GEOTECHNICAL REPORT
Compiled by : COUNCIL FOR GEOSCIENCE
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Date : JULY 2017

Engineering Geological Zonation

Zone I: Dolomite area Designation of D3 and Inherent Hazard Class IHC 3/(4)(5)// (4)1
Zone I is characterised by a medium inherent susceptibility of up to a medium size sinkhole and subsidence formation (2 m to 5 m in diameter) with respect to ingress and small size sinkhole (<2 m) with respect to groundwater level drawdown. Zone I occupies mainly the gravity high and gradient areas. This zone encompasses pockets of IHC5 due to the encounter of dolomite bedrock at 1 m and 4 m in BH43 and PLA23, respectively. The blanketing layer is characterised by colluvium, chert rubble, dolomite chert residuum (containing fines-Wad in some instances) underlain by weathered dolomite and dolomite bedrock. The depth to dolomite bedrock generally ranges between 6 m to 15 m. Groundwater rest level in this zone is mainly within bedrock.

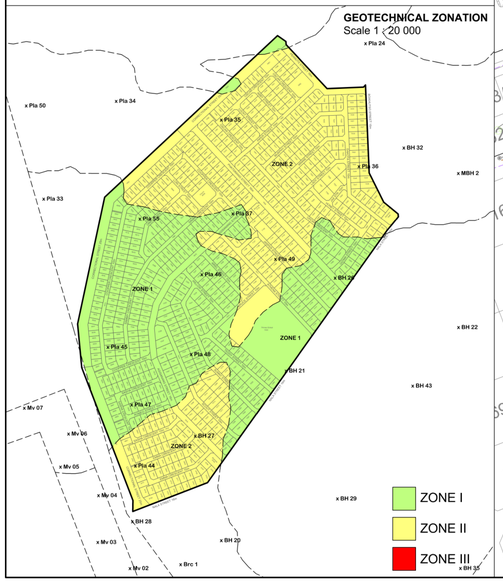
Zone II: Dolomite area Designation of D3 and Inherent Hazard Class IHC 4//4(1)
This zone is characterised by a medium inherent susceptibility of up to a medium to large size sinkhole and subsidence formation (2 m to 5 m in diameter) with respect to both ingress and groundwater level drawdown. The blanketing layer is characterised by colluvium, chert residuum, dolomite chert residuum (containing fines-Wad) underlain by weathered dolomite and dolomite bedrock. The depth to dolomite bedrock is variable and groundwater rest level is mainly within the blanketing layer. Zone II is the most dominant zone in terms of areal coverage.

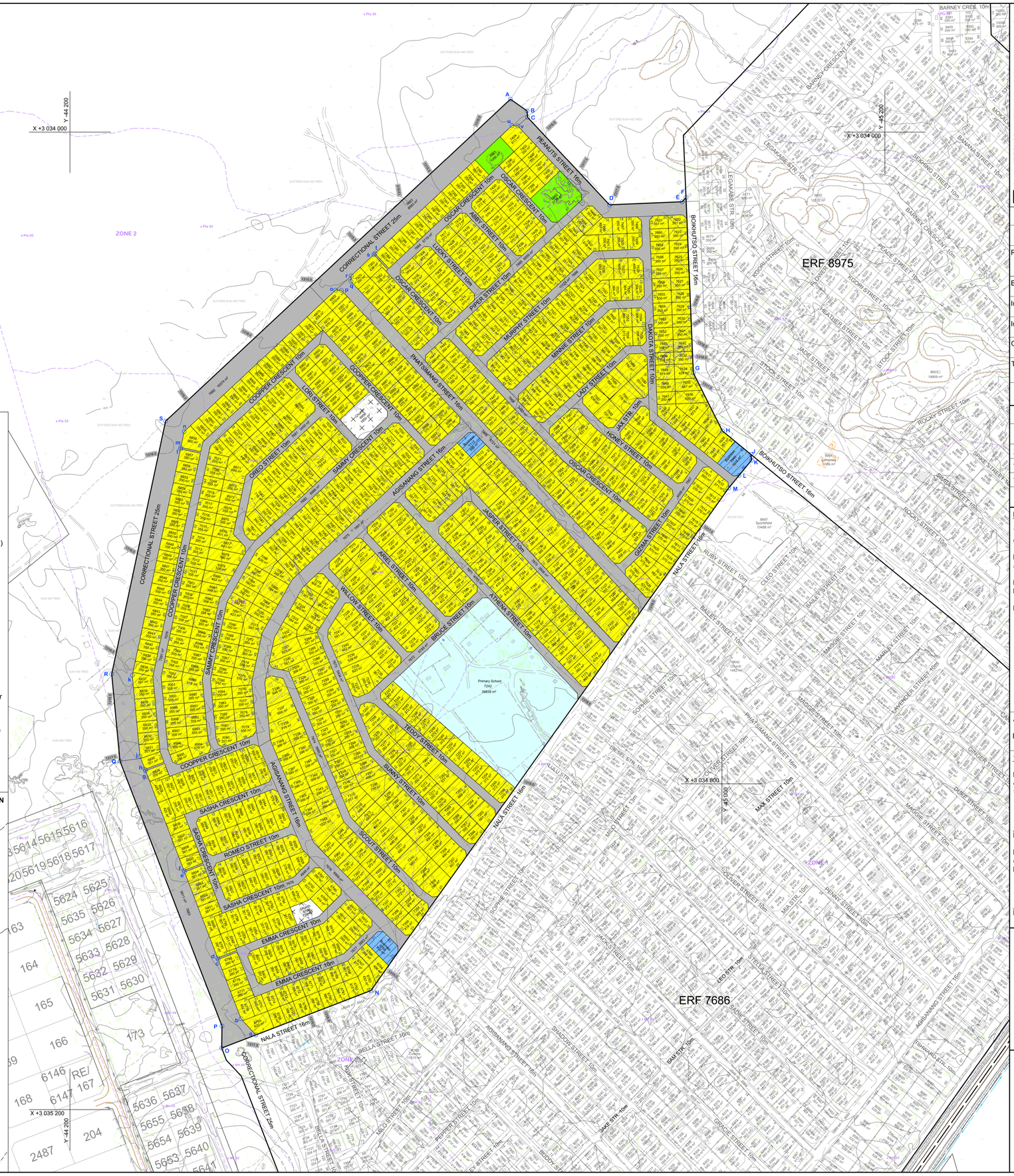
Zone III: Dolomite area Designation of D4 and Inherent Hazard Class IHC 7/8//7/8
This zone is characterised by a medium to high inherent susceptibility of up to a large to very large size sinkhole and subsidence formation (2 m to >15 m in diameter) with respect to both groundwater level drawdown and water ingress. The ground conditions in this zone are highly variable. Zone III occupies the gravity lows mainly in the northern section of the map. The blanketing layer is considerably thick and is characterised by colluvium, chert residuum, dolomite chert residuum (fines-Wad) underlain by weathered dolomite. The depth to dolomite bedrock is generally deep (>20 m) and groundwater rest level is mainly within the blanketing layer or within the cavity.

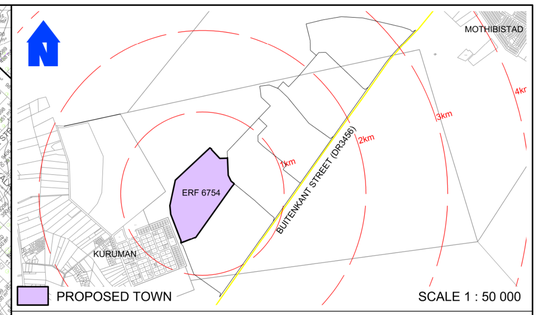
Inferred Zone Boundary

x BH 26 Test Position and Number

GEOTECHNICAL ZONATION
Scale 1 : 20 000







LEGEND

Proposed Zoning	Proposed Land use	Number of Erven	Erf Number	Area in Ha	% of Area
Residential zone IV	Residential house, low cost housing (Minimum 345m²)	900	6755-6764; 6766-6787; 6789-6955; 6957-7111; 7113-7241; 7243-7639; 7641-7660.	35.4437ha	67.66%
Business zone II	Shop	3	6765; 7112; 7640	0.2504ha	0.48%
Institutional zone I	Place of instruction (Primary School)	1	7242	2.6839ha	5.12%
Institutional zone II	Public place of worship (Church)	2	6788; 6756	0.2579ha	0.49%
Open space zone I	Public open space	2	7661; 7662	0.3225ha	0.62%
Transport zone II	Public street	21	7663-7683	13.4232ha	25.63%
TOTAL		929	6755-7683	52.3816ha	100%

STREETS

Reserve Width	Length in Metre	% of Street Length
25m	1348.86m	12.83%
16m	1641.07m	15.61%
10m	7521.78	71.56%
TOTAL	10511.71m	100%

NOTES:

The figure A-B-C-D-E-F-G-H-J-K-L-M-N-O-P-Q-R-S-A represents the proposed town of Kuruman comprising Erven 6755 to 7683.

No ingress to or egress from Correctional Street along the line(s) lettered a-b-c; d-e; f-g; h-j-k-l; m-n-o; r-s and t-u as indicated on the layout plan.

No ingress to or egress from Phatsimang Street along the line(s) lettered o-p and q-r as indicated on the layout plan.

No ingress to or egress from Peanuts Street along the line(s) lettered j-k as indicated on the layout plan.

Average Residential Erven Size : 393.8m²

Erf sizes and dimensions subject to final survey.

1 : 100 YEAR FLOODLINE

It is hereby certified in terms of the provisions of Section 144 of the National Water Act, 1998 (Act No.36 of 1998) that the township is not affected by a public stream.

PR ENGINEER

It is hereby certified that the town layout complies with the conditions and recommendations as stated in the Geological Report.

PR ENGINEER

STREETS:

Maximum slope 1 : 41
Minimum slope 1 : 332

DESIGN OF TOWN LAYOUT

Maxim Planning Solutions (Pty) Ltd
K. Raubenheimer Pr. Pln A/924/1996
Tel. (018) 468 6366

CONTOURS

The contour survey is in accordance with the standards laid down by the Regulations relating to Township Establishment and Land Use.

Digital Orthophoto by: Aziza

Tel: (012) 8030346

Date of Photography : June 2018

System : WGS84 Central Meridian : Lo23

LAYOUT MAP:
PROPOSED TOWNSHIP KURUMAN COMPRISING OF ERVEN 6755 TO 7683

240m 160m 80m 40m 0m 50m 100m 200m
1cm = 40m
SCALE 1 : 2 500

THE PROPOSED TOWN IS SITUATED ON A PORTION OF THE REMAINING EXTENT OF ERF 3, KURUMAN (TO BE KNOWN AS ERF 6754, KURUMAN FOLLOWING SUBDIVISION THEREOF)

GA-SEGONYANA LOCAL MUNICIPALITY NORTHERN CAPE PROVINCE

Drawing Compiled by : A. Rossouw
Drawings Nr. : 8/34/7(A)
Date : 2019-04-09
Revision : 0
Caddie File : Z:\8-PROJECTS\8-34-7-K-T Promised Land Informal Settlement\Maps\CAD\Phase 1

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MAXIM planning solutions
ACCREDITED TOWN AND REGIONAL PLANNERS