

**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 breakline 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:**

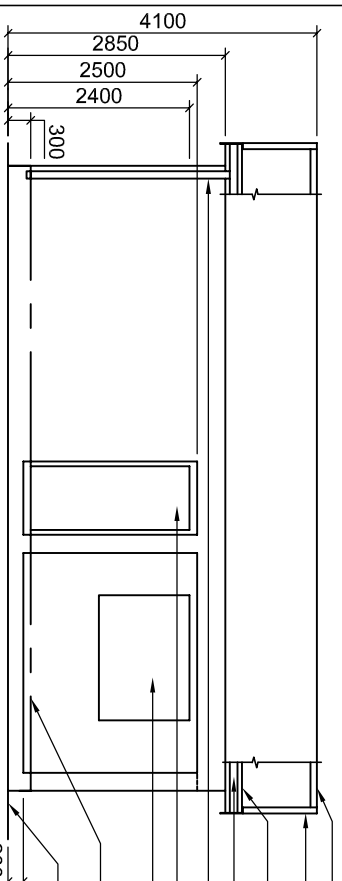
- The complete detail of the foundation, external walls with window and the opening on the porch as well as the lintels above the respective openings.
- The roof detail, including the barge board, fascia board and gutter.
- ALL hatching detail. **ONLY** the substructure hatching may be drawn in neat 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)

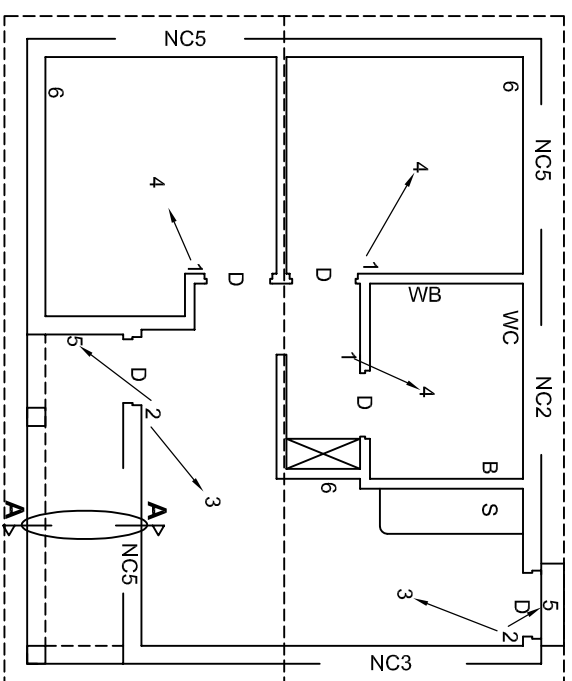
**NOTE:**  
ALL drawings must comply with the **guidelines** and **graphical symbols** as contained in the **SAANS 10143**.

[100]



**INCOMPLETE SOUTH VIEW**

- 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

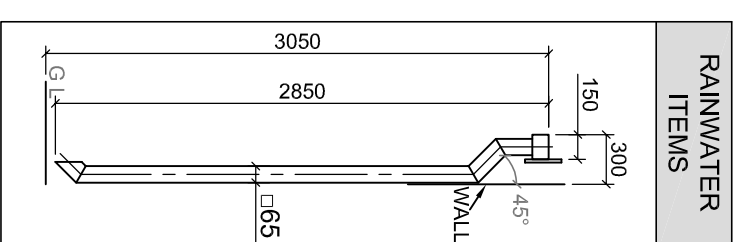


**INCOMPLETE FLOOR PLAN**

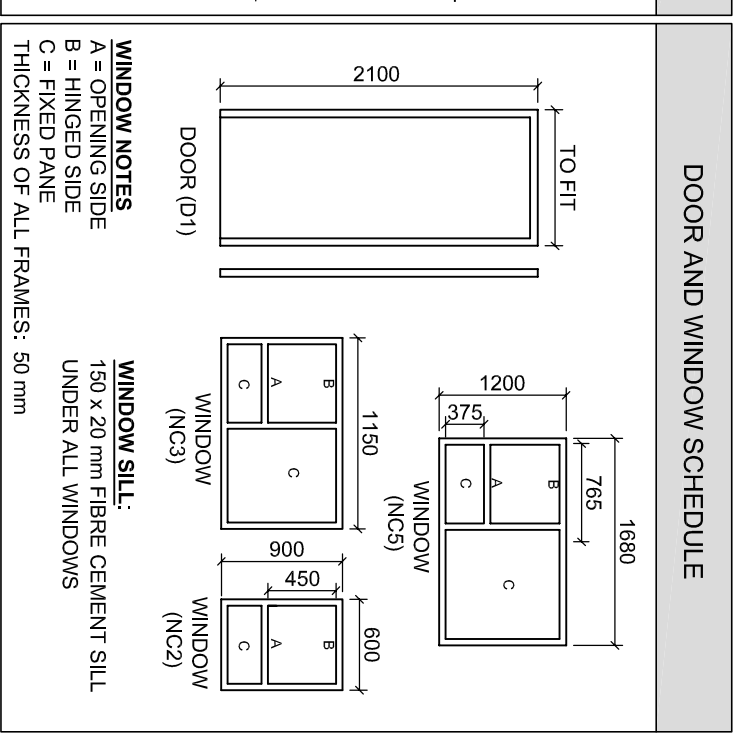
- FEATURES**
- D DOOR
  - NC2 WINDOW
  - NC3 WINDOW
  - NC5 WINDOW
- FIXTURES**
- WC TOILET
  - WB WASH BASIN
  - B BATH
  - S SINK

- ELECTRICAL FITTINGS**
1. LIGHT SWITCH: SINGLE-POLE
  2. LIGHT SWITCH: DOUBLE-POLE
  3. FLUORESCENT LIGHT 3 x 40 W
  4. CEILING LIGHT
  5. WALL MOUNTED LIGHT
  6. SWITCHED SOCKET OUTLET

**NOTE:**  
THE ARROWS ON THE FLOOR PLAN SHOW THE LIGHT CONNECTION TO THE SWITCH.



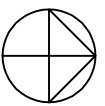
**RAINWATER ITEMS**



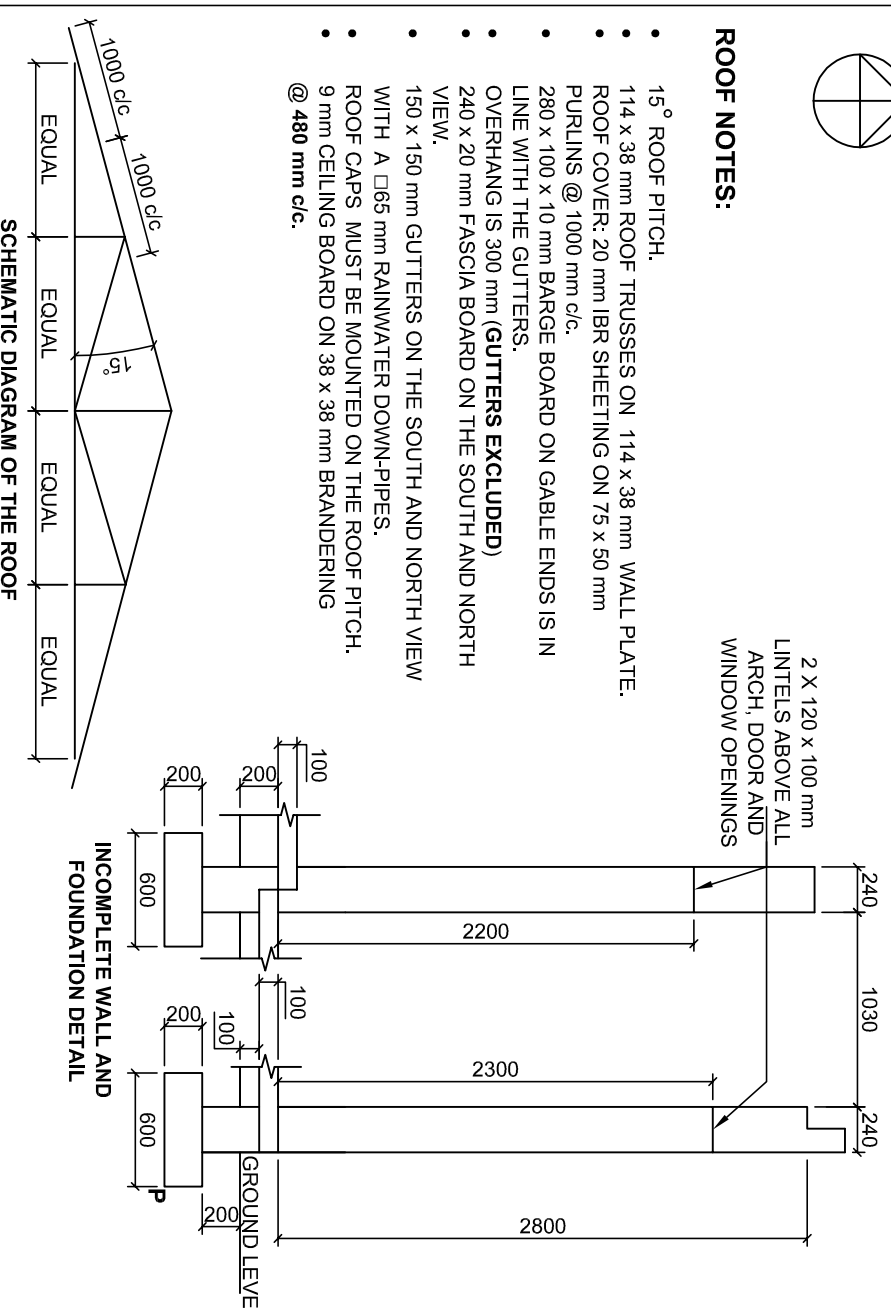
**DOOR AND WINDOW SCHEDULE**

**ROOF NOTES:**

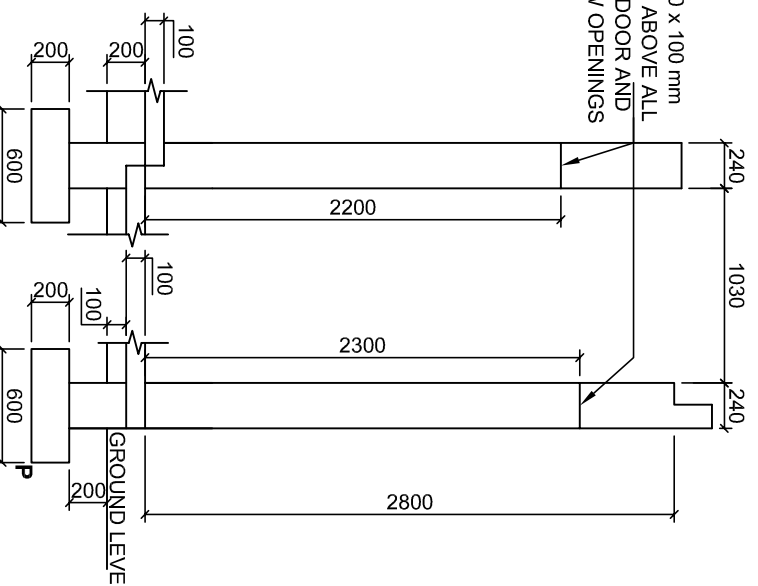
- 15° ROOF PITCH.
- 114 x 38 mm ROOF TRUSSES ON 114 x 38 mm WALL PLATE.
- ROOF COVER: 20 mm IBR SHEETING ON 75 x 50 mm PURLINS @ 1000 mm c/c.
- 280 x 100 x 10 mm BARGE BOARD ON GABLE ENDS IS IN LINE WITH THE GUTTERS.
- OVERHANG IS 300 mm (**GUTTERS EXCLUDED**)
- 240 x 20 mm FASCIA BOARD ON THE SOUTH 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 x 38 mm BRANDERING @ 480 mm c/c.



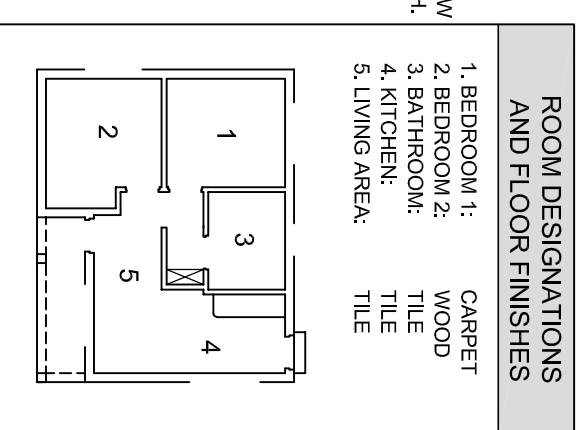
2 X 120 x 100 mm LINTELS ABOVE ALL ARCH, DOOR AND WINDOW OPENINGS



**SCHEMATIC DIAGRAM OF THE ROOF**



**INCOMPLETE WALL AND FOUNDATION DETAIL**

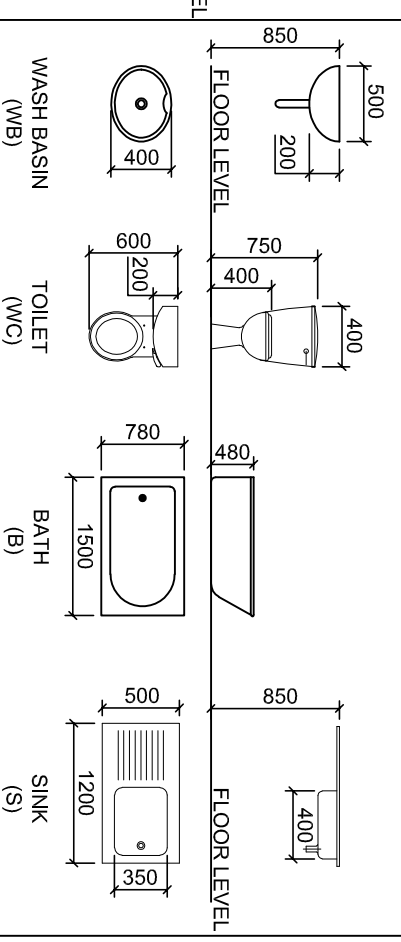


**ROOM DESIGNATIONS AND FLOOR FINISHES**

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

ROOF COMPONENTS	
	240 x 20 mm FASCIA BOARD
	450 x 60 x 10mm ROOF CAP
	75 x 50 mm PURLIN
	280 x 100 x 10 mm BARGE BOARD

**SANITARY FIXTURES**



**ELECTRICAL SYMBOLS**

