



PROGRAM : NATIONAL DIPLOMA
ENGINEERING: BUILDING

SUBJECT : **QUANTITY SURVEYING 1**

CODE : **FQSG11B**

DATE : NOVEMBER EXAMINATION
21 NOVEMBER 2016

DURATION : (SESSION 1) 08:30 - 11:30

WEIGHT : 40 : 60

TOTAL MARKS : 150

ASSESSOR : MR. BERENGER Y. RENAULT

MODERATOR : N. ANSARY

NUMBER OF PAGES : 24 PAGES INCLUDING THE COVER PAGE AND 4
ANNEXURES (15 dimension sheets for take off)

INSTRUCTIONS : ANSWER ALL QUESTIONS.

REQUIREMENTS : WRITING MATERIALS.

INSTRUCTION TO CANDIDATES

- SIGN AND DETACH ALL DRAWINGS, SCHEDULES AND HAND IN WITH FOLDERS
- The standard System and Model Bills is not to be used in the examination.
- ALL work is to be measured STRICTLY in accordance with the latest edition of the "Standard System of Measuring Building Work 7TH EDITION".
- Scaling will not be allowed unless dimensions are not given and could not be calculated.
- Where dimensions are not given they should be calculated or measured from the drawings.
- Candidates are to assume their own specifications where workmanship and/or materials that are not mentioned.
- In marking papers, 5% of the marks will be given for systematic and orderly method of "taking off", well referenced and accurate dimensions and clear descriptions of work.
- Work to be measured strictly in construction sequence.
- Squaring of dimensions is not required.
- Candidates are to round off all recorded dimensions to 2 decimal places.
- Use the provided dimension sheets to answer all questions.

QUESTION 1 – Descriptive Quantification

Refer to drawing QUSU 1/0-10A and demonstrate your ability to take off quantities for **superstructure brickwork** from the DPC. Do not deduct the brickwork openings to the doors and windows. Also, no face bricks measurement is required.

(26)

Masonry brickwork specifications

- All brickwork in clay stock bricks (1:5 cement mortar)
- Half brick walls: Stretcher bond, one brick wall: English bond.

Waterproofing

- 375 Micron Gundle Gunplas DPC on walls

[26]**QUESTION 2 – Descriptive Quantification**

Demonstrate your ability to take off quantities for the following parts of a roof by referring to drawing QUSU 1/0-10A all in accordance with the specification provided

2.1 Roof construction (20)

2.2 Roof covering (8)

2.3 Rain water goods (11)

Roof specifications

0,55mm “Chromadeck” Aluminum roof covering fixed to 50 x 75mm S.A.P timber purlins at 600mm centres on 38 x 114mm SAP trusses comprising of tie beam, rafters, King post, struts at 900mm centres on 38 x 114mm SAP wall plate, including 12 x 300mm SAP wrot timber fascia and barge board painted with 2 coats of white enamel paint. The gutter is 100 x 125mm galvanised steel with 100 x 100mm square down pipe clamped to wall having 300 x 450mm long precast concrete shoe at base.

[39]**QUESTION 3 – Descriptive Quantification**

With reference to drawing QS1B/2ST1, and the finishing schedule attached (**Two bed apartment finishing schedule**), measure the following finishes:

3.1 Ceiling finishes and cornice (17.5)

3.2 Wall finishes (17)

3.3 Floor finishes and skirtings (13.5)

[48]

TWO BED APPARTMENT FINISHING SCHEDULE					
	LIVING ROOM	BEDROOM 1	BEDROOM 2	BATHROOM	EXTERNAL WALL
CEILING FINISHES AND CORNICE					
6mm "Everite Nutecc" fibre cement board with 19 x 6mm wrot soft wood cover strips over joints on 38 x 38mm brandering @ 450mm centres. Finished with two coats interior quality PVA emulsion paint.	★				
12mm "Rhinoboard" gypsum plastered board on 38 x 38mm brandering @ 450mm centres. Finished with two coats interior quality PVA emulsion paint		★	★	★	
75mm coved Rhino ceiling. Paint with ceiling	★				
19 x 32mm Wrot Meranti rebated cornice with two coats of varnish paint		★	★	★	
WALL FINISHES					
18mm internal cement plaster (1:3) and three coats of PVA internal emulsion paint.	★	★	★	★	★
"Corobrick" satin Rustic Face brick (internal)	North wall to full height				
"Corobrick" Travertine Face brick					West & East wall 2100mm high from NGL
300 x 300 x 8mm White glazed ceramic wall tiles to 1850mm high fixed with approved adhesive				★	
FLOOR FINISHES					
300 x 300 x 3mm "MarleyFlex" semi-flexible vinyl floor tiles on 47mm screeded bed with two coats of wax polish on.		★	★		
Untinted granolithic floor finish 50mm thick	★				
300 x 300 x 12mm thick porcelain floor tiles on 38mm screeded bed				★	
19 x 75mm Wrot Meranti skirting with two coats of polyurethane varnish on.	★	★	★		

QUESTION 4 – Descriptive Quantification

4.1 Demonstrate your ability to take off quantities for the window on drawing no.98/11/6d. The specifications on the window schedule shall apply. Also measure window adjustments.

[35]**WINDOW SPECIFICATION****Frame:**

- NC2F galvanised mild steel residential type window with brass fittings, size 1022 x 949 high overall.

Finish:

- Prepare and paint one undercoat and two coats high gloss enamel paint.

Glass:

- 4mm clear float glass to steel windows with putty

Glass Size:

- 463 x 584mm: 1 No
- 438 x 263mm: 1 No
- 438 x 854mm: 1 No

Cill:

- External: 15mm x 150mm wide fibre cement cill set sloping and painted with one Coat undercoat and two coats exterior
- Internal: Flat cement plaster cill with pant as per wall finish

Wall Finish:

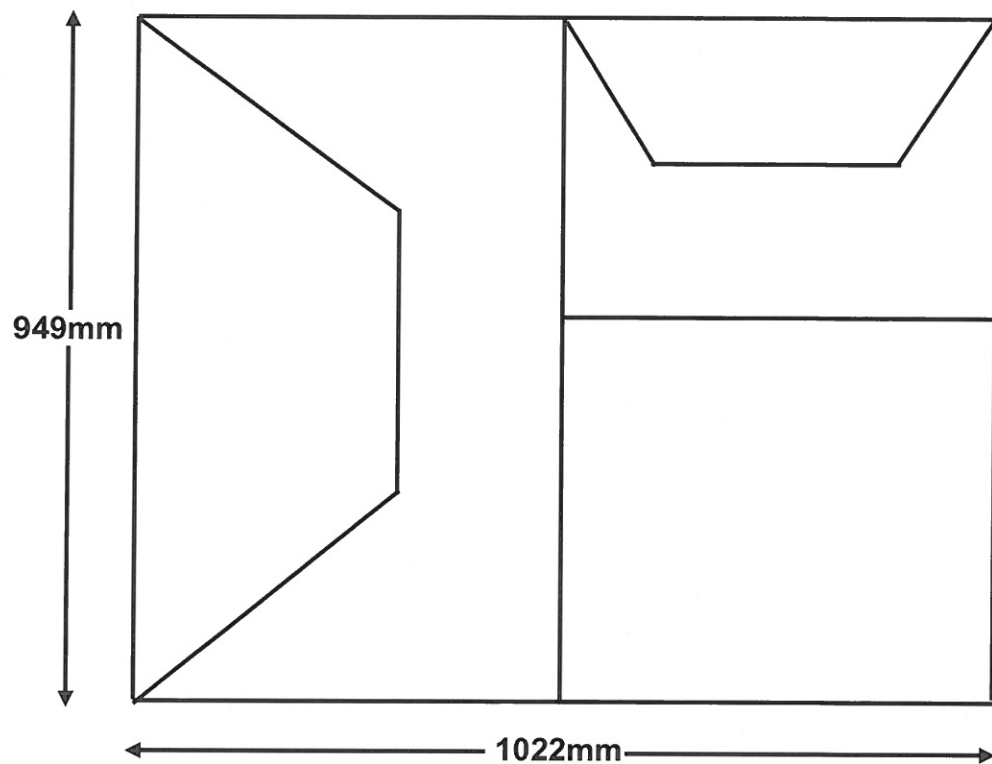
- External: 15mm cement plaster (1:3) and filler coat and two coats exterior
Quality PVA paint.
- Internal: 15mm cement plaster (1:4) and filler coat and two coats interior
Quality PVA paint.

Wall Thickness:

- 230mm in 1:4 cement mortar in stretcher bond in concrete stock bricks

Lintol:

- 2 No. x 75 x 108mm precast concrete lintols.



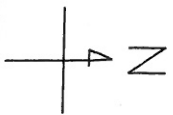
SCHEDULE OF WINDOWS

No required: 5

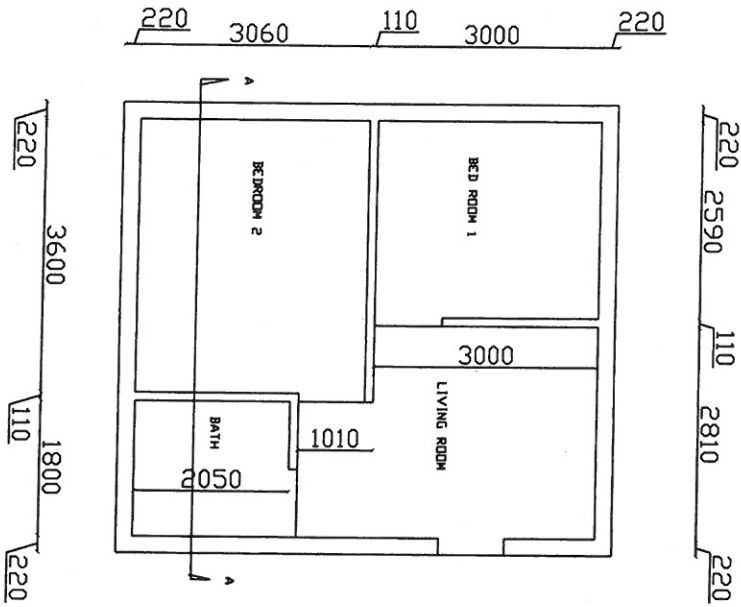
Window: W1

Type: WA

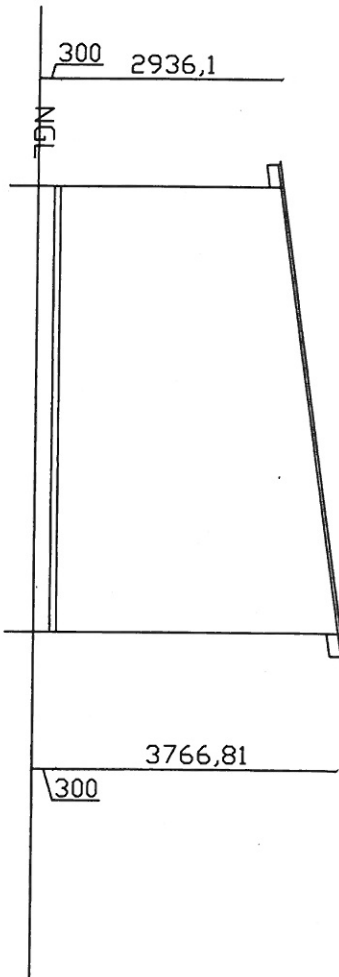
Drawing No.98/11/6d



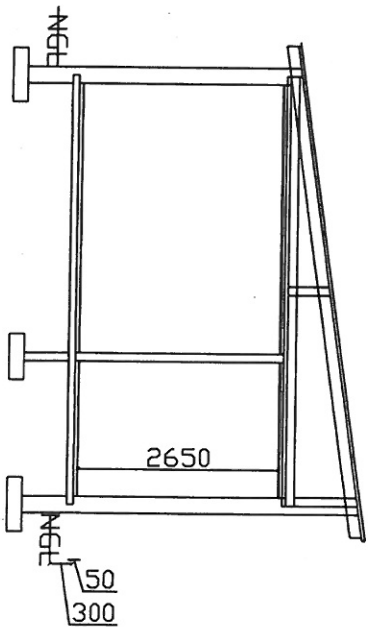
PLAN



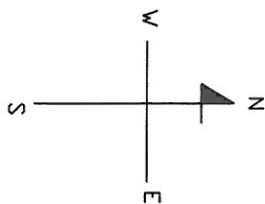
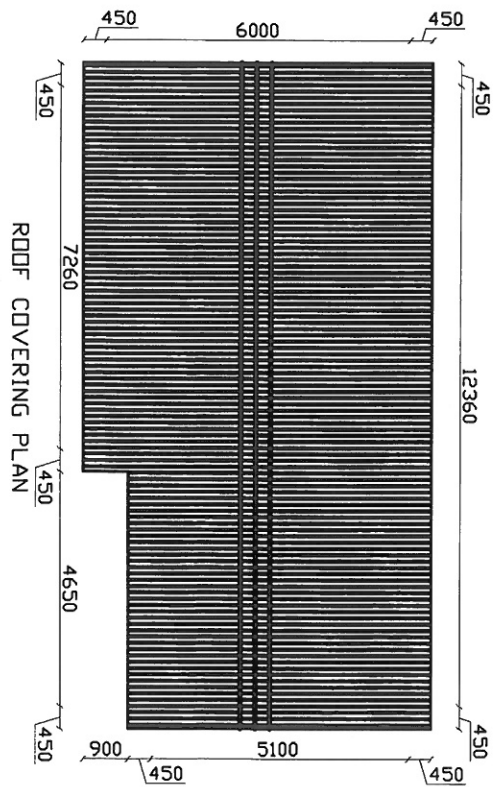
TYPICAL SIDE ELEVATION



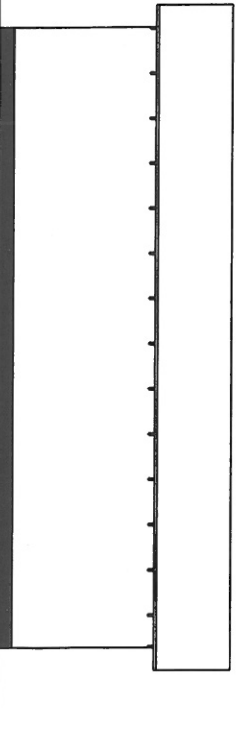
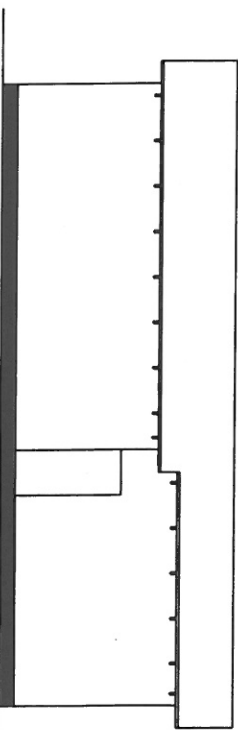
SECTION A-A



SCALE 1: 100



0.55mm Chromadek Aluminium Roof Covering
With 600mm wide Ridge Cap
Dn 50 x 75mm Sawn Timber Purlins
Dn 38 x 114mm Sawn Timber Rafters
38 x 114mm Sawn Timber King post
38 x 114mm Sawn Timber Struts
38 x 114mm Sawn Timber Wall Plate
38 x 114mm Sawn Timber Tie beam



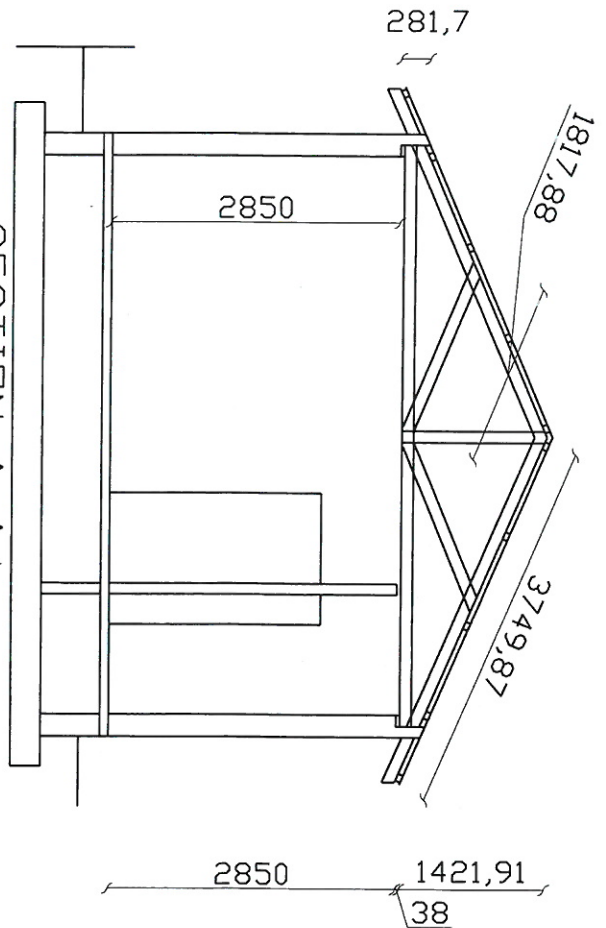
SOUTH ELEVATION

SCALE 1:150

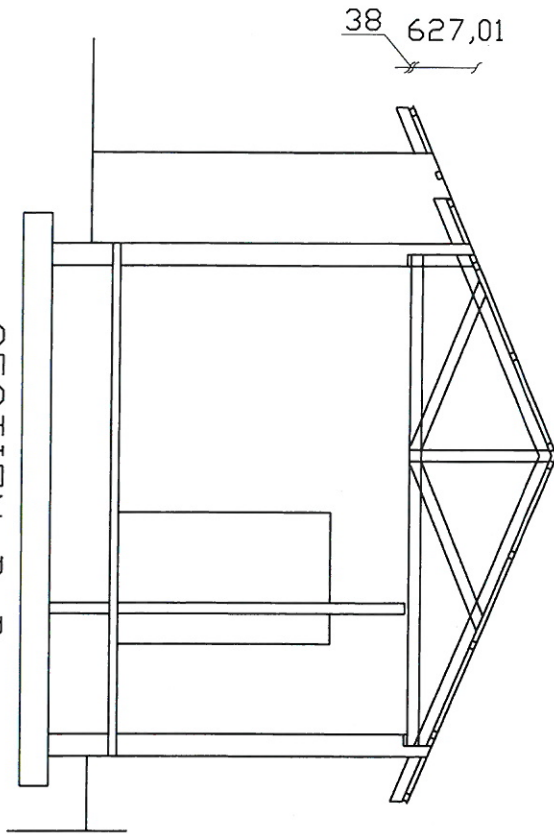
NORTH ELEVATION

Residential Development for Mr & Mrs Tsepo
Drawing No: QUSU 1/0-10A

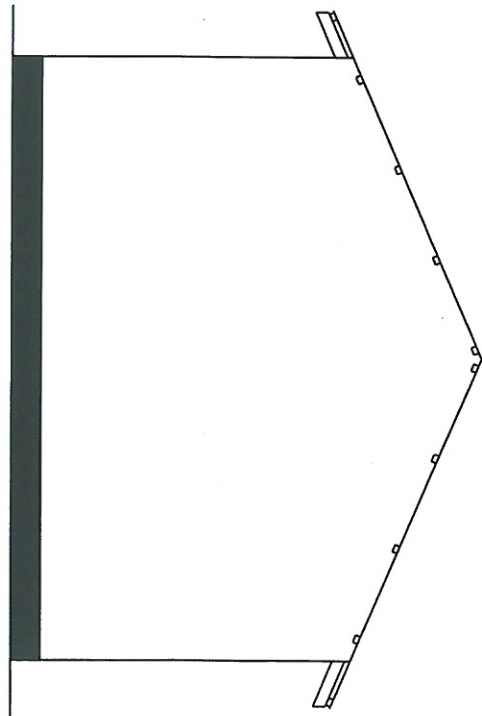
SECTION A-A



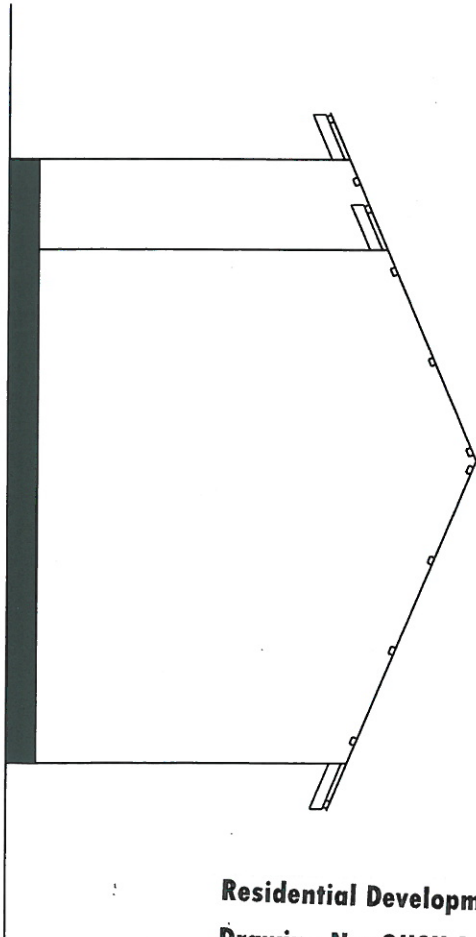
SECTION B-B



ELEVATION WEST



ELEVATION EAST



SCALE 1:75

Residential Development for Mr & Mrs Tsepo
Drawing No: QUSU 1/0-10A



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....



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Dimension paper

Student No.....

Dimension paper with vertical lines for writing.



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....



Student No.....