

**M&T DEVELOPMENT
BLOCK 5
THE BOARDWALK
HAYMEADOW
FAERIE GLEN
0043**

ATTENTION: MR PW KRUGER

**P.O. Box 604
Fourways
2055
Gauteng**

Telephone

Direct : (011) 469 0854

Fax : (011) 469 0961

Fax : 0866892847

E-mail vgijhb@mweb.co.za

IRENE EXTENSION 70: CENTURY MANOR: SDP CERTIFICATION

Attached please find certification, as requested, based on the following reports:

1. VGIconsult report, VGI4071S, dated 29 February 2008, entitled: "Irene Extension 70: GFSH-2: Phase 1 Geotechnical Investigations: Residential 2 Stands: 3461, 3500, 3545 And 3595"
2. VGIconsult report, VGI4071R, dated 8 February 2008, entitled: "Irene Extension 70: GFSH-2: Phase 1 Geotechnical Investigations: Residential 2 Stands: 3461, 3500, 3545 and 3595"
3. VGIconsult report, VGI4063CR, dated 18 January 2008, entitled: "Project: GFSH-2: Construction Completion Report: Irene Extension 70 (Century Manor)"
4. VGIconsult report, VGI4063, dated 24 October 2007, entitled: "GFSH-2, PHASE 2: Infill Geotechnical Investigations: Irene Extension 70"
5. Intraconsult report, IR523F, dated July 2003, "Geotechnical investigations for proclamation: approximately 417ha east of Irene"

Ms N Trollip
For VGIconsult Projects (Pty.) Ltd.

STAND NUMBERS	INHERENT RISK ZONATION	D DESIGNATION	ACCEPTABLE LAND USAGE			SOIL CLASS	MONITORING DESIGNATION
3461	Inherent Risk Class 4/1//1(4)	D3	No Of Units 4	Stand Size (m ²) 2622	Units Per Hectare 18	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3462	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
2463	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3464	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3465	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3466	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3467	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3468	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3469	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3470	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3471	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3472	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3473	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3474	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3475	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3476	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3478	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3479	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3480	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3481	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3482	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3483	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3484	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3485	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3486	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3487	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3488	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3489	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3490	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3491	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3492	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3493	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3494	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes ≥ 500 m ²			PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶

[illegible]

[illegible]

[illegible]

STAND NUMBERS	INHERENT RISK ZONATION	D DESIGNATION	ACCEPTABLE LAND USAGE	SOIL CLASS	MONITORING DESIGNATION
3596	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3597	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3598	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3599	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3600	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3601	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3602	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3603	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3604	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3605	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3606	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3607	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3608	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3609	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3610	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3611	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3612	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3613	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3614	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
2615	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3616	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3617	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3618	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3619	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3620	Inherent Risk Class 4/1//1(4)	D3	RESIDENTIAL 1 : Stand Sizes $\geq 500 \text{ m}^2$	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶
3621	Inherent Risk Class 4/1//1(4)	D3	Clubhouse	PD3(H/C-C1/S) Clubhouse	A ⁶ (BC) ¹² D ⁰ E ⁶
3622	Inherent Risk Class 4/1//1(4)	D3	Access Control	PD3(H/C-C1/S) Access control	A ⁶ (BC) ¹² D ⁰ E ⁶
3623	Inherent Risk Class 4/1//1(4)	D3	Access Control	PD3(H/C-C1/S) Access control	A ⁶ (BC) ¹² D ⁰ E ⁶
3624	Inherent Risk Class 4/1//1(4)	D3	Access Control	PD3(H/C-C1/S) Access control	A ⁶ (BC) ¹² D ⁰ E ⁶
3625	Inherent Risk Class 4/1//1(4)	D3	Traffic circle	PD3(H/C-C1/S) Traffic circle	A ⁶ (BC) ¹² D ⁰ E ⁶
3626	Inherent Risk Class 4/1//1(4)	D3	Servitude	PD3(H/C-C1/S)	A ⁶ (BC) ¹² D ⁰ E ⁶

STAND NUMBERS	INHERENT RISK ZONATION	D DESIGNATION	ACCEPTABLE LAND USAGE	SOIL CLASS	MONITORING DESIGNATION
				Servitude	
3627	Inherent Risk Class 4/1//1(4)	D3	Servitude	PD3(H/C-C1/S) Servitude	A ⁶ (BC) ¹² D ⁰ E ⁶
3628	Inherent Risk Class 4/1//1(4)	D3	Servitude	PD3(H/C-C1/S) Servitude	A ⁶ (BC) ¹² D ⁰ E ⁶
3629	Inherent Risk Class 4/1//1(4)	D3	Traffic circle	PD3(H/C-C1/S) Traffic circle	A ⁶ (BC) ¹² D ⁰ E ⁶

Legend:

Inherent Risk Class	Description
4/1//1(4)	Reflecting a medium to low Inherent Risk of sinkhole and doline formation (all sizes) with respect to ingress of water and a low (with sub-areas of medium) Inherent Risk with respect to groundwater level drawdown

Dolomite Area Designation	Description
D3	The risk of sinkhole and doline formation is adjudged to be such that precautionary measures, in addition to those pertaining to the prevention of concentrated ingress of water into the ground, are required to permit the construction of housing units.

GFSH-2 PHASE 1 Soil Site Class	Commentary
PD3(H/C-C1/S)	The site is underlain by dolomite materials at depth. Generally the profile comprises colluvial transported soils of varying thicknesses overlying chert residuum materials. Anticipate slight to moderate collapsible soils on this site.

Monitoring Designation	Commentary
A ⁶ (BC) ¹² D ⁰ E ⁶	To be undertaken by Tshwane Metropolitan Municipality (TMM) or the Section 21 Company on behalf of TMM
Annotation	Activity

A	Visual inspections of ground, structures and above ground infrastructure (e.g. roads, storm water canals, ditches). Any evidence of cracking or ground settlement should immediately be reported and investigated.
B	Visual inspection of stormwater systems crossing the site for blockages. Any evidence of blockages should be reported and cleared immediately.
C	Testing of wet-services for leaks. Any leaks to be reported and repaired immediately.
D	Monitoring of structures and ground levels. Any evidence of movement must be reported and investigated.
E	Monitoring of the groundwater level. Evidence of lowering must be reported to the Department of Water Affairs and Forestry.
Annotation	Frequency
() ⁶	Activities to be undertaken bi-annually.
() ¹²	Activities to be undertaken annually.
() ⁰	No action required.

Name	Capacity	Professional registration	Contact details
Dave Buttrick	Engineering geologist: VGIconult (geotechnical investigations)	SACNSP	011 469 0854
Nicole Trollip	Engineering geologist: VGIconult (dolomite risk management)	SACNSP	011 469 0854
Hendri Gelderblom	Engineer: Dekker & Gelderblom (township services design)	ECSA	012 369 6720