# Draft Basic Assessment Report for the Proposed Piet Retief X22, Mpumalanga Province

A Portion of Portion 100 of the farm Piet Retief Town and Townlands 149-HT



MDEDET Reference No: 17/2/3/GS-239

March 2015

Part 3 of 4

**BOKAMOSO LANDSCAPE ARCHITECTS**& ENVIRONMENTAL CONSULTANTS

P.O. BOX 11375 MAROELANA

0161

TEL: (012) 346 3810 Fax: 086 570 5659

Email: Lizelleg@mweb.co.za

Plen: Plan 03 Klipmess	asprult AB_RS:1	22 Profile: Q50 (Contin	ucd)		
Alotia		an Power (N/mis)		7.60	!
Fretn Loss (m)	Сит	- Voj <u>umo (1000 m3)</u>		142.32	
C&ELoss (m)	Cua	1.8∆ (1000 m2)		67 30	
<u> </u>					
Plan; Plan 03 Klipmess					
E.G. Elev (m)	:218.28 Elon	nent	Left O3		Right 03
Vel Head (m)	0.03 Wt.	r <u>-Val.</u>		0.035	
W.S. Elev (m)	1218.26 Res	ch Lan. (m)	50.00	.50.00	50.00
Ç∕tW.S. (m)	1216.09 Flov	у Агев (m2)	! _	357.56	!
(£.2). Slepo (m/rr:)	0.000217 Ares	a (m2)	i	357.58	
Q Total (m3/s)	268.00 Flov	y (m3/s)		26B.00	
Top Width (m)	148.93 , Top	Width (m)	l	148.93	
Vel Total (m/s)	0.75 Avg	. Vel. (m/a)		0.75	
, Max Ohl Dpth (m)	·   ·	tr. Depth (m)	i —	2.40	
Conv. Talal (m3/s)		nv (m3/s)	i	18199.8	
Length Wtd. (m)		tted Par. (in)	i—	150.39	
<del></del> ·		ear (N/m2)	'·-	ä.06 ,	
<u>Min Ch El (m)</u>		osm Power (N/m/s)		3.79	· — · j
Alpha (m)		m Volume (1000 mខ្លី)	· · · <u> </u>	162.61	
Frotr Loss (m)		m SA (1000 m2)	<del> </del> +	72.16	— i
! C & <u>E Los</u> s (m) ]		111 ON (11200 1.12)	· !		·· '
Plant Plan 03 Klipmes	selsomit AB RS:	: \$1   Profle: Q50			
E.G. Elev (m)		ment	 	Channel	Right GB
<u> </u>	· <del></del> -	. n-Val.		D.035	
Vel Read (m)	1214,56 Ra		23.29	23.29	23,28
W.S. Elu <u>v (m)</u>		w Area (m2)	<del></del>	£5.18	
Grit W.S. (m)			··	65.18	· — .
E.G. Slope (m/m)	—	:a (m2) : (m3/a)		197.00	
Q Tulai (m3/s)	···-	<u>w (</u> m3/s) -	·	72,24	—
Top Width (m)		ր Width (m <u>)</u> - Տես (—/ss	'· ——···	3.02	_
VerTotal (m/s)		g. Vel. (m/3)		0,80	— <sub>i</sub>
Max Chil Doth (m)	ı <del></del>	dr. Cupth (m)	· · · ·	1/34.4	
<u>Conv. T</u> otal (m3/s)		<u></u>	<b></b> +-	:73474! 72.52	_ ·
Length Wtd. (m)		oted Per. (m)			·
Min Ch El (m)	_1212.70   Sh		<del>_</del>	113.7 <u>1</u>	—··
Atpha		ream <u>_l*ower (</u> N/m s)	+ +	343.67 _	
Froin Loss (ns)	·	u <u>m Voluma (1000</u> m3)	I	135.26	. —
C & E (cas (m)	0.00   60	ım <u>SA (1000 m2)</u>	_ :	62.23	
Plant Plan 03 Kljipme			Left OB	Channel Channel	Right OB
E.G. Elev (m)	:	emont	I TRILODI		MEWOR
_Vel Head (m)		1. n-V <i>a.</i>		0.035	
W.S. Elev (m)	-}· -—	cach Leri <u>. (m)</u>	·   · <sup>23,29</sup>	23.29	23.29
Crst W.S. (m)		ow Area (m2)	ļ ·——	81.75	
F.G. Slepe (m/m)		rea (m2)	·	<u>81.75</u>	
Q Total (m3/s)	268,00 Fe	ow (m3/s)		268.0C	
Top Width (m)		იუ Width (m)	.	76.77	!
VerTotal (m/s)	3.28 A	vg, V <u>el. (m/s</u> )	ֈ	3,28	
Max Chi Opth (m)	2.08 H	yd <u>r. De</u> oth (m)		1.06	
Sonv. Total (m3/s)	I	onv. (m3/s)	<del>_</del>	2428.7.4	
Length Wid (m)		/ctted Per. (m)	<u></u>	77.10	!
Min Ch El (m)		hear (iVm2)	.]!	126,60	
Aipha		tresm Power (N/m s)		415.03	<u></u> I
From Loss (m)		um Volume (1000 m3)		151.62	
C & E Loss (m)		Sum SA (1000 m2)		66.52	
<u> </u>					

Plant Pja <u>n 03 – Kiprves:</u> E.G. Rilev (m)	1209.35	RS: <u>90 Profile:</u> Q50 Element	Loft OB	Channel	Right 0
Vel Head (m)	0.29	Wt, p-Val.		0.035	
W.S. Elev (m)	1208.06	Resort Len. (rr.)	20.00	20.09	20.
C/it W.S. (m)		Flow Area (m2)	i	82.39	
E,G. Slope (m/m)	0,005099	Area (m2)		82.39	
Q Total (m3/s)	197,00	Flow [m3/s]		197.00	
Top Width (m)	64.06	Top Width (m)		64.03	
Ve' Total (m/s)	2.39	Avg. Vel. (m/s)		2,39	
Max Chi Dpth (m)	2.36	Hydr. Depth (m)	 :	1,29	
Conv. Total (m3/s)	2758.7	Conv. (m3/s)	L l <u>.</u> .	2758.7	
Length Wtd. (m)	20.00	Welled Por. (m)		64.94	
Mn Ch El (m)	1205.70	Sheer (N/m2)		63.44	
Alpha	1.00	Stream Power (N/mis)		151,70	
From Loss (m)	0.15	Cum Volume (1000 m3)	·	19.54	
C & E Lass (m)	0.02	Cum SA (1000 m2)		20.35	
Plan: Plan 03 Klipmes	seolspruit AB	RS: 90 Profile: Q100			
E.G. Elav (m)	1208.67		Left QB	Channel	Right
Vel Head (m)	0.39	Wt. r-Val.		0.035	
W.S. Elev (m)	1208.29	Reach Lory (m)	20.00	20.00	20
Crit W.S. (m)	. ———	Flow Area (m2)	Т	97.24	
E.G. Slope (m/m)	0.005999	Area (m2)		97.24	
Q Total (m3/e)	268.00	Flow (m3/s)		268.00 !	
Top Width (m)	69.00	Top Width (m)	· <del></del>	69,00	
Vel Total (m/s)	2.76	Avg. Vel. (m/s)		2.76	
Max Chi Opth (m)	2.53	<del></del> -	Τ΄ Γ	1.41	_
Conv. Total (m3/s)	3460.0		. 1	3480.0	
Length Wtd. (m)	20.00	· ·——		69,97	
Min Ch El (111)	1205.70			81.76	
Alpha	1.00	Stream Power (N/m s)	i	225 34	
From Loss (m)	5.16			24,59	
C & E Loss (m)		-	!	22,61	
Plant; Plan 03 Klipmo	sselspruit AF	RS: 89 Profile; Q50			
E.G. Elev (m)	1207.25		Left O⊞	Channo.	Kigh:
Voi Head (m)		Wt, n-Val.	·!	0.035	
; W.S. Elev (m)	1205,94	Reach Len. (m)	22,50	22.5U	2
Crit W.S. (m)	1206.35	Flow Area (ni2)	·	38.73	
E.G. Slope (rwim)	T" 8.835109	) Агав (m2)	ï	38.73	
Q Total (m3/s)	197.00		<u>.                                    </u>	197.00	
Top Width (m)				44.02	-
A COLOR AND INCOME. THE PERSON AND INCOME.	41.87	' Top Width (m)	<u> </u>	41.67	
; Vel Total (mvs)	5.09	1 · <del></del> · · ·		5.09	
Vel Total (mvs)		Avg. Vel. (m/s)	··		
Vel Total (mvs) Max Chi Dpth (m)	5.05	Avg. Vel. (m/s) Hydr. Depth (m)	 	5.09	
Vel Total (m/s) Max Chi Opth (m) Conv. Total (n/3/s)	5.05	Avg. Vel. (m/s)     Hydr. Depth (m)     Conv. (m3/s)	<u></u>	5.09 0.93	 
Vel Total (mvs) Max Chi Dpth (m)	5.08 1.53 1051.6	Avg. Vel. (m/s) Hydr. Depth (m) Conv. (m3/s) Welled Por. (m)	<u></u>	5.09 0.93 1051.4	 
Vel Total (m/s) Max Chi Doth (m) Conv. Total (n/3/s) Length Wtd. (m)	5.08 1.53 1053.4 22.50	Avg. Vel. (m/s)  Hydr. Depth (m)  Conv. (m3/s)  Welled Per (m)  Shear (N/m2)	<u></u>	5.09 0.93 1051.4 41.81	 
Vel Total (m/s) Max Chi Dp.th (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m)	5.08 1.53 1051.6 22.50 1204.46	Avg. Vel. (m/s)  Hydr. Depth (m)  Corv. (m3/s)  Wested Per (m)  Shear (N/m2)  Stream Power (N/m s)		5.09 0.93 1051.4 41.81 318.88	
Vel Total (m/s) Max Chi Dp.th (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m) Alpha	5.09 1.53 1051.6 22.50 1204.40 1.01	Avg. Vel. (m/s) Iflyor, Depth (m) Conv. (m3/s) Wested Por. (m) Shear (N/m2) Stream Power (N/m s) Cum Volume (1000 m3)	<u>-</u>	5.09 0.93 1051.4 41.81 318.88 1622.06	 
Vel Total (m/s) Max Chi Dp.h (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Loss (m)	5.08 1.53 1051.7 22.50 1204.44 1.01	Avg. Vel. (m/s) I Hydr. Depth (m) Conv. (m3/s) Wested Por. (m) Shear (N/m2) Stream Power (N/m s) Cum Volume (1000 m3)		5.09 0.93 1051.4 41.81 318.88 1622.06 15.97	
Vel Total (m/s) Mex Chi Dpth (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Losa (m) C & E Loss (m)	5.08 1.53 1051.4 22.50 1204.4( 1.00 0.5)	Avg. Vel. (m/s) Ifyor. Depth (m) Conv. (m3/s) Wested Por. (m) Shear (N/m2) Stream Power (N/m s) Cum Volume (1000 m3) Cum SA (1000 m2)		5.09 0.93 1051.4 41.81 318.88 1622.06 15.97	·-
Vel Total (m/s) Max Chi Dpth (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Losa (m) C & E Loss (m)  Plan: Plan 03 Klipm	5.08 1.53 1051.4 22.50 1204.4( 1.00 0.5)	Avg. Vel. (m/s) Hydr. Depth (m) Conv. (m3/s) Welted Per. (m) Shear (N/m2) Stream Power (N/m s) Cum Volume (1000 m3) Cum SA (1000 m2) B RS: 89 Profile: Q100	Leaft OB	5.09 0.93 1051.4 41.81 318.88 1622.06 15.97	
Vel Total (mvs) Max Chi Dpth (m) Conv. Total (m/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Losa (m) C & E Loss (m)  Plan: Plan 03 Klipm E.G. Elev (m)	5.08 1.53 1051.7 22.50 1204.40 1.00 0.53 0.00	Avg. Vel. (m/s)  Hydr. Depth (m)  Cerv. (m3/s)  Wested Per (m)  Shear (N/m2)  Stream Power (N/m s)  Cum Volume (1000 m3)  Cum SA (1000 m2)  B RS: 89 Profile: Q100  Element	Left OB	5.09 0.93 1051.4 41.81 318.88 1622.06 15.97 16.67	Rigi
Vel Total (m/s) Max Chi Dpth (m) Conv. Total (n/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Losa (m) C & Elless (m)  Plan: Plan 03 Klipm E.G. Elev (m) Vel Heac (m)	5.08 1.53 1051.7 22.50 1204.40 1.00 0.50 0.00 esselspruit A 1207.6	Avg. Vel. (m/s) Hydr. Depth (m) Conv. (m3/s) Wested Per (m) Shear (N/m2) Stream Power (N/m s) Cum Volume (1000 m3) Cum SA (1000 m2) B RS: 89 Profile: Q100 Flement Wt. n-Val.	Left OB	5.09 0.93 1051.4 41.81 318.88 1622.06 15.97 16.67	_
Vel Total (mvs) Max Chi Dpth (m) Conv. Total (m/3/s) Length Wtd. (m) Min Ch El (m) Alpha Freth Losa (m) C & E Loss (m)  Plan: Plan 03 Klipm E.G. Elev (m)	5.08 1.53 1051.7 22.50 1204.40 1.00 0.50 0.00 0.8888elspruit A	Avg. Vel. (m/s)  Hydr. Depth (m)  Corv. (m3/s)  Wetted Por (m)  Shear (N/m2)  Stream Power (N/m s)  Cum Volume (1000 m2)  B RS: 89 Profile: Q103  Flement  Wt. n-Vai.  Reach Len. (m)	T	5.09 0.93 1051.4 41.81 318.28 1627.06 15.97 16.67 Chennal 0.035	Rigit

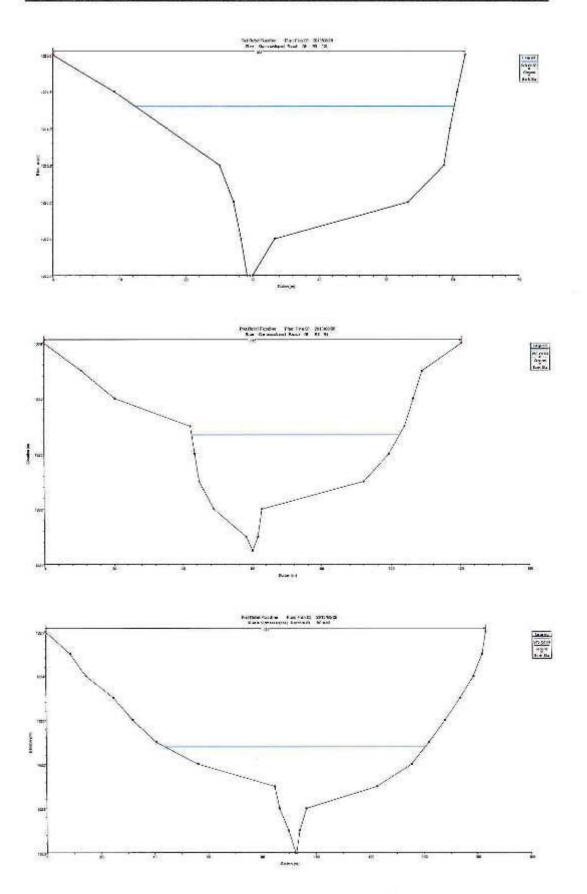
Top Wilth (m)	Piant Plan 03 Klipmess	elspruit AB RS: 89 Profile: Q100 (Contin	ruad)
Vei Total (m/s)         8.30         Avc, Vol. (m/s)         5.30           Max Chi Dubr, (m)         1.80         Hybr. (Joph (m))         1.00           Corv. Total (m3/s)         1557.0         Carm. (m3/s)         1577.0           Langth Witd. (m)         22.50         Wellod Por. (m)         44.952           Albha         1.00         Steam Power (N/ms)         326.89           Albha         1.00         Steam Power (N/ms)         1745.04           Froith Less (m)         0.46         Curn Volumes (1900 mS)         20.14           C & E Less (m)         0.06         Curn Volumes (1900 mS)         20.14           Flant (ms)         1.06.14         Stement         Leat OU         Channel           Plant (m)         1.00         W. Eleva (m)         21.33         21.33           Vel Head (m)         0.80         Wt. r. v/w.         21.33         21.33         21.33           W. S. (m)         1.205.37         Reach Lan. (m)         21.33         21.33         21.33           Or Leaf (m3/s)         197.00         Reach Lan. (m)         21.33         21.33         21.33         21.33         21.33         21.33         21.33         21.33         21.33         22.13         22.33 <th< td=""><td></td><td></td><td>48.75</td></th<>			48.75
Max Chi Ded: (m)			5.30
Corv. Total (m3/s)			1.00 .
Langth Wtd. (m)			1517.0
Min Ch El (m)         1204 40         Shess (Min2)         326,691           Alpha         1,00         Stream Power (Nim s)         1745,04           Froth Less (m)         0.48         Cum Volume (1000 mS)         20,14           C & E Loss (m)         0.06         Cum AA (1000 mS)         20,14           C & E Loss (m)         1.00         Beach Len (m)         1.865           Plant Plan (3 Kilipmesseispruit AB (8): 88 Proflict Q50         E.G. Elov (m)         1.206,14         Element (m)         2.133           Vel Hoad (m)         1.08.0         Wt. n-Vel (m)         0.035         Vel Test (m)         1.205,37         Reach Len (m)         21.33         49.59           E.G. Slope (m/m)         1.0205,47         Flow Area (m2)         49.59         49.59         49.59           E.G. Slope (m/m)         1.0205,77         Plow (m/s)         1.920,70         49.59         197.00	<del></del> ·           ·		.
Alpha	<del></del>	<del></del> :	. —
Froin Less (m)	— ··· · · · · · · · · · · · · · · · · ·	:	
C & E Loss (m)	<del></del> ,		
Plan (Plan O3   Kilipmesseispfull   AB   KS; R3   Profilic Q50			
E.G. Elov (m)	C&ELDSS(M)	0.08 : CGM SA (1000 M2)	
Vel Head (m)         0.80   Wt. n-Val.         0.0033   Val. nm         21.33   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.30   21.33   21.	Plan; Plan 03 Klipmess		
W. S. Elev (m)	E.G., Elov (m)	120 <u>6.14 Element</u>	<del></del> <del></del>
Crit W. S. (m)	, Vel Hoad ( <u>m)</u>	0.80 ! Wt. n-Vel.	·· ·  ·   · · · -
E.G. Slope (n/m)	W.S. Elev (m)	1205.33 Reach Lan. (m)	
O Total (m/s/s)         197.00         Flow (m/s/s)         197.00           Top Width (m)         62.91         Top Width (m)         62.94           Vel Total (m/s)         3.97         Avg. Vel. (m/s)         3.97           Max CH Dipth (m)         2.03         Hydr. Depth (m)         0.79           Corn. Total (m/s/s)         1203.8         1203.8           Length Wkd. (m)         21.33         Wetted Per. (m)         63.33           Min Ch El (m)         1203.30         Shear (N/m2)         205.71           Alphe         1.00         Stream Power (N/m)         205.71           Alphe         1.00         Stream Power (N/m)         205.71           Alphe         1.00         Stream Power (N/m)         205.71           Flore Loss (m)         0.02         Cum SA (*100 m²)         13.66           Flow (m/m)         1.04         Europe (N/m2)         43.66           E.G. Elev (m)         1206.47         Element         Loft OB         Channal           Vel Head (m)         1.205.79         Flow Area (m2)         20.33           E.G. Elev (m)         1205.79         Flow (m3/s)         268.00           Top Width (m)         69.34         Top Width (m)         69.34	Crit W.S. (m)	1205.57 Flow Area (rn2)	<u></u>
O Total (m3/s)	E.G. Slope (m/m)	0,028791 Area (m2)	49,59
Top Width (m)	· · · <del></del>	;	197,00
Vel Total (m/s)		·	62.91
Max CH Dpth (m)		: "	3.97
Conv. Total (mix/s)	<del></del>		
Length Wild. (m)			
Min Ch El (m)   1203.80   Shear (N/m2)   205.71     Alpha			!· <del></del> "   " <del>_</del>
Alpha 1.00 Stream Power (Nan.s)			··· · · ··-
Froth Lass (m)		· <del></del> ;	<del></del>
C & E Loss (m)	F-' '' '-	_	·——· I ·——
Plan: Plan 03	<del></del>		—·   ·
E.G. Ever (m)	[ C & E Loss (m)	0,02 + Gum S/\ (* uco m2)	
Comy. Total (m3/s)         1654.3         Comy. (m3/s)         1864.8           Length Wtd. (m)         21.33         Wetlod Per. (m)         69.77           Min Ch FI (m)         1203.30         Sheer (N/m2)         230.13           Alpha         1.00         Siream Power (N/m s)         968.63           From Loss (m)         0.46         Cum Volume (1000 m3)         17.33           C & E Loss (m)         0.02         Cum SA (1000 m2)         15.95           Plan: Plan 08         Killpinesselspruit         AB RS: 87         Profilic: Q50           E.G. Elov (m)         1204.86         Element         Left OB         Channel           Vel Head (m)         0.63         Wt. n-Val.         0.035           W.S. Elev (m)         1204.23         Reach Len. (m)         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slope (min)         0.019003         Area (m2)         56.13           E.G. Slope (min)         0.019003         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         127.00           Top Width (m)         66.34         Avg. Vol. (π/s)         3.51           Vel Total (ms/s)         3.51	Crit W.S. (m) E.G. Slope (m/m) Q Total (m8/s) Top Width (m) Vel Total (m/s)	1205.79 ; Flow Area (m2) 0.026245 Area (m2) 288.00 ; Flow (m3/s) 69.34  Top Width (m) 4.30  Avg. Vel. (mvs)	62.38 62.38 268.00 69.34 4.30
Length Wtd. (m)         21,33         Wetlod Per. (m)         69,77           Min Ch FI (m)         1203,30         Sheer (N/m2)         230,13           Alpha         1.00         Sirsem Power (N/m s)         968,63           From Loss (m)         0,46         Cum Volume (1000 m3)         17,33           C & E Loss (m)         0,02         Cum SA (1000 m2)         15,95           Plan: Plan 03         Kilpmessetspruit         AB RS: 87         Profilic: Q50           E.G. Elov (m)         1204,86         Element         Left OR         Channel           Vel Head (m)         0.63         Wt. n-Val.         0.035           W.S. Elev (m)         1204,23         Reach Len. (m)         21,80         21,80           Crit W.S. (m)         1204,36         Flow Area (m2)         56,13         56,13           E.G. Slopa (mim)         0,019003         Area (m2)         56,13         197,00           G Total (m3/s)         197,00         Flow (m3/s)         197,00         197,00         66,34           Vel Total (m/s)         3.51         Avg. Vel. (π/s)         3.51         Avg. Vel. (π/s)         3.51           Max Chi Dipth (m)         1,43         Hydr. Deoth (m)         0.85         1429,1 <tr< td=""><td></td><td>  ·</td><td><del></del></td></tr<>		·	<del></del>
Min Ch FI (m)         1203.30         Shear (N/m2)         230.13           Alpha         1.00         Stream Power (N/m s)         968.63           From Loss (m)         0.46         Cum Volume (1000 m3)         17.33           C & E Loss (m)         0.02         Cum SA (<000 m2)			
Alpha         1.00         Stream Power (N/m s)         968.63           From Loss (m)         0.46         Cum Vorune (1000 m3)         17.33           C & E Loss (m)         0.02         Cum SA (<000 m2)			
From Loss (m)			
C & E Loss (m)         0.62         Gurn SA (<000 m2)         15.95           Plan: Plan 08         Klip messelspruit AB RS: 87 Profile: Q50         Left OB Channel           E.G. Elev (m)         1204.86         Element Left OB Channel           Vel Head (m)         0.83         Wt. n-Val.         0.035           W.S. Elev (m)         1204.23         Reach Len. (m)         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slopa (mint)         0.019003         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (m/s!         3.51         Avg. Vel. (π/s)         3.51           Max Chi Dpth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. (Total (m3/s)         1429.1         Conv. (m3/s)         1429.1			l· —— · · · · · · · · · · · · · · · · ·
Plan: Plan 08         Klipmesselspruit         AB         RS: 87         Profile: Q50           E.G. Elev (m)         1204.86         Element         Left OR         Channel           Vel Head (m)         0.83         Wt. n-Val.         0.035           W.S. Elev (m)         1204.23         Reach Len. (m)         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slopa (min)         0.019003         Area (m2)         56.13           Q Total (m3/s)         197.00         flow (m3/s)         197.00           Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vel. (π/s)         3.51           Max Chi Epth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. (Total (m3/s)         1429.1         Conv. (m3/s)         1429.1			
E.G. Elcv (m)         1204.86         Element         Left OR         Channel           Vel Head (m)         0.83         Wt. n-Val.         0.035           W.S. Elev (m)         1204.23         Reach Len. (m)         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slopa (mim)         0.019003         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vel. (m/s)         3.51           Max Chil Dpth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. Total (m3/s)         1429.1         Conv. (m3/s)         1429.1	C & E Loss (m)	0.02   <u>Gum 8</u> A (1000 m2)	
Vel Head (m)         0.83         Wt. n-Val.         0.035           W.S. Elev (m)         1204,23         Reach Len. (m)         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slopa (mim)         0,019903         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66,34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vol. (π/s)         3.51           Max Chi Dpth (m)         1.43         Hydr. Deoth (m)         0,85           Conv. (Total (m3/s)         1429.1         Conv. (n/s/s)         1429.1		<del>_</del>	I was I so I wine
W.S. Elev (m)         1204,23         Reach Len. (m)         21.80         21.80           Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slopa (mim)         0.019903         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (ms/s)         3.51         Avg. Vol. (m/s)         3.51           Max Chi Dpth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. (**Ctal (m3/s))         1429.1         Conv. (m3/s)         1429.1	E.G. Elev (m)		<del></del>
Crit W.S. (m)         1204.36         Flow Area (m2)         56.13           E.G. Slope (min)         0,019003         Area (m2)         56.13           Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66,34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vol. (m/s)         3.51           Max Chi Dpth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. (*Ctal (m3/s)         1429.1         Conv. (m3/s)         1429.1	Vel Head (m)	<u></u>	
E.G., Slopa (min) 0,019003 Area (m2) 56.13 Q Total (m3/s) 197.00 Flow (m3/s) 197.00 Top Width (m) 66,34 Top Width (m) 66.34 Vel Total (m/s) 3.51 Avg., Vol. (rt/s) 3.51 Max Chi lipth (m) 1.43 Hydr. Death (m) 0,85 Conv. Total (m3/s) 1429.1 Conv. (m3/s) 1429.1	W.S. Elev (m)	1204,23 Reach Len, (m)	<del>-</del>
E.G. Slopa (min)     0,019003 Area (m2)     56.13       Q. Total (m3/s)     197.00 Flow (m3/s)     197.00       Top Width (m)     66.34 Top Width (m)     66.34       Vel Total (m/s)     3.51 Avg. Vel. (π/s)     3.51       Max Chi lipth (m)     1.43 Hydr. Deoth (m)     0.85       Conv. Total (m3/s)     1429.1 Conv. (m3/s)     1429.1	Crit W.S. (m)	1204.36 Flow Area (m2)	<del></del>
Q Total (m3/s)         197.00         Flow (m3/s)         197.00           Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vel. (π/s)         3.51           Max Chi Dpth (m)         1.43         Hydr. Deoth (m)         0.85           Conv. Total (m3/s)         1429.1         Conv. (m3/s)         1429.1		0,019003   Area (m2)	56.13.
Top Width (m)         66.34         Top Width (m)         66.34           Vel Total (m/s)         3.51         Avg. Vol. (η/s)         3.51           Max Cnl Epth (m)         1.43         Hydr. Depth (m)         0.85           Conv. Total (m3/s)         1429.1         Conv. (m3/s)         1429.1			
Vel Total (m/s)     3.51 Avg. Vol. (η/s)     3.51       Max Chi Lipth (m)     1.43 Hydr. Depth (m)     0.85       Conv. Total (m3/s)     1429.1 Conv. (m3/s)     1429.1		<del> </del>	66.34
Max Cnl Epth (m)         1.43 Hydr. Deoth (m)         0,85           Conv. Total (m3/s)         1429.1 Conv. (n/3/s)         1429.1	Litable council (111)		··· <del>····</del> ·
Conv. (*Ctal (m3/s) 1429.1 Conv. (m3/s) 1429.1	Mel Tidal (mile)		1. ————————————————————————————————————
Cont. 1 Con (1110/04)			0.85
Length Wild. (IN)   Zit.80   Writing Her. (In)	Max Chil Dpth (m)	1.43 Hydr. Deoth (m)	1
	Max Chil Epth (m) Conv. (ctal (m3/s)	1.43 Hydr. Death (m) 1429.1 Conv. (m3/s)	1429.1
Min Ch El (m) 1202.80 Shear (N/m2) 156.77	Max Chil Epth (m) Conv. (Ctal (m3/s) Length Wtd. (m)	1.43 Hydr. Death (m) 1429.1 Conv. (m3/s) 21.80 Wietted Per. (m)	1429.1 86.72

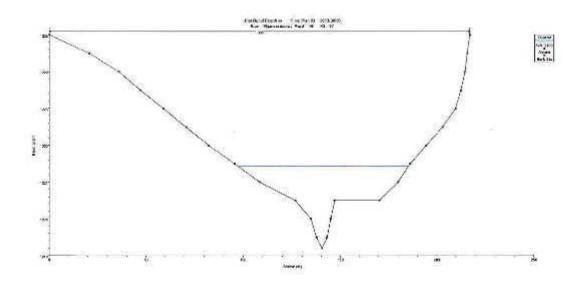
Plan: Plan 03 - Kilpmess	o <u>spruit</u> AB_RS <u>; 87 - Pr</u> ofile: G50 ( <u>Contin</u>	'ued) —		<u> </u>
Aipha !	1.00 Stream Power (N/m ≥)	<u>:</u>	650.25	— ,
From Leas (m)	0.42 Cum Voluma (1000 m3)		10.02	— ·
<u>C &amp; E.</u> Loss (m)	0.01   Cum SA (1000 m2)		<u>8.94</u>	·—— !
Plan: Plan 03 Klipmass	elspruik AB RS: 87 Profile: Q100		~ <del></del>	
E.G. Elev (m)	1205.18 _ Element	<u>l.eft</u> .O3		Right OB
Vet Rea <u>d (m)</u>	0.75 Wt. n-Val.		0.035	0
W.S. Elev (m)	<u>1204,42</u> ! Reach <u>Len. (m)</u>	⊢. <sup>21.80</sup> .∐	21.BC	21,80
Grit W.S_(m)	1204,58 Flow Area (m2)	L .     .—	69.63	—
E.G. Slope (m/m)	U.U* 93 <u>94   A</u> rea (m2)	ŀ j	69.63	·
C) Total (m3/s)		! !	288.00	
Top Width (m)	72,80 Top W <u>reth (ni)</u>		- <del>72.80</del>	—
Vel_Total (m/s)	3.85 ; Avg. Vel. (m/s)	l i "	0.96	· ·
Mex Chi Doth (m)	1.62 Hydr. Depth (m)	ļ <b>—</b>	1924.4	
_Conv. Tetal (m3/s)	1924.4 Conv. (m3/s)	· ···— j	73.19	<u> </u>
Length Wid, (m)	21,80 Wested Por. (71)	<del></del>	180.63	4
Min Ch El (m)	1202.80 Shear (N/m2)	<del></del> -	626.35	—
A'µha	1,00 ! Stream Power (N/n. s)	<u></u> , .	12.82	
From Loss (m)	0.41 Cum Volume (1000 m3)		11.27	—
C & E Loss (m)	0,00   Cum SA (1 <u>000 m2</u> )	'	11.27	. –
	The second secon			
	saleprult AS KS; 86 Profile; Q50	Left OB	Channel	Right OB
E.G. Elev (m)	1202.98 Element	-;· LHI: OB	0.035 j	Tagint Ola
! Vo <u>l Head (</u> m)	0.80 Wt n-Val.	24.50	24,50	 24.50
W. <u>S. Elev (</u> m)	1202.19   Reach Len. (π)	24.50	<u>24.90</u>   49.81	24.00
Crit W.S. (m)	1202.34 1 How Area (m2)	—	49,81	· ·-
E.G. Slope (m/m)	0,018832 Area (m2)	-	197,00	-· 'j
Q Total (m3/s)	197,00   Flow (m3/s)		44.35	-·
Top Wid <u>th (m)</u>		· —i	3,96	<u>-'</u>
Vol Total (m/a)	3.98 Avg. Vel. (m/s)	<del>,</del> +	- 1.11 i	<del>-</del> · :
Mex Ch <u>i Doth (m)</u>	2.59 Hydr. Depth (m)		15!8.4	—
Conv. Total (m3/s)	1518.4 Conv. (m3/s)	<del>'</del>	<sup>1318.7</sup> .1 45.19	_ · I
Length Witt. (m)	24,50   Wettoc Per. (m)	·	181.92	
<u> Min Ch E! (m)</u>	1199,60 Shear (N/m2)	i — '	· ——- I	· · 1
<u>Alpha</u>	1.00 Stream Power (N/m s)	·	7 <u>19,53  </u> 4.13	
From Loss (m)	0.37 <u>Cum Volume (1000 π/3)</u>	—	3.91	— –
C & <u>E Loss (i</u> n)	. 0.00 Cum 8A (1000 m2)			
	sseispruit A6 R5; 86 Profile; Q100	Left OB	С'јаплеі	Right OB
E.G. Elev (m)	1203.37   Element	5,00	0.035	i <u>ugini o p</u>
Ve: Head (ra)	0.33 Wt, n-Val.	Z4.50	24,50	24.50
W.S. Elev (m)	1202.49   Reach Len. (m)		64.33	- ·· <u>·</u> -
Crit W.S (m)	1202.87   Flow Area (m2)		64.33	
Ξ.G. Slope (n <u>/m)</u>	0.01597B Area (m2)	-ı —+	266.00	
_Q Total (m3/s)	268.00 Flow (m3/s) = -	<del> </del>	51.55	
Top Width (m)	51.55 Tap Width (m)	· i	4.17	
Vel Tatal (m/s)	4,17 Avg. Vol. (m/s)	<del></del>	1.25	
Mex Chi Dpth (m)	2,89 Hydr. Depth (m)	<del>-</del>	2120.1	— i
Cenv. Total (m3/s)	2120.1 Conv. (m3/s)	' - <del></del> · .	51.92	
Longth Wtd. (m)	24.50   Watted Por. (m)	· ; ·	194.13	
! Mm C <u>h El (m)</u> .	1199.60 Shear (N/m2)		808.77	
Alpha	1.00 Stream Power (N/m s)		6,30	· —
Fratri Less (m)	0.35 Cum Volume (1000 m3)	<del></del>	4.49	
C&ELoss (m)	0,00 Cum 8A (1000 n/2)	. <u>.</u> .l.		<u> </u>

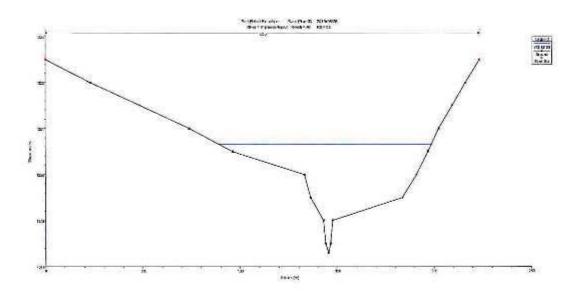
Plan: Plan 03 Kilomess	seispruit AB RS: 85 Profile: Q50	
E.G. Elev (m)	1200.46 Element	Left OB Channel Right OB
Val Poad (m)	1.21 Wt. r-Val.	0,035
W.S. Elev (m)	1199.25   Reach Len. (m)	
Crlt W.S. (m)	1199.63 Flow Area (m2)	
E.G. Slope (m/m)	0.027469 Area (m2)	40.47
Q Total (m3/s)	197.00 Flow (m3/s)	197.00
Top Width (m)	38.46 Top Wirlth (m)	39.45
Vol Total (m/s)	4.87   Avg. Vel. (m/s)	4.87
Mex Oh Doth (m)	2,55 Hydr. Depth (m)	
Conv. Tota: (m3/s)	1168 6 ! Conv. (m3/s)	1189.6.
Length Wild, (m)	Watted Per. (m)	33.63
Min Ch E <sup>(m)</sup>	1196.70 Shear (N/m2)	283.74
Alpha	1 00 Stream Power (N/m/s)	
Figin Loss (m)	0.67   Cum Volume (1000 ო <u>3)</u>   -	<u> </u>
C & E 'Lass (m)	0,00   Gum SA (1000 m2)	
Plant Plan 03 Klipmes	selspruit AB RS: 85 Profile: Q100	1 <del></del>
Plan; Plan 03 Klipmes 19,Q. Efev (m)	sels <u>prult AB</u> RS: 55 Profile: Q100 1200.89 Element	Left OB <u>Channel</u> Right OB
··	1200.89 Elemeni 1,37 Wt. n-Val.	Left OB Channel Right OB 0.035
If, Q. Efev (m)	1,37 Wt. n-Val. 1,37 Reach Lan. (it)	0.035
If, G. Efev (m) Val Head (m)	1200.89 Elemeni 1,37 Wt. n-Val.	0.035
If, G. Eiev (m) Vel Head (m) W.S. Elev (m)	1,37 Wt. n-Val. 1,37 Reach Lan. (it)	0 0.35 
IS.G. Elev (m)  Val Head (m)  W.S. Elev (m)  Orli W.S. (m)	1200.89 Element 1,37 Wt. n-Val. 1199.52 Reach Len. (in) 1199.93 Flow Area (m2)	6 0.035 51.74 51.74 268.00
P.G. Eiev (m) Vel Head (m) W.S. Elev (m) Orlt W.S. (m) E.G. Slope (m/m)	1200.89 Element 1,37 Wt. n-Val. 1199.52 Reack Len. (irt) 1199.93 Flow Area (m2) 0.027077 Area (m2)	51.74 51.74 288.00 44.33
P.G. Eiev (m) Vel Head (m) Vel S. Elev (m) Orli W.S. (m) E.G. Slope (m/m) Q Potal (m3/s)	1200.89 Element 1,37 Wt. n-Val. 1199.52 Reach Lan. (irt) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s)	51.74 51.74 288.00 44.33 5.18
IS.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Stope (nv/m)  U Total (m3/s)  Top Width (m)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Len. (irt) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m)	51.74 51.74 51.74 288.00 44.33 5.18 1.17
IS.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Stope (nv/m)  U Total (m3/s)  Top Width (m)  Vel Total (m/s)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Lan. (irt) 1199.93 Flow Area (m2) 0.027077 Area (m2) 266.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s)	6 0.35 51.74 51.74 268.00 44.33 5.18 1.17 1626.7
IS.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Slope (m/m)  U. Fotal (m/s)  Top Width (m)  Vel Total (m/s)  Max Chi Dpth (m)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Lan. (in) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s) 2.82 Hydr. Lepth (m)	61.74 51.74 51.74 268.00 44.38 5.18 1.17 1626.7 44.74
If.G. Eisy (m)  Vel Head (m)  W.S. Eley (m)  Crit W.S. (m)  E.G. Slope (m/m)  Q. Total (m3/s)  Top Width (m)  Vel Total (m/s)  Max Chi Opth (m)  Conv. Total (m3/s)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Lan. (in) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s) 2.82 Hydr. Lepth (m) 1628.7 Conv. (m3/s) Wotted Per. (m) 1196.70 Shear (N/m2)	51.74 51.74 51.74 268.00 44.33 5.18 1.17 1626.7 44.74 307.08
If.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Slope (m/m)  Q. Total (m8/s)  Top Width (m)  Vel Total (m/s)  Max Chi Opth (m)  Conv. Total (m8/s)  Langth Wtd. (m)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Lan. (in) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s) 2.82 Hydr Lepth (m) 1628.7 Conv. (m3/s) Wotted Per. (m)	61.74 51.74 51.74 268.00 44.38 5.18 1.17 1626.7 44.74
If.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Slope (m/m)  Q. Potal (m3/s)  Top Width (m)  Vel Total (m/s)  Max Chi Dpth (m)  Conv. Total (m3/s)  Length Wtd. (m)  Min Ch El (m)	1200.89 Element 1.37 Wt. n-Val. 1199.52 Reach Lan. (in) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s) 2.82 Hydr. Lepth (m) 1628.7 Conv. (m3/s) Wotted Per. (m) 1196.70 Shear (N/m2)	51.74 51.74 51.74 268.00 44.33 5.18 1.17 1626.7 44.74 307.08
If.G. Eiev (m)  Vel Head (m)  W.S. Elev (m)  Crit W.S. (m)  E.G. Slope (m/m)  Q. Potal (m3/s)  Top Width (m)  Vel Total (m/s)  Max Chi Dpth (m)  Conv. Total (m3/s)  Length Wtd. (m)  Alpha	1200.89 Element 1,37 Wt. n-Val. 1199.52 Reack Len. (m) 1199.93 Flow Area (m2) 0.027077 Area (m2) 268.00 Flow (m3/s) 44.33 Top Width (m) 5.18 Avg Vel. (m/s) 2.82 Hydr. (lepth (m) 1628.7 Conv. (m3/s) Wotted Per. (m) 1196.70 Shear (N/m2)	51.74 51.74 51.74 268.00 44.33 5.18 1.17 1626.7 44.74 307.08

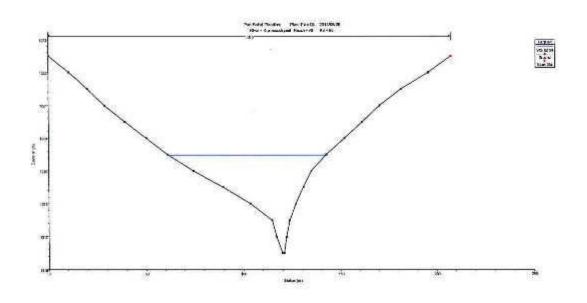
#### APPENDIX B

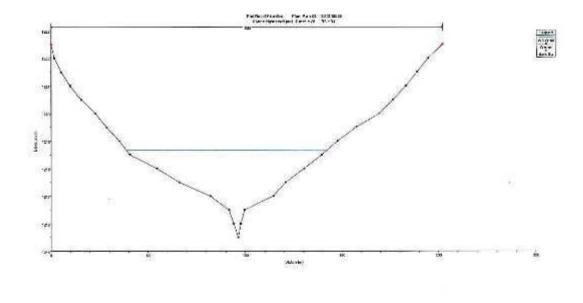
#### APPENDIX B: MAJOR CROSS-SECTIONS OF THE KLIPMESSELSPRUIT (RS100 - RS85)

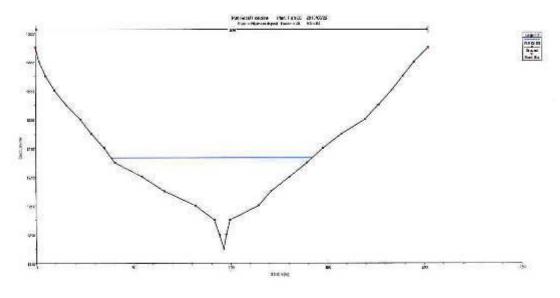


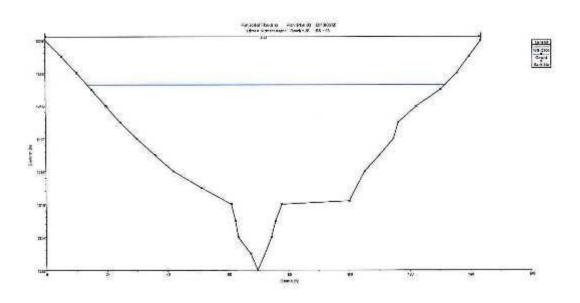


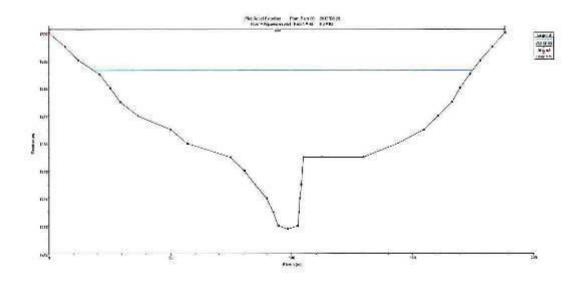


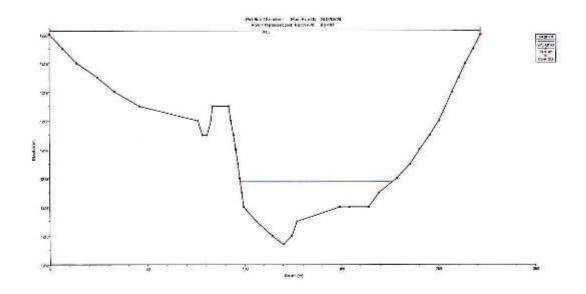


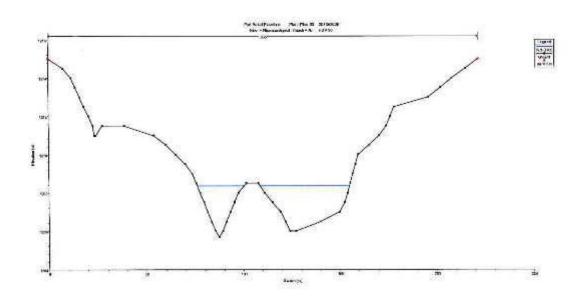


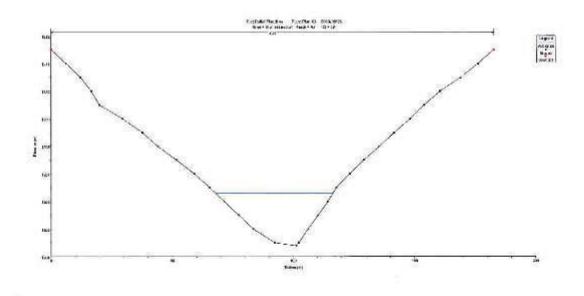


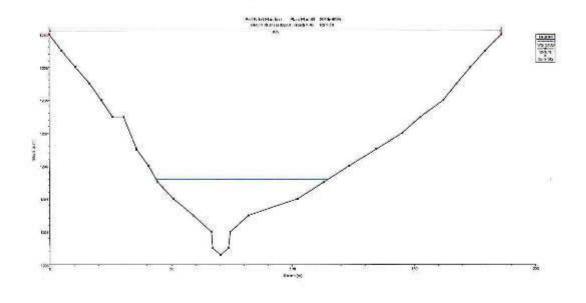


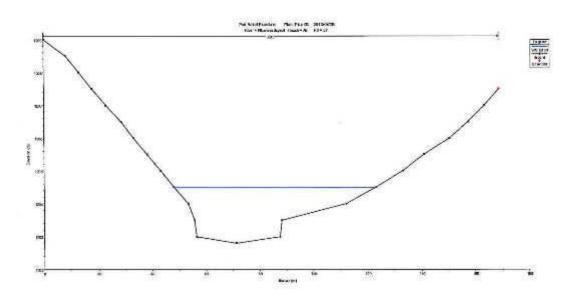


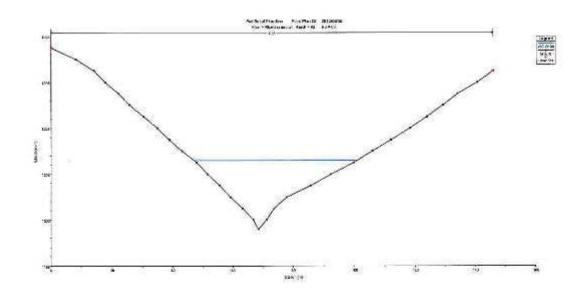


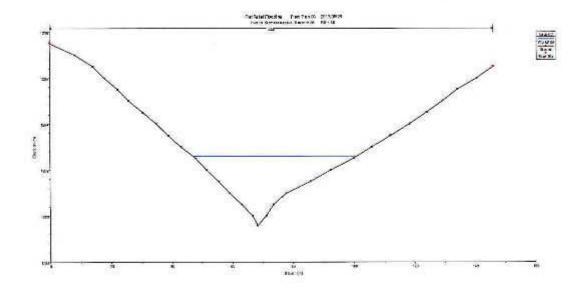




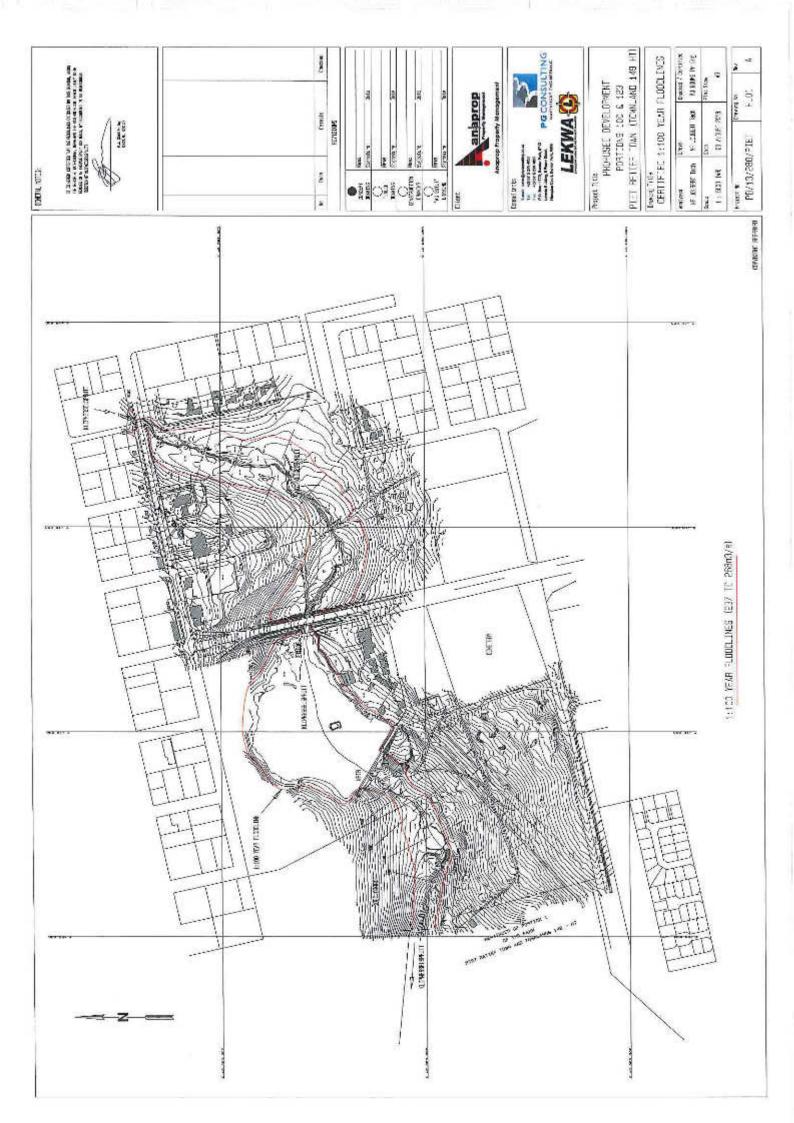


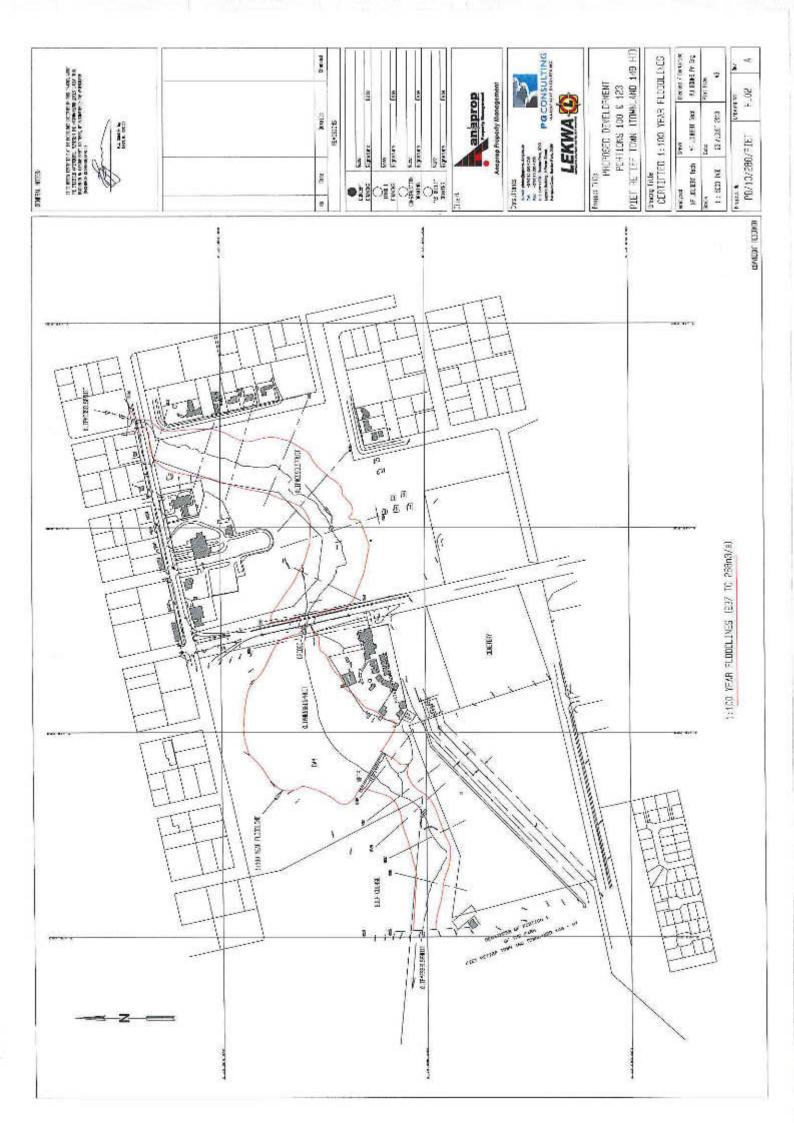






#### APPENDIX C





#### APPENDIX D

PG Consulting Engineers (Pty) Ltd.: Reg Nr. 2012/039090/07 VAT No. 4260861278

E-mail: pieter@pgconsulting.co.za E-mail: esther@pgconsulting.co.za

Tel: +27(0)15 291 0951 Fax: +27(0)15 291 0961 P.O. Box 11770, Bendor Park, 0713 Rentco Office No.16, 11 Pierre Street, Bendor, Polokwane, 0699

GPS: S'23'53'41,2" E'29'28'46,4" Website: www.pgconsulting.co.za

Offices also at: Polokwane | Pretoria | Nelspruit



#### PROJECT

DELINEATION OF THE 1:100 YEAR FLOODLINES FOR DEVELOPMENT PURPOSES AT PORTIONS 100, 123 & 126 - PIET RETIEF TOWN (TOWNLAND 149 HT)

#### DISTRICT OF GERT SIBANDE - MPUMALANGA PROVINCE

FLOODLINE CERTIFICATE:

I HEREBY CERTIFY, IN MY CAPACITY AS PROFESSIONAL ENGINEER, THAT IN TERMS OF THE SPECIFICATIONS LAID DOWN BY CLAUSE 144 OF THE NATIONAL WATER ACT (ACT 36 OF 1998), THE FLOODLINES INDICATED ON THE ATTACED LAYOUT DRAWING REPRESENT THE MAXIMUM FLOOD LEVELS LIKELY TO BE REACHED ON AN EVERY 100 YEARS BY FLOODWATERS IN THE SPECIFIC WATERCOURSE ANALYZED (SECTION RS100 TO RS85 OF THE KLIPMESSELSPRUIT – TRIBUTARY OF ASSEGAAI RIVER).

NAME:

P.J. Gouws (Pr Eng)

REG NO:

880061

DATE:

26 August 2013



<u>PLEASE NOTE:</u> This is an objective, independent market report with the sole aim of limiting risk for our client and to optimize development potential. Similarly, Fernridge cannot be held responsible for the failure or under performance of any development, as many other aspects, apart from demographic potential, determine the ultimate success or failure of a scheme.

# Feasibility Study Update:

### Piet Retief, Mpumalanga Retail Development

October 2013

#### Important Notes:

- 1. This report is Confidential as it contains Data, Information and Intellectual Property of Fernridge Consulting (Limited Distribution) Copyright 2013: Fernridge Consulting.
- 2. This report was done to determine the viability of a <u>shopping centre</u>. Any tenant recommendations made in this report are anecdotal and not substantiated through primary research. Retailers must do their own research.



# **Table of Content**

#### **Orientation**

- Regional Orientation
- Town Orientation

#### > Catchment Areas

#### > Site Overview

- Site Dynamics
- Site Photos
- Site Layout
- Site Evaluation Model

#### > Retail Overview

- Macro Retail Overview
- Town Retail Overview
- Existing Retail

#### > New Developments

- Proposed Developments
- New Developments

#### > Demographic Overview

- Calculating Demographics
- Primary Catchment Demographics
- Secondary Catchment Demographics
- Density Modeling
- Demographic Breakdown

#### > Retail Potential Estimates

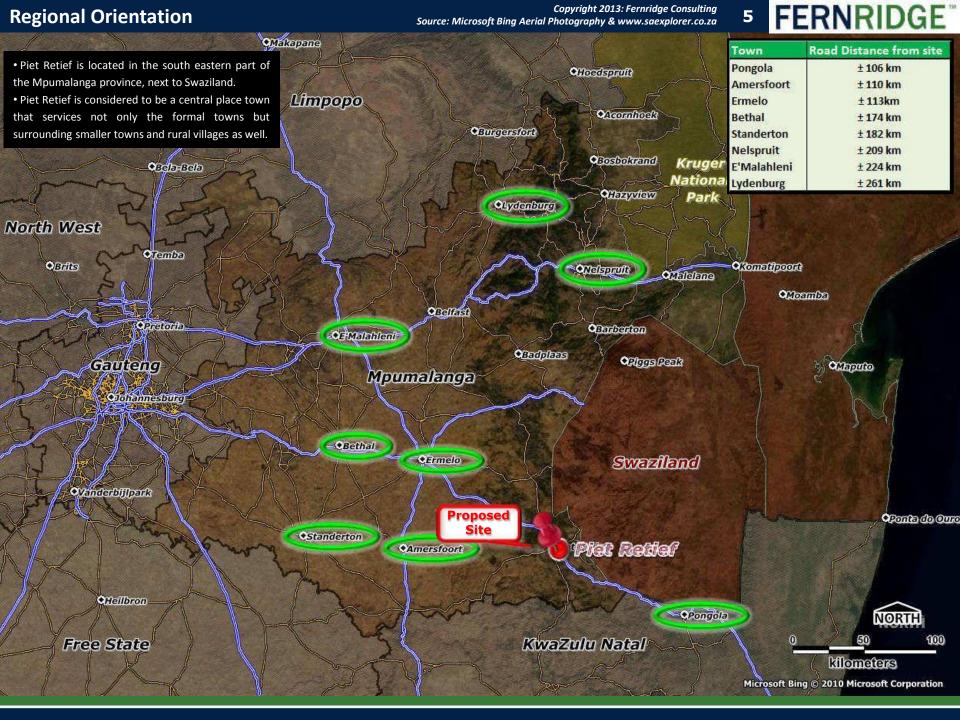
- Retail Potential Estimate 2015
- > Conclusion & Recommendations
- > Proposed Retail Mix
- **Contact Details**

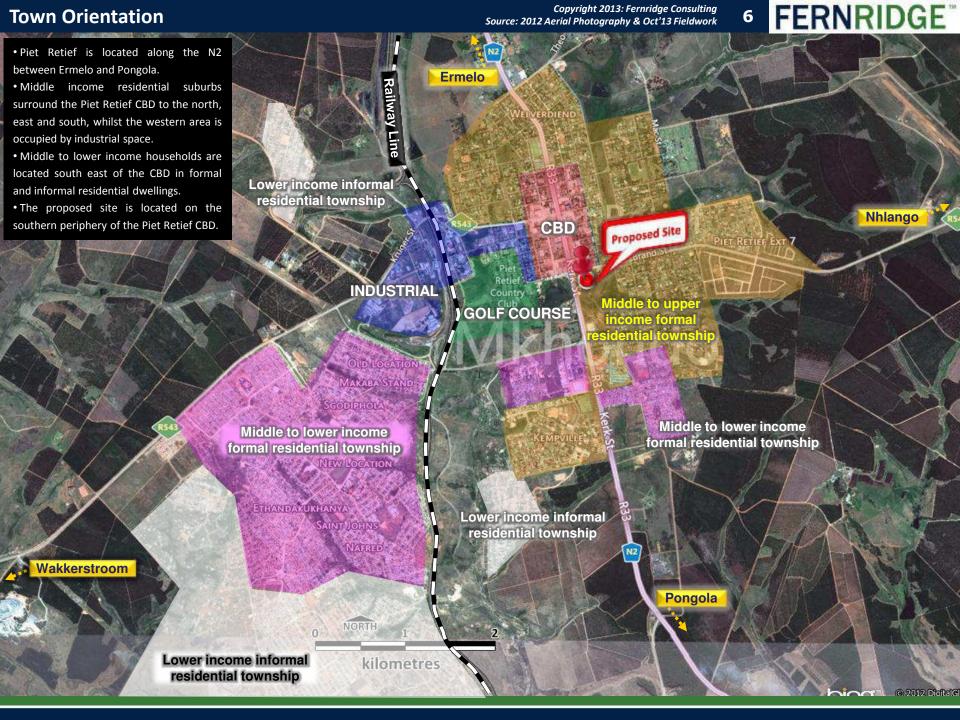


# Orientation

Piet Retief is placed in context of the larger area in order to provide a regional overview/understanding of the area.







## **Catchment Areas**

A primary and secondary catchment area are delineated after taking the physical and psychological boundaries, existing retail, road infrastructure, etc. into consideration.



## The Site

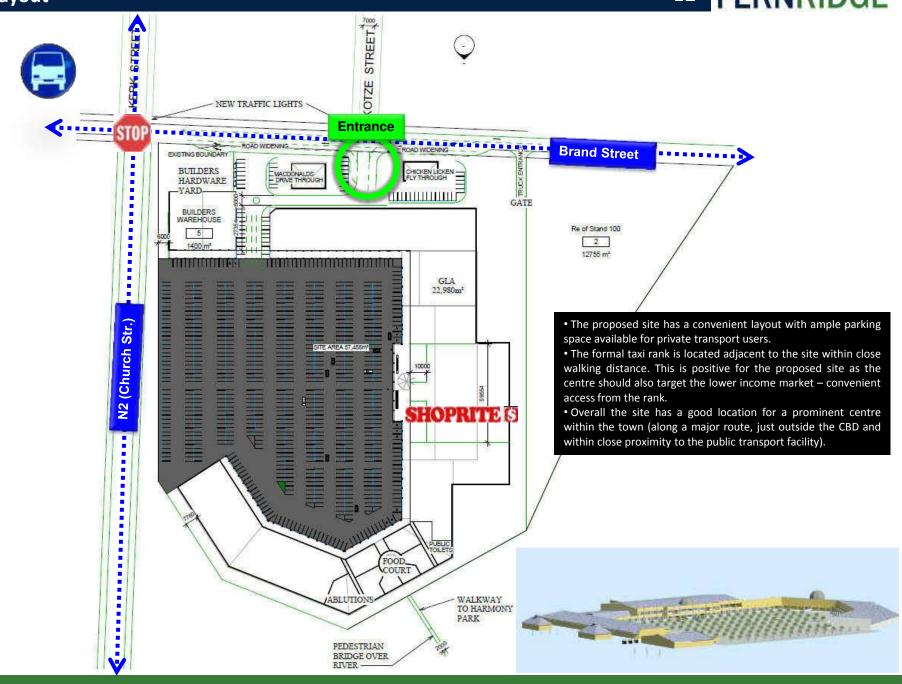
Site dynamics is a crucial element that needs to be assessed. A poor site could jeopardise the development.











Copyright 2013: Fernridge Consulting Source: Oct'13 Fieldwork

13

FERNRIDGE"

#### Study Area: Piet Retief

All weights and variables were derived from results and conclusions obtained from the field work					Site		
	Variable	Sub-variable	Weight	Weight split	Rating 1-10	General comments	
1	VISIBILITY OF SITE	To passing vehicles	25	90%	9	The site is highly visible from the passing N2 (Church St) and Brand Street. Passing trade and local residents will have a high awareness of the site. Good signage along the N2 will further increase visibility of the site.	
	To Residents	***	10%	8	Residents in the area will have a high awareness of the development as it is situated next to a main (popular & frequented) road in the area.		
		Inside Trade Area		80%	6	Piet Retief hosts a fairly strong supply of formal retail, especially in the CBD. A large percentage national retailers are also present.	
2	COMPETITION	Outside trade area	15	20%	7	Piet Retief is the most prominent retail destination within the Primary and Secondary catchment area. Some inflow support can thus be expected from the smaller towns and villages in the surrounding areas. Some outflow is however also expected to Ermelo for regional shopping (higher order goods).	
3	ACCESSIBILITY -	Access from main road	25	50%	7	Accessibility to the proposed site is expected to be good. There will be entrances from Brand Street which should be sufficient for traffic flow. However no direct entrance from the N2 is	
	Vehicles	Access outside catchment	***	50%	8	proposed — this limits direct access from this major road that passes through the CBD. Access for residents from the Secondary catchment is also good as the site is located next to the	
4	PARKING Facilities	Parking facilities (Availability / Congestion)	10	100%	7	Based on the actual land size of the development, sufficient parking should be on offer. A fair amount of private vehicles are present in the catchment area. Parking should adhere to the standard regulations with regards to provision of parking.	
5	ACCESSIBILITY	From Public Transport Rank	25	100%	7	The proposed site is located near an existing formal taxi rank. This taxi rank is currently under construction in an effort to upgrade the facilities. A pedestrian crossing linking the taxi rank with the proposed site will ensure good support from the lower income market, it is important that the proposed centre intercepts this market as they make up the majority of the primary and secondary catchment demographics.	
6	CENTRE TYPE	Neighbourhood / Regional	10	100%	7	The proposed centre should focus on servicing a large client base by catering for all income groups (i.e. lower, middle and upper income households). This will be the most prominent retail destination within the primary and secondary catchment area and is expected to limit some of the current outflow to Ermelo.	
7	ORIENTATION & PROXIMITY	Residents within trade area	15	100%	7	Even though the proposed site is somewhat removed from the main activity node, it is still located along a prominent road connecting the site to the Piet Retief CBD and other smaller towns and villages in the secondary catchment area. The town is centrally located to serve a large area. Road access to the town and site is also very good.	
8	TRAFFIC VOLUME	Vehicles	20	100%	8	The road passing the site (N2) carries ample traffic volumes. Good transient support can be expected at the site.	
9	COMPLEMENTARY FACILITIES	Offices, Other Retail	20	100%	7	There are various complimentary facilities within close proximity to the site. The closest being the town council and the main taxi rank in the CBD.	



Notes: \* Failure in any of the above mentioned variables can cause the proposed development to under-perform 
\* Site factors are only one success-determining variable; the operator, marketing, logistics etc are other important factors not taken into account in this evaluation.

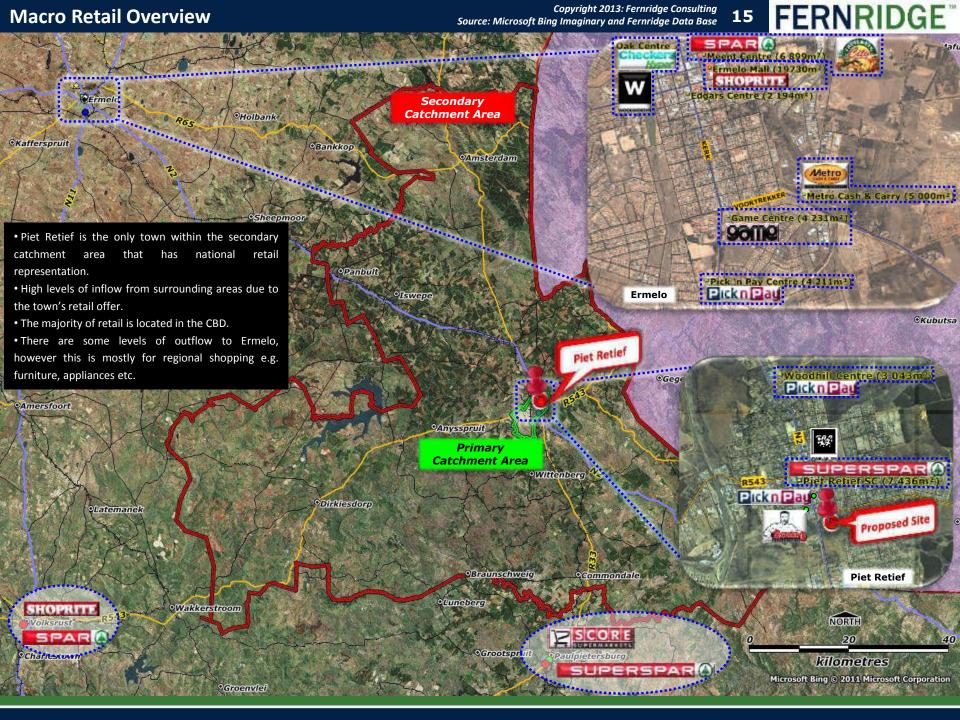
#### Evaluation

74% Good

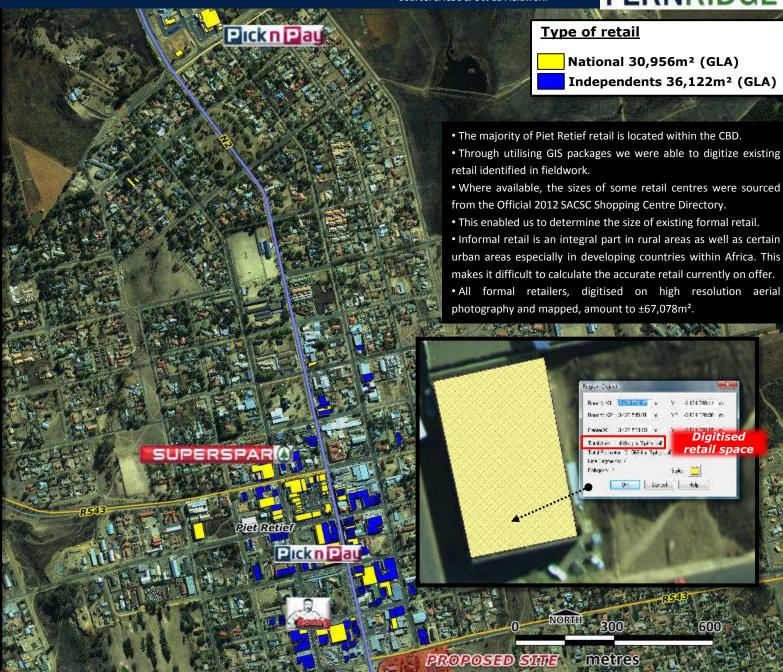
- The proposed site rates as "Good" (74%) in our Site Evaluation Model and was rated on a current (as is) basis.
- The site has **good visibility** and high traffic volumes along the main road passing the site.
- The site is prominently located on an embankment as one enters the CBD from the South. The area's residents will have a good awareness of the development.
- The site is located near an existing taxi rank within the CBD.
- Ultimately a **good** site for the development of a small regional **shopping centre.**

The current retail fabric of the area is assessed.









Schwarzkopf Professional Hair

#### SPAR CENTRE



Address: Cnr of Piet Retief Rd & the N2.

**Size:** ±7,436m<sup>2</sup>

**Classification:** Community centre

**Anchor:** 



#### **Other Tenants include:**

- Ackermans
- Africa Bank
- Alpha Pharm
- CashpeRs for 101 things to do
- Clicks
- CNA
- Daniel Hecter
- Edgars Active
- Furniture Valley
- Haaris Cell & Electronics
- Jet Sales House

- King Pie 2 Go
- Mr Price
- Markham
- Milady's
- Nashua Mobile
- Piet Retief Tops Liquor Store
- Sterns
- Tekkie Town
- The Hip Shop
- Truworths
- Truworths Man
- Woolworths
- <u>Comments:</u> A well supported community centre with a strong national brand tenant mix. Limited parking and congestion are the main limitations of this centre and many other CBD retailers.

#### WOODHILL CENTRE



Address: Cnr of Theo Mocke Street & N2 Highway.

**Size:** ±3,043m<sup>2</sup>

**Classification:** Local Convenience Centre

Anchor: Dickn Day

#### **Other Tenants include:**

- Budget Car Rental
- Crazy Store
- Debonairs Pizza
- Dried Fruit & Nuts Factory Outlet
- GPS (Globe Postal Services)
- KFC
- Mkhondo Car Wash
- Pick & Pay Discount Liquor Store
- Comments: Attractive, up market, local Convenience Centre.

±28 national retailers located at formal shopping centres

Spur

Sunrise Energy

Torga Optical







**Food Anchors** 







Fashion





Furniture & Appliances











Home







Specialty & Services





















Restaurants



























































Piet Retief CBD offers a fairly large amount of national and independent retailers that attracts many people from the smaller surrounding towns and communities in the secondary catchment area. The CBD is the most prominent retail destination within the larger area.



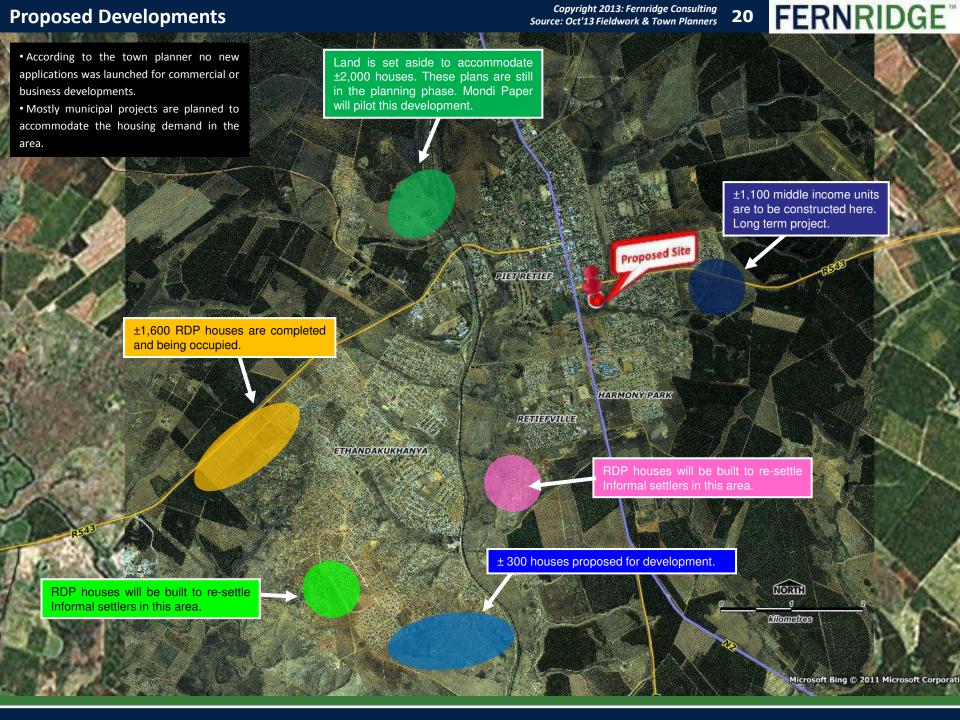




# **New Developments**

New developments / growth is an indication of rejuvenation in an area or region.









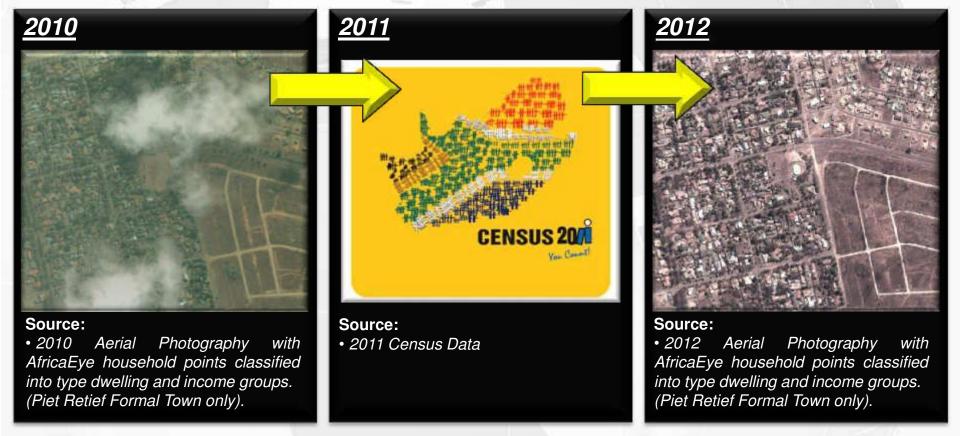




# Demographics

The socio – economic status of the residents in the area reflect buying power.







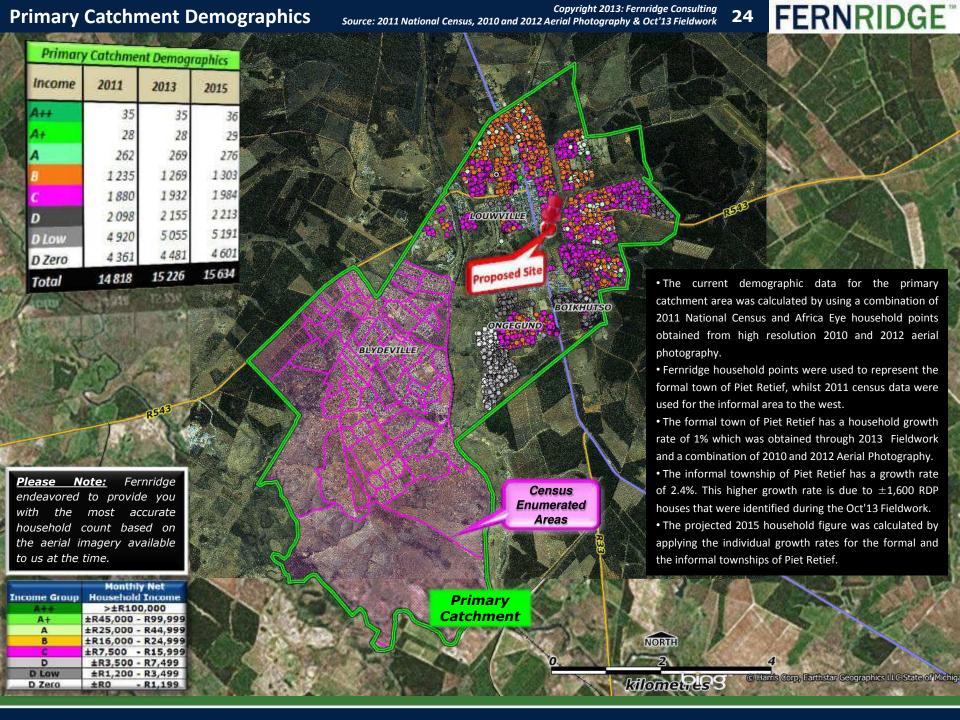
## *2012*+

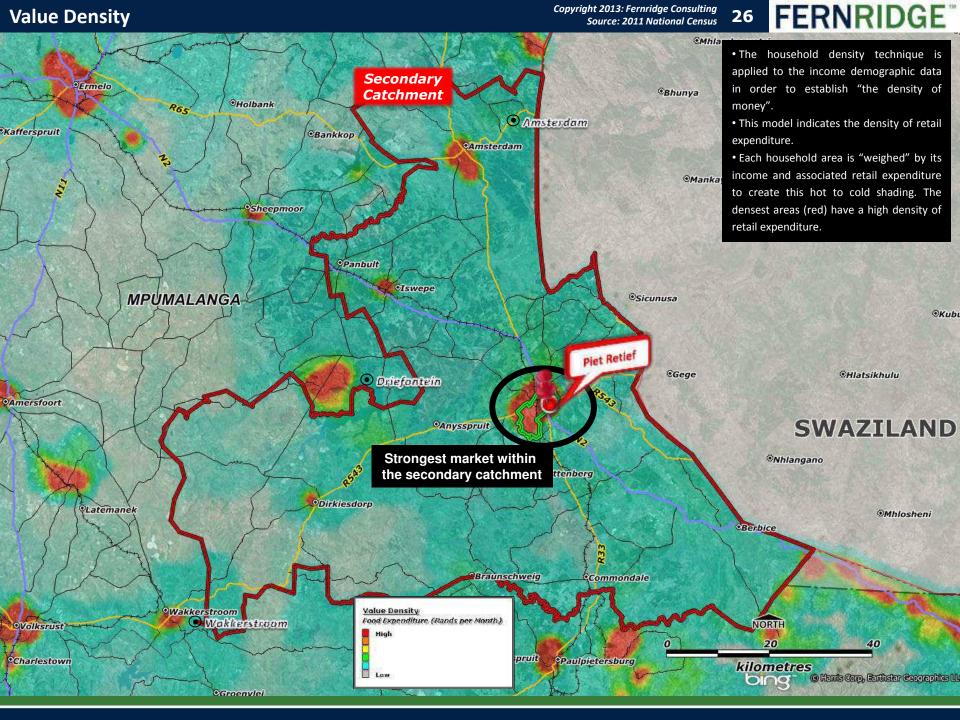
#### Source:



• Interviews with estate agents, relevant developers and local council.

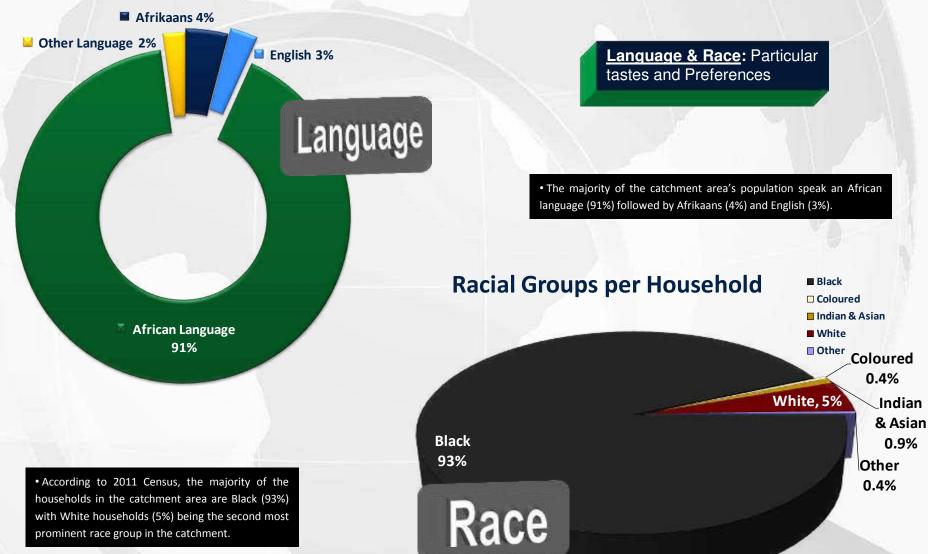








## **Language Per Person**



100%

90%

80%

70%

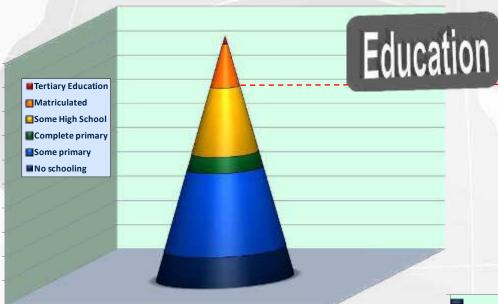
60%

50%

40% 30% 20%

10% 0%

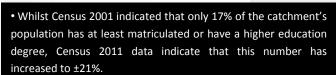




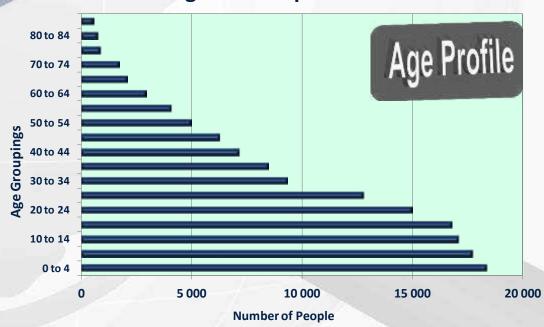
Roughly 21% of the population has at least matriculated or have a higher education degree.

Education: An indication of the sophistication of the consumer. Age: Different generations

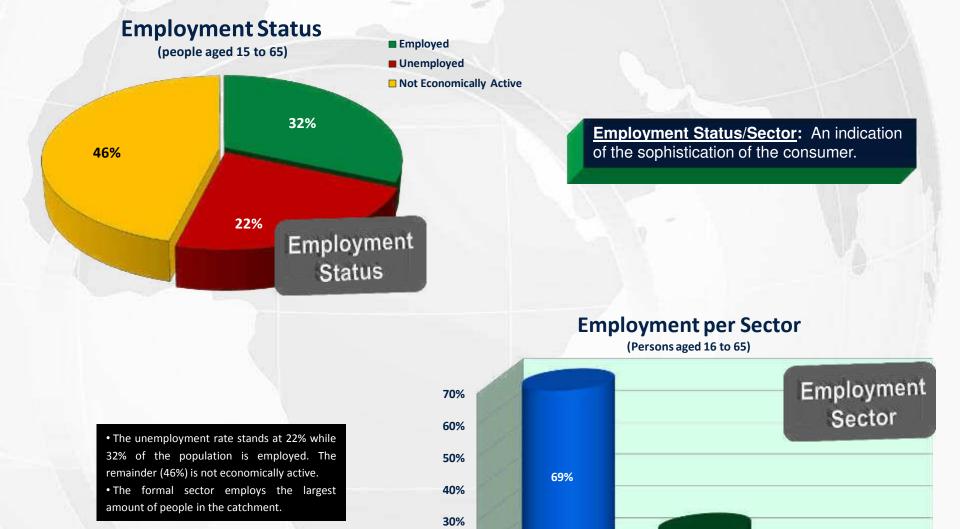
#### **Age Profiles per Person**



 Almost half of the individuals residing in the combined primary and secondary catchment areas are aged between 0 and 20.









20%

■ A++ ■ A+

 $\Box A$ 

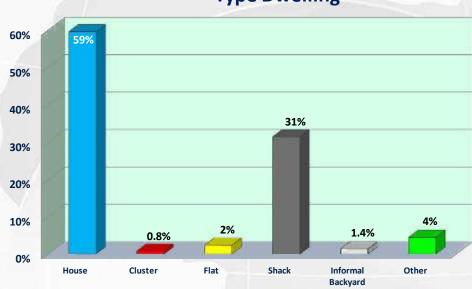
B

□ C

**■ D LOW** 

□ D ZERO





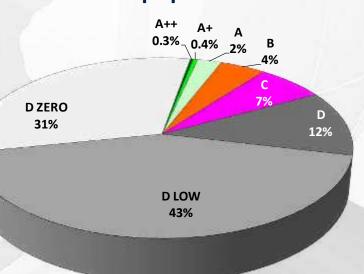
**Monthly Income** Income Group A++ >±R100,000 A+ ±R45,000 - R99,999 ±R25,000 - R44,999 A ±R16,000 - R24,999 ±R7,500 - R15,999 D ±R3,500 - R7,499 D Low ±R1,200 - R3,499 D Zero ±R0 - R1,199

> • While only ±3% of residents form part of upper income households, ±11% of households form part of the middle income market segment. The remaining 86% are considered lower income households (D to D Zero)

• The area's dwelling fabric mainly consists of formal houses (59%) and shacks (31%).

**Income:** The ability to act / purchase.

### **Income Groups per Household**



# **Retail Potential** Estimate (RPE)

The retail potential based on the demographics and expected market share





# 2015 Primary Catchment Demographics

				,	Rural setting Town setting Metro setting	20% 50% 60%	higher trading densit higher trading densit higher trading densit
Main Retail Category	Total Expenditure / month	Total Expenditure / year	AREA: AVERAGE Trading Density (Rand / m <sup>2</sup> selling per year)	Area Total Retail Demand GLA (25% more than selling area)	Centre estimated capture rate (market share or MS)	CENTRE: @ HIGHER Trading Density (Rand/m² selling per year)	Centre Potential m² GLA
Food & Groceries	R 26 253 515	R 315 042 176	R 30 000	13 127	30%	R 45 000	2 625
Fashion - High end (A++ to B)	R 2 821 432	R 33 857 181	R 20 000	2 116	25%	R 30 000	353
Fashion - Low end (C to DZero)	R 4 804 056	R 57 648 678	R 10 000	7 206	30%	R 15 000	1 441
Health & Beauty	R 3 869 510	R 46 434 124	R 20 000	2 902	30%	R 30 000	580
Furniture & Appliances	R 4 197 174	R 50 366 087	R 8 000	7 870	25%	R 12 000	1 312
Home Retail	R 3 714 828	R 44 577 940	R 14 000	3 980	30%	R 21 000	796
DIY/ Outdoor	R 1 832 429	R 21 989 148	R 12 000	2 291	15%	R 18 000	229
Building Material Supplies BMS	R 4 786 906	R 57 442 872	R 9 000	7 978	0%	R 13 500	0
Computing & Software	R 988 801	R 11 865 615	R 30 000	494	30%	R 45 000	99
Other Speciality & Services	R 5 626 043	R 67 512 515	R 22 000	3 836	30%	R 33 000	767
Entertainment	R 1 494 845	R 17 938 144	R 6 000	3 737	15%	R 9 000	374
Wine & Dine	R 2 986 956	R 35 843 476	R 14 000	3 200	30%	R 21 000	640
Fast Foods	R 2 973 916	R 35 686 991	R 18 000	2 478	30%	R 27 000	496
	R 66 350 412 Total	R 796 204 946 Total	R 16 385 Average	61 216 m² area retail demand	25% Average	R 24 577 Average	9 712 Sub-total
					Add 10% for non-retail (banks, post office, etc.) Additional inflow for support from outside catchment area		971 0%
					Total Cent	re GLA warranted	10 683

D€	Catchme emograp	hics
HIGH	A++	36
	A+	29
	Α	276
	В	1 303
MEDIUM	С	1 984
	D	2 213
IOW	D Low	5 191
LOW	D Zero	4 601
	Total	15 633

- This model is representative of the primary catchment area.
- The 2015 demographics of the primary catchment area warrant an estimated total of  $\pm 62,216$ m<sup>2</sup> GLA of retail space at average trading densities.
- At an average market share of ±25%, ±11 000m<sup>2</sup> GLA of retail space could be warranted by the primary catchment.
- No inflow was added to this model, instead an inflow factor will be applied to the secondary catchment's RPE.



# 2015 Secondary Catchment Demographics

					Rural setting Town setting Metro setting	20% 50% 60%	higher trading density higher trading density higher trading density
Main Retail Category	Total Expenditure / month	Total Expenditure / year	AREA: AVERAGE Trading Density (Rand / m <sup>2</sup> selling per year)	Area Total Retail Demand GLA (25% more than selling area)	Centre estimated capture rate (market share or MS)	CENTRE: @ HIGHER Trading Density (Rand/m² selling per year)	Centre Potential m <sup>2</sup> GLA
Food & Groceries	R 20 082 857	R 240 994 281	R 30 000	10 041	20%	R 45 000	1 339
Fashion - High end (A++ to B)	R 1 531 714	R 18 380 564	R 20 000	1 149	15%	R 30 000	115
Fashion - Low end (C to DZero)	R 4 921 269	R 59 055 228	R 10 000	7 382	20%	R 15 000	984
Health & Beauty	R 2 443 165	R 29 317 983	R 20 000	1 832	20%	R 30 000	244
Furniture & Appliances	R 3 478 953	R 41 747 438	R 8 000	6 523	15%	R 12 000	652
Home Retail	R 2 938 082	R 35 256 983	R 14 000	3 148	20%	R 21 000	420
DIY/ Outdoor	R 801 283	R 9 615 396	R 12 000	1 002	10%	R 18 000	67
Building Material Supplies BMS	R 5 165 733	R 61 988 796	R 9 000	8 610	0%	R 13 500	0
Computing & Software	R 457 354	R 5 488 248	R 30 000	229	20%	R 45 000	30
Other Speciality & Services	R 4 124 762	R 49 497 147	R 22 000	2 812	15%	R 33 000	281
Entertainment	R 876 495	R 10 517 934	R 6 000	2 191	5%	R 9 000	73
Wine & Dine	R 1 660 674	R 19 928 089	R 14 000	1 779	20%	R 21 000	237
Fast Foods	R 2 116 478	R 25 397 734	R 18 000	1 764	15%	R 27 000	176
	R 50 598 818	R 607 185 820	R 16 385	48 462	15%	R 24 577	4 619
	Total	Total	Average	m² area retail demand	Average	Average	Sub-total
					SALURIUS PROPERTY AND A STATE OF THE PARTY O	Add 10% for non-retail (banks, post office, etc.)  Iflow for support from outside catchment area	
					Total Cent	re GLA warranted	6 005

De	Catchme emograp	hics
HIGH	A++	28
	A+	43
	A	213
1	В	407
MEDIUM	С	713
	D	2 086
LOW	D Low	8 878
LOW	D Zero	5 165
	Total	17 533

- This model is representative of the secondary catchment area.
- An inflow factor of 20% was applied to account for inflow from outside the secondary catchment area. A new centre, as proposed, will also significantly reduce outflow to other regional nodes.
- The 2015 demographics of the secondary catchment area and inflow support together warrant an estimated total of  $\pm 48,462$ m<sup>2</sup> GLA of retail space at average trading densities.
- The total GLA warranted by this market is smaller than that warranted by the primary catchment area due to the high percentage of lower income households within the secondary area.
- Should the proposed retail development obtain an average market share of 15% within the secondary catchment area (which we believe is achievable), another  $\pm 6~000\text{m}^2$  is justified. This potential, together with that of the primary catchment area, will thus add up to a viable retail centre size of  $\pm 17~000\text{m}^2$  GLA.



Main Category	Total Expenditure / Year	Trading Densities for Town Setting	GLA (m²) warranted by 2015 Demographics		Under/oversupply (m²)
Food & Groceries	R 556 036 457	R 45 000	15 445	10 278	5 167
Fashion - High end (A++ to B)	R 52 237 744	R 30 000	2 177	623	1 554
Fashion - Low end (C to DZero)	R 116 703 906	R 15 000	9 725	4 689	5 036
Health & Beauty	R 75 752 108	R 30 000	3 156	432	2 724
Furniture & Appliances	R 92 113 525	R 12 000	9 595	4 977	4 618
Home Retail	R 79 834 923	R 21 000	4 752	224	4 528
DIY/ Outdoor	R 31 604 544	R 18 000	2 195	1 457	738
Building Material Supplies BMS	R 119 431 668	R 13 500	11 058	4 009	7 050
Computing & Software	R 17 353 863	R 45 000	482	0	482
Other Speciality & Services	R 117 009 661	R 33 000	4 432	2 603	1 829
Entertainment	R 28 456 078	R 9 000	3 952	0	3 952
Wine & Dine	R 55 771 565	R 21 000	3 320	1 180	2 140
Fast Foods	R 61 084 725	R 27 000	2 828	485	2 343
TOTAL WARRANTED GLA (EXCL.10% for banks)	R 1 403 390 767		73 118	30 956	42 162 Nati

- Fernridge has developed a unique retail category classification that is used in all Fernridge Retail Potential Estimates (RPE).
- We have captured all the **national** tenants of Piet Retief and divided them into their respective categories.
- Based on the capture rates of the primary and secondary catchment areas and inflow support we were able to calculate the warranted GLA for each category. Please note that the RPE model is based on average trading densities for prominent independent traders and national brands located in a town setting. The smaller less significant independent retailers usually have much lower trading densities, are usually poorly located, have lower rental rates and have shorter life spans (independent retailers usually open and close quicker than national retailers), and hence the potential for these stores are not included in the PRE model.
- Taking into consideration the warranted GLA and the actual retail space occupied by **nationals**, we are able to determine the retail under or over supply of each retail category (national brands only).
- There is a national brand retail <u>"undersupply"</u> in all categories, the greatest being in the **Food & Groceries**, **Low End Fashion**, **Furniture & Appliances** and **Home Retail** categories.
- The proposed shopping centre should target national retailers and prominent independent retailers to occupy retail space.
- The **42,162m²** undersupply of formal retail space should therefore cater for the undersupplied categories if only national or prominent independent retailers are considered. Please note that the above mentioned calculations do not include warehousing and office space.
- This is a good opportunity for national retailers to enter the market or for poorly located national retailers to take up space at the proposed site. As per infortmation from the developer, 7 230m² of retail space in the new centre will be occupied by retailers that will move.

# Conclusion & Recommendations

Our conclusion and recommendations according to our findings will now follow



- Piet Retief is located in the south eastern part of Mpumalanga next to Swaziland. The larger area is characterised mostly by small towns and rural villages with Ermelo being the largest town with the strongest retail offer.
- The site is situated on the corner of the N2 and Brand Street on the southern fringe of the Piet Retief CBD. The area surrounding the site is classified as middle to upper income formal households. The lower income, informal households are located west of the proposed site. The site will cater for both these markets (lower to upper income households).
- A primary and secondary catchment area was delineated for the purpose of this assessment. Travel distance, proximity to other larger towns and the national border are some of the main factors that influenced the delineation of the catchment.
- The primary catchment area includes the formal and informal town of Piet Retief while the secondary catchment area includes the surrounding towns and villages which we believe are within a reasonable travelling distance from the proposed site.
- According to the 2011 National census, the combined catchment area is dominated by a Black profile (±93%) within mostly the lower income segment (D, D Low and D Zero income groups).
- The site rated as good (74%). The proposed site has very good visibility from the N2 and Brand Street. Passing traffic as well as residents in the town and surrounding villages will have a very good awareness of the proposed retail development.
- The site is detached from the CBD (located just outside the southern fringe of the CBD). The proposed site is therefore ideally located to support the formal town of Piet Retief and to intercept the households of the secondary catchment area en route to the CBD.
- With good signage along the N2 the site will also be able to intercept this transient market. Motorists however need to know of the site and therefore good signage is required.
- The residents of the catchment areas mostly make use of public transport and if a larger retail facility closer to home is available, these residents will save on transport costs. The presence of the taxi rank should create an established and well frequented node. We recommend incorporating the taxi rank with the development to ensure that the secondary catchment residents will be intercepted. It will also attract the critical mass that is much needed for the success of the proposed centre.
- The site's decentralized location and the lack of synergy is affecting its rating. As the site establishes its own node, the site rating will increase.
- The majority of formal retail is located within the Piet Retief CBD. The CBD is the major shopping destination within the catchment high levels of inflow due to the substantial retail present.
- There are **very limited formal retail facilities** in the secondary catchment area. A couple of scattered independents and informal retailers exist throughout the secondary catchment area, with no national retailer representation.
- The closest other formalised retail is located in Paulpietersburg (±55km) which offers a small amount of formal retailers. However a large amount of formalised retail variety can be found in Ermelo (±113km) as an established shopping destination that services the large area. With such a large distance to travel for shopping, transport costs are a major concern for the area's residents, who are already on average poor. There is however some level of outflow to Ermelo for higher order goods such as furniture, appliances, etc.
- The CBD will remain a prominent shopping destination, however the proposed retail centre is ideally located outside the CBD and along the N2 to act as a convenient one-stop alternative where residents can do their shopping with a wide range of retailers from different retail categories.
- Some developments are planned for the area which will include the construction of ±2,000 lower income units north of the proposed retail site and ±1,100 middle income units towards the east. The Municipality is also in the process of converting informal dwellings (shacks) into formal RDP housing units.
- Residential growth within the primary catchment area stands at an annual rate of roughly 2%. In turn the residential growth within the secondary catchment area stands at an annual rate of roughly 1.2%. These growth rates were projected forward in order to determine a 2013 and 2015 figure for both the primary and secondary catchment areas. We calculated a total of ±33,164 households in the combined catchment for 2015.
- There is a national retail "undersupply" in all categories, the greatest being in the Food & Groceries, Low End Fashion, Furniture & Appliances and Home Retail categories.

- We have not included the independent and informal retail space within Piet Retief as these retail spaces trade at lower trading densities, are usually poorly located, have lower rental rates and have shorter life spans (independent retailers usually open and close quicker than national retailers).
- The proposed shopping centre should target national retailers and prominent independent retailers to occupy retail space.
- •The forecasted 2015 demographics of the combined catchment areas and inflow support warrant a total of  $\pm 109,678$ m<sup>2</sup> retail space. If an average market share (MS) of  $\pm 25\%$  can be obtained in the primary catchment area and an average MS of  $\pm 15\%$  can be obtained in the secondary catchment area a first phase centre of  $\pm 17\,000$ m<sup>2</sup> GLA will be warranted. Given the fact that  $7\,230$ m<sup>2</sup> of space will be occupied by nationals moving their CBD store to the centre, this can be added to the  $17\,000$ m<sup>2</sup>, therefore justifying the proposed first phase centre size of  $\pm 25\,000$ m<sup>2</sup>.

#### **Recommendations:**

- We would recommend that the retail development be phased. Phase 1 can incorporate the development of <u>±25,000m² GLA retail centre</u>. The required market share for such a development is considered achievable, given the site location along the N2, the limited retail offer within the secondary catchment area, the fact that some retail will relocate from elsewhere in town and the levels of outflow present.
- This will allow the centre to establish itself in the area. A future expansion could be considered as the centre becomes established and the residential market grows. The level of inflow support the first phase centre receives will also have a telling effect on the viability of a 2nd phase.
- The proposed retail development does not necessarily have to create massive inflow, rather just retain the catchment areas' expenditure currently flowing out to stronger retail nodes i.e. Ermelo.
- Even though the proposed shopping centre is expected to be a landmark in the larger Piet Retief area, prominent signage will be crucial in order to attract the attention of the passing traffic and also to establish "top of mind awareness" with the town residents.
- A practical layout and sufficient parking will also be important. Sufficient space is available on the larger site area for convenient parking. Currently the CBD retail has a problem with congestion and parking and this development could offer convenience and good access to the market.
- The centre should host an attractive tenant mix (high portion of nationals, low vacancies and some nationals currently not represented in the area) that attracts all profiles of the market (town residents all income groups, rural support all income groups as well as passing trade).
- The proposed shopping centre should be developed into a "one-stop offer" where shoppers are able to do all their purchases and access all needed services. This centre could dominate the market and intercept inflow to the CBD. The CBD retail offer is not convenient.
- An important additional service at the centre is a pension / grant payout point. Many residents of these areas are dependent on government pensions and grants. This service will limit the need to flow out to larger areas where these residents then also spend their disposable income.
- The entire development should form an attractive node in order to get support from all income profiles from a large catchment area and provide a new, fresh, and alternative to the CBD. This will also provide an opportunity for national retailers currently not hosted in the combined catchment or looking to expand their market share in this market.
- The majority of the larger towns throughout South Africa have a decentralized retail node. Piet Retief currently lacks this offer = good opportunity.
- As mentioned, we are of the opinion that a centre of ±25,000m² GLA is viable for development. This site is a good opportunity due to the prominent location along a major road (N2) within a significantly important town in the larger area.
- Given that a significant centre (according to above recommendations) is developed, some poorly located retailers present in the CBD would potentially relocate to the proposed shopping centre.
- Please note that many factors contribute to the ultimate success of a centre of which demographic potential is only one i.e. layout, management, marketing, offering (tenant mix), changing existing shopping patterns, market trends along with macro economic conditions, etc.

<u>Fernridge Consulting (Pty) Ltd</u> is a retail / property optimization consultancy that was founded in 2002. We are based in Johannesburg, South Africa and specialize in spatial analysis using GIS (Geographic Information Systems) technology, the latest demographic data and client information. We are a subsidiary of Capital Eye Investments (formerly The UCS Group).

We conduct ± 15 shopping centre / mixed use development / revamp studies per month conducted in all nine South African provinces, as well as neighboring countries (such as Namibia, Botswana, Swaziland, Lesotho, Mozambique, Zimbabwe) and other African countries (Zambia, Malawi, Ghana, Nigeria, Kenya, Uganda, Rwanda, DRC). We offer this service to banks, landlords, property managers, corporate and private investors and developers.

We also assist some of the leading retail groups in South Africa in their African store expansion and rationalization strategies, location analyses etc. Our clients include, among others: Spar, Woolworths, McDonald's, Nando's, Ster Kinekor, Virgin Active, House of Busby, Midas, Clicks, Tile Africa etc.

This is an objective, independent market report with the sole aim of limiting risk for our client and optimize development potential. Fernridge Consulting (Pty) Ltd has taken every care in the preparation of this report. The sources of information used are believed to be accurate and reliable, but no guarantee of accuracy or completeness can be given. Neither Fernridge, nor any Capital Eye Investments Group subsidiary, nor any director, representative or employee of Fernridge, accepts liability for any direct or indirect loss arising from the use of this document or its content. The information and opinions contained in this report are subject to change without notice. Many other aspects, apart from demographic potential, determine the ultimate success or failure of a scheme.

#### Fernridge Consulting (Pty) Ltd

Keystone House Stonemill Office Park 300 Acacia Road Darrenwood (Cresta) Johannesburg

P.O. Box 31266 Braamfontein 2017 South Africa

Tel: +27 11 583 0900 Fax: +27 87 942 6469



Contact:
Sybrand Strauss
Managing Director

e-mail: <a href="mailto:sybrand@fernridge.co.za">sybrand@fernridge.co.za</a>

BB-BEE Level 3 contributor

Need to gain a better understanding of what an area or a specific site's demographic support base looks like?

Then visit www.africaeye.co.za



While **Product 1** allows you to obtain the **most up to date demographic counts** for a predefined area (such as a town's municipal area), Product 2 gives you the option to use a radius or draw your own catchment. **Product 2** also gives you the option of whether you would like to use Census data or Fernridge data, and provides your area's **market potential per retail category** based on Fernridge's benchmarks.



# Appendix D8: Town planning Memorandum

## MEMORANDUM

#### IN MOTIVATION OF THE APPLICATION

#### IN TERMS OF:

CHAPTER IV, SECTION 107(1), READ WITH SECTION 69(1)
OF THE TOWN-PLANNING AND TOWNSHIPS ORDINANCE,
1986 (ORDINANCE 15 OF 1986)

#### FOR:

# THE ESTABLISHMENT OF A TOWNSHIP TO BE KNOWN AS PIET RETIEF EXTENSION 22

#### ON:

A PROPOSED PORTION OF PORTION 100 (A PORTION OF PORTION 1) OF THE FARM PIET RETIEF TOWN AND TOWNLANDS 149-HT (TO BE KNOWN AS PORTION 126)

**JANUARY 2014** 

(APROP-WS-001)

PREPARED BY



SECTION	A: INTRODUCTION	3
1.	APPLICATION	3
2.	LEGAL ASPECTS	3
2.1.	Power of Attorney	3
SECTION	B: GENERAL INFORMATION	4
3.	PROPERTY INFORMATION	4
3.1.	Property Description and Size	4
3.2.	Registered owner and applicant	4
4.	TITLE CONDITIONS	4
4.1.	Conditions of Title, Servitudes and Restrictions	4
4.2.	Reservation of rights to minerals	4
5.	PHYSICAL DESCRIPTION AND ASSESSMENT	5
5.1.	Locality	£
5.2.	Accessibility	£
5.3.	Gradients	5
5.4.	Existing and Surrounding Land Use	£
5.5.	Specialist Environmental & Biodiversity Assessments	<i>6</i>
5.6.	Geotechnical Report	<i>6</i>
5.7.	Flood line	7
SECTION	I C: STATUTORY GUIDELINES	7
6.	LOCAL GOVERNMENT AND TOWN PLANNING RESTRICTIONS	7
6.1.	Institutional Arrangement	7
6.2.	Registered Land Use Rights/Zoning	7
6.3.	Mkhondo Spatial Development Framework, 2010 (SDF)	7
7.	ENVIRONMENTAL ASPECTS AND SITE ANALYSIS	9
SECTION	I D: PROPOSED USE AND LAYOUT	10
8.	PROPOSED DEVELOPMENT	10
9.	PROPOSED ZONING / LAND USE	10
10.	TOWNSHIP LAYOUT PLAN	10
11.	TRAFFIC IMPACT ASSESMENT	11
SECTION	I E: MARKET AND AREA PERSPECTIVE	11
12.	MKHONDO IN PERSPECTIVE	11
12.1	Mkhondo in Local Perspective	11
12.2	Mkhondo in Regional Perspective	12
13.	MARKET STUDY	12
SECTION	F: ENGINEERING SERVICES	13
1.4	ENGINEEDING SEDVICES	10

14.1.	Storm water	. 13
14.2.	Water Supply	. 13
14.3.	Sewer Disposal	. 13
SECTION	G: MOTIVATION	.14
15.	FURTHER MOTIVATION	.14
15.1.	NEED	. 14
15.2.	DESIRABILITY	16
16.	CONCLUSION	.17

#### **ANNEXURES**

Annexure A: Land Availability Agreement, Resolutions and Powers of Attorney

Annexure B: Certificate of Registered Title

Annexure C: Conveyancer Certificate

Annexure D: Locality Plan
Annexure E: Land Use Map

Annexure F: Specialist Environmental and Biodiversity Assessment Report

Annexure G: Geotechnical Report

Annexure H: Flood Line Delineation Report

Annexure I: Zoning Certificate

Annexure J: Zoning Map

Annexure K: Township Layout Plan
Annexure L: Traffic Impact Study

Annexure M: Market Study

Annexure N: Preliminary Engineering Service Report



#### 1. APPLICATION

Application is made in terms Section 107 (1), read with Section 69 (1) of the Town-planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) for the establishment of the proposed township to be known as Piet Retief Extension 22, on a proposed Portion of Portion 100 (a Portion of Portion 1) of the farm Piet Retief Town and Townlands 149-HT (to be known as Portion 126). The purpose of the application is to obtain the required land use rights to enable the development of a retail shopping centre to provide for the Greater Piet Retief Town.

#### 2. LEGAL ASPECTS

#### 2.1. Power of Attorney

The following in respect of ownership and Power of Attorney:

- a) In terms of a Certificate of Registered Title T 50461/1990, Portion 100 (A Portion of Portion 1) of the farm Piet Retief Town & Townlands 149-HT is registered in the name of the Mkhondo Municipality.
- b) The applicant in the matter is the Mkhondo Local Municipality ("the Municipality"), the owner of A Portion of Portion 100 (a Portion of Portion 1) of the farm Piet Retief Town and Townlands 149-HT (to be known as Portion 126), who concluded a Land Availability Agreement on 6 May 2013 with Zarafusion CC (Reg. No. 2009/165597/23) - now Zarafusion (Pty) Ltd. (Reg. No. 2013/119822/07).
- c) Zarafusion (Pty) Ltd. was subsequently appointed with power of attorney, in accordance with the principals contained in the Council Resolutions dated 26 September 2012 (Item 12/09/160A) and 26 April 2013 (Item 13/04/205A), to apply on behalf of the Municipality for the required Land Use Rights in terms of such applicable and relevant legislation for the establishment of a Shopping Centre.
- d) The Power of Attorney was signed by the Municipal Manager, duly authorised thereto by means of the 'Delegated Power Policy' of the Municipality to sign, authenticate or execute contracts for the acquisition and alienation of immovable property and rights in respect thereof.
- e) Nuplan Development Planners CC (Registration No. 2000/059065/23) were authorised with power of attorney to act on behalf of Zarafusion (Pty) Ltd. (Reg. No. 2013/119822/07) in respect of the application for township establishment.

Attached herewith as *Annexure A*, please find the following:

- A copy of the Land Availability Agreement referred to above between the Municipality and Zarafusion CC (now (Pty) Ltd.).
- The appointment of Zarafusion (Pty) Ltd. and power of attorney on behalf of the



797 MT 1387 MT 1387 MT 1387 MT 1387 MS

Municipality.

- The appointment of Nuplan Development Planners CC and power of attorney on behalf of Zarafusion (Pty) Ltd.
- A resolution from Nuplan Development Planners CC which authorise Martin Strydom or any other member or employee to attend to any or all matters relating to the Land Use application on behalf of the instructing client.

**SECTION B: GENERAL INFORMATION** 

#### 3. PROPERTY INFORMATION

#### 3.1. Property Description and Size

The property is known as Portion 100 (A Portion of Portion 1) of the farm Piet Retief Town & Townlands 149-HT, measuring 7.0254 ha in size. Application is made on a proposed Portion of Portion 100 (a Portion of Portion 1) of the Farm Piet Retief Town and Townlands 149-HT, measuring 6.5019 ha in size and to be known as Portion 126. The subdivision of Portion 100 was approved by the Local Municipality on 15 August 2013 and the SG Diagram for Portion 126 was approved in the office of the Surveyor General on 8 October 2013 under S.G. No. 1167/2013. Portion 126 is not registered in the Deeds Office as yet. Proposed Portion 126 (as a Portion of Portion 100), is herein after referred to as the "subject property".

#### 3.2. Registered owner and applicant

In terms of Certificate of Registered Title T 50461/1990, Portion 100 (portion of Portion 1) of the farm Piet Retief Town & Townlands 149-HT is registered in the name of the former Stadsraad of Piet Retief, now known as the Municipality of Piet Retief, alternatively referred to as the Mkhondo Municipality. The *Certificate of Registered* Title T 50461/1990 is attached hereto as *Annexure B*.

#### 4. TITLE CONDITIONS

#### 4.1. Conditions of Title, Servitudes and Restrictions

There are no conditions in the said Certificate of Registered Title that restrict the proposed use on the subject property, or the submission of the application for township establishment. For the purposes of the proposed township, the conditions of title as contained in the aforementioned Certificate of Registered Title shall be dealt with as indicated in the *Conveyance Certificate*.

#### 4.2. Reservation of rights to minerals

The Mineral and Petroleum Resources Development Act 28 of 2002 (hereafter referred to as the "MPRDA") came into operation on 1 May 2004. In terms of the provision of the MPRDA, all rights in or to minerals vest in the State and the concept of privately

owned rights to mineral has been done away with. Pursuant to the coming into operation of the MPRDA prospecting, mining and exploration rights are protected and given legitimacy through the issuing of permits in terms of the MPRDA. These rights are therefore no longer protected in terms of a title condition and have become pro non scripto (superfluous)."

#### 5. PHYSICAL DESCRIPTION AND ASSESSMENT

#### 5.1. Locality

The subject property is situated adjacent to Brand Street and east of Kerk Street and generally south of the CBD area as indicated on the *Locality Map* attached hereto as *Annexure D*.

#### 5.2. Accessibility

The subject property is situated strategically at the intersection of two (2) major roads, The N2 and R543, which provide a link and collect traffic from the east and southern underlying townships within the area and are also seen as national / regional traffic collectors. The subject property is located south of the Piet Retief CBD which will provide opportunities and sense of choice for the settlements towards the south; and at a larger scale it is more central within the Piet Retief Town in order to provide for centralised and easily accessible retail shopping opportunities.

#### 5.3. Gradients

The subject property is characterised by gentle to steep gradients towards the east and southern boundaries. The natural gradient of the property has been disturbed as there are existing structure and infrastructure on the subject property, with possible fill material to level the area.

#### 5.4. Existing and Surrounding Land Use

The existing and other land uses surrounding the subject property are the following:

- (a) The subject property is currently used for municipal purposes which include the offices and storage facilities of the technical services division of the Municipality, the licensing department and vehicle drivers testing grounds, and buildings and structures previously used for the fire department. On a portion of Portion 100, the Disaster Management Centre of the Gert Sibande District Municipality is found, which portion is fenced and excluded from the proposed development by means of a subdivision process. These offices will therefore be situated on the Remaining Extent of Portion 100, while the proposed development is to be situated on Proposed Portion 126.
- (b) On the east, south and west the subject property is surrounded by natural open space, while a residential area is found further to the east, approximately 130 meters from the development foot print of Portion 100. A buffer zone is effectively created around the subject property by the natural open space and wetland area.
- (c) The extension to the south of Kerk Street, which also serves as the N2 national



road through Piet Retief effectively also form the western boundary of the subject property.

(d) The northern boundary of the subject property is formed by Brand Street, which is also the southern boundary of the Piet Retief Central Business District (CBD). The uses directly north and northwest of the subject property is used for business purposes, shops, motor trade and such uses and activities associated with a CBD area.

(e) The area generally east of midblock between Kotzé Street and Pretorius Street is used for residential purposes.

The existing land uses are indicated on the *Land Use Map* attached hereto as *Annexure E*.

#### 5.5. Specialist Environmental & Biodiversity Assessments

A biodiversity assessment and habitat delineation of the subject property was undertaken, with the instruction to report on aspects such as the habitat and biodiversity descriptions, ecological mapping and sensitivity zoning of relevant areas, wetland and riparian delineation and impact assessment, recommendations and mitigation measures. The assessment concluded that the larger extent of Portion 100 can be recommended for development, given that the mitigation measures and recommendations are adhered to. Development should therefore be located outside the wetland areas and the identified 32m buffer zone. More information is available in the report attached hereto as **Annexure F**.

#### 5.6. Geotechnical Report

A geotechnical investigation was undertaken and a report has been drafted in respect of the proposed development. The following conclusions should be noted:

- a) The subject property is divided into four (4) geotechnical zones according to geotechnical classes and soil profiles. Most of the property was considered suitable for construction, but subject to recommendations.
- b) Most of the zones identified were found problematic in respect of fill materials that were used. It was generally recommended that mass earthworks be undertaken on this terrain to create construction terraces and import suitable soil replacement platforms for construction. Special recommendations were made in respect of foundations by means of reinforced strip footprints.
- c) Zone 3 to the east of the property was found unsuitable for development in its current state. The zone can be reclaimed for development by means of a carefully designed earthwork program.
- d) The drainage of surface run-off water must also be planed carefully, not to drain towards structures.

The geotechnical investigation therefore confirms the site to be suitable for construction, but with careful planning and earthworks. Attached herewith as **Annexure G**, please find a copy of the **Geotechnical Report**.

5.7. Flood line

A 1:100 year flood line is applicable as indicated and certified on the proposed township layout plan as required in terms of Section 144 of the National Water Act, 1998. The flood line is situated further to the south than the identified 32m wetland buffer zone and therefore has a lesser impact on the property and development than the wetland buffer. The development will not affect the identified flood line area. Attached hereto as **Annexure H**, please find a copy of the **Flood Line Delineation Report**.

SECTION C: STATUTORY GUIDELINES

The application for township establishment relates to the institutional and administrative aspects of development, and specifically the land use rights applied for to enable physical development. Planning and policy directives are therefore to be considered for purposes of the application which is to serve as guideline and directive in the decision-making process.

6. LOCAL GOVERNMENT AND TOWN PLANNING RESTRICTIONS

6.1. Institutional Arrangement

The subject property is situated in the area of jurisdiction of the Mkhondo Municipality, who in terms of the provisions of the Town-planning and Townships Ordinance, 1986, is regarded as an authorised local authority in terms of land use and planning matters, and to accept and decide on applications for, *inter alia*, change of land use rights.

6.2. Registered Land Use Rights/Zoning

In terms of the Piet Retief Town-planning Scheme, 1980, the subject property, namely Portion 100, is zoned "Municipal". A *zoning certificate* confirming the aforesaid is attached hereto as *Annexure I*. The zonings of the surrounding properties are indicated on the *Zoning Map* attached as *Annexure J* hereto.

6.3. Mkhondo Spatial Development Framework, 2010 (SDF)

The SDF, amongst other proposals, identified development objectives and spatial concepts to be aligned with the ten development principles contained in the Gert Sibande District SDF.

**Principle 2** in the SDF for Mkhondo Municipality states the following: "To establish a functional hierarchy of urban and rural nodes (towns/settlements) in the municipal area; and to ensure equitable and equal access of all communities to social infrastructure and the promotion of local economic development by way of strategically located Thusong Centres (Multi-Purpose Community Centres) (MPCCs) in these nodes"<sup>1</sup>.

The Mkhondo/eThandakukhanya urban area has been identified as one of the urban nodes as it is strategically located in the central parts of the municipal area, and



serving the entire population of about 142 000 people residing in the surrounding areas. <sup>1</sup> The focus would therefore be to improve the social, economic and local economic development infrastructure and opportunities. Approval of the application herewith will comply with this principle.

**Principle 3** states the following: "To functionally link all nodal points (towns and settlements) in the municipal area to one another, and to the surrounding regions, through the establishment and maintenance of a strategic road network comprising internal and external linkages". <sup>2</sup>

In order to achieve the above principle, development and transport corridors needs to be established in the urban nodes. The N2 national road is a high order mobilization and transport node, while also forming the back bone of the development corridor through Mkhondo Town. The proposed development is situated next to this development and transport corridor which makes the locality of the proposed development an important catalyst for meeting the above principle, as well as the objectives of principle 2.

**Principle 8** provides for the following: To enhance Business activities (formal and informal) at each of the identified nodal points in the municipal area by consolidating these areas with the Thusong Centres and a modal transfer facility (taxi/bus stop/rank)". <sup>3</sup>

The following extract from the SDF confirms the need and desirability for approval of the application for township establishment as it will meet the objectives of this principle: "...it is important that business activities be consolidated with the Thusong centres in order to maximise the benefits to be derived from the concentration of people around the social services and facilities provided by government. It is thus proposed that business activities (both by way of formal retail and/or properly managed informal trade markets) be provided for in close proximity to each of the Thusong centres in the municipal area. The primary objective of this is to accommodate local economic development and further strengthen the economic viability if the nodal points identified.

It is furthermore important that sufficient land be earmarked for business/ retail purposes around each of the proposed Thusong Centres.

The eMkhondo CBD will, however, remain the primary retail, business and office node within the Mkhondo municipal area."<sup>3</sup>

The subject property has been identified as land for business and retail development within the Mkhondo urban node to meet the above objective. The subject property is situated on the edge of the CBD area, and represents the only acceptable alternative and option for extension of the CBD area to meet the objectives stated above. Approval of the application will meet the general objectives of the Mkhondo Local Municipality Spatial Development Framework, 2010.



<sup>&</sup>lt;sup>1</sup> Mkhondo Local Municipality Spatial Development Framework, 2010; Chapter 4, page 55.

<sup>&</sup>lt;sup>2</sup> Mkhondo Local Municipality Spatial Development Framework, 2010; Chapter 4, page 60

<sup>&</sup>lt;sup>3</sup> Mkhondo Local Municipality Spatial Development Framework, 2010; Chapter 4, page 63

#### 7. ENVIRONMENTAL ASPECTS AND SITE ANALYSIS

The Regulations to the National Environmental Management Act, 1998, proclaimed on 18 June 2010, listed activities that, if activated by development, require authorisation from the relevant environmental authority. The following activities in terms of the relevant Regulations have been identified as activities that may be activated by the proposed development:

#### (a) Regulation R 544, Activity 23:

"The transformation of undeveloped, vacant or derelict land to-

- (i) residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares, or
- (ii) residential, retail, commercial, recreational, industrial or institutional use, outside urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares;

The total foot print of the proposed development is smaller than 5 hectares, and inside an urban area, therefore authorisation in terms of the above listed activity is not required.

#### (b) Regulation R 544, Activity 11:

The construction of:

- (i) canals;
- (ii) channels;
- (iii) bridges;
- (iv) dams;
- (v) weirs;
- (vi) bulk storm water outlet structures;
- (vii) marinas;
- (viii) jetties exceeding 50 square metres in size;
- (ix) slipways exceeding 50 square metres in size;
- (x) buildings exceeding 50 square metres in size;
- (xi) infrastructure or structures covering 50 square metres or more

where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line."

An independent study has been undertaken to determine the 32 meter setback from the watercourse along the east and southern boundaries of the property to ensure that no development takes place within the 32 meter setback. Authorisation in terms of this listed activity will therefore not be required. We are therefore of the opinion that now environmental authorisation will be required for the proposed development and township, as no activities will be triggered that will require such process.

#### 8. PROPOSED DEVELOPMENT

The intended development is to consist of a shopping (retail) centre as the primary use that may include some offices and places of refreshment. In future, additional and supportive uses can also be introduced under the proposed zoning such as businesses, other offices, places of refreshment, dry cleaners, motor dealership, vehicle sales mart, vehicle sales showroom, workshops, as well as related uses subservient thereto. The shopping centre and retail use (shops) are to be restricted to 25 000 m<sup>2</sup> only, while the other uses will be planned and provided within the remaining and allowed floor area.

The proposed township shall consist of two (2) erven, of which both Erven are to be zoned "Special" for the purposes and land uses indicated above. The two (2) erven can be consolidated on proclamation to form one erf only on which the proposed land use rights are to be established.

#### 9. PROPOSED ZONING / LAND USE

The following land use rights are applied for to allow for the proposed development:

Zoning : Special

Land Use : The erf and the buildings erected thereon, or which are to be erected thereon shall

only be used for purposes of shops, businesses, offices, places of refreshment, dry cleaners, motor dealership, vehicle sales mart, vehicle sales showroom, workshops,

as well as related uses subservient thereto.

Height: Not exceed 2 storeys

Coverage: Not exceed 60%

FAR : The floor area ratio shall not exceed 0.6. This equals 39 011 m<sup>2</sup> of leasable floor

area, of which the shops / retail will be restricted to 25 000 m<sup>2</sup> and the rest for the

other uses specified.

Parking : Parking shall be in accordance with the provisions of Clause 19, Table E of the Piet

Retief Town-planning Scheme, 1980.

A Special zoning is proposed, as the stipulated land uses excludes residential units, residential buildings, places of public worship and a public garage (including a filling station) that are normally associated with a Business 1 zoning.

#### 10. TOWNSHIP LAYOUT PLAN

A **Township Layout Plan** is attached as **Annexure K** and complies with Regulation 18(1)(a) (Chapter II) of the Town Planning and Township Regulations, 1986. The Layout Plan refers to the proposed township of Piet Retief Extension 22, as the township extension was allocated and provided by the Local Municipality.

#### 11. TRAFFIC IMPACT ASSESMENT

A traffic impact assessment was undertaken by an independent certified traffic engineer to assess the traffic impact of the propose development, and also provide recommendable mitigation measures and recommend necessary upgrade where and if required. A traffic impact study report has therefore been compiled in terms of the relevant legislation, principles and guidelines which indicates the anticipated impacted coupled by the recommendations for mitigation and future upgrades. A copy of the *Traffic Impact Study* is attached herewith as *Annexure L*.

SECTION E: MARKET AND AREA PERSPECTIVE

#### 12. MKHONDO IN PERSPECTIVE

#### 12.1. Mkhondo in Local Perspective

Mkhondo Town is a town that provides a wide variety of social, economic and administrative services to the local population and the surrounding region. The town consists of two clearly identified components namely:

(a) The town traditionally established consisted of the white population component, and where most businesses and employment opportunities exists, and where most administrative services by the provincial and national government are rendered. It is considered as the economic hub of the greater Mkhondo urban centre.

At the northern entrance into the Mkhondo urban area a typical shopping complex is found with a filling station, restaurant and fast food services serving the formal Mkhondo residential and urban complex and most probably the sub region to the north. The centre has an approximate gross leasable floor area of approximately 3 300 m<sup>2</sup>. This centre is referred to as the Pick n Pay centre.

(b) South of Mkhondo town, the traditionally black residential component, namely eThandakukhanya, consists of the largest residential component and concentration of people in Mkhondo with limited social and economic facilities and opportunities. A high volume of traffic and commuter services enters Mkhondo Town from the south into the CBD of Mkhondo.

The largest concentration of informal and commuter orientated businesses and services are found at the southern area of the CBD. This part of town is characterised by an overwhelming concentration of informal traders and trading, general dealers, pedestrians and commuters, and a mini-bus taxi rank of limited size and sub-standard facilities.

The northern and southern business components are approximately 2 km apart preventing integration and sharing of services.

#### 12.2. Mkhondo in Regional Perspective

Mkhondo Town is situated on the N2 national road which connects Gauteng with KwaZulu-Natal Province, especially the north eastern part and north coast of the Province.

In addition, Mkhondo is also situated in and serves as a regional and sub-regional service centre for the rural towns and settlements, population in general, forestry and agricultural industries. This includes social, economic and administrative services. Mkhondo is therefore an important service centre in the greater region of south east Mpumalanga Province and even KwaZulu-Natal Province and southern Swaziland.

The importance of Mkhondo as a service centre and gateway to Mpumalanga from KwaZulu-Natal is therefore acknowledged, and cannot be ignored.

#### 13. MARKET STUDY

A market study was compiled in order to test the viability of a proposed first phase 25 000m<sup>2</sup> retail centre on the subject property. The following findings and recommendations should be noted:

- 13.1 Piet Retief is located in the south eastern part of Mpumalanga next to Swaziland. The larger area is characterised mostly by small towns and rural villages with Ermelo being the largest town with the strongest retail offer.
- 13.2 A primary and secondary catchment area was delineated for the purpose of this assessment. Travel distance, proximity to other larger towns and the national border are some of the main factors that influenced the delineation of the catchment. The primary catchment area includes the formal and informal town of Piet Retief. The secondary catchment area includes the surrounding towns and villages which are within a reasonable travelling distance from the proposed site.
- 13.3 Residential growth within the primary catchment area stands at an annual rate of roughly 2%. In turn the residential growth within the secondary catchment area stands at an annual rate of roughly 1.2%. These growth rates were projected forward in order to determine a 2013 and 2015 figure for both the primary and secondary catchment areas. It was calculated to a total of ± 33,164 households in the combined catchment area for 2015.
- 13.4 The forecasted 2015 demographics of the combined catchment areas and inflow support warrant a total of  $\pm$  109,678 m² retail space. If an average market share (MS) of  $\pm$  25% can be obtained in the primary catchment area and an average MS of  $\pm$  15% can be obtained in the secondary catchment area, a first phase centre of  $\pm$  17 000 m² GLA will be warranted. Given the fact that 7 230 m² of space will be occupied by nationals moving their CBD store to the centre, this can be added to the 17 000 m², therefore justifying the proposed first phase centre size of  $\pm$  25 000 m².
- 13.5 It was recommended that the retail development be phased. Phase 1 can incorporate the development of a ± 25,000 m² GLA retail centre. The required market share for such a development is considered achievable, given the site location along the N2, the limited retail offer within the secondary catchment area, the fact that some retail will

relocate from elsewhere in town and the levels of outflow present.

13.6 The site rated as good (74%) and has very good visibility from the N2 and Brand Street. Passing traffic as well as residents in the town and surrounding villages will have a very good awareness of the proposed retail development.

13.7 The site is detached from the CBD (located just outside the southern fringe of the CBD). The proposed site is therefore ideally located to support the formal town of Piet Retief and to intercept the households of the secondary catchment area en route to the CBD.

The market study therefore supports the proposed shopping centre and the proposed 25 000 m<sup>2</sup> retail uses. A copy of the *Market Study* is attached hereto as *Annexure M*.

#### **SECTION F: ENGINEERING SERVICES**

#### 14. ENGINEERING SERVICES

A Preliminary Engineering Service Report was compiled for the proposed development and investigated the proposed Bulk Civil infrastructure for the shopping centre. The following conclusions should be noted:

#### 14.1. Storm water

The report makes several suggestions on the design of the storm water system for the development to accommodate run-off water from the larger area, internal roads and roofs and ensure connection to and compatibility with the Municipal network. These recommendations concur with the findings of the Geotechnical investigation that requires careful planning of surface run-off water.

#### 14.2. Water Supply

An existing water connection is available to the north of the proposed development alongside Brand Street. It is foreseen that the current water network should have sufficient capacity to accommodate the proposed development. The site is currently zoned as "Municipal" and the existing rights allows for 75% coverage for Municipal purposes. Although a farm portion, the property forms part of the existing township and are services by Municipal infrastructure. The existing network would have been designed/sized for these existing rights and should therefore accommodate the proposed.

#### 14.3. Sewer Disposal

An existing sewer connection is available and is currently being utilized for the current Municipal offices. The existing connections would have been designed/sized for these existing rights and it is therefore foreseen that the current sewer network and connection should have sufficient capacity.

A copy of the **Preliminary Engineering Service Report** is attached as **Annexure N**.



#### 15. FURTHER MOTIVATION

#### 15.1. NEED

The need of the application for township establishment is motivated as follows:

- (a) As referred to in Section E, Paragraph 13 above with reference to the market study, a primary and secondary catchment area was delineated for the purpose of the assessment of the shopping centre. The report also indicate that:
  - "Residential growth within the primary catchment area stands at an annual rate of roughly 2%. In turn the residential growth within the secondary catchment area stands at an annual rate of roughly 1.2%. These growth rates were projected forward in order to determine a 2013 and 2015 figure for both the primary and secondary catchment areas. It was calculated to a total of ± 33,164 households in the combined catchment for 2015.
  - The forecasted 2015 demographics of the combined catchment areas and inflow support warrant a total of ±109,678m² retail space. If an average market share (MS) of ±25% can be obtained in the primary catchment area and an average MS of ±15% can be obtained in the secondary catchment area a first phase centre of ±17 000m² GLA will be warranted. Given the fact that 7 230m² of space will be occupied by nationals moving their CBD store to the centre, this can be added to the 17 000m², therefore justifying the proposed first phase centre size of ±25 000m². "

If the above is applied using the criteria presented in the document *Classification and Hierarchy* of Retail Facilities in South Africa (September 2010, Dr Dirk A Prinsloo), the proposed shopping centre can be classified as a *Community Centre* or even a *Small Regional Centre*.

A community centre has a gross leasable floor area of between 15 000 m<sup>2</sup> to 25 000 m<sup>2</sup>, and with the following location criteria:

Average radius of primary trade area
 2,5 to 3,0 km. This includes most of Mkhondo

town and eThandakukhanya.

Median travel time to centre
 6 to 14 minutes. This serves most of Mkhondo

town and eThandakukhanya

Access requirement: From major arterial road. Access is from Kerk

Street (N2) and surrounding urban roads

The proposed shopping centre complies with the above criteria and will address the needs of the Mkhondo urban complex in terms retail opportunity and variety.

(b) According to Prinsloo, the role and function of Community Centres are the following:

"The role of a community centre is to satisfy the need for shopping facilities between that of a neighbourhood and a regional centre. The community centre has a larger catchment area and services more households. The definition of a community centre is often not precise and overlapping/duplication occurs with neighbourhood centres and small regional/community centres.

The role fulfilled by these centres in township areas is very important, mainly because of transport/taxi orientated facilities, the lack of private transport and to offer a large facility mainly within walking distance of a large portion of the community. In many cases, shoppers are prepared to walk to these large centres and to save on transport costs."

The above is true for and applicable to Mkhondo, and especially eThandakukhanya considering the nature and socio-economic circumstances of the aforesaid urban complex. The need for the proposed development is therefore justified.

(c) The existing shopping centre at the northern entrance to Mkhondo, generally referred to as the Pick n Pay Centre, cannot be classified as a community or regional centre, but rather a neighbourhood centre. The reason for this is that the floor area of this centre is estimated at approximately 3 200 m<sup>2</sup> gross leasable floor area which constitutes a convenience centre in terms of floor area and number of stores according to the *Classification and Hierarchy of Retail Facilities in South Africa*.

In the absence of a community centre or small regional centre for a town such as Mkhondo, the need for a community centre and small regional centre is clear if the population and number of households for the greater Mkhondo urban complex is considered, as well as the regional function of Mkhondo.

- (d) The CBD area of the town is characterised by mostly the following:
  - A local shopping centre which can be regarded as a neighbourhood shopping centre as a result of an estimated floor area of approximately 5 700 m<sup>2</sup> which mostly serves the local pedestrians and public transport commuters.
  - Individual shops and businesses that serves mostly the local population but especially the
    pedestrians and commuters making use of public transport. Specialised services that serve
    the region are found along Kotzé Street and Mark Street which represents the eastern and
    western boundary of the CBD area respectively.
  - A visible run-down and neglected area around the mini-bus taxi rank and bottom part of the CBD area, congested with informal traders on the sidewalks and parking spaces.

There is a definite need to upgrade and improve the CBD area, which will be assisted with a new shopping centre on the edge of the CBD area, and which



will renew the focus on this area to be improved and upgraded.

(e) The Mkhondo Municipality has acknowledged the need for a community or regional shopping centre for Mkhondo and the region by requesting proposals for the development of the subject property. Proposals were submitted and the presentation of the applicant accepted by the Municipality, and subsequently entering into a land availability agreement with the Zarafusion (Pty) Ltd.

## 15.2. DESIRABILITY

The desirability of the application for township establishment is motivated as follows:

(a) The Mkhondo CBD area is demarcated by Kruger Street in the north, Kotzé Street in the east, Brand Street being the southern boundary, and Mark Street the western boundary. Within this area retail, business and all other services are mostly provided by individual businesses and the Spar Centre with line shops along the outer periphery of the block demarcated by Kruger Street, Kerk Street, Retief Street and Mark Street. The line shops are all orientated to the inside towards the parking area and the Spar as anchor shop.

The CBD area can best be described as an unstructured and unplanned business area which no longer meets the requirements of convenience in terms of parking, one-stop shopping, traffic considerations and ease of movement.

The above is no longer a desirable situation and needs to be addressed by allowing a properly planned shopping centre that meets the demands and needs of the population. Approval of the application is therefore desirable.

(b) The CBD area is further characterised by the extremely high presence of pedestrians and informal trading on the pavements and in front of shops that further contributes to the neglected, disorganised and unstructured perspective of the CBD area.

The above causes great inconvenience not only to pedestrians but also vehicular traffic in terms of time and ease of movement, traffic congestion and the general amenity of the area.

It is desirable to allow for a further shopping centre in close proximity to this area and the minibus taxi rank on the corner of Brand Street and Mark Street. A well-planned shopping centre can also accommodate or provide for mini-bus taxis by means of a new rank which will ease the pressure on the current taxi rank which is too small and no longer meets the need for such a facility.

(c) Alternative options to create a new destinations for pedestrians, commuters and mini-bus taxis is more than desirable as it will also allow for the upgrade and maintenance of the roads and sidewalks in the vicinity of the existing mini-bus taxi rank, thereby improving the general perception of the lower part of the CBD area as a run-down and neglected area.

(d) The more "upmarket neighbourhood centre" (Pick n Pay Centre) at the northern entrance to Mkhondo is approximately 2 km from the southern entrance to the CBD area which is too far for pedestrians and commuters to visit. The Spar Centre most probably also do not meet the current requirements for a well-planned and modern shopping facility as a result of poor visibility, design and layout.

It is therefore desirable to approve the development of a new shopping centre at the southern entrance to Mkhondo town, and which is in close proximity to the eThandakukhanya and Kempville townships to the south and south east of Mkhondo Town.

(e) Although not known yet, the construction phase as well as the operational phase of the shopping centre will create a relatively high number of employment opportunities that will address the unemployment aspect in Mkhondo and eThandakukhanya.

Approval of the application is therefore desirable in terms of the above.

- (f) Access to the proposed shopping centre will be through the existing road network as follows:
  - From the south (eThandakukhanya, Kempville and KwaZulu-Natal) via the national road N 2 that becomes Kerk Street through the town. The proposed shopping centre is situated on the eastern side of the N 2 as indicated on the Locality Map.
  - From the north via the national road N 2 and Kerk Street, and the secondary roads that acts
    as local by-pass roads around the CBD area, namely Kotzé Street along the east and Mark
    Street along the west.
  - Brand Street forms the northern boundary of the development site and will be upgraded to
    provide access to and exit from the proposed development site, which street intersects with
    the aforesaid streets and other local streets.

The locality of the proposed shopping centre in terms of the existing street networks is desirable.

(g) The existing municipal infrastructure and buildings used for municipal purposes are old and not suitable from a functional and safety point of view. The existing buildings and infrastructure will be demolished and a new technical and traffic centre and testing grounds constructed on another property by the Zarafusion (Pty) Ltd.

New and functional facilities will therefore be provided for the Municipality which is desirable from a service orientated perspective.

# 16. CONCLUSION

Application is made in terms of Section 107 (1), read with Section 69 (1) of the Town-Planning and Townships Ordinance (Ordinance 15 of 1986) for the establishment of the



proposed township to be known as Piet Retief Extension 22.

The purpose of the application is to obtain the required land use rights to enable the development of a retail shopping centre to provide for the Greater Piet Retief Town.

The favourable consideration of the application is requested.

NUPLAN DEVELOPMENT PLANNERS
Jamary 2014



# MKHONDO MUNICIPALITY MUNICIPALITEIT

We Kernepprotesia esta gorg and and the Marker Aug each aways

Navrae/Enquiries,

M. Michonza

AR Chromobindores to be self-result to THE MUNICIPAL MANAGER

VerwiRef.



Adriaan Venter Attorneys and Associates Lady Brooks Building No. 14, 12<sup>th</sup> Street Menlopark <u>PRETORIA</u> 0001

05 September 2014

ATTENTION: J.A. VENTER PER FAX: (012) 346 - 6665 PER EMAIL: info@avatt.co.za

Dear Sir

HEARING OUTCOME FOR THE PROPOSED PIET RETIEF EXTENSION 22 SUBMITTED IN TERMS OF THE TOWN-PLANNING AND TOWNSHIPS ORDINANCE NO. 15 OF 1986

The above matter refers -

This letter serves to inform the parties of the outcome of the hearing that took place on 25 March 2014 and 14 April 2014 in terms of section 131 of the Town Planning and Townships Ordinance 15 of 1986;

It was RESOLVED that:-

1.1 The municipality sets aside all objections received in respect of the development of Plet Retlef Extension 22 submitted in terms of the town-planning and townships ordinance no. 15 of 1986 and continue with the development;

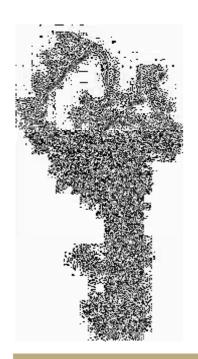
Yours faithfully:

A.N. MAHLANGU

MUNICIPAL MANAGER

# Appendix E: Other Information









BOKAMOSO LANDSCAPE ARCHITECTS & ENVIRONMENTALCONSULTANTS CC P.O. BOX 11375 MAROELANA 0161

TEL: (012) 346 3810 Fax: 086 570 5659

Email: Lizelleg@mweb.co.za

# **Environmental Management Plan**

Portion of Portion 100 (Portion of Portion 1) of the farm Piet Retief Town and Townlands 149 HT (to be known as Portion 126

> March 2015 Ref No: 17/2/3/E-185

### 1 **Project Outline**

### 1.1 **Background**

Bokamoso Landscape Architects & Environmental Consultants CC was appointed by Zarafusion (Pty) Ltd to compile an Environmental Management Plan (EMP) for the proposed township development to be known as Portion 126, Piet Retief Extension 22 Shopping Centre development is situated on a Portion of Portion 100 (Portion of Portion 1) of the farm Piet Retief Town and Townlands 149 HT.

### 1.2 **Project Description**

The Proposed Development will be known as Piet Refief X22 and will entail shops, businesses, offices, places of refreshments, dry cleaners, motor dealers and motor display, as well as related uses subservient to the above.

The study area is approximately 7.516 ha in size and is situated near the geographical centre of Piet Retief Town, which falls under the Mkhondo Local Municipality and within the area of the Gert Sibande District Municipality, Mpumalanga Province.

(Refer to Figure 1 for the Locality Map and Figure 2 for the Aerial Map).

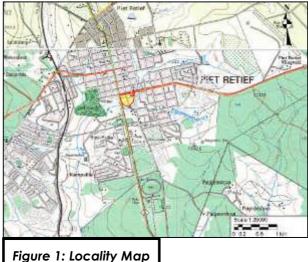




Figure 2: Aerial Map

# <u>Timeframe for construction:</u>

Construction will commence as soon as the amendment application for Environmental Authorization has been concluded. The EMP will be a binding document for purposes of compliance.

# 1.3 Receiving Environment

# Hydrology:

The study area is located on the southern edge of the Town Piet Retief alongside the N2 National Road adjacent to a perennial stream that tributes to the Assegaai River further to the south. This perennial stream forms the eastern and southern boundaries of the proposed development, flowing in a south westerly direction. The site has a steep slope towards the stream. Drainage on the site is thought to be through sheet wash and infiltration and any excess surface water will most probably drain into the stream. The study area is subject to 1:100 year floodlines, however the layout of the proposed mall is planned outside the 1:100 year floodlines. (Refer to Figure 3 for the Surface Hydrology Map)



Figure 3: Surface Hydrology Map

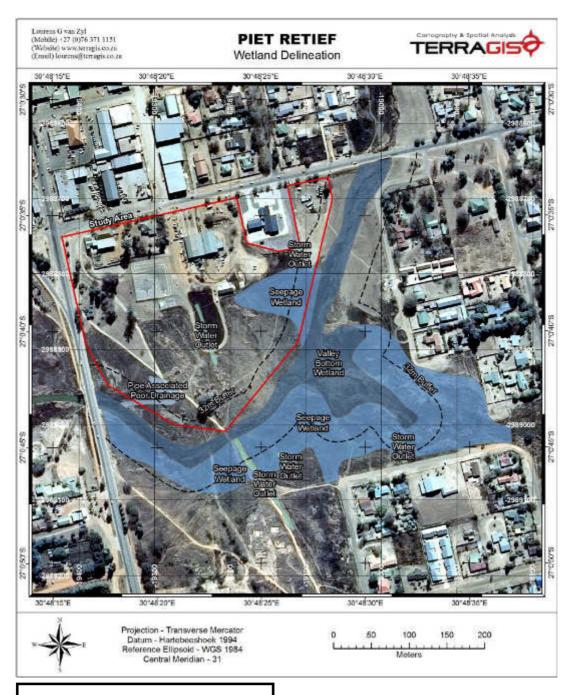


Figure 4: Wetland Delineation

# Wetlands:

Wetland consultant, Terrasoil Science, was appointed to conduct a wetland delineation and management report for the study area. Seepage wetland areas have been

identified on the site and have been modified by human activities. Since 2003 changes occurred on the site in the form of additional paving and storm water runoff. The valley bottom wetland is greatly impacted upon through erosion and excavation, there is also significant amounts of litter and invasive plants throughout the channel. Figure 5 illustrates the delineated wetland with the proposed/ recommended buffer zone. The specialist recommends that the construction activities should be limited to a distance of 30m from the water course except if adequate storm water management and containments structures are constructed to minimise high energy flows into the stream channel. The seepage wetland has no recommended buffer zone due to it being situated immediately downslope of paved up areas. Refer to Figure 4 for wetland delineation.

# Fauna and flora:

# **Plants**

The Flora found on the site were noted to predominantly species found in disturbed areas, species such as *Melinis repens* and *Pennisetum clandestinum* (determined to be the dominant species on the site).

The site is classified as being non-sensitive and it's not expected that any Red-Listed species will occur. It was recommended that the stream/ stream buffer habitat areas should be buffered in order to maintain corridor movement of birds and aquatic faunal species. Any alien or invasive plants should also be removed from the site.

# Fauna:

The study determined that the following Fauna were of concern: Water Rat Dasymys incomtus (Near Threatened); Spotted-neck otter Lutra maculicollis (IUCN Near Threatened) and the Striped Weasel Poecilogale albinucha (Data Deficient). These three Fauna were considered as "trigger" species that were deemed in need of protection. It was recommended that the movement of any red listed species should not be restricted and that their habitats should be buffered.

# **Cultural** /Historical:

No obvious features, sites or artefacts of cultural significance are expected to occur on the site due to the high level of human disturbance and activity on the site.

EMP for the Proposed Piet Retief X22 Shopping Centre, Mpumalanga Province

Visual:

The proposed development will consist of a very prominent building structure which will be highly visible to the surrounding area and view sheds. However, the proposed

be riigiliy visible to the sollochailig area and view sheas. However, the proposed

development will improve the aesthetic value of the area and may even contribute to

the 'sense of place' if adequate measures as described later in this document are taken.

Geology:

Regional geological information indicates that the site is situated on the Mozaan or

Nsuze Groups, associated with the Pongola Sequence. These Groups contain materials

which are largely derivatives of granite. Parent materials include medium to coarse

grained biotite granite, porphyritic biotite or coarse grained hornblende granite.

Soils:

Trial holes revealed that the soil profile is deeply weathered. As a result, no bedrock was

encountered in any of the trial holes. Majority of the site are found to be underlain by

imported fill materials and residual granite dominates in situ soils. In minority, residual

dolerite and colluvial soils are found on the site.

**EMP** context

This EMP fits into the overall planning process of the project by carrying out the conditions

of consent set out by the Mpumalanga Department of Economic Development,

Environment and Tourism. In addition, all mitigation measures recommended in the Basic

Assessment report should also be adhered to.

This EMP addresses the following three phases of the development:

Pre-construction Planning Phase;

Construction phase; and

• Operational phase.

# 2 Monitoring

In order for the EMP to be successfully implemented all the role players involved must have a clear understanding of their roles and responsibilities in the project.

These role players may include the Authorities (A), other Authorities (OA), Developer/proponent (D), Environmental Control Officer (ECO), Project Manager (PM), Contractors (C), Environmental Assessment Practitioner (EAP) and Environmental Site Officer (ESO). Landowners, interested and/or affected parties, and the relevant environmental and project specialist's are also considered important role players.

# 3 Roles and responsibilities

# 3.1 Developer (D)

The developer is ultimately accountable for ensuring compliance with the EMP and conditions contained in the RoD (Environmental Authorisation). The developer must appoint an independent Environmental Control Officer (ECO), for the duration of the pre-construction and construction phases, to ensure compliance with the requirements of this EMP. The developer must ensure that the ECO is integrated as part of the project team. It will be ensured that a copy of this document accompanies the purchase agreements for the erven.

# 3.2 Project Manager (PM)

The Project Manager is responsible for the coordination of various activities and ensures compliance with this EMP through delegation of the EMP to the contractors and monitoring of performance as per the Environmental Control Officer's monthly reports.

# 3.3 Environmental Control Officer (ECO)

An independent Environmental Control Officer (ECO) shall be appointed, for the duration of the pre-construction and construction phase of the services and bulk infrastructure, by the developer to ensure compliance with the requirements of this EMP.

After the construction phase and the associated rehabilitation works are completed, the ECO must do a final site inspection and if satisfied with the compliance with the EMP the ECO must issue a certificate of compliance with the EMP to the developer and forward a copy of the compliance certificate to the Mpumalanga Department of Economic Development, Environment and Tourism.

- The Environmental Control Officer shall ensure that the contractor and developer are aware of all the specifications pertaining to the project.
- Any damage to the environment must be repaired immediately after consultation between the Project Manager, Environmental Control Officer, Consulting Engineer main Contractor and Relevant Sub- Contractors.
- The Environmental Control Officer shall ensure that the developer and the appointed project team and contractors adhere to all stipulations of the EMP.
- The Environmental Control Officer shall be responsible for monitoring the EMP throughout the project by means of site visits and meetings. This should be documented as part of the site meeting minutes.
- The Environmental Control Officer shall be responsible for the environmental training program.
- The Environmental Control Officer shall ensure that all clean up and rehabilitation or any remedial action required, are completed prior to transfer of properties.
- A post construction environmental audit is to be conducted to ensure that all conditions in the EMP have been adhered to.

# 3.4 Contractor (C):

The contractors shall be responsible for ensuring that all activities on site are undertaken in accordance with the environmental provisions detailed in this document and that subcontractor and laborers are duly informed of their roles and responsibilities in this regard.

The contractor will be required, where specified to provide Method Statements setting out in detail how the management actions contained in the EMP will be implemented.

The contractors will be responsible for the cost of rehabilitation of any environmental damage that may result from non-compliance with the environmental regulations.

# 3.5 Environmental Site Officer (ESO):

The ESO is appointed by the developer and as his/her environmental representative to monitor, review and verify compliance with the EMP by the contractor. The ESO is not an independent appointment but must be a member of the contractor's management team. The ESO must ensure that he/she is involved at all phases of the construction (from site clearance to rehabilitation).

# 3.6 Authority (A):

The authority is the relevant environmental department that has issued the Environmental Authorisation, in this case the Mpumalanga Department of Economic Development, Environment and Tourism. The authority is responsible for ensuring that the monitoring of the EMP and other authorization documentation is carried out by means of reviewing audit reports submitted by the ECO and conducting regular site visits.

# 3.7 Other Authorities (OA):

Other authorities are those that may be involved in the approval process of the EMP.

# 3.8 Environmental Assessment Practioner (EAP):

According to Section 1 of NEMA the definition of an environmental assessment practitioner is "the individual responsible for the planning, management and coordination of environmental impact assessments, strategic environmental assessments, environmental management plans or any other appropriate environmental instruments through regulations".

# 4 <u>Lines of Communication:</u>

The Environmental Control Officer in writing should immediately report any breach of the EMP to the Project Manager. The Project Manager should then be responsible for rectifying the problem on-site after discussion with the contractor. Should this require additional cost, then the developer should be notified immediately before any additional steps are taken.

# 5 Reporting Procedures to the Developer:

Any pollution incidents must be reported to the Environmental Control Officer immediately (within 12 hours). The Environmental Control Officer shall report to the Developer on a regular basis (site meetings).

# 6 <u>Site Instruction Entries:</u>

The site instruction book entries will be used for the recording of general site instructions as they relate to the works on site. There should be issuing of stop work order for the purposes of immediately halting any activities of the contractor that may pose environmental risk.

# 7 <u>ESA/ESO (Environmental Site Officer) Diary Entries:</u>

Each of these books must be available in duplicate, with copies for the Engineer and Environmental Site Officer. These books should be available to the authorities for inspection or on request. All spills are to be recorded in the ESA/Environmental Site Officer's dairy.

# 8 Methods Statements:

Methods statements from the contractor will be required for specific sensitive actions on request of the authorities or ESA/ESO (Environmental Site Officer). All method statements will form part of the EMP documentation and are subject to all terms and conditions contained within the EMP document. For each instance in which it is requested that the contractor submit a method statement to the satisfaction of ESA/ESO, the format should clearly indicate the following:

• What – a brief description of the work to be undertaken

- How- a detailed description of the process of work, methods and materials
- Where- a description / sketch map of the locality of work; and
- When- the sequencing of actions with due commencement dates and completion date estimate.

The contractor must submit the method statement before any particular construction activity is due to start. Work may not commence until the method statement has been approved by the ESA/ESO.

# 9 Record Keeping:

All records related to the implementation of this management plan (e.g. site instruction book, ESA/ESO dairy, methods statements etc.) must be kept together in an office where it is safe and can be retrieved easily. These records should be kept for two years at any time be available for scrutiny by any relevant authorities.

# 10 Acts:

# 10.1 The National Water Act, 1998 (Act No: 36 of 1998)

The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account, amongst other factors, the following:

- Meeting the basic human needs of present and future generations;
- Promoting equitable access to water;
- □ Promoting the efficient, sustainable and beneficial use of water in the public interest;
- Reducing and preventing pollution and degradation of water resources;
- □ Facilitating social and economic development; and
- Providing for the growing demand for water use.

# Impact on proposed Development:

Significant – The proposed development is situated outside the 1:100 year floodline, according to the 1:100 year floodline delineation, and will therefore not be affected by any normal flood events. Furthermore, there is a drainage line outside the southern and eastern boundary of the proposed development site and the 32m buffer zone from the delineated wetland is within the study area. The proposed development will be within 500m of the delineated wetland.

# 10.2 National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)

The NEMA: AQA serves to repeal the Atmospheric Pollution Prevention Act (45 of 1965) and various other laws dealing with air pollution and it provides a more comprehensive framework within which the critical question of air quality can be addressed.

The purpose of the Act is to set norms and standards that relate to:

- ☐ Institutional frameworks, roles and responsibilities
- Air quality management planning
- Air quality monitoring and information management
- Air quality management measures
- ☐ General compliance and enforcement.

Amongst other things, it is intended that the setting of norms and standards will achieve the following:

- The protection, restoration and enhancement of air quality in South Africa
- Increased public participation in the protection of air quality and improved public access to relevant and meaningful information about air quality
- The reduction of risks to human health and the prevention of the degradation of air quality.

The Act describes various regulatory tools that should be developed to ensure the implementation and enforcement of air quality management plans. These include:

Priority Areas, which are air pollution 'hot spots'

- Listed Activities, which are 'problem' processes that require an Atmospheric Emission Licence
- Controlled Emitters, which includes the setting of emission standards for 'classes' of emitters, such as motor vehicles, incinerators, etc.
- Control of Noise
- Control of Odours.

# Impact on proposed Development:

Not significant - It is not foreseen that the proposed development would contribute significantly in terms of smoke and noise as it is a commercial shopping mall development and not industrial. It can however be expected that a certain amount of dust will be generated with construction activities, due to earthmoving activities and demolition works. One should note that the impact of dust pollution is short term and lasting for the duration of construction only.

# 10.3 National Environmental Management Act (Act 107 of 1998)

The NEMA is primarily an enabling Act in that it provides for the development of environmental implementation plans and environmental management plans. The principles listed in the act serve as a general framework within which environmental management and implementation plans must be formulated.

The principles in essence state that environmental management must place people and their needs at the forefront of its concern and that development must be socially, environmentally and economically sustainable.

Please note that the NEMA EIA Regulations were amended on 4 December 2014 and came into effect on 8 December 2014.

# Impact on proposed Development:

Significant – Section 28 (1) of NEMA stated that every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot

reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.

The EMP is compiled in terms of Section 28 of NEMA.

# 10.4 National Environmental Management: Waste Act (Act 59 of 2008)

This Act came into effect on 11 June 2009. It aims to consolidate waste management in South Africa, and contains a number of commendable provisions, including:

- The establishment of a national waste management strategy, and national and provincial norms and standards for, amongst others, the classification of waste, waste service delivery, and tariffs for such waste services;
- Addressing reduction, reuse, recycling and recovery of waste;
- The requirement for industry and local government to prepare integrated waste management plans;
- The establishment of control over contaminated land;
- Identifying waste management activities that requires a licence, which currently
  include facilities for the storage, transfer, recycling, recovery, treatment and
  disposal of waste on land;
- Co-operative governance in issuing licenses for waste management facilities, by means of which a licensing authority can issue an integrated or consolidated license jointly with other organs of state that has legislative control over the activity; and
- The establishment of a national waste information system.

On 3 July 2009 the Minister of Environmental Affairs and Tourism promulgated a list of waste management activities that might have a detrimental effect on the environment. These listed activities provide the activities that require a Waste Management License. Two Categories is specified: Category A and Category B. As part of Category a Waste Management License application a Basic Assessment in terms of Section 24(5) of the National Environmental Management Act (Act 107 of 1998) must be submitted to the relevant Authority. As part of a Category B Waste Management License a Scoping and EIA process in terms of Section 24(5) of the National Environmental Management Act (Act 107 of 1998) must be followed and submitted to the relevant Authority.

Please note that on 29 November 2013 the listed activities for waste licenses have been amended.

# Impact on proposed Development:

Not Significant – No Permits will be required in terms of the Waste Act for the proposed development.

# 10.5 National Veld and Forest Fire Act, 1998 (Act No. 101, 1998)

The purpose of this Act is to prevent and combat veld, forest and mountain fires throughout the Republic. Furthermore the Act provides for a variety of institutions, methods and practices for achieving the prevention of fires.

# Impact on proposed Development:

Significant – Fires of construction workers may only be lit in the designated site camp as indicated in assistance with the ECO. It is important that a site development camp be located on a part of the application site that is already disturbed.

# 10.6 National Heritage Resources Act, 1999 (Act No. 25 of 1999)

The National Heritage Resources Act legislates the necesity and heritage impact assessment in areas earmarked for development, which exceed 0.5ha. The Act makes provision for the potential destruction to existing sites, pending the archaelogist's recommendations through permitting procedures. Permits are administered by the South African Heritage Resources Agency (SAHRA).

# Impact on proposed Development:

Not significant- Due to the highly disturbed and totally transformed state of the study area, it was not deemed necessary to conduct a Heritage Impact Assessment in terms of the requirements as provided for in Section 38 of the NHRA, 1999. If any remains/cultural resources are exposed or uncovered during the construction phase, it should immediately be reported to the South African Heritage Resources Agency (SAHRA). Burial remains should not be disturbed or removed until inspected by an archaeologist.

# 10.7 Conservation of Agricultural Resources Act (Act No. 43 of 1983)

This Act provides for control over the utilization of the natural agricultural resources of the Republic in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants; and for matters connected therewith.

# Impact on proposed Development:

Not Significant – The study area is situated within an urban area.

# 10.8 Water Services Act, 1997 (Act No. 108 of 1997)

This Act provides for the minimum standards and measures of which the following Water Services should adhere to:

- o Basic sanitation
- Basic water supply
- o Interruption in provision of water services
- Quality of potable water
- Control of objectionable substances
- Disposal of grey water
- Use of effluent
- Quantity and quality of industrial effluent discharged into a sewerage system
- o Water services audit as a component in the Water Services Development Plan
- o Water and effluent balance analysis and determination of water losses
- Repair of leaks
- o Consumer installations other than meters
- o Pressure in reticulation system

# Impact on proposed Development:

Significant – The application will need to adhere to the water services act.

# 10.9 National Environmental Management: Biodiversity Act (Act No. 10 of 2004)

The purpose of the Biodiversity Act is to provide for the management of South Africa's biodiversity within the Framework of the NEMA and the protection of species and ecosystems that warrant National protection. As part of the implementation strategy, the National Spatial Biodiversity Assessment was developed.

# Impact on proposed Development:

Not Significant – The study area is not regarded as a property with high biodiversity. According to the Mpumalanga sensitivity maps the study area is regarded as disturbed.

# 10.10 National Spatial Biodiversity Assessment

The National Spatial Biodiversity Assessment (NSBA) classifies areas as worthy of protection based on its biophysical characteristics, which are ranked according to priority levels.

# Impact on proposed Development:

Not Significant – Situated within an urban area.

# 10.11 Protected Species – Provincial Policies

Provincial ordinances were developed to protect particular plant species within specific provinces. The protection of these species is enforced through permitting requirements associated with provincial lists of protected species. Permits are administered by the Provincial Departments of Environmental Affairs.

# Impact on proposed Development:

Not Significant- No Red Data plant species were found on the study area.

# 10.12 National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)

The purpose of this Act is to provide for the protection, conservation and management of ecologically viable areas representative of South Africa's biological biodiversity and its natural landscapes.

# Impact on proposed Development:

**Not Significant –** The study area is not situated in a Protected Area identified in terms of the Protected Areas Act.

# 10.13 National Road Traffic Act, 1996 (Act No. 93 of 1996)

This Act provides for all road traffic matters which shall apply uniformly throughout the Republic and for matters connected therewith.

# Impact on proposed Development:

Not significant - Not Applicable.

# 10.14 Environmental Conservation Act: Noise Regulations, 1989 (Act no.73 of 1989)

The purpose of this Act is to provide measures and management relating Noise levels. This Act enables Noise levels to be acceptable to standards within a specific area and community.

# Impact on proposed Development:

Significant – The proposed development may include activities which can produce noise during the construction phase.

# 11 <u>Project activities</u>

# 11.1 Pre-Construction Phase

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
General	Project contract	To make the EMP enforceable under the general conditions of the contract.	The EMP document must be included as part of the tender documentation.	The EMP is included as part of the tender documentation	Developer	-
	Storm water design		1) A detailed storm water management plan must be approved by the Local Authority prior to commencement of construction activities. Must be implemented according to guidelines provided by the relevant Local Authority Departments. 2) The storm water design for the proposed development must be designed to: Reduce and/ or prevent siltation, erosion and water pollution. 3) Storm water runoff should not be concentrated as far as possible and sheet flow should be implemented. 4) Energy dissipaters must be installed on the study area to break the speed of the water. 5) Surface storm water generated as a result of the development must not be channeled directly into any natural drainage system or wetland. 6) The storm water management plan should be designed in a way that aims to ensure that post development runoff does not exceed predevelopment values in:	Compilation and approval of storm water management plan	Engineer Individual Developer	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			<ul> <li>Peak discharge for any given storm;</li> <li>Total volume of runoff for any given storm;</li> <li>Frequency of runoff; and</li> <li>Pollutant and debris concentrations reaching water courses.</li> <li>7) The storm water management plan must ensure that all culverts and storm water discharge outlets promote diffuse flow and should be fitted with energy dissipaters. The concentration and size of the storm water outlets should be considered.</li> <li>8) The site must be properly drained to prevent accumulation of large quantities of stormwater in one place. The provision of impervious paved aprons around building perimeters is recommended. Internal roads in the development must be utilized to collect and transport stormwater.</li> </ul>			
Design and planning	Stability of structures and restriction of land use due to geology	To ensure stability of the development structure.	The layout and land must correspond to the stability zonation and development types recommended by the geotechnical engineer.	The land uses and layout corresponds to the recommended stability zonation and development type.	Individual Development Engineer	F
	Waste storage	To control the temporary storage of waste.	Temporary waste storage points on site shall be determined. These storage points shall be accessible by waste removal trucks and these points should not be located in sensitive areas/areas highly visible from the properties of the surrounding land-owners/tenants/in areas where the wind direction will carry bad odours across the properties of adjacent tenants or landowners.		Contractor ESO	-

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		Ensure waste storage area does not generate pollution.	Build a bund around waste storage area to avoid occurrence of pollution.		Contractor	-
	Hydrology- Environmental damage caused due to erosion, water pollution, gully formation and siltation.	To ensure that a proper storm water management plan are developed to be implemented.	1) A proper storm water management plan should be developed, to be implemented during the construction and operational phases of the proposed project; 2) Storm water outlets shall be correctly designed to prevent erosion; 3) Construction guidelines should be provided for the prevention and restriction of erosion and siltation.		Suitably Qualified Specialist	
		To ensure the sustainability of the drainage and the open space systems lower down in the catchment area	1)The Storm water design for the proposed development must be designed to:  - Reduce and/or prevent siltation, erosion and water pollution. Storm water runoff should not be concentrated as far as possible and sheet flow should be implemented;  - Run-off from paved surfaces should be slowed down by the strategic placement of berms;  - Sheet runoff from paved surfaces and access roads needs to be curtailed;  - As much of the vegetation should be retained as far as possible and rehabilitated if disturbed by construction activities to ensure that erosion and siltation does not		Civil Engineers;	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			take place;  No Trees should be planted within three (3) meters form water bearing services  The storm water management plan must ensure that all culverts and storm water discharge outlets promote diffuse flow and should be fitted with energy dissipaters. The concentration and size of the storm water outlets should be considered.  The use of attenuation facilities is recommended for the purpose of attenuating managed storm water flows before being released into the system, and facilitating groundwater recharge and pollutant removal. These systems should be strategically located in the landscape to receive water from the constructed development and to release controlled flows into the watercourses or wetlands. Their strategic placement should be considered as part of the overall Storm Water Management Plan.			
	Fauna and Flora biodiversity and ecological heath	To give smaller birds, mammals and reptiles a chance to move into other undisturbed areas close to their natural territories	Work should be planned to be restricted to one area at a time.		Contractor, Site Manager	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		To ensure that the species introduced to the area, are compatible with the current and future quality of the ecological processes.	The Landscape Development Plan (LDP) and Master Plan for the proposed development shall be submitted to the local government for approval. It is important that all the plant positions quantities and coverage per m² be indicated on the plan.		Landscape Architect	
		To ensure the removal of all the Declared weeds and invaders from the site	All the Category 1 Declared Weeds and other alien invaders must be removed from the site.		Flora Specialist /Contractor	
	Protection of the Delineated Wetland Area	To ensure that the wetland areas are delineated, as well as the associated sensitive zones are adequately protected prior, and during construction	The delineated wetland should be clearly marked prior to construction.	The delineated wetland is clearly marked.	Flora Specialist, Wetland Specialist, Contractor, ECO	
	Visual Impact	To minimize the visual impact of the proposed development.	Architectural guidelines should be compiled for the proposed development and the styles used must promote unity through the use of certain street furniture, planting and paving patterns, colours and textures that do not only blend in tastefully with the character of the area, but are also functional and easy to maintain.		Architect Contractor.	
Preparing the site access	Environmental Integrity	To avoid erosion and disturbance to indigenous vegetation.	Designated routes shall be determined for the construction vehicles and designated areas for storage of equipment.	Access to site is erosion free.	Contractor	Continuou s

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			2) Clearly mark the site access point and routes on the site to be used by construction vehicles and pedestrians. 3) Provide an access map to all contractors whom in turn must provide copies to the construction workers. Instruct all drivers to use access point and determined route.			
		To prevent the invasion of the area with alien invaders.	Alien invaders must be eradicated before, during and after construction.		ECO Project Manager	
			The site camp and storage areas shall be established in a disturbed area as indicated by the ECO prior to construction.		ECO, Site Supervisor	
Geology and soils	Erosion and Siltation	To prevent the unnecessary loss of soil through bad management	1) All surface run-offs should be managed in such a way so as to ensure erosion of soil does not occur.  2) Provisions should be made for the development of a rehabilitation strategy, prior to construction and as outlined in this document, to ensure that all the areas which are susceptible to erosion shall be covered with a suitable vegetative cover as soon as construction is completed.	Rehabilitation Plan are developed prior to construction to be implemented during and after construction	Landscape Architect, Environmental Consultants, Flora Specialist	
	Compaction	To prevent the compaction of valuable soils due to traffic and equipment	1) Designated routes shall be determined prior to construction for movement of construction vehicles and areas for the storage of equipment.  2) All the areas that are compacted by machinery shall be ripped prior to being rehabilitated/reseeded.		ECO, Site Supervisor, Contractor	
			The site access point should be clearly marked as well as routes designated to be used by construction vehicles and pedestrians.		ECO, Site Supervisor Contractor	

ТҮРЕ	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
	Topsoil	To Prevent the loss of valuable topsoil	1) Designated areas should be identified prior to construction for the stockpiling of stripped topsoil. The stockpile areas should be designated where the material will not be damaged, removed or compacted. The stockpiled topsoil shall be used for the rehabilitation of the site during and after construction and for landscaping purposes. 2) If such materials are temporarily stored or permanently used in such areas, the materials must be stored in such a way that it will not lead to siltation, sedimentation, water pollution or erosion. 4) In order to avoid unnecessary sedimentation and siltation, stock piling of any other materials (for use in other section of the site), may not take place within the drainage area. 5) The drainage area must be clearly delineated and marked out on the study area prior to the construction phase.	Designated stockpile areas identified prior to construction for the storage of Top soil	ECO, Site Supervisor, Contractor	
			6) When the stripping of topsoil takes place, the grass component shall be included in the stripped topsoil. This soil will contain a natural grass seed mixture that may assist in the re-growth of grass once the soil is used for backfilling and landscaping.		Contractor	
Other Design requirements	Extreme Climate Change	To prevent the extreme change in micro climate temperatures	Where open parking bays are involved, one tree for every two parking bays shall be indicated on the Landscape Development Plan		Landscape Architect	
		To ensure the stability of structures	Detailed geotechnical Investigations must be conducted for all high-rise structures		Geotechnical Engineer	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			Adequate inspections must be conducted before services trenches are backfilled		Engineer	
	Light Pollution	To prevent excessive light pollution through ineffective design	The generation of light through security lighting and other lighting should be effectively designed to not spill unnecessary outward into the oncoming traffic, or into the neighbouring properties or open spaces		Architect, Landscape Architect/ Contractor	
	Waste Storage	To control the temporary storage of waste	No waste materials shall at any stage be disposed off in the open veld of adjacent properties or in sensitive areas/ wetland areas. Temporary waste storage points should be determined prior to construction on site. These storage points shall be accessible by waste removal trucks. Such areas should not be located in areas highly visible from the properties of the surrounding land-owners/tenants.	Designated areas determined prior to construction for the storage of waste on site.	ECO, Contractor	
		Reuse or recycle materials where possible and ensure the correct disposal of unusable waste	The Waste Management Plan should be prepared prior to construction, that stipulate measures for the reuse and recycling of waste materials	Waste management plan prepared prior to construction	ECO, Contractor,	
		To ensure that the waste storage area does not generate any pollution	1) The area designated for the storage of waste on site should be located in non-sensitive areas, at least 100m from the wetland boundary and only within areas where it would not be able to contaminate storm water.  2) In order to prevent any visual pollution, as well as mitigate anticipated visual		Site Supervisor	
			impacts, the area designated for the storage of waste should be located in an			

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			area that is not highly visible, especially from surrounding properties and public roads.			
	Waste generation, and air, water and noise pollution	Best Practice to minimise environmental impacts and ensure efficient management	Coordinate with other trades working on site regarding site management, timing of works and waste management (recycling and reuse potential).		Project Manager	
			Plan the activities on site prior to construction for access, deliveries, construction areas, washout area, waste stockpiles, and chemical storage.		Environmental Site Officer. Occupational Health and Safety officer etc.	
		Solid Waste Disposal	Solid waste shall be disposed off in a manner approved by the relevant local authorities, and at a registered land-fill site.		Contractor	

# 11.2 Construction Phase

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Contractor's Camp	Loss of Vegetation and topsoil	To minimise damage to and loss of vegetation and retain quality of topsoil	Site to be established under supervision of ECO/ESO.	Minimal vegetation removed/ damaged during site activities.	Contractor	Before any construction activity commences and as and when required
Construction Site	Surface and ground water pollution	To minimise pollution of surface and groundwater resources.	1) Sufficient and temporary facilities including ablution facilities must be provided for construction workers operating on the site.  2) A minimum of one chemical toilet shall be provided per 10 construction workers.  The contractor shall keep the toilets in a clean, neat and hygienic condition.  Toilets provided by the contractor must be easily accessible and a maximum of 50m from the works area to ensure they are utilized. The contractor (who must use reputable toilet-servicing company) shall be responsible for the cleaning, maintenance and servicing of the toilets. The contractor (using reputable toilet-servicing company) shall ensure that all toilets are cleaned and emptied before the builders' or other public holidays.  3) No person is allowed to use any other area than chemical toilets.  4) No French drain systems may be installed.  5) No chemical or waste water must be allowed to contaminate the run-off on site.  This could possibly contaminate the drainage channel.  6) The chemical toilets may not be placed in close proximity of the adjacent dwellings to prevent odours from causing uncomforting	Effluents managed Effectively.  No pollution of water resources from site.  Workforce use toilets provided.	Contractor ESO	As and when required

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			situations. 7) Avoid the clearing of the site camp (of specific phase) or paved surfaces with soap. This could drain into the drainage channel on site and contaminate to open space system in the area. 8) The chemical toilets may not be in close proximity or within the 1:50, 1:100 year flood lines or sensitive zones of the wetland and stormwater channel.			
		To minimize pollution of surface and Groundwater resources due to spilling of materials.	1) Drip trays and/ or lined earth bunds must be provided under vehicles and equipment, to contain spills of hazardous materials such as fuel, oil and cement.  2) Repair and storage of vehicles only within the demarcated site area.  3) Spill kits must be available on site.  4) Oils and chemicals must be confined to specific secured areas within the site camp. These areas must be bunded with adequate containment (at least 1.5 times the volume of the fuel) for potential spills or leaks.  5) All spilled hazardous substances must be contained in impermeable containers for removal to a licensed hazardous waste site.  6) No leaking vehicle shall be allowed on site. The mechanic/ the mechanic of the appointed contractor must supply the environmental officer with a letter of confirmation that the vehicles and equipment are leak proof.  7) No bins containing organic solvents such as paints and thinners shall be cleaned on site, unless containers for liquid waste disposal are placed for this purpose on site.	No pollution of the environment	Contractor ESO	Daily
		To minimize pollution	The mixing of concrete shall only be done at	No evidence of	Contractor	Daily

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		of surface and groundwater resources by cement	specifically selected sites, as close as possible to the entrance, on mortar boards or similar structures to prevent run-off into drainage line, wetlands and natural vegetation.	contaminated soil on the construction site.	ESO	
		To minimize pollution of surface and Groundwater resources due to effluent.	No effluent (including effluent from any storage areas) may be discharged into any water surface or ground water resource, especially the storm water drainage channel/wetlands on site.	No evidence of contaminated water resources.	Contractor ESO	Daily
	Pollution of the environment	To prevent unhygienic usage on the site and pollution of the natural assets.	1) Weather proof waste bins must be provided and emptied regularly.  2) The contractor shall provide laborers to clean up the construction site on a daily basis.  3) Stormwater culverts must be regularly checked and cleared of any rubble/ waste material that may enter and be free of obstructions.  4) Temporary waste storage points on the site should be determined. THESE AREAS SHALL BE PREDETERMINED AND LOCATED IN AREAS THAT ARE ALREADY DISTURBED AND NOT WITHIN 100m OF THE DRAINAGE LINE/ WATER COURSE. These storage points should be accessible by waste removal trucks and these points should be located in already disturbed areas /areas not highly visible from the properties of the surrounding land-owners/ in areas where the wind direction will not carry bad odours across the properties of adjacent landowners. This site should comply with the following:  - Skips for the containment and disposal of waste that could cause soil and water pollution, i.e. paint, lubricants, etc.;	No waste bins overflowing  No litter or building waste lying in or around the site.	Contractor ESO	Daily Weekly

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			<ul> <li>Small lightweight waste items should be contained in skips with lids to prevent wind littering;</li> <li>Bunded areas for containment and holding of dry building waste.</li> <li>No solid waste may be disposed of on the site.</li> <li>No waste materials shall at any stage be disposed of in the open veld of adjacent properties.</li> <li>The storage of solid waste on the site, until such time as it may be disposed of, must be done in a manner acceptable to the local authority and DWA.</li> <li>Cover any wastes that are likely to wash away or contaminate storm water.</li> </ul>			
		Recycle material where possible and correctly dispose of unusable wastes.	1) Waste shall be separated into recyclable and non-recyclable waste, and shall be separated as follows:  - General waste: including (but not limited to) construction rubble,  - Reusable construction material.  2) Recyclable waste shall preferably be deposited in separate bins.  3) All solid waste including excess spoil (soil, rock, rubble etc) must be removed to a permitted waste disposal site on a weekly basis.  4) No bins containing organic solvents such as paints and thinners shall be cleaned on site, unless containers for liquid waste disposal are placed for this purpose on site.  5) Keep records of waste reuse, recycling and disposal for future reference. Provide information to ECO.	No visible signs of pollution.	Contractor	Daily Weekly
	Wetland	To protect the	During the construction phase, no dumping		Contractor	Monitor daily

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		sensitive wetland.	and no stockpiling of materials within the wetland areas and the allocated sensitive areas may take place, apart from topsoil/subsoil to be used in rehabilitation works which may be stockpiled in this area.		ESO	
	Fauna and Flora	To ensure protection of existing fauna and flora	1) Dumping of builder's rubble and other waste in the areas earmarked for exclusion must be prevented through fencing or other management measures. These areas must be properly managed throughout the lifespan of the project in terms of fire, eradication of exotics, entrance of vehicles, etc. to ensure continuous biodiversity. All alien species must be eradicated from the study area; 2) The removal of Category 1 Declared invaders from the property is mandatory and Category 2 Declared invaders must be controlled in terms of the Conservation of Agricultural Resources Act, 1983 and Section 28 of NEMA, 1998. This must be done on a continuous basis.	Existing fauna and flora protected	Contractor ESO	Continuously
		To ensure protection of existing fauna and flora	1) During the construction phase noise must be kept to a minimum to reduce the impact of the development on the fauna residing on the site. It is proposed that the development should be done in phases to allow fauna species to temporarily migrate into any open space and conservation areas in the vicinity of the development site. 2) Entrance by vehicles, especially off-road cars and bakkies, off-road bicycles and quad bikes to the areas to be excluded should be prohibited, both during the construction phase and during the lifespan of the project. 3) Where possible work should be restricted to one area at a time. This will give the smaller	Existing fauna and flora protected	Contractor ESO Flora, Specialist	Continuously

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
	Geology and Soils-Stability of structures due to geology	To ensure stability of structures.	birds, mammals and reptiles a chance to weather the disturbance in an undisturbed zone close to their natural territories.  4) The integrity of the remaining wildlife should be upheld, and no trapping or hunting by construction personnel should be allowed.  5) Caught animals should be relocated to the conservation areas in the vicinity.  6) Strict measures to prevent the hunting/ snaring/ killing of fauna species should be implemented.  7) Wood harvesting of trees and shrubs on the study area or adjacent areas shall be prohibited.  Preventative foundation designs shall be done. Detailed foundation inspections should be carried out at the time of construction to identify any variances and adjust foundation designs accordingly if need to be. The foundation recommendations of the geotechnical engineers must be adhered to.		Geotechnical Engineers, Structural Engineers	
		To prevent the damaging of the existing soils and geology.	1) The top layer of all areas to be excavated for the purposes of construction shall be stripped and stockpiled in areas where this material will not be damaged, removed or compacted.  2) All surfaces that are susceptible to erosion, shall be protected either by cladding with biodegradable material or with the top layer of soil being seeded with grass seed/planted with a suitable groundcover.	No signs of erosion.	Contractor	Monitor daily
		To minimise dust from the site	Dust pollution could occur during construction works, especially during the dry months. Regular and effective damping down of working areas must be carried out to	The effective damping of access routes and exposed	Site Supervisor, Contractor and site workers	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			avoid dust pollution that could have a negative impact on the surrounding environment.	areas to minimize/prevent excessive dust pollution during construction		
		To prevent the contamination of soils and water by the leaking and discharges of machinery	1) No leaking vehicle shall be allowed on site. Before entering the study area, all vehicles and equipment shall be inspected for leaks by a qualified mechanic/ other qualified person and or environmental control officer. The mechanic of the appointed contractor must supply the environmental officer with a letter of confirmation that the vehicles and equipment are leak proof. 2) If maintenance on site is absolutely necessary, it should take place on a concrete surface in the site camp. Spilled oil should be cleaned up and disposed off appropriately (not disposed off on site)		Site Supervisor, Project manager	
		Inaccurate stockpiling can interfere with natural drainage and cause water pollution and siltation	1) Stockpiling of topsoil will only be done in designated areas where it will not interfere with the natural drainage paths of the environment; 2) No stockpiling shall be allowed in drainage lines; 3) In order to minimize erosion and siltation and disturbance to the existing vegetation, it is recommended that stockpiling be done in already disturbed, exposed areas; 4) Stockpiles should be covered with a sediment fence to prevent soils material from washing away; 5) Care should be taken to prevent the runoff of silt from open soil and stockpiles into the drainage area.		ECO, site supervisor	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		Loss of Topsoil	1) Remove vegetation only in areas designated during the planning stage; 2) Rehabilitation is to be done immediately after the involved works are completed; 3) All compacted areas should be ripped prior to them being rehabilitated/landscaped; 4) The top layer of all areas to be excavated must be stripped and stockpiled in areas where this material will not be damaged, removed or compacted. This stockpiled material should be used for the rehabilitation of the site and for landscaping purposes; 5) Strip topsoil at start of works and store no more than 1,5m high in designated material storage area.	ECO, Site Supervisor, Contractor		
			Establish an all weather site access and wheel wash or shake down to prevent soil and materials being tracked onto the road.	ECO, Site Supervisor		
	Social and Safety	To ensure the safety of the public	Although regarded as a normal practice, it is important to erect proper signs indicating the operations of heavy machinery in the vicinity of dangerous crossings and access roads or erven in the development site if necessary.	Visible signs erected	Contractor	
			With the exemption of the appointed security personnel, no other workers, friend or relatives will be allowed to sleep on the construction site (weekends included).		Security Personal, contractor	
			1)Heavy construction vehicles should avoid using the local road network during peak traffic times; 2)These vehicles should use only specific roads, and strictly keep within the speed limits and abide to all traffic laws. No speeding or reckless driving should be allowed;			

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			3) Access to the site for construction vehicles should be planned to minimize the impact on the surrounding road network; 4) Warning signs should be erected on the roads if needed.			
			The following actions would assist in the management of safety along the road: -Adequate road marking; -Adequate roadside recovery areas; -Allowance for pedestrians and cyclists		Project Manager, Environmental Site officer, Heath and Safety officer	
		To mitigate localized vibration	Activities that cause localised vibration should be limited to normal working hours only, between 06h00 and 18h00 on weekdays and between 08h00 and 15h00 on Saturdays. No construction activities will be allowed on Sundays, and public holidays.			
		Noise Impact- To maintain noise levels below "disturbing" as defined in the National Noise Regulations.	1) Site workers must comply with the Provincial noise requirements; 2) Construction will only be permitted during working hours of between 06h00 and 18h00 on weekdays, and between 08h00 and 15h00 on Saturdays. No construction activities will be allowed on Sundays and Public Holidays; 3) The surrounding residents must be notified of blasting activities in advance. The necessary safety measures must also be implemented.	No complaints from surrounding residents and I & AP	Contractor	Monitored daily
		<b>Dust Impact</b> -Minimise dust from the site.	Dust pollution could occur during the construction works, especially during the dry months. Regular and effective damping down of working areas (especially during the dry and windy periods) must be carried out to avoid dust pollution that will have a negative impact on the surrounding environment.	No visible signs of dust pollution  No complaints from surrounding residents and I & AP	Contractor	Monitored daily
		Visual Impact- In	The disturbed areas shall be rehabilitated	Visual impacts	Contractor	Monitor daily

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		order to minimise the visual impact.	immediately after the involved construction works are completed as the construction vehicle and equipments will be causing visual impact during construction phase.	minimized	ESO	
		To mitigate the inconvenience of temporary power failures, disconnection of water and sewage, and telecommunication	There should be consulted with affected parties to determine the most convenient times for service disruptions. The interested and affected parties should also be notified in advance of dates that services will be disrupted.		Project Manager, Contractor	
		Increased fire risk to site and surrounding areas-To decrease fire risk.	1) Fires shall only be permitted in specifically designated areas and under controlled circumstances. 2) Food vendors shall be allowed within specified areas. 3) Fire extinguishers to be provided in all vehicles and fire beaters must be available on site. 4) Emergency numbers/contact details must be available on site, where applicable.	No open fires on site that have been left unattended.	Contractor	Monitor daily
		To mitigate the negative impact on the ecological environment due to the installation of services	Rehabilitate areas which were disturbed by the instillation of services immediately after works have been completed.	Disturbed areas successfully rehabilitated	Site Supervisor, Contractor	
		Landscaping	When Planting trees, care should be taken to avoid the incorrect positioning of trees, and other plants. If trees are planted in close proximity to the line of water bearing services, it could leak, or result into the malfunctioning of services installed.		Landscape Architect Landscape Contractor	

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		·	The proposed planting materials for the areas to be landscaped should preferably be endemic and indigenous.		Landscape Architect, Landscape Contractor	
			All the new indigenous trees and shrubs to be planted with in the study area shall be inspected for pests and diseases prior to then being planted. The inspection shall be carried out by the maintenance contractor at the property of the supplier.		Landscape Contractor, Maintenance Contractor	
			Gardens should preferably be planted with dense ground cover or grass to allow for maximum surface water infiltration.			
	Hydrology	To mitigate the impact of altered surface water flows	1) The Storm water management Plan which were designed, prior to construction should be implemented, to prevent the flooding of construction works, especially during heavy precipitation.  2) The storm water management plan must ensure that all culverts and storm water discharge outlets promote diffuse flow and should be fitted with energy dissipaters. The concentration and size of the storm water outlets should be considered.  3) The storm water management plan should also be implemented to prevent the erosion of soil, and the pollution and siltation of water which could have an impact on the sustainability and environmental integrity of the wetland areas.  4) During construction berms should be installed to prevent gully formation.  5) All areas affected by construction should be rehabilitated upon completion of the construction phase of the development. Areas should be reseeded with indigenous		Civil Engineer, Contractor	

TYPE	Environmental	Objective or	Mitigation measure	Performance	Responsibility	Frequency of
	risk or issue	requirement		indicator		Action
			grasses as required.			
	Siltation, erosion and water pollution	To minimize siltation, erosion and water pollution of the stream during construction.	Sandbags must be placed along the boundary of the stream during construction.	Sandbags placed at correct position.	Contractor	

### 11.3 Operational Phase

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Responsibility	Frequency of Action
SITE CLEAN UP AND PREPARED FOR USE	Development construction waste.	Minimize waste	Decontaminate and collect waste in storage area ready for off-site recycling or disposal Arrange for final collection and removal of excess and waste materials.	Contractor	-
	Storm water pollution	Do not allow any materials to wash into the storm water system.	Remove erosion and sediment controls only if all bare soil is sealed, covered or re-vegetated.  Sweep roadways clean and remove all debris from kerb and gutter areas. Do not wash into drains.	Contractor	-
ESTABLISHING PLANTS	Slow or no revegetation to stabilise soil; loss or degradation of habitat	To ensure revegetation to stabilize soil	Agreed schedule for regular follow-up watering, weed control, mulch supplements and amenity pruning, if needed. Replace all plant failures within three month period after planting.	Contractor	To be agreed
MATERIALS FAILURE	Structural Damage. Loss of site materials.		Inspect all structures monthly to detect any cracking or structural problems. Confirm with designer if there are design problems. Rectify with materials to match, or other agreed solution.	Contractor	-
DRAINAGE FAILURE	On-site and downstream drainage	Storm water management plan	Inspect all site drainage works and repair any failures. Confer with design engineer and to correct site problems.	Contractor	-

TYPE	Environmental risk or issue	Objective or requirement	Mitigation measure	Responsibility	Frequency of Action
	pollution or flooding				
SITE AUDIT	Eventual project failure	Successful project establishment.	Routinely audit the works and adjust maintenance schedule accordingly.	Contractor	-
GENERAL	Mis- management	Maintenance team in place.	A maintenance team as well as a landscaping team is needed to ensure that the development is well maintained.	Developer	-
			Open fires and smoking during maintenance works are strictly prohibited.	Contractor	
GEOLOGY	Erosion of topsoil	Prevent topsoil erosion	Due to loose topsoil, the soil must be covered by means of re-seeding and vegetation with suitable ground covering.	Engineer/ Contractor	Once off
		To ensure effective stormwater management	1) Stormwater throughout the site should be managed to accommodate the higher quantities of run off; 2) Sheet flow should be encouraged as far as possible, and channels should be designed to sufficiently address the problem of erosion; and 3) Bio-swale system could be implemented to filter water from paved areas and especially from roads and parking areas to sufficiently clean water of heavy metals and other hazardous materials in stormwater on a natural manner. This will further provide an opportunity for water to infiltrate the soil, break the energy of stormwater and keep the water on site for longer.	Company/HOA	

## 12 <u>Procedures for</u> environmental incidents

### 12.1 Leakages & spills

- Identify source of problem.
- Stop goods leaking, if safe to do so.
- Contain spilt material, using spills kit or sand.
- Notify Environmental Control Officer
- Remove spilt material and place in sealed container for disposal (if possible).
- Environmental Control Officer to follow Incident Management Plan.

## 12.2 Failure of erosion/sediment control devices

- Prevent further escape of sediment.
- Contain escaped material using silt fence, hay bales, pipes, etc.
- Notify ECO.
- Repair or replace failed device as appropriate.
- Dig/scrape up escaped material; take care not to damage vegetation.
- Remove escaped material from site.
- ECO to follow Incident Management plan.
- Monitor for effectiveness until reestablishment.

### 12.3 Bank/slope failure

- Stabilize toe of slope to prevent sediment escape using aggregate bags, silt fence, logs, hay bales, pipes, etc.
- Notify ECO.
- ECO to follow Incident Management plan.

- Divert water upslope from failed fence.
- Protect area from further collapse as appropriate.
- Restore as advised by ECO.
- Monitor for effectiveness until stabilized.

## 12.4 Discovery of rare or endangered species

- Stop work.
- Notify ECO.
- If a plant is found, mark location of plants.
- If an animal, mark location where sighted.
- ECO to identify or arrange for identification of species and or the relocation of the species if possible.
- If confirmed significant, ECO to liaise with Endangered Wildlife Trust.
- Recommence work when cleared by ECO.

## 12.5 Discovery of archeological or heritage items

- Stop work.
- Do not further disturb the area.
- Notify ECO.
- ECO to arrange appraisal of specimen.
- If confirmed significant, ECO to liaise with National, Cultural and History Museum.
   P.O. Box 28088
   SUNNYSIDE
   0132

0132

Contact Mr. J. van Schalkwyk or

Mr. Naude

 Recommence work when cleared by ECO.

### 13 EMP review

- The Site supervisor is responsible to ensure the work crew is complying with procedures, and for informing the work crew of any changes. The site supervisor is responsible for ensuring the work crew is aware of changes that may have been implemented by the Mpumalanga Department of Economic Development, Environment and Tourism before starting any works.
- 2. If the contractor cannot comply with any of the activities as described above, they should inform the ECO with reasons within 7 working days

# Appendix F: Public Participation



## NOTICE OF BASIC ASSESSMENT PROCESS

Notice is given of an application for a **Basic Assessment Process** that was submitted to the Mpumalanga Department of Economic Development, Environment and Tourism, in terms of Regulation No. R543 published in the Government Notice No. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing **Basic Assessment Procedures (Listing Notice: 1 – Government Notice R544)** for the following activity:

Reference No: 17/2/3 GS-239

Project Name: Piet Retief X22

Property Description: Portion 100 (A Portion of Portion 1) of the Farm Piet Retief Town & Townlands 149 HT

**Proposed Zoning Information:** The erf and the building erected will be used for purposes of shops, businesses, offices, places of refreshments, dry cleaners, motor dealers and motor display, as well as related uses subservient to the above.

### Listing Activities Applied for:

GNR 544 (Listing Notice 1), 18 June 2010	Activity 9
GNR 544 (Listing Notice 1), 18 June 2010	Activity 11
GNR 544 (Listing Notice 1), 18 June 2010	Activity 18
GNR 544 (Listing Notice 1), 18 June 2010	Activity 23
GNR 544 (Listing Notice 1), 18 June 2010	Activity 24

Proponent Name: Zarafusion (Pty) Ltd

Location: The proposed property is situated south and adjoining to Brand Street and east of Kerk Street extension to the south.

Date of Notice: 20 March - 9 May 2014

Queries regarding this matter should be referred to:

Bokamoso Landscape Architects and Environmental Consultants CC

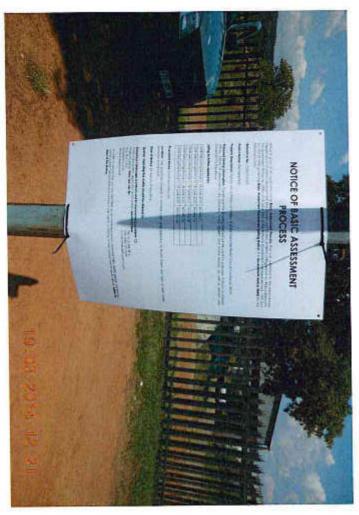
Public Participation registration and inquiries: Juanita De Beer

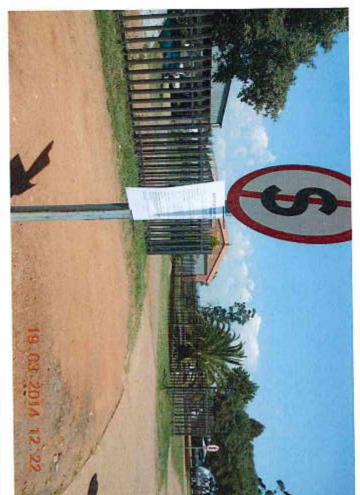
Project Inquiries: Mary-Lee van Zyl

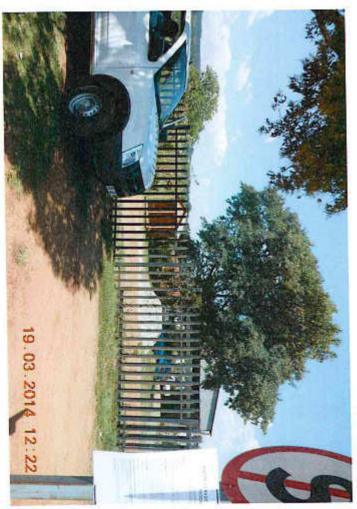
P.O. Box 11375 Maroelana 0161 www.bokamoso.biz Tel: (012) 346 3810 Fax: (086) 570 5659

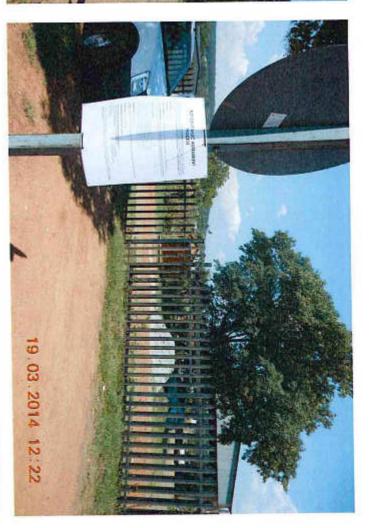
E-mail: lizelleg@mweb.co.za

In order to ensure that you are identified as an Interested and/or Affected Party (I&AP) please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of this Notice.









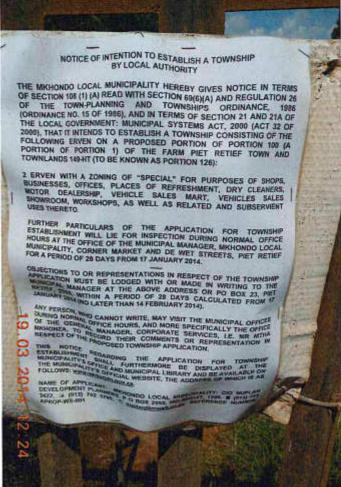


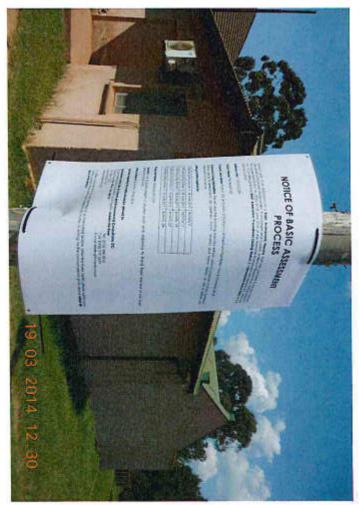




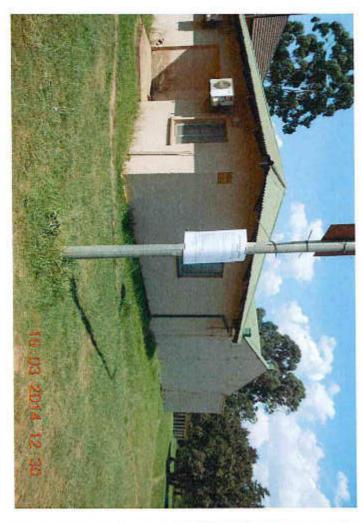


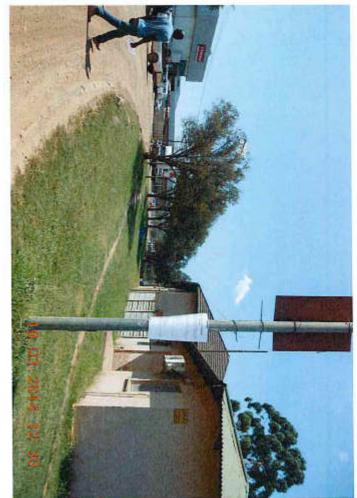




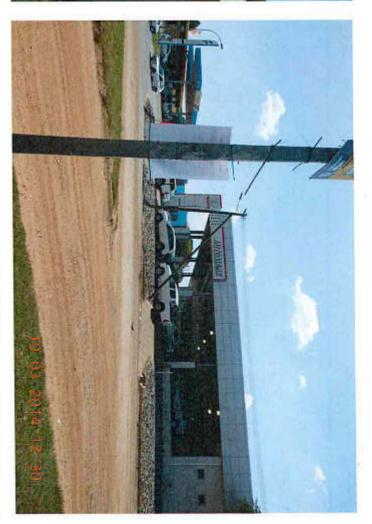










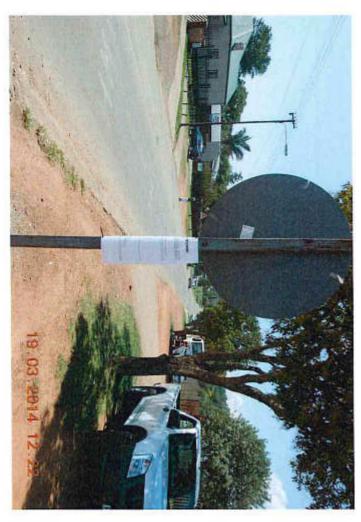






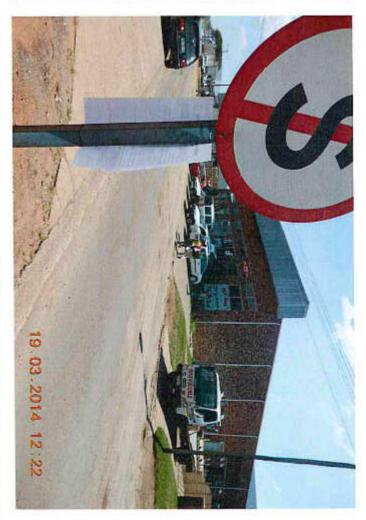




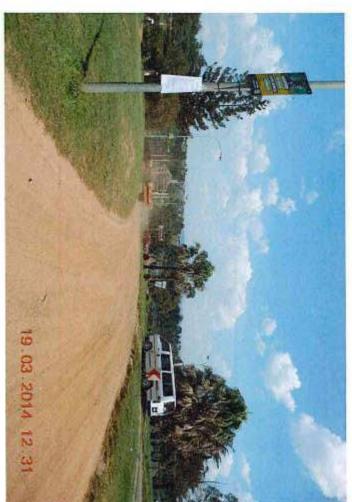
















# PIET RETIEF X22



# NOTICE OF BASIC ASSESSMENT PROCESS

Notice is given of an application for a **Basic Assessment Process** that was submitted to the Mpumalanga Department of Economic Development, Environment and Tourism, in terms of Regulation No. R543 published in the Government Notice No. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing **Basic Assessment Procedures (Notice 1 – Government Notice R544)** for the following activity:

Reference No: 17/2/3 GS-239

Project Name: Piet Retief X22

**Property Description:** Portion 100 (A Portion of Portion 1) of the Farm Piet Retief Town & Townlands 149 HT Proposed Zoning Information: The erf and the building erected will be used for purposes of shops, businesses, offices, places of refreshments, dry cleaners, motor dealers and motor display, as well as related uses subservient.

Proponent Name: Zarafusion (Pty) Ltd

Listing Activities Applied: GNR 544 (Listing Notice 1), 18 June 2010 – Activity 9, 11, 18, 23 & 24.

**Location:** The proposed property is situated south and adjoining to Brand Street and east of Kerk Street extension to the south.

Date of Notice: 20 March - 9 May 2014

Bokamoso Landscape Architects and Environmental Consultants CC Public Participation registration and inquiries: Juanta De Beer Project inquiries: Mary-Lee van Zyl Tel: (012) 346 3810

Queries regarding this matter should be referred to:

P.O. Box 11375 Maroelana 0161 www.bokamoso.biz

Fox:

Fax: (086) 570 5659 E-mail: lizelleg@mweb.co.za In order to ensure that you are identified as an interested and/or Affected Party (I&AP) please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of this Notice.

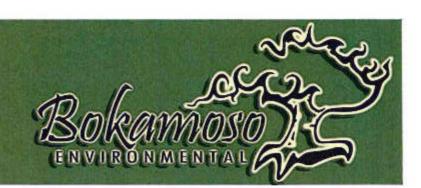
Locality Map

# Appendix F3: Notice to L&AP's and Stakeholders

LEBOMBO GARDEN BUILDING 36 LEBOMBO ROAD ASHLEA GARDENS 0081

P.O. BOX 11375 MAROELANA 0161

Tel: (012) 346 3810 Fax: 086 570 5659 E-mail: lizelleg@mweb.co.za Website: www.bokamoso.biz



### Dear Landowner/Tenant

20 March 2014

You are hereby informed that Bokamoso Environmental Consultants were appointed (as EAP) by Zarafusion (Pty) Ltd to conduct the Basic Assessment Process in terms of the amended 2010 NEMA EIA Regulations for the proposed Portion 100 (A Portion of Portion 1) of the Farm Piet Retief Town & Townlands 149 HT

### The proposed Land-uses for the study area are as follows:

The erf and the building erected will be used for purposes of shops, businesses, offices, places of refreshments, dry cleaners, motor dealers and motor display, as well as related uses subservient to the above

In terms of Regulation No. R543 published in the Government Notice No. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing Basic Assessment Procedures (Notice 1 – Governing Notice R544) of the 2010 amended NEMA Regulations, the EAP must inform all landowners and tenants within 100m from the study area of the proposed development.

Bokamoso already supplied you (Landowner/Tenant) of the property within 100m with Notification Letter and request that you supply the contact details of any tenants or other interested and affected parties that reside or work on the property to Bokamoso. Bokamoso will then also supply these parties with the necessary Notification Letters.

Alternatively, you are also welcome to distribute copies of your Notification to these parties. We will however require proof that you supplied the Notices to the Tenants, Landowners, Workers etc. Another option is to act as representative on behalf of these parties.

Please confirm (via email/Fax) that you received the Landowners/Tenant Notification and this Letter. Also indicate in this Confirmation Letter whether you have tenants on your property and you're preferred method of tenant/worker notification.

Regards

Lizelle Gregory/Juanita De Beer

## Piet Retief X22 Land owner Notification

Acknowledgement of Receipt of land owner notification concerning the proposed Piet Retief X22 project.

	Name	Address	Contact Details	Signature
1	Sarbara	Prup SLEEL	Email: Barmowstrain in Fax: Tel: 1071 8 192616	W .
2	Elesbert-	Brand Str.	Email: Fax: Tel:	
3		19 BEAND STREET	Email: Fax: Tel: <i>0</i> 17-8765950	P.
4	Tourshments	56 Preloruis	Email: Fax: Tel: つけてんしててろ	Egun
5	Corne Viljaen	SSA Pretorius	Email: Fax: Tel: @71 3 5456/0	dik.
6	23 A Shr		Email: Fax: Tel:	)
7	Claudia	13 c Board Str	Email: Fax: Tel: (1) 6394373	al
8	53A	SID referlus	Email: Fax: Tel:	
9	7	Fretordus.	Email: Fax: Tel:	
10	SON QUEERE	GERT SUBANDE. DISASTER CENTRE	Email: Fax: 017 8017 182 Tel: 072 1040017	
11	C.S MAYALGO.	Traffic strices	Emails Lymal (2003) grach Fax: Tel: 072 6454962	(Warm)
12	khosy hair Salon Sinethemba	CAR KNOTZEK Brand Slicet	Email:	Sp.N Hasuku
13	XBH.	53 ROPLEST.	Email: Fax: Tel: 0   78263549	AL A
14	Pieter	51 Kotee str	Email: Fax: Tel: 017626 3500	Primers

## Piet Retief X22 Land owner Notification

Acknowledgement of Receipt of land owner notification concerning the proposed Piet Retief X22 project.

	Name	Address	Contact Details	Signature
	Jan van Ureden	GRUER BREAMS	Email: How week G Tukoga	ri Al.
	0	A STATE OF THE STA	Fax: 017 8263503	(90
1		and Kotze	Tel:0178263599	~
Ť			Email:	
	NIO NI	Licence	Fax:	× 17
2	N.P MILOSi	Dromit	Tel: 15% 37577437	NE
_		MKNOPEC 11.	Email:	I WEST
		Lactricial	Fax:	
3	I.m. Masuker	Lopert mon	Tel: 0823690301	~
_	The state of the country	THE STATE OF THE S	Email:	I.M.
		JOST /		
4	P. Lisher	C.4408C.4	Fax:	5.7.
7	1. 2000	~ 1101.0.0	Tel: 0/ラジン36	7.6
		Madas Tuck	Email:	
5	Z-MKLIMEIO		Fax: Tel: 0717575960 (	-0- N
J	- 1 MCIMEIO	Shop		Gerral
	199829	TOYOTA	Email:	<u> </u>
0	C.S. MASUKU	Cornel brandfanea	Fax:	(th)
0	C-3.1.10020	2011 G DIGITATION OF		Corr.
			Email:	
-			Fax:	
7			Tel: 01	
			Email:	
			Fax:	
8			Tel:	
			Email:	
3000 e 11			Fax:	
9			Tel:	
			Email:	
			Fax:	
10			Tel:	
			Email:	
			Fax:	
11			Tel:	
			Email:	
			Fax:	
12			Tel:	
-	3		Email:	
33			Fax:	
13			Tel:	
			Email:	
			Fax:	
14			Tel:	
- 1	ý)	,	Email:	

# Appendix F4: Newspaper Advertisement

### NOTICE OF BASIC ASSESSMENT PROCESS

Notice is given of an application for a Basic Assessment Process that was submitted to the Mpumalanga Department of Economic Development, Environment and Tourism, in terms of Regulation No. R543 published in the Government Notice No. 33306 of 18 June 2010 of the National Environment Management Act, 1998 (Act No. 107 of 1998) governing Basic Assessment Procedures (Listing Notice: 1 - Government Notice R544) for the following activity:

Reference No: 17/2/3 GS-239 Project Name: Piet Retief X22

Property Description: Portion 100 (A Portion of Portion 1) of the Farm Piet Re-

tief Town & Townlands 149 HT

Proposed Zoning Information: The erf and building erected will be used for the purposes of shops, businesses, offices, places of refreshments, dry cleaners, motor dealers and motor display as well as related uses subservient to the above. Listing Activities Applied for: GNR 544 (Listing Notice 1) - Activity 9, 11, 18, 23

Proponent Name: Zarafusion (Pty) Ltd

Location: The proposed property is situated south and adjoining to Brand Street

and east of Kerk Street extension to the south. Date of Notice: 20 March - 9 May 2014

Queries regarding this matter should be referred to:

Bokamoso Landscape Architects and Environmental Consultants CC

Public Participation registration and inquiries: Juanita de Beer

Project Inquiries: Mary-Lee van Zyl; Tel: (012) 346 3810

P.O. Box 11375 Fax: (086) 570 5659 Marcelana 0161

E-mail: lizelleg@mweb.co.za

www.bokamoso.biz

In order to ensure that you are identified as an Interested and/or Affected Party (I&AP) please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of this Notice.



Situated in the Plet Retief/Panbult area, ± 65 km from Piet Retief, Kangra Coal (Pty) Ltd. is a modern, mechanized mine, producing 400,000 R.O.M. tons per month from five mechanized, double shift sections

This Colliery has the following vacancy:

### **ELECTRICIAN (Underground)**

The ideal applicant will meet the following requirements:

Minimum Qualifications:

Electrical Trade Test

Gas Testing and Flameproof Certificate

All least 5 years experience on the following machines: Crn, shuttle car, Fletcher and roofbollar, switch gear, 6.8 KV & 22 KV and belt drives

Skills and Abilities:

Excellent communication and interpersonal skills

Proven supervisory skills

Ability to work under pressure and solve problems Ability to meet production targets

**Duties and Responsibilities:** 

Responsible for safety, production, planning and staff supervision

### Kangra Coal (Pty) Ltd. is a member of the Chamber of Mines and offers the followings

Chamber of Mines normal rates of pay

Pension Fund

Medical Aid

Housing Allowance

Attractive monthly incentive bonus scheme & leave bonus

Interested parties should send a CV and copies of certificates to: The Human Resources Department Kangra Coal (Pty) Ltd.

P.O. Box 745, Plet Retlef, 2380 Fax: 017 730 6248

e-mall: thaborn@kangracoal.co.za

NOTE: CV'S WITHOUT A COVERING LETTER WILL NOT BE ACCEPTED Kangra Coal (Pty) Ltd. is an equal opportunity and affirmative action employer and reserves the right not to make an appointment.

A shortlist will be compiled and selected applicants will be invited for an interview. If no response is received within one month, applicants may assume their applica-tions to be unsuccessful. All original certificates and proof of experience must be produced at the interview

Closing date: 28 March 2014

### VI U Tambukiestreek -Ermelo Skou

en gebrek

konsentrasie

aanvanklike

9008

Emosionete

buierigheid.

rusteloosheid

aan

die

simptome

Tambukiestreek VLU pronk Ermelo Landbouskou na jare afwesigheid.

Die VLU die Rotariërs het gelede geld iare ingesamel vir die bou van 'n lokaal en nou in 2014 is die lokaal eer benut.

Heerlike tuisgemaakte produkte is te koop sangebied tot grout plesier van die skougungers. Byna almal het gemeid dat die VLU stalletjies beslis die moeite werd was om te besoek. Dankie Piet Retief VLU tak vir die reuse nandrel wat julle gehad het om van die uitstalling 'n sukses to maak. Julio is staatmakers soos min. Millinnium vir julle harde werk elke dag en Wakkerstroom julle bly op en wakkee

Terwyl die lede besockers ann die stalletjies gewag bet, is daar fluks begin brei en bekel aan blokkies vir kniekomberse. Die streek beplan om 'n "American Auction" van stapel te stuur, om sodoende fondse vir die streek in te samel. Die eindprodukte sal egter gratis aan ouer mense gegee word om die koue winter te trotseer en die ou bene lekker warm to hou. Elke lid sal ten minste twee blokkies moet brei of bekel om sodoende die oues van ons streek se hane warm te maak. Ons nooi enige vrywilliger uit om deel van die projek te

Behalwe vir goeie verkope, lekker gesels en werk, het ons die Alzheimersiekte vroetelkussing. boeke projek geloots. Die skoukomitee het ook R2000-00 geborg vir die projek . . . baie dankie daarvoor. Die beoordelaars baie beïndruk met die goeie inskrywings en het almal as weuners wys. Dankie Piet Retief, aangewys. Kaleidoskoop Wakkerstroom takke vir julle inskrywlags. Dankie aan elkeen wat meegehelp het 'n Alzheimerom pasiënt se dag met vreugde te vui.

Maggie Niekerk, met bale ondervinding Alzheimersiekte. hier en oorsee het ons meegedeel dat vergeetagtigheid, verlê

depressie is nok algemeen. Versoreers most belangrikheid van kommunikasie outhou . . . peaat duidelik, stadig en cenvoudig. En die

wmaamsle . . . wees geduldig.

Volgende maak ons weer so . . Dink solank hoe ons die skougangers kan

VLU Groete



Alzheimersiekte kussings en boeke - Piet Retief inskrywing



Volgepakte tafels by Ermelo skou met tuisgemaakte artikels

### LPR se Eerste Hokkiespan Gereed vir Aksie

Melissa Roodt

'n Berig wat deur die Laerskool Piet Retief pestuur is. lant mens omtrent swel van trots wanneer jy lees van die dogters se leuse en vasbeslotenheid om als tot die beste van hal vermoë te does

Die berig lees as vole: "Kor. 3:23 sê: "nak alles wat julle doen gemotiveerd aan, en doen alles soos vir die Here en nie soos vir mense nie!" Dit is die leuse van die Liste hokkiespan hierdie jaar. Ons het alreeds die jaar op 'n hoogtepunt met die begin Asiastoemooi. te Empangeni, waar

ons teen Heuwelland 1-0 en ook teen Felixton 2-1 ecwen het. Baie geluk aan Simone Stapelberg en Mieke van der Walt wat aangewys is as top 10 spelers van die dag!

Die dogters speel panskoulike hokkie en is sons ons versie sê, gemotiveerd en vol selfvertroue om van hierdie jaar 'n groot sukses to maak!

Graag wil ons van die geleentheid gebruik mask om almal te bedank wat in ons glo en daarom in Lacrskool Pict Retief se hokkie belê het deur ons te borg. TWK vir ons

wedstrydklere (ons mooi-mooi's

ons dit noem). Mor Eddie Nel van African Show Events vir ons pragtige blou oefen stel klere en kouse asook die sportsakke, segaai bande vir ons pragtige rompies cu Steenekamp vervoer vir ons super cool waterbottels en hempies en ann al ons overs wat finansieel gehelp het om al die gaatjies toe te stop, julie is n staatmakerspan!

Whatch space..... for outstanding bockey in 20141

Mrs Otto and Fouche'

Baie sterkte aan julle en mag dit 'n wonderlike seisoen vir julle wees!



Die eerste hokkiespan dogters van Laerskool Piet Retief

# Appendix F5: Listofall l&AP's and Stakeholders

	Registered Parties	Contact details
		Stakeholders
1	Council Geo-Science	igrobler@geoscience.org.za
_		
2	SAHRA Gauteng	asalomon@sahra.org.za
	W	nndobochani@sahra.org.za
3	PHRAG	maphata.ramphele@gautenq.gov.za
	FINA	THE STATE OF THE S
4	DWA	justicem@dwaf.gov.za
310		keetm@dwaf.gov.za
		siwelanel@dwa.gov.za
_		tshifaror@dwa.gov.za
		mathebet@dwa.gov.za
5	Eskom	central@eskom.co.za
		paia@eskom.co.za
-		
6	SANRAL	schmidk@nra.co.za
-	Contract	kumen.govender@gauteng.gov.za
1	Gautrans	Kumen.govendertøgadterig.gov.za
8	Randwater	mmpshe@randwater.co.za
		nkoneigh@randwater.co.za
9	Mkhondo Local Municipality	vusih.dube@gmail.com
		Tel: 017 826 8130/2211/8100
40	Casamat	daniel.ramokone@transnet.net
10	Spoornet	loveous.tampane@transnet.net
-		ioveous tampanete unione the
11	DA Roads	casperm@tshwane.gov.za
15	Ward Councillor	lbrussouw@yahoo.com
- //	Irene Brussouw	Cell: 072 181 1789
	Ward Counc	
	T .	Interested and Affected Parties
-		illusested alla Alleotea Fallos
	1 Helmuth Gevers	helmuthgevers@gmail.com
		Cell: 082 494 1101
_		Tel: 017 826 1373

2	Tinus Potgieter	tpotgieter@twkagri.com
	TWK Agriculture Holdings	Tel: 017 824 1014
	(Pty) Ltd	Cell: 082 551 0964
3	Koos	koosb@twkagri.com
$\exists$	TWK Motors (Pty) Ltd	
4	Chanie van der Merwe	chanie@otigintrp.co.za
	Gawie Makkink	gawie@origintrp.co.za
	Origin Town Planning	Tel: 012 346 3735
	(on behalf of their client,	
	Mkhondo Shopping Centre (Pty) Ltd	
5	Peter Dacomb	Peter@practicegroup.co.za
	The Practice Group	Cell: 082 457 3746
	(On behalf of Dr HS Joubert)	Tel: 012 362 1741
6	Carol Carr	carolycoo@gmail.com
		Cell: 083 325 4492
7	Ecki Niebuhr	ecki@prmica.co.za
8	B. Hancock	nadas@lando.co.za
9	C. Roguszewski	cindy.r@mweb.co.za
10	Bennie Boshoff	bennie@frontierretail.co.za
	Mkhondo Green	Cell: 083 408 7076
		Tel: 017 826 2704
11	Francois van den Berg	ovambo@lantic.net
		Cell: 083 320 2126
12	Kavi Soni	KaviS@sivest.co.za
	SIVEST	Cell: 082 903 9824
	On behalf of J Potgieter (client)	Tel: 031 581 1590
_		

# Appendix F6: Comments and Issues Report

# Appendix F7: Correspondence to and from 1&AP's

From:

Juanita <user3@bokamoso.net>

Sent:

17 April 2014 08:30 AM

To:

'carolycoo@gmail.com'

Subject:

RE: Register as I&AP: Piet Retief X22 ref no:17/2/3 GS-239

Dear Carol Carr,

Thank you for your response, I have registered you as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Reer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E. lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marpelana 0161

Please consider the environment before printing this email

From: Carol Carr [mailto:carolycoo@gmail.com]

Sent: 16 April 2014 07:46 PM To: lizelleg@mweb.co.za

Subject: Register as I&AP: Piet Retief X22 ref no:17/2/3 GS-239

Dear Juanita,

I would hereby like to register as an interested and/or affected party for the following activity - Piet Retief

X22 ref no:17/2/3 GS-239. My name is Carol Carr,

address: Box 2396, Piet Retief, 2380

Tel 0833254492

email: carolycoo@gmail.com

Documentation can be emailed to me.

Regards, Carol Carr

From:

Juanita <user3@bokamoso.net>

Sent:

12 May 2014 03:22 PM

To:

'KaviS@sivest.co.za'

Subject:

RE: Registration as I&AP: Ref 17/2/3 GS - 239

Dear Kavi Soni,

Thank you for your response, I have registered SiVEST as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards

Juanita De Beer

Public Participation Consultant



# Landscape Architects & Environmental Consultants

T: (+27) 12 346 3810 | F: (+27) 86 570 5659 | E: <u>lizelleq@mweb.co.za</u> | www.bokamoso.net 36 Lebombo Street, Ashlea Gardens, Pretoria | P. O. Box 11375 Marcelana 0161

From: Kavi Soni [mailto:KaviS@sivest.co.za]

Sent: 12 May 2014 01:20 PM To: lizelleg@mweb.co.za

Subject: Registration as I&AP: Ref 17/2/3 GS - 239

Importance: High

Dear Ms Gregory,

Kindly find attached hereto our registration as an I&AP in regards the above.

Kindly acknowledge receipt in this regards.

Sincerely,

### Kavi Soni Director SIVEST



SIVEST is a Level 3 BBBEE Contributor



Direct +27 31 581 1590 Tel +27 31 581 1500 fax +27 31 566 2371 cell +27 82 903 9824 email kavis@sivest.co.za website www.sivest.co.za



Consulting Engineers - Project Managers - Environmental Consultants - Town and Regional Planners Durban - Johannesburg - Pietermaritzburg - Richards Bay - Ladysmith - Cape Town - Harare (Zimbabwe)

#### Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and automatically archived by Mimecast SA (Pty) Ltd, an innovator in Software as a Service (SaaS) for business. Mimecast Unified Email Management ??? (UEM) offers email continuity, security, archiving and compliance with all current legislation. To find out more, contact Mimecast.

From:

Juanita <user3@bokamoso.net>

Sent:

16 April 2014 11:33 AM

To:

'Peter@practicegroup.co.za'

Subject:

RE: PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS-239)

Dear Peter Dacomb,

Thank you for your response, I have registered The Practice Group as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Reer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 | F: (+27) 86 570 5859 | E: lizelleg@rnweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Maroelana 0161

Please consider the environment before printing this email

From: Peter Dacomb [mailto:Peter@practicegroup.co.za]

Sent: 16 April 2014 11:19 AM

To: 'Bokamoso'

Subject: PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS- 239)

Our Ref: 600/735 PJ Dacomb

16 April 2014

Attention: Ms J de Beer

Bokamoso Landscape Architects and Environmental Consultants CC P O Box 11375 Maroelana 0161

Dear Madam

PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS-239) PORTION 100 (PORTION OF PORTION 1) FARM PIET RETIEF TOWN AND TOWNLANDS 140 HT

Herewith a letter in the above regard for your attention.

Yours faithfully

# PETER DACOMB Pr. Pin. A/521/1987

Cnr. Brooklyn Rd & First Street, Menlo Park, Pretoria, 0081 P O Box 35895, Mento Park, 0102 Tel: (012) 362 1741 Fax: (012) 362 0983 Cell: 082 457 3746

E-mail: peter@practicegroup.co.za Website: www.practicegroup.co.za B-BBEE LEVEL 4 CONTRIBUTOR









NOTICE - This message and any attached files may contain information that is confidential and/or subject of legal privilege, intended only for use by the intended recipient. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, be advised that you have received this message in error and that any desermination, copying or use of this message or attachment is strictly torbidden, as is the disclosure of the information therein. If you have received this message in error, please notify the sender immediately and delete the message.

From:

Juanita <user3@bokamoso.net>

Sent:

25 March 2014 03:50 PM

To:

'tpotgieter@twkagri.com'

Subject:

RE: Ref 17/2/3 GS-239

Dear Tinus Potgieter,

Thank you for your response, I have registered TWK Agriculture Holdings (Pty) Ltd & TWK Motors (Pty) Ltd as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 345 3810 | F: (+27) 86 570 5659 | E: lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pratoria | P.O. Box 11375 Mercelana 0161

Please consider the environment before printing this email

From: Tinus Potgieter [mailto:tpotgieter@twkagri.com]

Sent: 21 March 2014 12:03 PM

To: <u>lizelleg@mweb.co.za</u>
Cc: 'Koos Byleveldt'

Subject: Ref 17/2/3 GS-239

Please note that TWK is the owner of land affected and we are renting to our wholly-owned subsidiary TWK Motors (Pty) Ltd on the relevant premises.

Please register both companies as "I & AP".

1. TWK Agriculture Holdings (Pty) Ltd - tpotgleter@twkagri.com

# 2. TWK Motors (Pty) Ltd - koosb@twkagri.com

Please confirm registration.

Regards

# **Tinus Potgieter**

Executive Manager: Corporate Marketing & New Business



Hoofbestuur Executive Management

Tel: +27 (0)17 824 1014 | Fax: +27 (0)17 824 1077 | Cell: +27 (0)82 551 0964 PO Box 128 | 11 de Wet Street | Piet Retief tpotgieter@twkagri.com

E-MAIL TO: Lizelle@mweb.co.za

FAX TO: 086 570 5659

Our ref: TEN 1175 G Makkink/M Ferrelra

Your ref: 17/2/3 GS-239

15 April 2014

Attention: Ms Mary-Lee van Zyl

Bokamoso Landscape Architects and Environmental Consultants CC PO Box 11375 Maroelana 0161



306 Melk Street Nieuw Muckleneuk, 0181, Pretoria P O Box 2162, Brooklyn Square, 0075 Tel: 012 346 3735 Fax: 012 346 4217 E-mail: plan@origintrp.co.za

Hoedspruit Office: 120 Eland Street, Hoedspruit, 1380 ' P O Box 381, Hoedspruit, 1380 Tel: 015 793 0721 Fax: 015 793 0701 E-mail: plan@origintrp.co.za

PIET RETIEF TOWN AND TOWNLANDS 149 HT: PORTION 100 (A PORTION OF PORTION 1)
PROPOSED TOWNSHIP: PIET RETIEF EXTENSION 22
BASIC IMPACT ASSESSMENT PROCESS – REGISTRATION AS INTERESTED AND AFFECTED PARTY

With reference to the above, we hereby wish to register as an interested and affective party to the Basic Impact Assessment Process, on behalf of our client, Mkhondo Shopping Centre (Pty) Ltd.

Our client is the registered owner of Portion 118 (a Portion of Portion 1) of the farm Piet Retief Town and Townlands 149 HT, which property is situated adjacent to Portion 100 of the farm Piet Retief Town and Townlands 149 HT.

Please confirm receipt of this letter, as well as our registration to the Basic Impact Assessment Process.

We trust that you will find the above in order.

Yours faithfully

GAWIE MAKKINK gawie@origintrp.co.za

From:

Bokamoso < lizelleg@mweb.co.za>

Sent:

16 April 2014 11:21 AM

To:

user3@bokamoso.net

Cc:

user1@bokamoso.net

Subject:

FW: PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS-239)

Attachments:

600735bokamoso1604.docx

From: Peter Dacomb [mailto:Peter@practicegroup.co.za]

Sent: 16 April 2014 11:19 AM

To: 'Bokamoso'

Subject: PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS- 239)

Our Ref: 600/735 PJ Dacomb

16 April 2014

Attention: Ms J de Beer

Bokamoso Landscape Architects and Environmental Consultants CC P O Box 11375 Maroelana 0161

Dear Madam

PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS-239)
PORTION 100 (PORTION OF PORTION 1) FARM PIET RETIEF TOWN AND TOWNLANDS 140 HT

Herewith a letter in the above regard for your attention.

Yours faithfully

# PETER DACOMB Pr. Pin. A/521/1987

Cnr. Brooklyn Rd & First Street, Menlo Park, Pretoria, 0081
 P O Box 35895, Menlo Park, 0102
 Tel: (012) 362 1741
 Fax: (012) 362 0983

Cell: 082 457 3746 E-mail: peter@practicegroup.co.za

Website: www.practicegroup.co.za B-BBEE LEVEL 4 CONTRIBUTOR



THE PRACTICE GROUP







NOTICE - This message and any attached files may contain information that is confidential and/or subject of legal privilege, intended only for use by the intended recipient. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, be advised that you have received this message in error and that any dissemination, copying or use of this message or attachment is strictly forbidden, as is the disclosure of the information therein. If you have received this message in error, please notify the sender immediately and delete the message.

Our Ref: 600/735 PJ Dacomb THE PRACTICE GROUP

16 April 2014

Attention: Ms J de Beer

Bokamoso Landscape Architects and Environmental Consultants CC P O Box 11375 Maroelana 0161

Dear Madam

# PROJECT: PIET RETIEF EXTENSION 22 (REFERENCE 17/2/3 GS-239) PORTION 100 (PORTION OF PORTION 1) FARM PIET RETIEF TOWN AND TOWNLANDS 140 HT

We refer to the notice of Basic Assessment Process which appeared in the Excelsior Newspaper in Piet Retief on 21 March 2014.

We act for Dr HS Joubert, who holds various interests in property developments in the Piet Retief area and who wishes to be identified as an interested and/or affected party with regard to the process contemplated in the Regulations to the National Environmental Management Act, 1998 (Act 107 of 1998).

For the aforesaid purposes we confirm the following contact details for further notification:

The Practice Group (Pty) Ltd Box 35895 Menlo Park 0102

E-mail: peter@practicegroup.co.za

Tel: 012-362 1741

Please confirm that we have been placed on your database as an interested and affected party in this matter and await to hear from you in this regard.

Yours faithfully

PETER DACOMB

per: THE PRACTICE GROUP

D:600735bokamoso1604(PJD'14/hvw)

P O Box 35895, Menio Park, 0102 Chr Brooklyn Road and First Street, Menio Park Tel: (012) 362 1741, Fax (012) 362 0983 E-mail: info@practicegroup.co.za

Website: www.practicegloup.co.za

From:

Bokamoso < lizelleg@mweb.co.za>

Sent:

12 May 2014 01:41 PM user3@bokamoso.net

To:

user1@bokamoso.net

Subject:

FW: Registration as I&AP: Ref 17/2/3 GS - 239

Attachments:

Bokamoso L01 12 May 2014.pdf

Importance:

High

Flag Status:

Flagged

From: Kavi Soni [mailto:KaviS@sivest.co.za]

Sent: 12 May 2014 01:20 PM To: lizelleq@mweb.co.za

Subject: Registration as I&AP: Ref 17/2/3 GS - 239

Importance: High

Dear Ms Gregory,

Kindly find attached hereto our registration as an I&AP in regards the above.

Kindly acknowledge receipt in this regards.

Sincerely,

Kavi Soni Director SIVEST



SIVEST is a Level 3 BBBEE Contributor

Direct +27 31 581 1590 Tel +27 31 581 1500 fax +27 31 566 2371 cell +27 82 903 9824 email kavis@sivest.co.za website www.sivest.co.za





Consulting Engineers - Project Managers - Environmental Consultants - Town and Regional Planners Durban - Johannesburg - Pietermaritzburg - Richards Bay - Ladysmith - Cape Town - Harare (Zimbabwe)

#### Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and automatically archived by Mimecast SA (Pty) Ltd, an innovator in Software as a Service (SaaS) for business. Mimecast Unified Email Management ??? (UEM) offers email continuity, security, archiving and compliance with all current legislation. To find out more, contact Mimecast.

SIVEST Town and Regional **Planning Division** 

4 Pencarrow Crescent La Lucia Ridge Office Estate PO Box 1899 Umhlanga Rocks South Africa 4320 Phone + 27 31 581 1500 Fax + 27 31 566 2371 email info@sivest.co.za www.sivest.co.za



Bokamoso Environmental Consultants CC P O Box 11375 Maroelana 0161

Date: 12 May 2014

Your Ref: 17/2/3/GS - 239

Our Ref: 12647 - Bokamoso L01

By email: lizelleg@mweb.co.za

Attention : Ms Lizelle Gregory

PIET RETIEF X 22 - BASIC ASSESSMENT REPORT - PORTION RE: 100 (A PORTION OF PORTION 1) OF THE FARM PIET RETIEF

TOWN AND TOWNLANDS 149 HT

Dear Madam,

Duly instructed, we represent J Potgieter ("client"), an I&AP in the above mat-

The purpose of our communication is to register our client as an interested and affected party.

We are aware that the cut-off period as per your notification was 9 May 2014 (last Friday) and trust that your offices would not take any offense to our request for registration effectively one day outside of the cut-off period.

We will be happy to furnish you with a motivation furnishing reasons as to the reason for a day's delay but trust that same would not be necessary.

I shall await your confirmation and acknowledgment in this regard.

Should you have any queries, please feel free to contact writer on 031 581 1500, fax 031 5662371 or email on kavis@sivest.co.za and further that all correspondence in this matter be directed to our offices.

Yours sincerely,

Kavi Soni Director SIVEST

From:

Bokamoso < lizelleg@mweb.co.za>

Sent:

25 April 2014 12:56 PM

To:

user3@bokamoso.net

Cc:

user1@bokamoso.net

Subject:

FW: Registration as interested and affected party - Piet Retief X22

Attachments:

2014.4.25 Registration as I&AP.doc

From: Bennie Boshoff [mailto:bennie@frontierretail.co.za]

Sent: 25 April 2014 12:13 PM To: lizelleq@mweb.co.za

Cc: bole@lantic.net; Francois Vd Ber; Michael Prinsloo

Subject: Registration as interested and affected party - Piet Retief X22

Att: Juanita de Beer.

My discussion with your Ms Mary-Lee van Zyl this morning refers.

Please see correspondence attached, in terms of which Mkhondo Green (NPC) should be registered as an Interested and Affected Party iro project Piet Retief X22 (Ref no 17/2/3 GS-239).

Please acknowledge receipt hereof, as well as our registration as an I&AP.

I look forward to your feedback in this regard,

Kind regards,

**BENNIE BOSHOFF** Managing Director

# FRONTIER TETAIL

tel: fax: 017 826 2704

086 513 5529 mobile: 083 408 7076

email:

bennie@frontierretail.co.za

Mkhondo Green (NPC)

2 Measroch Street Piet Retief 2380

PO Box 1560 Piet Retief 2380

Tel: (017) 826 2704 Cell: 083 408 7076

email: bennie@frontierretail.co.za

Fax: 086 513 5529



25th April 2014

Bokamoso Landscape Architects and Environmental Consultants CC Att: Juanita de Beer

Dear Ms De Beer,

# REGISTRATION OF MKHONDO GREEN AS I&AP: 17/2/3 GS-239 - PIET RETIEF X22

I hereby confirm that Mkhondo Green is a registered non-profit company, which was started and is supported by a number of concerned residents of Piet Retief. The aim of the organization, is to promote the protection of the environment within the Mkhondo municipal area, with specific focus on wetlands, marshes, streams and montane grasslands.

In light of the 'Notice of Basic Assessment Process', published in the Excelsior Newspaper dated 21<sup>st</sup> March 2014, I hereby request that Mkhondo Green (NPC) be registered as an Interested and Affected party in this matter.

I would also like to take this opportunity to express our extreme concern with regard to the proposed development, and would like to highlight the following:

- 1) The proposed development is partly within an established wetland.
  - The wetland is a sensitive habitat, in which a number of vulnerable plant-, frog, crab and bird species live.
  - b. The building process will cause irreparable damage to this eco-system in the short term. Within a wetland, mud and ground is deposited in layers over thousands of years, and plants adapt to live within this soil. Any disturbance in these layers will detrimentally affect the fauna and flora.
  - c. In the long term it is reasonable to expect that pollutants from the development (soaps, detergents, etc) will flow into the wetland, thereby affecting the water quality, again having an extremely negative effect on the organisms within the habitat, as well as rivers and streams further down in the catchment area.
- In light of the above, we are of the opinion that this site is not suited for such a large development, and would strongly suggest that alternative sites, which are less ecologically sensitive, be investigated.

Reg no: 2012 / 127546 / 08 Section 18A reg no: 930041245 SARS tax exemption reg no: 9141/620/18/8

Directors: BJ Boshoff, R Gallino, FJ van den Berg

# Mkhondo Green (NPC)

2 Measroch Street Piet Retief 2380

PO Box 1560 Piet Retief 2380

Tel: (017) 826 2704 Cell: 083 408 7076

email: bennie@frontierretail.co.za

Fax: 086 513 5529



We look forward to receipt of your preliminary report in this regard.

Please do not hesitate to contact me, should you have any comments and/or queries.

Kind regards,

**Bennie Boshoff** 

Director

Reg no: 2012 / 127546 / 08 Section 18A reg no: 930041245 SARS tax exemption reg no: 9141/620/18/8

Directors: BJ Boshoff, R Gallino, FJ van den Berg

E-MAIL TO: LizelleG@mweb.co.za FAX TO: 086 570 5659

Our ref: TEN 1175 G Makkink/M Ferreira

Your ref: 17/2/3 GS-239

15 April 2014

Attention: Ms Mary-Lee van Zyl

Bokamoso Landscape Architects and Environmental Consultants CC PO Box 11375 Maroelana 0161



306 Melk Street
Nieuw Muckleneuk, 0181, Pretoria
P O Box 2162, Brooklyn Square, 0075
Tel: 012 346 3735 Fax: 012 346 4217
E-mail: plan@origintrp.co.za

Hoedspruit Office: 120 Eland Street, Hoedspruit, 1380 P O Box 381, Hoedspruit, 1380 Tel: 015 793 0721 Fax: 015 793 0701 E-mail: plan@origintrp.co.za

PIET RETIEF TOWN AND TOWNLANDS 149 HT: PORTION 100 (A PORTION OF PORTION 1)
PROPOSED TOWNSHIP: PIET RETIEF EXTENSION 22
BASIC IMPACT ASSESSMENT PROCESS – REGISTRATION AS INTERESTED AND AFFECTED PARTY

With reference to the above, we hereby wish to register as an interested and affective party to the Basic Impact Assessment Process, on behalf of our client, Mkhondo Shopping Centre (Pty) Ltd.

Our client is the registered owner of Portion 118 (a Portion of Portion 1) of the farm Piet Retief Town and Townlands 149 HT, which property is situated adjacent to Portion 100 of the farm Piet Retief Town and Townlands 149 HT.

Please confirm receipt of this letter, as well as our registration to the Basic Impact Assessment Process.

We trust that you will find the above in order.

Yours faithfully

GAWIE MAKKINK gawie@origintrp.co.za

From:

Juanita <user3@bokamoso.net>

Sent:

25 April 2014 01:19 PM

To:

'bennie@frontierretail.co.za'

Subject:

RE: Registration as interested and affected party - Piet Retief X22

Dear Bennie Boshoff,

Thank you for your response, I have registered Mkhondo Green as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

I have noted all your issued on our Issues and Comments Register.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards

Juanita De Beer

Public Participation Consultant



# Landscape Architects & Environmental Consultants

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: lizelleg@mweb.co.za | www.bokamoso.net 36 Lebombo Street, Ashlea Gardens, Pretoria | P. O. Box 11375 Maroelana 0161

From: Bennie Boshoff [mailto:bennie@frontierretail.co.za]

Sent: 25 April 2014 12:13 PM To: lizelleg@mweb.co.za

Cc: bole@lantic.net; Francois Vd Ber; Michael Prinsloo

Subject: Registration as interested and affected party - Piet Retief X22

Att: Juanita de Beer.

My discussion with your Ms Mary-Lee van Zyl this morning refers.

Please see correspondence attached, in terms of which Mkhondo Green (NPC) should be registered as an Interested and Affected Party iro project Piet Retief X22 (Ref no 17/2/3 GS-239).

Please acknowledge receipt hereof, as well as our registration as an I&AP.

I look forward to your feedback in this regard,

Kind regards,

BENNIE BOSHOFF Managing Director



tel: 017 826 2704 fax: 086 513 5529 mobile: 083 408 7076

email: bennie@frontierretail.co.za

From:

Juanita <user3@bokamoso.net>

Sent:

19 March 2014 08:56 AM

To:

'igrobler@geoscience.org.za'; asalomon@sahra.org.za; nndobochani@sahra.org.za;

'maphata.ramphele@gauteng.gov.za'; 'justicem@dwaf.gov.za';

'keetm@dwaf.gov.za'; 'SiwelaneL@dwa.gov.za'; tshifaror@dwa.gov.za; 'mathebet@dwa.gov.za'; 'central@eskom.co.za'; 'paia@eskom.co.za';

'SchmidK@nra.co.za'; kumen.govender@gauteng.gov.za;

'mmpshe@randwater.co.za'; nkoneigh@randwater.co.za; 'vusih.dube@gmail.com';

loveous.tampane@transnet.net; daniel.ramokane@transnet.net;

casperm@tshwane.gov.za; 'lbrussouw@yahoo.com'

Subject:

Piet Retief X22 - Public Participation Process

Attachments:

Public Notice BA.pdf

Dear Interested and/or Affected Party Member,

Please refer to the attached Public Notice regarding the proposed Piet Retief X22 Project.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 1 F: (+27) 86 570 5659 I E: lizelleg@mweb.co.za I www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria I P.O. Box 11375 Maroelana 0161

Please consider the environment before printing this email

From:

Juanita <user3@bokamoso.net>

Sent:

30 April 2014 08:29 AM

To:

'ovambo@lantic.net'

Subject:

RE: 17/2/3 GS-239 Piet Retief X22

Dear Francois van den Berg,

Thank you for your response, I have registered you as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

# Kind Regards

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: <u>lizelleg@mweb.co.za</u> | <u>www.bokamoso.net</u> 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marcelana 0181

From: Francois van den Berg [mailto:ovambo@lantic.net]

Sent: 29 April 2014 04:28 PM To: lizelleg@mweb.co.za

Subject: 17/2/3 GS-239 Piet Retief X22

Please register TRIPLE ADVANCED TRUST as an interested and affected party

Name: FJ van den Berg

Cell no 0833202126

ovambo@lantic.net

Triple Advanced trust is a property owner in Piet Retief. TAT would like to know more about the planning of the developer around infrastructure availability and usage around Piet Retief.

Francois van den Berg

Triple advanced trust

From:

Juanita <user3@bokamoso.net>

Sent:

17 April 2014 01:20 PM

To:

'ecki@prmica.co.za'

Subject:

RE: 17/2/3 GS-239

Dear Ecki Niebuhr,

Thank you for your response, I have registered you as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

. Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: lizellag@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P. O. Box 11375 Marcelana 0161

Please consider the environment before printing this email

From: Ecki Niebuhr [mailto:ecki@prmica.co.za]

Sent: 17 April 2014 09:56 AM To: lizelleg@mweb.co.za Subject: 17/2/3 GS-239

I hereby request to be informed of propsed development ref 17/2/3 GS-239, Piet Retief

I have the following properties ajoining this propsed development:

Leck Properties:

Portion 4, erf 180

E.Niebuhr

Portion 2 / Erf 179

IH Niebuhr

portion 1/Erf 179

Regards

Ecki Niebuhr

From:

Juanita <user3@bokamoso.net>

Sent:

17 April 2014 02:45 PM

To:

'nadas@lando.co.za'

Subject:

RF:

Dear B. Hancock & C. Roguszewski,

Thank you for your response, I have registered you as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marcelana 0161

Please consider the environment before printing this email

From: nadas estate agency [mailto:nadas@lando.co.za]

Sent: 17 April 2014 02:31 PM To: lizelleg@mweb.co.za

Subject:

Herewith our details with regards to the proposed development (see attached advert)

Kindly register us as an interested party with regards to the proposed development.

19 Brand Street

B. Hancock C. Roguszewski nadas@lando.co.za cindy.r@mweb.co.za

From:

Juanita <user3@bokamoso.net>

Sent:

15 April 2014 11:01 AM

To:

'chanie@origintrp.co.za'; 'gawie@origintrp.co.za'; 'andries@pdcprojects.co.za'

Subject:

RE: PIET RETIEF TOWN AND TOWNLANDS 149 HT: PORTION 100 (A PORTION OF

PORTION 1)

Dear Chanie van der Merwe,

Thank you for your response, I have registered Origin Town Planning as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T: (+27)12 346 3810 | F: (+27) 86 570 5859 | E: lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marcelana 0161

Please consider the environment before printing this email

From: Chanie [mailto:chanie@origintrp.co.za]

Sent: 15 April 2014 09:43 AM To: lizelleg@mweb.co.za

Cc: Gawie Makkink; andries@pdcprojects.co.za

Subject: PIET RETIEF TOWN AND TOWNLANDS 149 HT: PORTION 100 (A PORTION OF PORTION 1)

Importance: High

Our ref: TEN 1175

M Ferreira

Your ref: 17/2/3 GS-239

15 April 2014

Attention: Ms Mary-Lee van Zyl

Bokamoso Landscape Architects and Environmental Consultants CC

PIET RETIEF TOWN AND TOWNLANDS 149 HT: PORTION 100 (A PORTION OF PORTION 1)
PROPOSED TOWNSHIP: PIET RETIEF EXTENSION 22
BASIC IMPACT ASSESSMENT PROCESS – REGISTRATION AS INTERESTED AND AFFECTED PARTY

With reference to the above, we attach a letter dated 15 April 2014 hereto, for your attention.

We trust that you find it in order. Should you require any additional information please do not hesitate to contact this office.

Yours faithfully

Chanie van der Merwe (on behalf of Gawie Makkink)



Tel: (012) 346 3735 Fax: (012) 346 4217

306 Melk Street, Nieuw Muckleneuk

From:

Bokamoso < lizelleg@mweb.co.za>

Sent:

20 March 2014 09:35 AM

To:

helmuthgevers@gmail.com

Subject:

RE: Piet Retief X22

Good day Helmuth Gevers,

Please note that we are the consultants on the project dealing with the environmental authorisation.

Should you wish to know more about the properties in the surrounding area please contact the local realtors.

The townplanners on this project is Nuplan and their contact details are as follow:

Tel: 0137523422

Email: admin@nuplan.co.za

Trust you find the above in order.

Kind Regards,

# Mary-Lee van Zyl

Senior Environmental Assessment Practitioner



# Landscape Architects & Environmental Consultants cc

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marcelana 0161

Please consider the environment before printing this email

From: Bokamoso [mailto:lizelleq@mweb.co.za]

Sent: 20 March 2014 07:40 AM

To: user1@bokamoso.net; user2@bokamoso.net; user3@bokamoso.net

Subject: FW: Piet Retief X22

From: helmuthgevers@gmail.com [mailto:helmuthgevers@gmail.com]

Sent: 19 March 2014 04:59 PM

To: <u>lizelleg@mweb.co.za</u> Subject: Piet Retief X22

Hi

I am a tenant just around the corner from this development and have a franchise in new and used vehicles and Tractors. Are there properties for sale for own development on the Church street side? Please advise.

Kind regards,

Helmuth Gevers Dealer Principal BAW Piet Retief (PTY) LTD



Reg. No. 2013/094098/07 VAT No. 4750 263 503 18A Zuidend Street Piet Retief

Tel: + 27 17 826 1373 Mobile: +27 82 494 1101

Email: helmuthgevers@gmail.com

Website: www.bawsa.biz

From:

Juanita <user3@bokamoso.net>

Sent:

20 March 2014 08:12 AM

To:

'helmuthgevers@gmail.com'

Subject:

RE: Piet Retief X22

Dear Helmuth Gevers,

Thank you for your response, I have registered you as Interested and/or Affected Party Member for the proposed Piet Retief X22 Project.

We will keep you updated regarding the process in the future.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer

Public Participation Consultant



Landscape Architects & Environmental Consultants cc.

T. (+27)12 346 3810 | F. (+27) 86 570 5659 | E. lizelleg@mweb.co.za | www.bokamoso.biz 36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Marcelana 0161

Please consider the environment before printing this email

From: helmuthgevers@gmail.com [mailto:helmuthgevers@gmail.com]

Sent: 19 March 2014 04:59 PM To: <u>lizelleg@mweb.co.za</u> Subject: Piet Retief X22

Hi

I am a tenant just around the corner from this development and have a franchise in new and used vehicles and Tractors. Are there properties for sale for own development on the Church street side? Please advise.

Kind regards,

# Helmuth Gevers Dealer Principal BAW Piet Retief (PTY) LTD



Reg. No. 2013/094098/07 VAT No. 4750 263 503 18A Zuidend Street Piet Retief

Tel: + 27 17 826 1373 Mobile: +27 82 494 1101

Email: helmuthgevers@gmail.com

Website: www.bawsa.biz

#### Piet Retief X22

Our Ref: 9/2/254/0003

Enquiries: Andrew Salomon Tel: 021 462 4502

Email: asalomon@sahra.org.za

CaseID: 5113

Date: Wednesday April 16, 2014

Page No: 1



an agency of the Department of Arts and Culture

#### Letter

In terms of Section of the National Heritage Resources Act (Act 25 of 1999)

Attention: Zarafusion (Pty) Ltd

### Portion 100 (a Portion of Portion 1) of the Farm Piet Retief Town & Townlands 149 HT

Thank you for your notification regarding this development.

In terms of the National Heritage Resources Act, no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that prior to development it is incumbent on the developer to ensure that a Heritage Impact Assessment is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.

The quickest process to follow for the archaeological component is to contract an accredited specialist (see the web site of the Association of Southern African Professional Archaeologists www.asapa.org.za) to provide a Phase 1 Archaeological Impact Assessment Report. This must be done before any large development takes place.

The Phase 1 Impact Assessment Report will identify the archaeological sites and assess their significance. It should also make recommendations (as indicated in section 38) about the process to be followed. For example, there may need to be a mitigation phase (Phase 2) where the specialist will collect or excavate material and date the site. At the end of the process the heritage authority may give permission for destruction of the sites.

Where bedrock is to be affected, or where there are coastal sediments, or marine or river terraces and in potentially fossiliferous superficial deposits, a Palaeontological Desk Top study must be undertaken to assess whether or not the development will impact upon palaeontological resources - or at least a letter of exemption from a Palaeontologist is needed to indicate that this is unnecessary. If the area is deemed sensitive, a full Phase 1 Palaeontological Impact Assessment will be required and if necessary a Phase 2 rescue operation might be necessary. Please note that a nationwide fossil sensitivity map is now available on SAHRIS to assist with this.

If the property is very small or disturbed and there is no significant site the heritage specialist may choose to send a letter to the heritage authority to indicate that there is no necessity for any further assessment.



#### Piet Retief X22

Our Ref: 9/2/254/0003

Enquiries: Andrew Salomon

Tel: 021 462 4502

Email: asalomon@sahra.org.za

CaseID: 5113

Date: Wednesday April 16, 2014

Page No: 2



on agency of the Dynastment of Arts and Culture

Any other heritage resources that may be impacted such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes must also be assessed.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Andrew Salomon

Heritage Officer: Archaeology

South African Heritage Resources Agency

Colette Scheermeyer

SAHRA Head Archaeologist

South African Heritage Resources Agency

ADMIN:

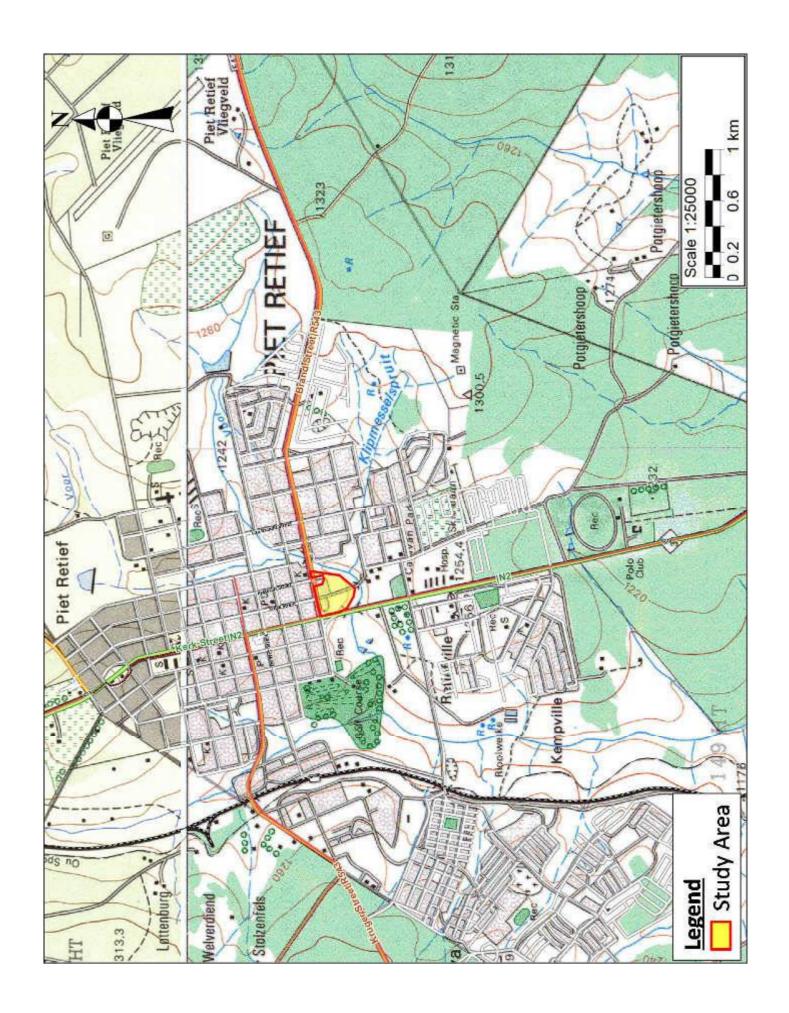
Direct URL to case: http://www.sahra.org.za/node/159584

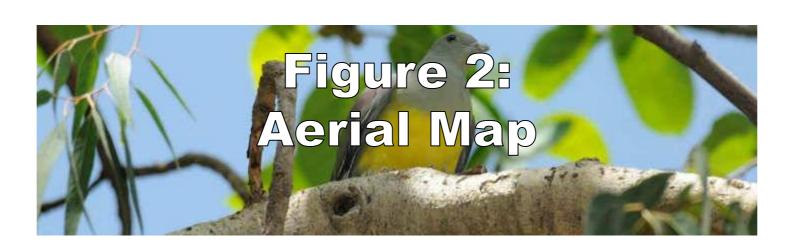
(MDEDET, Ref: 17/2/3 GS-239)

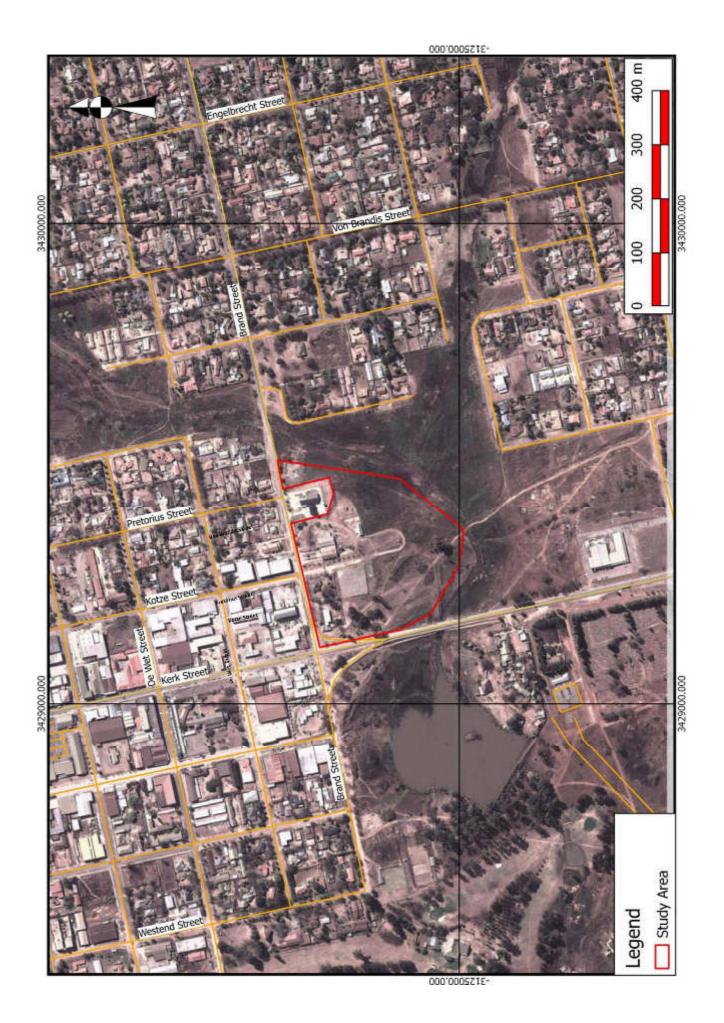


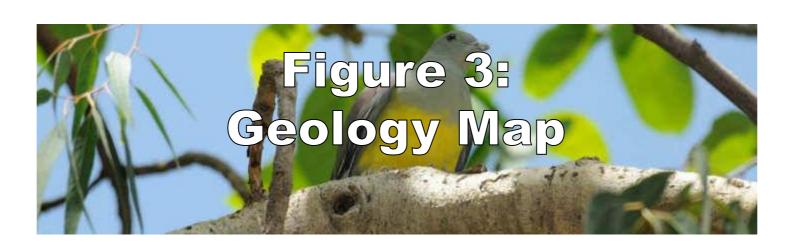






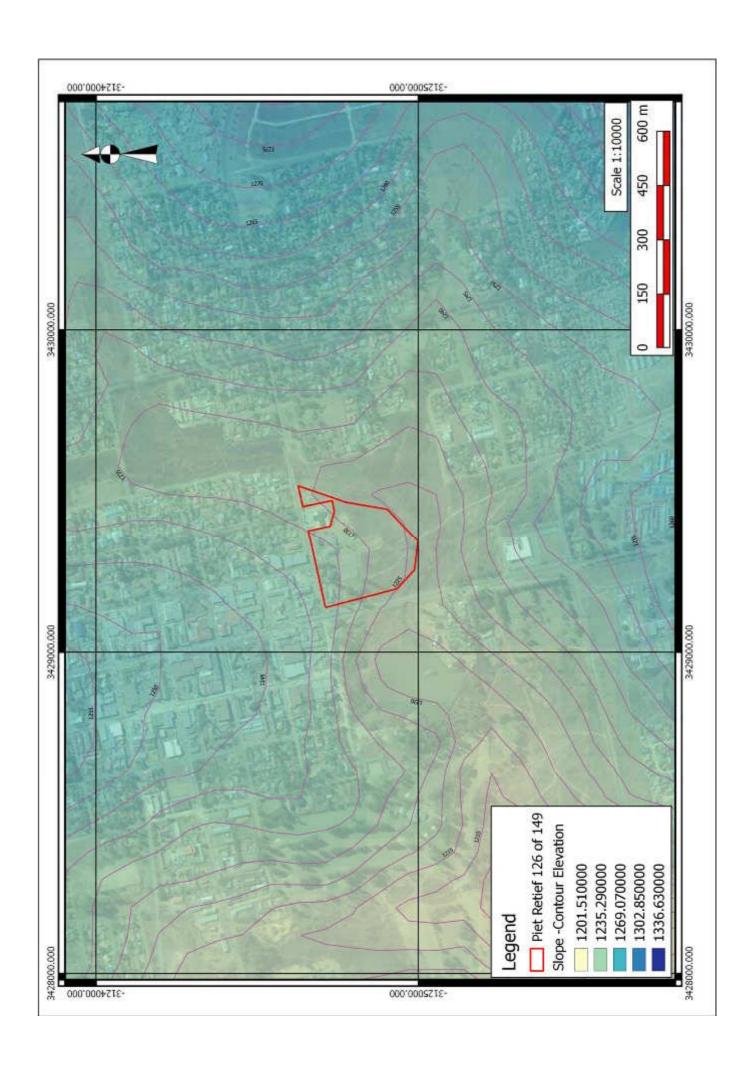




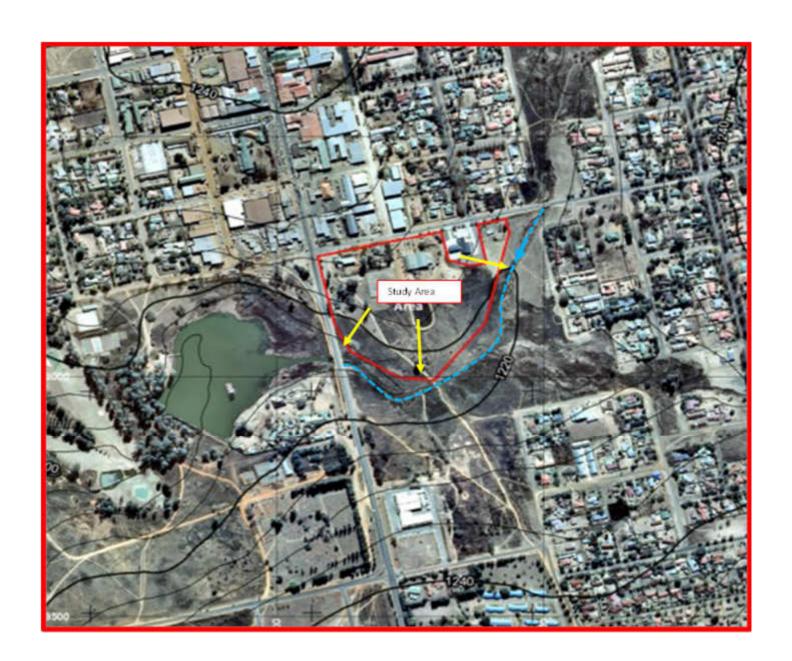




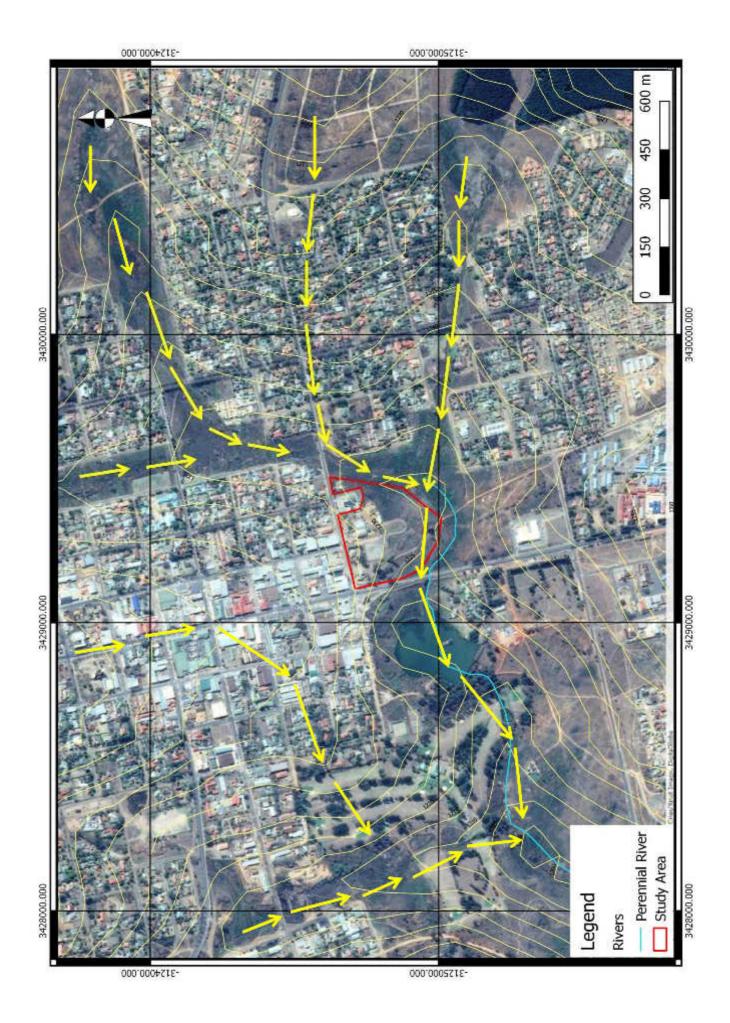














Lourens G van Zyl (Mobile) +27 (0)76 371 1151 (Website) www.terragis.co.za (Ernail) lourens@terragis.co.za

## PIET RETIEF



