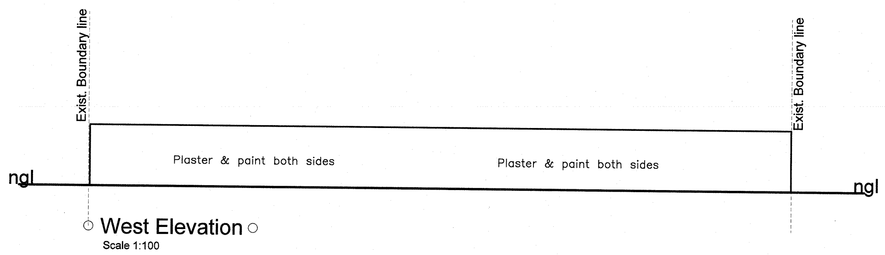
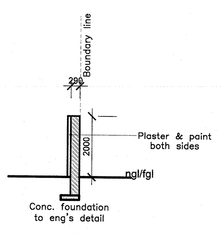
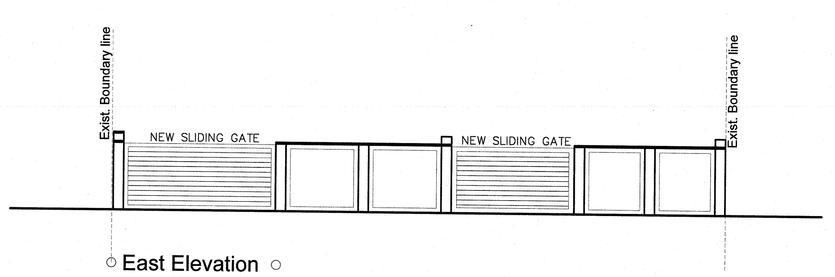


○ West Elevation ○
Scale 1:100



○ Section z - z ○
Scale 1:100



○ East Elevation ○
Scale 1:100

○ (Studio Apartments) ○

ENERGY CONSUMPTION
176sqm x 5w/h/m = 880kwh
No. OF LIGHTS 17 x 11watts = 187watts

LIGHT USAGE
MORNING 2hrs & EVENINGS 4hrs=6hrs

ANNUAL USAGE
6hrs x 7days x 48weeks= 2016hrs/anum

ENERGY DEMAND
ANNUAL CONSUMPTION 187hr x 2016 x 880kwh

RESULTS
MAX. ENERGY DEMAND = 187watts
MAX. ENERGY CONSUMPTION = 880kwh
ACHIEVED DEMAND (187) LESS THAN PERMITTED
ACHIEVED CONSUMPTION = 187kwh IS LESS THAN 880kwh

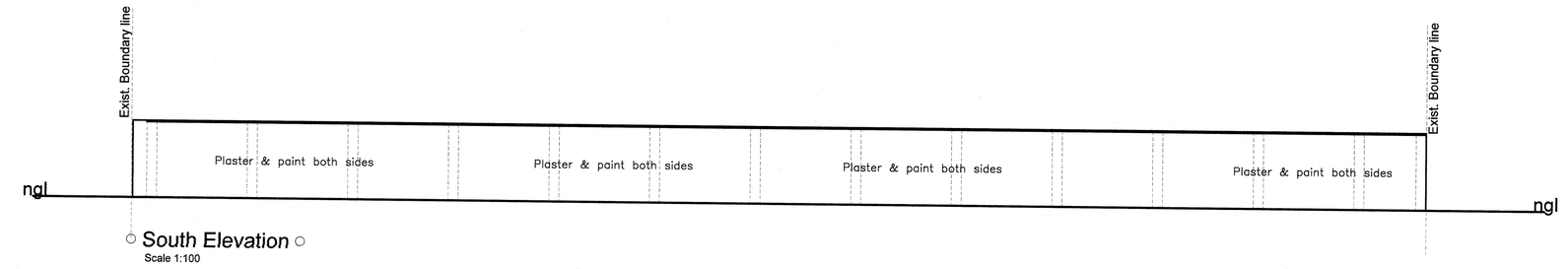
WALLS
MIN. R. VALUE = 0.35sqm/kw
SINGLE LEAF MASONRY WALL THICKNESS 230mm Plastered INTERNALLY AND EXTERNALLY

HOT WATER SUPPLY
STORAGE CAPACITY - 150L x 2
NUMBER OF PERSONS - 10
25mm dia. COPPER PIPE TO BE MIN. R. VALUE OF 1.00
PIPE TO BE INSULATED WITH 50mm FIBRE GLASS
INSULATION TO COMPLY WITH SANS I307, SANS10106
50% OF HOT WATER BY SOLAR SYSTEM

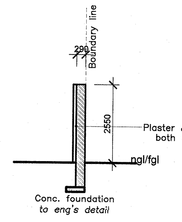
ROOF ASSEMBLES
MIN. TOTAL R-VALUE - 2.7m2/kw
DIRECTION - DOWN
ZONE - 5
OUTDOOR AIR FILM (MOVING AIR) R. VALUE=0.03
ROOFING MATERIAL - R. VALUE 0.02
ROOFING AIR SPACE (unventilated) - R. VALUE 0.18
FLEXI FIBRE GLASS BLANKET - R. VALUE 2.31
INDOOR FILM (still air) - R. VALUE=0.11

Energy Demand Allowed 5kWh per sqm
= net area x 5
= 275.120sqm x 5
= 1375.6kWh
Energy Consumption
(365 days x 7hrs per day)x(20lights x 11watts)
=365 x 220watts/7hrs/1000
=562.10kWh
Consumption of 1375.6kWh< 562.10kWh (demand)

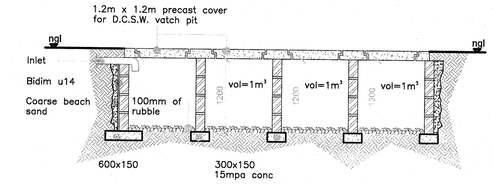
POWER AND LIGHT CALCULATION
OCCUPANCY - H4
FLOOR AREA - 195.181sqm



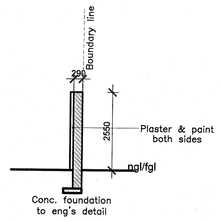
○ South Elevation ○
Scale 1:100



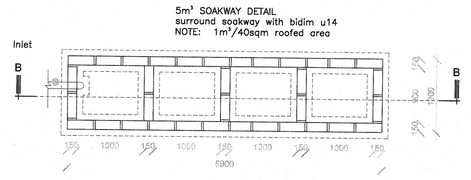
○ Section j - j ○
Scale 1:100



○ Section B - B ○
NTS:



○ Section f - f ○
Scale 1:100



○ Ground Floor Plan ○
NTS:

NOTES:
1. THE DESIGN ON THIS DRAWING IS COPYRIGHT AND REMAINS THE PROPERTY OF C. PROJECTS & ARCHITECTURAL CONSULTANTS (PTY) LTD.
2. 2. ALL WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS, NATIONAL BUILDING REGULATIONS, AND THE SANS 10400 STANDARDS.
3. THIS DRAWING MAY NOT BE SCALED. ONLY FIGURED DIMENSIONS AND LEVELS MAY BE USED.
4. ALL RELEVANT DETAILS, LEVELS, DIMENSIONS MUST BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE ARCHITECTS OFFICE IMMEDIATELY.

A. ROOF:-
1. See section A - A.
2. Reinforced concrete deck to engineers details with slimline coping.
3. All rainwater goods and fascias to be fibrecement.
4. Ceilings to be 9mm gypsum board and painted with coved cornices.
5. Derbigum waterproofing with 10year guarantee with screed laid to fall
6. Waterproofing to be covered with 50mm layer of 20mm of white gravel.

B. WALLS:-
1. Two courses of brickwork to be reinforced with brickforce. Solid cement mortar joint below wallplate level, above window head level and below window cill level.
2. Unplastered external walls to be bagged and bitumen painted between skins.
3. All brickwork below ground level to be bricks recommended for the purpose by the manufacturer.
4. Galvanised wire ties to be built into all 230 cavity walls at 800 centres horizontally and every 6th course vertically.
5. Gundle 'brickgrip' DPC's to be provided over all slabs, under all cills, parapets and elsewhere as required by the local authority and in accordance with NBR and window systems.
6. Galvanised steel coil outguards, lapped and soldered at joints to be to local authority requirements.
7. Two vermin-proofed airbricks to be provided in the external walls of all habitable rooms.
8. Joints in facebrick to be pointed square 'raked' unless otherwise specified on drawing.

C. SURFACE BEDS:-
1. Surface beds to be 150mm concrete of mix not weaker than 1:3:6 by volume, reinforced with BRC mesh at 300 centres in both directions.
2. Surface beds to be laid on Gundle UF5 green membrane on ground poisoned by specialist to SABS requirements.

D. SUSPENDED FLOORS AND R/CONCRETE:-
1. 300mm reinforced concrete slab to be built strictly in accordance with professional structural engineer's details under his supervision.
2. Finish to be plastered unless otherwise noted.

E. RETAINING WALLS:-
1. To be built strictly in accordance with professional structural engineer's details.
2. Vertical tanking behind all retaining walls to be Gundle *hyperlastic* 500micron membrane installed under manufacturers supervision.
3. All retaining walls to be provided with agricultural drains behind and below slab level, graded to fall to surface water disposal system.

F. BOUNDARY WALLS:-
1. *No part of boundary walls or their foundations are to project beyond the property boundaries.*
2. Walls spanning servitudes to be built on RC groundbeams to professional engineer's details.
3. Boundary wall footings parallel with servitude must not project more than 370mm into servitude.
4. All boundary walls to have copings.

G. DRAINAGE:-
1. The contractor is required to ensure that he installs necessary stormwater and/or sewer connections before drainage work commences. It is therefore the contractors responsibility to ensure adequate falls to these connections.
2. Approval for the siting of soakpits together with any percolation tests must be conducted by the contractor before commencing any building work.
3. The contractor is responsible for ensuring that stormwater damage to the work in progress or the neighbouring properties does not occur during construction and that the surface water drainage is adequate.
4. All sanitary fittings to be trapped and/or vented to local authority requirements.
5. All bends and junctions in drains to be provided with inspection eyes at 25m centres.
6. Adequate access panels to be fitted in all ducts over inspection eyes.

H. DOORS AND FRAMES:-
1. External frames to be dark brown anodised aluminium sections.
2. Internal frames to be timber in solid meranti.
3. External doors to be aluminum and hardwood.
4. Internal doors to be flush panel semi hollow core faced in.
5. Doors in timber to be provided with 1 pair(external) and 1.5 pair(external) 100mm brass butt hinges and lockset.

I. WINDOWS:-
1. Windows to be dark brown anodised aluminium with clear glazing in all areas except ablutions.
2. Windows to be natural anodised aluminium with frosted glazing in all ablutions.
3. All new windows to be taped for protection.
4. All new windows to AAMSA & SAGGA regulations

J. GLAZING:-
1. All glazing is to be accordance with NBR 0400.
2. Glazing to bathrooms to be solar clear glass and WC's to be in grey obscure glass.

K. SITING AND EXCAVATIONS:-
1. All boundary beacons are to be flagged by a registered land surveyor and the contractor is to obtain a certificate stating that the work has been correctly set out before proceeding with excavations.
2. Contractor is to check all dimensions and levels before commencing work and report any discrepancies to drawing service.
3. Contractor is to confirm and ensure correctness of floor and entrance levels physically on site with local authority inspector before commencing work.
4. If the site is found to contain clay, shale, ground water or any other suspect soil condition, then all foundations are to be to professional engineer's details and built under his supervision.
5. All foundations to be taken to hard, virgin ground. No back filling over excavated areas will be permitted.
6. Foundation depths to be determined on site.

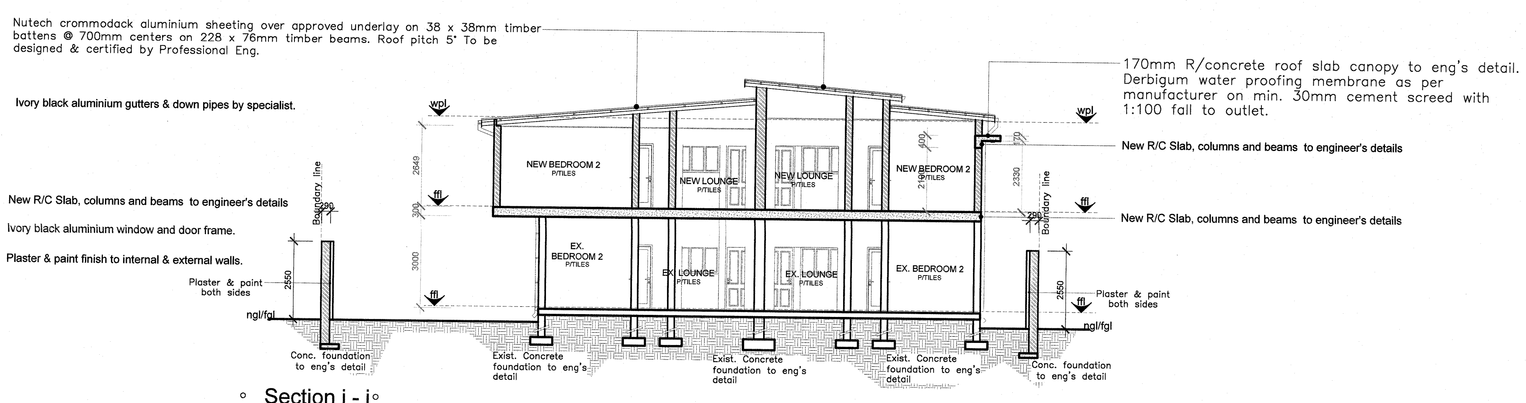
L. LOCAL AUTHORITY:-
1. The owner is responsible for all local authority notices and fees.
2. The owner is required to obtain all necessary connections to services.
3. Where local authority or government regulations require more stringent specification than shown herein, they are to be followed with prior consent of the owner.
4. The contractor is to inspect the official approved copies of the drawing to ensure that all ammendments have been taken into account.
5. All NBR and SABS standards and specifications are to be adhered to as a minimum standard and good construction principles.
6. All levels are approximate.

M. GENERAL:-
1. This drawing is to read in conjunction with the engineer's drawings, the electrical layout, the key to the electrical layout, the schedule of finishes and details.

N. NOTES TO OWNER:-
1. The attention of the owner is drawn to the fact that changes to the plan and/or specifications after official approval are likely to invalidate that approval.

O. ARCHITECTS ADDITIONAL STD.
RECOMMENDED SPEC:-
1. All foundations reinforced and compacted hardcore to 99% modashto.
2. All brickwork to be cross-bonded every 4 courses vertically, namely plastered and painted houses.
3. Skirting to be 100mm Meranti with quadrant.
4. External cills to be glazed with drip (250 Micron DPC under).
5. Internal cills must be meranti with trim.
6. All aluminium windows to be sealed around edges with Polysulphide sealant.
7. All window heads to have drip groove.
8. All parapets walls to have coping with drip groove with 250 micron DPC under. (coping to be impervious to water)
9. All gutters to be guaranteed for 10 years.
10. All flat roof parapets to have build-on Aluminium edge trim.
11. All walls to have coping with drip fall away from face with drip mould on soffit.
12. Outer face of limesklin to be bagged and sealed. If not 30mm cavity to used.
13. All plaster work to be done in a 3 to1 plaster mix in accordance to CSIR standards.
14. Plaster to have a water proof agent.
15. Fresh plastered wall to have Silbrol or equal with sealant sprayed on.
16. Undercoat to be Plascon plaster primer - 2 coat finish to be Plascon Walls.
17. All work to be in compliance with minimum regulations of the NHBRC.

P. GREEN NOTE:
SANS 10400
a) ROOF
All roof spaces to be insulated with either : 1.1 Mega Pink insulation or sisilation equal approved
b) GEYSERS
1.1 All new geysers must be solar paneled with an in roof geyser.
1.2 existing geyser must must have a geyser blanket
c) ELECTRICAL
1.1 All DB boards to be fitted with a timer for all new and existing geysers
d) WINDOWS
1.1 All windows to be aluminium/timber with min 4mm glazing,all systems to be properly sealed
e) WALLS
1.1 All walls to be cavity wall construction



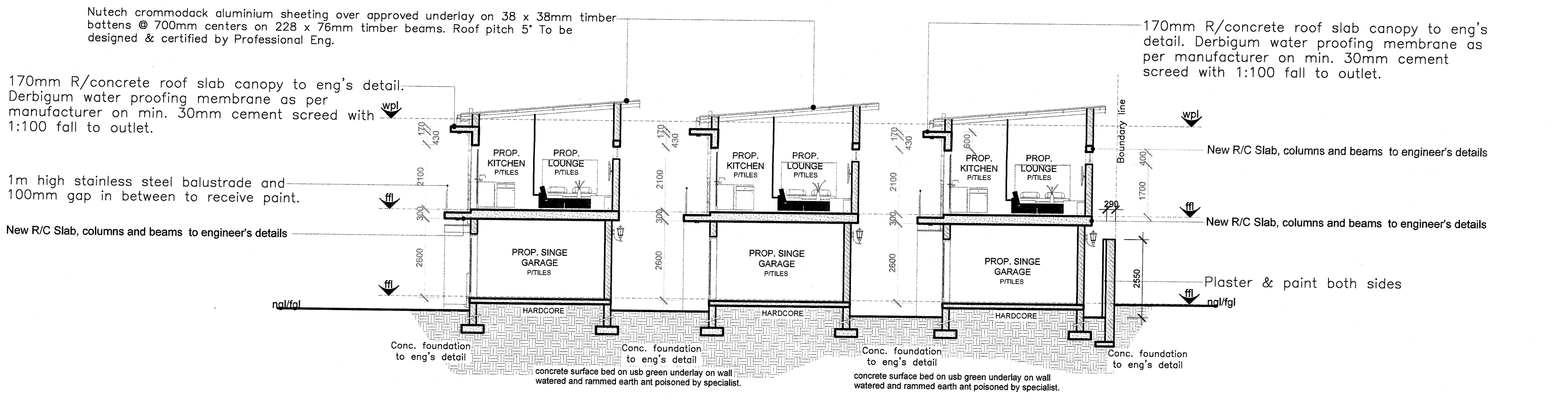
○ Section A - A ○
Scale 1:100

○ WINDOW SCHEDULE ○
○ (Studio Apartments) ○
SCALE 1:100

	W1	SD1	W2	W3	W4	W5	W6
lintel level							
fgl	1500 x 1500mm	2.1 x 1.850m	1.6 x 1.7m	800 x 1150mm	600 x 600mm	400 x 2000mm	800 x 600mm
	Prop. Bedrooms 2 : 3	Prop. Lounge (Sliding door) : 1	Prop. Lounge (top window) : 1	Prop. Kitchen : 1	Bathroom : 1	Prop. Lounge (top window) : 1	Garage : 2
Material	5mm monolithic annealed glass	8mm safety toughened glass	6mm safety toughened glass	5mm monolithic annealed glass	6mm safety toughened glass	6mm safety toughened glass	6mm safety toughened glass
Type of Frame	Bronze Aluminium	Bronze Aluminium	Bronze Aluminium	Bronze Aluminium	Bronze Aluminium	Bronze Aluminium	Bronze Aluminium
Area	2.25sqm	3.885sqm	2.72sqm	1.35sqm	0.92sqm	0.80sqm	0.48sqm
Total Area	2.25sqm	3.885sqm	2.72sqm	1.35sqm	0.92sqm	0.80sqm	0.48sqm

Total Glazing	= 13.782sqm
Total Net floor Area	= 84.606sqm
	= 91.181sqm

T.W.A /N.F.A + 100
35.99/209.118 x 100 = 17.2% acceptable



○ Section A - A ○
Scale 1:100

General Notes:
- All dimensions and levels to be checked on site
- All dimensions and levels are to be taken from drawing
- Glazing exceeding 1sqm or less than 500mm from FFL to be safety glazed

Structure to comply with part H,J,K,L or N of SANS 10400
Public safety to comply with SANS 10400 - Part D
Foundations to comply with SANS 10400 - Part H:
- Reinforced concrete foundations to structural engineers detail

Floors to comply with SANS 10400 - Part J:
- Finish as per specifications on cement screed on 100mm concrete surface bed with BRC mesh on 250 micron gunplas green underlay on well compacted and poisoned soil. Soil poisoning by specialist to local authority's requirement
- DPM to be well lapped tp brick wall DPC
- All suspended reinforced concrete slabs by engineer

Walls to comply with SANS 10400 - Part K:
- Two courses of brickwork to be reinforced with brickforce. Solid cement motar joint below wallplate level,above window and below window sill level
- Unplastered external walls to be bagged and bitumen painted between skins
- All brickwork below NGL to be bricks recommended for purpose by manufacturers
- Galvanised wire ties to be built into all 230mm cavity walls at 800centres horizontaly and every 6th course vertically
- Parapet wall finished with water proofing membrane on top

Roof to comply with SANS 10400 - Part L:
- Timber roof structure to engineer's detail and specifications

Glazing to comply with SANS 10400 - Part N
- Windows – all new windows to be powder coated aluminium sections glazing to comply with part N of SANS 10400
- Clear glazing throughout
- Safety glass to windows and doors to comply with SANS 10400 & AAAMSA association
- Windows & doors to be installed by specialist

Lighting & Ventilation to comply with SANS 10400 - Part O:

OFFICIAL STAMPS

AREA SCHEDULE

SITE AREA	-	906m2
PROP. COVERAGE	-	70.592m2
EXIST. COV	-	247.120m2
TOTAL. COV.	-	317.172m2
PROP. FAR	-	355.064m2
EXIST. FAR	-	247.120m2
TOTAL. FAR	-	602.184m2

AUTHOR'S SIGNATURE:

OWNERS SIGNATURE:
MAHMOUD ALIYARU ADAMS
FATIMA ADAMS

Project & Site Description:
RESIDENTIAL UNITS.
PROP. ADDITION & ALTERATIONS TO THE EXISTING STRUCTURES FOR MR.M.R. ADAMS, AND FATIMA ADAMS

ERF NO. PTN 62 OF ERF 600 BLUFF
20/42 PITMAN ROAD, BLUFF.
BLUFF.

DATE :	SCALE :	CAD CODE :
24/09/2021	1:100	

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