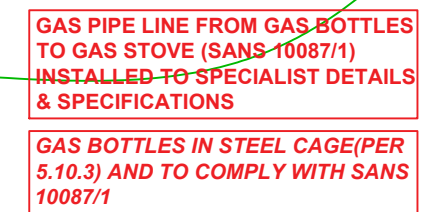


DRAWING:	
SITE PLAN, FLOOR PLANS & ELEVATIONS	
SCALE:	DATE:
AS INDICATED	2024/12/04
DRAWING NUMBER:	
ERF 29278 R3 - 1000	



EE Supplemental Guide

BUSHWILLOW CRECENT HO, 2027B
BUSHWILLOW HO, 2027B

Case Studies
New Dwelling

Fenestration – Buildings with Natural Environmental Control

Glazings

Conductance (C_g) constant	1.1
Solar Heat Gain (C_{SHG}) constant	0.14

Storm Conductance / Solar Heat Gain

Gross Floor Area	385.50
Fenestration Area / Stormy / Floor	54.73

% Fenestration Area to Net Floor Area = 14.2

Permissible CONDUCTANCE (C_g) PER FLOOR = 1.1 TO 2 SAND 204

Max. Conductance (C_g) for Stormy / Floor	388.20
---	--------

Max. Solar Heat Gain (C_{SHG}) for Stormy / Floor	57.14
---	-------

Adjusted Conductance (Cd) for Stormy / Floor	281.76
--	--------

Solar Heat Gain (CSHG) for Stormy / Floor	38.14
---	-------

Available in (SAND)

Conductance (C_g) for Stormy / Floor	30.84	Applicable & refer SAND 214 (A.3.4)
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Solar Heat Gain (C_{SHG}) for Stormy / Floor	8.95	Applicable & refer SAND 214 (A.3.4)
--	------	-------------------------------------

Roof Assembly

SAND 140-A	Required R-value
------------	------------------

Minimum Total R-value required	3.7	m ² /W
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Direction of heat flow	Up	
------------------------	----	--

Construction Type R-value

Basic roof assembly	Min. insulating type
---------------------	----------------------

R-value for roof insulating material	0.3	m ² /W
--------------------------------------	-----	-------------------

R-value for ceiling	0.15	m ² /W
---------------------	------	-------------------

Required added R-value for insulation	3.35	m ² /W
---------------------------------------	------	-------------------

SAND 316	Required R-value
----------	------------------

Required R-value	
------------------	--

Roof ceiling	Uninsulated
--------------	-------------

Basic roof construction R-value	
---------------------------------	--

Roof ceiling	13-14" thick w/ catwalk/beam beam ceiling
--------------	---

Basic R-value for Roof

Direction of heat flow	Up
------------------------	----

Outdoor air temp (T _o)	2.0	m ² /W
------------------------------------	-----	-------------------

Metal cladding	0.05	
----------------	------	--

Roof air space	0.15	
----------------	------	--

(30 mm to 100 mm, non-reflective)

Pneumatically applied, 10 mm. self-ign.	0.15	
---	------	--

Indoor air film (t _{int})	0.11	
-------------------------------------	------	--

Total R-value	0.51	m ² /W
---------------	------	-------------------

Thermal Insulation

Minimum added R-value of insulation required	2.81	m ² /W
--	------	-------------------

Density of mineral product added	Possible polyester blanket
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Density of organic insulation added	115	kg/m ³
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Thickness of organic insulation required	100	mm.
--	-----	-----

IE Supplemental Guide

BUSHWALD CURRENT NO. 3079

BUSHWALD CURRENT NO. 3079

Cape Exits

New Listing

Air Infiltration and Leakage

Max. Permissible Air Leakage (A/C)2.0Leak* - Operative glazing

Max. Permissible Air Leakage (A/C)0.31Leak* - Non-operative glazing

Max. Permissible Air Leakage (A/C)4.0Leak* - Closed doors when using storm and revolving doors

All with 75 Pa pressure difference when tested in accordance with SANS 81.3

Chimneys and Flues

Type of burning fuel---

Rear Lights and Skylights

Rear light or skylight needed?No

External Doors

Door series:---

External Fans

Exhaust fan series:---

Roofs, Walls and Floors

Roof, external walls & floors and:---

Services

Lighting and Power

Max. Energy Demand1428.6W - Permissible

Max. Energy Consumption per Area1428.6W/m² - Permissible

Lamp usage (W)	No. of lamps	Month in Use (day)
15	0	0
30	0	0
45	0	0
60	0	0
75	0	0
90	0	0
105	0	0
120	0	0
135	0	0
150	0	0
165	0	0
180	0	0
195	0	0
210	0	0
225	0	0
240	0	0
255	0	0
270	0	0
285	0	0
300	0	0
315	0	0
330	0	0
345	0	0
360	0	0
375	0	0
390	0	0
405	0	0
420	0	0
435	0	0
450	0	0
465	0	0
480	0	0
495	0	0
510	0	0
525	0	0
540	0	0
555	0	0
570	0	0
585	0	0
600	0	0
615	0	0
630	0	0
645	0	0
660	0	0
675	0	0
690	0	0
705	0	0
720	0	0
735	0	0
750	0	0
765	0	0
780	0	0
795	0	0
810	0	0
825	0	0
840	0	0
855	0	0
870	0	0
885	0	0
900	0	0
915	0	0
930	0	0
945	0	0
960	0	0
975	0	0
990	0	0
1005	0	0
1020	0	0
1035	0	0
1050	0	0
1065	0	0
1080	0	0
1095	0	0
1110	0	0
1125	0	0
1140	0	0
1155	0	0
1170	0	0
1185	0	0
1200	0	0
1215	0	0
1230	0	0
1245	0	0
1260	0	0
1275	0	0
1290	0	0
1305	0	0
1320	0	0
1335	0	0
1350	0	0
1365	0	0
1380	0	0
1395	0	0
1410	0	0
1425	0	0
1440	0	0
1455	0	0
1470	0	0
1485	0	0
1500	0	0
1515	0	0
1530	0	0
1545	0	0
1560	0	0
1575	0	0
1590	0	0
1605	0	0
1620	0	0
1635	0	0

Total long energy demand (W)162Energy demand acceptable

Total energy demand (W)0.87Energy demand acceptable

Total energy demand for lights1065.0W

Total energy consumption - Lights (W)569.6Energy consumption acceptable

Total energy consumption - Lights (W)569.6Energy consumption acceptable

Available annual energy consumption - Lights (W)338.0W/m²

Hot Water Services

Type of accommodation:---

Use all installed services (date available)---

Assumed Hot Water Consumption:40l/s

Assumed Hot Water Consumption:6l/sPer Day

Assumed Daily Hot Water Consumption:360l/s

Assumed Daily Hot Water Consumption:10l/sBased on daily design occupancy per seat

15% of Annual Hot Water Consumption:0.644l/s

15% of Annual Hot Water Consumption:10l/s= To be heated by means other than electrical resistance heating

Insulation Requirements

Insulated demand for Hot Water Service Pipe:1.85 mm

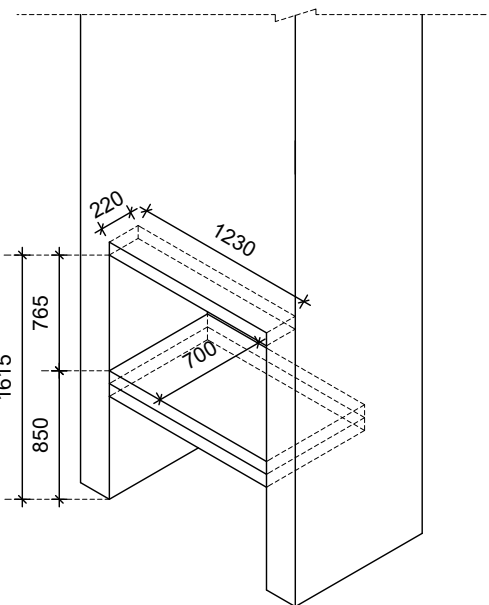
Minimum Required R-value for Pipe Insulation:1R Refer SANS 204 (2.4)

Hot Water Services / Tanks

Insulated demand for Hot Water Service Tank:2

Additional insulation to manufacturer's insulation may be required to achieve this R-value

ELECTRICAL KEY	
	Main electrical distribution board
	Single 15 AMP wall plug 300mm above F.F.L
	30 AMP single phase stove connection with isolator against wall 1100mm above F.F.L
	Double 15 AMP wall plug 300mm above F.F.L (1100mm above F.F.L in kitchen)
	Waterproof double 15 AMP wall plug 300mm above F.F.L (1100mm above F.F.L in kitchen)
	Shaver plug point
	Telephone & DATA point mounted 300mm above F.F.L
	TV point.
	Point for remote controlled electrically operated garage door.
	Single light switch wall mounted 1200mm above F.F.L
	Two way light switch wall mounted 1200mm above F.F.L
	Ceiling mounted light / fan armature point.
	Pendant light armature point. Exact height to be determined on site.
	1500x600mm 2Tube recessed fluorescent armature with prismatic diffuser.
	Watertight light armature point 2100mm high vertically mounted against wall.
	Light armature point 2100mm high vertically mounted against wall.
	Watertight light armature point
	Watertight down lighters.
	Down lighters.
	Bathroom extractor
	Position 150L / 200L KWIKOT hot water cylinder
	Gas water heater
	Air condenser unit with IS connection
	Mid wall split aircon unit



TYPICAL BRAAI ISOMETRIC
SCALE 1:50

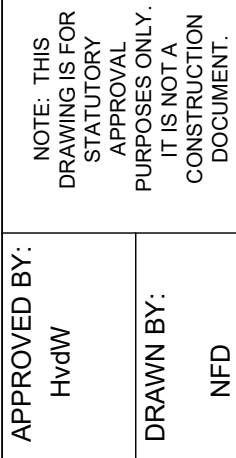
drawings and measurements must be checked and verified before the ordering of materials or before any building takes place. Differences must be brought to the attention of the designer immediately. All work according to National Building Regulations and local authority rules. All building, electrical and plumbing to comply with SANS 10400 regulations. The copyright on all drawings and designs are reserved. This drawing is to be read in conjunction with all relevant consultants drawings, details and specifications. Only the latest signed and approved drawings to be used. **Never scale from this drawings.**

NOTE: No amendments to this drawing or future additions/alterations to this drawing may be made without prior approval of the HOA DRP/EC

**APPLICATION FOR ERF 29278
ONLY.**

KRAAIBOSCH PARK

NEW RESIDENCE FOR ERF 29278,
Kraaibosch Park, George



SERVICES FLOOR PLANS, SECTION & DETAILS

SCALE:	DATE:
AS INDICATED	2024/12/04

ERF 29278 R3 - 2000

