

FENESTRATION CLIMATE ZONE 1

ENSUITE 1

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W4	PT129	1.200 x 0.900	1.08m ²	EAST	0.66	9.28m ²	SINGLE – CLEAR	11.14 W/m ² K	1.39	8.53 W/m ² K	0.58
											PASS	PASS

ENSUITE 2

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W6	PT69	0.600 x 0.900	0.54m ²	WEST	0.83	4.80m ²	SINGLE – CLEAR	5.76 W/m ² K	0.72	4.26 W/m ² K	0.36
											PASS	PASS

ENSUITE 3

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W6	PT69	0.600 x 0.900	0.54m ²	EAST	0.66	4.92m ²	SINGLE – CLEAR	5.90 W/m ² K	0.74	4.26 W/m ² K	0.29
											PASS	PASS

BATH RM 1

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W6	PT69	0.600 x 0.900	0.54m ²	WEST	0.83	7.98m ²	SINGLE – CLEAR	9.58 W/m ² K	1.20	4.26 W/m ² K	0.36
											PASS	PASS

BATH RM 2

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W6	PT69	0.600 x 0.900	0.54m ²	SOUTH	0.33	6.12m ²	SINGLE – CLEAR	7.34 W/m ² K	0.92	4.26 W/m ² K	0.14
											PASS	PASS

TOILET

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W1	PT66	0.600 x 0.600	0.36m ²	WEST	0.76	2.23m ²	SINGLE – LOW E ^Q	2.68 W/m ² K	0.33	2.06 W/m ² K	0.18
											PASS	PASS

MASTER BED RM

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	SD2	SD1821 X0	1.800 x 2.100	3.78m ²	NORTH	0.24	43.73m ²	SINGLE – CLEAR	52.48 W/m ² K	6.56	51.19 W/m ² K	3.15
1	W5	PTT1815	1.800 x 1.500	2.70m ²	SOUTH	0.36					PASS	PASS
				6.48m ²		0.60						

BED RM 1

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W7	PTT1515	1.500 x 1.500	2.25m ²	WEST	0.90	16.71m ²	SINGLE – CLEAR	20.05 W/m ² K	2.51	17.77 W/m ² K	1.64
											PASS	PASS

BED RM 2

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W5	PTT1815	1.800 x 1.500	2.70m ²	WEST	0.90	18.40m ²	SINGLE – CLEAR	22.08 W/m ² K	2.76	21.33 W/m ² K	1.97
											PASS	PASS

BED RM 3

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	SOUTH	0.36	17.63m ²	TINTED DOUBLE ^b LOW E ^b	21.16 W/m ² K	2.94	20.97 W/m ² K	2.86
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	EAST	0.71					PASS	PASS
1	W7	PTT1515	1.500 x 1.500	2.25m ²								
				4.95m ²		1.07						

BED RM 4

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W5	PTT1815	1.800 x 1.500	2.70m ²	NORTH	0.36	16.40m ²	SINGLE – LOW E ^Q	19.68 W/m ² K	2.46	15.47 W/m ² K	0.64
											PASS	PASS

STUDY RM

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	NORTH	0.36	13.94m ²	TINTED DOUBLE ^b LOW E ^b	16.72 W/m ² K	2.09	17.13 W/m ² K	2.64
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	EAST	0.71					PASS	PASS
1	W9	PTT915	1.800 x 1.500	1.35m ²								
				4.05m ²		1.07						

DINING RM

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	NORTH	0.14	23.57m ²	TINTED DOUBLE ^b LOW E ^b	24.77 W/m ² K	3.53	15.47 W/m ² K	2.48
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	EAST	0.71					PASS	PASS
1	W7	PTT1515	1.500 x 1.500	2.25m ²								
				4.95m ²		0.85						

LOUNGE

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	SOUTH	0.14	28.13m ²	TINTED DOUBLE ^b LOW E ^b	33.76 W/m ² K	4.22	49.77 W/m ² K	3.38
1	W8	SPECIAL	0.900 x 1.500	1.35m ²	EAST	0.71					PASS	PASS
1	W7	PTT1515	1.500 x 1.500	2.25m ²								
1	SD2	SD1821 X0	1.800 x 2.100	3.78m ²	WEST	0.31						
				4.95m ²		1.16						

SCULLERY

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W4	PT129	1.200 x 0.900	1.08m ²	SOUTH	0.33	6.91m ²	SINGLE – LOW E ^Q	8.29 W/m ² K	1.04	6.19 W/m ² K	0.23
											PASS	PASS

KITCHEN

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	W10	PTT189	1.800 x 0.900	1.62m ²	NORTH	0.33	19.49m ²	SINGLE – CLEAR	23.28 W/m ² K	2.92	12.80 W/m ² K	0.43
											PASS	PASS

FAMILY RM

QTY.	PLAN CODE	PART No.	DIMENSION	GLAZING AREA	ORIENTATION	E	FLOOR AREA	GLASS DESCR.	Cu ALLOWED	SHGC ALLOWED	Cu ACHIEVED	SHGC ACHIEVED
1	SD1	SD2421 X0	2.400 x 2.100	5.04m ²	NORTH	0.16	26.96m ²	TINTED DOUBLE ^b	32.35 W/m ² K	4.04	26.65 W/m ² K	0.59
1	SL1	SL621	0.600 x 2.100	1.26m ²							PASS	PASS
				6.30m ²								

AREA
ERF : 1212m²
DWELLING : 424.00m²
COVERAGE : 35%
F.A.R : 0.35

PLAN DRAWN BY: **SILVER SOLUTIONS CC**
 ARCHITECTURAL DRAFTING SERVICES
 REG. 2005/049415/23
 17 CATHCART AVE.
 SHARON PARK
 1496
 TEL: CEL. 082 969 9928
 CONTACT :SELLO TSOTETSI



PROJECT NEW DWELLING
OWNER MR B. MYENI
ERF 115
TOWN STRUISBULT

CLIMATE ZONE 1

A. UNDER ROOF TILE & CEILING INSULATION

- OVER RAFTER INSULATION:
 FLEXIBLE BOQ POLYESTER FIBRE BLANKET
 WHITE SIDE UP & FOIL SIDE DOWN: R-VALUE =0.96
- FLEXIBLE CEILING BLANKET INSULATION:
 135mm AEROLITE 11Kg/m³ R-VALUE = 2.50
 ADDED R-VALUE ACHIEVED = 3.46
 ADDED R-VALUE OF INSULATION REQUIRED = 3.30
 THEREFORE THE ABOVE COMPLIES

HOT WATER SERVICE

- A 150L SOLAR WATER HEATER HAS BEEN SPECIFIED AND WILL SUPPLY THE ENTIRE DWELLING WITH HOT WATER.
- HOT WATER SUPPLY IS COMPLIANT IN-TERM OF SAN 10400-XA2011 CLAUSE 4.1 & SAN 204-2011 CLAUSE 4.4.2.

ENERGY DEMAND

TOTAL BUILDING AREA = 424m²
 PERMISSIBLE ENERGY DEMAND = 5W/m²
 MAX. PERMISSIBLE ENERGY DEMAND = 5W/m² x 424m²
 = 2120W
 HOUSE HAS 58 x 11W LIGHT FITTING = 638W < 2120W
 ENERGY DEMAND IS COMPLIANT IN-TERM OF SAN 204:2011

ENERGY CONSUMPTION

ASSUME LIGHTS ARE ON 7 HOURS A DAY/YEAR (05:00 – 07:00 & 18:00 – 23:00).
 52 WEEKS x 7 DAYS x 7 HOURS = 2548ha
 TOTAL LAMP WATTAGE = $\frac{77}{1000}$
 = 0.077
 PERMISSIBLE = 1345kWh.a
 TOTAL ENERGY CONSUMPTION = 0.077kW x 2548hrs.a
 =196.19kWh.a < 1345kWh.a
 ENERGY CONSUMPTION IS COMPLIANT INTERM OF SANS 204:2011 CLAUSE 4.5.1