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Dealing with diversity in the 21st century urban settings.

Amsterdam, 7 – 9 July 2011

**Non-metropolitan Residential Gated Developments in
the Western Cape Province, South Africa**

Manfred Spocter

Paper presented at the International RC21 conference 2011
Session: No. RT7.1 'Gated communities' from a global perspective

Council for Scientific and Industrial Research (CSIR)
PO Box 320, Stellenbosch, South Africa, 7599
mspocter@csir.co.za

Department of Geography and Environmental Studies, Stellenbosch University
Private Bag X1, Stellenbosch, South Africa, 7599
mspocter@csir.co.za

Abstract

Gated developments are a global phenomenon that has become an ubiquitous feature of the post-apartheid South African urban landscape. Gated developments and the privatisation of urban public space in South Africa has been the subject of academic scrutiny since the turn of the century. However, the vast majority of academic research the world over has tended to focus on gated developments as an urban phenomenon. There are very few international studies that investigate gated developments in the non-metropolitan locale and the topic is also unexplored in the South African context. This research attempts to address this research gap by investigating the locations of gated developments in non-metropolitan towns of varying sizes in the Western Cape and the conditions that favour its proliferation in towns. Security is a synonymous, central theme of gated developments. Thus, the security features in non-metropolitan gated developments are analysed – some non-metropolitan gated developments do not have gates! In addition, study also focuses on the security level index in each town and investigates the locational aspects of differing levels of security in various towns.

1. Introduction

Gated developments are altering the way in which metropolitan areas are being administratively, socially, politically and economically organised. Gated developments have become a ubiquitous feature on the contemporary South African metropolitan landscape (Durlington, 2006; Hook and Vrdoljak, 2002; Landman, 2000). A large, worldwide volume of research has been done on gated developments. A common thread amongst the large majority of the research conducted globally is that the focus is on gated developments in metropolitan areas, in cities across the globe. It is acknowledged that definitions of what constitutes 'metropolitan' and 'non-metropolitan' vary between countries and regions, yet very few studies have specifically researched gated developments in the non-metropolitan sphere (Mittelsteadt, 2003). In South Africa, as in many others countries, gated developments have expanded their spatial manifestation beyond the borders of South Africa's metropolitan areas. In spite of this, residential non-metropolitan gated developments remain under-researched. This paper investigated the categorisation and location of non-metropolitan gated developments as well as its security aspects.

2. Conceptualisation considerations

There exist problematic aspects in utilising the word 'rural' in terms of this study as it includes gated residential estates within settlement borders and on land previously used for agricultural purposes. The debate is whether such settlements, with diverse characteristics, could be deemed to be 'rural'. Thus, the conceptualisation and clarification of the terms 'metropolitan' and 'non-metropolitan' is important in order to best describe the study area.

2.1 Metropolitan vs non-metropolitan

This paper investigates aspects of gated residential security estates that are found outside the urban or metropolitan sphere. The dialectical opposite of urban would be rural, but in reality this dualism is not that simplistic. The preference for the use of the term '*non-metropolitan* gated residential estates' rather than '*rural* gated residential estates' necessitates an exploration and explanation.

The problem with defining 'rural' lies in the fact that one finds a mixing of 'urban' and 'rural' functions across space. In addition, static borders of designated space are not viable given the cross-cutting and integrated nature of rural and urban functions, which further problematises the quest for suitable definitions of urban and rural. All settlements undergo temporal changes of its size, extent and nature; and this has blurred the urban-rural difference with one-dimensional classification of settlements being brought into question (Champion and Hugo, 2005). As an example, in the United Kingdom, the concept of 'rural' is largely viewed as land-based in terms of

what is produced or extracted, be it animal, vegetable or mineral; and where the lives of people are intertwined with the aforementioned productive and extractive activities (Halfacree, 2006). However, these activities are present in urban areas as well. It could be argued that metropolitan areas receive the bulk of their resources from outside its borders, whilst the bulk on non-metropolitan resources tends to be sourced locally. However, with all-reaching modern resource distribution systems, one can find the same product in both metropolitan areas as well as non-metropolitan areas. Further to this, Brown and Cromartie (2005) believe that a multi-dimensional concept of rurality should include social, economic and demographic variables.

South Africa has seen a number of studies that tie the concept of rural to population-based definitions. The Centre for Development and Enterprise (1996) recognises small towns (in rural areas) as those with having a population of fewer than 50 000 persons. The CSIR (1999) divided six settlements types between the broad categories of urban and rural. This typology, based on population size and location, classifies small towns as rural settlements with a population of less than 50 000 inhabitants. Statistics South Africa (2003), in its still ongoing discussion on the definition of the concepts of urban and rural, quotes the Municipal Demarcation Board in stating that the Constitution (Act 108 of 1996) and Municipal Structures Act (Act 117 of 1998) do not make provision for the definition of these concepts. There is thus no agreed, robust and clear definition of the term 'rural' in South Africa. The absence of a definition results in "the term (being) used loosely for different purposes and this causes confusion" (Rural Doctors Association of Southern Africa, 2006, p.4).

Given the current conundrum that exists with the definition of what constitutes a 'rural' place in South Africa, and given the focus of this research on gated residential security estates outside the metropolitan area of the province of the Western Cape, a clearer divide is required to delineate the study area. Whilst the Municipal Structures Act (Act 117 of 1998) does not provide for the definition of 'urban' and 'rural', it does have a politico-administrative definition based on a particular tier of government. The Constitution (Act 108 of 1996) makes provision for the establishment of metropolitan areas in South Africa. This process is facilitated by the Municipal Demarcation Act (Act 28 of 1998) which provides for the criteria and procedures for the determination of municipal boundaries by an independent authority, namely, the Municipal Demarcation Board. There are six metropolitan municipalities that have been determined by the Municipal Demarcation Board, of which one, the City of Cape Town, is located in the Western Cape Province. The rest of the Western Cape Province is governed by District- and Local Municipalities, which are termed, non-metropolitan municipalities. Hence, rather than utilising the term 'rural' to describe the area of investigation, the politico-administrative term of 'non-metropolitan' is employed. By using this politico-administrative term, it allows the inclusion of all

towns in the Western Cape. However, it must be said that there are differences between the various District- and Local Municipalities with regard to population size, population density, main economic activity and geophysical factors. Figure 1 gives an indication of the extent of the study area, which are all the Local Municipalities in the Western Cape. District Management Areas are national parks or areas of very low population density. They are managed by District Municipalities and do not fall within Local Municipality jurisdiction.



(Source: Wikipedia, 2008)

Figure 1: Location of the administrative divisions of the Western Cape Province

A study conducted on the growth potential of towns in the Western Cape has identified 131 non-metropolitan towns in the province (van der Merwe *et al.*, 2004). Whilst the variable of population size alone is not a determinant of rurality or urbanity, the 131 towns that are located within the study area have a population size of between 51 and 142 569 persons. Table 1 gives an indication of the number of towns within arbitrary population ranges. The average population size of towns in non-metropolitan Western Cape is 11 273, but this masks a size difference of 142 518 people between the smallest and largest town.

Table 1: Number of towns in non-metropolitan Western Cape within population size categories

Population category	No. of towns
1 – 1 000	22
1 001 – 5 000	47
5 001 – 10 000	30
10 001 – 50 000	24
50 001+	8
Total	131

(Source: van Niekerk *et al.*, 2010)

It is important in terms of this study to recognise and acknowledge the differences in population size of the settlements within the study area, as gated residential security estates may be located in towns of varying population sizes. The largest settlement located in study area, George (population 142 569), in the George Local Municipality, has 33 gated residential security estates, whilst the one of the smallest settlements, Jakobsbaai (population 110), in the Saldanha Bay Local Municipality, has one such a security estate. Settlement size is not a determination as to whether a gated residential security estate would be present or not.

2.2 Categorisation of gated developments

Gated developments as a physical construct were defined as a single residential entity which has all, or a combination of, the following elements: perimeter hardening, restricted access, controlled access, security, legal agreements and representative bodies; within in which are found sub-divided erven of individually-owned dwellings.

The gated developments in the survey were categorised on two levels. Figure 2 allows for the visualisation of the how the surveyed gated developments were categorised. The first criterion in classifying gated developments was its match to the definition as set in terms of this study. Once it has been determined that a development meets the defined definitional prescripts, it was then classified as ‘undeveloped’ or ‘developed’ – the first level of classification. The second level of classification was the ‘security estate’ and ‘townhouse complex’ level.

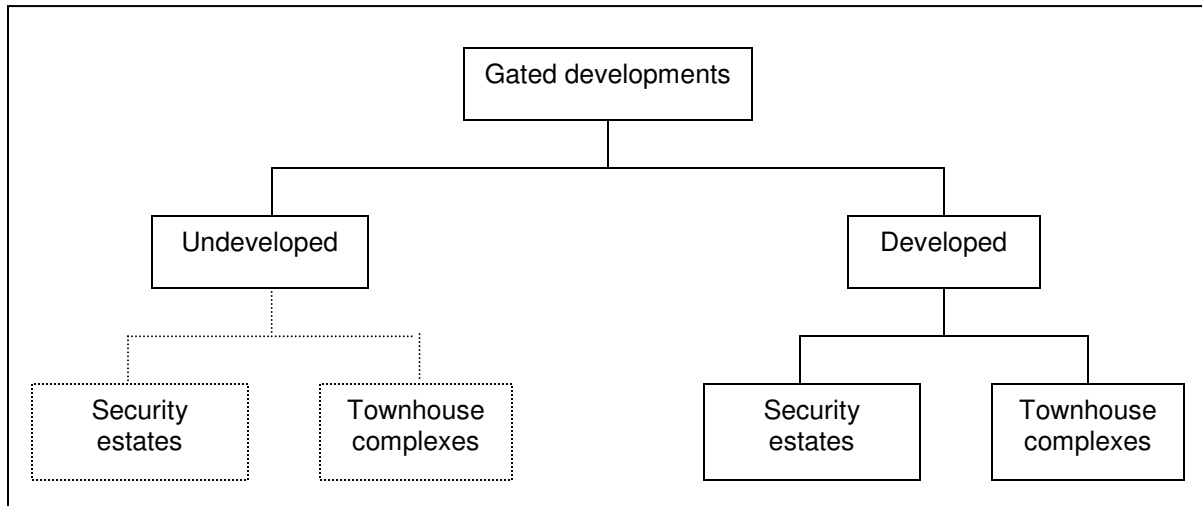


Figure 2: Typology of surveyed gated developments

An 'undeveloped' gated development was viewed as a development that did not have dwellings built inside the gated development, where construction was in progress or where dwellings have been constructed but there were no visible signs of human habitation on the survey date. 'Undeveloped' gated developments would eventually, upon completion of construction, become 'security estates' or 'townhouse complexes', hence the dashed lines and boxes in Figure 2. At the very least, the gated development had to be entirely enclosed by a perimeter wall or fence (including a gate or similar entry/ exit barrier) and had to have a/ an internal road/ roads.

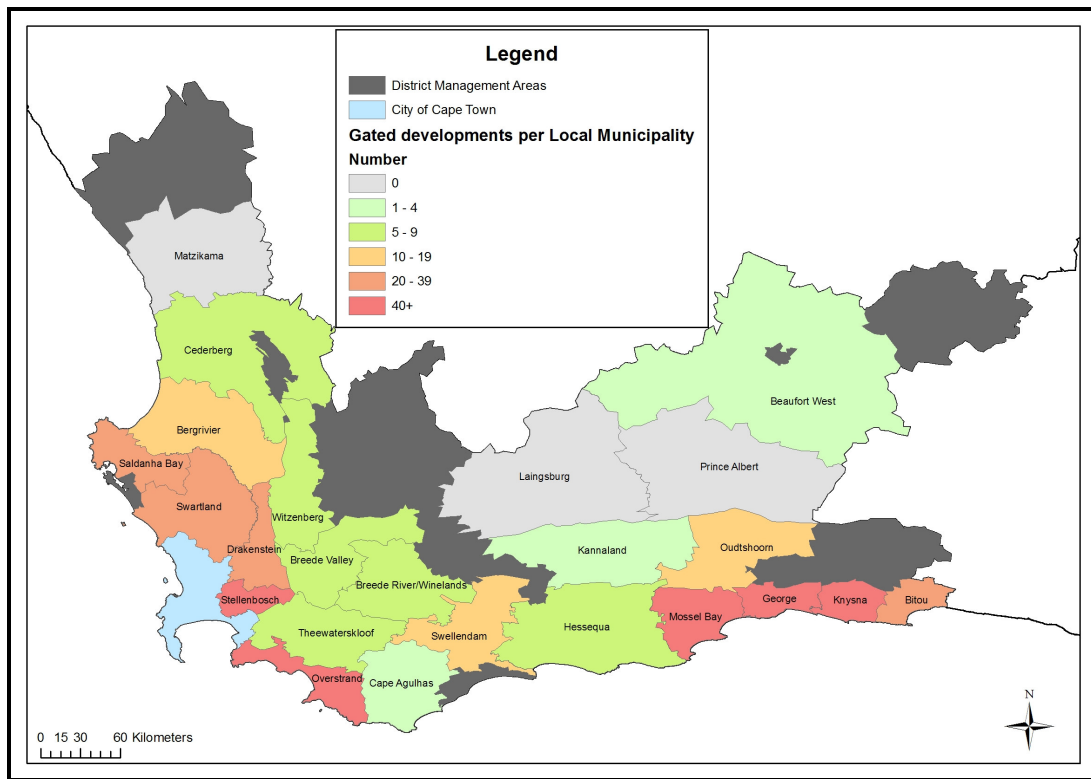
3. Spatial aspects of gated developments in the Western Cape

Data collected from the various surveys were collated into a single database and groundtruthing was performed in order to map the location of each of the gated developments. The mapping of the distribution of non-metropolitan gated developments in the province allows for a spatial analysis to be done on the data. A number of trends could be identified as to the distribution and character of gated developments within and outside the towns.

3.1 Locational aspects of gated developments

Locational aspects of gated developments are important in that they relate to other phenomenon, which could be proximity to the coast, medical facilities, natural resources, recreation areas, the metropolitan area, national roads, etc. The understanding of the spatialities of non-metropolitan gated developments also serves as a basis for further investigation into understanding various aspects of their presence in specific towns or local municipalities.

The gated development survey yielded 449 non-metropolitan residential gated developments in the province, which were mapped in order to present a provincial snapshot of the location of these non-metropolitan gated developments (Figure 3)¹. At first glance the distribution of gated developments indicates a concentration in local municipalities with coastal borders and/or was in close proximity to the metropolitan region of Cape Town. The number of gated developments per local municipality indicates a general decrease as one moved inland. These are broad general tendencies as each local municipality has a specific set of factors that assisted or constrained the manifestation of gated developments.



(Source: Compiled from author's survey)

Figure 3: Distribution of gated developments per local municipality in the Western Cape

Those local municipalities that had the most gated developments (40 or more) per local municipality were, in rank: George LM (66), Overstrand LM (62), Mossel Bay LM (57), Stellenbosch LM (42) and Knysna LM (40). This group of local municipalities presents a distinct section within the total gated development count (Table 2). Three of the five largest towns in the

¹ Classification of data in the maps was decided automatically by ESRI ArcGIS 9.3 software using Jencks' natural breaks. Jencks' algorithm which uses statistical analysis to find natural breaks in the data (Jencks, 1967).

study area, in terms of population size, are located in the aforementioned local municipalities. Proximity to the coast and to the City of Cape Town are features of this group of LMs. Four of the five top LMs are situated along the coast, and two of them border the City of Cape Town. The coastal LMs, and their respective settlements, are especially well-known as tourist destinations. Furthermore, the population growth in settlements in these LMs between 2001 and 2007 has shown tremendous population growth, which has necessitated the construction of new housing units (van Niekerk *et al.*, 2010).

Four local municipalities have 20 – 39 gated developments, namely; Drakenstein LM (26), Saldanha Bay LM (23); Swartland LM (21) and Bitou LM (21). Oudtshoorn LM (18), Bergrivier LM (11) and Swellendam LM (10) have 10 – 19 gated developments within their borders. Nine of the remaining local municipalities have 1 – 9 gated developments while the local municipalities of Matzikama, Laingsburg and Prince Albert do not have any gated developments in their areas of jurisdiction.

The statistics that compares the data on the local municipality scale does mask the tendencies within each local municipality. It does not provide an indication as to whether gated developments are restricted to a particular area or specific town(s) within each local municipality. As indicated in Table 2, all the gated developments in Bitou LM are concentrated in Plettenberg Bay; those in the Oudtshoorn LM, in Oudtshoorn; those in the Swellendam LM, in Swellendam; those in the Witzenberg LM, in Ceres; those in the Breede River/ Winelands, in Robertson and those in the Beaufort West LM, in Beaufort West.

Table 2: Count of gated developments per local municipality

Local Municipality	No. of towns with gated developments	Total number of gated developments ²	Inside towns' boundaries		Outside towns' boundaries	
			Number	Percentage	Number	Percentage
George	3	66	62	94%	4	6%
Overstrand	6	62	61	98%	1	2%
Mossel Bay	4	57	54	95%	3	5%
Stellenbosch	3	42	35	85%	7	15%
Knysna	2	40	37	93%	3	7%
Drakenstein	2	26	25	96%	1	4%
Saldanha Bay	5	23	23	100%	0	0%

² Includes 'developed' and 'undeveloped' gated developments.

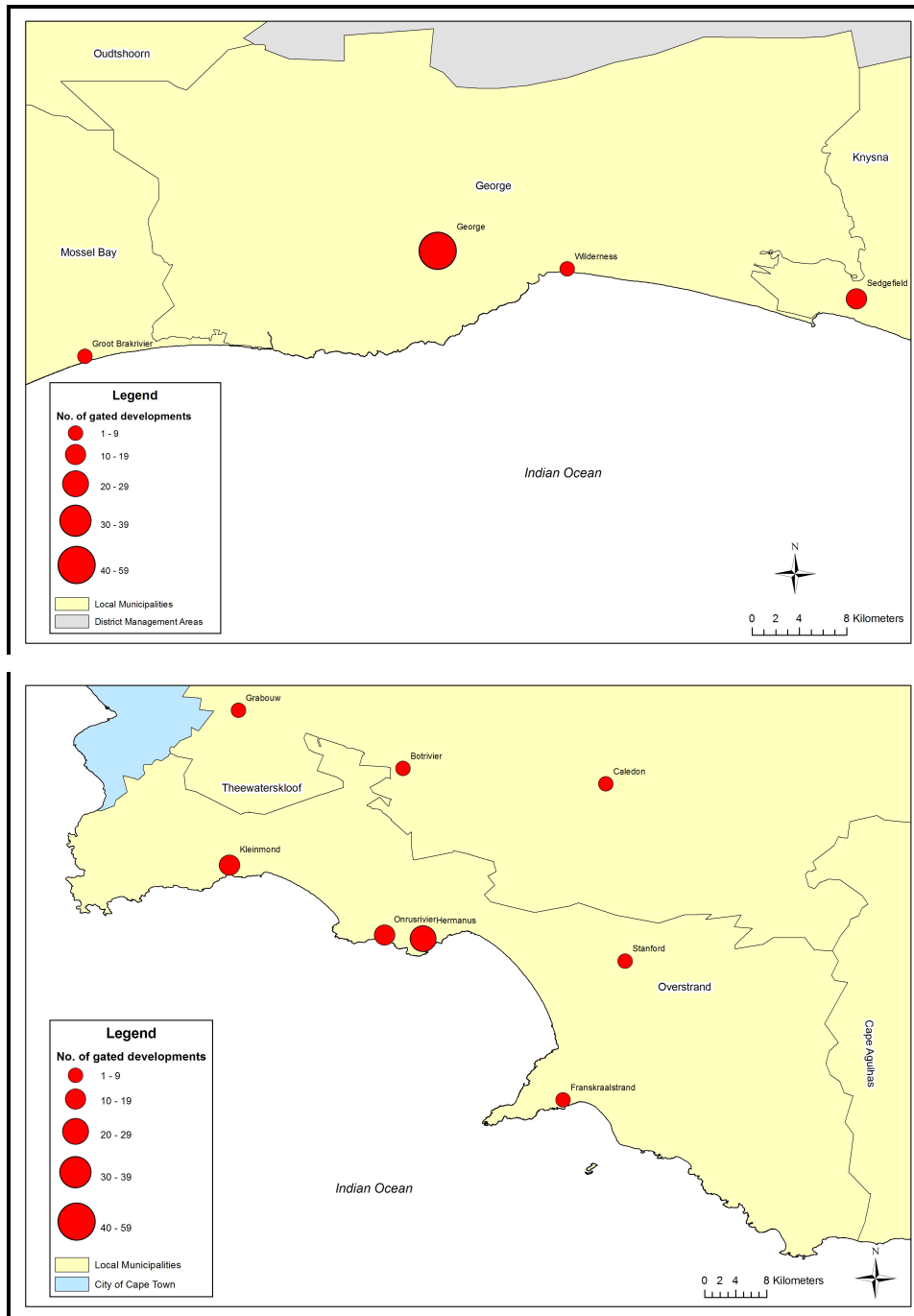
Swartland	5	21	19	90%	2	10%
Bitou	1	21	20	95%	1	5%
Oudtshoorn	1	18	18	100%	0	0%
Bergrivier	4	11	11	100%	0	0%
Swellendam	1	10	10	100%	0	0%
Theewaterskloof	5	9	8	89%	1	11%
Cederberg	2	8	6	75%	2	25%
Witzenberg	1	7	7	100%	0	0%
Breede Valley	2	7	7	100%	0	0%
Breede River/Winelands	1	7	7	100%	0	0%
Hessequa	3	6	6	100%	0	0%
Beaufort West	1	4	4	100%	0	0%
Cape Agulhas	2	3	3	100%	0	0%
Kannaland	0	1	0	0%	1	100%
Matzikama	0	0	0		0	
Laingsburg	0	0	0		0	
Prince Albert	0	0	0		0	
TOTAL	54	449	423	94%	26	6%

(Source: Compiled from author's survey)

Figure 4 illustrates that in the George LM, the town of George dominates the local municipality in terms of the number of gated developments – George has 95% of the gated developments in the George LM whilst the town of Wilderness contributes the outstanding 5%.³ Conversely, the Overstrand LM has a larger distribution area of its gated developments – between a number of towns: Hermanus 44%, Onrus River 30%, Kleinmond 20%, Franskraalstrand 3% and Stanford 3%, respectively.⁴

³ The two gated developments in Herold's Bay are included with George.

⁴ The three gated developments in Vermont are included with Onrusrivier and the fifteen gated developments in Sandbaai are included with Hermanus.



(Source: Compiled from author's survey)

Figure 4: Distribution of gated developments within the George LM and Overstrand LM

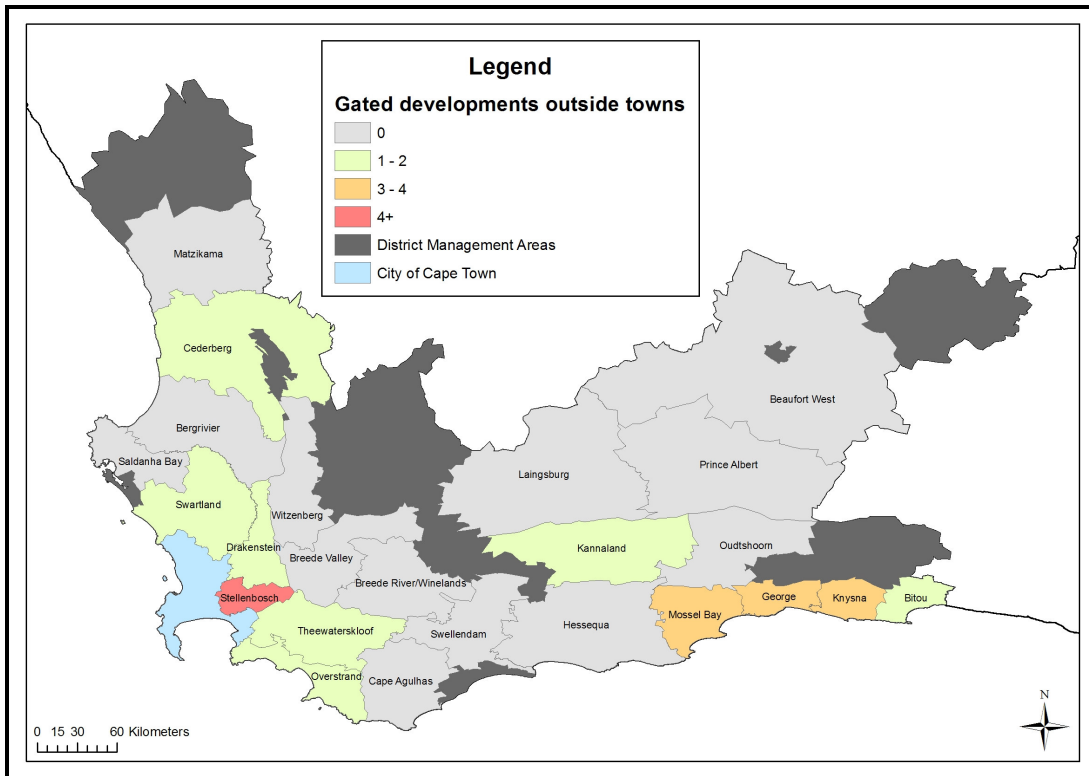
Gated developments in different local municipalities are either dispersed through a number of towns or clustered together in one main town. There are thus 54 towns in the Western Cape in which gated developments are present. This translates to 41% of the 131 towns in the province,

identified in the van der Merwe *et al.* (2004) study, as home to gated developments. However, not all non-metropolitan gated developments are located in towns.

3.2 Gated developments within and beyond town boundaries

Table 2 indicates that approximately 94% (423 in total) of non-metropolitan gated developments in the Western Cape are located within the boundaries of towns in the province. However, 6% (26 in total) are located outside the boundaries of any towns – on land that at some point in time has had an agricultural zoning. A specific land planning process has to be followed to transform agricultural land to a residential zoning and/or amending the town boundary (urban edge) to include the area of development in the town. Of the 26 gated developments located outside of towns, 23 are security estates and only three are townhouse complexes. This shows a clear bias towards locating space-intensive security estates outside town borders. There are also instances where amenity activities such as golf and watersports are played by the residents of these security estates. High-density townhouse complexes do not feature strongly in the gated developments outside of towns.

Kannaland LM has one gated development and it is situated outside of a town. The Cederberg LM (25%), Stellenbosch LM (15%), Theewaterskloof LM (11%) and Swartland LM (10%) all have more than ten percent of its gated developments outside town boundaries (see Table 2). In terms of numbers, it is the Stellenbosch LM (7 gated developments), the George LM (4 gated developments) and Mossel Bay and Knysna LMs (3 gated developments each) that lead the pack (see Figure 5).



(Source: Compiled from author's survey)

Figure 5: Distribution of gated developments located beyond town boundaries (per local municipality)

3.3 'Undeveloped' gated developments

Gated developments that were surveyed were categorised in two groups, namely, 'undeveloped' and 'developed', with the latter containing two further sub-divisions of 'security estates' and 'townhouse complexes' (Figure 2). 'Undeveloped' gated developments indicate locations where future gated developments would be available for habitation. Although there may not be dwellings erected on them, they have completed the process of land use application, rezoning and environmental impact assessment (if required) – it is thus a simply the case of the dwellings being constructed.

As indicated in Table 3, approximately 89% of gated developments in the Western Cape are classified as 'developed', with approximately 11% classified as 'undeveloped'. One can infer that the 11% 'undeveloped' is an indication of the amount of gated developments that are available to the market in the short- to medium-term. Whilst 23 (46%) of the 'undeveloped' gated developments could not be classified according to the type of gated development, 21 (42%) were security estates and 6 (12%) were townhouse complexes. It was at least three times more likely

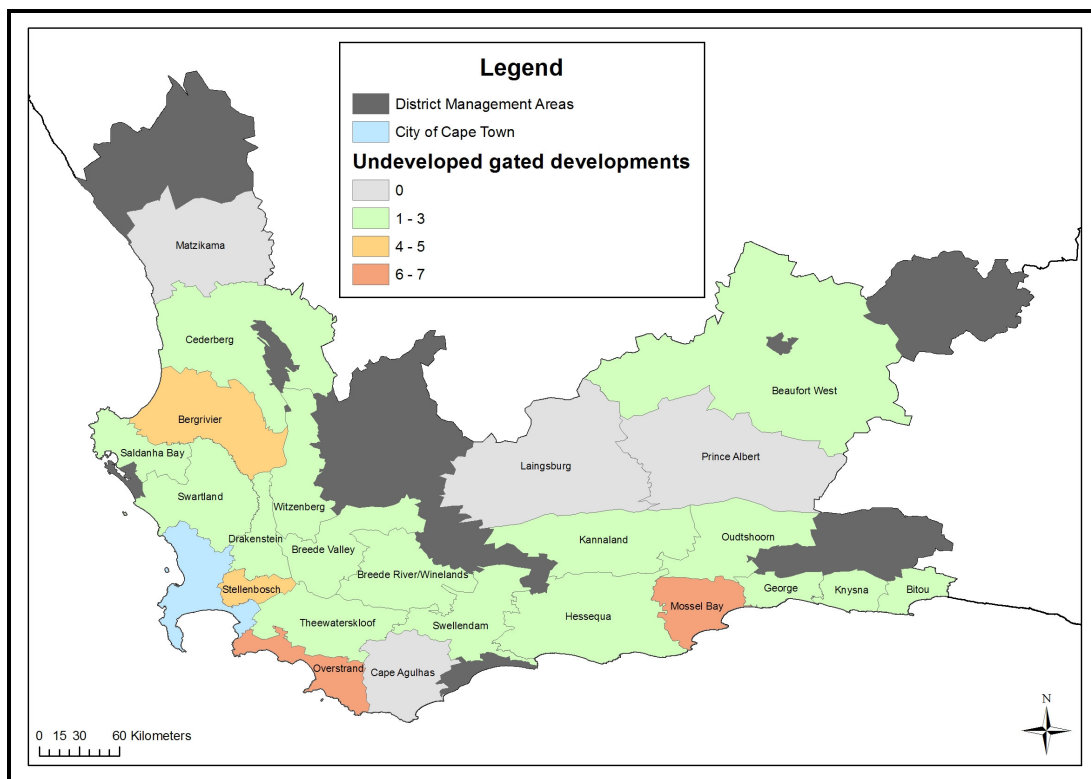
for an 'undeveloped' gated development to be a security estate than a townhouse complex. In addition, 46 (92%) of 'undeveloped' gated developments are within town boundaries. Most future gated developments would thus occur within towns and most probably be a security estate.

Table 3: 'Developed' and 'Undeveloped' gated developments per local municipality

Local Municipality	Total number of gated developments	Developed		Undeveloped	
		No.	Percentage	No.	Percentage
George	66	64	97%	2	3%
Overstrand	62	55	89%	7	11%
Mossel Bay	57	51	89%	6	11%
Stellenbosch	42	38	95%	4	5%
Knysna	40	37	93%	3	7%
Drakenstein	26	23	89%	3	11%
Saldanha Bay	23	20	87%	3	13%
Swartland	21	20	95%	1	5%
Bitou	21	20	95%	1	5%
Oudtshoorn	18	16	89%	2	11%
Bergrivier	11	6	55%	5	45%
Swellendam	10	9	90%	1	10%
Theewaterskloof	9	8	89%	1	11%
Cederberg	8	6	75%	2	25%
Witzenberg	7	5	71%	2	29%
Breede Valley	7	6	86%	1	14%
Breede River/Winelands	7	6	86%	1	14%
Hessequa	6	3	50%	3	50%
Beaufort West	4	3	75%	1	25%
Cape Agulhas	3	3	100%	0	0%
Kannaland	1	0	0	1	100%
Matzikama	0	0	0	0	0
Laingsburg	0	0	0	0	0
Prince Albert	0	0	0	0	0
TOTAL	449	399	89%	50	11%

(Source: Compiled from author's survey)

A breakdown of the local municipality figures indicates that the percentage of future short-term gated development availability is concentrated in the Kannaland LM⁵, the Hessequa LM and Bergrivier LM; where the ‘undeveloped’ rates are 100%, 50% and 45% respectively. However, in terms of the number of ‘undeveloped’ gated developments, it is Overstrand LM (7 gated developments), Mossel Bay LM (6 gated developments), Bergrivier LM (5 gated developments) and Stellenbosch LM (4 gated developments) that indicates strong areas of future gated development growth (Figure 6). Furthermore, all local municipalities that currently have gated developments have ‘undeveloped’ gated developments, except the Cape Agulhas LM. This point to most local municipalities having plans for the development of future gated developments.



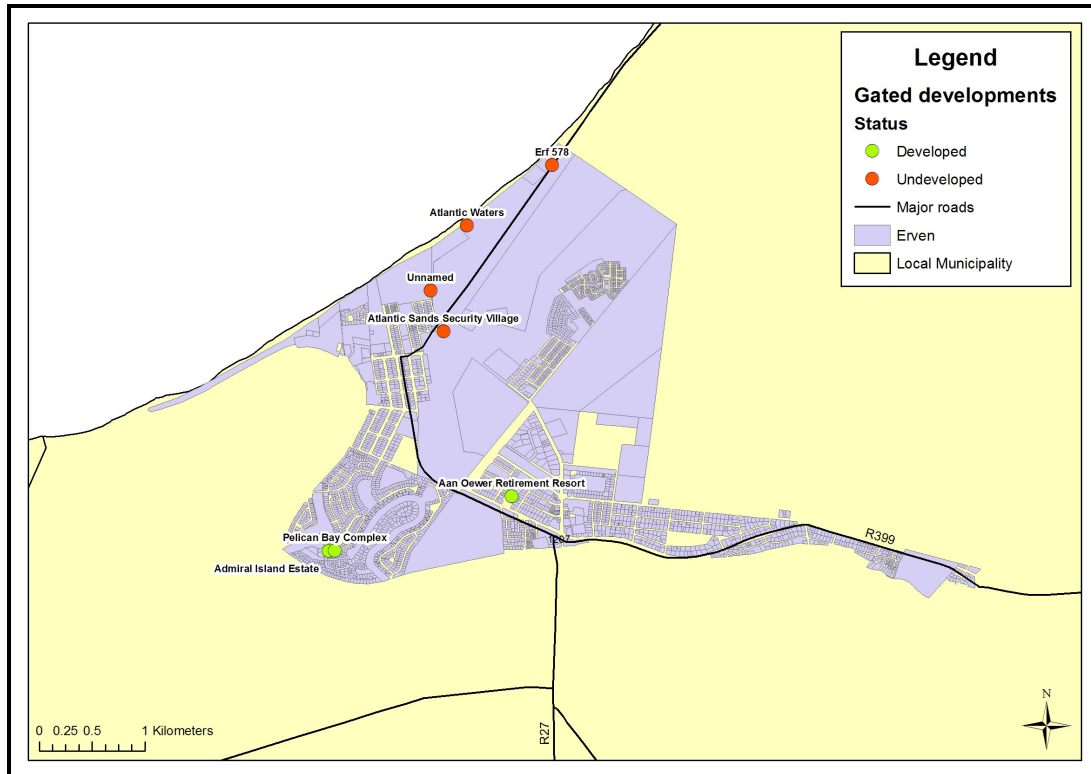
(Source: Compiled from author's survey)

Figure 6: Distribution of ‘undeveloped’ gated developments per local municipality

The Bergrivier LM features prominently in terms of both the *percentage* of ‘undeveloped’ gated developments within the local municipality and the *number* of ‘undeveloped’ gated developments. Thus, the Bergrivier LM may be seen as a hotspot for the expansion of future gated developments, with the town of Velddrif being the epicenter of ‘undeveloped’ gated developments

⁵ There is only one gated development in the Kannaland LM.

with four developments in close proximity to one another (Figure 7). The owner of a guest house was of the opinion that it was through the speculative activities of developers that there were 'undeveloped' gated developments: "Dit is die geldwolwe wie gedink het dat hulle hier vinnig geld kon maak"⁶. The statement also speaks to developers from outside the town who are not knowledgeable about local housing market trends.



(Source: Compiled from author's survey)

Figure 7: 'Undeveloped' gated developments in Velddrif

3.3 Distribution of types of 'developed' gated developments

There are 449 non-metropolitan gated developments verified in the survey; of which 48% (215) were classified as 'security estates', 47% as 'townhouse complexes' and 5% (23) were 'unknown'⁷ (Table 4). There is an even spread between the number of 'security estates' (215) and 'townhouse complexes' (211) across the province. Whilst there are local municipalities that reflect this even spread, there are also local municipalities that have a leaning to one of the two categories.

⁶ "It is the money wolves that thought they could come in here (town) and make a quick buck." (Informal interview with guesthouse owner, 8/11/2009).

⁷ All the 'unknown' gated developments were 'undeveloped'.

Table 4: Types of gated developments per local municipality⁸

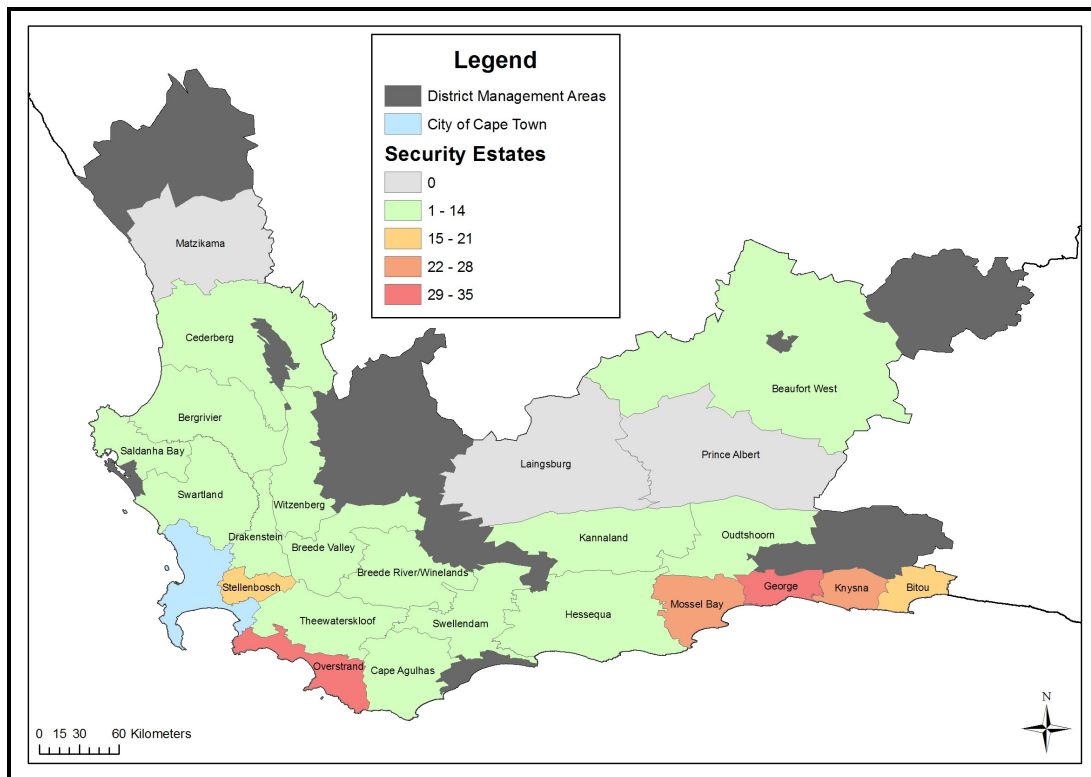
Local Municipality	Total number of gated developments	Type of gated development					
		Security estates		Townhouse complexes		Unknown	
		No.	Percentage	No.	Percentage	No.	Percentage
George	66	35	53%	29	44%	2	3%
Overstrand	62	29	47%	29	47%	4	6%
Mossel Bay	57	27	47%	26	46%	4	7%
Stellenbosch	42	17	41%	23	55%	2	4%
Knysna	40	24	60%	13	33%	3	7%
Drakenstein	26	7	27%	18	69%	1	4%
Saldanha Bay	23	12	52%	11	48%	0	0%
Swartland	21	5	24%	16	76%	0	0%
Bitou	21	15	71%	5	24%	1	5%
Oudtshoorn	18	9	50%	8	44%	1	6%
Bergrivier	11	8	73%	3	27%	0	0%
Swellendam	10	6	60%	3	30%	1	10%
Theewaterskloof	9	2	22%	7	78%	0	0%
Cederberg	8	6	75%	2	25%	0	0%
Witzenberg	7	1	14%	6	86%	0	0%
Breede Valley	7	2	28%	4	57%	1	15%
Breede River/ Winelands	7	3	43%	3	43%	1	14%
Hessequa	6	3	50%	1	17%	2	33%
Beaufort West	4	1	25%	3	75%	0	0%
Cape Agulhas	3	2	67%	1	33%	0	0%
Kannaland	1	1	100%	0	0%	0	0%
Matzikama	0						
Laingsburg	0						
Prince Albert	0						
TOTAL	449	215	48%	211	47%	23	5%

(Source: Compiled from author's survey)

⁸ This table includes both 'developed' and 'undeveloped' gated developments.

3.3.1 Security estate analysis

In terms of numbers (Figure 8), security estates are most abundant in the George LM (35), Overstrand LM (29), Mossel Bay LM (27) and Knysna LM (24). The Stellenbosch LM (17), Bitou LM (15) and Saldanha Bay LM (12) have more than ten security estates within their local municipality boundaries. All the afore-mentioned local municipalities are in close proximity to Cape Town or are situated along the coast. Security estates usually require large tracts of land (Landman, 2003) as the density of dwelling units per hectare is much lower than townhouse complexes. In many instances, security estates have some sort of recreational/ sporting activity such as golf or is positioned within a vineyard environment.



(Source: Compiled from author's survey)

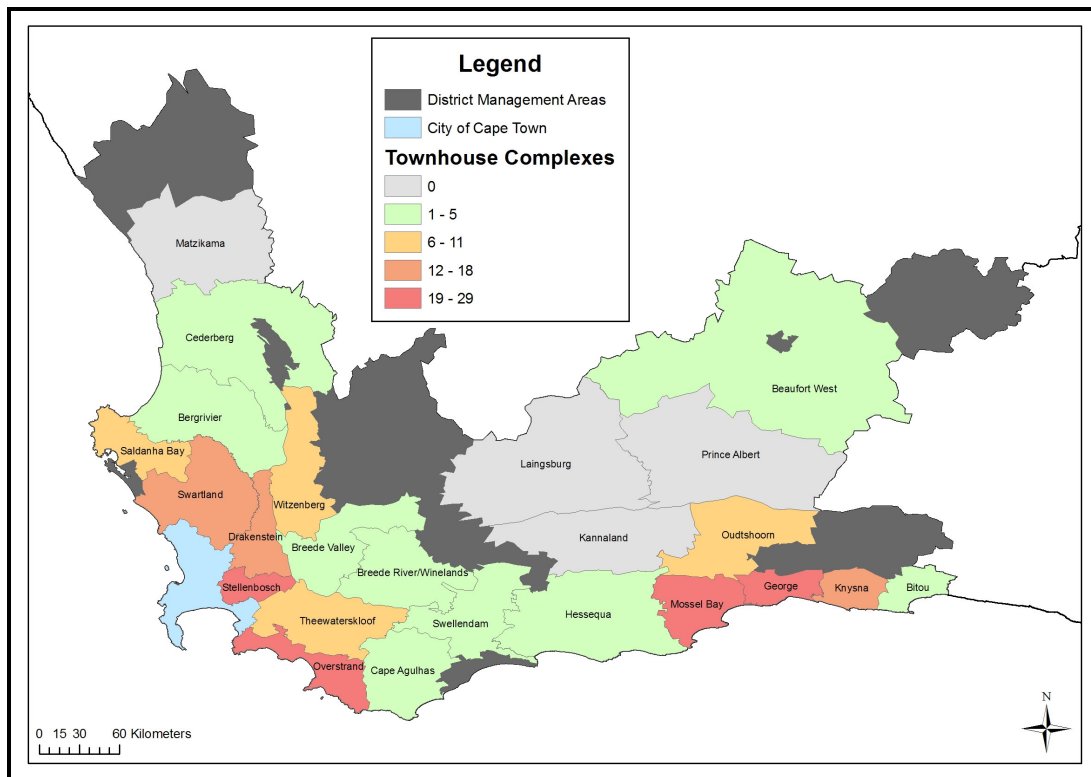
Figure 8: Distribution of security estates

A closer inspection of the percentage of security estates within local municipalities reveals that certain local municipalities have a greater percentage of security estates as compared to townhouse complexes (Table 4). Those local municipalities that have sixty percent and more security estates than townhouse complexes within its borders are the Cederberg LM (75%), Bergrivier LM (73%), Bitou LM (71%), Cape Agulhas LM (67%), Swellendam LM (60%) and Knysna LM (60%). All the afore-mentioned local municipalities, except the Swellendam LM, are

situated along the coast or as in the case of the Cederberg LM; there is the presence of a large dam (with concomitant recreation activities).

3.3.2 Townhouse complex analysis

An analysis of the spatial distribution of townhouse complexes showed a different pattern within the province. The local municipalities of George (29), Overstrand (29) Mossel Bay (26), Stellenbosch (23), Drakenstein (18), Swartland (16), Knysna (13) and Saldanha Bay (11) all had more than ten townhouse complexes within its borders (Figure 9). The Drakenstein LM townhouse complexes are centered in the towns of Paarl (12 townhouse complexes) and Wellington (6 townhouse complexes). The Swartland LM has its townhouse complexes dispersed through five different towns, with the towns of Malmesbury and Mooresburg accounting for thirteen of the local municipality total. In addition, the local municipalities of Oudtshoorn, Theewaterskloof and Witzenberg also feature strongly in the location of townhouse complexes.



(Source: Compiled from author's survey)

Figure 9: Distribution of townhouse complexes

When a percentage analysis of townhouse complexes is made (Table 4), the local municipalities of Witzenberg (86%), Theewaterskloof (78%), Swartland (76%), Beaufort West (75%) and

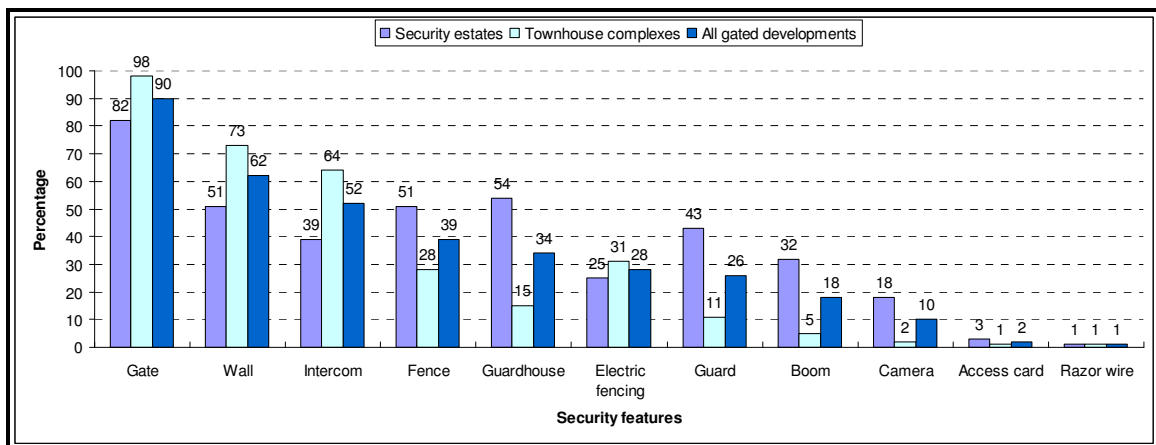
Drakenstein (69%), show a definite preference toward townhouse complexes as opposed to security estates. The focus of gated developments in these areas may be on the provision of high-density housing, rather than space-intensive security estates. The focus would be more on housing space rather than lifestyle space.

4. Securitisation of non-metropolitan gated developments

Security is an important component of gated developments. The province-wide survey not only collected information on the location of non-metropolitan gated developments, but also served to collect the details of the security features of each of the 399 ‘developed’ gated developments. No security feature information was collected from ‘undeveloped’ gated developments because the very nature of them being undeveloped can not give an accurate indication of the full array of its future security features.

4.1 Security features analysis

The description ‘gated development’ implies that a gate is present and that various security features and security arrangements would typify such developments. Gated developments are synonymous with security (Landman, 2003). Gated developments in various parts of the province showed tendencies toward a particular array of security features and the presence, or absence, of these features differed between local municipalities, towns, and amongst the type of gated development themselves. Thus, various permutations of the aforementioned security features were observed. There was no singular standard for what security was present in the surveyed gated developments. In fact, some gated developments captured in the survey did not even have a gate! Nevertheless, the gate is the ubiquitous feature, occurring in 90% of the surveyed gated developments (Figure 10). However, they are more a feature of townhouse complexes (98%) than of security estates (82%).



(Source: Compiled from author's survey)

Figure 10: Security features of non-metropolitan gated developments in the Western Cape

All gated developments have a physical barrier at its entrance and those developments that do not have gates have a boom instead. Booms are more a feature of security estates (32%) than townhouse complexes (5%). Twenty-eight security estates and 7 townhouse complexes, have both gates and booms at its entrances. A physical barrier, be it a gate or a boom or both, is the first of two features that are common in all the surveyed gated developments. Their important function is to create a controllable entry/ exit point to the gated development, a function that has heightened importance from a security perspective as it is the only porous opening in the perimeter.

The perimeter security of gated developments consists of a wall, fence or combination of the two. Walls are more commonly used by townhouse complexes (73%) as compared to security estates (51%). As a rule of thumb, the area coverage of townhouse complexes is smaller than security estates and it is much less costly to construct a perimeter wall around a townhouse complex than a security estate. This explains why fencing, the cheaper option, is more popular with security estates, which tend to have larger perimeters. Eight security estates and four townhouse complexes have a perimeter security which is a combination of walls and fencing. This is a more popular option amongst security estates as it does reduce the cost of perimeter security construction.

Intercoms are the third-most popular security feature. They are more prevalent in townhouse complexes (64%) than in security estates (39%). Intercoms are the communication accessory between those inside the gated development and those on the outside. It facilitates a measure of control for those inside the gated development as to whom they allow inside. Thus, residents rely on auditory voice or name recognition to decide whether person(s) are allowed access. Some intercoms have a video feature that gives residents a visual indication of who the potential entrant is. The lower percentage of intercoms at security estates is because such estates would most likely have a guard present, who would then decide whether a potential entrant would be allowed inside the estate – which may include telephonic consultation with the resident being visited. Access card scanners are often installed in conjunction with intercoms, but they are for the exclusive access of residents or anybody that has been issued with an access card. Access card scanners are present in three percent of security estates and in one percent of townhouse complex – it is the least used security feature.

Perimeter walls and fences are further secured by the use of electric fencing and razor wire. Approximately 25% of security estates and 31% of townhouse complexes have electric fencing, with 1% of both types of developments having razor wire. The use of extra security features atop

walls and fences indicates that gated developments would make doubly sure that the perimeter security is as good as can be. The perimeter of gated developments may also be patrolled by guards.

Guards were present at 43% of security estates and 11% of townhouse complexes – it is more than three times more likely for a security estate to have guards than it would be for a townhouse complex. It may be that security estates, being larger than townhouse complexes, would require ears, eyes and feet on the grounds in addition to inanimate surveillance and access control features. Larger security estates would have a larger volume of pedestrian and vehicular traffic to manage, which would be more closely monitored and controlled by guards. The number of guards would be determined by the size and requirements of the specific gated development. However, during the survey, researchers were asked by guards if they wanted to enter the development – no identification was requested. Guards were found asleep on duty and a survey done on a Sunday morning encountered two guards at different gated developments that were reeking of alcohol. On the other hand, there were guards who enquired about the data the researchers were collecting and absolutely refused permission for the researchers to take photographs. It would thus appear that the training of guards was of varying quality and that the effectiveness of guards at gated developments was as good as the training that they have received.

Many gated developments had guardhouses on the property, but no guards. In fact, 54% of security estates and 15% of townhouse complexes had guardhouses, but no guards were present at the time of the survey. This points to the fact that guards are only on duty at certain times of the day or they leave the guardhouse unattended whilst patrolling the rest of the gated development. Guardhouses were not only to accommodate guards, but functioned as security command centres of the gated developments. They would, for example, house the control area for the monitoring of security cameras which appeared in 18% of security estates, but only 2% of townhouse complexes. These security cameras were positioned mostly at the entrances to gated developments, but also along the perimeter and in areas within the gated development.

The survey indicated that there were differing levels of security at gated developments. Furthermore, where some security estates had booms, some had gates whilst others had both. Some townhouse complexes had electric fencing, others not. Thus, a security level index was created in order to compare security between different gated developments

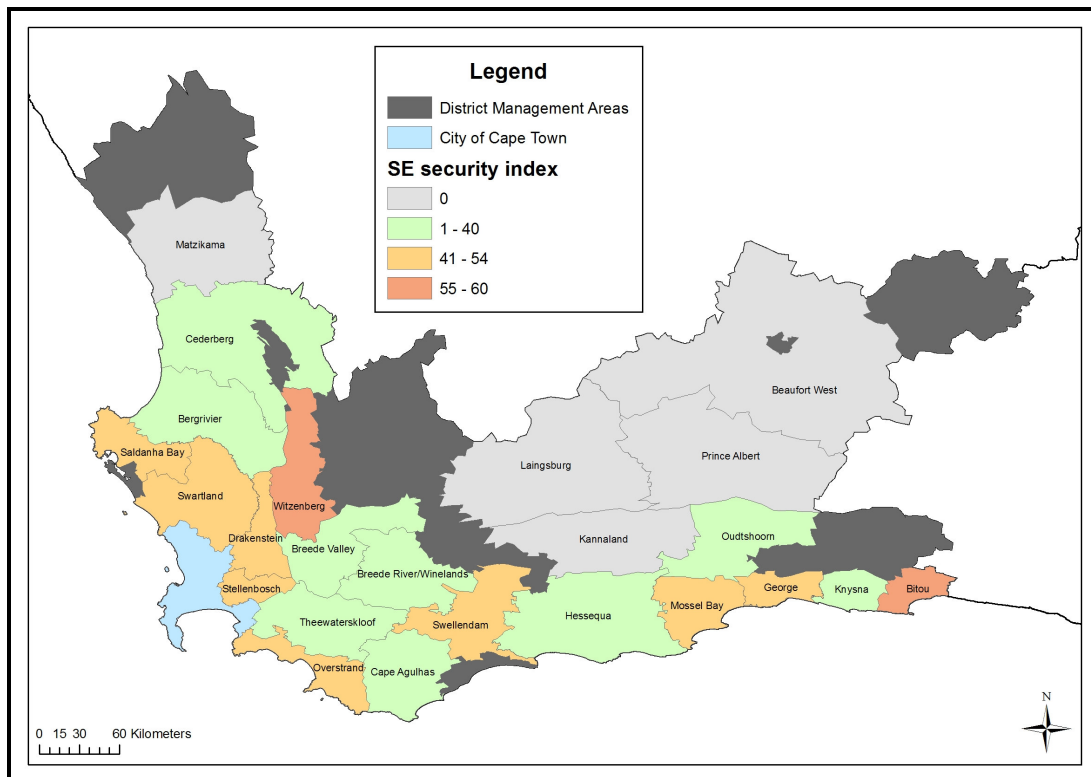
4.2 Security level index

The index was developed by analysing groups of specific security features rather than assigning a rating to a singular security feature. The danger with assigning a rating to a security feature

based on its 'securedness' or positive security impact is that it may be subjective – one may view security cameras as being able to better negate a security threat whilst another may view electric fencing as a better threat deterrent. The researcher is also not qualified to pronounce judgment as to what security measure, or combination thereof, would be the best to deter any threats to a gated development. The index, measured out of 100, merely gives an indication of which gated developments, based on its security attributes, would appear to be the most secure.

4.2.1 Local Municipality analysis – Security estates

Figure 11 gives an indication of the location of those municipalities with the highest security index value for security estates. The results of the analysis were classified into four classes, one of which represented a value of 0 (no index for that local municipality). Approximately 79% of local municipalities have a security index value for security estates, with an average index for security estates set at 45.



(Source: Compiled from author's survey)

Figure 11: Security index of security estates

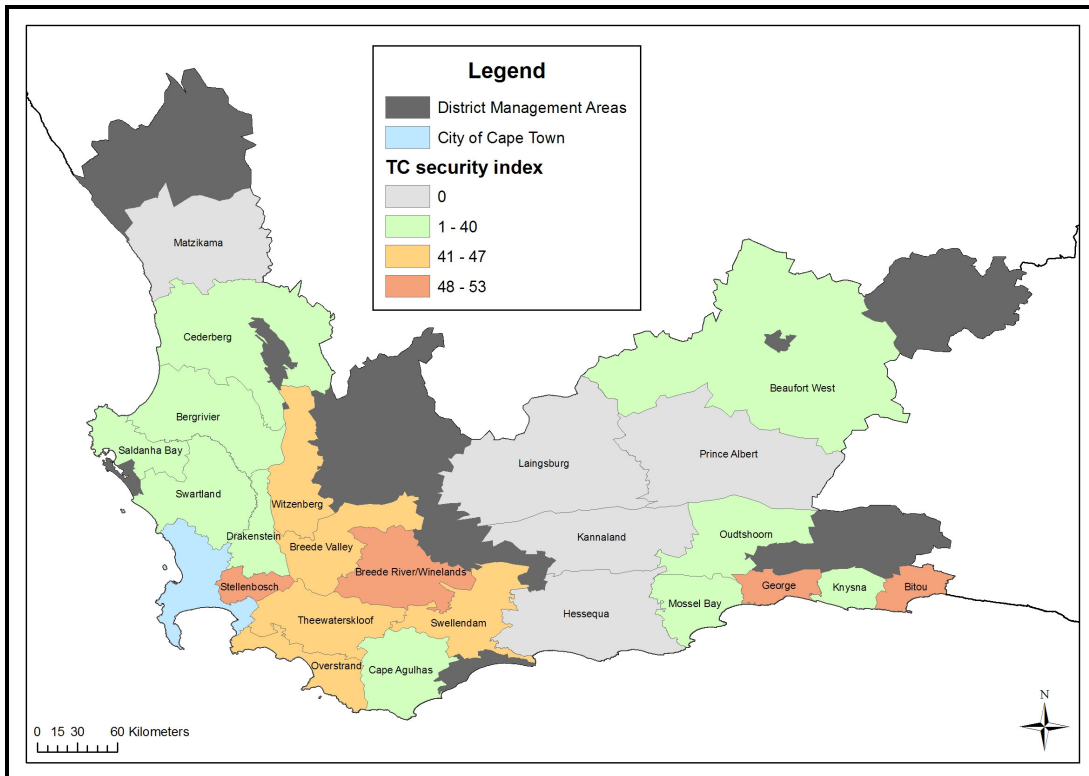
The local municipalities of Bitou and Witzenberg have the highest index; 60 for its security estates. The difference between the two local municipalities is that while Witzenberg LM has one

security estate, Bitou LM has fifteen. Thus, the security index value for Bitou LM is for a larger number of highly secure security estates. The economic bases of the two municipalities are also different in that the Witzenberg LM is dominated by agriculture and agro-processing (Witzenberg Local Municipality, 2010) whilst Bitou LM has tourism and construction as its main economic base (Bitou Local Municipality, 2009). Whilst one would identify security estates with tourism and recreation; the link between agriculture and agri-business and security estates is not that clear. A tourism economic base may be identified with leisure and amenity-driven security estates.

The second set of local municipalities according to the index ranking is those that have an index of 41 – 54 for its security estates (Figure 11). The local municipalities of Overstrand, Stellenbosch, Drakenstein and Swartland are contiguous to the metropolitan City of Cape Town. It may be that perceptions of crime and the fear of crime is influenced by the proximity to the city; a city that may be seen as unsafe, and hence the higher levels of security. Analysis performed on 2008/09 crime statistics show that the Stellenbosch LM and the Drakenstein LM have lower crime occurrences than the Overstrand LM and the Swartland LM (van Niekerk *et al.*, 2010). It is thus unclear if the perception and fear of crime is influenced by proximity to the city. The populous towns in the George and Mossel Bay LMs as well as the recreation and amenity-driven Saldanha Bay LM also have an index in this range.

4.2 Local Municipality analysis – Townhouse complexes

Figure 12 gives an indication of the location of those municipalities with the highest security index value for townhouse complexes. The results of the analysis were classified into four classes, one of which represented a value of 0 (no index for that local municipality). Approximately 81% of local municipalities have a security index value for townhouse complexes, with an average index set at 41.



(Source: Compiled from author's survey)

Figure 12: Security index of townhouse complexes

The local municipalities of Breede River/ Winelands (53), George (50), Stellenbosch (49), and Bitou (48) have the highest index for townhouse complexes. While the LMs of Bitou, George and Stellenbosch feature prominently in the security estates' index too, it is the Breede River/ Winelands LM that is the outlier in this group. The Breede River/ Winelands have three townhouse complexes, all located in the town of Robertson. As a matter of fact, all the security estates (three of them) in the Breede Valley/ Winelands LM are also situated in Robertson, but their security index is lower in comparison to other LMs. While Robertson serves an agricultural area, its tourism sector is growing (Langeberg Municipality, 2010). Thus the tourism sector, together with the development of Robertson's main street may be part of a wider development plan which includes gated developments.

The second category of security index for townhouse complexes is set at 41 – 47. The local municipalities of Swellendam (47), Overstrand (47), Witzenberg (45), Breede Valley (45) and Theewaterskloof (42) form part of this group. Quite bizarrely these local municipalities are located in a ring around Breede Valley LM. The presence of the Swellendam LM and Witzenberg LM in this category of townhouse complex security index is similar to its position in the security estates

index. Local municipalities to the north of the Cape Town metropolitan area have a low security index for their townhouse complexes. So while proximity to the east of the metropolitan may be a factor in townhouse security index, those to the north are not similarly affected. A curious anomaly is that while the Knysna LM has the fifth-highest occurrences of gated developments in the province at 40; their security index features in the lowest tier in both security estates and townhouse complexes. This may indicate an emphasis on lifestyle living rather than secure living.

The analysis on the LM level indicates that differences do exist between local municipalities in the security indexes between security estates and townhouse complexes. An analysis on the town level would give a clearer understand of what is occurring in individual towns.

4.2.3 Town level analysis

The fear of crime and violence has been touted for the emergence of gated developments (Low, 2003). One of the datasets used in the 2010 revision of the Growth Potential Study was a ranking of all the recorded crime occurrences within the towns during 2008/2009 (van Niekerk *et al.*, 2010). Five categories of crime occurrences per person per annum were created: 1 – high, 2 – high medium, 3 – medium, 4 – low medium, 5 – low. Fifty of the 53 towns were categorised in this manner. Three towns did not have data available for it.

Table 5: Location of towns and type of gated development within crime occurrences ranking

Crime occurrences ranking	Number of towns			Number of towns per ranking
	SEs and TCs	SEs only	TCs only	
1	0	1	1	2
2	2	1	4	7
3	12	2	4	18
4	7	4	3	14
5	3	4	2	9
Total	24	12	14	50

(Source: Compiled from author's survey and van Niekerk *et al.*, 2010)

Forty-six percent of towns that have gated developments are categorised in the 'low' and 'low medium' crime occurrences categories (Table 5). Eight towns within this group have an above-average gated development security and they reflect a diverse population size ranging from 5 406 to 121 930, which may indicate that settlement size is not a determinant of the location of high security gated developments and low crime occurrences. While it may be argued on a town level that the high security gated developments are not in accordance with the 'low' and 'low medium' crime occurrences; it can also be argued that it is precisely because of high security that crime occurrences are low. It must also be noted that it is towns that have a preponderance for security

estates which are represented in the 'low' and 'medium low' crime occurrence categories rather than those with townhouse complexes.

Thirty-six percent of towns with gated developments are located in the 'medium' crime occurrence category. Thus, 82% of towns with gated developments have crime occurrences in the 'medium' to 'low' categories. Conversely, 18% of towns are in the 'high medium' and 'high' crime occurrence categories. Should crime be a factor in the construction of gated developments in non-metropolitan Western Cape, then one could expect that these towns would have a high security level index for its gated developments. However, only one of the nine towns in the 'high medium' and the 'high' crime occurrence category has an above-average security level index. The towns in the 'high' and 'medium high' crime occurrence categories have predominantly townhouse complexes rather than security estates; this while the average security level index for townhouse complexes is lower than for security estates.

The data suggest that contrary to perception, gated developments may not be a reaction to high crime occurrences in a town. Those towns with above-average crime occurrences mostly have below-average security index levels for its gated developments. On the other hand, most of the towns with below-average crime occurrences have above-average security level indexes.

5. Conclusion

Residential non-metropolitan gated developments are an under-researched area in the gated development debate. This paper is part of a broader study to ascertain whether the reasons for the existence of gated developments in the non-metropolitan sphere are the same as those found in the metropolitan areas. For this purpose the delineation of the metropolitan/ non-metropolitan boundary needed to be clarified. The study area contained 131 towns and gated developments were present in 54 of those. The towns that contained gated developments were of varying sizes and not restricted to the larger towns.

Two types of gated developments were identified, namely, security estates and townhouse complexes. These two types of gated developments displayed varying locational characteristics within the study area. Most gated developments, particularly security estates, were located in coastal municipalities, or municipalities next to the metropolitan area. However, townhouse complexes featured strongly in inland municipalities. Most gated developments were located within town boundaries, but 6% were located outside of towns. A number of 'undeveloped' gated developments bear testament to property speculation and the drop in housing demand owing to stricter laws for banks in providing home loans.

Security is what defines gated developments and it was found that varying security measures were employed in different types of gated developments. Whilst gates were a ubiquitous feature of gated developments, not all gated developments had gates. The three most popular security features that were used in gated developments were gates, walls and intercoms with fences, guards and electric fencing used to a lesser degree. Using a security index that was developed, was found that, on average, security estates have more security features than townhouse complexes, creating the appearance that the former are more secure. Town crime occurrences in the study area were superimposed with the location of towns which had gated developments. It was found that gated developments were located in towns that had a medium to low rate of crime occurrences.

The analysis of non-metropolitan gated developments on the local municipality and town level provides a base from which to identify towns which display particular gating characteristics. A qualitative investigation of these towns would provide further elucidation as to the reasons for the establishment of gated developments, the levels of security and why people feel the need to reside in these developments.

Acknowledgements This research was financially supported by the South Africa – Netherlands Research Programme on Alternatives in Development and the CSIR.

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