

DOOR & WINDOW SCHEDULE	ffl  Total glazing area = 0.36m <sup>2</sup>	ffl  Total glazing area= 0.9m <sup>2</sup>	ffl  Total glazing area= 1.2m <sup>2</sup>	2,000  ffl  Total glazing area = 3.0m <sup>2</sup>	1,200 * ffl  Total glazing area= 2.52m <sup>2</sup>
DOOR/WINDOW TYPE:	Aluminium window	Aluminium window	Aluminium window	Aluminium window	Aluminium window
DOOR/WINDOW CODE:	(W1)	(W2)	(W3)	(W4)	(D1)
QUANTITY:	1	2	1	1	1
FRAME:	Standard approved aluminium frame	Standard approved aluminium frame	Standard approved aluminium frame	Standard approved aluminium frame	Standard approved aluminium frame
GLAZING:	6.38mm toughened safety glass, OBSCURE low E glazing	6.38mm toughened safety glass, CLEAR low E glazing	6.38mm toughened safety glass, CLEAR low E glazing	6.38mm toughened safety glass, CLEAR low E glazing	6.38mm toughened safety glass, CLEAR low E glazing

# Example of heat flow and R-value calculation of a roof system 7 - Direction of 1 - Outdoor air film (moving air) R-value = 0.03 heat flow - 2 - Roofing material R-value = 0.02 3 - Roof air space (unventilated) R-value = 0.18 4 - 135 mm Aerolite insulation R-value = 3.38 - Rhinoboard ceiling R-value = 0.06 — 6 - Indoor air film (still air) R-value = 0.11 Total R-value = 3.78 m<sup>2</sup>.K/W

#### **FENESTRATION - GROUND STOREY ANCILLARY**

1. NETT FLOOR AREA = 52.40 sqm

2. GLAZING AREA: TOTAL = 7.76 sqm

SOUTH WEST ELEVATION = nil

NORTH EAST ELEVATION = 0.9 sgm NORTH WEST ELEVATION = 6.86 sqm SOUTH EAST ELEVATION = nil

3. 15% OF NETT FLOOR AREA: (sqm/100) X 15= 7.86 sqm

CONCLUSION: TOTAL GLAZING AREA < 15% OF NET FLOOR AREA

GLAZING IS LESS THAN 15% OF NETT FLOOR AREA OF PROPOSAL

THEREFORE CALCULATIONS ACCORDING TO SANS 204 NOT REQUIRED.

7.76 sqm < 7.86 sqm

#### **External wall construction**

Minimum CR-value

Minimum CR-value

SANS 10400 Table 3 - Minimum CR- value, in hours, for external walling:

Wall type		Masonary: Double-skin masonary wall,no cavity,plastered internally				
Minimum CR-value	40Hrs	40Hrs				
Wall R-value required	0.35	0.35				
Calculation:						
	Conductivity (W/m.°C)	Thickness (m)	Resistivity (m²K/w)			
Minimum CR-value	0.6	0.015	0.025			

0.6

0.6

0.220

0.015

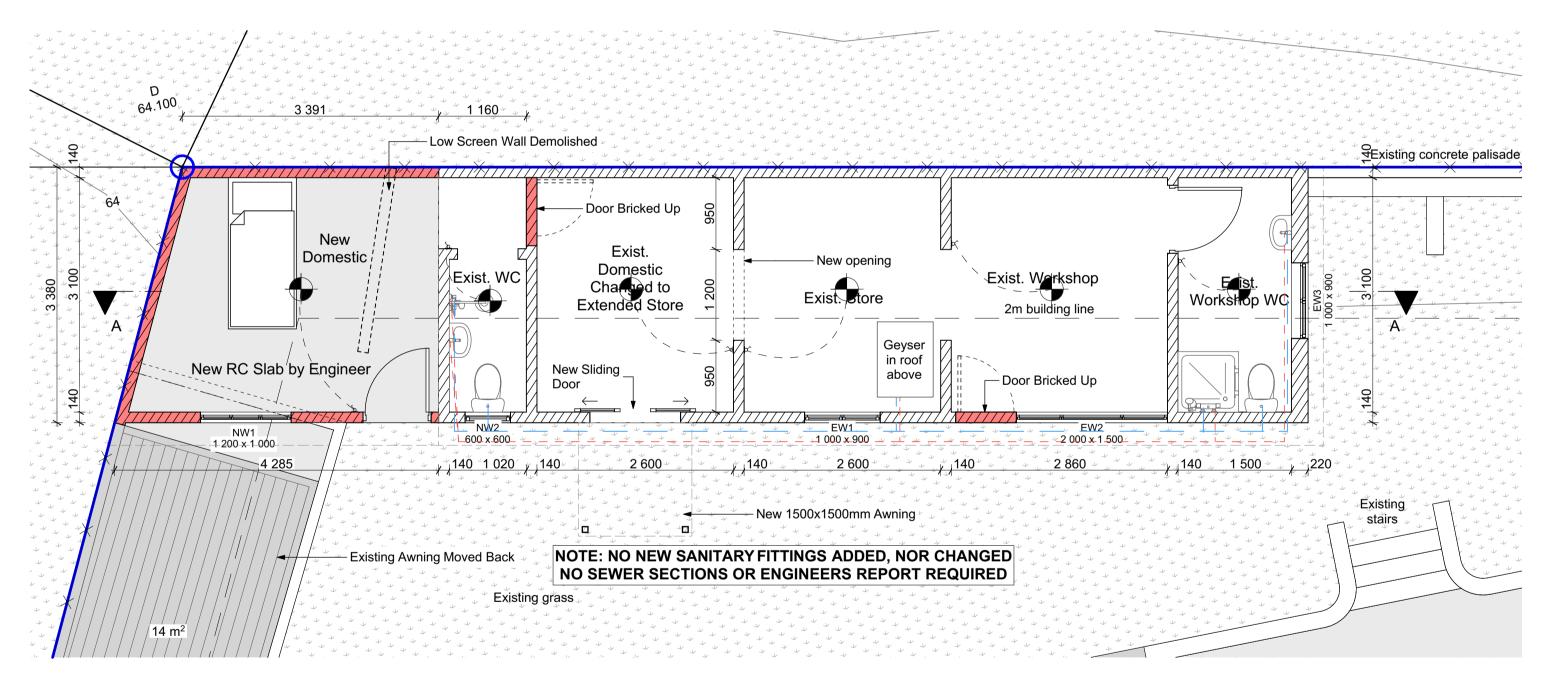
Total R-value achieved

0.314

0.025

0.364

Wall complies with minimum R-value of 0.35 for external walls



## **ELECTRICAL & WATER LAYOUT (OUTBUILDING) 1:50**

## ELECTRICAL LEGEND

◆ CEILING MOUNTED LIGHT FITTING

→ WALL LIGHT

p<sub>9</sub> 2 WAY LIGHT SWITCH

★ STOVE CONNECTION

DISTRIBUTION BOARD ALL ELECTRICAL WIRING TO BE CARRIED OUT BY QUALIFIED ELECTRICAL CONTRACTOR

## **GROUND STOREY OUTBUILDING**

= 11W

LEGEND:

•

ALLOWED SKwH PER sqm

sgm X 5 Kwh 51.86 sqm X 5 Kwh 259.30 Kwh

**ENERGY CONSUMPTION** 

= (5 hrs per day X 365) X ( 6 X 11 WATTS) 1825 kwh X 66 watts ( x 1000) 120.45 kwh

## WATER SUPPLY

ALL HOT WATER PIPES NOT CHASED INTO WALLS OR ENCASED IN FLOORS TO BE INSULATED TO MIN R-VALUE OF 1

## DOMESTIC RESIDENCE H4 1 BEDROOM

HOT WATER DEMAND

2 PERSONS PER BEDROOM 1 X 2 =2

2 X 140L /PERSON= 280L

THIS WILL BE THE DEMAND OVER A 24H PERIOD

A20 CLASIFICATION A21 OCCUPANCY TYPE OF HOT WATER GENERATION HOT WATER DEMAND NUMBER OF BEDROOMS TOTAL DEMAND CAPACITY PROVIDED

:2 PERSONS PER BEDROOM :SOLAR WITH BACK UP ELEMENT :140L PER DAY :1 X 2 X140L = 280L ( 50% XA2 )

#### **WATER SUPPLY LEGEND** WATER METER COLD WATER STOP COCK HOT WATER STOP COCK 25mm COLD WATER GEYSER PIPE 25mm HOT WATER GEYSER PIPE 15mm COLD WATER SUPPLY PIPE 15mm HOT WATER SUPPLY PIPE whb WHB sink SINK \_\_\_ wc WC

# **WATER SUPPLY**

**OVERFLOW** 

DRIP TRAY TO BE PROVIDED AND TO COMPLY WITH SANS 10400 A DISCHARGE PIPE SHALL BE CONNECTED TO THE DISCHARGE CONNECTION OF THE DRIP TRAY AND SHALL BE LEAD THROUGH AN EXTERNAL WALL IN ORDER TO DISCHARGE ON THE OUTSIDE OF THE BUILDING IN A VISIBLE POSITION

Roof insulation Ventilation : Unvented Climate Zone: 5 Orientation : North West

#### R- VALUES

Clay Roof Tiles: 0.48 Plaster Board Gypsium Ceiling 0.06 100mm Roof insulation- AEROLITE 2,50 blanket at 300mm overlap 3,37 Total R-value for roof Direction of heat flow: downwards

## <u>CEILINGS</u>

11,5 Ceiling insulation: 0,046w/mk Thermal conductivity: Ceiling insulation is to be by 80mm flexible Polyester blanket with a density of : 11,5kg/m3

Walls to have a CR-value of 60 and to have an R-value of 0,35

#### **GLAZING NOTES:**

GLAZING TO COMPLY WITH PART N OF SANS 10400-

#### **STRUCTURAL:**

ALL REINFORCED CONCRETE WORK AND RETAINING WALLS TO BE STRICTLY IN ACCORDANCE WITH REGISTERED STRUCTURAL ENGINEEERS DETAILS AND SPECIFICATIONS.

#### **FENESTRATION:**

AIR LEAKAGE SHALL NOT EXCEED 2L/S/METERS SQUARE FENESTRATION AREA; 0.306 L/s/METERS

**SQUARE** FIXED GLAZING; AND 5 L/s/METERS SQUARE REVOLVING/ SWING DOORS. (SANS 10400-XA-4,4,1, FENESTRATION MORE THAN 15% TO NETT FLOOR AREA PER STOREY THEN. (SANS 10400-XA-4,4,4,2) FENESTRATION UP TO 15% TO NETT FLOOR AREA PER STOREY COMPLIES. (SANS 10400-XA-4,4,4,1) SOLAR HEAT GAIN AND HEAT CONDUCTANCE TO **COMPLY WITH** SANS 204-4,3,4

### **ROOF: PITCH 17.5 DEG.**

CONCRETE ROOF TILES ON 38X38mm PINE PURLINS ONTO SISLATION 410 A.S.AT UNDERLAY ONTO **ENGINEERS** TRUSSES BY SPECIALIST ONTO WALL PLATE

PROPERLY SECURED TO BRICKWORK WITH GALVANISED HOOP IRON TIES AT +- 1m SPACING

## **STORM WATER SPECS**

-ALL RAINWATER PIPES TO BE 75mm DIAMETER -ALL GUTTERS TO BE 150mm WIDE -ALL PVC PIPES AND FACIA BOARDS TO BE MADE GOOD

## WALLS:

EXTERNAL : BRICKWORK PLASTERED & PAINTED INTERNAL: COMMON BRICKWORK PLASTERED &

AIR VENTS TO BE PROVIDED MIN. 2 PER ROOM

#### **GENERAL NOTES**

ANY DISCREPANCIES AND OMISSIONS ARE TO BE BROUGHT TO THE DESIGNERS/OWNERS ATTENTION IMMEDIATELY.

CONTRACTOR TO ENSURE THAT NO CHANGES IN LEVELS ARE MADE OVER LOCAL AUTHORITY SERVITUDES OR UNDERGROUND SERVICES UNLESS PERMISSION HAS BEEN GIVEN IN WRITING BT THE LOCAL AUTHORITY.

ALL WRITTEN DIMENSIONS TO BE TAKEN IN PREFERANCE TO SCALING.

CORNER BEACONS TO BE LOCATED AND EXPOSED BEFORE WORK ON SITE COMMENCES.

#### ALL WORK TO COMPLY WITH SANS 10400.

ALL WORK TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS SANS 10400-2011. ALL LEVELS AND DIMENSIONS TO BE CHECKED AND VERIFIED IN SITE PRIOR TO COMMENCEMENT OF WORK, ANY DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATLEY.

#### **GENERAL SPECIFICATIONS**

#### **PLUMBING & DRAINAGE:** ALL PLUMBING TO COMPLY WITH PART P OF THE

SANS 10400: 2010

ALL WASTE WATER PIPES AND DRAINS TO BE ACCESSIBLE ALONG THEIR ENTIRE LENGTH. PROVIDE INSPECTION

EYES ATALL DRAIN BENDS AND JUNCTIONS AND AT A MAX . 25m ALONG STRAIGHT RUNS. CLEANING EYES TO BE PROVIDED AT ALL BENDS AND JUNCTIONS OF WASTE PIPES. WASTE TO BE FITTED

64mm RESEAL TRAPS WATER CONNECTIONS TO FITTINGS: 15mm DIA TO WHB, WC AND SHOWERS 20mm DIA TO GEYSERS 25mm DIA TO FHR ALL VENT PIPES TO DISCHARGE TO EXTERNAL AIR 50MMR WASTE PIPES REQUIRE A 75MMR SLEEVE

FOR PLUMBING AND DRAINAGE LAYOUT PLANS AND THE CROSS SECTIONS REFER TO REGISTERED WET SERVICES ENGINEERS DRAWINGS FOR RATIONAL DESIGN DRAWINGS. ALL STORM WATER TO BE COLLECTED AND DRAIN TO

MUNICIPAL STORM WATER DRAINAGE SYSTEM TO

110MMR WASTE PIPES REQUIRE A 150MMR SLEEVE

ALL NEW SEWER LINES TO RUN IN THE CEILING VOID

#### PLUMBING:

ENGINEERS DETAILS.

ON THE FLOOR BELOW.

WASTE PIPES: 50 DIA. PVC PIPES SEWER PIPES: 100 DIA. PVC PIPES NEW SEWER TO CONNECT TO EXISTING AS SHOWN

WHB TO HAVE 50 DIA. 1WAY VENT VALVE ALL WC'S TO HAVE 2WAY VENT VALVE **NOTE:** ALL NEW SEWER TO CONNECT TO EXISTING

## FLOOR CONSTRUCTION:

FLOOR FINISH ON MIN. 25mm THICK SCREED ON 100mm THICK REINFORCED CONCRETE SLAB ON 250 MICRON DPM ON WELL COMPACTED POISONED



Alan Lukan & Theresa- lane McMillan								
CLIENT/CON	MPANY NAME							
CLIENT INFORMATION								
APPROVED	PAUL ELLIOTT (SACAP D0827)	2022/03/28	Ž					
CHECKED	PAUL ELLIOTT (SACAP D0827)	2022/03/28						

Alan Lukan & Theresa-Jane McMillan MEMBER 6006255236086 & 6202040173086

PAUL ELLIOTT (SACAP D0827)

PHONE No. 071 355 3156 PROJECT INFORMATION

PROJECT DESCRIPTION Add & Alts to Existing Dwelling

PROJECT NAME House Lukan & McMillan

TREET ADDRESS 15 Lonsdale Drive Durban North

SITE DESCRIPTION Sub 2584 of Lot 493 Durban North

DRAWING TITLE Door & Window Schedule, Sans10400XA/204 Compliance

PROJECT NUMBER

01-05/22

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DRAWING INFORMATION