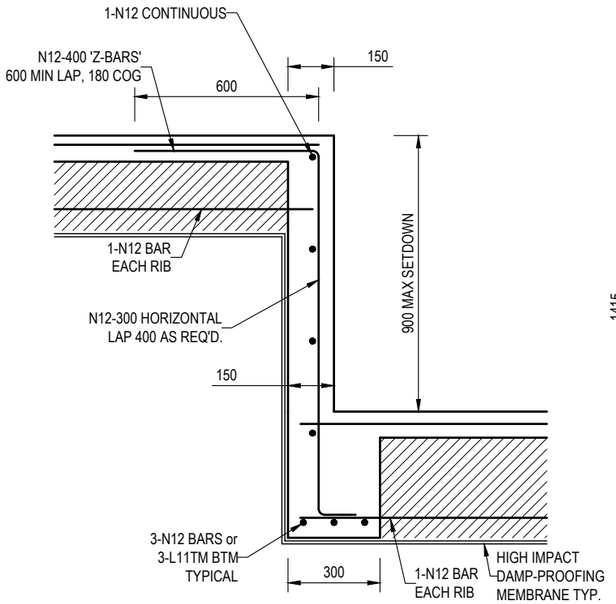
DRAWING TITLE: GROUND FLOOR SLAB DETAILS
ADDRESS: 43 ARAB ROAD PADSTOW

PROJECT DETAILS

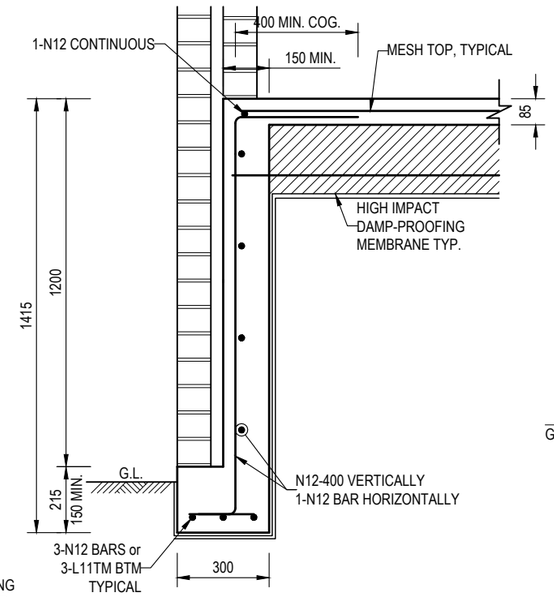
DRAWN	MF
DESIGN	MF
DATE	AUG 23
DRG SIZE	A3
SCALE	1:20

2405
S-03A



INTERNAL BEAM 'IB4' (170 - 900 MAX SETDOWN)

1:20



DROPPED EDGE BEAM 'DEB1'

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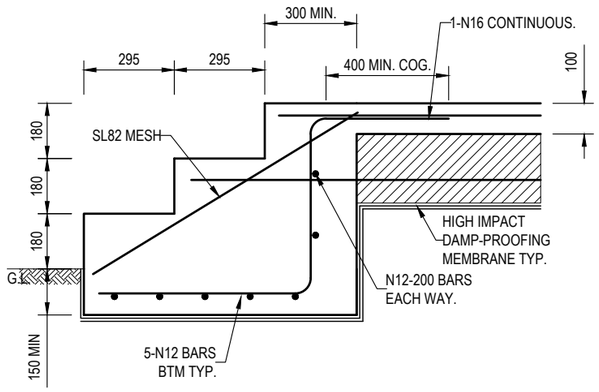
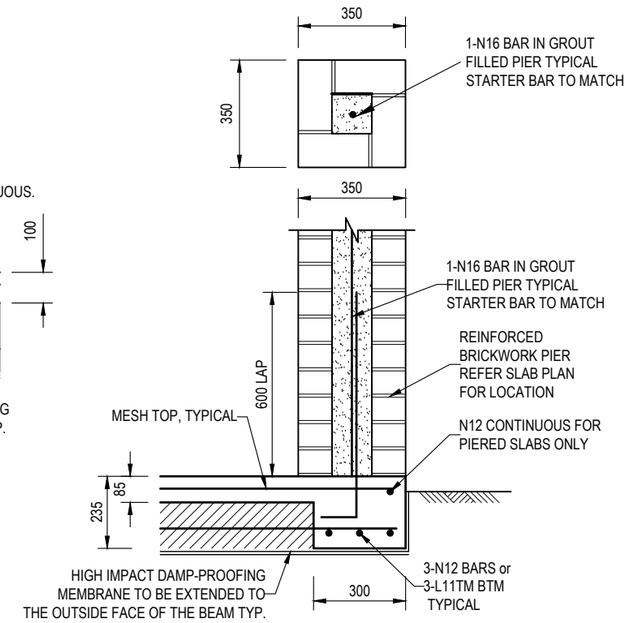
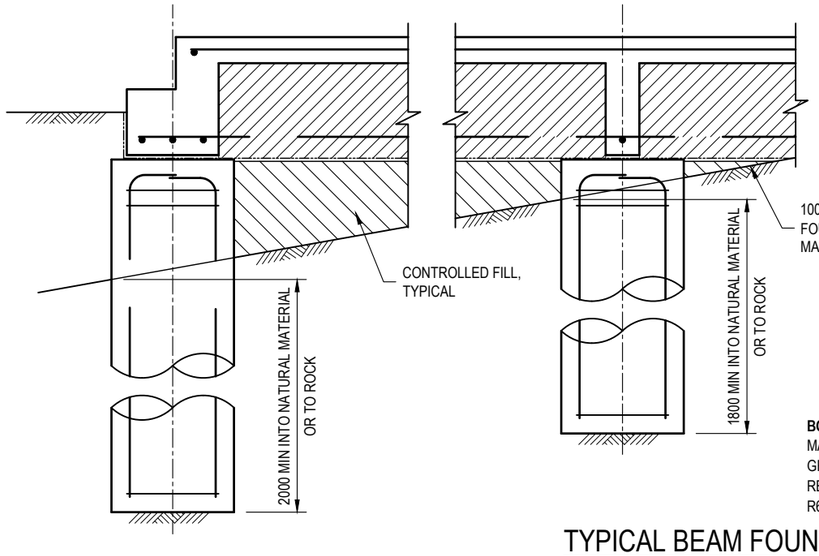


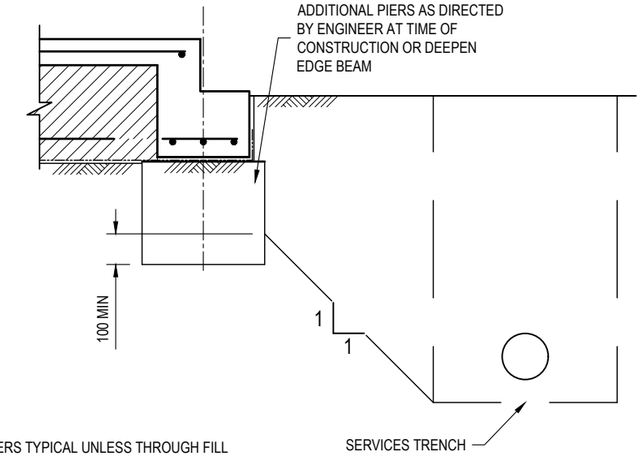
EDGE BEAM STAIR OPTION



TYPICAL REINFORCED BRICKWORK PIER 'RBP' DETAILS

1:20

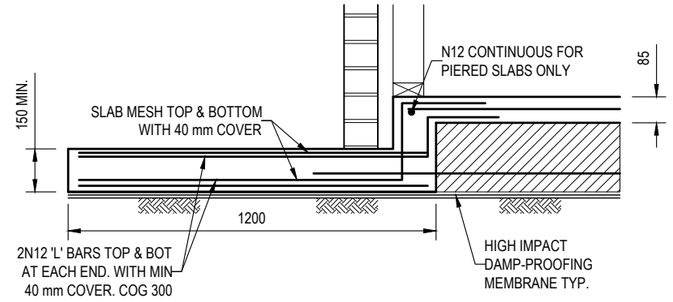




BORED PIER:
MASS CONCRETE PIERS TYPICAL UNLESS THROUGH FILL GREATER THAN 1000mm DEEP OR CLASS P SITES THEN REINFORCE WITH 3-N16 BARS (FULL LENGTH) WITH R6-300 TIES.

TYPICAL BEAM FOUNDATION DETAILS

1:20



ATTACHED RAIN WATER TANK & A/C UNIT SLAB DETAIL

1:20

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CLIENT
CAMPBELL HILL
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DISCIPLINE
STRUCTURAL DESIGN

DRAWING TITLE
GROUND FLOOR SLAB DETAILS

PROJECT
DUAL OCCUPANCY

ADDRESS
43 ARAB ROAD PADSTOW

PROJECT DETAILS

DRAWN	MF
DESIGN	MF
DATE	AUG 23
DRG SIZE	A3
SCALE	1:20

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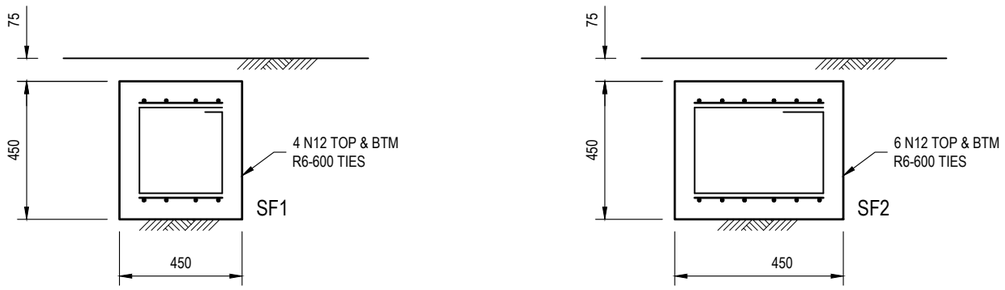

TYPICAL STRIP FOOTING DETAILS
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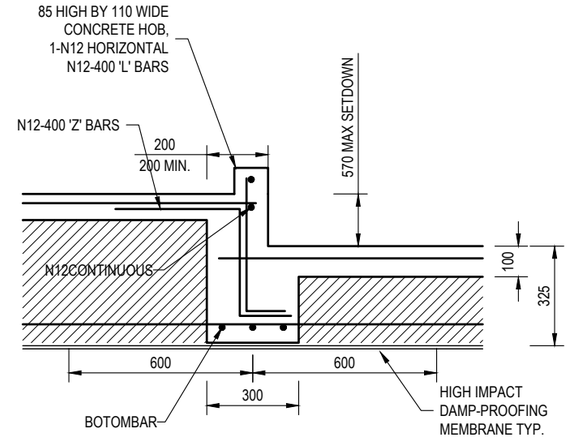

INTERNAL BEAM IB5
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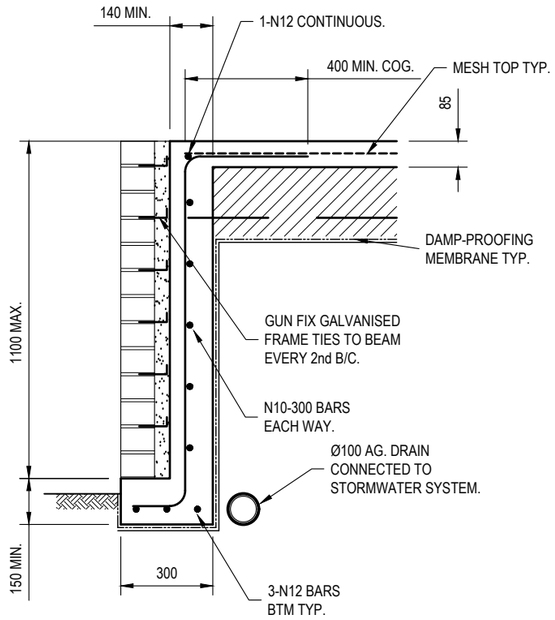
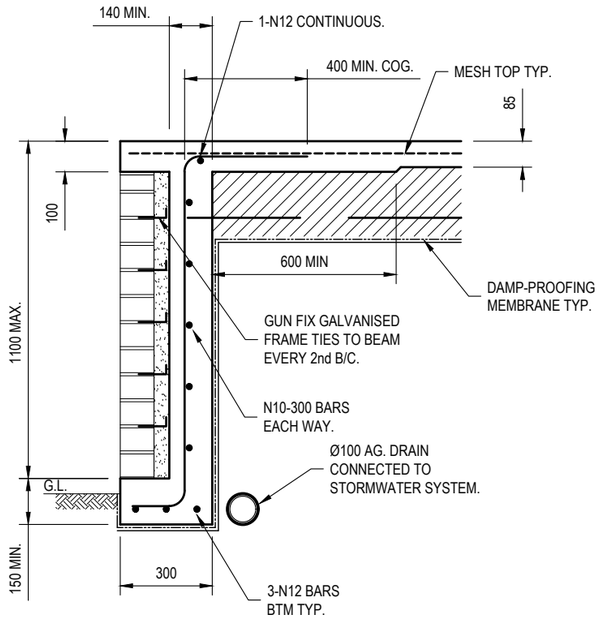


DROPPED EDGE BEAM 'DEB2'
1:20



DROPPED EDGE BEAM 'DEB2' ALTERNATE DETAIL
1:20

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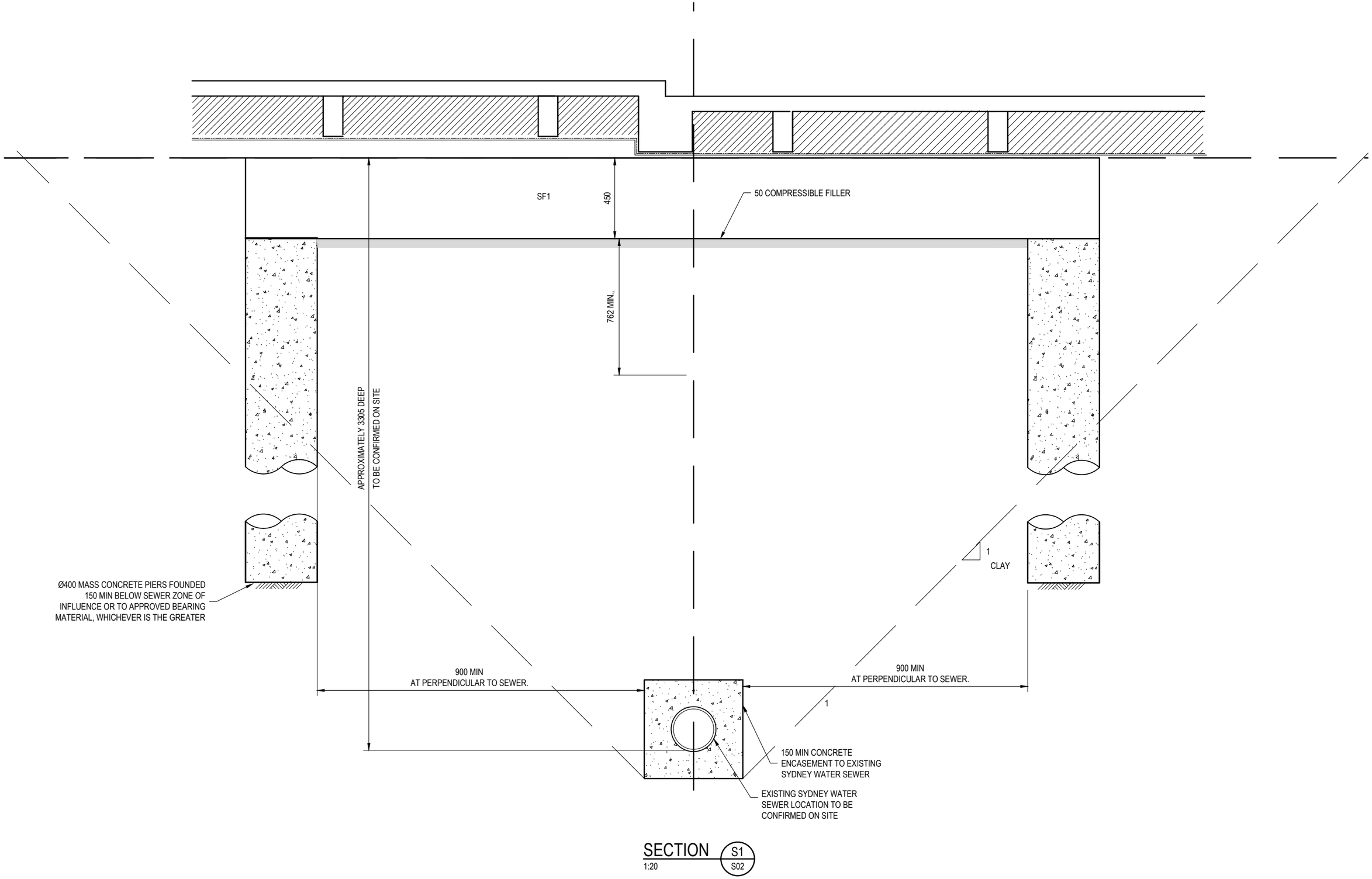

SECTION S1 / S02
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SCALE	1:20

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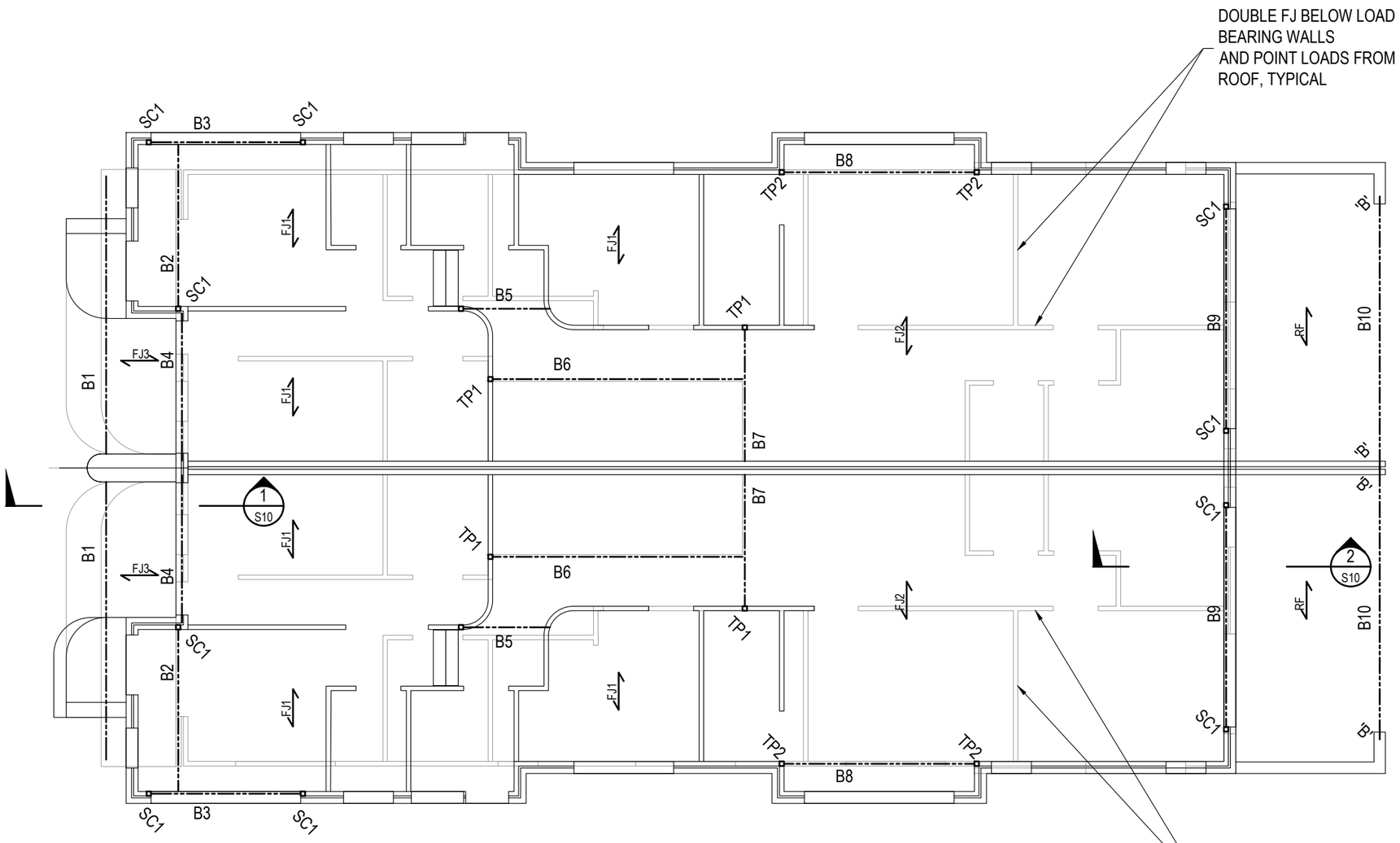

FIRST FLOOR BEAM LAYOUT PLAN

1:100

FJ — DENOTES FLOOR JOIST SPAN DIRECTION

RF — DENOTES ROOF FRAMING SPAN DIRECTION (BY OTHERS)

'BP' - DENOTES 300 x 110 x 16 BEARING PLATE

'A' - DENOTES 100 END BEARING

'B' - DENOTES 150 END BEARING

'C' - DENOTES 200 END BEARING

'D' - DENOTES 300 END BEARING

ALL TIMBER FRAMING, FIXINGS & TIE DOWN DETAILS TO BE IN ACCORDANCE WITH AS1684.2-2006 RESIDENTIAL TIMBER FRAMED CONSTRUCTION

STRUCTURAL MEMBER SCHEDULE

MARK	DESCRIPTION	SIZE	COMMENTS
SC1	COLUMN	89 x 89 x 3.5 SHS	C350L0
TP1	COLUMN	90 x 90 - F7	TREATED PINE
B1	BEAM	150 UB 18.0	GRADE 300PLUS
B2	BEAM	180 UB 16.1	GRADE 300PLUS
B3	BEAM	200 PFC	GRADE 300PLUS
B4	LINTEL	200 x 7 GALINTEL TEE	MIN. 5 BRICK CRS
B5	BEAM	300 x 45 HYSPAN	GRADE 300PLUS
B6	BEAM	300 x 75 HYSPAN	GRADE 300PLUS
B7	BEAM	300 x 75 HYSPAN	LAMINATED TIMBER
B8	BEAM	450 x 63 HSYPAN	LAMINATED TIMBER
B9	LINTEL	250 PFC + 10 PLATE	GRADE 300PLUS
B10	BEAM	200 x 9 GALINTEL TEE	MIN. 6 BRICK COURSES
FJ1	JOIST	300 x 45 @ 450 c/c SMARTJOISTS	LAMINATED TIMBER
FJ2	JOIST	300 x 90 @ 450 c/c SMARTJOISTS	
FJ3	JOIST	170x 45 @ 450 c/c MGP10	

ALL EXTERNAL MEMBERS TO BE HOT DIPPED GALVANISED

NON LOAD BEARING STEEL LINTEL SCHEDULE

SPAN	LINTEL SIZE	MIN END BEARING
UP TO 900	75 x 6.0 EA	100
OVER 901 - 2400	125 x 75 x 10 (UA)	150
OVER 2401 - 3000	150 x 100 x 10 (UA)	150

MAXIMUM HEIGHT OF BRICKWORK OVER LINTEL = 3000

ALL EXTERNAL LINTELS TO BE HOT DIPPED GALVANISED

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DISCIPLINE: STRUCTURAL DESIGN
DRAWING TITLE: FIRST FLOOR SLAB PLAN
PROJECT: DUAL OCCUPANCY
ADDRESS: 43 ARAB ROAD PADSTOW

PROJECT DETAILS

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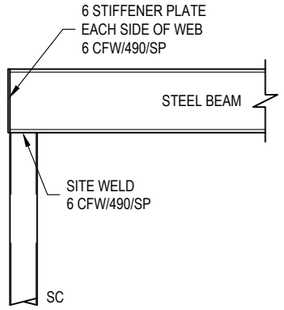
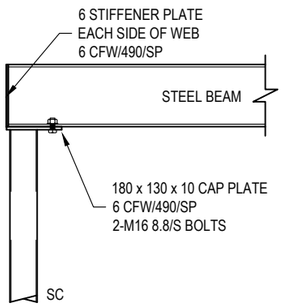
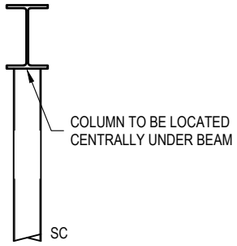
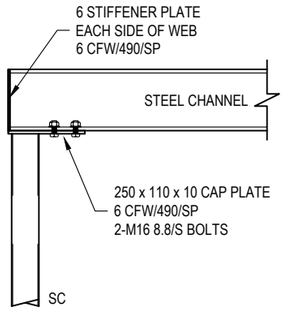


SITE WELDED OPTION







TYPICAL COLUMN SC CAP DETAILS

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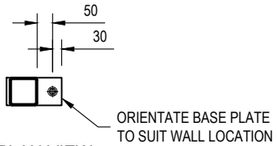
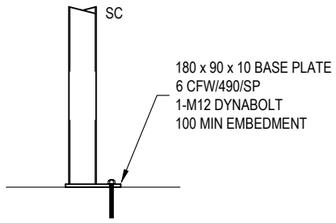
BEAMS TO BE LOCATED CENTRALLY OVER COLUMN TYPICAL

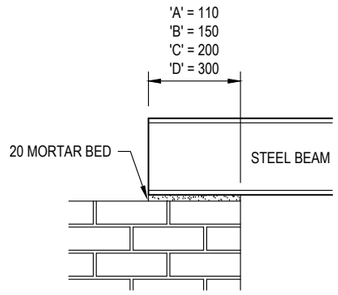


PLAN VIEW



TYPICAL COLUMN SC BASE DETAILS

1:20



TYPICAL END BEARING DETAIL

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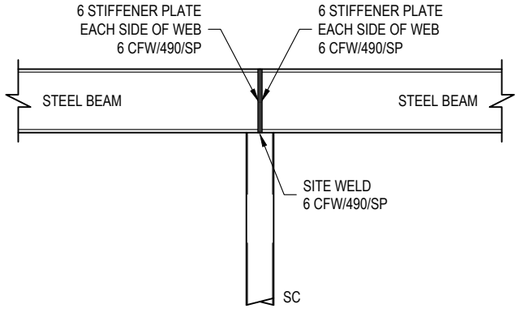
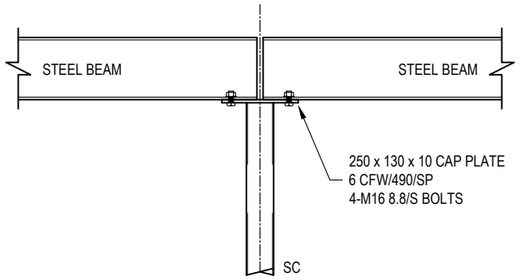
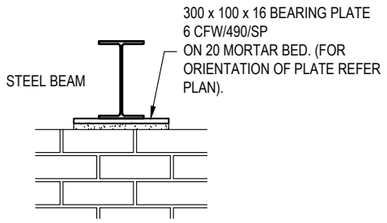


SITE WELDED OPTION





TYPICAL BEARING PLATE DETAIL

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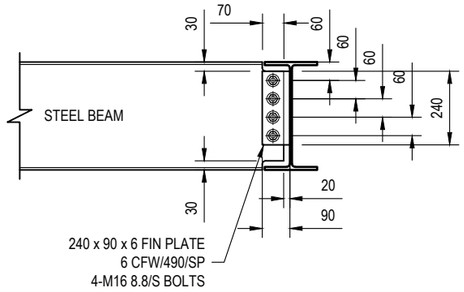
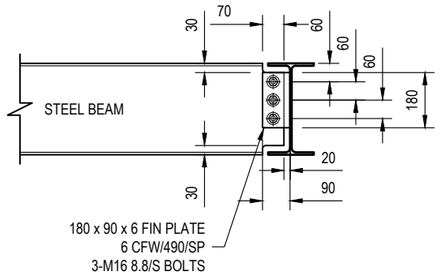


STEEL BEAM NOT GREATER THAN 360 UB

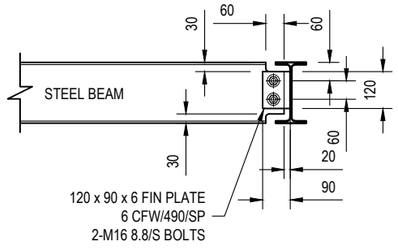
(CONNECTION CAPACITY 150 kN ULTIMATE)



STEEL BEAM NOT GREATER THAN 310 UB

250 UB TO 250 UB SIM

(CONNECTION CAPACITY 100 kN ULTIMATE)



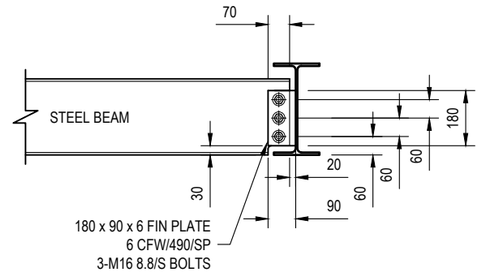
STEEL BEAM NOT GREATER THAN 200 UB

200 UB TO 200 UB

(CONNECTION CAPACITY 55 kN ULTIMATE)

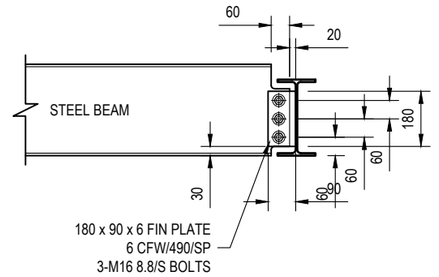
TYPICAL BEAM TO BEAM CONNECTION DETAILS

1:20



LARGE SUPPORTING SMALLER BEAM

(CONNECTION CAPACITY 100 kN ULTIMATE)



SMALL SUPPORTING LARGER BEAM

(CONNECTION CAPACITY 100 kN ULTIMATE)

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DISCIPLINE
STRUCTURAL DESIGN

DRAWING TITLE
FIRST FLOOR DETAIL SHEET

PROJECT
DUAL OCCUPANCY

ADDRESS
43 ARAB ROAD PADSTOW

PROJECT DETAILS

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DATE	AUG 23
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SCALE	1:20

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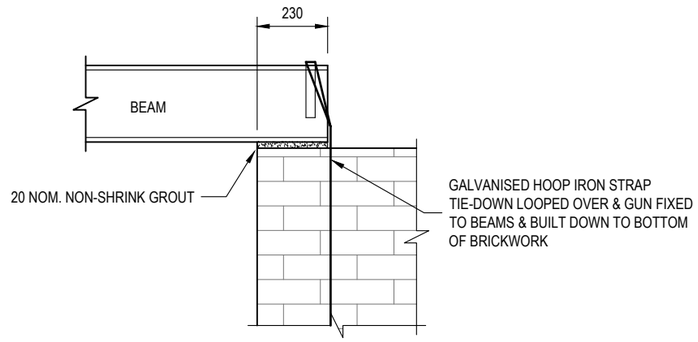

TYPICAL TIE DOWN DETAIL 'TD'

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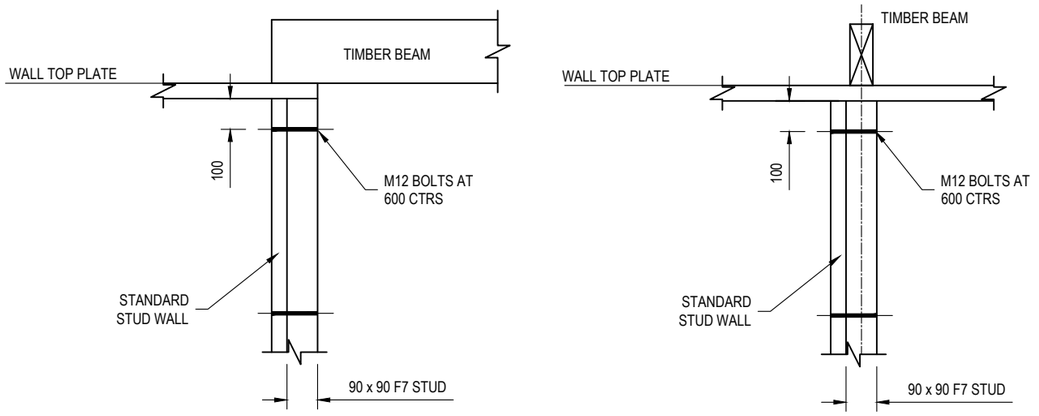
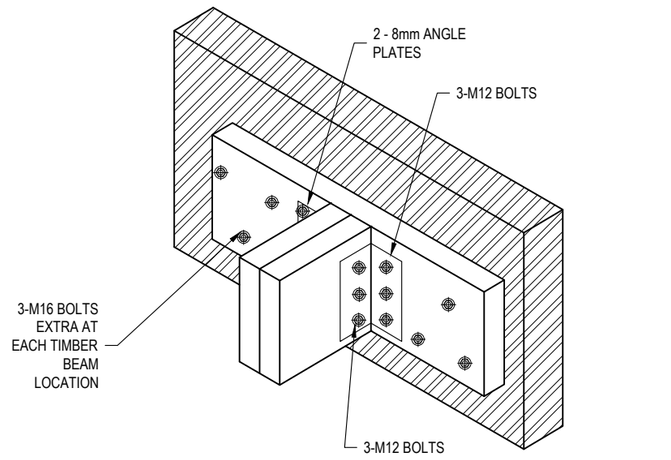


TYPICAL TIMBER POST TP DETAILS

1:20



TIMBER BEAM TO BRICK WALL CONNECTION DETAIL

NTS

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2405
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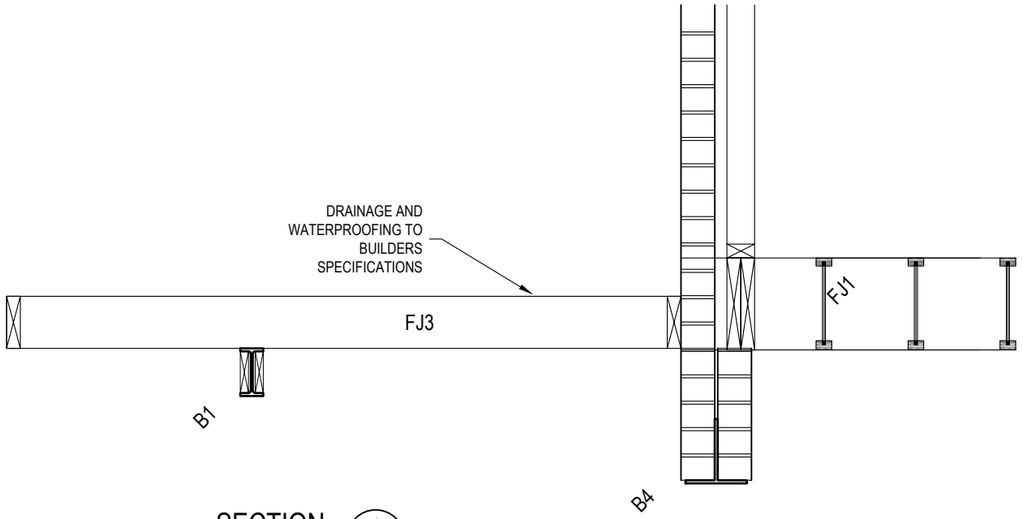

SECTION 1
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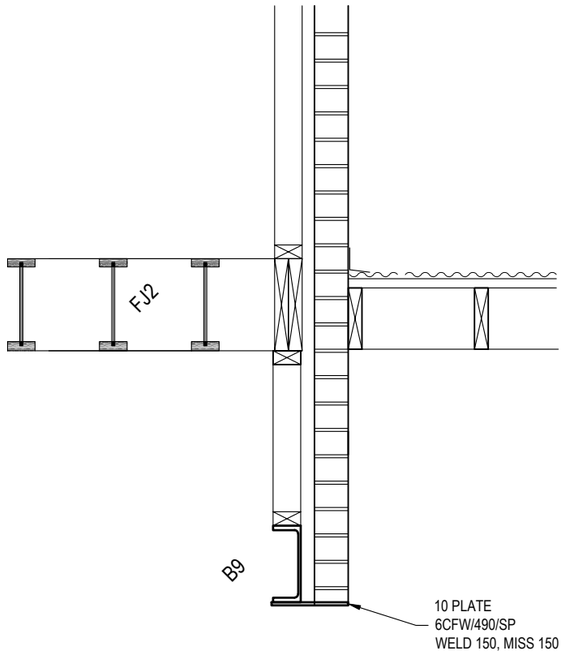

SECTION 2
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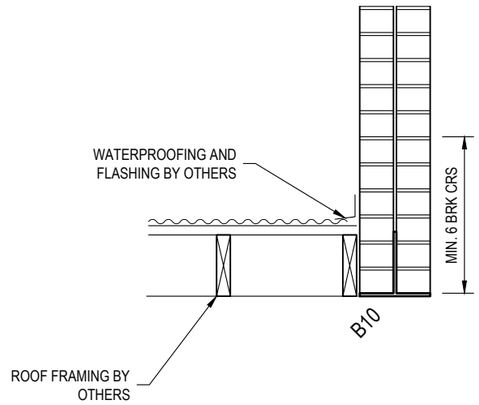

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POOL NOTES

POOL SET-OUT
Pool set-out size, location and height level is deemed to be acceptable to the owner unless the builder is advised otherwise. Such advice must be prior to placement of reinforcement. This drawing is to be read in conjunction with the architectural drawing.

CURING CONCRETE
After concreting, the pool shell is to be thoroughly wetted down twice daily for at least seven (7) days (ten (10) days in summer).

SAFETY FENCES
Safety fencing is to be council approved prior to the pool being filled.

FILLING POOL
DO NOT use rubber hoses.

UNDERWATER LIGHTS
Lights must be fully submerged during use.

WALKWAYS AND COPINGS
Walkways and copings are designed for a 2 kPa live load and are not designed to support masonry walls unless noted otherwise.

SPECIFICATIONS
All workmanship and materials to be in accordance with Australian Standard AS 2783-1992,"Use of Reinforced Concrete for Small Swimming Pools"

Site plan dimensions are to water face.

Dimensions shall not be obtained by scaling the details.

All levels and dimensions are relative to concrete coping level. Fixed Datum represents the fixed coping height/level. Approximate coping levels are represented as follows:
a) NGL+200 represents 200mm above existing Natural Ground Level.
b) NGL-400 represents 400mm below existing Natural Ground Level.

Provide filter with matched pump and plumbing to manufacturers recommendations.

Supporting soil to be stable natural material with a min. safe bearing capacity of 100 kPa.

Advise Engineer if excavation in fill or ground water is encountered. Provide temporary penetrations to floor slab if ground water level exceeds 500mm above deep floor level.

The excavation base is to be provided with an under shell drainage layer as follows:
a) 75 min. blue metal drainage layer, or 50 min. thick layer with plastic over.
b) Corrugated iron sheeting & membrane if over rock.
c) Plastic layer only if base is entirely in sand.
d) Main Drain pit is to be blue metal filled irrespective of drainage layer type.

All reinforcement to be of Australian manufacture in accordance with SAA Standards.
S-Grade 230 structural grade deformed.
R-Grade 230 plain grade round.
N-Grade 500 Tempcore grade bars.
S/R-Grade 500 hard drawn wire fabric.

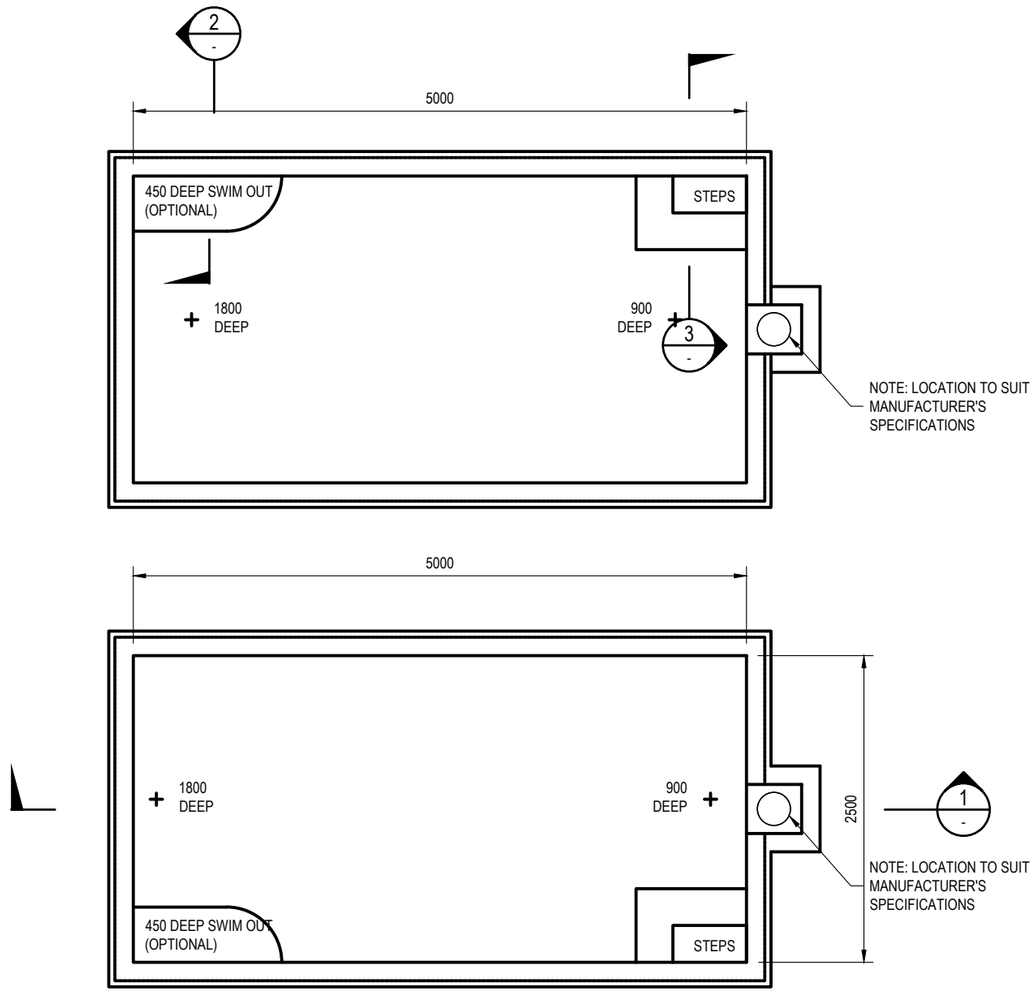
Reinforcing bars, unless noted otherwise, are to be lapped 40 bar diameters min., fabric to be lapped 400mm min. All laps should preferably be staggered.

All reinforcement to be securely supported by bar chairs at 800 max. centres.

Minimum concrete cover to reinforcement, from closest concrete surface to be as follows:
Water face Salt Chlorination : 65mm
Water face standard chlorination : 50mm
Coping/Walkway surface : 50mm
Rear face, formed : 40mm
Rear face, rough ground : 65mm.

Concrete to be pneumatically placed, have a min. design strength of F'c 32 MPa at 28 days.

Upon completion of concreting the hydrostatic valve is to be cleaned & checked to ensure correct operation.



POOL LAYOUT PLAN

1:50
FINAL DIMENSIONS OF POOL TO BE DETERMINED ON SITE
LOCATION OF SKIMMER BOX TO BE DETERMINED ON SITE

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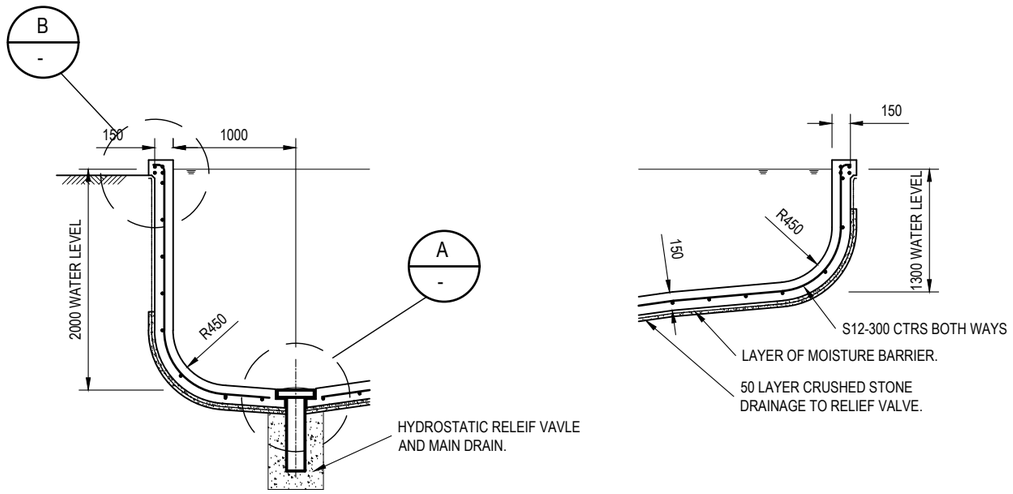
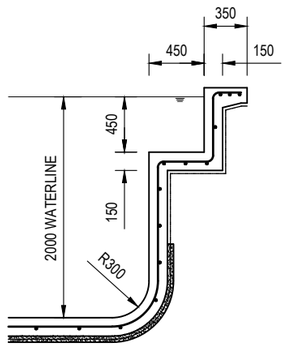
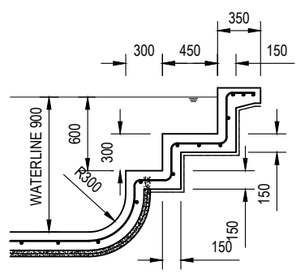


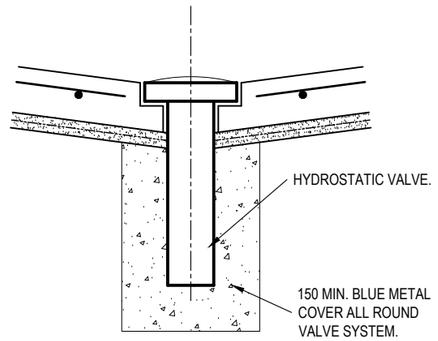
LONGITUDINAL SECTION 1 / S11
1:50



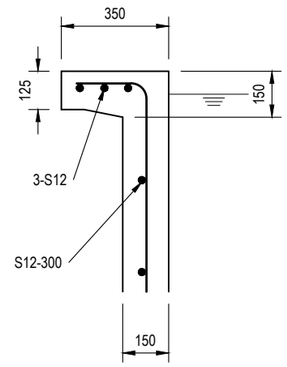
SECTION 2 / -
1:50



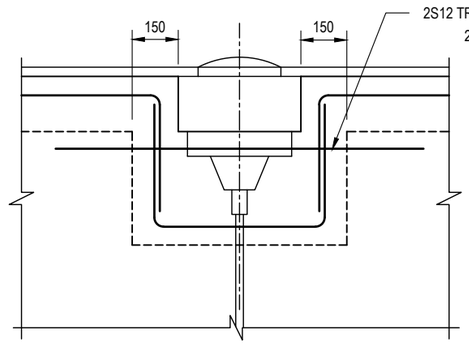
SECTION 3 / -
SCALE = 1:50



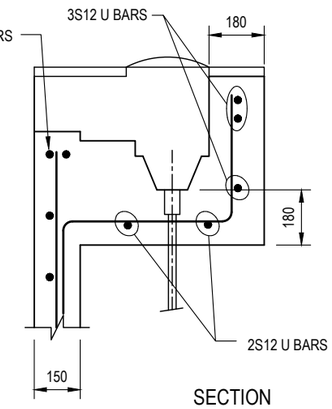
DETAIL A / -
1:20



DETAIL B / -
1:20



ELEVATION



SECTION

SKIMMER BOX DETAILS
1:20

NOTE : LOCATION TO SUIT PUMP MANUFACTURER'S

REVISION	ISSUE DATE	AMENDMENT DESCRIPTION
A	24.08.2023	ISSUED FOR APPROVAL

LEADING ENGINEERS
STRUCTURAL | CIVIL | STORMWATER
Leading Engineers
PO BOX 3278
WETHERILL PARK NSW 2164
Phone : (02) 9756 1211
Fax : (02) 9756 1411
INFO@LEADINGENGINEERS.COM.AU
more than just design

CLIENT
CAMPBELL HILL GROUP PTY LTD.

DISCIPLINE
STRUCTURAL DESIGN

DRAWING TITLE
FIRST FLOOR DETAIL SHEET

PROJECT
DUAL OCCUPANCY

ADDRESS
43 ARAB ROAD PADSTOW

PROJECT DETAILS

DRAWN	MF
DESIGN	MF
DATE	AUG 23
DRG SIZE	A3
SCALE	1:20

2405
S-12A