



FENESTRATION DETAILS

WINDOW CODE	TYPE	NO. OF	AREA	NET FLOOR AREA OF FIRST FLOOR	PERCENTAGE OF AREA
FF1	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF2	Wood framed	1	1800 x 1800	1800 sqm.	4.4%
FF3	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF4	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF5	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF6	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF7	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF8	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF9	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF10	Alum. framed	1	1800 x 1800	1800 sqm.	4.4%
FF11	Wood framed	1	1800 x 1800	1800 sqm.	4.4%
FF12	Wood framed	1	1800 x 1800	1800 sqm.	4.4%

CONDUCTANCE - CONSTANT = 173,283 X 1.4 = 242,610

CONDUCTANCE ACHIEVED = (18.68867.9) + (18.1705.6) = 238,187

Acceptable

Orientation	North	North	North	North	East	East	East	South East	South	South	South	South	West	West	West
Orientation	North	North	North	North	East	East	East	South East	South	South	South	South	West	West	West
Window Code	FF3 a	FF3	FF1	FF2	FF11	FF4	FF9	FF10	FF5	FF6	FF2	FF7	FF8	FF8	FF8
G-Value	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370	1.370

FENESTRATION DETAILS

WINDOW CODE	TYPE	NO. OF	AREA	NET FLOOR AREA OF GROUND FLOOR	PERCENTAGE OF AREA
GF1	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF2	Wood framed	1	1800 x 1800	1800 sqm.	0.58%
GF3	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF4	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF5	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF6	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF7	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF8	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF9	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF10	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF11	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%
GF12	Alum. framed	1	1800 x 1800	1800 sqm.	0.58%

CONDUCTANCE - CONSTANT = 107,849 X 1.4 = 151,126

CONDUCTANCE ACHIEVED = (7.9287.29)+(15.126.61) = 146,228

Acceptable

Orientation	North	North	North	North	East	East	East	South East	South	South	South	South	West	West	West
Orientation	North	North	North	North	East	East	East	South East	South	South	South	South	West	West	West
Window Code	GF1	GF3	GF2	GF2	GF3	GF4	GF5	GF6	GF5	GF6	GF7	GF8	GF7	GF7	GF7
G-Value	4.450	0.800	0	0	0	0	4.450	4.450	4.450	4.450	4.450	4.450	4.450	4.450	4.450

GLAZING DETAILS

Glass Refining	Height	Width	Area sqm.	Type of glass	Thickness
1	750	675	0.506	Monolithic annealed	3mm
2	300	675	0.202	Monolithic annealed	3mm
3	1800	750	1.35	Laminated safety	6mm
4	820	400	0.328	Toughened safety	4mm
4b	750	450	0.337	Monolithic annealed	3mm
5	450	500	0.225	Monolithic annealed	3mm
6	1100	500	0.550	Laminated safety	6mm
7	1100	1100	1.210	Laminated safety	6mm
8	600	550	0.330	Monolithic annealed	3mm
9	400	550	0.220	Monolithic annealed	3mm
10	1800	400	0.780	Laminated safety	6mm
11	1100	450	0.485	Monolithic annealed	3mm
12	450	450	0.202	Monolithic annealed	3mm
13	750	350	0.262	Monolithic annealed	3mm
14	1800	1300	2.340	Laminated safety	6mm
15	550	450	0.247	Laminated safety	6mm
16	650	500	0.325	Laminated safety	6mm
17	1800	800	1.440	Laminated safety	6mm
18	450	400	0.180	Monolithic annealed	3mm
19	500	500	0.250	Monolithic annealed	3mm
20	1100	625	0.687	Monolithic annealed	3mm
21	450	550	0.247	Monolithic annealed	3mm
22	1800	950	1.530	Laminated safety	6mm
23	1800	1300	2.340	Laminated safety	6mm
24	500	500	0.250	Monolithic annealed	3mm
25	250	500	0.125	Monolithic annealed	3mm
26	820	650	0.533	Monolithic annealed	3mm
27	750	450	0.337	Toughened safety	4mm
28	750	350	0.262	Monolithic annealed	3mm

- NOTES TO ALTERATIONS & ADDITIONS
- EXISTING SINGLE STOREY DWELLING, GARAGE & STORE - TILE ROOF TO BE REMOVED AND CAST OVER EXISTING GROUND FLOOR
 - NEW ADDITIONS, GARAGE AND STORE
 - ALL EX. SUSPENDED WOODEN FLOORS AT GARAGE LEVEL TO BE DEMOLISHED AND NEW FLOOR SUPPORTED ON GROUND CAST SPECIFICATION AND NOTES TO CONSTRUCTION
- CLIMATIC ZONE 5
- WALLS
 - MASONRY WALLS
 - EXTERNAL WALL - 220MM COLLAR JOINTED DOUBLE SKIN PLASTERED INTERNALLY AND EXTERNALLY WITH A MIN. RAUVALE OF 0.25
 - INTERNAL WALLS - 110MM COLLAR JOINTED PLASTERED INTERNALLY AND EXTERNALLY
 - ORIENTATION
 - ROOF
 - 1100MM SOLID REINFORCED CONCRETE ROOF - TO PROFESSIONAL ENGINEERS DETAIL
 - 170MM SOLID CONCRETE ROOF - RAUVALE 0.119
 - OUTDOOR AIR FILM 0.030
 - 4MM WATERPROOF MEMBRANE 0.030
 - INDOOR AIR FILM - STILL AIR 0.180
 - TOTAL RAUVALE 0.339
 - FLOORS
 - 4.1 100MM SOLID CONCRETE SLAB ON GROUND REINFORCED WITH WELDED BRG WIRE MESH ON 250M MICRON UNDERLAY. SOIL PENDING TO BE APPLIED.
 - 4.2 GROUND FLOOR INTERIORS AND SULLERY TO BE IMPERVIOUS. FLOORS TO BE FINISHED WITH WATER-PROOFED MATERIAL E.G. CERAMIC TILES ETC.
 - 4.2 FLOOR SLAB TO ENGINEERS DETAIL.
 - 4.3 FLOORS SUPPORTED ON GROUND
 - 4.3 FORMS AN INTEGRAL PART OF THE FOUNDATION SYSTEM.
 - 2. OF 3.5M AND PASSES OVER AND IS SUPPORTED BY FOUNDATION WALLS.

- FLOOR CONSTRUCTION LEVEL
 - FLOOR OVERLAP PROVIDED AT JOINTS
 - REINFORCEMENTS BY PIPES, PLUMBING FITTINGS AND PUNCTURES TO BE PAVED WITH A PRESSURE SENSITIVE APPROVED PAVE.
 - TO CONTAIN LITTLE OR NO ORGANIC MATERIAL
 3. MAXIMUM OF 10% ROCK OR HARD FRAGMENTS RETAINED BY A SIEVE OF NOMINAL APERTURE SIZE OF 50MM.
 - 7.5 FILLING TO BE PLACED IN LAYER OF 100MM FOR HAND
 - 7.6 FILLING TO BE COMPACTED LAYER BY LAYER.
 - 7.10 FILLING TO BE COMPACTED LAYER BY LAYER.
 - 7.11 GIML REINFORCED TO TO DESIGN AND INSPECT AS FILLING EXTENDS 400MM.
5. FENESTRATION AND SOLAR HEAT GAIN ACCEPTABLE CALCULATIONS PROVIDED IN TABLE
6. ENERGY CONSUMPTION & ENERGY DEMAND
- NET FLOOR AREA GROUND FLOOR 107.849
- NET FLOOR AREA FIRST FLOOR 173.283
- TOTAL NET FLOOR AREA 281.242
7. LIGHTS
- ENERGY DEMAND
- ALLOWED 30W/m²
- = 281 sqm. x 30W/m²
- = 8436W/m
- ENERGY CONSUMPTION
- (hours per year) x (no. of lights)
- = (365 days x 5 hours per day) x (48 lights x 11 watts)
- = 927000 watt hrs. (0.258 kWh)
- = 528 kWh
- CONSUMPTION OF 528 kWh < 1405 kWh
- ACCEPTABLE CONSUMPTION
- HOT WATER SERVICES
 - HOT WATER SERVICES
 - HOT WATER SERVICES
 - WATER OF AVERAGE ANNUAL HOT WATER DEMAND
 - DWELLING HOUSE & BEDROOMS
 - HOT WATER DEMAND 140 LITRES X 3 PEOPLE = 1120 LITRES PER DAY
 - GEYSER SIZE - 200 LITRE
- A MINIMUM OF 50% VOLUME OF ANNUAL AVERAGE HOT WATER REQUIREMENTS TO BE PROVIDED BY MEANS OF SOLAR HEATING
- HEAT PUMP - 200 litre
- INSULATED WITH CLADDING WITH A RAUVALE OF 1.1 TO ALL BATHROOMS, KITCHEN BATHS AND SHOWERS. ALL EXPOSED GEYSER BATHS TO BE CLADDING WITH GLASS-WOOD SKIN ON GLADDING.
- A FLEXIBLE FOIL-LINED GLASS WOOL INSULATION BLANKET 100MM THICK TAPED ALL ROUND WITH TOP COVER.

LINTEL COMPLIANCE	REQUIREMENTS
FOR 220MM COLLAR-JOINTED WALL	89MM COURSE HEIGHT
	MAX SPAN
	MAX HEAVY ROOF SPAN
	CONCRETE ROOF
	TO ENGINEERS DETAIL
	3000
	CONCRETE ROOF
	CONCRETE ROOF
	TO ENGINEERS DETAIL
	3000
	CONCRETE ROOF
	CONCRETE ROOF
	TO ENGINEERS DETAIL
	3000

5000 GARAGE DOOR OPENING TO ENG. DETAIL - RC BEAM OVER

MIN. GROUND ABOVE OPENINGS

CONCRETE ROOF TO ENGINEERS DETAIL

3000

38 MIDDLEBROOK AVENUE

VIRGINIA ON PORTION 2

OF ERF 3193 VIRGINIA

FLOOR PLANS & SECTIONS

SCALE 1 : 100, 1 : 200

OWNER

DRAWN

P. BUCHHO

SACP REG. NO: 00051

53 PILLSBARI ROAD

RESERVEON HILLS

PHONE 0175252711, 0482089816

DRAWINGS 19/05/2019

ALTERATIONS & ADDITIONS TO DWELLING FOR MR A. MOORUTH 38 MIDDLEBROOK AVENUE VIRGINIA ON PORTION 2 OF ERF 3193 VIRGINIA

FLOOR PLANS & SECTIONS

SCALE 1 : 100, 1 : 200

OWNER

DRAWN

P. BUCHHO
SACP REG. NO: 00051
53 PILLSBARI ROAD
RESERVEON HILLS
PHONE 0175252711, 0482089816
DRAWINGS 19/05/2019