

PROPOSED DEVELOPMENT 1191 BARRENJOEY RD PALM BEACH

STRUCTURAL DRAWINGS

- S00 / B TITLE SHEET
- S01 / B CONSTRUCTION NOTES
- S10 / B GROUND FLOOR PLAN
- S20 / B FIRST FLOOR PLAN
- S30 / B ROOF PLAN
- S40 / B OUTBUILDING FLOOR PLAN
- S50 / B OUTBUILDING ROOF PLAN

I am a Structural Engineer holding the qualification of Bachelor of Engineering (Structural) and I am appropriately qualified to certify the structural components of this project. I hereby state that these plans and details comply with the conditions of development consent, the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards

Geoffrey McKee BE(Structural) PEng

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PROPOSED DEVELOPMENT
1191 BARRENJOEY RD PALM BEACH

TITLE SHEET & DRAWING LIST

Scale	Print Date 04/03/2020	Rev Date 04.03.20	Size A3	Rev. B
Purpose PRELIMINARY	PROJECT 25722	Dwg S00		

CONSTRUCTION NOTES

GENERAL

- G1 This drawing shall be read in conjunction with all other working drawings and specifications and with such other written instructions as may be issued during the course of construction. All discrepancies and variations shall be referred to the Engineer before proceeding with the work.
- G2 All work shall be in accordance with the requirements of all relevant and current SAA Codes.
- G3 All dimensions relevant to setting out and off-site work shall be verified before construction and fabrication is commenced.
- G4 Dimensions shall not be obtained by scaling the structural drawings.
- G5 During construction the structure shall be maintained in a stable condition and no part of the structure shall be overstressed.
- G6 The structural elements shown on these drawings have been designed for the following superimposed loads : 2kPa

CONCRETE

- C1 All workmanship and materials shall be in accordance with current editions of AS3600 except as varied by contract documents.
- C2 Cement shall be Type "A" unless specified otherwise. Concrete components and quality shall be as follows:

Structural Element	F _c MPa	Slump mm	Agge. size	Density (kg/m ³)
Footings, levelling strips	25	80	20	2400
Slab on ground	32	80	20	2400
Suspended slab	32	80	20	2400
Columns and walls	40	80	20	2400

- C3 Clear concrete cover to reinforcement unless shown otherwise shall be:

Element	Formed Not exposed	Formed exposed soil or rain	Poured against membrane
Slabs	30	40	30
Walls	30	40	n/a
Beams	40	50	n/a
Columns	40	50	n/a
Pedestals	50	50	n/a
Footings	50	65	40
Pool sprayed	50 back	60 water	-
Pool formed	-	50	-

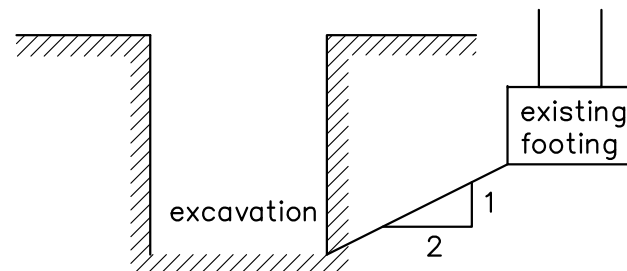
- C4 Construction joints shall be properly formed and used only where shown or specifically approved by the Engineer.
- C5 No holes, chases or embedment of pipes, other than those shown on the structural drawings, shall be made without the written prior approval of the Engineer.

CONCRETE

- C6 Splices in reinforcement shall be made only in the positions shown on the Structural drawings, or as otherwise approved by the Engineer.
- C7 Lapped fabric splices shall be so made that the overlap, measured between the outermost wires of each sheet of fabric, is not less than the greater wire spacing +25mm.
- C8 Reinforcement is shown diagrammatically, it is not necessarily shown in true projection.
- C9 All reinforcement shall be D500 to AS4671 UNO Fabric shall be SL: square, RL: rectangular to AS4671 Bars shall be D500N to AS 4671 UNO
S: shall mean Grade 250N (for pools)
N: Grade D500N Deformed bar Normal ductility.
Example of designation code for reinforcing bars :-
No of bars in group → $\overline{\hspace{1cm}}$ bar grade and type
17N20-350
nominal bar size in mm → \perp spacing in mm.
UNO stands for "unless noted otherwise".
Welding of reinforcement shall be to AS1554.3
- C10 Where transverse tie bars are not shown, provide N12-400. Splice where necessary and lap with main bars for 400mm.
- C11 All concrete shall be placed and "cured" in accordance with AS3600. Where curing compound is used it must applied (a) onto slabs within 2 hours of finishing the concrete surface, (b) onto walls and columns immediately after removal of formwork.
- C12 Horizontal formwork shall be stripped when approved by the Engineer.
- C13 Slabs and beams shall bear only onto the beams, walls and other types of support as shown on the structural drawings. All other building elements shall be kept 15mm clear from soffits of structure.
- C14 During concrete placing the builder shall have on site rain protecting plastic sheeting and supports to keep it clear of wet concrete, and also aliphatic alcohol sprays to prevent plastic cracking in hot or windy conditions.

FOUNDATIONS

- F1 Footings have been designed for a bearing pressure of 100kPa. Foundation material shall be approved before placing concrete in footing excavation.
- F2 Determine adjacent footing depth and do not excavate below a line of influence of 1 in 2 as shown



BLOCKWORK

- B1 Blockwork shall be in accordance with AS3700
- B2 Concrete in base shall be Grade 20
- B3 Reinforcement symbol S requires bars as Note C9
- B4 Construct retaining walls with double-U or H blocks
- B5 Blocks shall be Grade 12 to AS4455
- B6 Clean out openings shall be used in all cores and cleaned out for inspection before grout filling.
- B7 Use recessed blocks for horizontal bars.
- B8 Grout shall be Grade 20 with 10mm aggregate and 230 slump
- B9 All cores shall be filled with grout
- B10 All mortar shall be 1 part cement to 1/2 part lime and 4-1/2 parts sand. (1 : 0.5 : 4.5)
- B11 Mortar dags and concrete fins shall be removed by rodding and cleaned out before grouting cores.

STRUCTURAL STEELWORK

- S1 All workmanship and materials shall be in accordance with AS4100, AS1554, AS3679 and AS1163 as applicable.
- S2 Unless otherwise noted all structural steel shall be Grade 300 (Grade 350 for hollow sections)
- S3 All bolts shall be high strength, galvanised.
- S4 Provide 25 thick cement mortar pad under steelwork supported on masonry.
- S5 Steel shall be painted with primer unless noted.
- S6 Lintels and beams partly exposed to the weather shall be hot dip galvanised to AS4680 unless noted.
- S7 All welds shall be 6mm continuous fillet all round U.N.O.

MASONRY

- M1 Where slabs or beams bear on masonry, the top course shall be level, smooth and covered with two layers of three-ply malthoid unless noted otherwise.
- M2 Masonry walls shall not be erected on suspended slabs or beams until all propping has been removed.
- M3 Bricks used in load bearing construction shall have a minimum compressive strength of 20 MPa unless otherwise noted.
- M4 All masonry shall comply with AS3700 and Australian Standards referenced within AS3700.
- M5 Masonry shall be articulated where required by AS2870 to satisfy footing design selections.
- M6 Provide expansion joints at 8m centres in straight runs of brickwork. Provide expansion joints within 4m of corners.

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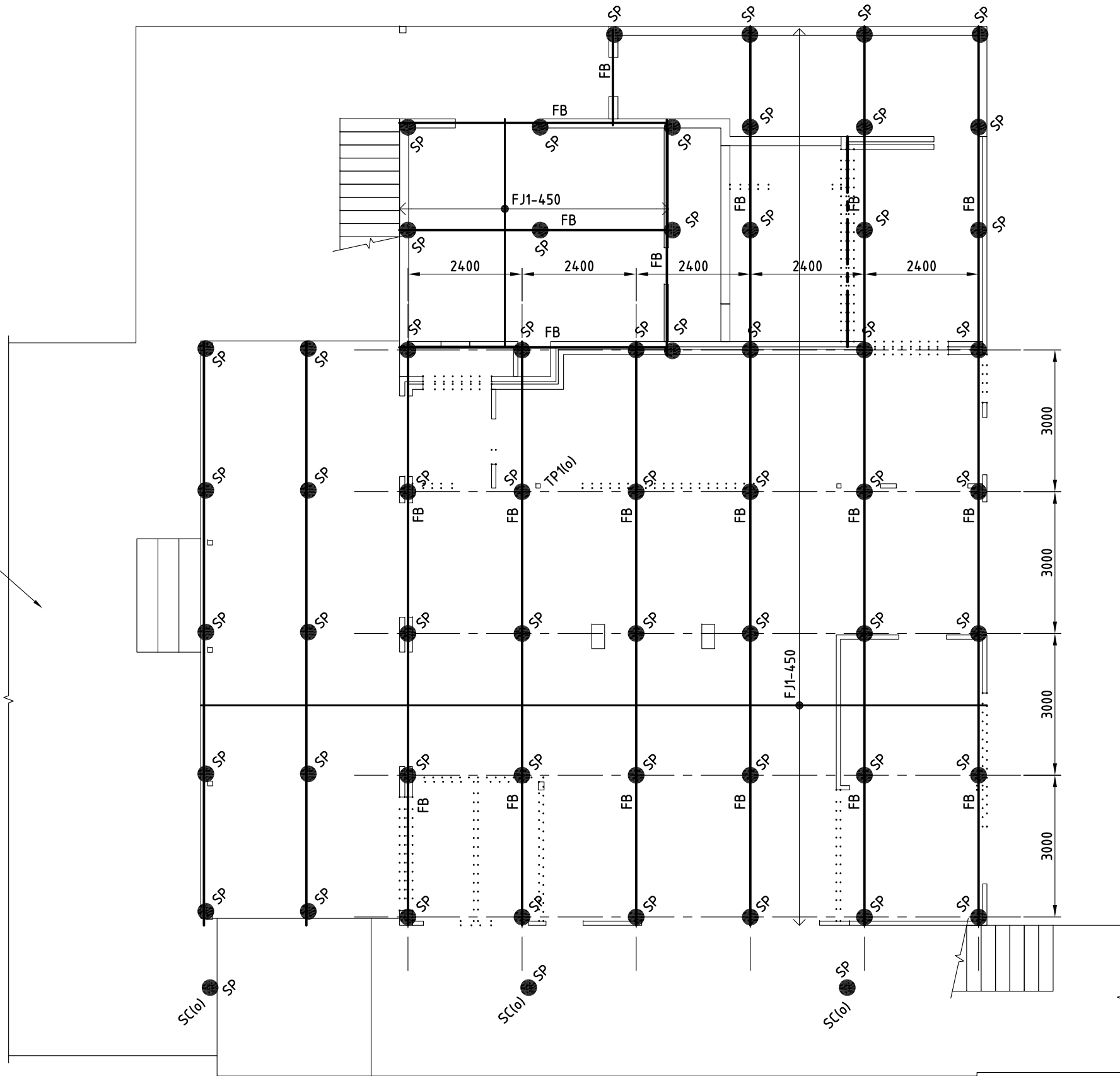
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CONSTRUCTION NOTES

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	04/03/2020	04.03.20	A3	B
Purpose		PROJECT	Dwg	
PRELIMINARY		25722	S01	

RAISE DECK 200mm AND REPAIR AS NEEDED



GROUND FLOOR PLAN

Scale 1:100

● - INDICATES SCREW PILES

SIZE SCHEDULE	
SP	SCREW PILE
TP1	TIMBER POST, REFER TO S20
FB	250x100 F22 Hwd
FJ1	150x75 F21 Hwd

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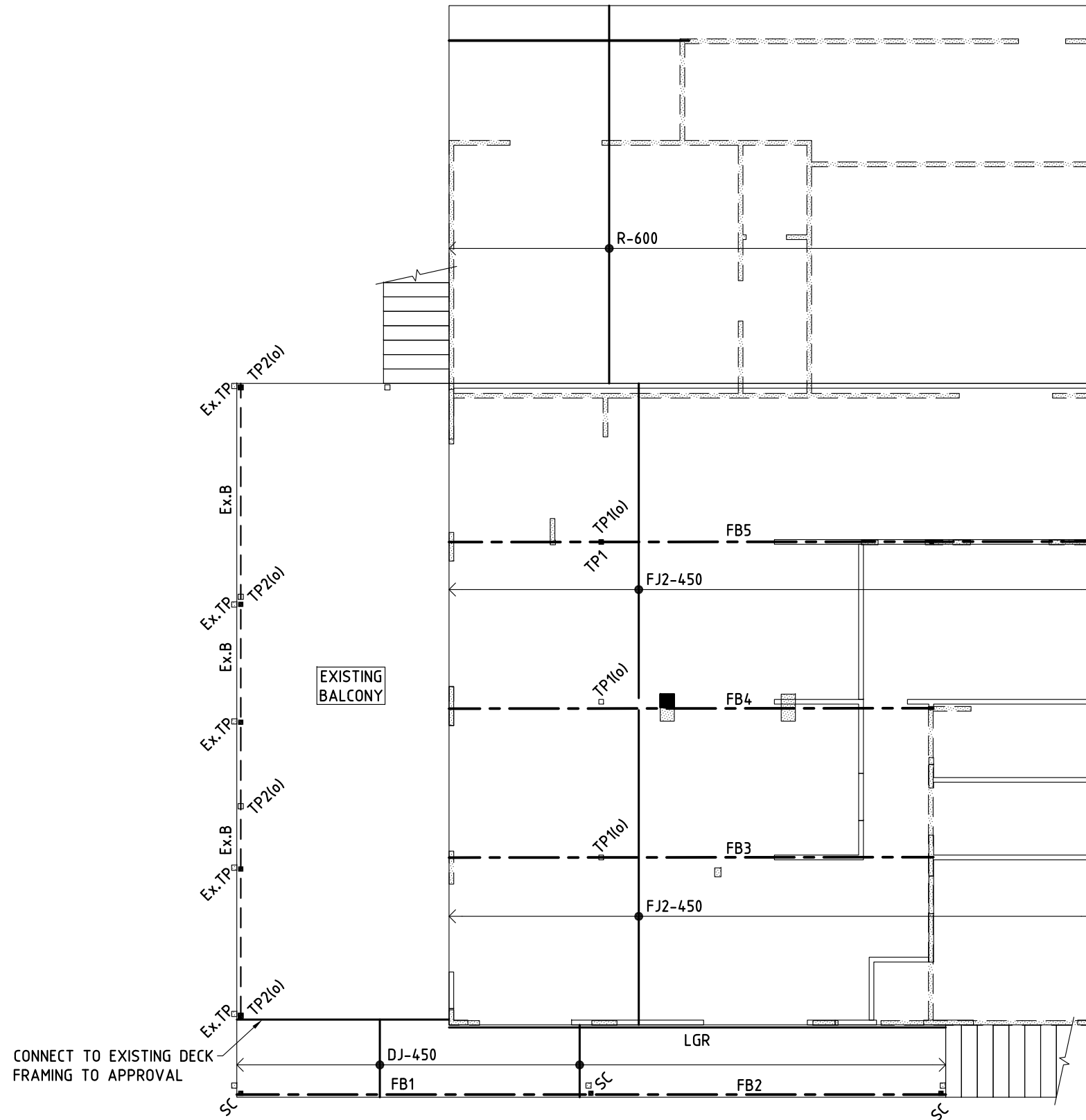
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GROUND FLOOR PLAN

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FIRST FLOOR PLAN

Scale 1:100

SIZE SCHEDULE	
Ex.TP	EXISTING TIMBER POST
SC	89x5 SHS
TP1	90SQ F7 TIMBER POST
TP2	TIMBER POST, REFER TO S30
FB1	230PFC GALVANISED
FB2	230PFC GALVANISED
FB3	310UB32
FB4	310UB32
FB5	310UB32
DJ	90x45 F7 H3 TREATED PINE
LGR	90x70 F7 H3 TREATED PINE
Ex.B	EXISTING BEAM
FJ2	150x45 LVL

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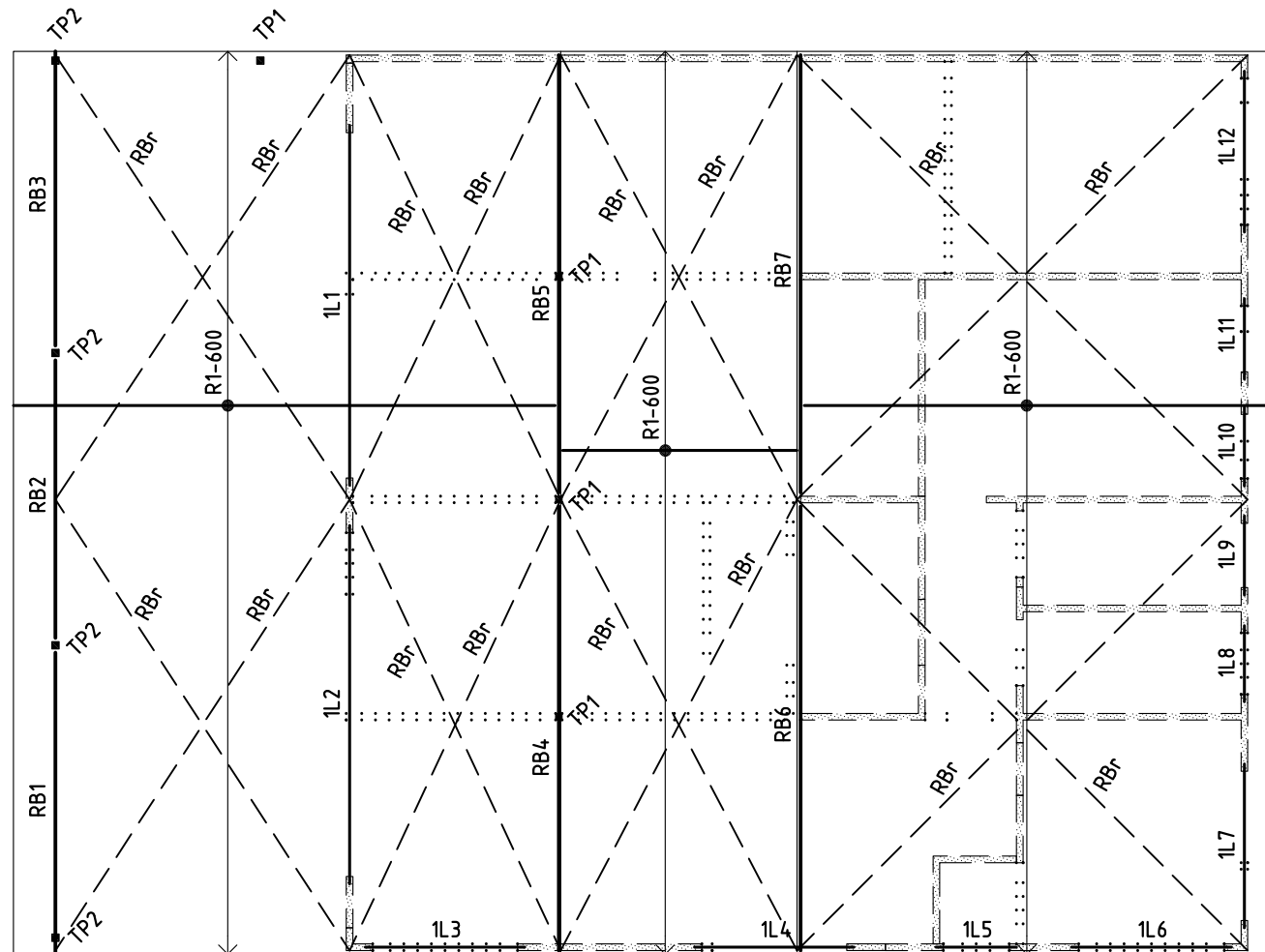
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ROOF PLAN

Scale 1:100

SIZE SCHEDULE	
TP1	TIMBER POST, REFER TO S20
TP2	88SQ GL8 LOSP
RB1-3	240x65 GL8 LOSP
RB4,5	200x45 LVL
RB6,7	200x45 LVL
R1	240x45 LVL
1L1,2	2/300x45 LVL
1L3,4	150x45 LVL
1L5	2/90x45 MGP10
1L6,7	150x45 LVL
1L8-11	2/90x45 MGP10
1L12	150x45 LVL
RBr	30x0.8 GALV. DIAGONAL STRAP BRACING

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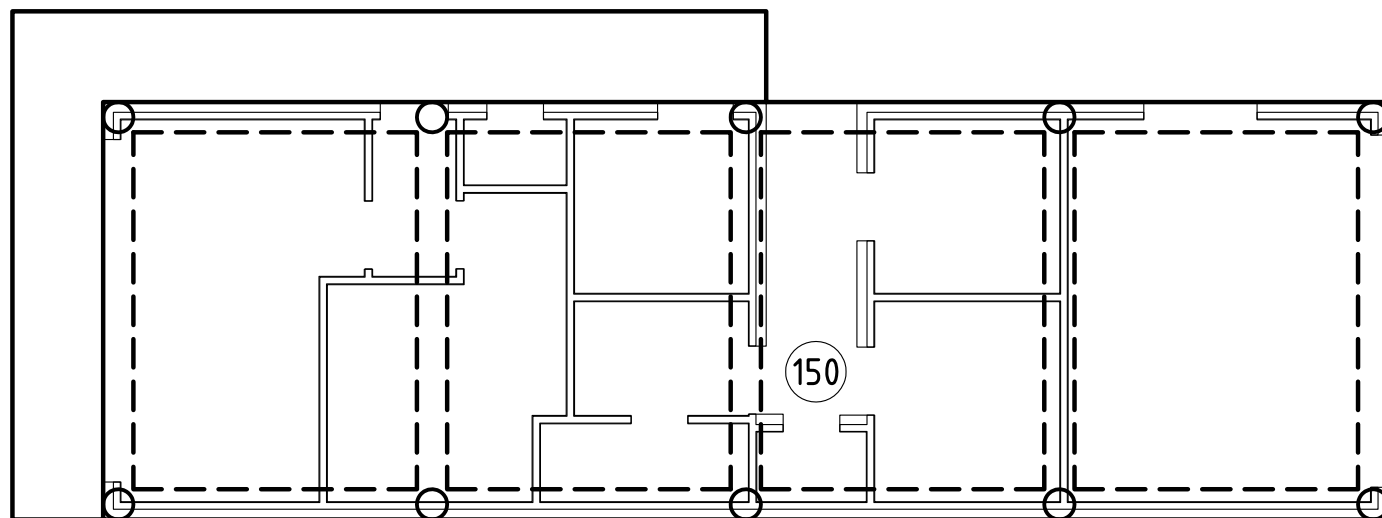
PRELIMINARY

PROJECT

25722

Dwg

S30



OUTBUILDING FLOOR PLAN

Scale 1:100

150 CONCRETE RAFT SLAB
 400x400 EDGE BEAMS & INTERNAL BEAMS
 400Ø REINFORCED CONCRETE PIERS

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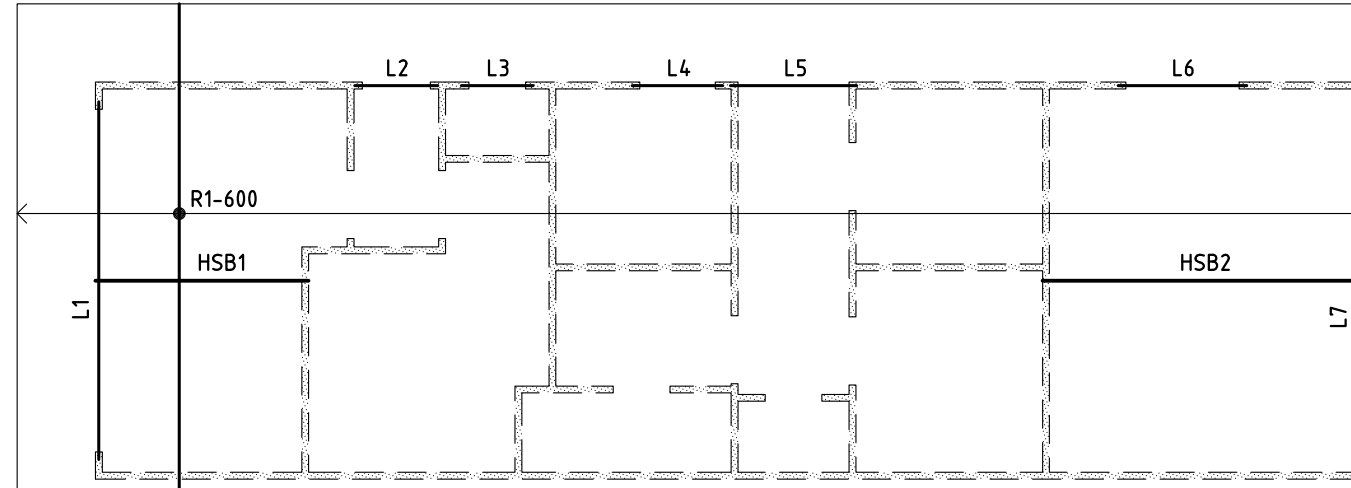
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Rev.
 B

Purpose
PRELIMINARY

PROJECT
 25722

Dwg
 S40



OUTBUILDING ROOF PLAN

Scale 1:100

SIZE SCHEDULE	
R1	150x45 LVL
HSB1	
HSB2	
L1	
L2	2/90x45 MGP10
L3	2/90x45 MGP10
L4	2/90x45 MGP10
L5	2/90x45 MGP10
L6	2/90x45 MGP10
L7	

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OUTBUILDING ROOF PLAN

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