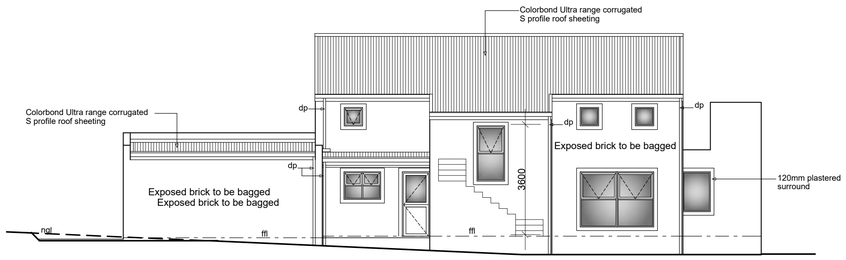

● SOUTH ELEVATION
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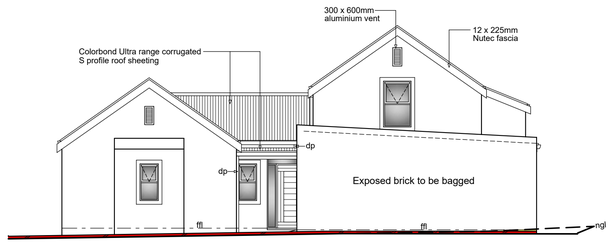

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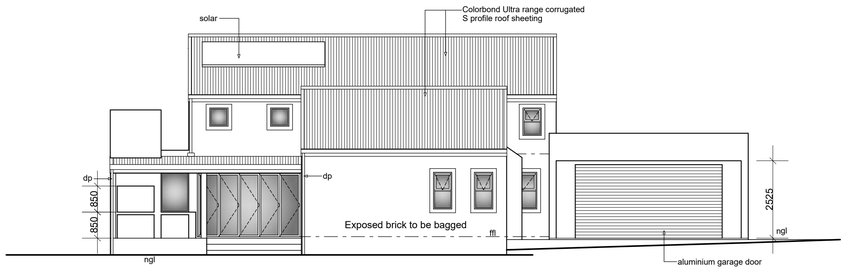

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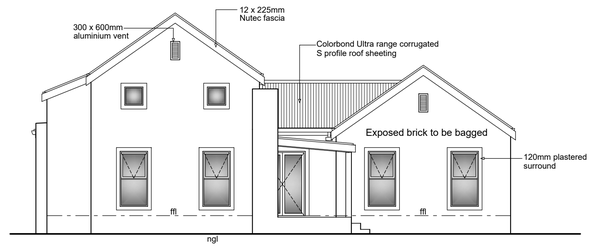
scale 1:100



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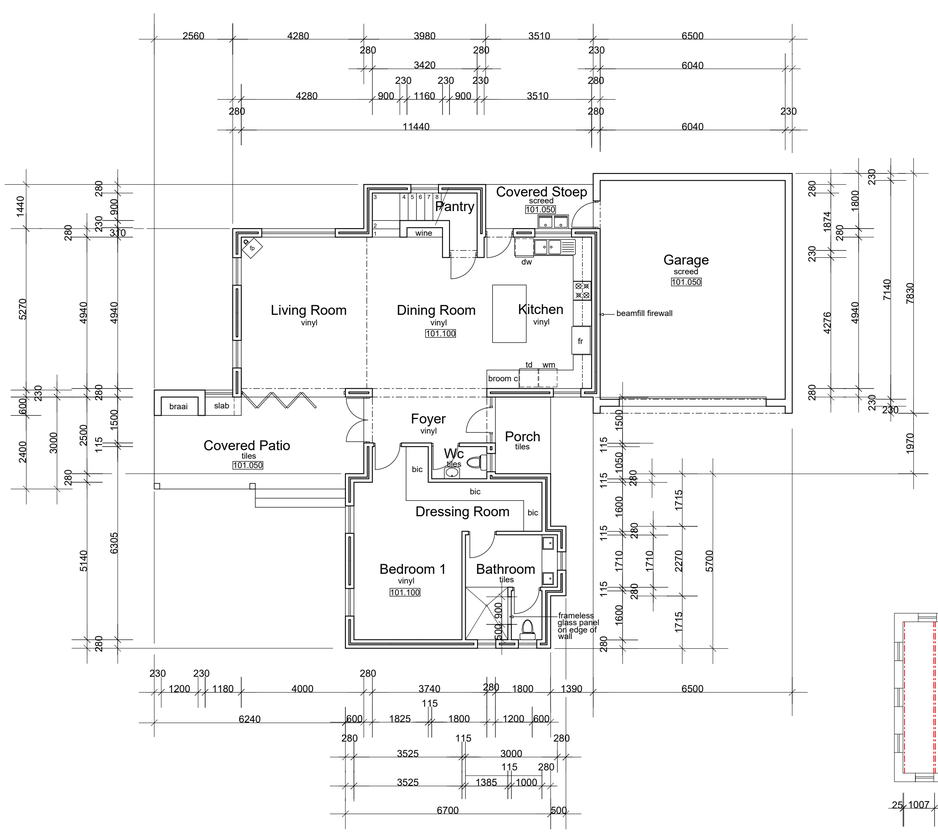
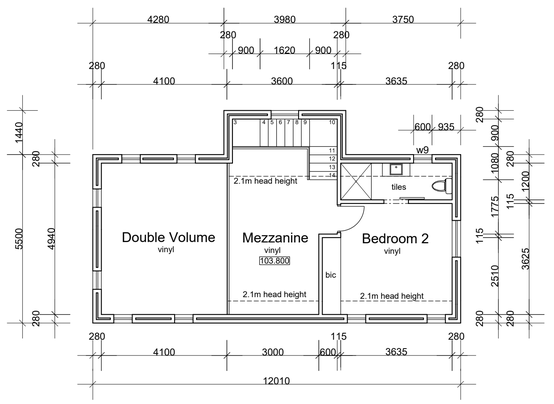
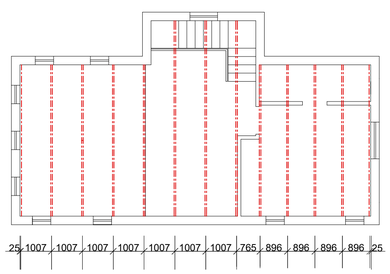
scale 1:100



● GROUND STOREY PLAN
scale 1:100



● FIRST STOREY PLAN
scale 1:100



● TRUSS SPACING OVER FIRST STOREY
scale 1:100

AIR INFILTRATION & LEAKAGE

General

Roofs, External walls, floors and any openings (glazing or doors) in the external fabric of the house shall be constructed to minimise air leakage. Refer SANS 204 (4.4.3)

Wall construction

External masonry walls to be 280mm thick. Walls to be plastered internally and exposed brick to be sealed externally. 25mm Isoboard to be fitted in cavities

Roofs

- Ceiling voids and attics shall be designed to minimize air infiltration.
- Wall plate and roof junctions shall be sealed.
- Joints in sheeted roof shall be sealed.

External doors serving habitual space

- A draught protection device shall be fitted to the bottom edge of each swing door leaf. Refer SANS 204 (4.4.3)
- A foam or rubber compressible strip or a fibrous seal (or similar) shall be fitted to each edge of internal doors and other such opening to restrict air leakage. Refer SANS 204 (4.4.3)

GENERAL SPECIFICATIONS

1 Preliminary Site works:

1.1 The building area must be cleared of vegetable matter and all relevant levels and dimensions to be checked by the contractor prior to setting out. Figured dimensions to be taken in preference to scaled dimensions and work to comply with NBR. Any discrepancies to be brought to the attention of the architectural designer.

2 Foundations:

2.1 230mm and 280mm thick walls to be built on 750×230mm concrete footings (1:4:5 or 10 M.P.A.) to be taken down to required depths

2.2 Foundation walls of 115mm thick walls higher than 300mm to be built 230mm thick and those of 230mm and 280mm thick walls higher than 1.0m to be built 345mm. thick.

2.3 Filling under floors, steps and back filling to foundations to be approved clean dry material free of clay and vegetable and deleterious matter. Filling to be leveled and mechanically compacted in dampened layers of at moat 150mm.

3 Brick work and structure:

3.1 Walls of house to be constructed of local SABS approved clay bricks.

3.2 Cavity walls to be tied with 3 galvanised wire ties per m². Cavity to be filled with concrete to dpc level and top three courses of cavity to be filled with reinforced concrete. 30mm Isoboard to be fitted in cavities.

3.3 Floors: 20mm cement screed on 80mm concrete.

3.4 Floor level in all cases minimum 250mm above finished ground level.

3.5 Where fill exceeds 1.0m in height floor slab to be reinforced with steel mat.

3.6 Pre-stressed reinforced concrete lintels to extend 230mm beyond all openings in external walls and openings exceeding 1500mm in internal walls. Lintels to be layed according to manufacturer's specifications with min. 4 courses of brickforce above. Where openings are between 3.0 and 4.8m 3/Y16 rods to be built into brickwork and cavities to be filled with 20 MPA concrete.

3.7 No foundations or any other part of building to project beyond boundary of property.

3.8 All reinforced concrete work to engineer`s specifications.

3.9 Engineer drawings for all reinforced structural works, structural steelworks etc. staircases, retaining walls and foundation walls to be submitted before commencement of works

3.10 Building Inspector to evaluate boundary pegs before commencement of building work

4 Stairs and steps:

4.1 Maximum riser: 200mm

4.2 Minimum tread: 250 mm

5 Plaster work and wall finish:

5.1 External walls: Exposed Brick to be bagged.

5.2 Internal walls: one coat steel trowelled plaster. Exposed Brick internally where indicated

6 Dampcourse:

6.1 250 Micron polythene to be provided underneath all solid concrete floors - min. of 150mm above ground level.
375 Micron polythene on walls on floor slab and underneath all openings in external walls.

7 Roof construction:

7.1 Roof over First Storey: Colourbond Ultra range corrugated S profile roof sheeting to be laid @ 35° pitch on 50×76mm SA pine purlins @ 1200mm c/c on planed 50×228mm trusses @ 1000mm c/c tied to 38×114mm pine wallplates with 30mm wide 1.3mm thick galv. hoop iron ties. 45° Cross bracing to be supplied to roof. Gable end walls to be anchored and secured with hoop iron ties built into 600mm brickwork.

7.2 Other pitched roofs: Colourbond Ultra range corrugated S profile roof sheeting to be laid @ 35° pitch on 50×76mm SA pine purlins @ 1200mm on 38×114mm gangnail trusses @ 1000mm c/c tied to 38×114mm pine wallplates with 30mm wide 1.3mm thick galv. hoop iron ties. 45° Cross bracing to be supplied to roof. Gable end walls to be anchored and secured with hoop iron ties built into 600mm brickwork.

7.3 Garage: Colourbond Ultra range corrugated S profile roof sheeting to be laid @ 3° pitch on 50×228mm SA pine rafter/purlins (timber grade 7) @ 1000mm c/c to be fixed to walls with teaco brackets.

7.4 Covered Patio: Colourbond Ultra range corrugated S profile roof sheeting to be laid @ 5° pitch on 50×76mm SA pine purlins @ 1200mm c/c on 1200mm c/c on 38×152mm rafters (timber grade 5) @ 1000mmc/c to be fixed to wall with teaco brackets and to 50×228mm supporting beam with coach screws.

7.5 Roof over Porch: Safintra Colourplus (color: slate) precoated SAFLOK 410 concealed (klip-lock) roof sheets to be laid @ 3° pitch on 50×76mm purlins @ 1200mm c/c on 38×114mm rafters (timber grade 5) @ 1400mm c/c fixed to wall with teaco Brackets and to 38×152mm supporting beam with coach screws.

8 Fascias and barge boards

8.1 12 x 225mm Nutec fascias.

9 Ceilings and roof insulation:

9.1 Over First Storey: 40mm Isoboard to be fixed on top of planed trusses. 75mm Isotherm to be laid above.

9.2 Over Bedroom 1 and Foyer: 6.4mm Rhinoboard to be fixed with 38×38mm branders @ 400mm c/c to trusses . Ceiling to be skimmed with cretestone plaster. 130mm Isotherm to be laid on top

9.3 Garage: 6,4mm rhinoboard to be to be fixed to rafters with 38×38mm branders @ 400mm c/c. 130mm Isotherm to be laid above

9.4 Porch: 6,4mm rhinoboard to be to be fixed to rafters/purlins with 38×38mm branders @ 400mm c/c

9.5 Covered Patio: 25mm isoboard to be to be fixed to rafters. 75mm Isotherm to be laid above

10 Window frames and doors:

10.1 Window frames and doors of aluminium in charcoal coated finish - see schedule.

10.2 Front entrance door and door to garage to be of timber. Catalogue numbers refer to Swartland Joiners catalogue

11 Glazing

11.1 Glass type strictly to be adhered to according to Fenestration schedule.

11.2 Thickness of glass according to NBR - prt. N - SANS 10400. Glass areas exceeding 1.0m² and glass lower than 500mm above floor level to be safety glass.

11.3 Safety glazing to all glass panelled doors and sidelights to doors.

12 Window sills

12.1 Externally and internally: plaster.

13 Plumbing:

13.1 Closed sewerage system to be used.

13.2 Provision of sanitary fixtures to comply in terms of table 4; 5 or 6 of Part P of SANS 10400.

13.3 Water reticulation: polycop piping to be used outside and Cobra piping throughout inside.

13.4 Sewerage: All pipe work to be best quality PVC.

13.5 Drainage fixtures on the first floor to be antisyphoned or deep seal traps to be provided.

13.6 Water pipes to be lagged into walls with dpc.

13.7 Drainline protected if cover is less than 300mm.

13.8 Section of sewerage pipe underneath dwelling and driveway to be embedded in clean builders sand with cement Ref: Reg 24 (a) & (b) SANS 10400.

13.9 Hot water to be supplied to bathrooms by 200L (400KPA) horizontal geyser complete with overflow, drip tray and master box connected to solar system

13.10 Sanitaryware according to owner's specification.

13.11 Flashing to be provided to all wall / roof intersections.

14 Electrical Installation:

14.1 Electrical installation as per electrical plan.

14.2 Light fittings according to owner's choice.

15 Storm-water:

15.1 Gutters to be profiled seamless aluminium in epoxy coated finish

15.2 Aluminium down pipes to be square.

15.3 Stormwater to be taken along 100mm stormwater pipes to street.

15.4 The disposal of srorm water to comply to the requirements of Part R of the NBR & BS (Act 103 0f 1977)

16 Fireplaces:

16.1 No roof rafters to be built within 200 mm of the inside of chimneys.

17 Balustrades to stairs and Balcony:

17.1 Balustrades to be min.1.0m height and shall not contain any opening that will permit the passage of a 100mm diameter ball as per SANS 10400 Part D

17.2 Balustrades must prevent children from climbing onto - railing post in-between columns to be vertical. Reg SANS 10400 Part D: 2022 (4.2)

18 Stoeps, Verandas and Paving:

18.1 Level of Stoeps, Verandas and paving to be 50mm lower than house floor level and to slope away from dwelling walls

19 Wall tiles:

19.1 Splashback tiles to Kitchen Counters and Vanities. Showers to be tiled to 1800mm height.

20 Floor finish

20.1 Vinyl and tilers to owner's specifications

21 Built in cupboards:

21.1 Built in cupboards according to owner's specifications.

22 Painting:

22.1 All plastered and bagged wall surfaces and ceilings to be finished with one filler coat and two coats acrylic P.V.A.

22.2 Timber doors and door frames to be wood sealed.

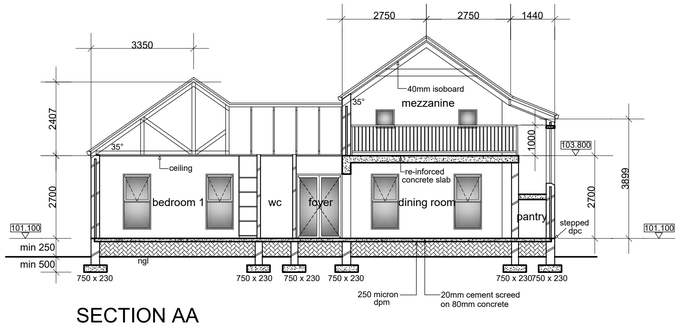
22.3 Skirtings and fascias to be enamel painted.

22.4 Paint type type and colours according to owner.

PROJECT NR. 4501/1 PROPOSED DWELLING on ERF 1454, PECAN ROAD, RIEBEEK KASTEEL for M & F P PHYFER

Date: 16 May 2023

Drawn by: Ronéll Ackermann ST 0827
Cell nr: 083 456 1770
Email: ronellackermann002@gmail.com



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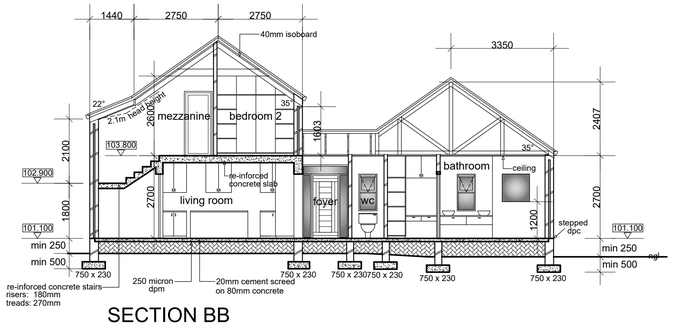

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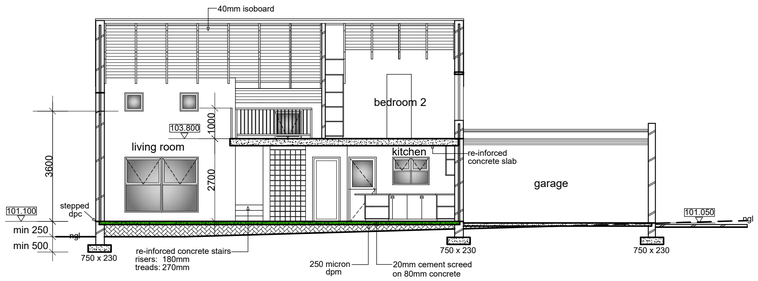

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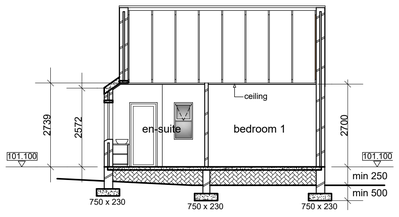

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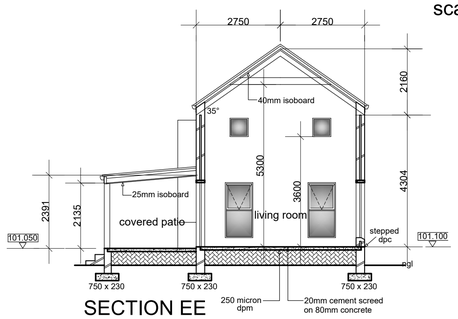

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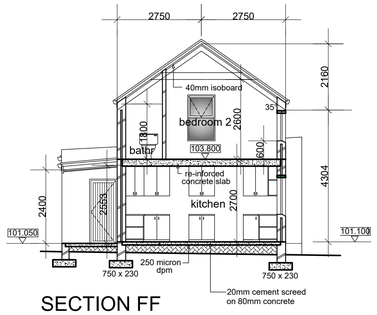

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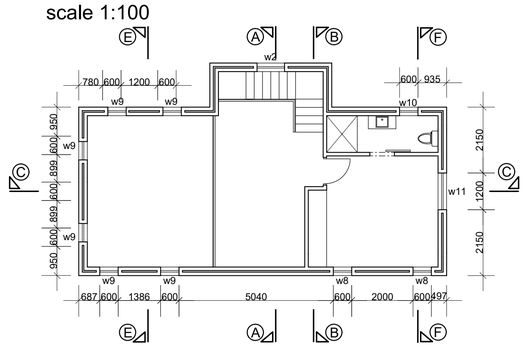

FIRST STOREY
WINDOW & DOOR POSITIONS and SECTION LINES
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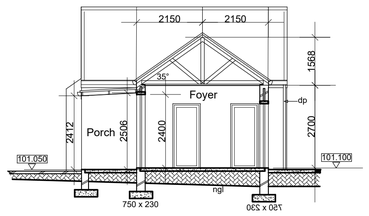

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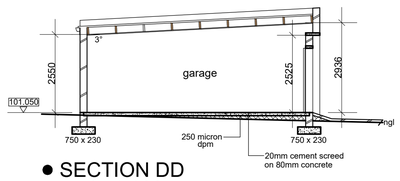

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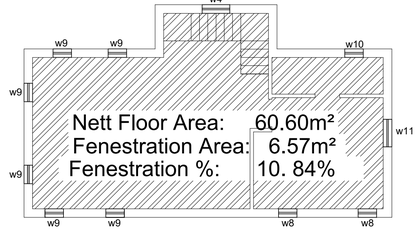
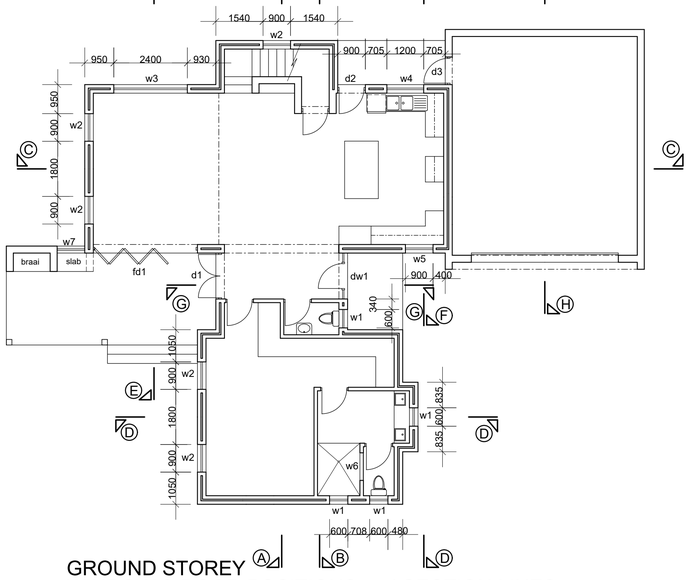
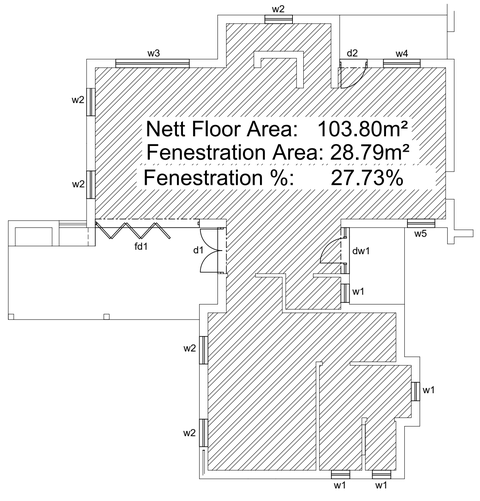


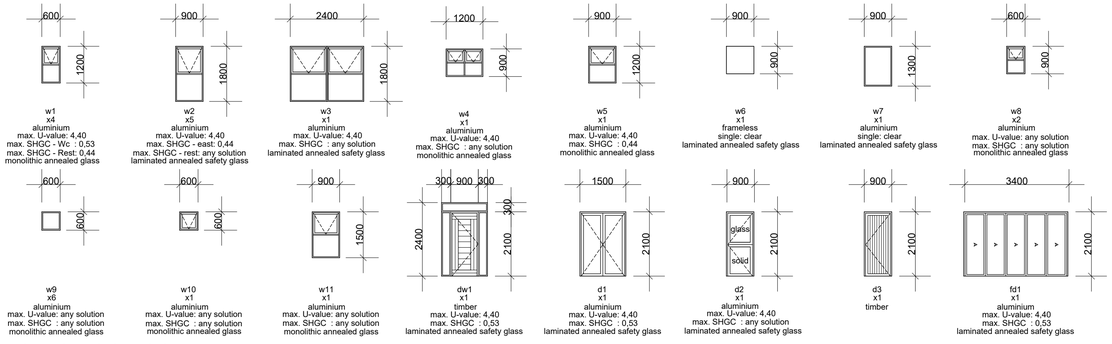
FIRST STOREY FENESTRATION



GROUND STOREY
WINDOW & DOOR POSITIONS and SECTION LINES
scale 1:100



GROUND STOREY FENESTRATION



WINDOW & DOOR SCHEDULE

Riebeek Kasteel falls within Southern Cape Condensation Zone (SCCP). U-value to be achieved by means other than low emissivity glass

Storey Level	Identifier No:	No. of Units	Opening Details			Framing System	Glazing Material	Permissible U-value	Permissible SHGC	Shading Devices		
			Width (m)	Height (m)	Area (m²)					Element Shaded	Orientation Sector	Required Min. Projection (m)
Ground Storey	w1	2	0,6	1,2	1,44	Aluminium	Monolithic annealed glass	4,40	0,44	No		
Ground Storey	w1	1	0,6	1,2	0,72	Aluminium	Monolithic annealed glass	4,40	0,44	No		
Ground Storey	w1	1	0,6	1,2	0,72	Aluminium	Monolithic annealed glass	4,40	0,53	Yes	West	0,788
Ground Storey	dw1	1	0,6	2,1	1,26	Timber	Laminated annealed safety glass	4,40	0,53	Yes	West	1,246
Ground Storey	dw1	1	1,5	0,3	0,45	Timber	Laminated annealed safety glass	4,40	0,53	Yes	West	0,178
Ground Storey	w5	1	0,9	1,2	1,08	Aluminium	Monolithic annealed glass	4,40	0,44	No		
Ground Storey	w4	1	1,2	0,9	1,08	Aluminium	Monolithic annealed glass	4,40	Any solution	Yes	South	0,620
Ground Storey	d2	1	0,9	1,05	0,95	Aluminium	Laminated annealed safety glass	4,40	Any solution	Yes	South	0,695
Ground Storey	w3	1	2,4	1,8	4,32	Aluminium	Laminated annealed safety glass	4,40	Any solution	No		
Ground Storey	w2	4	0,9	1,8	6,48	Aluminium	Laminated annealed safety glass	4,40	0,44	No		
Ground Storey	fd1	1	3,4	2,1	7,14	Aluminium	Laminated annealed safety glass	4,40	0,53	Yes	North	1,157
Ground Storey	d1	1	1,5	2,1	3,15	Aluminium	Laminated annealed safety glass	4,40	0,53	Yes	East	1,176
First Storey	w4	1	0,9	1,8	1,62	Aluminium	Laminated annealed safety glass	Any solution	Any solution	No		
First Storey	w9	2	0,6	0,6	0,72	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		
First Storey	w9	2	0,6	0,6	0,72	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		
First Storey	w9	2	0,6	0,6	0,72	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		
First Storey	w8	2	0,6	0,9	1,08	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		
First Storey	w11	1	0,9	1,5	1,35	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		
First Storey	w10	1	0,6	0,6	0,36	Aluminium	Monolithic annealed glass	Any solution	Any solution	No		

FENESTRATION CALCULATION

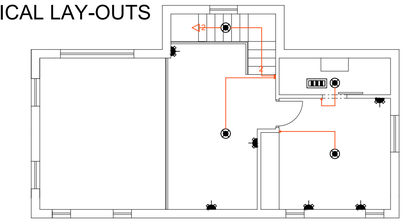
PROJECT NR. 4501/2 — PROPOSED DWELLING on ERF 1454, PECAN ROAD, RIEBEEK KASTEEL for M & F P PHYFER

Erf		1435.0m²
Ground Storey:	House:	121.8m²
	Garage:	48.1m²
	Covered Patio, Porch & Stoep:	30.4m²
First Storey:		47.9m²
		248.2m²
	Coverage:	14.0% (200.3m²)
	Floor factor:	0.17 (248.2m²)

Date: 16 May 2023

Drawn by: Ronéll Ackermann ST 0827
Cell nr: 083 456 1770
Email: ronellackermann002@gmail.com

ELECTRICAL LAY-OUTS



FIRST STOREY
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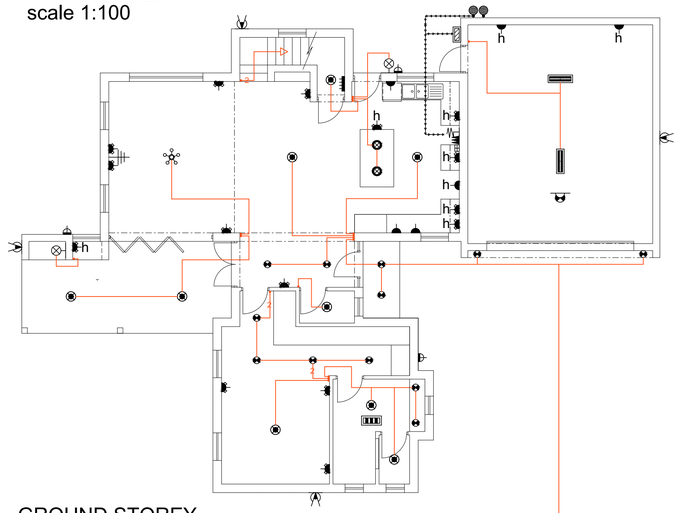


GROUND STOREY
scale 1:100

ELECTRICAL LEGEND

	light switch	h	plug - 1,2 m above ffl
2	2-direction light switch		exterior waterproof plug
	ceiling light		plug point against roof rafters / ceiling for garage door opener
	down light		stove isolator
	wall light		stove extractor fan
	chandelier		stove connection
	pendant		television power and antenna
	fluorescent light		intercom
	motion sensor wall light		infrared heater
	db board		gas geyser
	single plug		gas bottles
	Euro plug		gas feed

ENERGY DEMAND & CONSUMPTION
Lighting and Power

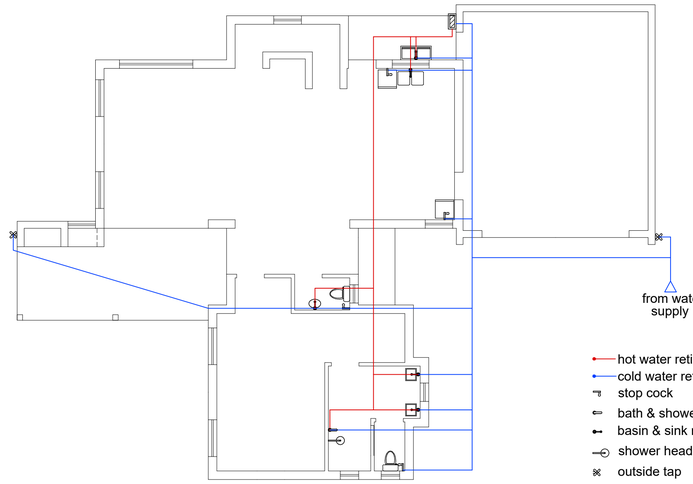
Artificial lighting
- The use of CFL and LED technologies in H4 occupancy are deemed to satisfy Energy demand requirements of SANS 10400 - XA without further requirements SANS 10400 - XA (6.2.2)

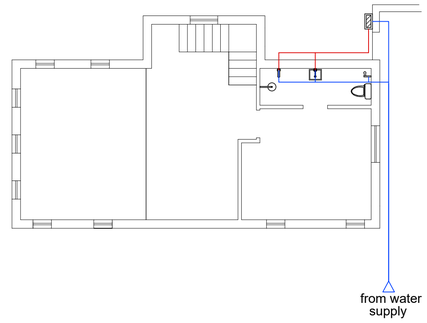
Natural lighting
- Natural lighting shall be in accordance with the requirements of SANS 10400-O
- Daylighting should be employed to reduce energy usage

Hot water services

Building Occupancy:	H3
Type of accommodation:	Dwelling House - Low rental - Low demand:
Hot water demand:	80.00L/capita/day
No. of persons:	4
Assumed hotwater demand:	80.00L x 4 persons
Daily hot water demand:	217.73L - incl. 20% allowance for heat loss
Annual hot water demand:	1908.65kL - based on design occupancy
50% of annual hot water demand:	954.33kL - incl. 20% allowance for heat loss shall be provided by means other than electrical resistance heating including but not limited to solar heating, heatpumps, heat recovery from other systems ot processes and renewable combustible fuel

COLD and HOT WATER RETICULATION





- hot water reticulation
- cold water reticulation
- stop cock
- bath & shower mixer
- basin & sink mixer
- shower head
- outside tap
- gas geyser

EXTERNAL WALL TYPE

Material	Thickness
External Plaster	15mm
External Brickwork	115mm
Isoboard in cavity	25mm
Internal Brickwork	115mm
Internal Plaster	15mm

R-value achieved:

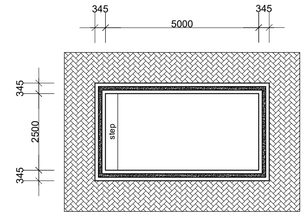
Summer	: 1,632	ACCEPTABLE
Autumn	: 1,639	ACCEPTABLE
Winter	: 1,642	ACCEPTABLE
Spring	: 1,638	ACCEPTABLE

ROOF ASSEMBLY

Energy zone 4: Min total R-Value required: 3.7
Direction of heat flow: up

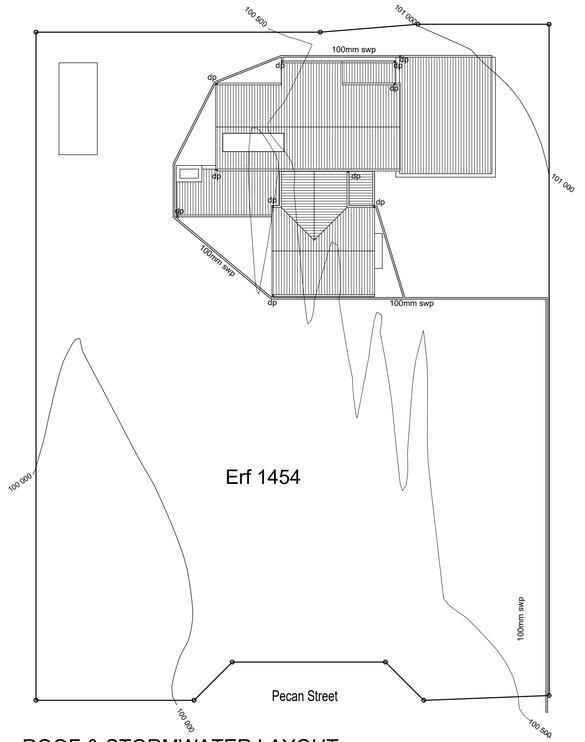
	Metal roof sheeting @ 35° slope with 40mm isoboard fixed to top of rafters and 75mm isotherm laid above	Metal roof sheeting @ 3° and 5°slope with 6.4mm Rhinoboard ceiling fixed to bottom of rafters and 75mm isotherm laid above	Metal roof sheeting @ 35° with 6.4mm Rhinoboard ceiling fixed to trusses with 75mm isotherm above
Roof construction:			
Insulation values achieved:	Summer: 4,084	Summer: 4,305	Summer: 4,305 ACCEPTABLE
	Autumn : 4,091	Autumn : 4,313	Autumn : 4,313 ACCEPTABLE
	Winter : 4,094	Winter : 4,316	Winter : 4,316 ACCEPTABLE
	Spring : 4,090	Spring : 4,311	Spring : 4,311 ACCEPTABLE

POOL SECTION

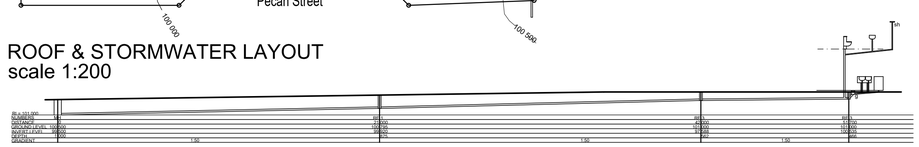


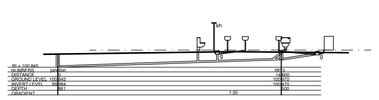
POOL PLAN

Swimming Pool:
Built pool to engineer's specification - 5.0m × 2.5m × 1.3mm deep
All gates leading to pool area to be fitted with self closing / locking mechanism and backup battery unit.
Backwash and overflow to be directed to existing municipal sewer
All boundary walls and fences to be 1.8m high
Position of pool pump minimum 2.0m away from pool.
All paving around pool to owner's specification



ROOF & STORMWATER LAYOUT
scale 1:200





DRAINAGE SECTIONS
scale 1:200

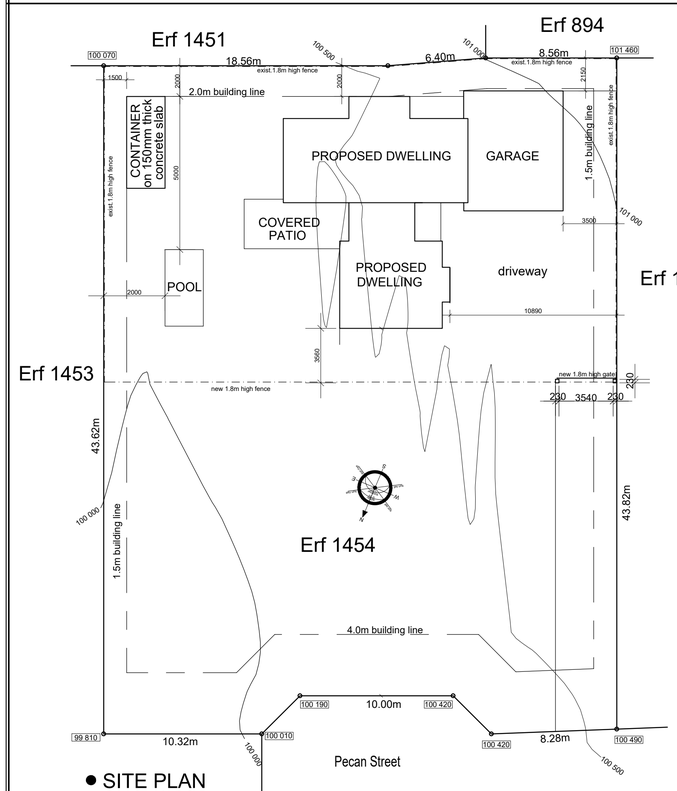
AIR INFILTRATION & LEAKAGE

General
Roofs, External walls, floors and any openings (glazing or doors) in the external fabric of the house shall be constructed to minimise air leakage. Refer SANS 204 (4.4.3)

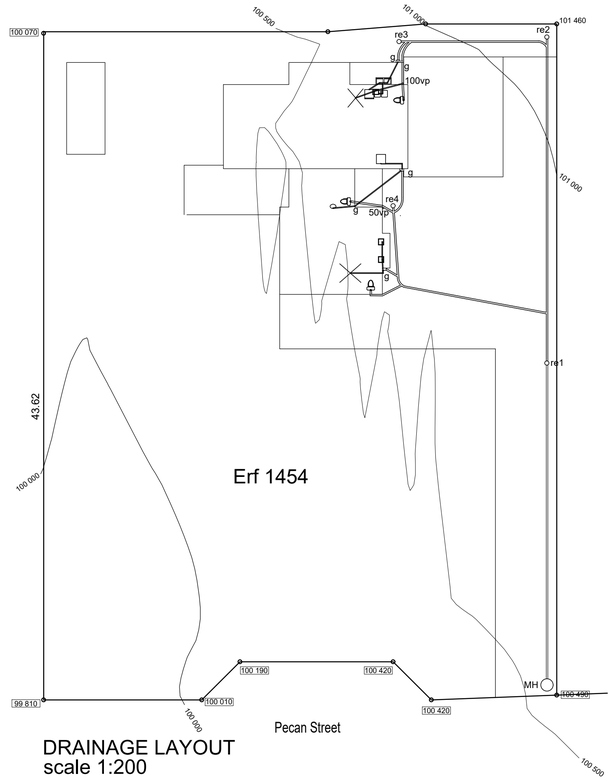
Wall construction
External masonry walls to be 280mm thick. Walls to be plastered internally and exposed brick to be sealed externally. 25mm Isoboard to be fitted in cavities

Roofs
- Ceiling voids and attics shall be designed to minimize air infiltration.
- Wall plate and roof junctions shall be sealed.
- Joints in sheeted roof shall be sealed.

External doors serving habitual space
- A draught protection device shall be fitted to the bottom edge of each swing door leaf. Refer SANS 204 (4.4.3)
- A foam or rubber compressible strip or a fibrous seal (or similar) shall be fitted to each edge of internal doors and other such opening to restrict air leakage. Refer SANS 204 (4.4.3)



● SITE PLAN
scale 1:200



DRAINAGE LAYOUT
scale 1:200

PROJECT NR. 4501/3	PROPOSED DWELLING on ERF 1454, PECAN ROAD, RIEBEEK KASTEEL for M & F P PHYFER
Date:	16 May 2023
Drawn by:	Ronéll Ackermann ST 0827 Cell nr: 083 456 1770 Email: ronellackermann002@gmail.com