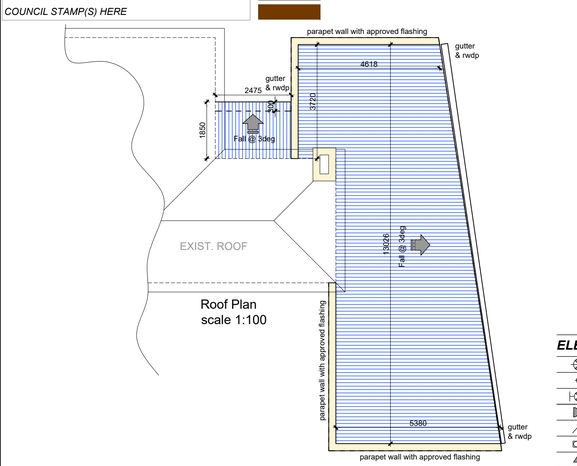
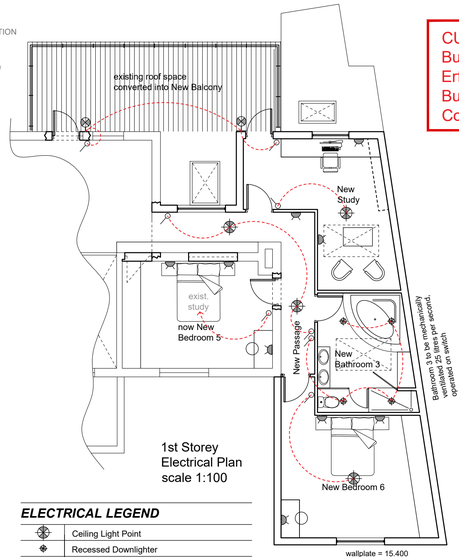
COUNCIL LEGEND

FLOOR PLAN
WALL ELEVATION
WALL PLAN
METAL ELEV./ SECT
CONCRETE
GLAZING
TIMBER ELEV./ SECTION

COUNCIL STAMP(S) HERE

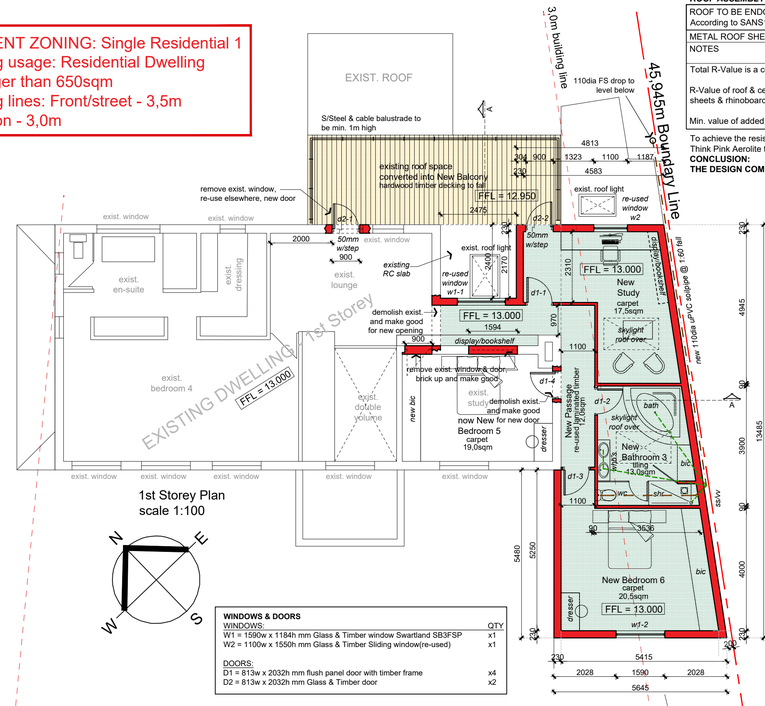


Roof Plan
scale 1:100



1st Storey
Electrical Plan
scale 1:100

CURRENT ZONING: Single Residential 1
Building usage: Residential Dwelling
Erf bigger than 650sqm
Building lines: Front/street - 3,5m
Common - 3,0m



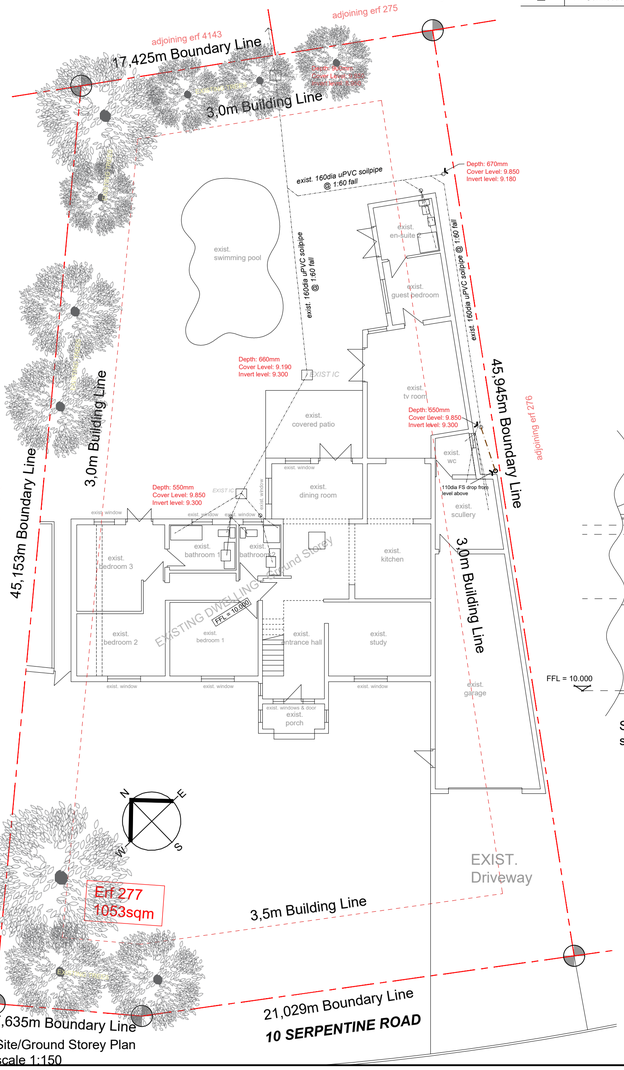
1st Storey Plan
scale 1:100

ELECTRICAL LEGEND

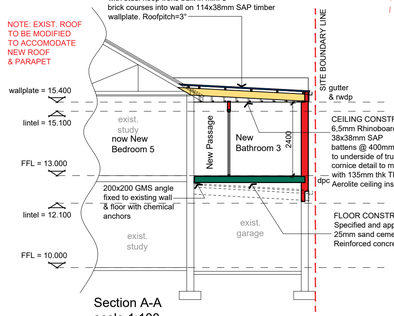
	Ceiling Light Point
	Recessed Downlighter
	Wall Light Point - exterior
	Double Electrical 15A Socket with Hight AFFL
	Light Switch 1300 AFFL
	Extractor Fan
	TV Connection Point

WINDOWS & DOORS

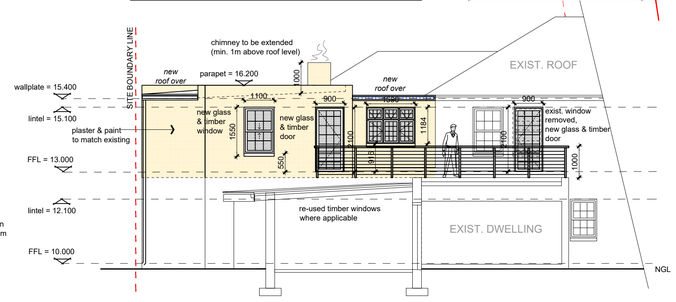
WINDOWS:	QTY
W1 = 1590w x 1184h mm Glass & Timber window Swartland SB3FSP	x1
W2 = 1100w x 1550h mm Glass & Timber Sliding window(re-used)	x1
DOORS:	
D1 = 813w x 2032h mm flush panel door with timber frame	x4
D2 = 813w x 2032h mm Glass & Timber door	x2



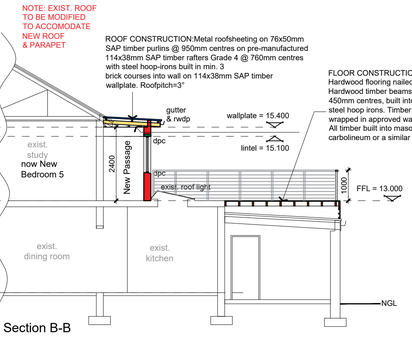
Site/Ground Storey Plan
scale 1:150



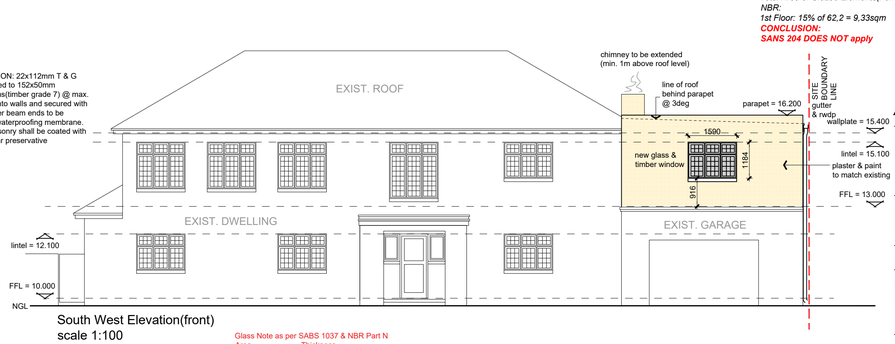
Section A-A
scale 1:100



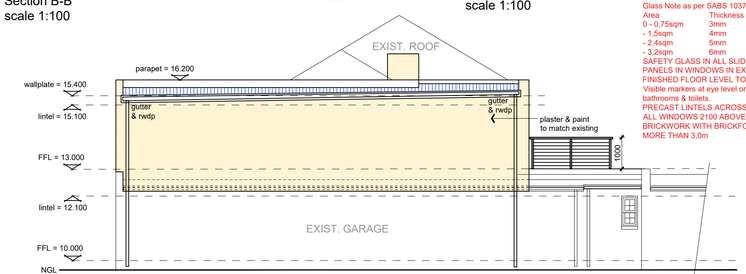
North East Elevation(rear)
scale 1:100



Section B-B
scale 1:100



South West Elevation(front)
scale 1:100

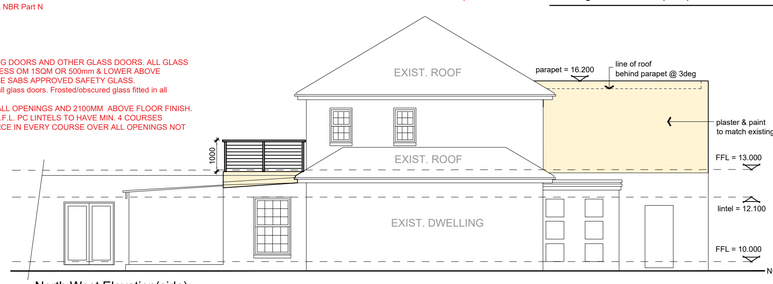


South East Elevation(side)
scale 1:100

Glass Note as per SABS 1037 & NBR Part N

Area	Thickness
0 - 0,75sqm	3mm
- 1,5sqm	4mm
- 2,4sqm	5mm
- 3,2sqm	6mm

SAFETY GLASS IN ALL SLIDING DOORS AND OTHER GLASS DOORS. ALL GLASS PANELS IN WINDOWS IN EXCESS OM 1SQM OR 500mm & LOWER ABOVE FINISHED FLOOR LEVEL TO BE SABS APPROVED SAFETY GLASS.
Visible markers at eye level on all glass doors. Frosted/obscured glass fitted in all bathrooms & toilets.
PRECAST LINTELS ACROSS ALL OPENINGS AND 2100MM ABOVE FLOOR FINISH.
ALL WINDOWS 2100 ABOVE F.F.L. PC LINTELS TO HAVE MIN. 4 COURSES BRICKWORK WITH BRICKFORCE IN EVERY COURSE OVER ALL OPENINGS NOT MORE THAN 3,0m



North West Elevation(side)
scale 1:100

ROOF ASSEMBLY THERMAL RESISTIVITY:

ROOF TO BE ENDORSED BY ENGINEER
According to SANS10400-XA and SANS204 to min. thermal resistivity value is as follows:

METAL ROOF SHEETING			
NOTES	Climate Zone	Total Required resistivity R=(m².K/W)	Direction
Total R-Value is a combination of roof assembly and isolation	4	3,7 (min required)	UP
R-Value of roof & ceiling material calculated for metal roof sheets & rhinoboard ceiling		0.4	
Min. value of added thermal resistivity for required isolation		3.3	

To achieve the resistivity of 3,7one of the following is recommended.
Think Pink Aerolite thermal and acoustic ceiling insulation with a min. thickness of 135mm which has an R-value of 3,38.
CONCLUSION:
THE DESIGN COMPLIES WITH SANS 10400-ZA:20011 IF THE ABOVE CONDITION IS MET.

ESTIMATED ENERGY CONSUMPTION

ELECTRICAL INSTALLATION ENDORSED BY SPECIALIST

	QTY
EXISTING Low Voltage internal/external Light fitting - 14 Watt	24
NEW Low Voltage internal internal/external Light fitting - 14 Watt	9
Fluorescent light fitting (2 globes) - 36 Watt	2
SUBTOTAL: 534 Watt	
House Area(NETT)	**424,0m²**
Watt/m² (permitted = 5 Watt/m²)	**1,25W/m²**

Estimate Maximum Energy Demand as per SANS10420.
5 W/m².x 424m² = 2120W

Estimate Maximum Annual Energy Demand as per SANS 10420.
5 W/m².a x 424m² = 2120W (a = 1 year)

Estimate Maximum Annual Energy Consumption:
Assume lights are on from 18:00 - 22:00 each day per year (4h/day)
52 weeks x 7 days x 4 hours = 1456 hours/year
Lights = 534W or 0,534kW
0,534kW x 1456h.a = 777,5kWh.a
(less than 2120kWh.a)

NOTE: The use of other light fittings permitted as per owner's approval on condition that the Watt usage per light fitting does not change.

CONCLUSION: THE DESIGN COMPLIES WITH THE REQUIREMENT OF SANS 10400-XA:2011 FOR ENERGY CONSUMPTION.

EXTERNAL WALL CALCULATIONS:

CALCULATIONS AS PER SANS10400-XA (4.4.3)

PARAMETERS	
Occupancy	H4 - Dwelling House
Climate Zone	4
Min R-Value	0.35
Wall Type	Double skin masonry with cavity, plastered BOTH sides
R-Value of Wall type achieved	0,36

CALCULATION:	*Conductivity(W/m.k)*	*Thickness (mm)*	*Resistivity (m²K/W)*
External plasterwork	0.6	15	0.03
Brickwork with cavity	0.7	230	0.33
Internal plasterwork	0.6	15	0.03
TOTAL		**260**	**0.39**
CONCLUSION		Wall type complies with min. R-value of 0.35 for walls	

FLOORS:

DWELLING ATTRIBUTES
- Floor Area less than 500sqm
- Standard concrete strip foundation
- No in-floor heating
- Insulation to be installed around vertical edge of perimeter - 300mm under finished ground level
- R-value to be 1,0 or more
- as per SANS 204-4.3.2
-by specialist

- No insulation installed under slab

FENESTRATION CALCULATIONS: New Extensions

	Nett Area	Glazing	%
Ground Floor Level:	N/A	N/A	N/A
1st Floor Level:	62,2sqm	9,12sqm	14,6%

As per SANS 204:2011 South African National Standard and SANS 10400-XA:2011. "Buildings with up to 15% fenestration area to nett floor area per storey comply with the minimum energy performance requirements. Buildings with a fenestration area per storey that exceeds 15% shall comply with the requirements for fenestration in accordance with SANS 204
Total Area of Glazed Elements(Fenestration) allowed as per NBR:
1st Floor: 15% of 62,2 = 9,33sqm
CONCLUSION:
SANS 204 DOES NOT apply

AREAS

Existing House Ground Floor:	**264,0sqm**
Existing House 1st Floor:	**126,0sqm**
TOTAL EXISTING:	**390,0sqm**
New Additions:	***70,0sqm***
New Balcony	***26,0sqm***
TOTAL NEW:	***96,0sqm***
NEW TOTAL FOOTPRINT	***486,0sqm***
ERF AREA:	**1053,0sqm**
Coverage (new only): 9,2%	
Total coverage(including existing): 46,1%	
Coverage Allowed: 0.5 (50%)	

HOT WATER SYSTEMS
Calculated as per SANS 10252-1:2004
HOT WATER SYSTEMS TO BE ENDORSED BY SPECIALIST

ACCOMODATION TYPE	Residential Low Rental 80-115L capital/day
ASSUMED HOT WATER CONSUMPTION	115
NUMBER OF PERSONS	4 persons per day
ASSUMED DAILY HOT WATER CONSUMPTION	460
ASSUMED ANNUAL HOT WATER CONSUMPTION	163,760kL (based on daily design occupancy/week
50% OF DAILY HOT WATER CONSUMPTION	230L (to be provided by means other than electrical resistance
INSULATION REQUIREMENTS	
	less than 80mm
	1.0 (as per SANS 204 (4.5.2)
HOT WATER VESSEL	
MINIMUM REQUIRED R-VALUE FOR VESEL/TANK	2.0(additional insulation to manuf.'s may be req.)
CONCLUSION	

Dwelling to be provided with 1x 200L Hot solar powered water tank to comply with SANS 10254
Solar Panel to be installed by specialist to comply with SANS 10400
Optionally a hot water pump can be installed by a specialist to comply with SANS 10400.
The design complies with the requirement of SANS 10400-XA:2011 and SANS 10252-1:2004 for hot water calculations, and provides min. 50% alterative power source.

Burnt clay or sand/cement bricks only shall be used, unless specific approval is obtained from the Architect for the use of an alternative type of brick.
Quality of all materials and workmanship to comply with the relevant
Local Building Regulations, By-Laws and relevant specifications and shall conform to the minimum standards specified in the Standard Preambles in the Bills of Quantities or, in the absence of a Bill of Quantities, available for persual at the offices of the Architects .
Contractor is responsible for correct setting out of the buildings, all external and all internal walls with particular reference to boundaries, building lines, etc.
Contractors to verify all levels, heights and dimensionson Site and to check same against the drawings before putting any work in hand.

All Contractors to check the details shown on this drawing for compliance with standards of good building practice with particular reference to special requirments necessitated by local and-or on site conditions and to report any comment to the Architects.
Contractors are to ensure that all details shown on this drawing are in compliance with Local Authority bye-law and regulations.
Contractors are to locate and identify existing services on Site and to protect these from damage throughout the duration of the works.
Any errors, discrepancies or omissions to be reported to the Architect immediately.
Contractor is to build in approved D.P.C.'s, whether or not these are shown on drawings, to all external walls at each floor, beam or parapet level and to all windows, doors, grilles or other openings in external walls. Cavity walls to have stepped D.P.C.'s.
Any queries arising from all the above must be reported to the Architects for clarification before any work is put in hand.

This drawing is not to be scaled. Figured dimensions to be used at all times.
Provide in non-ventilated rooms extractor fan (25 litres per second) ducted to exterior, operated by light switch.
Glazing to doors and windows in excess of 1 sqm or less that 300mm above FFL to be safety glazed in accordance with N.B.R. part N.
Tie cavity wall together with 2,5 wire ties per square metre.
Damp-proof membrane is to be 150mm minimum above FGL.
Light areas : 10% of floor area (natural light), 5% ventilated.

All plumbing and drainage work and installation of sanitary fittings to comply with the relevant Local Authority bye-laws, regulations and requirments.
Provide inspection (rodding) eyes to all bends, junctions or every 15m with suitable markers at ground level
Minimum fall to all drainage pipes to be 1:60.
Provide approved reseal traps to all waste fittings.
Provide vent caps and-or vent valves to all stacks.
Inspection eyes to waste pipes to be fully accessible at all times.
All soil pipes passing under buildings, footings or traffic areas to be encased in concreteof minimum 150mm thickness all round pipe.

SANS 10400 NOTES:
All new walls to be constructed in accordance with Part K of SANS 10400
All new concr. foundations to be built in accordance with Part H of SANS 10400 (no portion of footing to project beyond property boundary)
All new floors to be constructed in accordance with Part J of SANS 10400
All new roofs to be constructed in accordance with Part L of SANS 10400
Glazing to doors & windows to be safety glazing in accordance with Part N SANS 10400
Drainage to be constructed (and protected where to be constructed under any structure) in accordance with Part P of SANS 10400

SIGNATURES:

DESIGNER: *CLIENT:*

brynn van zyl
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e-mail: brynnvanzyl@gmail.com

CLIENT:

PURPOSE OF ISSUE:
FOR COUNCIL APPROVAL

PROJECT DESCRIPTION:
PROPOSED ALTERATIONS TO EXISTING HOUSE ON ERF 277, 10 SERPENTINE ROAD, PINELANDS, WESTERN CAPE

DRAWING:
SITE/FLOOR PLANS, ELEVATIONS, SECTIONS, SANS CALCULATIONS

SCALE	as shown @ A1	*DRAWN*	BRYNN
DATE	24.08.2018	*CHECKED*	BRYNN
PROJECT NUMBER/ DRAWING	2018-018/001		REV 0