

## **ANNEXURE D**

### **NEEDS AND CONCERNS**

**PROJECT: C17046: INVESTIGATION INTO AVAILABLE DEVELOPABLE LAND  
IN KLEINMOND**

**ISSUES AND CONCERNS RAISED AND PUBLIC INPUT AFTER MEETINGS AT  
PUBLIC MEETINGS OF 15 MARCH 2018 AND 19 APRIL 2018**

	<b>ISSUES/CONCERNS RAISED</b>	<b>15/03/2018</b>	<b>19/04/2018</b>
1	The public raised questions whether alternate areas for low cost housing outside of Kleinmond such as Betty's Bay, Pringle Bay, Fisherhaven and Bot Rivier has been considered and requested the consultants' brief should include this	*	*
2	Concern is being raised over high unemployment and more people moving to the area	*	*
3	There is a perception of Kleinmond becoming unsafe, thus high walls are being built	*	
4	Questions raised about economic studies being done on impact of low cost housing in the area	*	
5	Question raised enquiring as to whether all communities in the town were invited and whether "everyone" is being considered	*	
6	Statement: The community needs to work together	*	*
7	Question: Is the municipality able to handle management of growth?	*	
8	The public holds the natural and built character of Kleinmond in high regard and wants to maintain it, specifically preventing Kleinmond from developing into a town resembling Hermanus	*	
9	Statement: The natural environment must be protected	*	
10	Request: Plan must not change the character of the town {Hermanus was used as a good example}	*	
11	Request: Make project information readily available	*	
12	Concern was raised that consultants were not residing in Kleinmond;	*	*
13	Concern was raised that existing low-cost housing was not being maintained	*	
14	A social development strategy should be included as part of this work	*	
15	Do neighbouring towns also need to grow?	*	
16	There is a problem of subsidized houses are being rented to non-beneficiaries;	*	
17	A recommendation was made to build a commercial fishing harbour	*	*
18	Concern that municipality did not arrange transport for Overhills and Protea communities to attend the meeting; next meeting should be held at Proteadorp	*	

	<b>ISSUES/CONCERNS RAISED</b>	<b>15/03/2018</b>	<b>19/04/2018</b>
19	Better public facilities (clinics, medical assistance for old aged, frail care)	*	*
20	Improve tourism attractions/facilities	*	*
21	Better facilities for police/ closer to communities	*	*
22	Need for a high school in Kleinmond	*	*
23	Need for proper sport fields / complex	*	*
24	Property values should not be affected	*	
25	Rental housing stock should also be considered	*	*
26	Maintenance of existing low-cost housing an issue	*	*
27	Densification of area rather than urban sprawl	*	
28	Better living conditions / housing for backyarders essential	*	*
29	Need for a cemetery	*	*
30	Need for industrial development and job creation	*	*
31	Overhills overcrowded and urgency of resolving the housing need; ultimatum of 40 days set; winter lies ahead		*
32	There is no "mall" in Kleinmond		*
33	Perception that waiting list administration is not up to standard; some people waiting for housing for more than 25 years		*
34	Land and approvals being provided for high-end holiday homes in Betty's Bay and land for affordable housing takes ages		*
35	Integration of neighbourhoods required; still separate neighbourhoods		*
36	Municipality's representatives to be more visible		*
37	Impression that Municipality is being run "from outside"		*
38	Professional team should be provided opportunity to identify land and develop the design		*
39	Court notices served by Overstrand Mun (for services not paid??) to be resolved between community and Municipality		*
40	Refer to letter from Kleinmond Rate Payers Association handed over at the meeting on 15 March 2018	*	
41	Refer to letter from Kleinmond Mountain Avenues Association dated 25 January to Municipal Manager		
42	Refer to letter from Kleinmond Community Forum (post meeting of 19 April 2019) dated 07 May 2018		*

## **ANNEXURE E**

### **SPECIALIST REPORTS**

- E1 - URBAN DESIGN**
- E2 - ENVIRONMENTAL**
- E3 - GEOTECHNICAL**



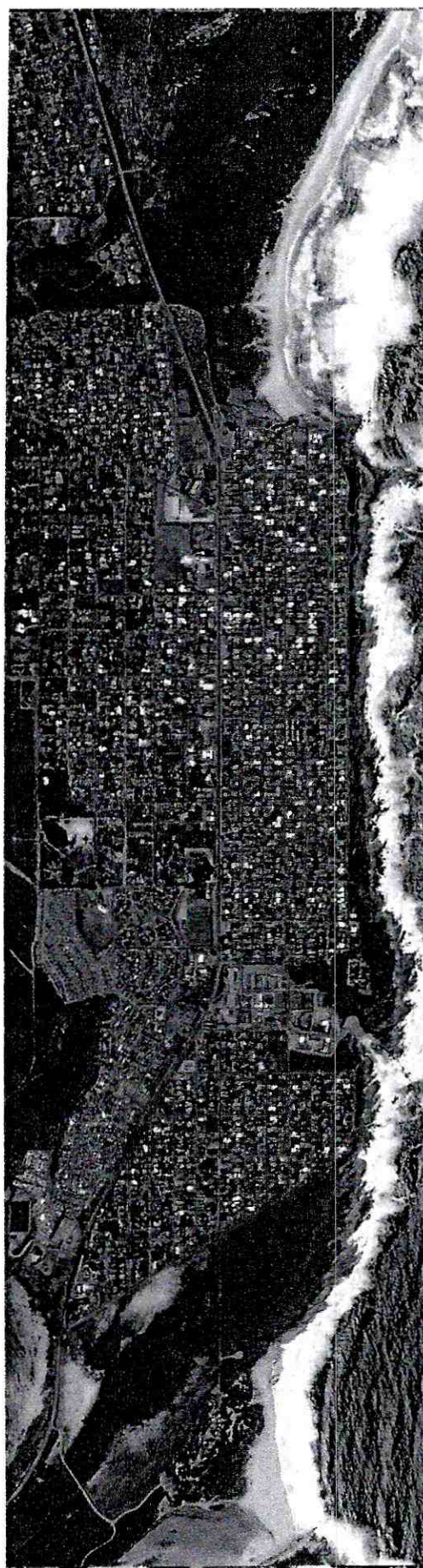
## **ANNEXURE E1**

### **URBAN DESIGN**

## KLEINMOND CONCEPTUAL LAYOUTS

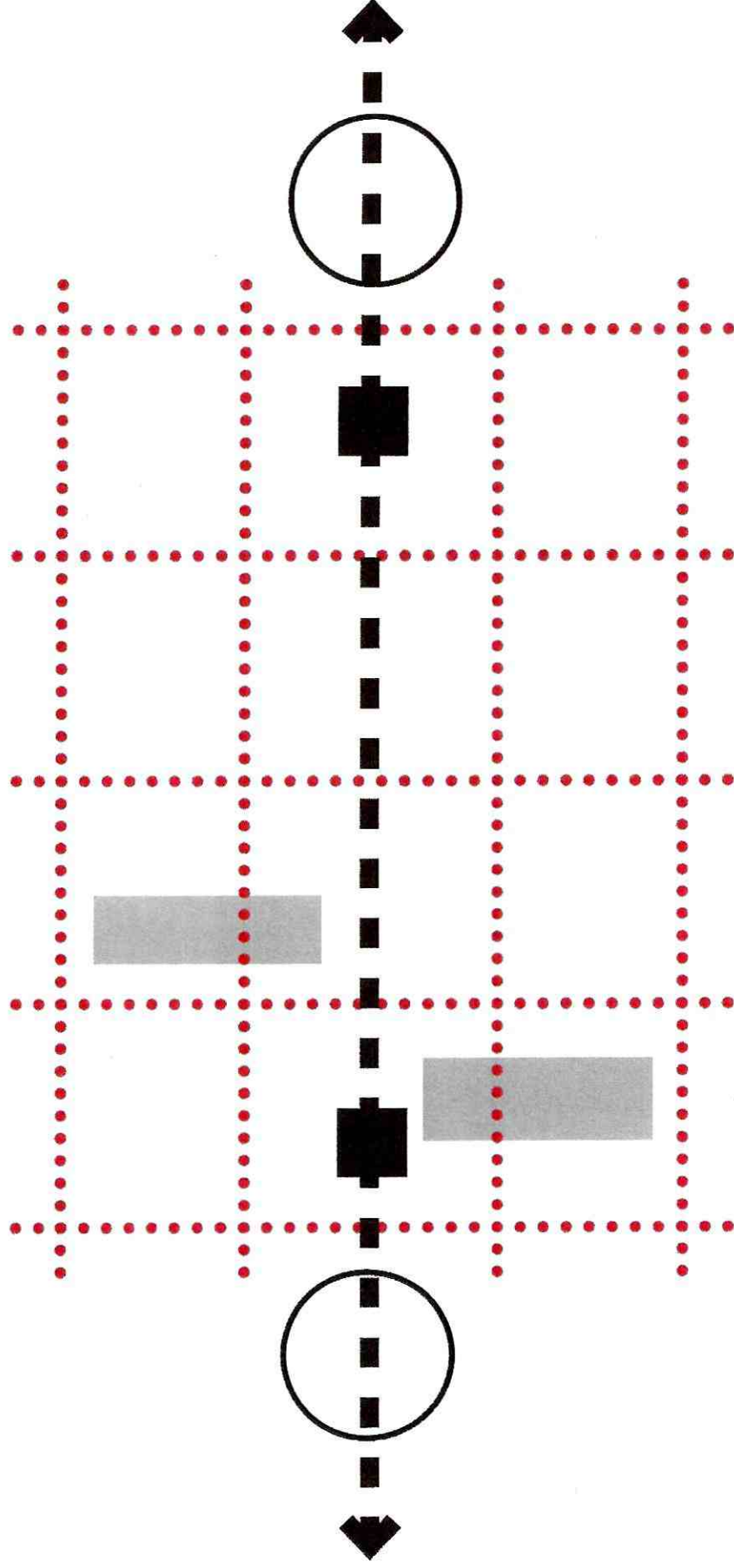
For the OVERSTRAND MUNICIPALITY

29 September 2018

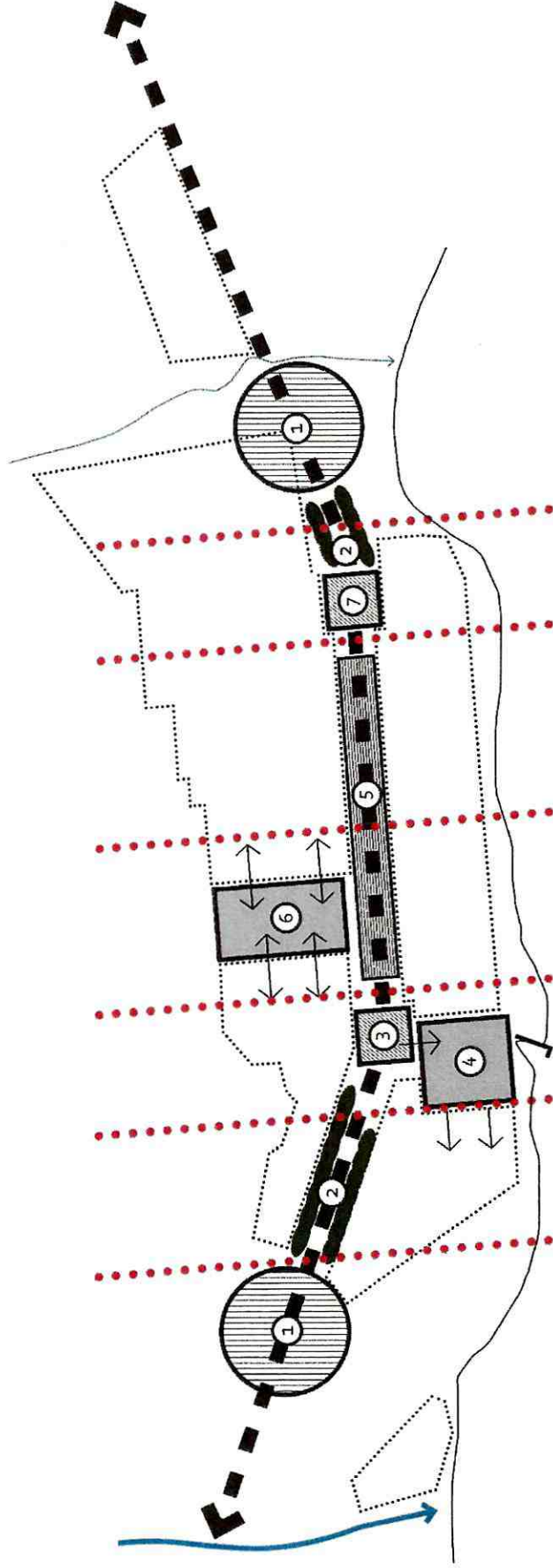


# Density Strategy

Defining the spatial structure of Kleinmond



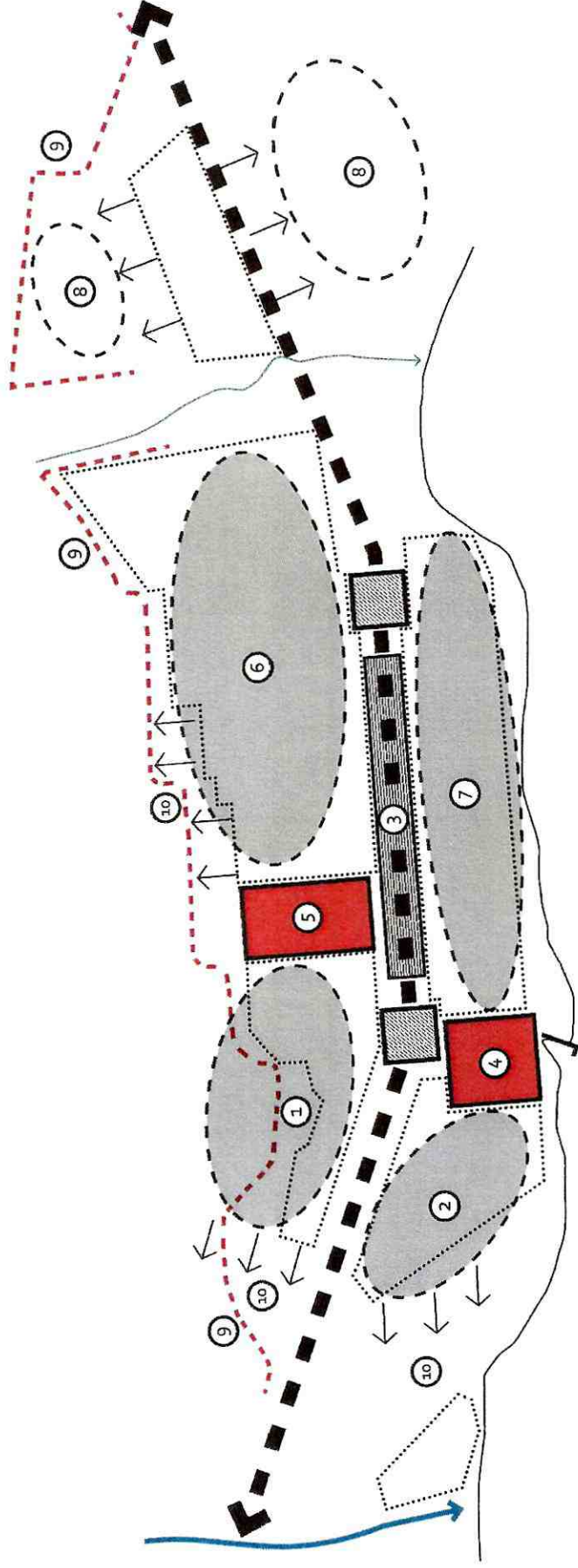
# Proposed Spatial Structure



- ① Establish gateways with landscape bias
- ② Landscape as extension of road
- ③ Develop fulcrum with emphasis on public function
- ④ Intensify Harbour/light industrial with mixed use developments
- ⑤ Density main road with 2-3 story mixed use developments
- ⑥ Transition zone with public function and GAP housing
- ⑦ Establish presence of civic node



# Making Room For Housing

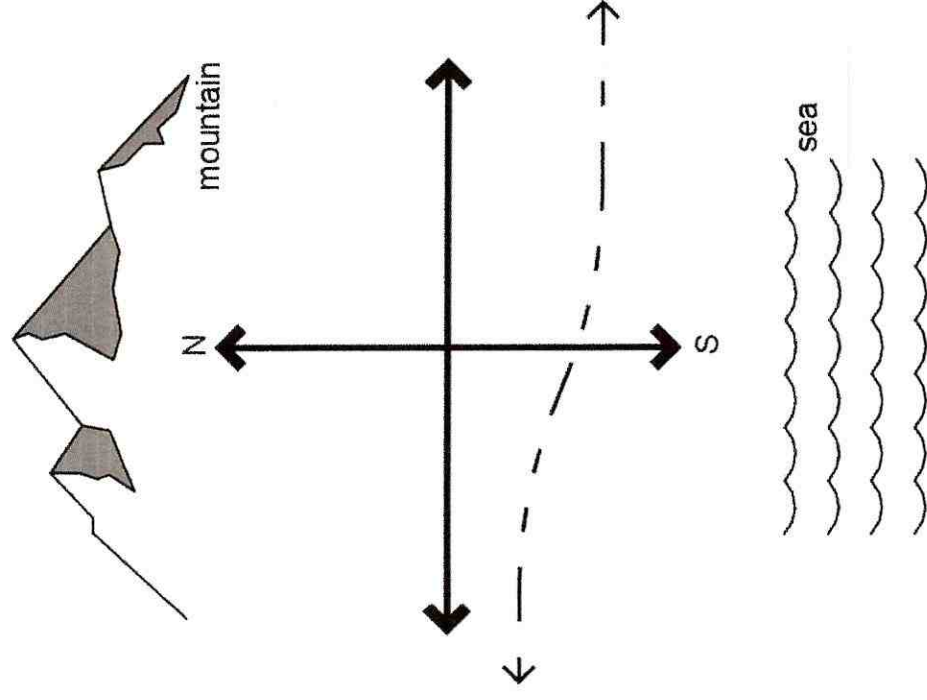


- ① Incremental housing models
- ② Allow more than single dwelling (backyarders)
- ③ Establishing a Main Road (High Street)
- ④ Include residential function in light industrial area
- ⑤ Transition zone with mixed income housing & service related models
- ⑥ Allow more than single dwelling (backyarders) + sub-divisions
- ⑦ Allow more than single dwelling (backyarders)
- ⑧ Proposed market value residential
- ⑨ Line of environmental development zone (to be established)
- ⑩ Extending existing suburbs

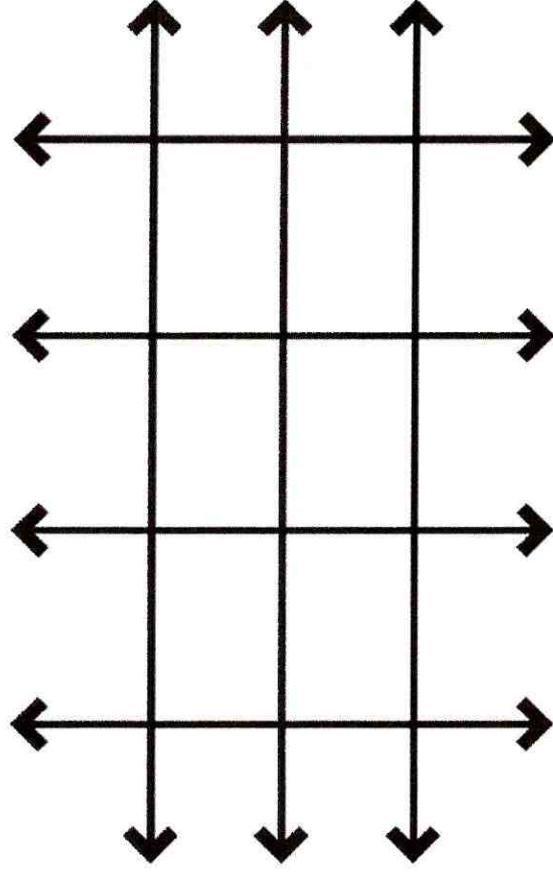
# Urban Design Principles

## Strong Axis

North South Axis with views to the mountain and the sea

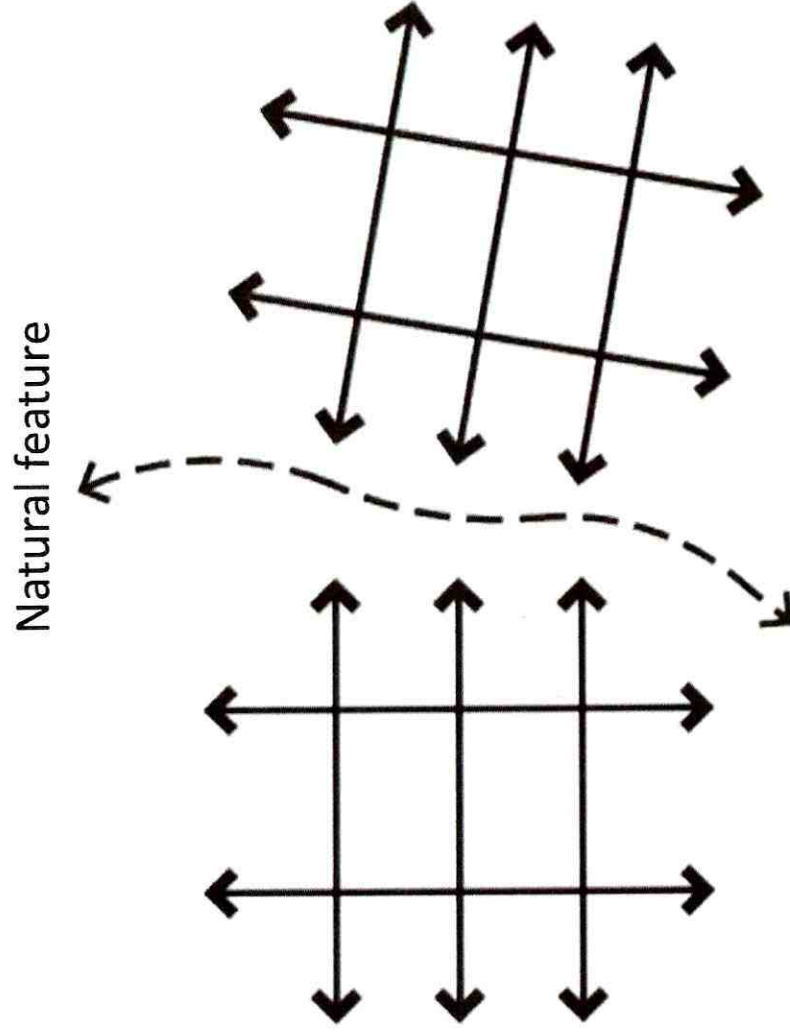


# Rigid Grid System



A grid system shall be incorporated into all new developments in order to follow the original grid of the town.

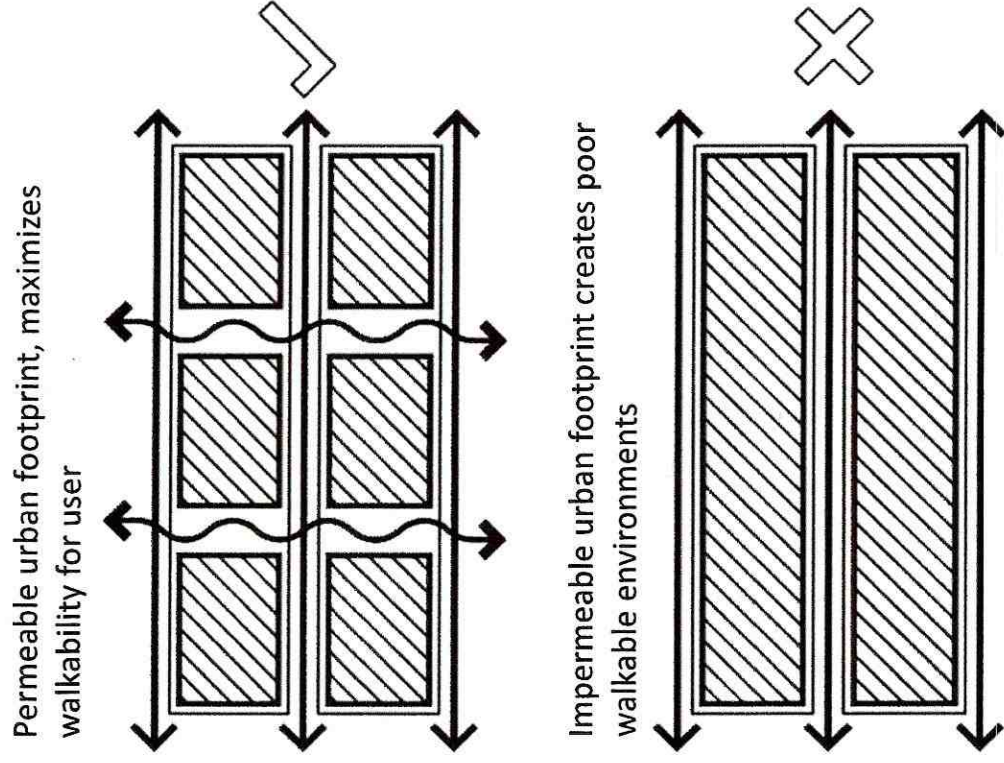
# Grid Shift



In the event of a 'grid shift', natural or landscaped corridors shall be created which will separate the respected grids. This is to prevent any odd shaped erven which cannot cater for subsidised and GAP housing, whilst maximising natural green lungs within the neighbourhood.

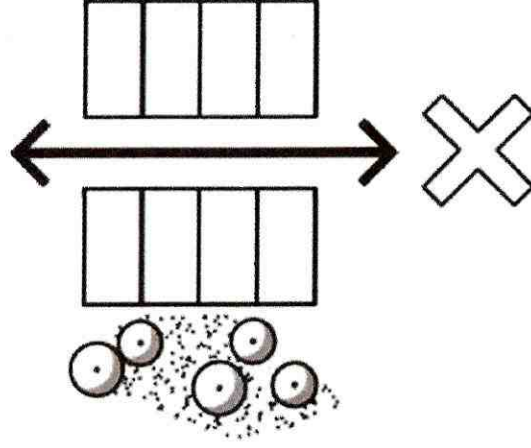
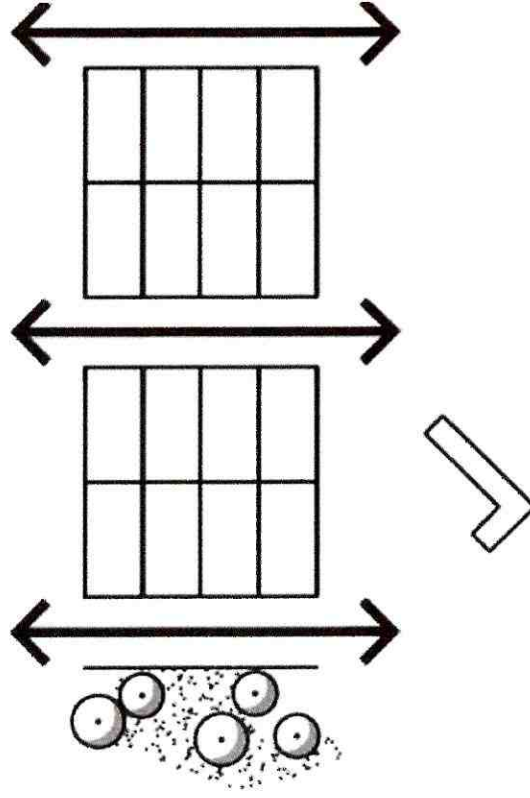


# Walkability



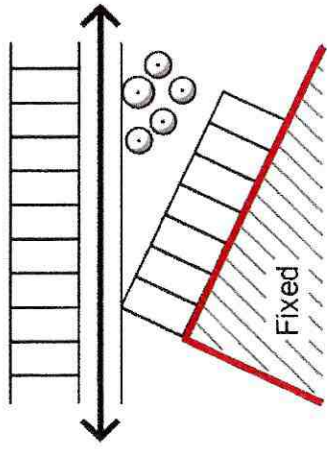
# Stand Placement

Stands to live onto the street or onto natural landscapes creating natural surveillance

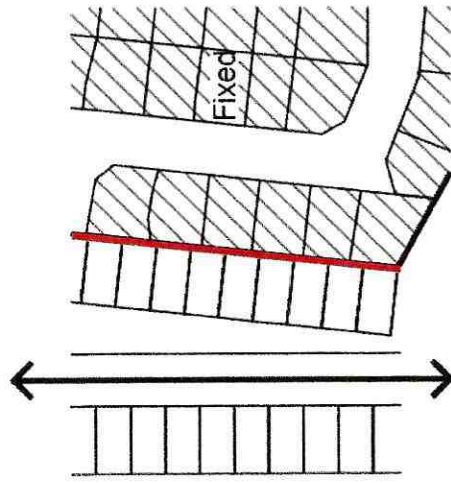


Stands turning their backs to natural environments create unsafe and polluted zones behind adjacent neighbourhoods.

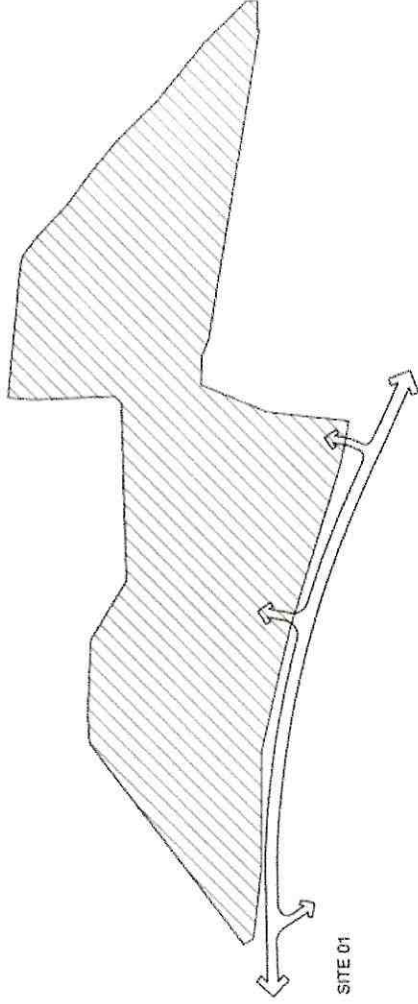
# Hard Fix vs Soft Fix



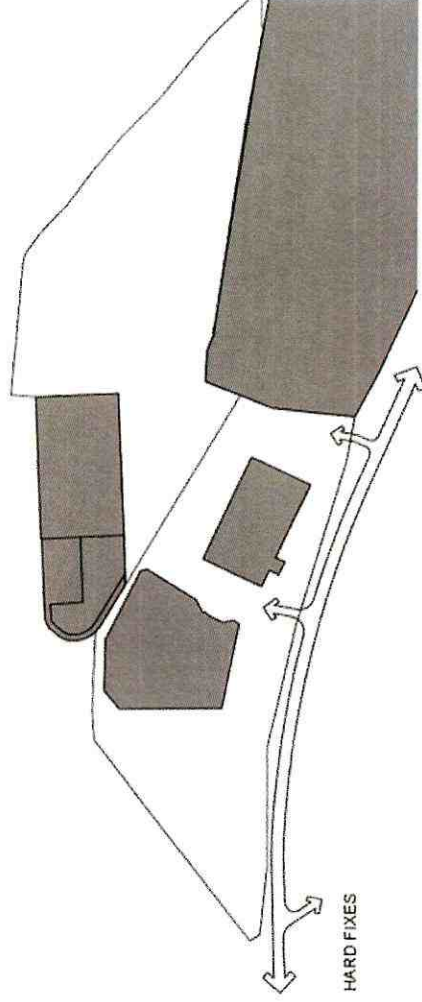
Sub Station Facilities



Adjacent Properties



SITE 01

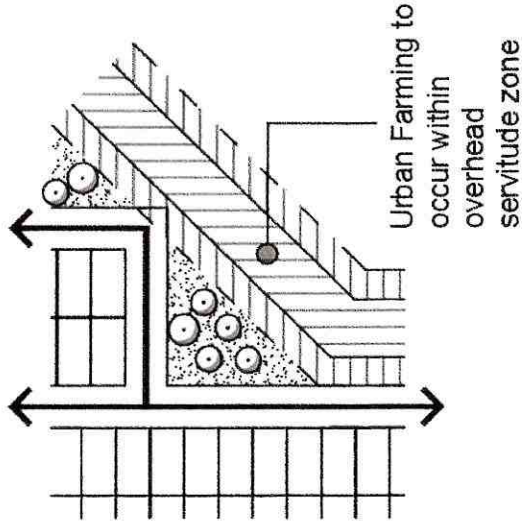


HARD FIXES

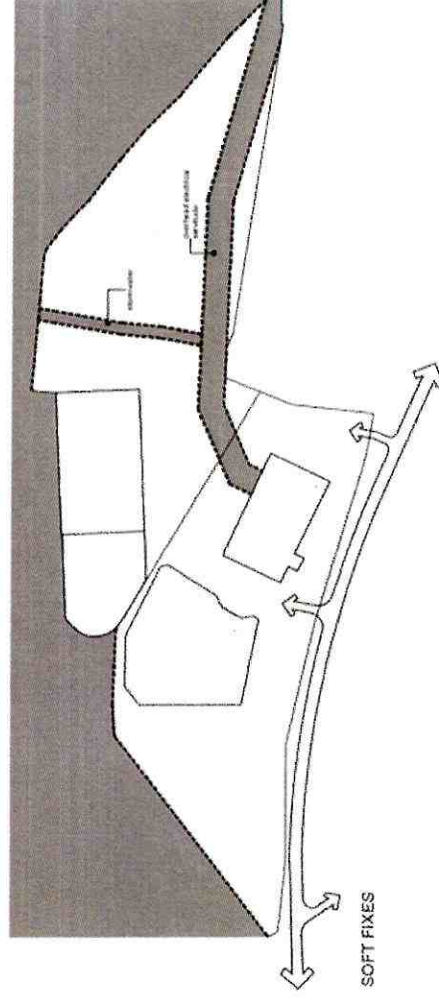
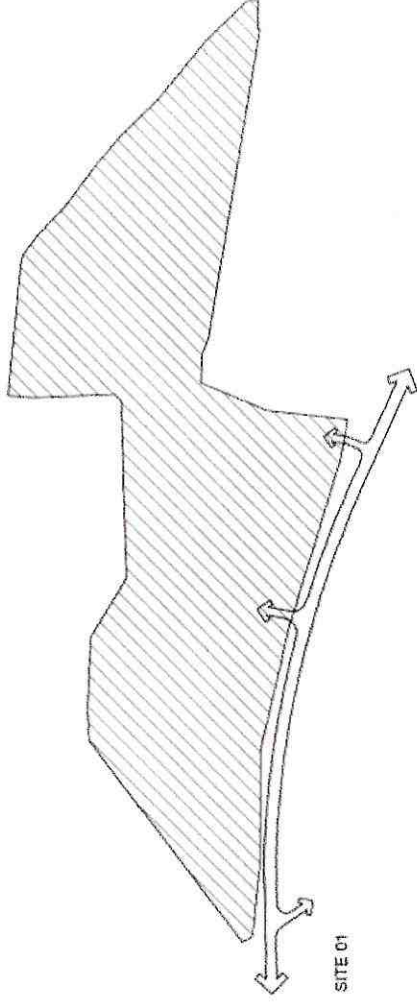
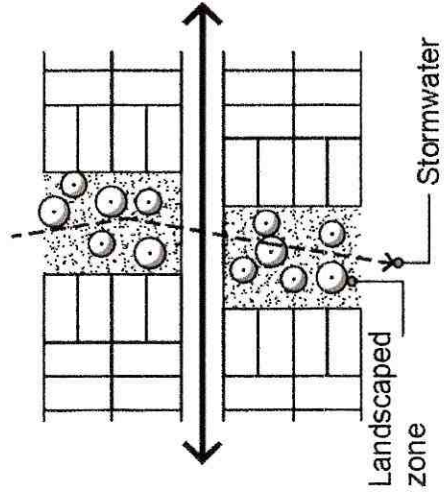
In the event where the new development boarders existing developments or infrastructure, proposed erven shall be positioned hard up to existing developments/infrastructure. This is done to prevent any crime and pollution zones behind new and existing homes.

# Hard Fix vs Soft Fix

units living out towards the overhead servitude's which function as landscaped areas/urban farming zones



units living onto stormwater servitude



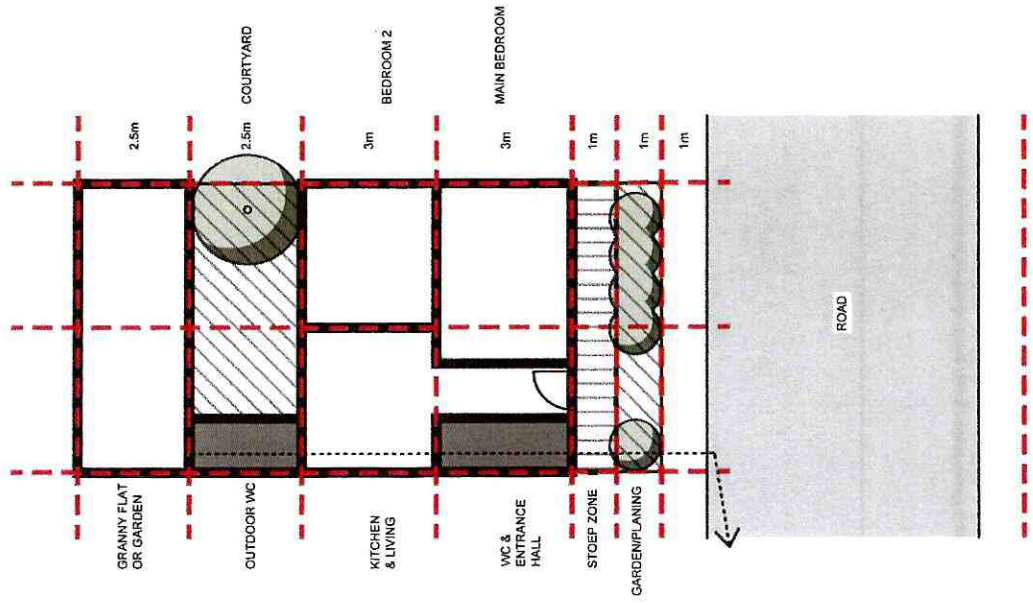
Soft fixes occur when erven face onto servitudes such as electrical overhead or storm water servitudes and nature reserves. The intention is to create landscaped zones within these servitudes and with erven facing these green zones and nature reserves, natural surveillance is created creating clean and safe environments.



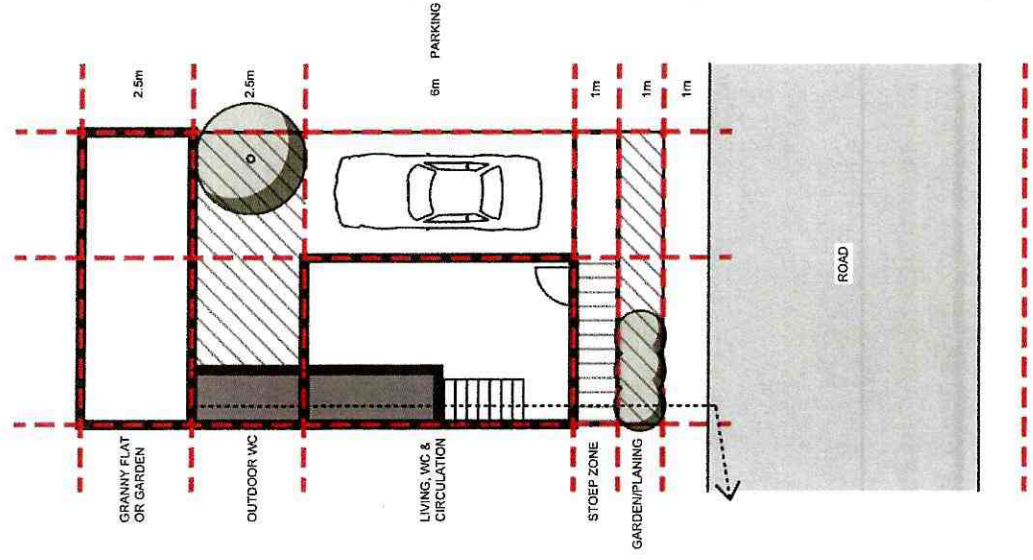
# 6.5x13 Unit Typology

The 6.5x13m erf allows for either a 2 bed 1 bath simplex unit or a 2 bed 1 bath duplex unit with parking within the property.

UNIT TYPE 01

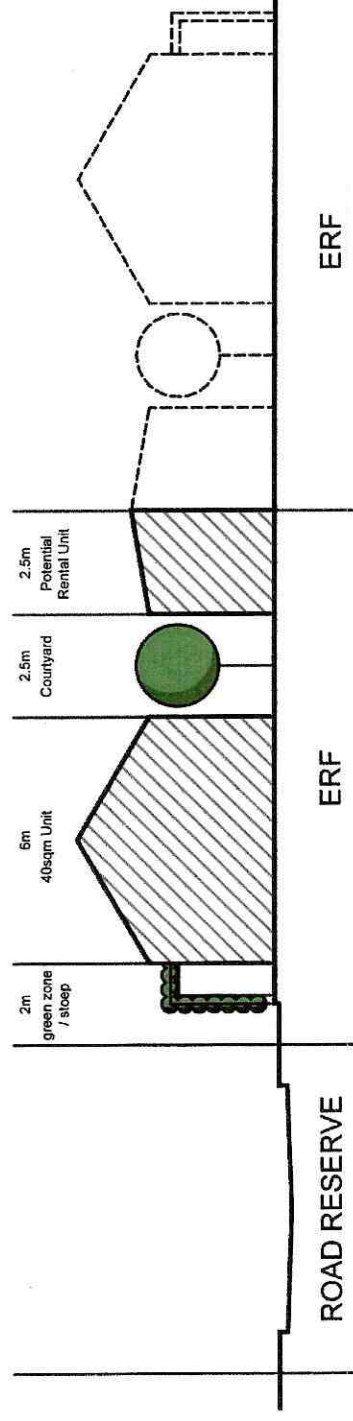
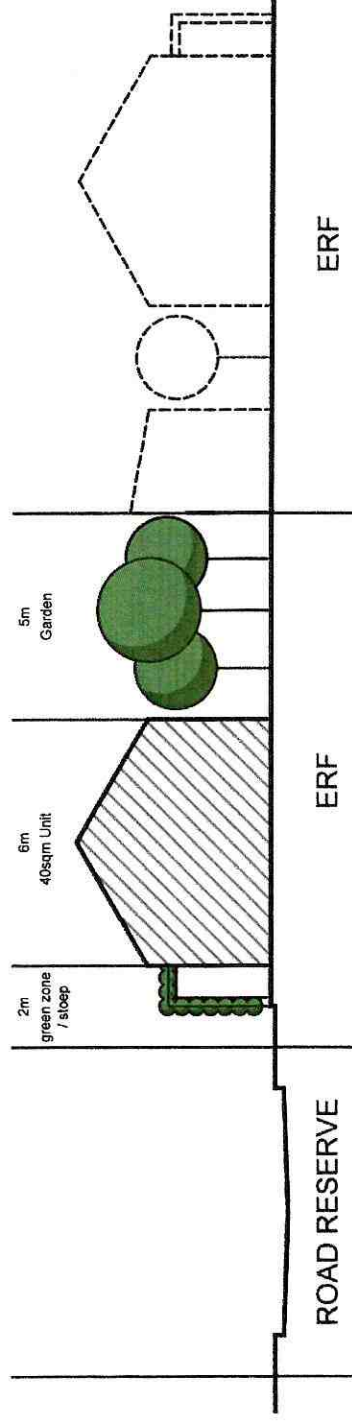


UNIT TYPE 02 (Duplex)

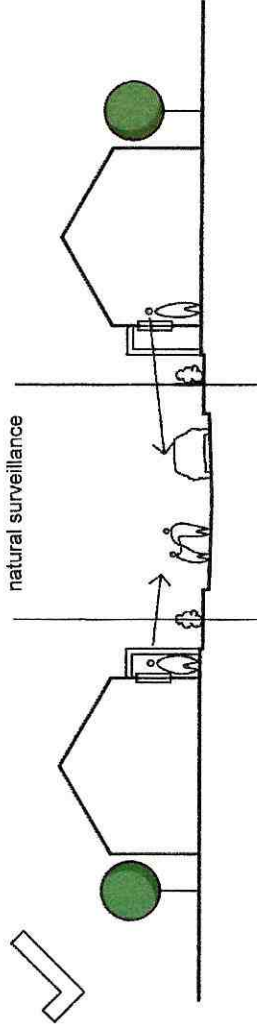


# Unit Placement

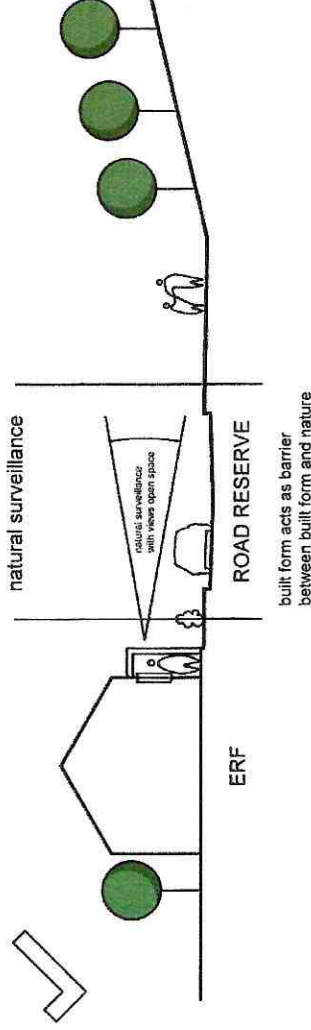
Units are placed within 2m the street facing property boundary to allow for sufficient space behind the home to cater for future back yard units, allowing for additional income to the homeowners.



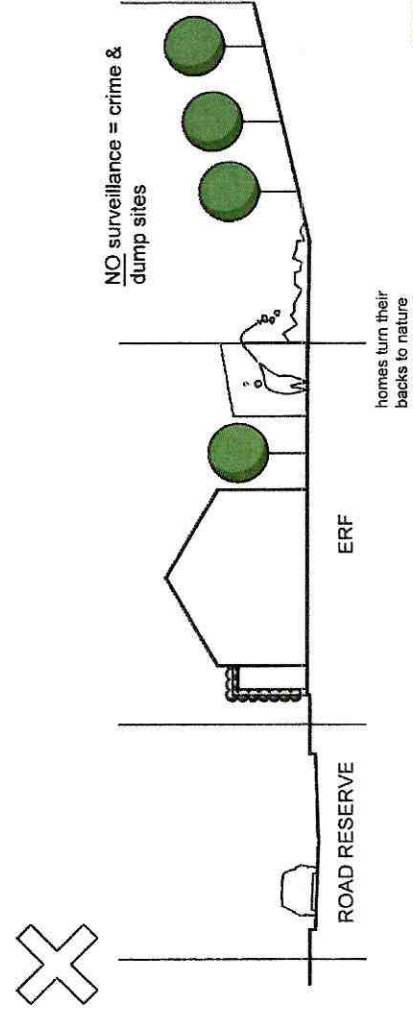
# Surveillance & Security



With units built within 2m the street facing property boundary, natural surveillance occurs creating clean and safe streets



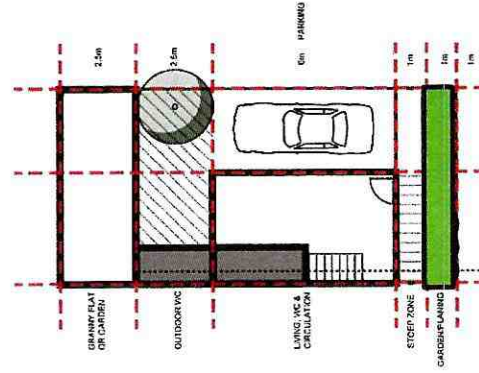
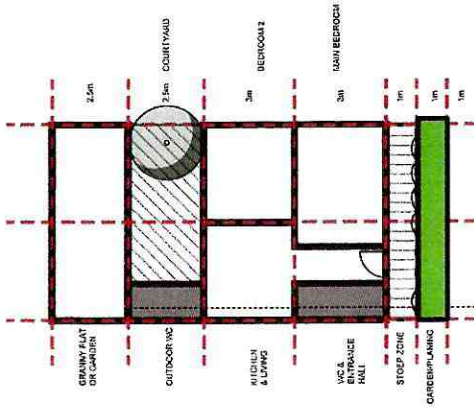
In the event where developments boarder nature reserves, a road is to be constructed to act as a barrier between the units and nature reserve. This allows for the units to live onto these natural areas.



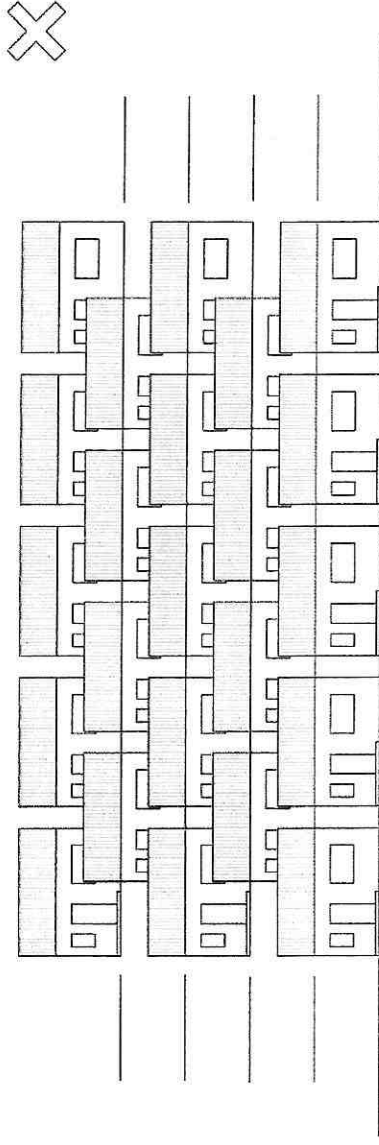
No erven shall be built with their backs to the nature reserve thus preventing any crime and dump sites behind properties



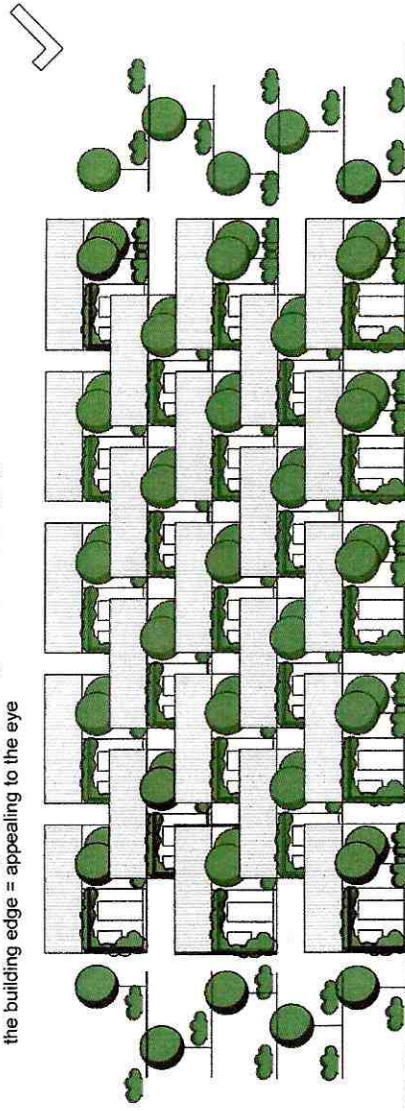
# Soft Edges



Hard Edge = harsh environment = eyesore



Softening the Building Edge through planting trees and landscaping the building edge = appealing to the eye



Continuation of Nature and Man Made along the slopes of the mountain

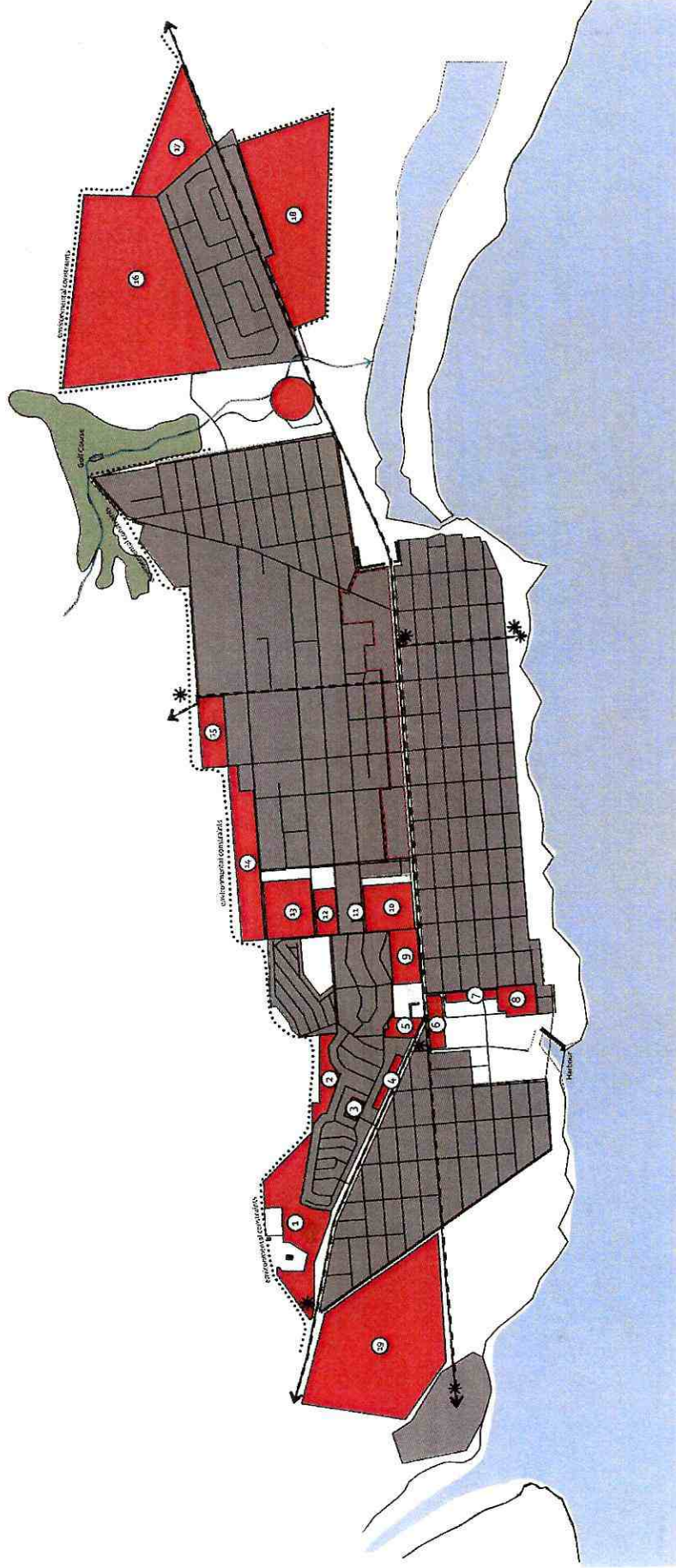
= Buildings disappear in the trees and foliage

In order to prevent to prevent hard surfaces along the ridge of the Palmiet mountains, softening the street facing property edges can create continuous landscaping which extends up into the nature reserve.



# Development Opportunities

The professional team has identified 19 sites which can address the housing shortage in Kleinmond



- ① incremental BNG, Social, FLISP, sites and services    ② incremental BNG, FLISP, sites and services    ③ social housing (2-3 storeys)    ④ social housing, CRU (2-3 storeys)    ⑤ FLISP, Gap housing    ⑥ market, FLISP, GAP    ⑦ market 2-3 storey walk-ups
- ⑧ market 2-3 storey walk-ups    ⑨ FLISP 2-3 storey walk-ups    ⑩ multiple typologies: Social, FLISP, Micro-units, market    ⑪ Clinic Site    ⑫ multiple typologies: Social, FLISP, Micro-units, market    ⑬ school, FLISP, Gap
- ⑭ frail care, assisted living, self-help units    ⑮ cemetery    ⑯ market related with 20% affordable housing, 1-2 storeys    ⑰ market related with 20% affordable housing, 1-2 storeys    ⑱ market related with 20% affordable housing, 1-2 storeys
- ⑲ Potential Development Zone



## Overhills Development (Option 01)





# Site One

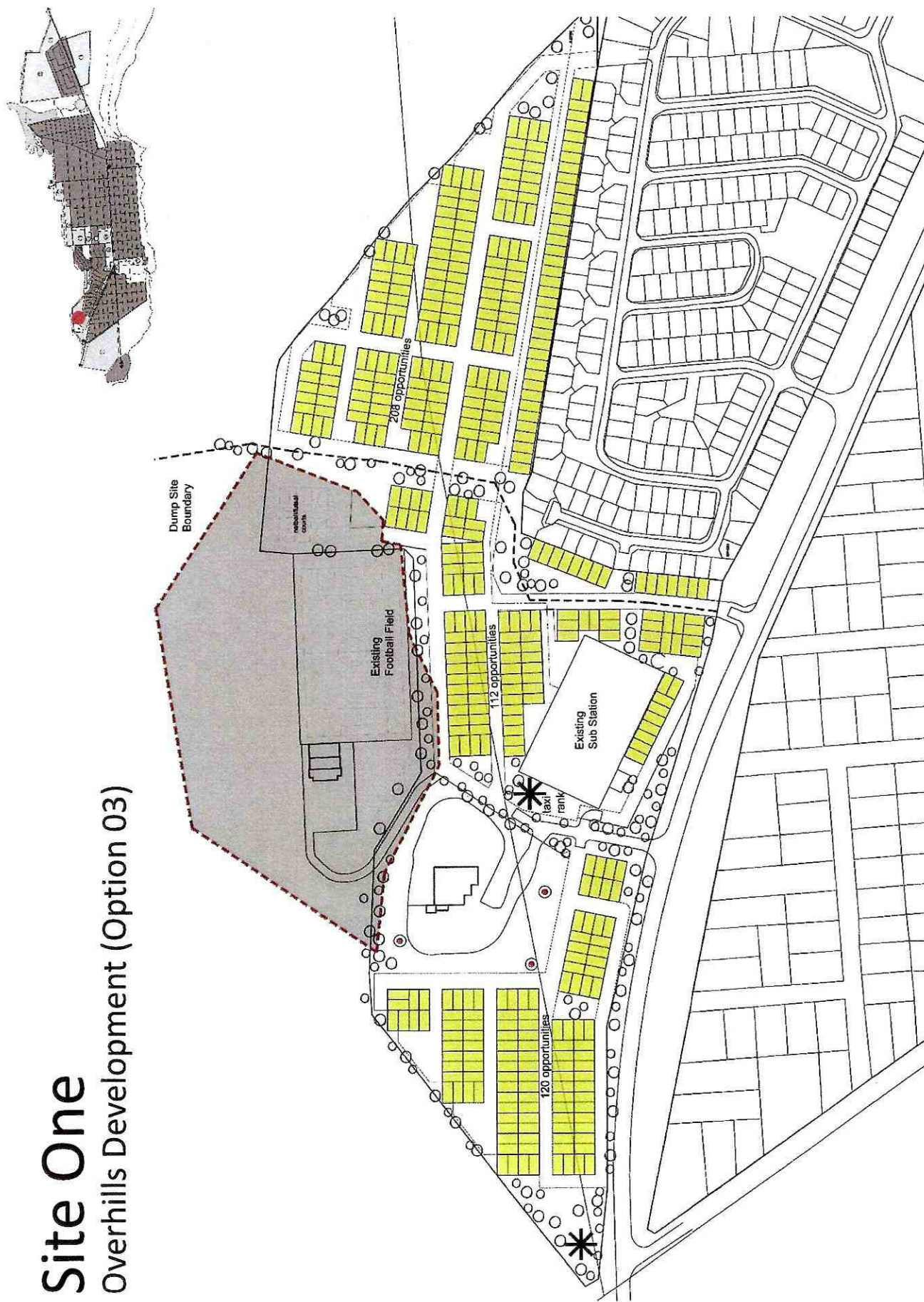
## Overhills Development (Option 02)





# Site One

Overhills Development (Option 03)





## Overhills Development (Option 04)





# Site One

## Overhills Development (Option 05)

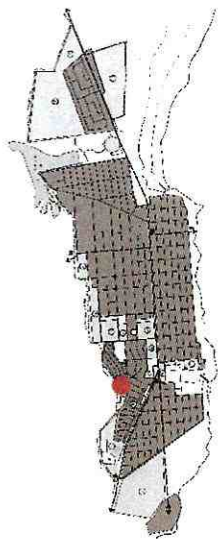




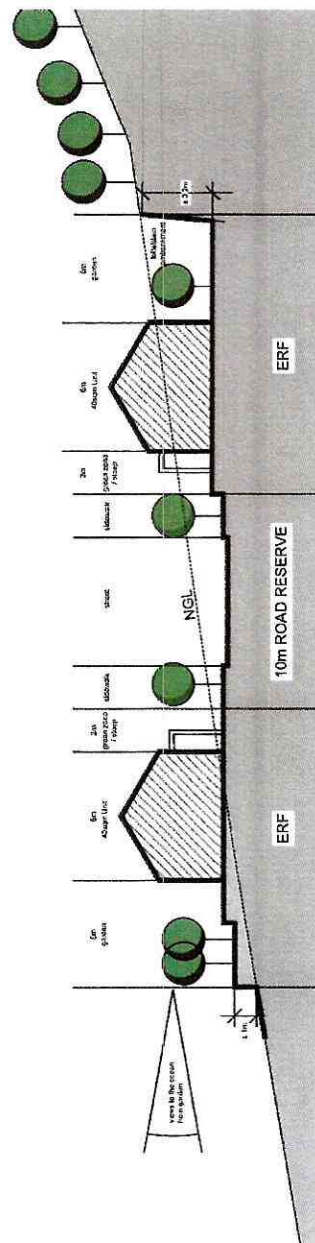
## Overhills Development (Option 06)



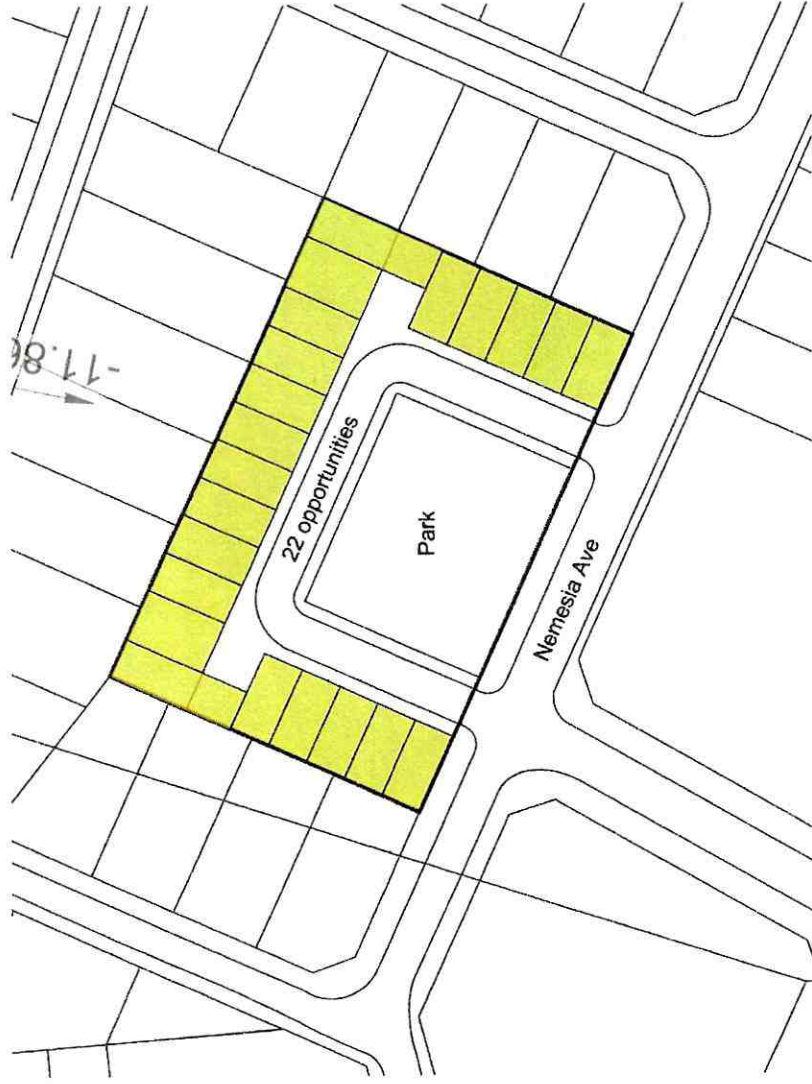
# Site Two (Option 01)







# Site Three

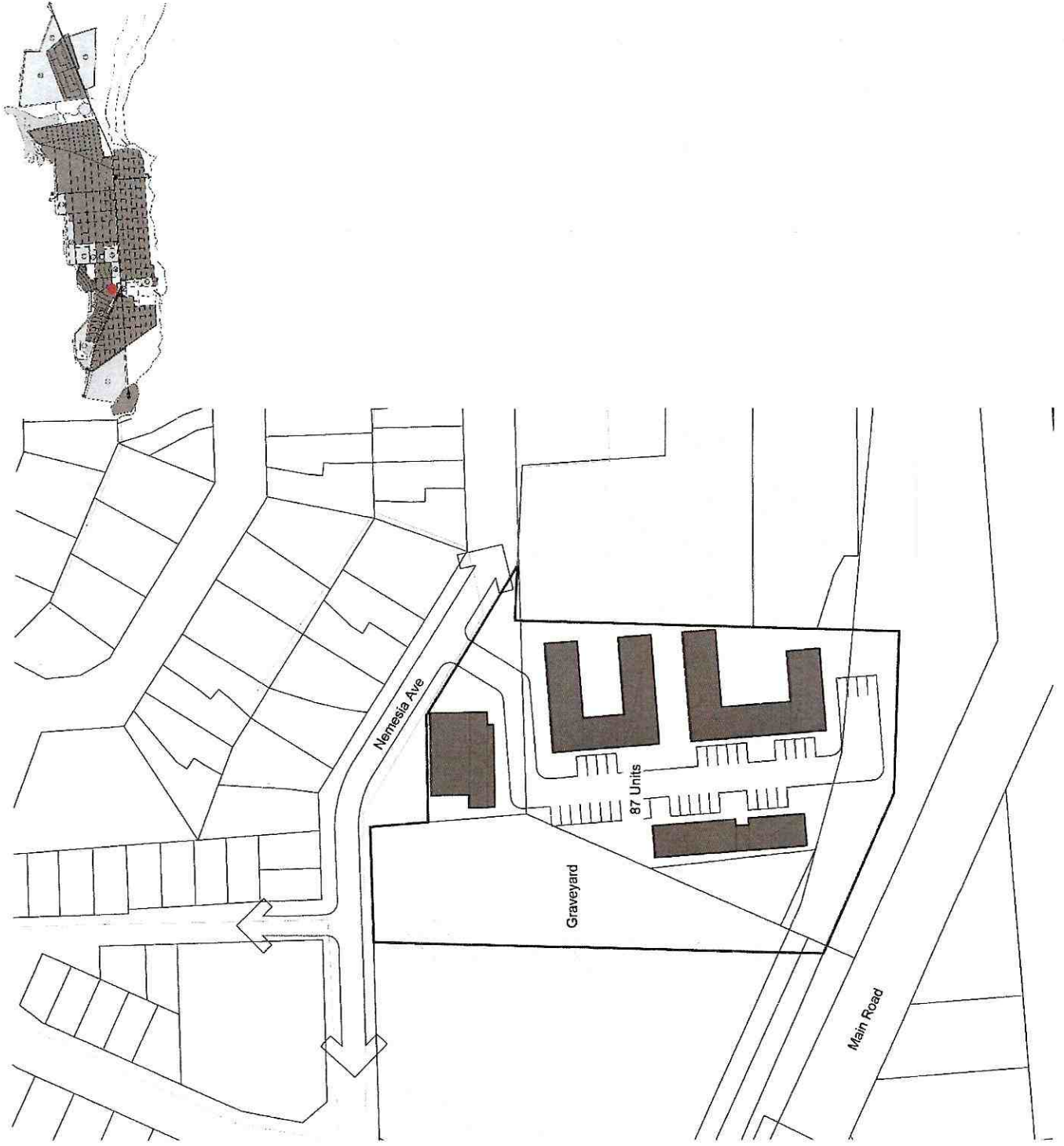


# Site Four





# Site Five



# Site Six



# Kleinmond > potential unlocking of housing opportunities

estimated number of housing opportunities  
28 September 2018

site	description	size	type of housing	density/ha	no. units
one	entrance into town, slope, park, reblocking	8.35	incremental BNG, Social, FLISP, sites and services	43	359
two	slope, mountain edge,	1.95	incremental BNG, FLISP, sites and services	13	25
three	entrance into neighbourhood, neat and clean	0.4	incremental BNG, FLISP, sites	55	22
four	along main road, landscape; 2-3 Storey walk-ups	0.7	incremental BNG, FLISP, sites and services	43	30
five	manage stormwater, consolidate, landscaping [municipality owned]; 2-3 levies walk-ups	1	FLISP, Gap housing	87	87
six	mixed-use, market, civic [municipal owned]; 2-3 storey walk-ups	1.3	market, FLISP, GAP	60	78
seven	mixed-use, market [privately owned], 2-3 storey walk-ups	0.8	market 2-4 storey walkups	60	48
eight	mixed-use, market [privately owned]	1.8	market 2-4 storey walkups	60	108
nine	mixed-use making main road, [municipality owned]	2.25	FLISP 2-4 storey walkups	96	215
ten	fulcrum site for mixed-income development [NGO owned]	2.4	multiple typologies: Social, FLISP, Micro-units, market	60	144
eleven	Clinic site	0.3	no housing	0	0
twelve	fulcrum site for mixed-income development	1.7	multiple typologies: Social, FLISP, Micro-units, market	60	102
thirteen	school and market related mixed-income development	4.45	High School, Sports Fields & FLISP, Gap Housing	13	60
fourteen	retirement [mixed income groups], low density	6.15	frail care, assisted living, self-help units	30	184.5
fifteen	retirement [mixed income groups], low density	2.95	frail care, assisted living, self-help units	30	88.5
sixteen	market housing	35.1			
seventeen	market housing + inclusionary housing	7.75	20% affordable housing, 1-2 storeys	30	232.5
eighteen	market housing + inclusionary housing	17.5	20% affordable housing, 1-2 storeys	30	525
nineteen	market housing	4.424	Market Single dwelling	20	88.48
total area [ha]		101.274	average density/ha	46.2	2397
					potential total units
					on municipal/public owned sites
					1177
					on private land
					1220

# Site Seven





# Site Eight

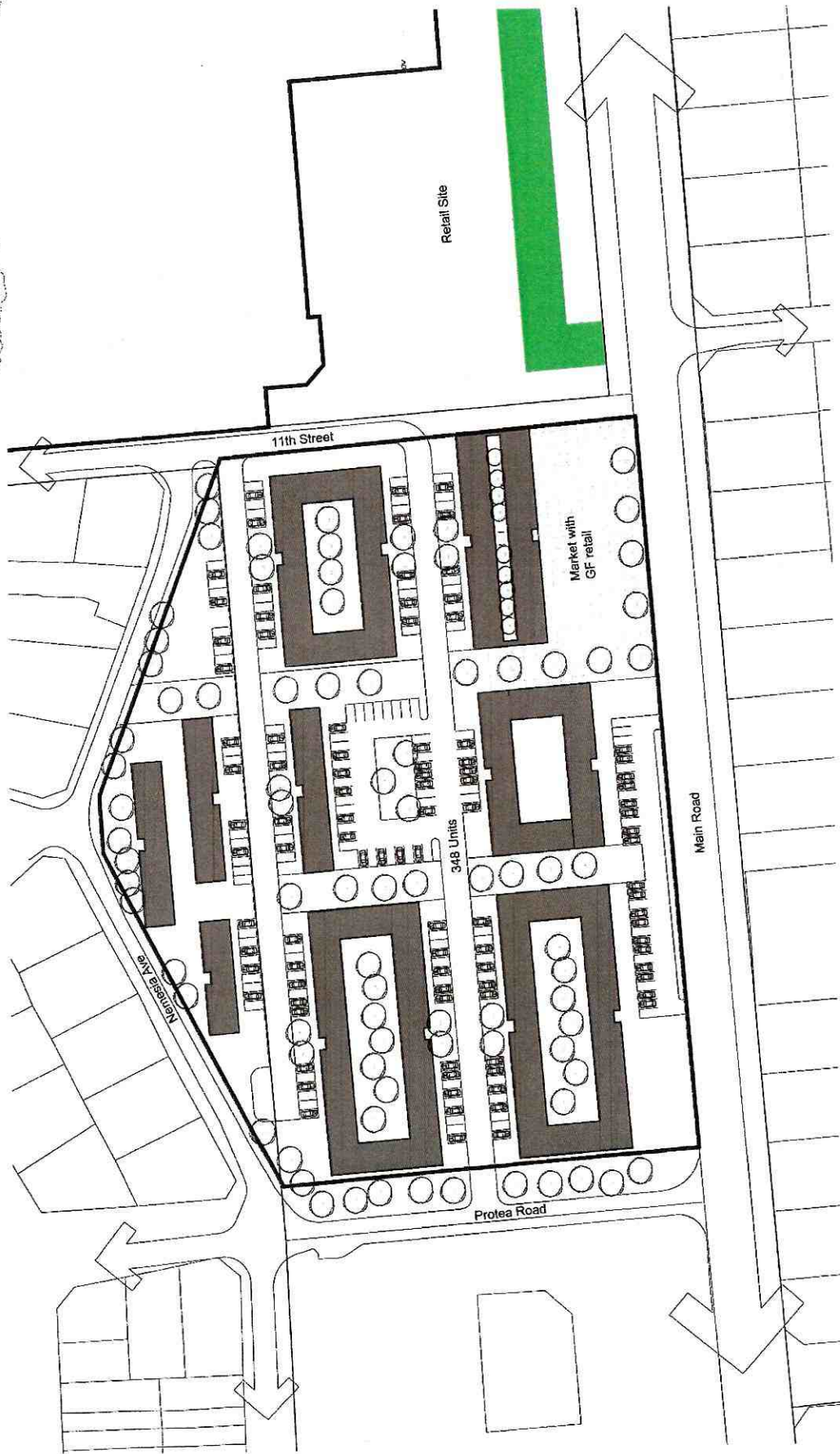
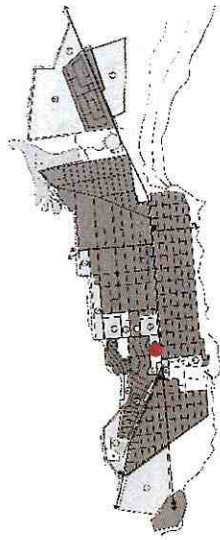




# Site Nine (Option 01)



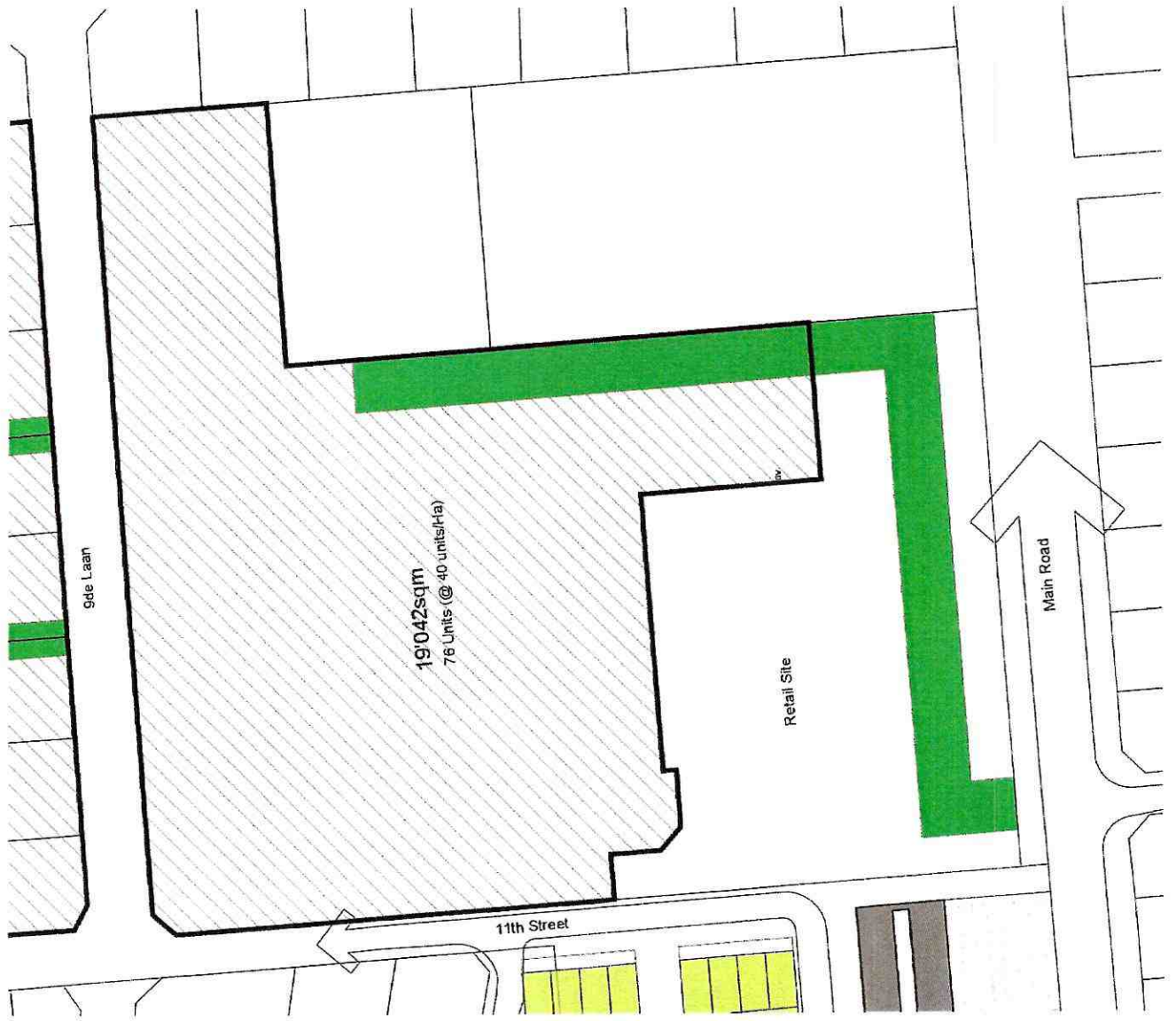
# Site Nine (Option 02)



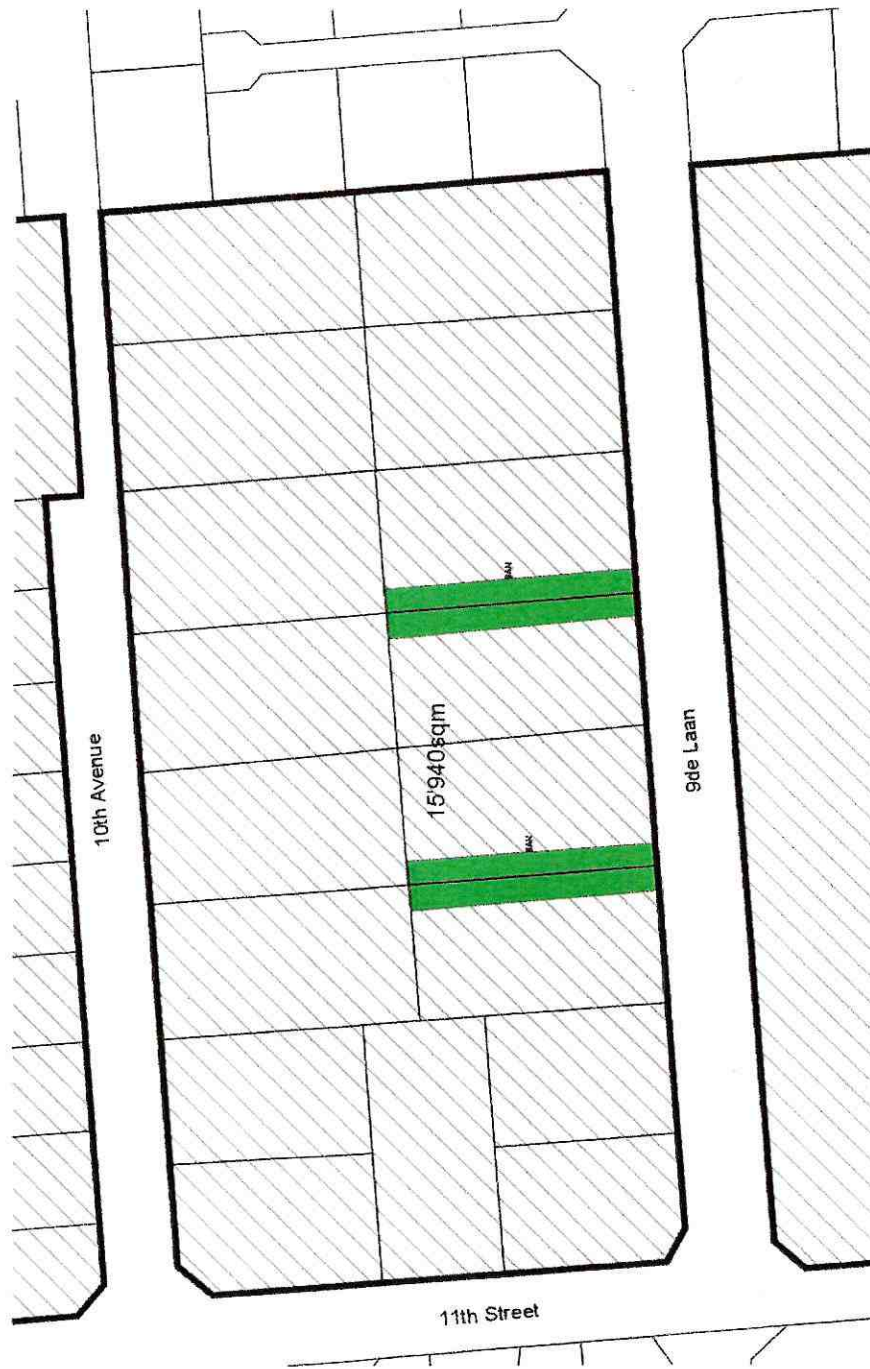
348 units



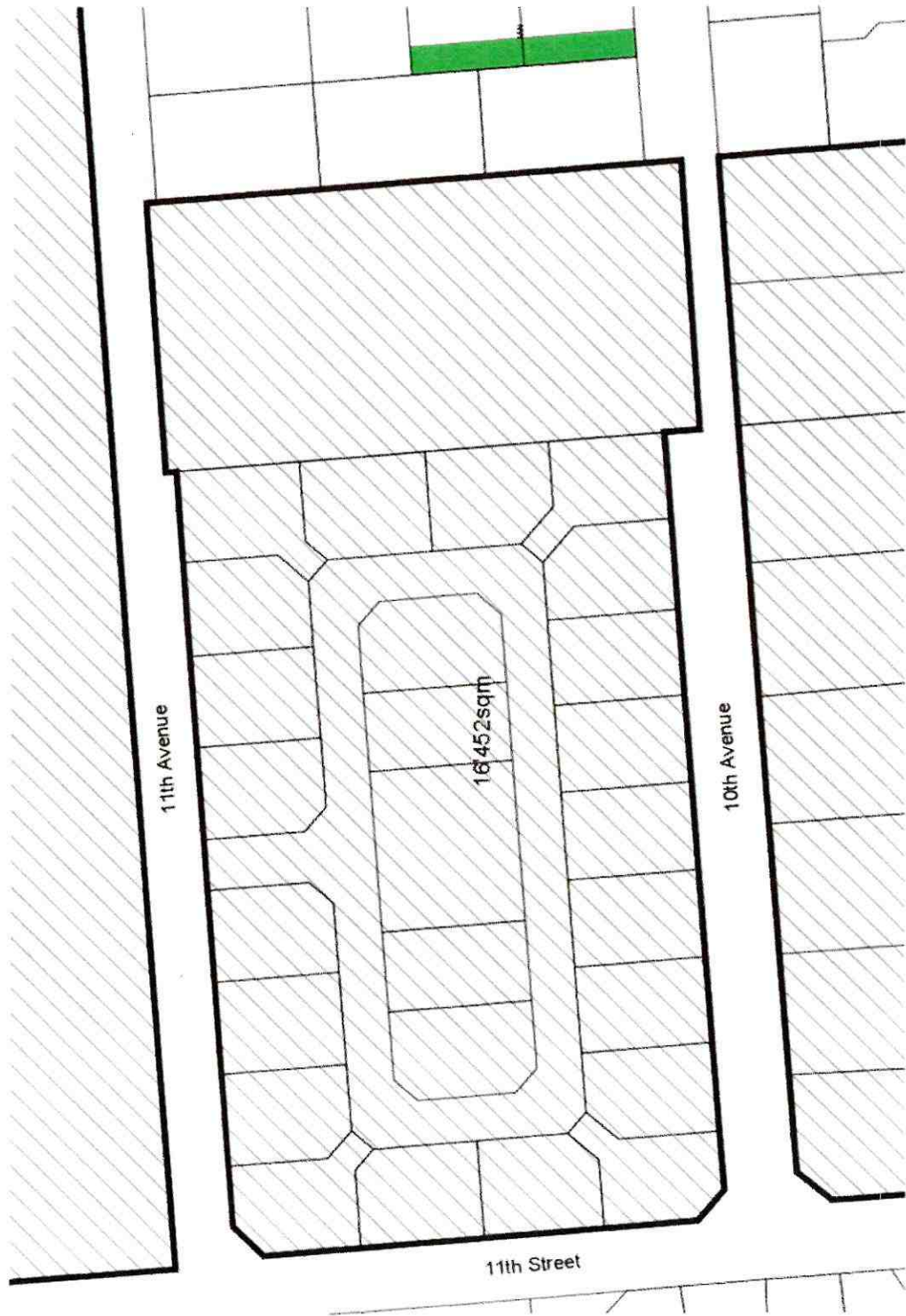
# Site Ten



# Site Eleven



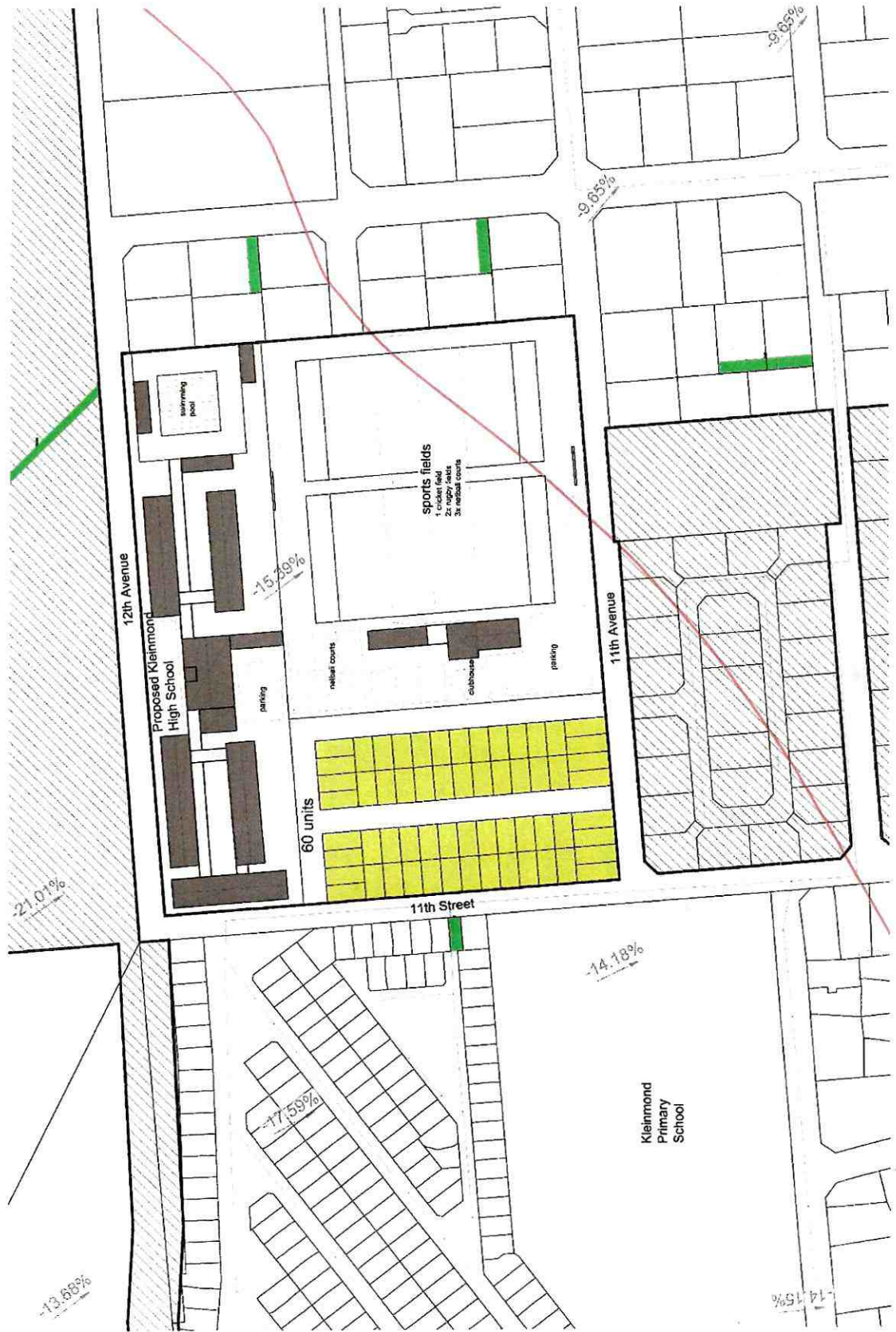
# Site Twelve



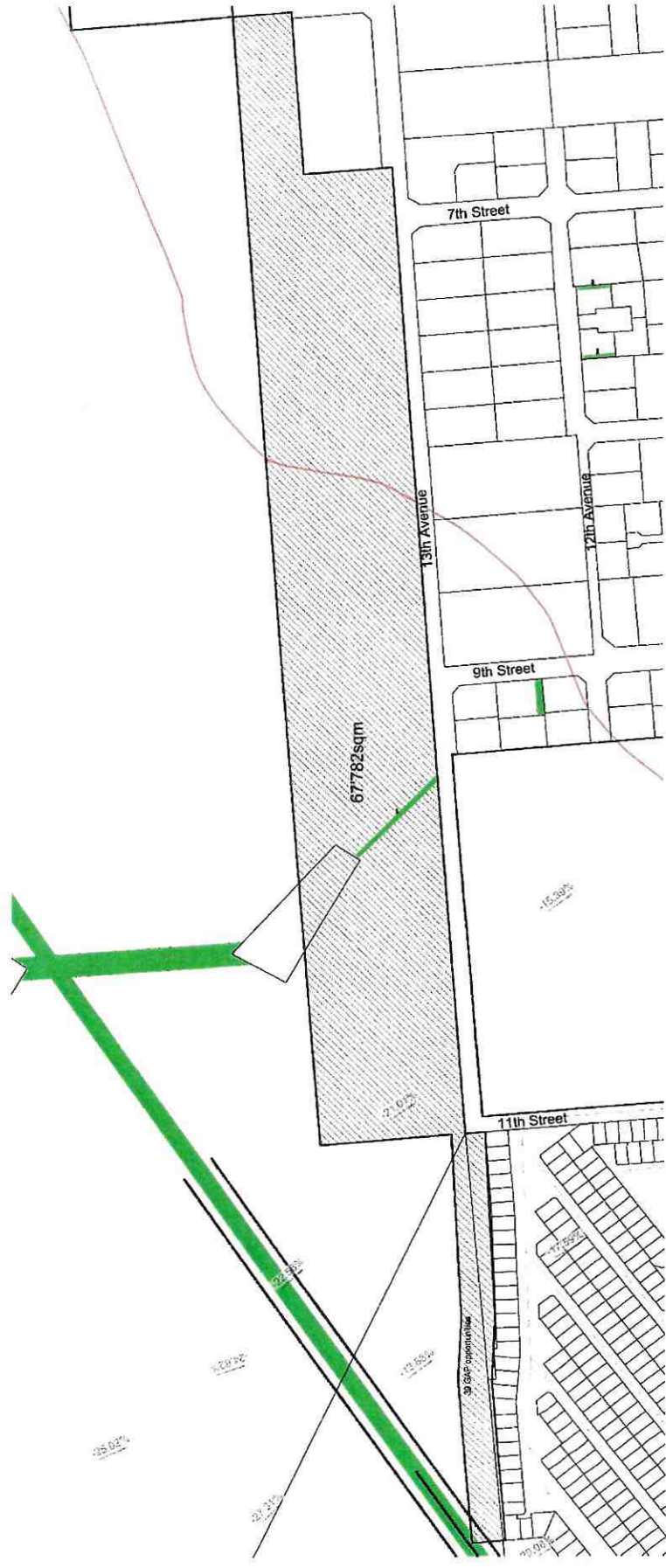


# Site Thirteen

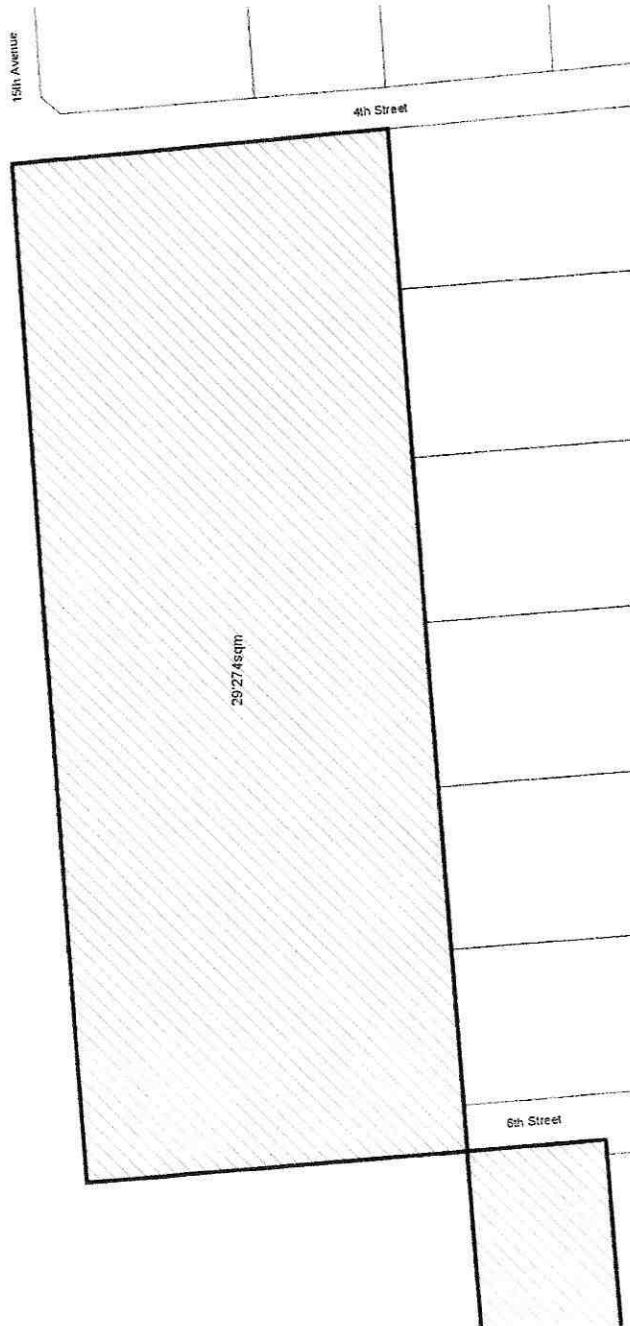
Gap housing, Sports Fields & High School



# Site Fourteen



# Site Fifteen





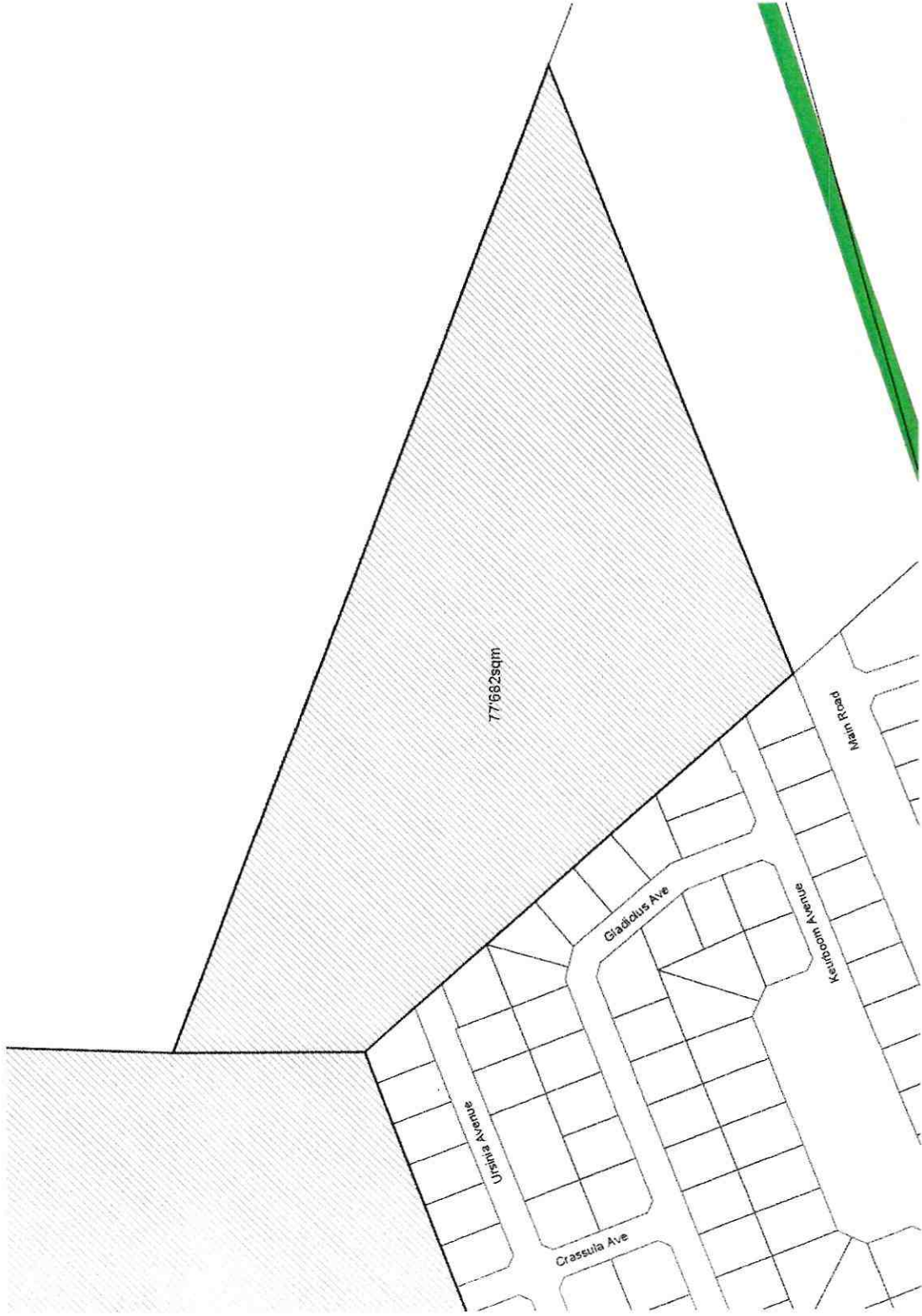
# Site Sixteen

Proposed private development

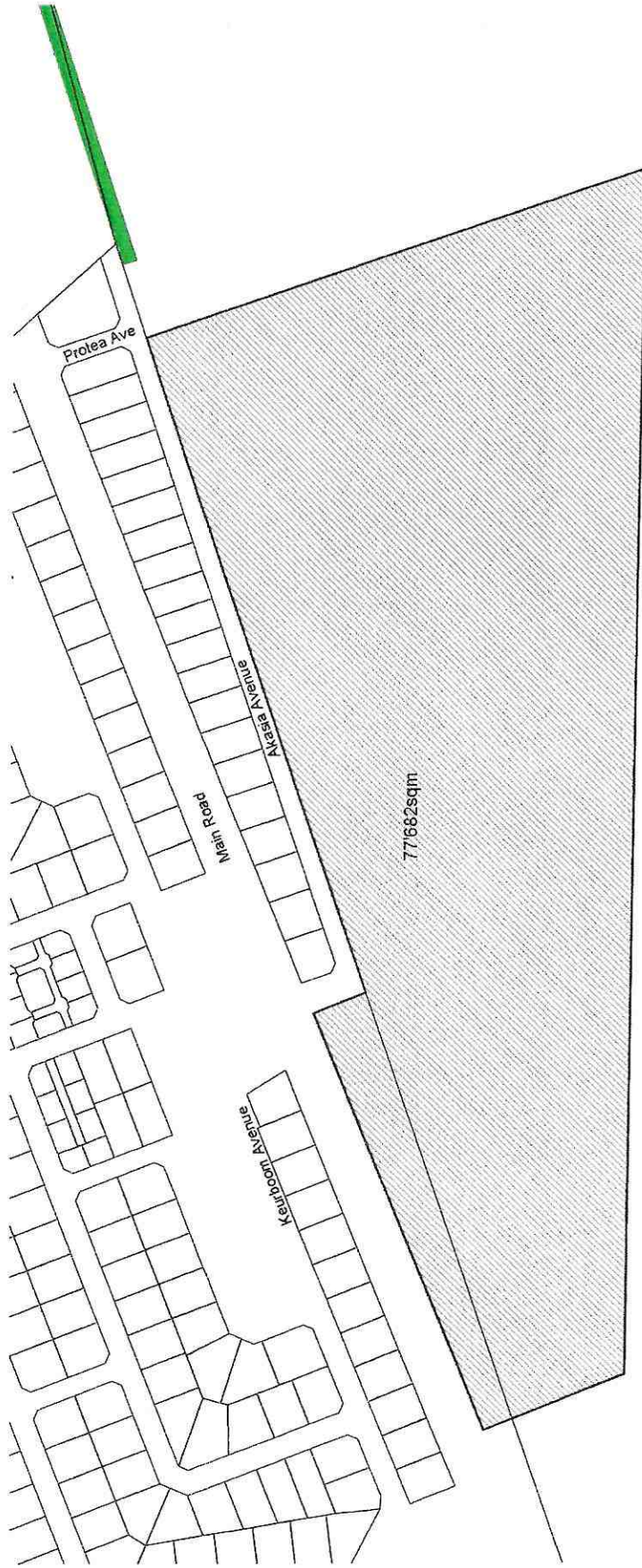




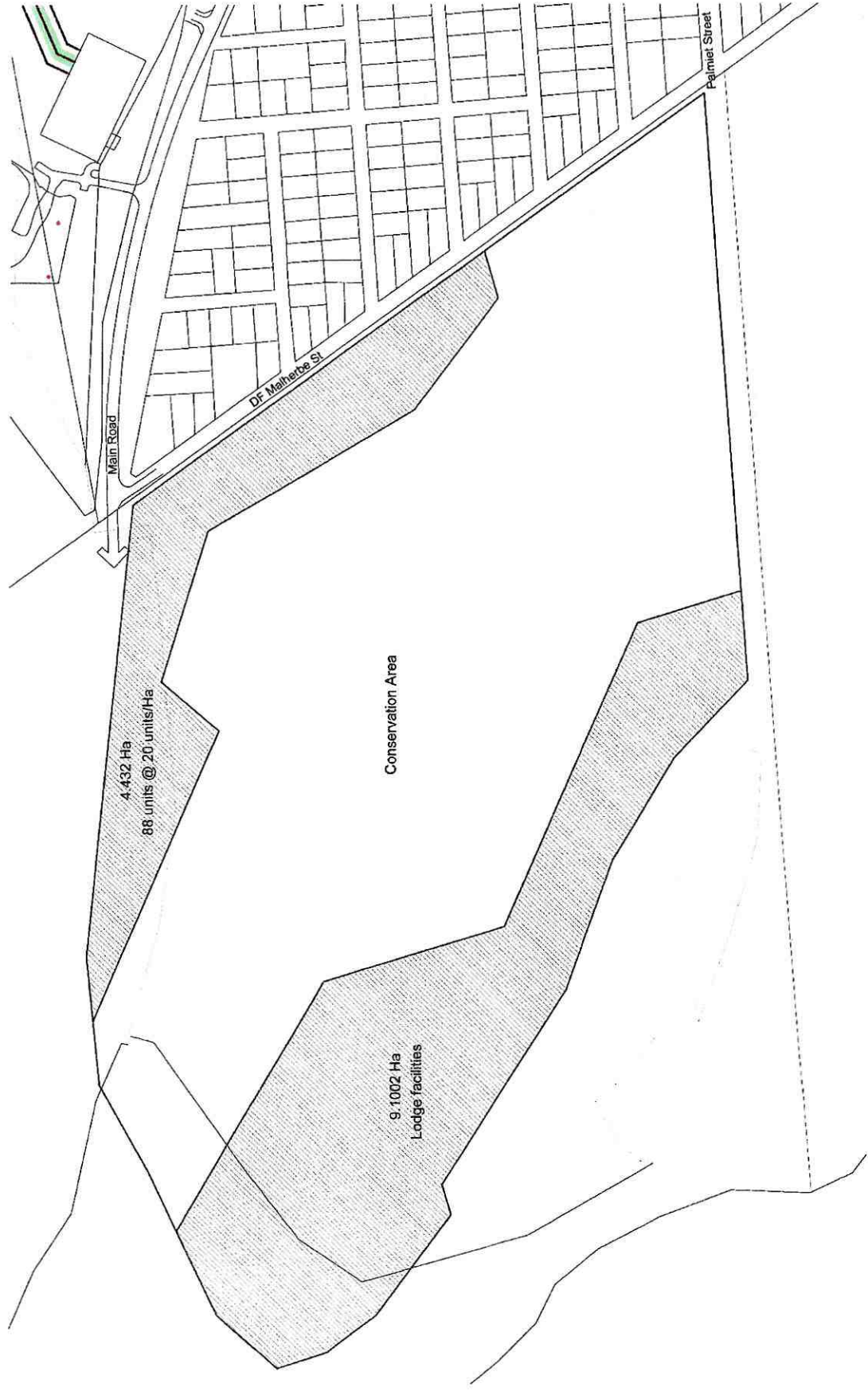
# Site Seventeen



# Site Eighteen



# Site Nineteen





## **ANNEXURE E2**

## **ENVIRONMENTAL**

**ENVIRONMENTAL DUE DILIGENCE TO INFORM THE  
KLEINMOND HOUSING SITES AND OVERHILLS  
UPGRADES, KLEINMOND, WESTERN CAPE.**

**Prepared for:**

Neil Lyners and Associates (Pty) Ltd  
P.O. Box 4901  
Tygervalley, 7536  
Tel: 021 914 0300  
Fax: 021 914 0437  
E-mail: [lawrence@lyners.co.za](mailto:lawrence@lyners.co.za)

**This Report Prepared by:**

Guillaume Nel Environmental Consultants  
P.O. Box 2632  
Paarl, 7620  
Tel: 021 870 1874  
Fax: 021 870 1873  
Cell: 072 1571 321

E-Mail: [guillaume@gnec.co.za](mailto:guillaume@gnec.co.za)



**Date: 1 December 2017**

LIST OF ABBREVIATIONS .....	iii
ENVIRONMENTAL DUE DILIGENCE FOR THE PROPOSED KLEINMOND HOUSING SITES AND OVERHILLS UPGRADES, KLEINMOND.....	1
1. ENVIRONMENTAL ASSESSMENT OF KLEINMOND .....	5
1.1 Introduction.....	5
1.2 Location.....	5
1.3 Topography .....	6
1.4 Underlying Geology .....	7
1.5 Conservation .....	8
1.5.1 Critical Biodiversity Area .....	10
1.5.2 Kogelberg Biosphere Reserve .....	11
1.6 Water Resources.....	12
1.7 Environmental Conditions Conclusion .....	14
1.8 EIA Regulations.....	15
1.8.1 EIA Regulations Conclusion.....	22
1.9 National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003).....	22
1.10 National Veld and Forest Fire Act, 101 (Act No. 101 of 1998).....	22
1.11 National Water Act (Act No. 36 of 1998).....	22
1.12 Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970).....	23
1.13 Protected species – Provincial Ordinances.....	23
1.14 National Heritage Resources Act, 1999 (Act No. 25 of 1999).....	23
1.15 Possible Other Constraints .....	24
1.16 Possible Specialist Assessments Required during the EIA process.....	24
1.17 Conclusion.....	24
2. REFERENCES .....	25

## **LIST OF FIGURES**

FIGURE 1: THE BASIC ASSESSMENT PROCESS.....	2
FIGURE 2: THE FULL EIA PROCESS .....	3
Figure 3 LOCALITY MAP OF KLEINMOND .....	6
Figure 4: TOPOGRAPHICAL MAP OF KLEINMOND .....	7
Figure 5: SOILS & GEOLOGY (ENPAT) MAP OF KLEINMOND .....	8
Figure 6: VEGETATION MAP OF KLEINMOND.....	10
Figure 7: CRITICAL BIODIVERSITY AREAS MAP OF KLEINMOND.....	11
Figure 8: MAP OF KOGELBERG BIOSPHERE RESERVE (KBR, 2016) .....	12
Figure 9: WATER RESOURCES MAP OF KLEINMOND .....	13



## LIST OF TABLES

Table 1: EIA Process Requirements.....	15
Table 2 Possible Listed activities according to GN R. No 327 (Listing Notice 1) .....	16
Table 3 Possible Listed activities according to GN R. No 325 (Listing Notice 2) .....	18
Table 4 Possible Listed activities according to GN R. No 324 (Listing Notice 3) .....	18
Table 5: Listed Activities according to the NHRA.....	24

## LIST OF ABBREVIATIONS

DEA&DP		Department of Environmental Affairs and Development
DWS	-	Department of Water and Sanitation
EIA	-	Environmental Impact Assessment
EAP	-	Environmental Assessment Practitioner
EMP	-	Environmental Management Plan
HIA	-	Heritage Impact Assessment
HWC	-	Heritage Western Cape
I&APs	-	Interested and Affected Parties
NEMA	-	National Environmental Management Act, 1998 (Act No. 107)
NHRA	-	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PP	-	Public Participation
GNEC	-	Guillaume Nel Environmental Consultants

## **ENVIRONMENTAL DUE DILIGENCE FOR THE PROPOSED KLEINMOND HOUSING SITES AND OVERHILLS UPGRADES, KLEINMOND.**

This due diligence was undertaken to determine the applicability of the proposed investigation into Kleinmond housing sites and Overhills upgrades in terms of the Environmental Impact Assessment Regulations (GN R. No. 327, GN R. No. 325 and GN R. No. 324 [4 Dec 2014, as Amended 07 April 2017]) under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), which replaced the 2010 Regulations (GN R No. 543, GN R No. 544, GN R No. 545 and GN R. No. 546) on the 8th of December 2014.

Kleinmond is currently experiencing a tremendous housing shortage which has resulted in increasing pressure from the local community for housing. The Overstrand Municipality and Provincial Department of Human Settlements are in the process of investigating possible locations for further housing sites in order to increase the housing supply in Kleinmond.

The aim of this Due Diligence is to assess the environmental constraints of Kleinmond in order for the housing backlog to be addressed; as well as assess the environmental law related, and statutory processes required, in order to ensure lawful commencement of construction activities on the mentioned sites.

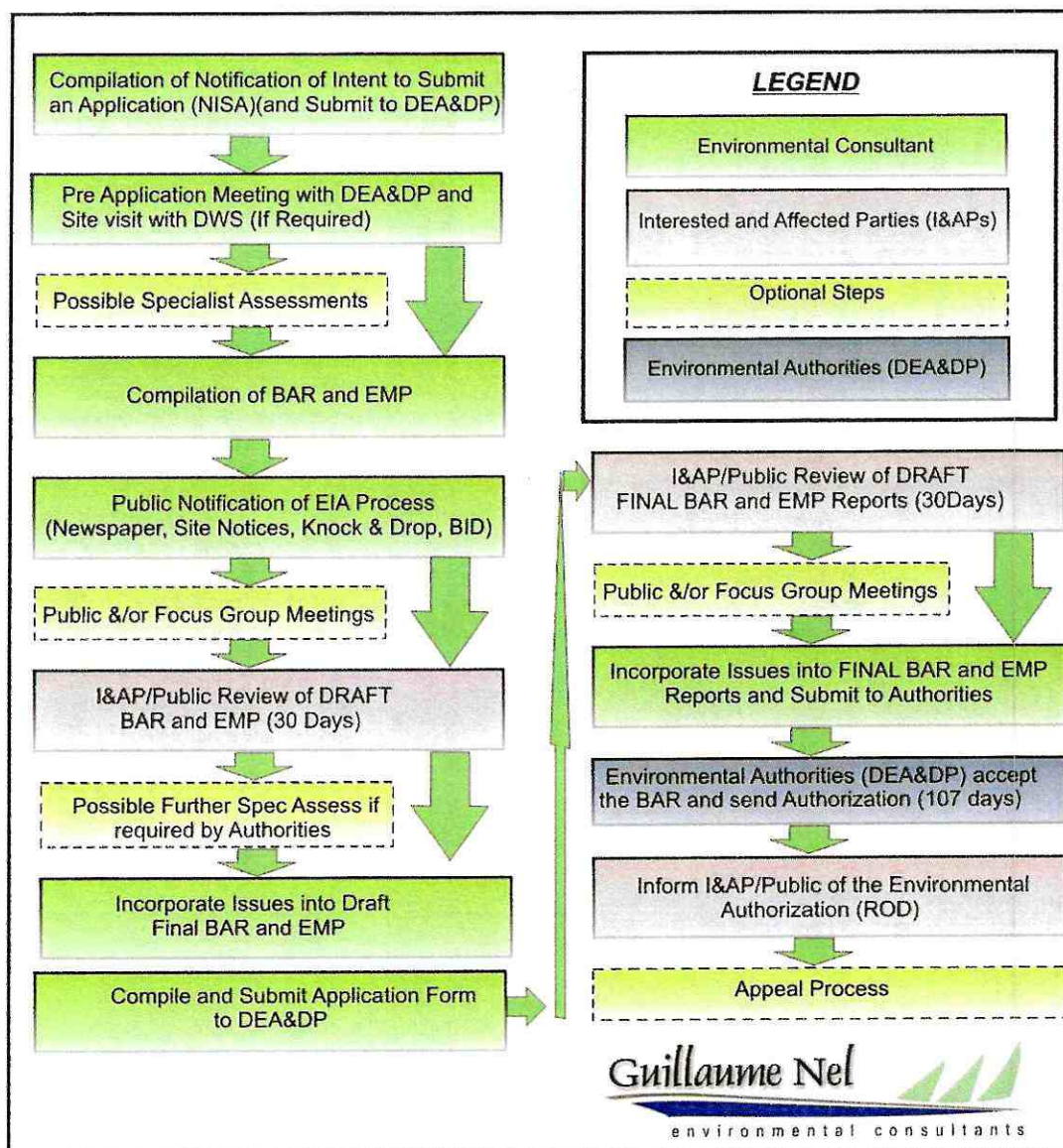
The proposed developments and the need for possible assessments was screened by GNEC in terms of the following legislation:

- Environmental Impact Assessment Regulations (GN R. No. 324, GN R. No. 325 , GN R. No. 326 and GN R. No. 327 [7 April 2017]) which replaced the previous regulations (GN R. No. 543, GN R. No. 544 , GN R. No. 545 and GN R. No. 546 [18 June 2010]) under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), which replaced the previous regulations (GN R. No. 385 and R. No. 386 [21 April 2006]) on the 2nd of August 2010. National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (Two Possible Process can be followed depending on the activities triggered. These two processes (Basic Assessment and Full EIA) are explained in Figures 1 and 2 below;
- National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)
- National Veld and Forest Fire Act, 101 (Act No. 101 of 1998)
- National Water Act, 1998 (Act No. 36 of 1998)
- Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970)
- Protected species – Provincial Ordinances
- National Heritage Resources Act, 1999 (Act No. 25 of 1999)

It should be noted that the NEMA allows for two (2) different EIA processes.

These processes are discussed below and the process flow for these assessments are indicated in FIGURE 1 and FIGURE 2 below.





**FIGURE 1: THE BASIC ASSESSMENT PROCESS**

This process will have to be followed if activities in terms of the Environmental Impact Assessment Regulations GN R. No. **327** and GN R. No. **324** under NEMA are triggered by a proposed development.

The time period for these assessments can be between 6 and 9 months (depending on specialist assessments, the availability of bulk services for the proposed development, possible public and/or December holidays during the process as well as possible delays due to review periods of the Reports by the authorities).

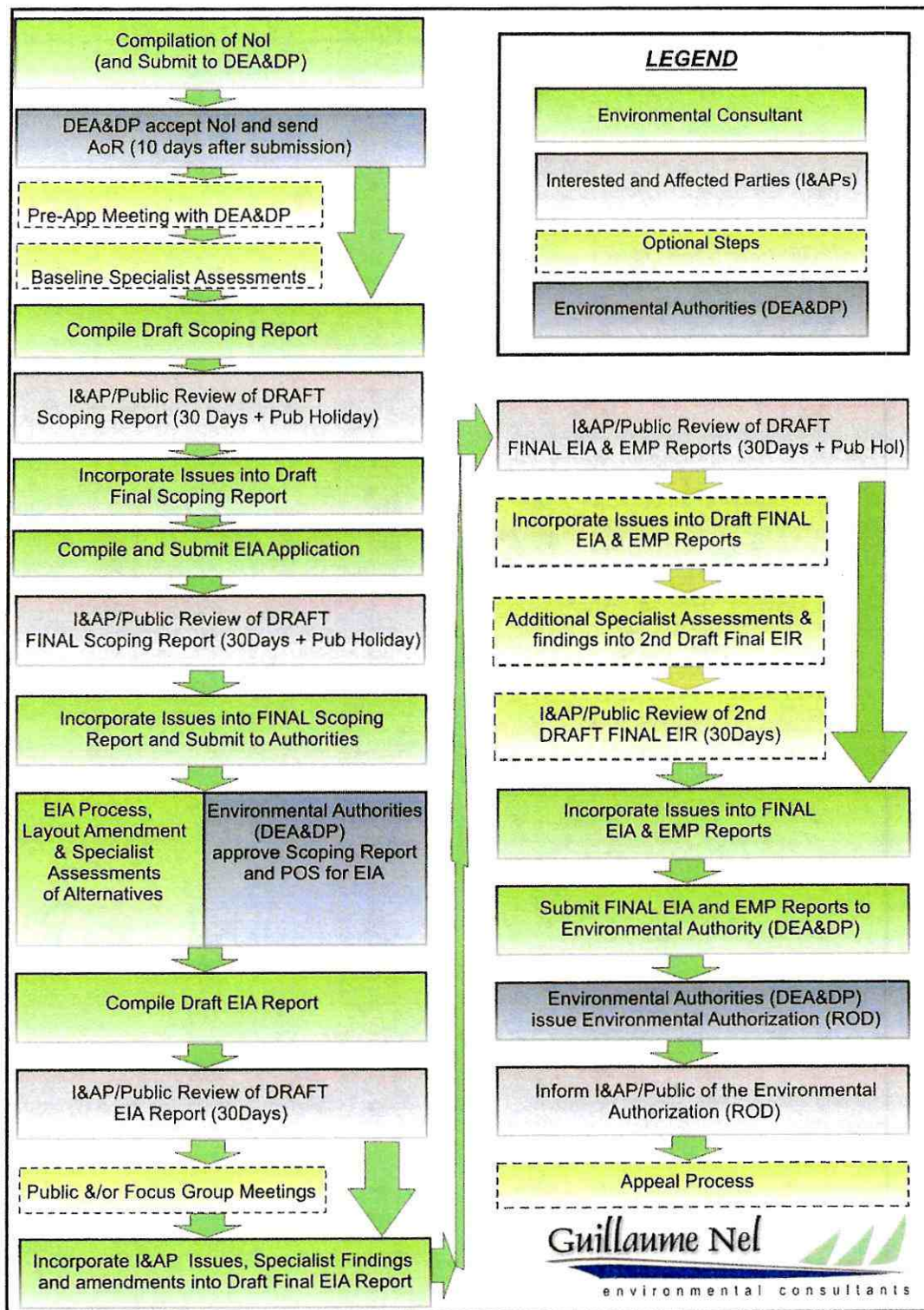


FIGURE 2: THE FULL EIA PROCESS



This process will have to be followed should activities in terms of the Environmental Impact Assessment Regulations GN R. No. 325 under NEMA be triggered.

The time period for these assessments can be between 12 and 16 months (depending on specialist assessments, the availability of bulk services for the proposed development, possible public and/or December holidays during the process as well as possible delays due to review periods of the Reports by the authorities.



## **1. ENVIRONMENTAL ASSESSMENT OF KLEINMOND**

### **1.1 Introduction**

In order to obtain input regarding the proposed development from various environmental departments, GNEC facilitated a meeting with the following stakeholders on the 14<sup>th</sup> of November 2017, at the Kleinmond Administrative Building:

- Rhett Smart with CapeNature
- Rupert Koopman with CapeNature
- Steve Geldenhuys with CapeNature
- Liezl de Villiers with Overstrand Municipality (Environmental)
- Tarron Dry with Overstrand Municipality (Environmental)
- Michael du Toit with Kogelberg Biosphere Reserve
- Guillaume Nel (GNEC)
- Euonell Visagie (GNEC)
- Carina Nel (GNEC)

The aim of the meeting was to consult the stakeholders regarding environmental no-go areas in order to ensure sensitive ecosystems are not impacted on. What resulted was a brainstorming workshop where possible sites for development were identified and other options presented to the team were dismissed due to the sensitivity of the areas. In summary, the stakeholders mentioned development to the East of Kleinmond (towards Palmiet Nature Reserve) as a no-go area.

### **1.2 Location**

Kleinmond is a coastal town situated within the Overberg region of the Western Cape. Kleinmond is located approximately 110 kilometres from Cape Town, in an eastern direction. Hermanus is located approximately 35 kilometres to the East of Kleinmond; with Betty's Bay located roughly 11 kilometres to the West of Kleinmond. Kleinmond falls within the jurisdiction of the Overstrand Municipality.

Please refer to Figure 3 below for the Locality Map of Kleinmond.

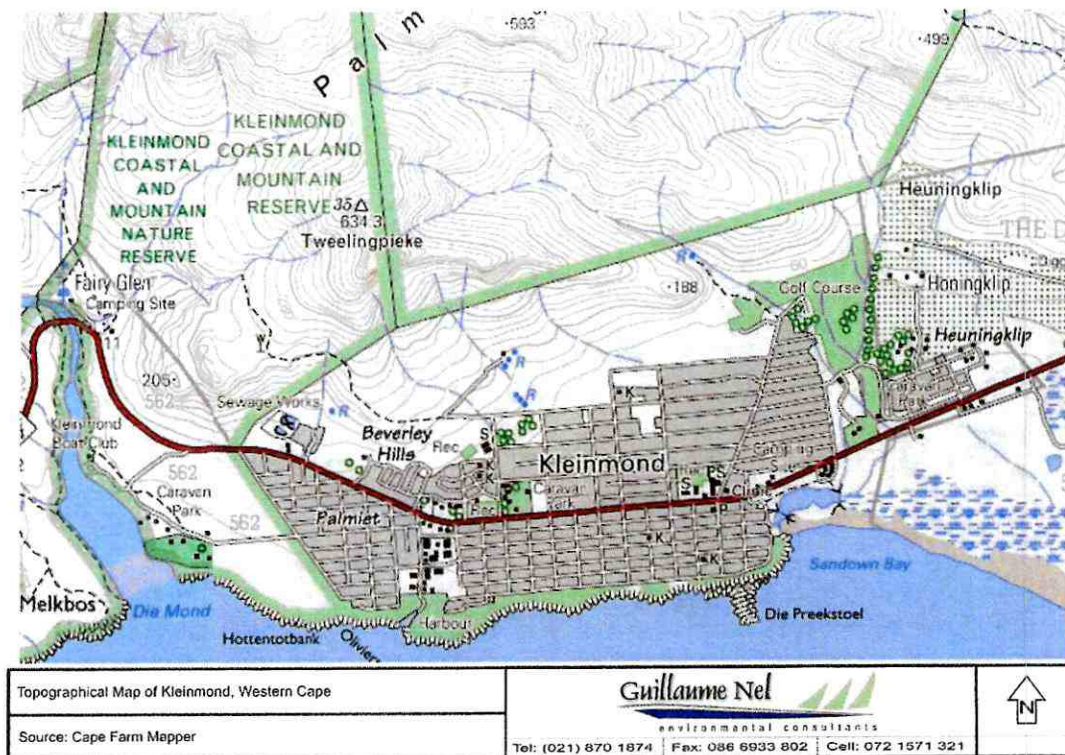


**Figure 3 LOCALITY MAP OF KLEINMOND**

### 1.3 Topography

Kleinmond is surrounded by the Palmet Mountain Range to the North, and Atlantic Ocean to the South. This has resulted in a natural slope across the town, from North to South. Sections of Kleinmond located along the Northern outskirts of town is characterized by very steep slopes.

Please refer to Figure 4 below for the Topographical Map of Kleinmond.



**Figure 4: TOPOGRAPHICAL MAP OF KLEINMOND**

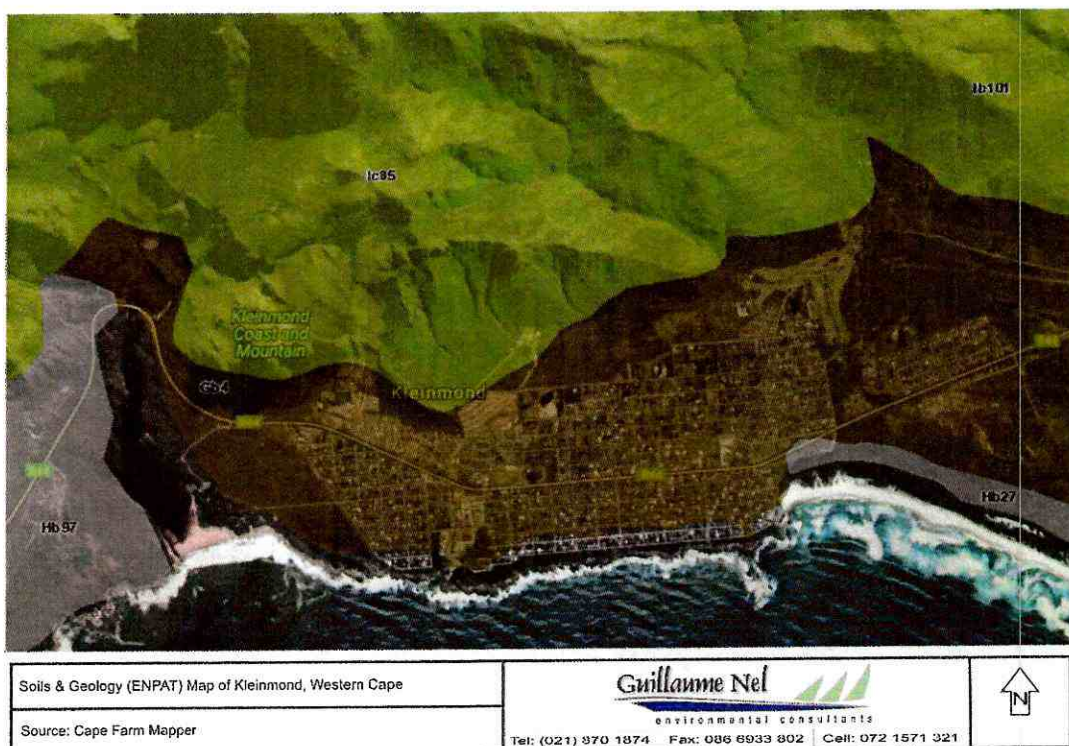
#### 1.4 Underlying Geology

The soils along the northern reaches of Kleinmond, along the Palmiet Mountain Range, are characterised as Ic85 land type. The soils are furthermore characterised by miscellaneous land classes, very rocky with little or no soils. Furthermore, the geology is quartzitic sandstone of the Peninsula Formation and of the Goudini and Skurweberg Formation, separated by shale of the Cedarberg Formation, Table Mountain Group. Talus gravel occur on the southern slopes (Cape Farm Mapper, 2016).

The vast majority of Kleinmond is characterised by the Gb4 land type, including soils with a diagnostic ferrihumic horizon, predominantly shallow (Houwhoek form). The geology is colluvial and alluvial sand (Cape Farm Mapper, 2016).

Lastly, a small portion to the West of Kleinmond is characterised by the Hb 27 land type. The soils are predominantly grey regic sands. The geology consist of recent coastal sand and dunes with slight occurrence along the coast of shale of the Bokkeveld Group and sandstone of the Peninsula Formation, Table Mountain Group (Cape Farm Mapper, 2016).





**Figure 5: SOILS & GEOLOGY (ENPAT) MAP OF KLEINMOND**

### **1.5 Conservation**

The vegetation along the northern reaches of Kleinmond is characterised as Kogelberg Sandstone Fynbos (FFs11). The vegetation type is species rich and grows on high mountains with steep to gentle slopes, and undulating plains and hills of varied aspect. The conservation status of Kogelberg Sandstone Fynbos is Least Threatened, with roughly 58 % of the vegetation type conserved in the Hottentots Holland and Groenlandberg Nature Reserves and especially in the Kogelberg Biosphere Reserve (Cape Farm Mapper, 2016).

The vast majority of Kleinmond is covered in the Hangklip Sand Fynbos (FFd6) vegetation type. The vegetation type predominantly grows on sand dunes and sandy bottomlands supporting moderately tall, dense ericoid shrubland. The conservation status of Hangklip Sand Fynbos is Vulnerable, with roughly 20 % conserved in the Table Mountain National Park and Kogelberg Biosphere Reserve. The vegetation type has been disturbed between Pringle Bay and Hermanus, due to, amongst other factors, the construction of sewerage farms, golf courses, and graveyards (Cape Farm Mapper, 2016).

A small band of Western Coastal Shale Band Vegetation (FFb2) covers the north western section of the Palmiet Mountain Range. The vegetation type is a narrow 80 – 200 meter linear feature, which is smooth and flat in profile compared to the surrounding areas. The band supports diverse

renosterveld and fynbos shrubland. The conservation status of the vegetation type is Least Threatened and the conservation target of 30 % has been reached due to statutory and local authority reserves (Cape Farm Mapper, 2016).

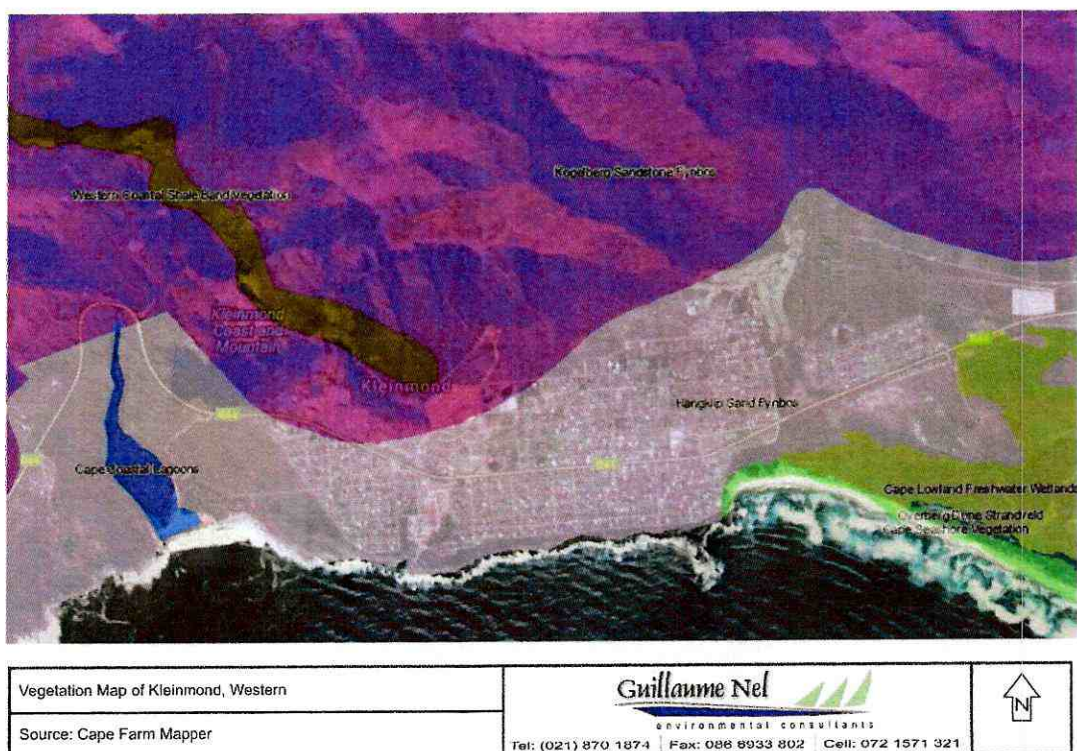
The vegetation type that occurs along the western boundary of Kleinmond is characterised as Cape Lowland Freshwater Wetlands (AZf1). The vegetation occurs predominantly on flats and landscape depressions with extensive tall reeds of *Phragmites australis* and *Typha capensis*. The vegetation is found in temporarily or permanently flooded restiolands, sedgeland and rush-beds as well as macrophytic vegetation embedded in permanent water bodies. The conservation target of the vegetation type is 24 %, with 14 % statutorily conserved in National Parks, including the Cape Peninsula and Agulhas National Parks (Cape Farm Mapper, 2016).

Overberg Dune Strandveld (FS7) vegetation type is also found along the western section of Kleinmond. The vegetation type is found on scattered patches from Rooiels to the Cape Infanta at the mouth of the Breede River. The conservation status of the vegetation type is Least Threatened with a conservation target of 36%. Roughly 30 % is statutorily conserved in the De Hoop, Walker Bay and De Mond Nature Reserves.

Lastly, Cape Seashore Vegetation (AZd3) vegetation type is found along the western coast line of Kleinmond. The vegetation type predominantly occurs along beaches, coastal dunes, dune slacks and coastal cliffs of open grassy, herbaceous and also dwarf-shrubby vegetation. The conservation status of the vegetation type is Least Threatened with a conservation status of 20%. The vegetation type is statutorily conserved in the West Coast, Peninsula, Agulhas and various smaller National Parks (Cape Farm Mapper, 2016).

Please refer to Figure 6 below for the vegetation type map of Kleinmond.





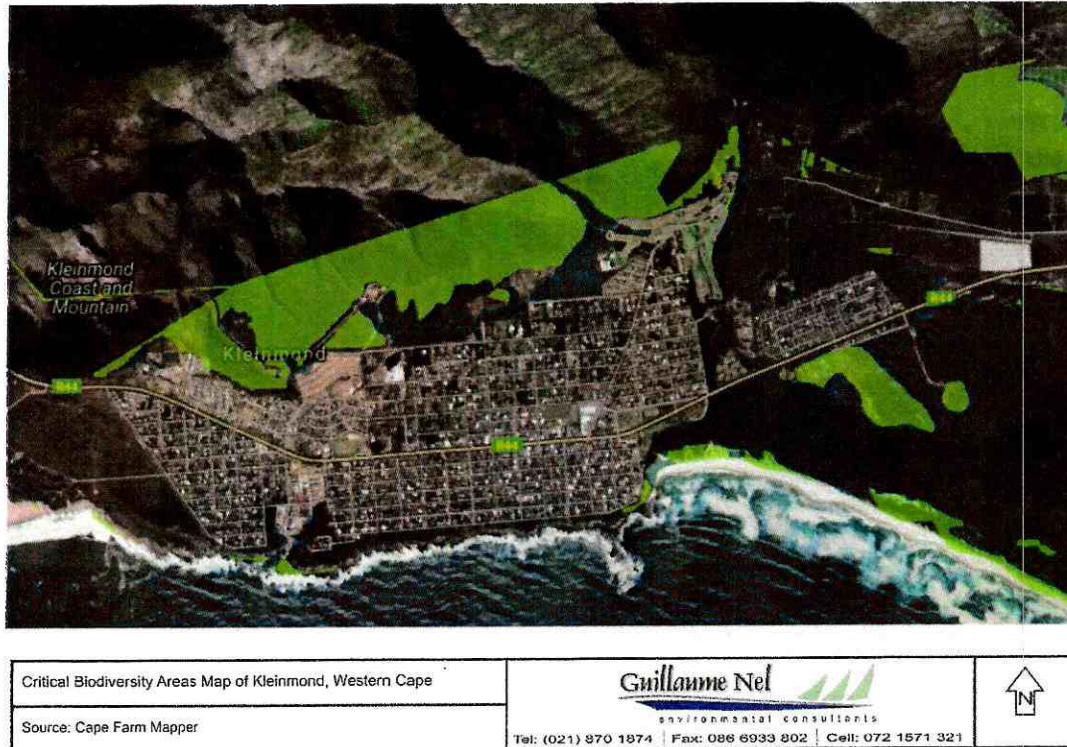
**Figure 6: VEGETATION MAP OF KLEINMOND**

### 1.5.1 Critical Biodiversity Area

Due to the sensitive nature of the vegetation surrounding Kleinmond, cognisance should be taken about the Critical Biodiversity Areas surrounding the town.

Please refer to Figure 7 below for the Critical Biodiversity Map of Kleinmond.





**Figure 7: CRITICAL BIODIVERSITY AREAS MAP OF KLEINMOND**

### 1.5.2 Kogelberg Biosphere Reserve

Biosphere reserves can be described as "areas of terrestrial and coastal ecosystem that are internationally recognised within the framework of the United Nations Education, Scientific and Cultural Organisation's (UNESCO's) Man and Biosphere programme" (Kogelberg Biosphere Reserve, 2013). The aim of the Kogelberg Biosphere Reserve (KBR) is therefore to investigate more sustainable use of natural resources, such as sustainable fishing, plant harvesting, sewerage alternatives, and many more. The KBR covers an extensive area amounting to 100 000 Hectares. The KBR hosts the most complex biodiversity in the world, with 1 880 different plant species found in the KBR (Kogelberg Biosphere Reserve, 2017).

The Kogelberg Biosphere Reserve also borders Kleinmond and hence the boundary of the Kogelberg Biosphere Reserve should be taken into account to ensure that the KBR is not encroached by residential developments.

Please refer to Figure 8 below for a map of the Kogelberg Biosphere Reserve.

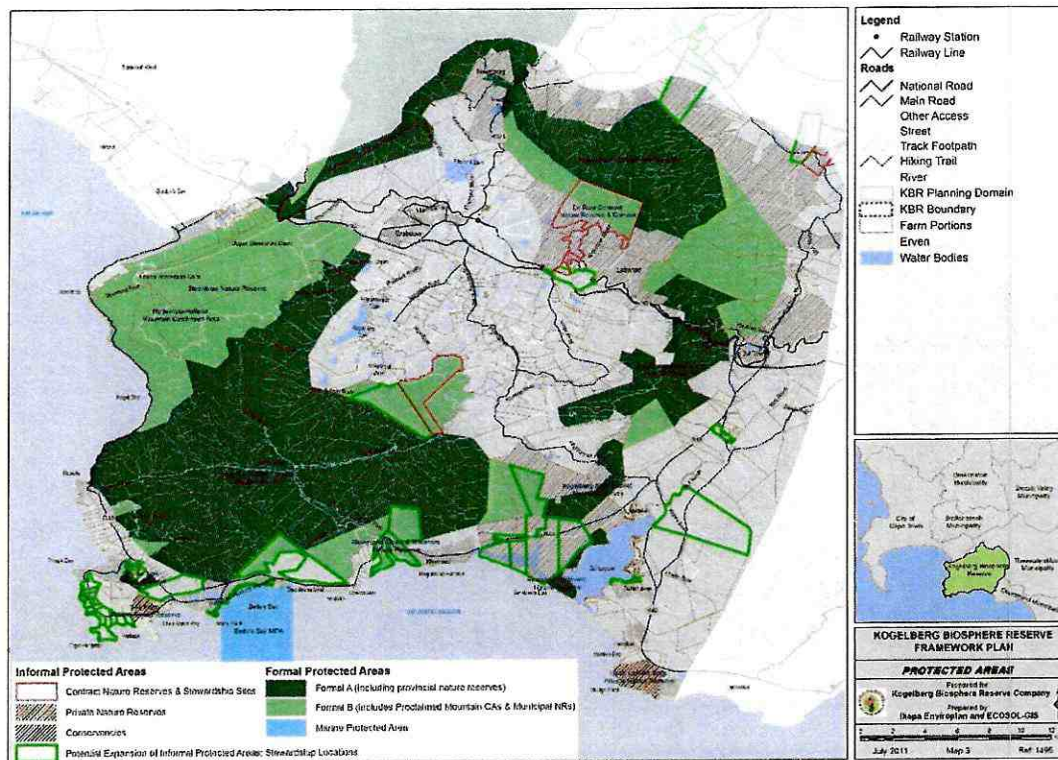


Figure 8: MAP OF KOGELBERG BIOSPHERE RESERVE (KBR, 2016)

## 1.6 Water Resources

Numerous water resources surround Kleinmond. Firstly, the Atlantic Ocean is the southern boundary of Kleinmond. Furthermore, the Palmiet River is located to the West of Kleinmond, and is categorised as a stream order 2. Furthermore, numerous wetlands are scattered across Kleinmond and the constraints of these wetlands should be taken into account.

Please refer to Figure 9 below for the Water Resources Map of Kleinmond.





**Figure 9: WATER RESOURCES MAP OF KLEINMOND**

During 2007, application was made for a residential development on Portion 8 of Farm 563, Heuningklip, located along the Eastern boundary of Kleinmond. Due to the wetness of the property, a Freshwater Impact Assessment was conducted as part of the application. The results of the Freshwater Impact Assessment was the following:

*"Much of Heuningklip Farm can be classified as "wetland", as defined in the Water Act (No. 36 of 1998). The quality of wetland habitat varies across the site, depending on the extent of soil and vegetation modification that has occurred" (Snaddon, 2007: 4).*

*"Two rivers / streams were included in [the] assessment. A small, probably season stream enters the study area at its north-eastern corner, from where it flows in an easterly direction before crossing the site in a southerly direction" (Snaddon, 2007: 4).*

*"A perennial, typical foothill river forms the western boundary of the study area" (Snaddon, 2007: 4).*

The conclusion of the Freshwater Impact Assessment conducted by Snaddon (2007) was the following:

*"In terms of conservation importance, the perennial river is considered to be of **high conservation importance**. Similarly, the seasonal stream is also accorded **high conservation importance**.*



*Both of these riverine systems must be conserved, and a suitable buffer, recommended to be at least 30 m for the river, and 20 m for the stream (less where it becomes a furrow) from the top of both banks, should be established and conserved. These areas are not suitable for development. Both the river and the stream are important in terms of the provision of ecological corridors for the movement of flora and fauna up and down the slopes of the Palmietberge, and even down into the coastal areas. The preservation of these systems and their riparian buffer zoned will conserve and possibly improve this function. The wetlands located on the property vary in terms of conservation importance, influenced largely by the extent of soil modification. The type of wetland characteristic of the study area – acid soils, ecologically sensitive, generally seasonal wetlands dominated by plants such as *Berzelia* spp. – is of great regional importance, due to the uniqueness of such habitats, and also their threatened status. Several such wetlands were found on site – wetlands 1, 5 and 6 – and were thus found to be of **high conservation importance**. These areas are not suitable for development, and the wetlands should be protected by buffers of at least 30m”.*

Portion 8 of Farm Heuningklip No. 563, amount to 35.8 Ha in size. In 2007, the total developable area for the residential development that was proposed in 2007 amounted to 13.9 Ha. Therefore, the environmental constraints, especially pertaining to freshwater resources, should be taken into account.

#### **1.7 Environmental Conditions Conclusion**

As discussed in Section 1 of this report, Kleinmond is surrounded by various sensitive ecosystems pertaining to critical biodiversity areas, as well as freshwater resources. These environmental constraints should be taken into account for all future residential developments in Kleinmond. It is recommended by GNEC that a future Botanical Assessment and Freshwater Impact Assessment be conducted, should the preferred site alternative contain sensitive botanical or freshwater resources. The boundaries of the Kogelberg Biosphere Reserve should also be taken into account in order to ensure that the proposed residential development does not encroach into the Kogelberg Biosphere Reserve.

## 1.8 EIA Regulations

A broad scale overview of the possible EIA Regulations that can be triggered by a proposed residential development in Kleinmond will be discussed in this section of the report. It should however be noted that not all activities listed in this section will be triggered by the proposed development, but is merely a list of potential activities that can be triggered.

The Table below indicates whether or not this proposed farm will have to undergo an EIA Process. It further indicates whether an Environmental Authorization (EA [previously ROD]) is already in place. Should an EIA be required, the possible listed activities will be discussed in the tables below.

**Table 1: EIA Process Requirements**

EIA Process Required	YES	NO
If Yes above, the following process is to be followed for the proposed development	Basic Assessment <b>YES</b>	Full EIA Process NA
If NO - Reason for not having to undertake an EIA Process	EA (ROD) in place NA	No EIA Reg. Triggers NA
Other Authorizations Required	Heritage Western Cape <b>YES</b>	Dept Water Affairs <b>YES</b>

**Note:** The "interim urban edge" as defined in the Western Cape Provincial Spatial development Framework, 2009 (WCPSDF) has been adopted as an urban edge in terms of Listing Notice 1, 2 and 3. In terms of the WCPSDF, the interim urban edge means "the current extent of the urban development including serviced erven and erven for which rezoning approvals have been granted. Therefore, erven that were either already lawfully developed as urban development or were already rezoned or lawfully serviced prior to the DEADP approval of 2012, are regarded as being within the urban area in terms of the 2010 EIA regulations.

**Table 2 Possible Listed activities according to GN R. No 327 (Listing Notice 1)**

Act	Description	Relevance to this development	Possibility of Trigger and Possible Process
9	<p>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water-</p> <ul style="list-style-type: none"> <li>(i) with an internal diameter of 0.36 metres or more; or</li> <li>(ii) with a peak throughput of 120 litres per second or more;</li> </ul> <p>excluding where-</p> <ul style="list-style-type: none"> <li>(a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or</li> <li>(b) where such development will occur within an urban area.</li> </ul>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger - Basic Assessment
10	<p>The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes -</p> <ul style="list-style-type: none"> <li>(i) with an internal diameter of 0.36 metres or more; or</li> <li>(ii) with a peak throughput of 120 litres per second or more;</li> </ul> <p>excluding where-</p> <ul style="list-style-type: none"> <li>(a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or</li> <li>(b) where such development will occur within an urban area.</li> </ul>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger - Basic Assessment
12	<p>The development of-</p> <ul style="list-style-type: none"> <li>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or</li> <li>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</li> </ul> <p>where such development occurs-</p> <ul style="list-style-type: none"> <li>(a) within a watercourse;</li> <li>(b) in front of a development setback; or</li> <li>(c) if no development setback exists, within 32 metres of a watercourse,</li> </ul>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger - Basic Assessment



	<p>measured from the edge of a watercourse; -</p> <p>excluding-</p> <p>(aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour;</p> <p>(bb) where such development activities are related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies;</p> <p>(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;</p> <p>(dd) where such development occurs within an urban area;</p> <p>(ee) where such development occurs within existing roads, road reserves or railway line reserves; or</p> <p>(ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.</p>		
19	<p>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a water;</p> <p>but excluding where such infilling, depositing, dredging, excavation, removal or moving-</p> <p>(a) will occur behind a development setback;</p> <p>(b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</p> <p>(c) falls within the ambit of activity 21 of this Notice, in which case that activity applies;</p> <p>(d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</p> <p>(e) where such development is related to the development of a port of harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</p>	<p>Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.</p>	Possible Trigger - Basic Assessment
24	<p>The development of a road –</p> <p>(i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or</p>	<p>Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.</p>	Possible Trigger - Basic Assessment

	(ii) with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road- (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban edge; or which is 1 kilometre or shorter.		
27	The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger – Basic Assessment
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the land to be developed is bigger than 1 hectare;  excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger – Basic Assessment

**Table 3 Possible Listed activities according to GN R. No 325 (Listing Notice 2)**

Act	Description	Relevance to this development	Possibility of Trigger and Possible Process
	The proposed development will not trigger any listed activities in terms of GN R. No. 325.	NA	No Trigger

**Table 4 Possible Listed activities according to GN R. No 324 (Listing Notice 3)**

Act	Description	Relevance to this development	Possibility of Trigger and Possible Process
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres. i. <b>Western Cape</b> i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation;	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger – Basic Assessment

	<p>(bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or</p> <p>iii. Inside urban areas:</p> <p>(aa) Areas zoned for conservation use; or</p> <p>(bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</p>		
12	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>i. <b>Western Cape</b></p> <p>i. Within any critically endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>iii. Within the littoral active zone or 100 metres from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;</p> <p>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or</p> <p>v. On land designated for protection in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.</p>	<p>Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.</p>	<p>Possible Trigger - Basic Assessment</p>
14	<p>The development of –</p> <p>(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or</p> <p>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;</p> <p>where such development occurs-</p> <p>(a) within a watercourse;</p> <p>(b) in front of a development setback; or</p>	<p>Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.</p>	<p>Possible Trigger - Basic Assessment</p>



	<p>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</p> <p>excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</p> <p><b>i. <u>Western Cape</u></b></p> <p>i. <u>Outside urban areas:</u></p> <p>(aa) A protected area identifies in terms of NEMPAA, excluding conservancies;</p> <p>(bb) National Protected Area Expansion Strategy Focus area;</p> <p>(cc) World Heritage Sites;</p> <p>(dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>(ee) Sites or areas listed in terms of an international convention;</p> <p>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>(gg) Core areas in biosphere reserves; or</p> <p>(hh) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</p>		
15	<p>The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.</p> <p><b>f. <u>Western Cape</u></b></p> <p>i. Outside urban areas; or</p> <p>ii. Inside urban areas:</p> <p>(aa) Areas zoned for conservation use or equivalent zoning, on or after 02 August 2010;</p> <p>(bb) A protected area identified in terms of NEMPAA, excluding conservancies; or</p> <p>(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority.</p>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger – Basic Assessment
18	<p>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</p> <p><b>i. <u>Western Cape</u></b></p> <p>i. Areas zoned for use as public open space or equivalent zoning;</p>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be	Possible Trigger – Basic Assessment

	<p>ii. All areas outside urban areas:  (aa) Areas containing indigenous vegetation;  (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or</p> <p>iii. Inside urban areas:  (aa) Areas zoned for conservation use; or  (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.</p>	triggered by the proposed development.	
23	<p>The expansion of-</p> <p>(i) dams or weirs where the dam or weir is expanded by 10 square metres or more; or  (ii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more;</p> <p>where such expansion occurs –</p> <p>(a) within a watercourse;  (b) in front of a development setback adopted in the prescribed manner; or  (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</p> <p>excluding the expansion of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.</p> <p>i. <b>Western Cape</b></p> <p>i. Outside urban areas:  (aa) A protected area identified in terms of NEMPAA, excluding conservancies;  (bb) National Protected Area Expansion Strategy Focus areas;  (cc) World Heritage Sites;  (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;  (ee) Sites or areas listed in terms of an international convention;  (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;  (gg) Core areas in biosphere reserves; or  (hh) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</p>	Due to a number of uncertainties regarding the location of the proposed development, it is uncertain whether this activity will be triggered by the proposed development.	Possible Trigger – Basic Assessment

### **1.8.1 EIA Regulations Conclusion**

The proposed development is currently in the scoping phase. Hence, specific sites proposed as alternatives have not been specified at this point in time. Therefore, it is unclear which listed activities in terms of the National Environmental Management Act (Act 107 of 1998) will be triggered by the proposed development. However, Table 2, 3 and 4 include possible listed activities in terms of NEMA (Act 107 of 1998).

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

The purpose of this act is to provide for the protection and conservation of ecologically viable areas representative of South Africa's Biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with the national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas;

*The proposed activities do not trigger any activities as listed in this legislation.*

### **1.10 National Veld and Forest Fire Act, 101 (Act No. 101 of 1998)**

The purpose of this act is to combat veld and forest fires throughout the republic of South Africa.

Special focus on Sections:

- Formation of Fire protection associations
- Duties of fire protection associations
- Fire Danger Ratings
- Duty to prepare and maintain fire breaks
- Requirements of fire breaks
- Actions to fight Fire

*The proposed activities do not trigger any activities as listed in this legislation.*

### **1.11 National Water Act (Act No. 36 of 1998)**

Due to the location of the dams on site and the lack of water rights, National Water Act, 1998 (Act No. 36 of 1998) has to be considered.

The National Water Act guides the management of water in South Africa as a common resource. The Act aims to regulate the use of water and activities, which may impact on water resources through the categorisation of 'listed water uses' encompassing water extraction, flow attenuation within catchments as well as the potential contamination of water resources, where DWA is the administering body in this regard. The Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors:

- (a) Meeting the basic needs of present and future generations
- (b) Promoting equitable access to water
- (c) Facilitating social and economic development
- (f) Providing for the growing demand of water use;
- (g) Protecting aquatic and associated ecosystems and their biological diversity
- (h) Reducing and preventing the pollution and degradation of water resources
- (j) Promoting dam safety; and
- (k) Managing floods and droughts.



*Depending on the location of the proposed development, the proposed development may trigger an activity in terms of the National Water Act (Act 36 of 1998).*

**1.12 Mountain Catchment Areas Act, 1970 (Act No. 63 of 1970)**

The purpose of the Mountain Catchment Areas Act is to provide for the conservation, use, management and control of land situated in mountain catchment areas, and to provide for matters incidental thereto.

*The proposed activities do not trigger any activities as listed in this legislation.*

**1.13 Protected species – Provincial Ordinances**

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.

*The proposed activities do not trigger any activities as listed in this legislation.*

**1.14 National Heritage Resources Act, 1999 (Act No. 25 of 1999)**

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

Please note once site alternatives have been stipulated, the triggered activities in terms of the National Heritage Resources Act (Act No. 25 of 1999) can be accurately determined. As for this point in time, the below table indicates possible listed activities in terms of the NHRA.

**Table 5: Listed Activities according to the NHRA**

CATEGORY OF DEVELOPMENT (Section 38 (1))	Triggered
1. Construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier over 300m in length	Yes
2. Construction of a bridge or similar structure exceeding 50 m in length	No
3. Any development or activity that will change the character of a site–	
a) exceeding 5 000 m <sup>2</sup> in extent	Yes
b) involving three or more existing erven or subdivisions thereof	Yes
c) involving three or more erven or divisions thereof which have been consolidated within the past five years	Yes
4. Rezoning of a site exceeding 10 000 m <sup>2</sup>	Yes

Authorisation from Heritage Western Cape (HWC) should be applied for due to the size of the proposed development.

#### **1.15 Possible Other Constraints**

Due to the fact that the proposed development is still in the scoping phase, there are a lot of uncertainty. Hence this report takes cognisance of the Kleinmond in general and does not provide site specific information.

#### **1.16 Possible Specialist Assessments Required during the EIA process**

- Geotechnical Assessment
- Freshwater Impact Assessment
- Botanical Assessment
- Visual Impact Assessment
- Heritage Impact Assessment
- Engineering Studies (Traffic Impact, Civil Services, Storm water investigations)

#### **1.17 Conclusion**

Kleinmond is currently experiencing a tremendous housing backlog which has resulted in unrests in the local community. However, Kleinmond has limited space available for future development with environmental constraints experienced on all borders of town. Environmental constraints are mostly experienced in terms of botanical and freshwater sensitivity. Furthermore, the Kogelberg Biosphere Reserve's boundaries should be taken into account in order to ensure that the boundaries of the KBR is not encroached. It is recommended by GNEC that a future Botanical Assessment and Freshwater Impact Assessment be conducted, should the preferred site alternative contain sensitive botanical or freshwater resources.

This report was compiled from a broad scale view of Kleinmond and hence it is recommended that a more detailed, site specific report be compiled once site alternatives have been proposed.

## 2. REFERENCES

*Cape Farm Mapper: The Official Site* [Online]. [2016]. Available: <https://gis.elsenburg.com/apps/cfm/#> [2017, November 29].

*Kogelberg Biosphere Reserve: The Official Site : Resources and Maps* [Online]. [2016]. Available: [http://www.kbrc.org.za/index.php?dirname=docs\\_06maps/maps](http://www.kbrc.org.za/index.php?dirname=docs_06maps/maps) [2017, November 29].

*Kogelberg Biosphere Reserve: The Official Site: About* [Online]. [2013]. Available: [http://www.kbrc.org.za/index.php?dirname=docs\\_09about/kbr-about.php](http://www.kbrc.org.za/index.php?dirname=docs_09about/kbr-about.php) [2017, November 30].

*Kogelberg Biosphere Reserve: The Official Site: Biosphere Reserves* [Online]. [2013]. Available: [http://www.kbrc.org.za/index.php?dirname=docs\\_02biosphere/biosphere-reserves.php](http://www.kbrc.org.za/index.php?dirname=docs_02biosphere/biosphere-reserves.php) [2017, November 30].

Mucina, L. & Rutherford, M.C. (eds.) . 2006. The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.

Snaddon, Kate. 2007. *Environmental Impact Assessment of Freshwater ecosystems affected by proposed development of Heuningklip, Kleinmond*. Scarborough.



# Addendum A

## Maps





Critical Biodiversity Areas Map - Western Section of Kleinmond		
Source: Cape Farm Mapper		
	Tel: (021) 870 1874 Fax: 086 6933 802 Cell: 072 1571 321	

Figure 10: CRITICAL BIODIVERSITY AREAS MAP-WESTERN SECTION OF KLEINMOND







Water Resources Map - Western Section of Kleinmond		
Source: Cape Farm Mapper	Tel: (021) 870 1874   Fax: 086 6933 802   Cell: 072 1571 321	

Figure 11: WATER RESOURCES MAP - WESTERN SECTION OF KLEINMOND







Critical Biodiversity Areas Map - Middle Section of Kleinmond		
Source: Cape Farm Mapper		
Tel: (021) 870 1874   Fax: 086 6933 802   Cell: 072 1571 321		

Figure 12: CRITICAL BIODIVERSITY AREAS MAP - MIDDLE SECTION OF KLEINMOND





Water Resources Map - Middle Section of Kleinmond

Source: Cape Farm Mapper



Tel: (021) 870 1874 Fax: 086 6933 802 Cell: 072 1571 321









Critical Biodiversity Areas Map - Eastern Section of Kleinmond	<div data-bbox="1173 586 1252 995">  </div> <div data-bbox="1252 442 1302 1167">           Tel: (021) 870 1874   Fax: 086 6933 802   Cell: 072 1571 321         </div>	
Source: Cape Farm Mapper	<div data-bbox="1173 309 1268 398">  </div>	

Figure 14: CRITICAL BIODIVERSITY AREAS MAP - EASTERN SECTION OF KLEINMOND





Water Resources Map - Eastern Section of Kleinmond	<div data-bbox="1136 608 1230 1017">  </div> <div data-bbox="1238 464 1273 1183"> Tel: (021) 870 1874   Fax: 086 6933 802   Cell: 072 1571 321 </div>	
Source: Cape Farm Mapper	<div data-bbox="1144 342 1230 409">  </div>	

Figure 15: WATER RESOURCES MAP - EASTERN SECTION OF KLEINMOND