

HANDING &QUANTITY TO BE DETERMINED FROM

MANUFACTURING. DISCREPANCIES TO BE REPORTED

AGGREGATE SHGC= 6.295447

 DEVIATION FROM DRAWINGS AND/OR SPECIFICATION TO BE DISCUSSED WITH AND APPROVED BY THE ARCHITECT/CLIENT PRIOR TO MANUFACTURE.
 DRAWING NOT TO BE MEASURED, ONLY READ

ALL OPENINGS TO BE MEASURED PRIOR

LAYOUT DRAWINGS.

TO ARCHITECT.



ENERGY EFFICIENCY OF GLAZING ELEMENTS

CLIMATE ZONE 5 OCCUPANCY H4

NETT FLOOR AREA GROUND STOREY =123.2m² x (15% = 18.48m² permissible)

AGGREGATE CONDUCTANCE= 83.952

PERMISSIBLE CONDUCTANCE $-(1.4) \times 123.2 \text{sqm} = 172.48$ PERMISSIBLE SHGC $-(0.11) \times 123.2 \text{sqm} = 13.552$

WINDOW TYPE HEIGHT WIDTH AREA U-VALUE U-COAST G G P H G-effect xP/H ORIENTATION E-FACTOR SHGC SHGC COST A x E x SHGC Window 2 x 2 1.5m 0.6m 0.9m 3 2.7 0.5m 1 0.6m 1.9m 0.32 NORTH EAST 0.43 0.56 0.21672 G-effect ORIENTATION E-FACTOR SHGC SHGC COST A x E x SHGC 2.1m 1.6m 3.36 3 10.08 0.5m 1 0.6m 2.6m 0.23 NORTH EAST 0.56 0.56 1.0536696 Door 4 Window 2 x 2 1.5m 0.6m 1.8m 3 5.4 3.7m 0.5 0.6m 5.2m 0.06 NORTH EAST 0.68 0.56 0.68544 2.1m 3.550m 7.5m 3 22.5 0.1m 1 3m 2.2m 1.36 SOUTH EAST 0.3 0.56 1.26 Door 6 2.1m | 1.845m | 3.87m | 3 | 11.61 | 0.1m | 1 | 3m | 2.2m | 1.36 | NORTH EAST | 0.21 | 0.56 | 0.455112 Door 5 0.9m | 1.8m | 1.62m | 5.6 | 9.072 | 0.1m | 1 | 3m | 1m | 3 | SOUTH EAST | 0.21 | 0.77 | 0.261954 Window 4 0.9m 1.8m 1.62m 5.6 9.072 3.7m 0.5 0.6m 4.6m 0.07 NORTH WEST 0.53 0.77 0.661122 Window 4 Window 2 1.5m 0.6m 0.9m 3 2.7 3.7m 0.5 0.6m 5.2m 0.06 SOUTH WEST 0.69 0.56 0.34776 Door 3 1.5m | 1.2m | 1.8m | 3 | 5.4 | 3.7m | 0.5 | 0.6m | 5.2m | 0.06 | SOUTH EAST | 0.169 | 0.56 | 0.170352 Window 3

CONDUCTANCE AND SHGC IS BELOW THAN PERMISSIBLE AND COMPLIES WITH SANS 10400 - 204 AND SANS 10400 XA

ENERGY EFFICIENCY OF GLAZING ELEMENTS

CLIMATE ZONE 5 OCCUPANCY H4

NETT FLOOR AREA FIRST STOREY =164.7m² x (15% = 24.705m² permissible)

(W3)

IL-261,739

CL-262,557

IL-261,824

D-0,733

ex sewer 100Ø upvc pipe

SOUTH WEST ELEVATION

SCALE 1:100

IL-261,282 IL-261,178

PERMISSIBLE CONDUCTANCE - $(1.4) \times 164.7 \text{sqm} = 230.58$

PERMISSIBLE SHGC (1.4) X 104.73qm = 230.36 - (0.11) X164.73qm = 18.117

WINDOW TYPE	HEIGHT	WIDTH	AREA (A)	U-VALUE (U)	U-COAST (AXU)	G	G effect	Р	Н	G-effect xP/H	ORIENTATION	E-FACTOR	SHGC	SHGC COST A x E x SHGC
Door3	2.1m	0.86m	1.806m	3	5.418	0.5m	1	0.6m	2.7m	0.22	NORTH WEST	0.6	0.56	0.2408
Window 5	1.5m	1.8m	2.7	3	8.1	0.5m	1	0.6m	2m	0.3	NORTH EAST	0.52	0.56	0.4212
Window 2 x 2	1.5m	0.6m	1.8m	3	5.4	0.5m	1	0.6m	2m	0.3	NORTH WEST	0.53	0.56	0.2862
Window 2	1.5m	0.6m	0.9m	3	2.7	0.5m	1	0.6m	2m	0.3	NORTH WEST	0.53	0.56	0.1413
Window 5	1.5m	1.8m	2.7m	3	8.1	0.5m	1	0.2m	2m	0.1	NORTH EAST	0.68	0.56	0.1836
Window 2	1.5m	0.6m	0.9m	3	2.7	0.5m	1	0.2m	2m	0.1	SOUTH EAST	1.07	0.56	0.0963
Window 2 x 4	1.5m	0.6m	3.6m	3	10.8	0.5m	1	0.6m	2m	0.3	NORTH WEST	0.53	0.56	0.5724
Window 2 x 2	1.5m	0.6m	1.8m	3	5.4	0.1m	1	3.6m	1.6m	2.25	SOUTH EAST	0.21	0.56	0.8505
Door 4	2.1m	1.6m	3.36m	3	10.08	0.1m	1	3.6m	2.2m	1.64	SOUTH EAST	0.24	0.56	1.319564
Door 4	2.1m	1.6m	3.36m	3	10.08	0.1m	1	3.6m	2.2m	1.64	NORTH EAST	0.18	0.56	0.989673
Window 6	1.8m	1.2m	2.16m	3	6.48	0.5m	1	0.6m	2.3m	0.26	NORTH EAST	0.52	0.56	0.293009
Window 6	1.8m	1.2m	2.16	3	6.48	0.5m	1	0.6m	2.3m	0.26	SOUTH EAST	0.82	0.56	0.462052
Window 1 x 2	0.9m	0.6m	1.09m	3	3.27	0.5m	1	0.6m	1.4m	0.43	SOUTH WEST	0.75	0.56	0.350357
Window 3 x 3	1.5m	1.2m	5.4m	3	16.2	0.5m	1	0.6m	2m	0.3	SOUTH WEST	0.85	0.56	1.377
Window 2	1.5m	0.6m	0.9m	3	2.7	0.5m	1	0.2m	2m	0.1	SOUTH EAST	1.07	0.56	0.0963
AGGREGATE CONDUCTANCE= 103.908 AGGREGATE SHGC= 7.682								7.682054						
CONDUCTANCE	AND SHO	GC IS BE	LOW THA	N PERMIS	SIBLE AND	COMPLI	ES WIT	H SANS	10400 -	204 AND	SANS 10400 XA	\		

APPLICANT	SIGNATURE:	
7 1.22.07.1.11	0101111101121	

OWNER SIGNATURE:

CLIENT:

brick up opening

fascia board

per door schedule

10400 part D 4.2

22° king post roof truss with concrete roof tiles with approved underlay

cottage pain treated timber

plaster and paint to match

concrete stairs by engineer

1m high 5mm safety glass balustrade

with chrome framr to comply with sans

frame stained and sealed as

ADDRECC.

702 STEPHEN DLAMINI ROAD POR 9 OF ERF 768 DURBAN

PROPOSAL ADDITIONS AND ALTERATIONS

 $Architectural {}_{\scriptscriptstyle{\mathsf{CK}}}^{\scriptscriptstyle{\mathsf{Budget}\ \mathsf{Plans}\ \mathsf{cc}}} {}_{\scriptscriptstyle{\mathsf{CK}}}^{\scriptscriptstyle{\mathsf{Spirading}\ \mathsf{as}}} Aspirations$

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Date: 27 SEPTEMBER 2023

Sheet: 3 of 4

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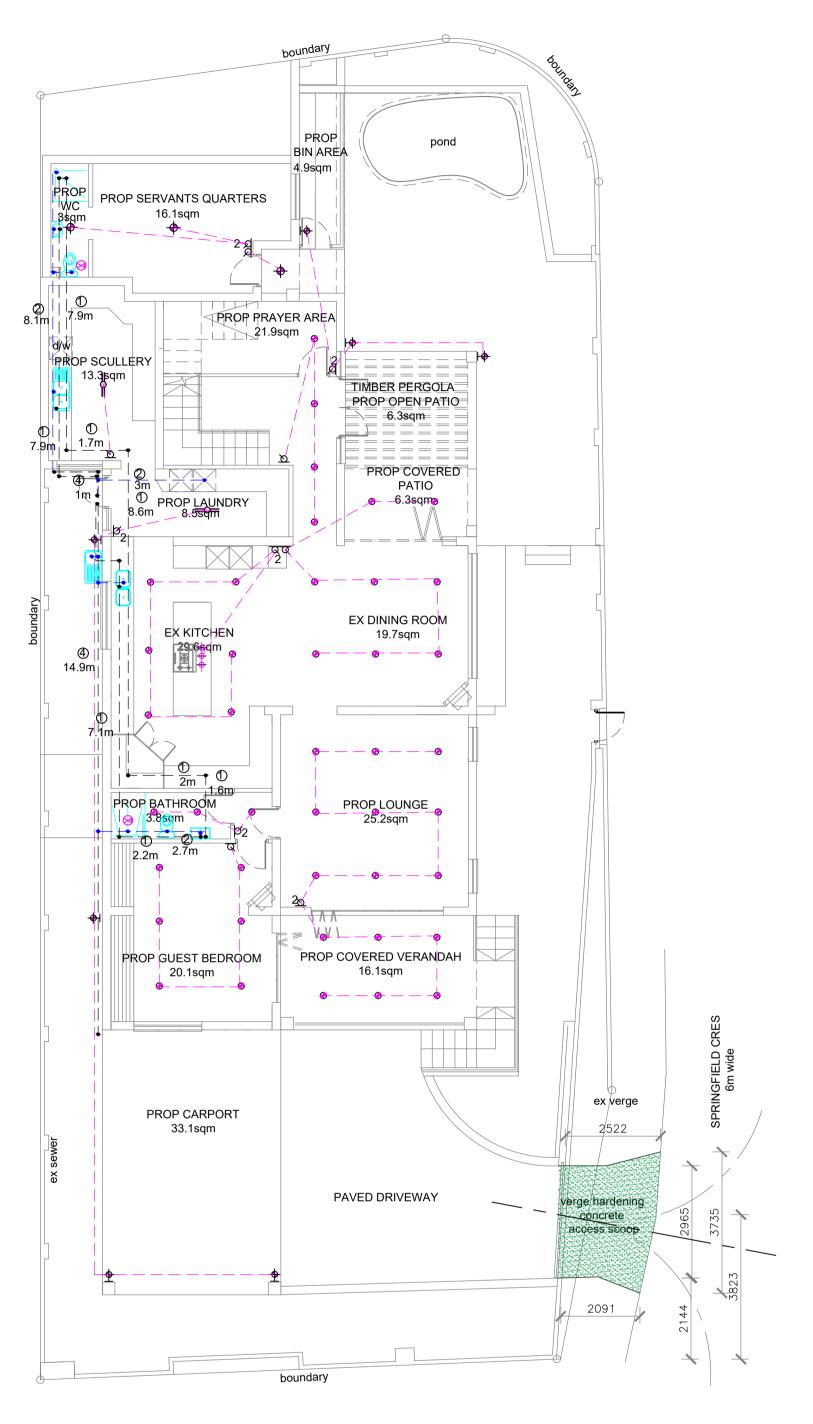
Paper Size: A1

Sheet: 3 of 4

Scale: as shown

Drawing Number: 3008/23W

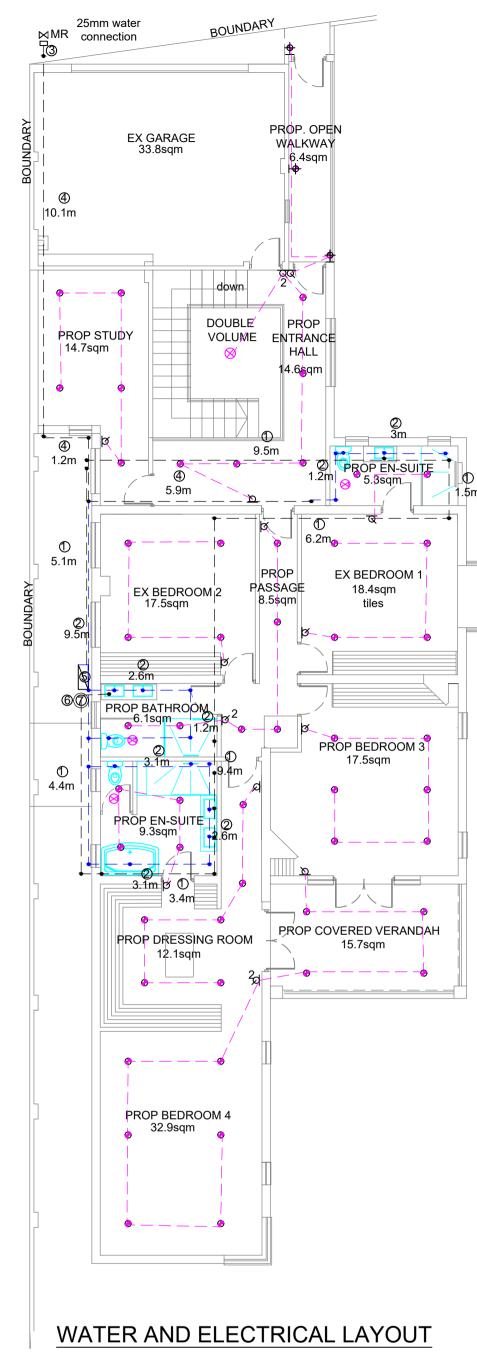
Revision: C



WATER AND ELECTRICAL LAYOUT

GROUND STOREY SCALE 1:100

	LEG	SEND
1		-15mm hot water pipe
2		-20mm cold water pipe
3	X	- ex isolating valve
4		-ex 20mm cold water pipe
5		-50KW heat pump
6		-50mm overflow pipe direct from drip trayto discharge externaly
7		- 200L hp storage water heater



FIRST STOREY

SCALE 1:100

ELECTRICAL LEGEND				
16	þ	LIGHT SWITCH SINGLE		
9	b ₂	DOUBLE SWITCH 2LEVER		
91	()	DOWN LIGHTS 3w		
3	 	CEILING LIGHTS 6w		
9	 	WALL LIGHTS 6w		
1	•••	DECORATIVE SPOT LIGHT 6w		
1	\otimes	CHANDELIER 25w		
2	≕	DOUBLE FLORESCENT LIGHT 12w		
5	8	220MM DIA. MECHANICAL EXTRACTION @20L PER SECOND AIR EXCHANGE WITH SEPARATE POWER SOURCE		

SANS 10400-XA REQUIRED R-VALUE 0.35 SANS 204 REQUIRED CR-VALUE 60 HOURS - 230MM BRICK WALLS WITH A 50MM AIR CAVITY R-VALUE = 1,9 COMPLIES AS PER SANS 10400-XA

CR-VALUE = 60 COMPLIES AS PER SANS 204

DWELLING HOUSE: 80-115 L/CAPITA/DAY ASSUMED HOT WATER CONSUMPTION: 30L P/P NUMBER OF PERSONS : 8 PER DAY ASSUMED DAILY HOT WATER CONSUMPTION: 240L ASSUMED ANNUAL HOT WATER CONSUMPTION: 87.60KL 50% OF ANNUAL HOT WATER CONSUMPTION: 43.80KL 60L PER DAY PROVIDED BY PROVIDED BY 50KW INSTANT WATER HEATER.

>80MM DIAMETER HOT WATER PIPE WITH A MINIMUM R-VALUE OF 1.5 TO BE USED

ROOF [NOT VENTILATED]

R-Value required = 2,7 Material

Ceiling [gypsum board]: 0,05 Insulation [100mm aerolite: 2,17 insulation with 30cm overlaps]

Total R-Value = 2.7 [complies]

1. VEHICULAR SCOOP ARE TO BE CONSTRUCTED WITH CONCRETE SURFACING THE SURFACING DETAIL WILL BE CONFIRMED BY THE ENGINEER ON SITE.

- 2. ALL CAST IN SITU CONCRETE IS TO BE GRADE
- 3. CONCRETE SCOOP AREAS TO HAVE WOOD FLOAT FINISH.
- 4. CAST IN-SITU CHANNEL/FILLET TO HAVE A STEEL TROWEL FINISH.
- 5. EXPANSION JOINT TO BE PLACED TROUGH COMPLETE KERB AND CHANNEL CONSTRUCTION
- AS SPECIFIED. 6. CONTRACTION JOINTS TO BE PLACED TROUGH
- THE CHANNEL ON AT 2.0M C/C.

 7. APPROVED WEED KILLER TO CONCRETE AREA TO BE SPRAYED ON COMPACTED SUB BASE.

ENERGY CONSUMPTION Total Energy Demand [F/A x S] $\underline{\mathsf{NETT.}} \ \mathsf{FLOOR} \ \mathsf{AREA} = 378.6 \mathsf{m}^2 \, \mathsf{x} \, \mathsf{5kWh} = 1893 \mathsf{kWh/Pa}$ no. of lights watts hrs DOWN LIGHTS **CEILING LIGHTS** WALL LIGHTS CHANDELIER 25 DECORATIVE PENDANT C/LIGHTS DOUBLE FLORESCENT 12

 $91 \times 3 \times 8 \times 365 = 797.160 \text{ KWH/PA}$ 4 X 6 X 8 X 365 = 52.560 KWH/PA $9 \times 6 \times 8 \times 365 = 157.68 \text{ KWH/PA}$ $1 \times 25 \times 8 \times 365 = 73.00 \text{ KWH/PA}$ $1 \times 6 \times 8 \times 365 = 75.52 \text{ KWH/PA}$ $2 \times 12 \times 8 \times 365 = 70.08 \text{ KWH/PA}$

TOTAL 1226.00 KWH/PA < 1893.00 KWH/PA (COMPLIES)

APPLICANT SIGNATURE:

OWNER SIGNATURE:

CLIENT:

702 STEPHEN DLAMINI ROAD POR 9 OF ERF 768 DURBAN

PROPOSAL ADDITIONS AND ALTERATIONS

Architectural A spirations

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Revision: C