

QUESTION 4: CIVIL DRAWING

Given:

- The incomplete south view of a **RDP house**, showing the walls, the windows, the door opening, the roof and notes.
- The incomplete floor plan showing the roof line, walls, position of the doors, windows, fixtures and electrical layout.
- A schematic diagram of a roof truss and roof notes.
- The incomplete foundation and wall detail.
- Room designations and floor finishes.
- A door and window schedule.
- A table of sanitary fixtures.
- A table of roof components.
- A table of electrical symbols.
- A table of rainwater items.
- The floor plan of the **house**, drawn to scale 1 : 50 and the incomplete foundation and breakpoint of the detailed section drawn to scale 1 : 20 on page 6.

Instructions:

Answer this question on page 6.

- 4.1 Use the given incomplete floor plan to draw, in first-angle orthographic projection and to **scale 1 : 50**, the following views of the **RDP house**:

4.1.1 THE COMPLETE FLOOR PLAN

Add the following features to the drawing:

- ALL doors and windows.
- ALL sanitary fixtures as indicated by abbreviations.
- ALL electrical fittings as indicated by the numbers.
- ALL hatching detail

4.1.2 THE COMPLETE SOUTH VIEW

Show the following features on the drawing:

- The outside walls, porch and window detail.
 - The roof detail, including the roof cap, barge boards, fascia boards, gutter and rainwater downpipe.
 - The finished floor level.
- 4.2 In the space provided on page 6, using the incomplete foundation and break line, draw, to **scale 1 : 20**, a **DETAILED SECTION** on cutting plane **A-A** of the area in the ellipse shown on the incomplete floor plan.
- **Show the following features on the drawing:**
 - The complete detail of the foundation, external walls with window and the opening on the porch as well as the lintels above the respective openings.
 - The roof detail, including the barge board, fascia board and gutter.
 - ALL hatching detail. **ONLY** the substructure hatching may be drawn in neat freehand.

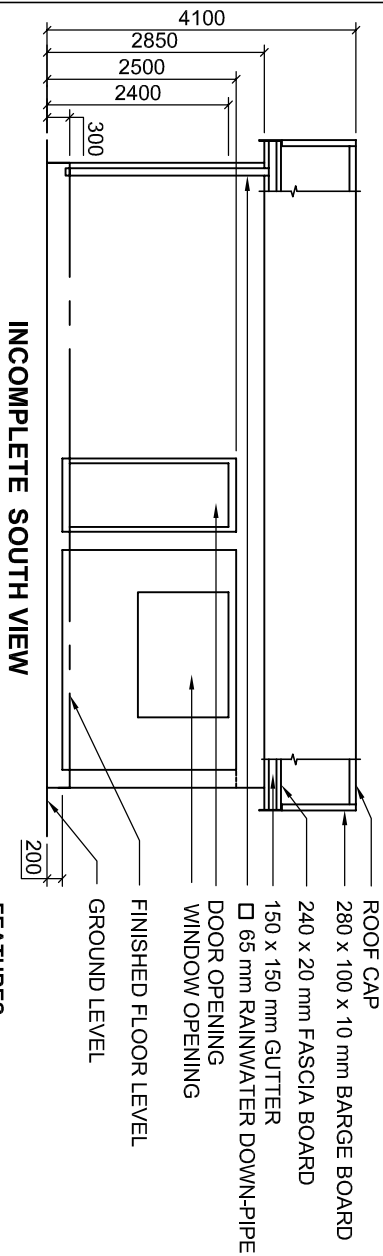
Label the following:

- The south view.
- The room designations and floor finishes.
- Ground level, finished floor level and damp proof course (Use the correct abbreviations and show it on ALL the relevant views)

NOTE:

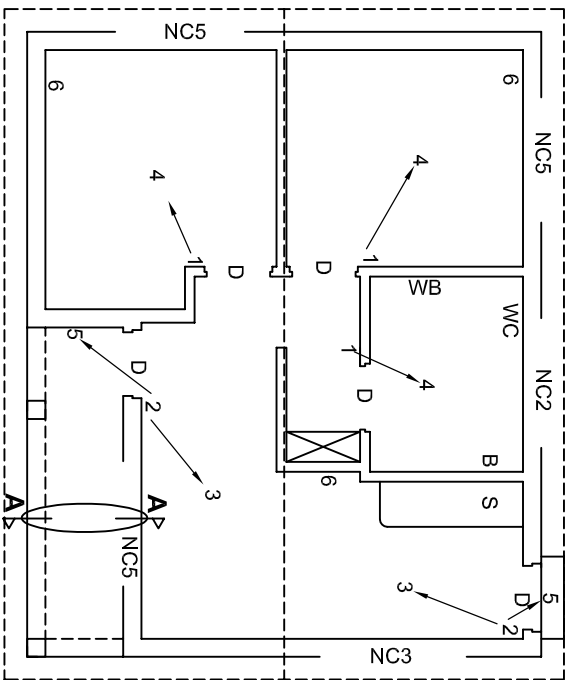
ALL drawings must comply with the **guidelines** and **graphical symbols** as contained in the SANS 10143.

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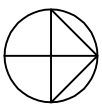


- ROOF CAP**
 280 x 100 x 10 mm BARGE BOARD
 240 x 20 mm FASCIA BOARD
 150 x 150 mm GUTTER
 □ 65 mm RAINWATER DOWN-PIPE
 DOOR OPENING
 WINDOW OPENING
 FINISHED FLOOR LEVEL
 GROUND LEVEL
FEATURES
D DOOR
NC2 WINDOW
NC3 WINDOW
NC5 WINDOW

INCOMPLETE SOUTH VIEW

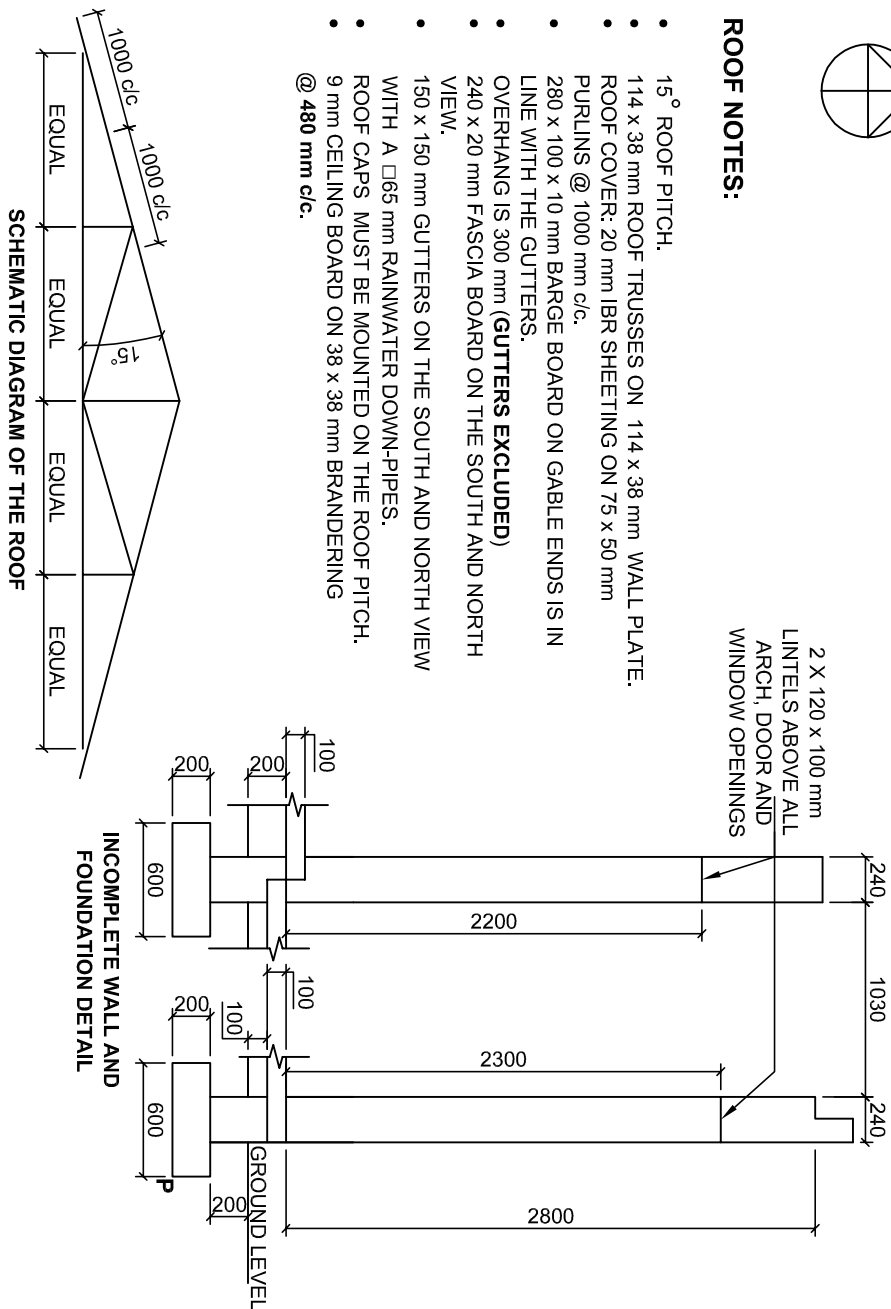


INCOMPLETE FLOOR PLAN

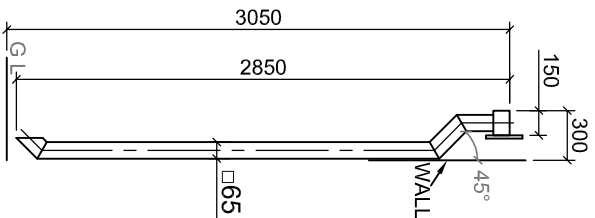


ROOF NOTES:

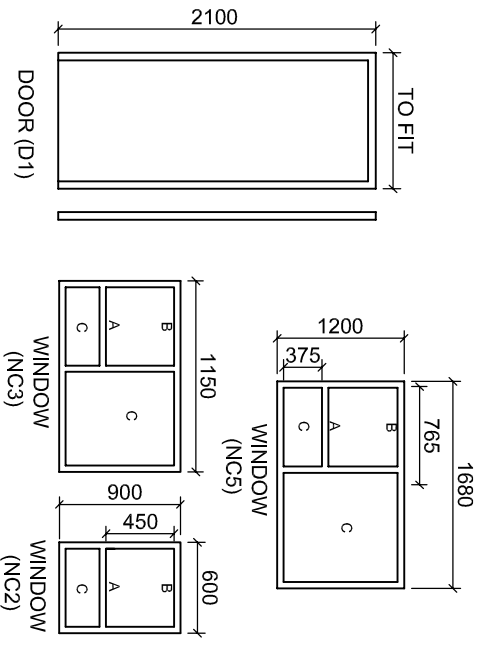
- 15° ROOF PITCH.
- 114 x 38 mm ROOF TRUSSES ON 114 x 38 mm WALL PLATE.
- ROOF COVER: 20 mm IFR SHEETING ON 75 x 50 mm PURLINS @ 1000 mm c/c.
- 280 x 100 x 10 mm BARGE BOARD ON GABLE ENDS IS IN LINE WITH THE GUTTERS.
- OVERHANG IS 300 mm (**GUTTERS EXCLUDED**)
- 240 x 20 mm FASCIA BOARD ON THE SOUTH AND NORTH VIEW.
- 150 x 150 mm GUTTERS ON THE SOUTH AND NORTH VIEW WITH A □65 mm RAINWATER DOWN-PIPES.
- ROOF CAPS MUST BE MOUNTED ON THE ROOF PITCH.
- 9 mm CEILING BOARD ON 38 mm BRANDERING @ 480 mm c/c.



RAINWATER ITEMS



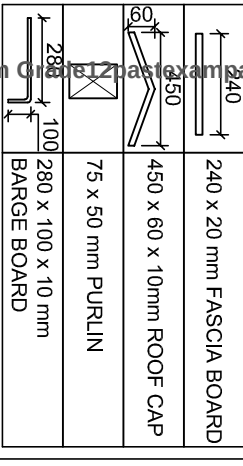
DOOR AND WINDOW SCHEDULE



WINDOW NOTES

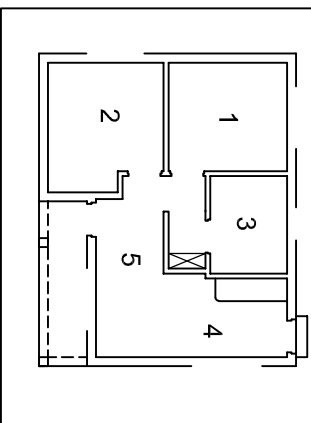
A = OPENING SIDE 150 x 20 mm FIBRE CEMENT SILL
B = HINGED SIDE UNDER ALL WINDOWS
C = FIXED PANE UNDER ALL WINDOWS

ROOF COMPONENTS

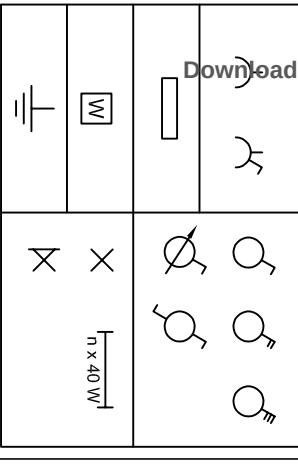


ROOM DESIGNATIONS AND FLOOR FINISHES

1. BEDROOM 1:
2. BEDROOM 2:
3. BATHROOM:
4. KITCHEN:
5. LIVING AREA:



ELECTRICAL SYMBOLS



SANITARY FIXTURES

