

**DENSIFICATION AS A TOOL FOR SUSTAINABLE HOUSING  
DEVELOPMENT: A CASE STUDY OF  
UMHLANGA HIGH INCOME AREA IN DURBAN**

---

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT  
OF THE REQUIREMENTS FOR DEGREE OF A MASTERS IN  
TOWN AND REGIONAL PLANNING IN THE SCHOOL OF  
BUILT ENVIRONMENT AND DEVELOPMENT STUDIES.

BY

KIMI BARGER

UNIVERSITY OF KWAZULU NATAL  
MARCH 2016

## DECLARATION

---

Submitted in partial fulfilment of the requirements for the degree of  
Masters in Town and Regional Planning, in the Graduate Programme in  
the School of Built Environment and Development Studies,  
University of KwaZulu-Natal, Durban,  
South Africa.

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. It is being submitted for the degree of Masters in Town and Regional Planning, in the Faculty of Humanities, Development and Social Science, University of KwaZulu-Natal, Durban, South Africa. None of the present work has been submitted previously for any degree or examination in any other University.



---

Student Signature

**Kimi Barger**

---

Student Name

**March 2016**

---

Date

## ACKNOWLEDGEMENTS

---

I am foremost thankful to God who has shown me that I am able to do all things by His strength. I would like to thank my supervisor, Doctor Chipungu, for his guidance, encouragement and constructive advice throughout this dissertation process and my academic career thus far. To those who contributed to this study in various ways, with interviews, survey participation, data collection and analysis, thank you for your time, consideration and assistance. Finally, thank you to my family and friends for constantly motivating me to work hard and persevere.

## ABSTRACT

---

The implementation of affordable, high density housing within well established, suburban areas has social, environmental and economic impacts. By means of the case study of infill development in Umhlanga, the research aims to determine the contribution of densification to social integration and affordable housing in South Africa, particularly the eThekweni Municipality. The research conducted included a thorough review of literature by engaging concepts and theories linked to densification, affordable housing and social integration to inform the direction of the dissertation. The study further analysed international precedents of developed and developing countries and examined the South African case of housing development consequential of apartheid planning patterns. An electronic survey was conducted in the Prestondale community adjacent to new, affordable housing development. The survey was conducted to ascertain lifestyles, perspectives, quality of life and levels of social integration in relation to more affordable developments accommodating a different demographic. The study found that there is a trade-off between fulfilling the housing needs of lower to middle income people sustainably by providing more affordable housing in desired locations and creating greater social integration not only among different races but between different societal classes. The study recommends greater public participation in the implementation of affordable housing as existing residents were found to be unaware of such developments and therefore had a preconceived, often misguided notion of affordable housing development and the intended population of such development. Finally, the dissertation concludes that there is a need for a change, if development is to meet housing needs in a multifaceted sustainable manner.

# TABLE OF CONTENTS

---

<b>TITLE PAGE</b>	<b>i</b>
<b>DECLARATION</b>	<b>ii</b>
<b>ACKNOWLEDGMENTS</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>TABLE OF CONTENTS</b>	<b>v</b>
<b>LIST DIAGRAMS</b>	<b>vii</b>
<b>LIST OF ABBREVIATIONS</b>	<b>viii</b>

<b><u>CHAPTER</u></b>		<b><u>Pg</u></b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	BACKGROUND AND CONTEXT	1
1.2	RESEARCH PROBLEM	3
1.3	RESEARCH AIM	4
1.4	OBJECTIVES	4
1.5	RESEARCH QUESTIONS	4
1.5.1	MAIN RESEARCH QUESTION	4
1.5.2	SUB - RESEARCH QUESTIONS	4
1.6	METHODOLOGY	4
1.6.1	RESEARCH DESIGN	5
1.6.2	RESEARCH METHODS AND FORMAT	6
1.6.3	PRIMARY SOURCES	6
1.6.4	SECONDARY SOURCES	8
1.6.5	ANALYSIS	8
1.6.6	VALIDITY, RELIABILITY AND RIGOUR	10
1.6.7	LIMITATIONS AND OUTCOMES	10
1.7	CHAPTER OUTLINE	11
1.8	SUMMARY	12
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	<b>13</b>
2.1	INTRODUCTION	13
2.2	CONCEPTUAL FRAMEWORK	14
2.2.1	DENSITY AND DENSIFICATION	14
2.2.2	AFFORDABLE HOUSING	19
2.2.3	SOCIAL INTEGRATION, COHESION AND SOCIAL JUSTICE	20
2.2.4	SUMMARY	22
2.3	THEORETICAL FRAMEWORK	23
2.3.1	INTRODUCTION	23
2.3.2	SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT	24
2.3.3	SOCIOLOGICAL THEORIES AND THEORIES OF SOCIAL JUSTICE	30
2.3.4	SUMMARY	38
2.4	GLOBAL APPLICATION OF SUBURBAN DENSIFICATION	39
2.4.1	INTRODUCTION	39
2.4.2	AMERICA	40
2.4.3	UNITED KINGDOM	42
2.4.4	INDIA	43
2.4.5	SUMMARY	45

<b>CHAPTER 3</b>	<b>THE SOUTH AFRICAN CASE STUDY</b>	<b>46</b>
3.1	INTRODUCTION	46
3.2	THE SPATIAL LANDSCAPE	47
3.3	URBAN PLANNING POLICIES AND GUIDELINES	49
3.4	AFFORDABLE HOUSING	52
3.4.1	AFFORDABLE HOUSING MODELS IN SOUTH AFRICA	54
3.4.2	SOCIAL HOUSING	56
3.5	SUMMARY	58
<b>CHAPTER 4</b>	<b>CASE STUDY OF UMHLANGA INFILL</b>	<b>59</b>
4.1	INTRODUCTION	59
4.2	THE BROADER CONTEXT	59
4.2.1	THE ETHEKWINI MUNICIPAL AREA	59
4.2.2	POLICY CONTEXT	61
4.2.3	THE ETHEKWINI MUNICIPALITY CDS	62
4.3	LOCAL STUDY CONTEXT	66
4.3.1	THE MANHATTAN MEWS	69
4.3.2	PRESTONDALE	71
4.3.3	LAND USE AND ZONING	72
4.4	SUMMARY	75
<b>CHAPTER 5</b>	<b>FINDINGS AND ANALYSIS</b>	<b>77</b>
5.1	INTRODUCTION	77
5.2	DATA PRESENTATION AND FINDINGS	78
5.2.1	SOCIO ECONOMIC PROFILE	78
5.2.2	QUALITY OF LIFE, ATTITUDES AND BEHAVIOUR	82
5.2.3	ATTITUDES AND BELIEFS	85
5.3	DATA ANALYSIS	89
5.3.1	DENSITY AND DENSIFICATION	90
5.3.2	AFFORDABLE HOUSING	92
5.3.3	SOCIAL INTEGRATION, COHESION AND JUSTICE	94
5.3.4	QUALITY OF LIFE AND STANDARD OF LIVING	97
5.4	SUMMARY	100
<b>CHAPTER 6</b>	<b>CONCLUSION AND RECOMMENDATIONS</b>	<b>102</b>
6.1	INTRODUCTION	102
6.2	SUMMARY OF FINDINGS	102
6.3	RECOMMENDATIONS	103
6.4	CONCLUSION	104
<b>BIBLIOGRAPHY</b>		<b>105</b>
<b>APPENDICES</b>		<b>124</b>

## LIST OF DIAGRAMS

---

### **BOXES**

3.1	CSIR Housing backlog statistics	47
-----	---------------------------------	----

### **FIGURES**

2.1	Density depicted in different forms	16
3.1	S.A GNI/Capita and HDI	46
3.2	Missionvale fourplex housing	55
4.1	Residential lifestyle options in Umhlanga	68
4.2	Manhattan Mews Aerial Image	69
4.3	Mixed use buildings	73
4.4	Vertical land use	74
5.1	Gender	79
5.2	Age Category	79
5.3	Period of stay in Prestondale	79
5.4	Employment	80
5.5	Distance to work (minutes)	80
5.6	Household income spent on housing	81
5.7	Community Composition	81
5.8	Awareness of affordable housing developments	82
5.9	Possibility of relocating	82
5.10	Aesthetic appearance of area	83
5.11	Safety and crime	85
5.12	Attitudes and beliefs towards affordable housing and social integration	86
5.13	Affordable housing and Government intervention	87
5.14	Affordable housing projects infringe on private property owner rights	87
5.15	Diverse society enhances the neighbourhood	88
5.16	Prefer people of similar economic background	88
5.17	Higher income people contribute more to society	88
5.18	Low income people and choice	88
5.19	Effect of A.H development on the area	89

### **MAPS**

4.1	Locality Plan of study area	59
4.2	Accessibility	61
4.3	Strategic Areas in Ethekwini CDS	66
4.4	Updated aerial image of area	67
4.5	Zoning	73
4.6	Land Use	73
4.7	Residential Use	74
4.8	Cross section of vertical land use	75

### **PHOTOPLATES**

4.1	Manhattan Mews	70
4.2	Prestondale Neighbourhood	72

## **TABLES**

1.1	Survey response rate	7
3.1	Guidelines and Policy Documents	51
4.1	Preconditions for densification	64
5.1	Race category	78

## **LIST OF ABBREVIATIONS**

---

<b>ABSA</b>	Amalgamated Banks of South Africa Limited
<b>A.H</b>	Affordable Housing
<b>BNG</b>	Breaking New Ground
<b>CBD</b>	Central Business District
<b>CCTV</b>	Closed-Circuit Television
<b>CDS</b>	City Densification Strategy
<b>CEE</b>	Centre for Environment Education
<b>CSIR</b>	Council for Science and Industrial Research
<b>du/ha</b>	Dwelling Unit per hectare
<b>E.M</b>	eThekweni Municipality
<b>E.M.A</b>	eThekweni Municipal Area
<b>F.A.R</b>	Floor Area Ratio
<b>GEAR</b>	Growth, Economic and Redistribution policy
<b>GIS</b>	Geographic Information System
<b>HDA</b>	Housing Development Agency
<b>H/h</b>	Household
<b>IDP</b>	Integrated Development Plan
<b>IHS</b>	International Housing Solutions
<b>NIMBY</b>	Not in my back-yard
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>QOL</b>	Quality of Life
<b>RDP</b>	Reconstruction and Development Programme
<b>RSA</b>	Republic of South Africa
<b>SAPS</b>	South African Police Service
<b>SDF</b>	Spatial Development Plan
<b>SPLUMA</b>	Spatial Land Use Management Act (Act No. 16 of 2013)
<b>U.K</b>	United Kingdom
<b>UNDP</b>	United Nations Development Program
<b>U.S</b>	United States



## CHAPTER 1: INTRODUCTION

---

### 1.1 BACKGROUND AND CONTEXT

The eThekweni Municipality Spatial Development Plan (SDP, 2013; 7) defines densification as an increase in density “achieved through the increased use of space both horizontally and vertically within existing areas.” It refers to “the compactness of cities” (ibid) which supports efficiency and cost effectiveness, increased access to amenities, facilities, services and opportunities (Dave, 2010). Densification, through infill development, is intended to optimise infrastructure and promote integration within settlements (SDP, 2013).

Trends of densification in development, manifested through infill, have gained widespread appeal in both global and local contexts. Within the South African housing climate these strategies have a greater implication on society and development stemming from the infamous consequences of apartheid planning and history. There has always been an *us* and *them* scenario on the spatial landscape (UN-Habitat, 2014) with the tendency to exclude groups of society perceived as *the other*. This is a social and spatial divide, premised on a race division of black and white populations in conflict. In more recent years, it has developed on a basis of economic disparity, a case of rich against poor, the elite against the disadvantaged or powerless, and vice versa. According to UN-Habitat (ibid) South Africa has the highest levels of inequality in the world.

The interest in densification stems from the dual problems faced by the South African government in its attempt to rectify the above mentioned issues - through development strategies. The problems entail the longstanding, severe housing crisis, its amplification, and the fragmentation that has existed within the interrelated spatial and social spheres (Mtantato, 2012). Spatial Development Frameworks are the main tools implemented to realise integrated development (Watson, 2009). Exacerbating, and to an extent stemming from these problems, is the continuous process of urbanisation. Contemporary South Africa exhibits social and economic imbalances, evident within spatial patterns of racial segregation, stemming from colonial and apartheid government systems (Hart, 2002) which resulted in the failure of early democratic planning. Affordability is a “major constraint to residential mobility” (UN-Habitat, 2014; 236) and for this reason there has been little change in the spatial pattern of the built environment and integration. A holistic approach is taken toward developing human settlements. Comprehensive plans highlight various forms of densification as a tool to increase integration, correct spatial issues and decrease the housing backlog. South African housing policies are

drawn up at a national level and manifested as local development projects. Specific zones for infill development within suburban areas are demarcated in major urban metropolises such as Cape Town, Johannesburg and Durban. Plans for affordable housing in the form of high rise social housing developments have been designed in these suburbs.

Local infill projects of interest have developed on a larger scale (Sutherland, Robbins, Scott and Sim, 2013) as development plans within established suburban settlements of Westville, La Lucia, Ballito and Amanzimtoti (eThekweni Municipality City Densification Strategy (CDS, 2013). An affordable housing development that has become operational includes higher density residential development in Umhlanga. These are known as wealthier residential areas, reserved for the white population during the apartheid era and make up the surrounds of the Durban CBD. It is at this local or neighbourhood level that housing projects often receive opposition that impacts on whether they succeed or fail in their intent (eThekweni Municipality, 2013). Other infill projects of various types and scales have taken place in urban areas of eThekweni over the years. Development within the inner city and surrounding areas has been undertaken to meet housing needs, eradicate informal settlements, and mitigate urbanisation, furthering political agendas, fulfilling agendas of both sprawl and sustainability and creating integration (ibid).

Good intentions in planning practices do not mean endeavours are always successful (Smith, 2010). The implementation of infill development projects may create further societal segregation within neighbourhoods, fail to meet the needs or standards and face rejection. Implementing affordable, high density housing within well established, suburban areas has social, environmental and economic impacts. Thus, such housing development has faced and will continue to face conflicting arguments from differing interest groups. Until such projects are undertaken and there has been a period of observation of the development, the outcomes cannot be fully determined. The only means of forecasting the success of town planning projects are case studies of similar endeavours and the consideration of lessons learnt throughout their processes. On a global scale, densification has been pursued as a solution to the negative impacts of urban sprawl, on climate change and the natural environment (Litman, 2012). The natural environment is a key aspect within density (Schmidt-Thomé et al, 2013) and has a significant influence on the frameworks directing planning, but will not be focused on in the research.

Suburban densification has become the global solution for contemporary development woes. Standpoints advocating both for and against infill have developed. On a local level, this densification is a new strategy being implemented as a restructuring tool to reconcile the city

(eThekweni Municipality, 2013). The research seeks to explore the issues of policy and practice pertaining to housing development, further analysing whether densification as a tool can and will be successful in terms of sustainable development and creating cohesive communities. The research intends to find the extent to which infill projects work within the South African context fulfilling the need to provide comprehensive insight on the subject. It is yet to be determined “whether or not the philosophy that is fuelling the current frenzy towards high rise infill housing densification will prove to be a panacea or an apocalypse of the future” (Irwin, 2012; 1).

## 1.2 RESEARCH PROBLEM

Past planning in South Africa has culminated in a fragmented, unequal spatial landscape and a shortage of adequate, well-located affordable housing. These development issues negatively affect social integration. Turok (2011; 61) confirms that “Apartheid cities were shaped in the first instance by policies of strict social segregation and secondly, by separating economic and residential zones to keep commercial and industrial activities out of non-white areas.” There is a high housing backlog in South Africa (Khoza and Kabir, 2014) with a shortage of approximately 2 million houses (Pillay, 2008; 121) with the net housing backlog in the eThekweni Municipality being 200 000 units (eThekweni Municipality Integrated Housing Development Plan; 4). The housing crisis stems from the poor planning practices undertaken in colonialist, modernist, apartheid and misguided democratic stages of development (Nhlapo, Kasumba and Ruhiiga, 2011). A host of housing related issues have arisen as a result, including; haphazard informal housing and settlement development, inner city degradation, NIMBY (Not-in-my-back-yard) opposition, inaccessibility of suitable land for affordable housing and spatial, social and economic disparities between and within residential settlements (Turok, 2011). The social and economic disparities, disintegration and fragmentation of society affect current planning and future sustainability of the city (eThekweni Municipality, 2013).

There is a lack of innovation in strategies implemented to house the poor and integrate society of different class status, race and background within compact living environments (Pillay and Nyathikazi, 2007). Current endeavours are as high rise social housing within affluent suburbs; but the viability of such development is debatable from several standpoints discussed in the dissertation. According to Mtanto (2012) high rise development is associated with slum creation and forced integration. This fuels community opposition and hostility within wealthier areas and forms social and physical barriers. The impact of political influence on development and the capacity of existing infrastructure are other issues associated with public housing development (ibid).

### 1.3 RESEARCH AIM

The aim of the research is to determine the contribution of densification to social integration and affordable housing.

### 1.4 OBJECTIVES

- i. To analyse how planning is used as a tool to achieve densification
- ii. To explore different avenues used to achieve densification
- iii. To establish the sustainability of housing development
- iv. To assess the response of stakeholders to the aforementioned planning tool.

### 1.5 RESEARCH QUESTIONS

#### 1.5.1 MAIN RESEARCH QUESTION

Is densification through suburban infill an effective tool for combating the interconnected issues of housing and social integration?

#### 1.5.2 SUB – RESEARCH QUESTIONS

Key questions in relation to the aim and objectives and main research question set out are;

- What is densification?
- What are the means of densification and how are they chosen?
- How feasible are densification strategies?
- Are there effective policies, legislations and strategies in place regarding densification, to achieve affordable housing and social integration?
- Will densification lead to social integration or greater segregation within communities?

### 1.6 METHODOLOGY

*“Consider this, you who are engaged in investigation; if you choose to seek truth, cast aside passion, accepted thought, and the inclination towards what you used to esteem, and you shall not be led into error.” (Moses Maimonides, 12thC Scholar, Philosopher and physician)*

Social research is undertaken when concerned with the social sciences (Lindblom and Cohen, 1979). This branch of research is conducted to inform on developments and changes that occur within societies. Insight is gained on various themes and issues and analysed so that conclusions may be drawn to the implications of these dynamics (Bryman, 2012). Owing to the ever changing dynamics in society, the importance of social studies, ambiguity and contextual inconsistency, mere review of theories and existing literature is inadequate for academic

research. Current and situational analysis is necessary to fill the gaps and give relevance to studies (ibid). Bryman (ibid) suggests that social research is comprehensive as it provides theoretical information and the reviewing of existing literature, enabling a study of current and local data. Within this study, the theories and literature reviewed support the analysis, explanation and interpretation of existing data collected through field research. The data collected may verify, confirm or disprove the existing information, seeking to present necessary insights on local issues. The section on methodology therefore discusses how the research was conducted, outlining the methods used, the sampling techniques, data collection instruments and sources, and data analysis. The overall approach to research takes on a postmodern nature of utilising the best means at hand for answering the research question (Derrida, 1978 and Levi-Strauss, 1966). Thomas (2009; 143) asserts that we should “think beyond the confines of existing categories of research.”

#### 1.6.1 RESEARCH DESIGN

To determine the impact of densification as a tool for sustainable housing development in light of social integration and affordable housing, the design guiding the research is evaluatory and exploratory. Exploratory research identifies the key factors relevant to the study and can bring certainty and greater understanding to the research subject (Van Wyk, n.d.; 8). Evaluative research is used to discuss the impact, effectiveness or consequences of policies and implementation (Thomas, op. cit) and is necessary given the nature of the research question. Case study research forms the basis of literature related to planning and design (Williamson, n.d). It is a necessary evaluatory assessment in determining the impacts and outcomes (U.S Agency for International Development, 2013 and Parthasarathy, 2008) of densification. Detailed analysis is undertaken on infill development within the eThekweni Municipality in terms of its nature, quality and impact on the surrounding residential suburb and its residents. The chosen case study enables greater insight into the realities of infill development on neighbourhoods.

The literature review will show the need to think critically about densification. Primary and secondary data have been essential in developing well informed, comprehensive conclusions. Secondary information provided greater understanding, but required corroboration with primary sources investigated in this research. The study focused on infill development in the eThekweni Municipality, as higher density, more affordable housing within traditionally lower density, higher income areas. The study observed the Prestondale neighbourhood adjacent to affordable housing development in the Umhlanga Ridge, New Town Centre. Research focused on the social

elements affected by and influencing the physical planning of the area. A locality map of Umhlanga is depicted in Appendix 1.

### 1.6.2 RESEARCH METHODS AND FORMAT

Turok (2011; 46) sums up the need for the research approach by stating that “In South Africa, progress in the built environment is usually measured in physical terms... number of new houses built... number of households provided with clean water, sanitation and electricity... Yet indicators of physical progress are partial and inadequate... They say nothing about whether the location and form of housing are appropriate, or whether the provision is in response to people’s needs and sustainable in the longer term.” The study uses a mixed method approach using both qualitative and quantitative methods. Qualitative interviews and quantitative surveys in the form of questionnaires were undertaken to present factual and concise data and better understanding in support of qualitative outcomes (Nussbaum, 2010 and Ezzy, 2013). These methods increased reliability and flexibility of the study. To create the questionnaire, the Likert Scale technique was utilised as the means for obtaining attitude and behavioural information (Duke, op. cit.; Thomas op. cit.). Prevalent planning and development frameworks (eThekweni Spatial Development Frameworks (SDF’s) and Local Area Plans) were used to analyse developments in the broader planning context.

### 1.6.3 PRIMARY SOURCES

The case study was selected through purposive sampling, based on its attributes. The Prestondale neighbourhood was selected in light of its proximity to newly developed residential infill targeted at lower income populations of different social demographics. The sample size is above the recommended 10% of randomly selected people in the study area. This ensures the collection of adequate information and a target population that are typical representatives with relevance to the study. An email database of 180 of the Prestondale residents obtained from a professional consultancy was used to send electronic mail links for accessing online surveys. In total 33 residents responded to the survey questionnaires as indicated in Table 1.1 (page 7). As mentioned, the survey was not the sole medium of gaining information on the research subject and is substantiated by other data collected. Research showed that residents would be more responsive to electronic surveys and hostile and reluctant to engage in face-to-face or mailed questionnaires (Author, 2015). See Appendix 4.

Table 1.1: Survey response rate

Total survey population	180
Respondents (sample)	33
Response rate	18.3%

Source: Author, 2015

#### 1.6.3.1 OBSERVATION AND MAPPING

Aerial images, land use maps and profile sketches have been compiled using Geographic Information System programs (ArcGIS 10), to demarcate and analyse the study area. These representations have been included in chapter 5 of the dissertation. Several questions were further answered in the field, through unstructured observation (Appendix 2) and a site analysis of Prestondale and Umhlanga Ridge, undertaken in April of 2015. Canvassing was carried out by traversing the study area with the intention of understanding the characteristics, daily functioning and interactions within and between the Prestondale neighbourhood and the Umhlanga Ridge New Town Centre. An analysis of buildings and land use was noted as important for confirming desktop data, understanding the built form and the transitions between enclaves. Key questions and matters observed, detailed in Appendix 2, were then correlated with responses collected in secondary data, online surveys and interviews.

#### 1.6.3.2 OPEN ENDED INTERVIEWS

Participants in the survey were recruited through two avenues. A face-to-face, open ended and semi-structured interview was conducted with the ward councillor of Umhlanga (Ward 35), selected through non-random, judgment sampling. The selection was determined by the councillors' role and expertise on the research subject. In attendance at this interview was the councillor of a less affluent community (Newlands) that gave further insight, informative to the study conducted. Unstructured, impromptu interviews were conducted during site observation, between the researcher and security on duty at the Manhattan Mews residential development and pedestrians in the Prestondale neighbourhood (See Appendix 3).

#### 1.6.3.3 QUESTIONNAIRES.

Questionnaires were submitted to residents of Prestondale. Dealing with the concept of sustainability, there was a need to determine quality of life. Methods by Duke (2010) and Sahin et al (2007) in conducting similar studies confirmed the success of these methods in obtaining results. Questions were developed on the basis of these methods and human settlement definitions (Department of human settlements, 2010). Questionnaires were sent to recipients

using Survey Monkey, an online survey-distribution program. Prestige bias, whereby a respondent answers in a way that elevates their status, was mitigated by informing respondents of the anonymity of the survey. Electronic surveys enabled a comprehensive set of data to be compiled in Microsoft Excel in a tabulated format (See Appendix 4).

#### 1.6.4 SECONDARY SOURCES

Secondary data sources included an analysis of existing literature relevant to the research and have been acknowledged in the bibliography. Secondary sources comprise relevant books, electronic sources and journals, reports and media articles and documentation and planning frameworks compiled by the eThekweni Municipality. A thorough review of the literature on key concepts, theories, histories and precedents whereby similar studies have been undertaken, examination of development frameworks and legislation is set out in subsequent chapters.

##### 1.6.4.1 CONTENT ANALYSIS

Content analysis of media, including current social media and related themes, particularly in terms of opposition to the densification of suburbs, social conflicts, issues of affordable housing on global and local scales was conducted. This information adds to and substantiates the data collected through the case study. Articles and media selected as samples within the study were based on the appropriateness of their content in the investigation and have been cited. Targeted literature searches were carried out in the early stages of research, relating to the theories and models most relevant to the subject, identified in the literature review.

#### 1.6.5 ANALYSIS

Data responses gathered through surveys and interviews were tabulated and inserted into Microsoft Excel for analysis. Bar graphs and pie charts were used to further compile, analyse and interpret data using Microsoft Excel and Word programs. Conclusions were then drawn to determine whether densification through suburban infill; is an effective tool for combating the interconnected issues of housing and social integration. Responses to various questions and from various respondents were correlated, allowing relations and comparisons to be made between responses. Thematic analysis identified dominant themes through the continual analysis of research and interview information gathered. Predetermined themes (such as the quality of the living environment) were confirmed inductively, once field data became available. Themes were determined relative to the theories and concepts put forth in chapter 2 of the dissertation. This enabled links and sequences to be created from transcripts produced through interviews and questionnaires. The use of the Likert Scale further guided the analysis of raw data. The main



findings emerged from field studies, highlighting the importance of the context (physical, social and economic). Generalizations could therefore be established for the representative case study. The Likert Scale technique was used to measure the attitudes and beliefs of respondents'. A Likert Scale is useful in measuring attitudes and behaviours to determine degrees of opinion. To measure qualitative elements such as attitudes or character traits, data collected must be converted into qualitative measures (Boone and Boone, 2012). The Likert Scale) makes use of questions and standard alternative responses linked to relative numerical scores (Likert, 1932; Munshi, 2014). The responses to questions were analysed and collated to describe the composite attitude of the Prestondale community. Measuring Likert Scale data required measuring averages using procedures to find the means, medians and modes.

Each question in the survey is typified as a Likert item related to each other to form the Likert Scale. The values of each Likert item were added, and a score created for each respondent and each question. The score represents a particular attitude. Within the research, scores represent either a positive or negative position towards the themes in the research, viz. residents' attitudes towards affordable housing development and intended populations, social integration and social justice. Qualitative findings have shown the reasons individuals have in justifying their responses.

The analysis made use of a four-value scale to transfer the data qualitatively. Questionnaires provided four alternate response options, being, Strongly Agree (S.A), Somewhat Agree (S.W.A), Somewhat Disagree (S.W.D) and Strongly Disagree (S.D). Given these options participants in the survey indicated their opinion in light of the particular question. Responses to each question were scored as reflecting a positive or negative attitude or behaviour towards affordable housing development in and around the Prestondale neighbourhood. Likert Scale scoring was between 1 and 4 in relation to the number of response options. The most positive response score was 4 and the most negative was 1, with 3 and 2 being somewhat positive and somewhat negative respectively. A score sheet template used to analyse data responses is included in the Annexure. By eliminating the choice of neutral as a response option to the questionnaire, respondents were forced to respond in a positive or negative manner. In response to the set of questions put forward to establish the attitudes of residents towards affordable housing a list of respondents and scores is included in Appendix 4. The questions to residents are related to each other to give a correlated overview of attitudes.

### 1.6.6 VALIDITY, RELIABILITY AND RIGOUR

Rigour and reliability come into question when qualitative research is conducted (Morse, Barrett, Mayan, Olson, Spiers; 2002). The research undertaken therefore took a mixed method approach. Using both types of analysis enabled a synthesis of data, allowing qualitative statements to be substantiated by quantitative facts. As mentioned in the methodology, the danger of interview responses lies in partiality, preference and bias of participants. To palliate this, a range of data collection techniques was applied using various sources of information, informants and questionnaires conducted with affected parties. An informed consent form detailing the particulars of the research study and indicating the nature, conduct and context of the analysis was attached to each email, with the respondents' reply indicating consent to the survey. Information obtained was further correlated to existing census and statistical data obtained from earlier municipal surveys.

The literature review and extensive personal research on the subject were beneficial in analysing and understanding both the context and the results of the study. Personal influence on analysis was prevented as there has been no prior involvement within the study area or the chosen case studies by the researcher. Observations undertaken during the field study were factored in and considered based on conclusions drawn from literature and undertaken fieldwork. A method of triangulation, the process of using more than one kind of evidence, enabled corroboration of the different sources (Davies, 2007). This increases validity in terms of researcher interpretation of information and enabled more objective analysis. Reliability refers to the instruments used in data collection, whether the instrument can be consistently tested (test-retest reliability) or used by other researchers (inter-rater reliability) to produce similar results (Thomas, 2009; 105). The instruments used have been adapted from previous studies undertaken by various researchers on the subject and consistent with various development frameworks. Reliability was ensured by substantiating interviews and survey data with observatory deductions. It should be noted that, reliability and validity, although taken into consideration in the proposed research project, hold greater importance in experimental research designs (ibid).

### 1.6.7 LIMITATIONS AND OUTCOMES

In social science study a strict conclusive outcome is not obtainable; one can hope to gain as much clarity as possible through the evidence gathered, to take a particular position, (Thomas, 2009). Dewey (1920 & 2004), noted that we develop our own perceptions and prejudices and make prejudgments. Although ethnographic study (the immersion and assimilation of the researcher within the context of the study) may be necessary to the social integration aspect of

the study, time constraints, cost and convenience limitations did not allow for this approach. Further difficulties arose in obtaining the participants for the surveys. Residents of the affordable housing development were not authorised to take part in the study. Several expected interview participants were unavailable due to alternate commitments and time constraints. To compensate for this, other data sources were utilised to gain the necessary information. This made certain that adequate feedback was received. All means of obtaining primary data through interviews and questionnaires, such as telephonic, fax, email and face-to-face methods were considered.

Global case studies relied on existing literature and credible articles to find the extent to which infill and densification has been successful when implemented by governments. They are therefore subject to the bias of various theorists, scholars and practitioners from which they are sought. In this light they were thoroughly researched and a comprehensive body of available literature was studied and critically analysed. Limited empirical data on ways to measure appropriate levels of density is available, posing a problem for developing policy and guidelines to govern sustainable urban development (Burgess & Jenks, *op. cit.*). This is a barrier to the research at hand in determining the viability of higher densities and creating solutions to the related problems.

## 1.7 CHAPTER OUTLINE

The overarching research theme is ‘densification’. The dissertation comprises 6 chapters:-

Chapter 1 sets out the research undertaken. A comprehensive introduction to the topic, including a summary of background information that sets the planning context is provided. The introduction expands on the theme and outlines the research covered during the study. This chapter states the research problem, aim, set objectives and associated questions to guide the research. Chapter 1 further outlines the methodology carried out in which the case study of Umhlanga development has been analysed.

Chapter 2 frames the literature reviewed. This section is divided into three main areas of analysis setting out the conceptual framework, theoretical framework and application of both concepts and theories. The conceptual framework defines and explains key terms associated with densification, affordable housing development and social integration and justice, explaining the spatial landscape significant in providing context to the other terms. The conceptual framework is followed by the theoretical framework as the foundation on which these concepts have been formulated. The literature review explores global cases where densification strategies have been employed, lessons learnt and how they are relevant on a local level.

Chapter 3 outlines the South African case, setting out the local context, history of planning and development as it pertains to social segregation, integration and the housing sphere. The chapter explores urban planning policies and guidelines that have influenced national, provincial and local spatial development and housing. Affordable and social housing models are discussed as significant channels of affordable housing delivery in South Africa.

Chapter 4 explores the case study of Umhlanga by means of various sources. The chapter discusses the implementation of higher density, affordable housing development, with the example of Manhattan Mews apartments, next to the established neighbourhood of Prestondale. The context of densification within the eThekweni Municipality is determined by reviewing planning frameworks and an in depth study of the local area and the specific study area is provided.

Chapter 5 presents the findings of the study and provides the analysis of outcomes in response to the objectives set out in chapter 1, highlighting the issues that emerge from the findings. Data analysed is depicted in a series of graphs and tables compiled under several themes derived from the research and discussed in terms of the literature review and preceding chapters.

Chapter 6 is the concluding chapter of the dissertation. This chapter provides the synthesis of the analysis and conclusions drawn from the research. Recommendations are put forward relating the findings to the research problem, showing how successful densification and affordable housing provision may be achieved in light of the literature reviewed, the data findings and the realistic context.

## 1.8 SUMMARY

The chapter has provided the overall framework for the dissertation. It serves as a guide in providing the contextual background and direction of the research to answer the research questions and achieve the set objectives. The chapter further enables a connection to be drawn between the research conducted in light of the research problem and an explanation to the primary research question. A comprehensive outline of the content further assists the reader in understanding the links between the concepts and theories pertinent to the subject matter and gives insight into the thought process ensued in reaching a comprehensive and substantiated conclusion.

## CHAPTER 2: LITERATURE REVIEW

---

### 2.1 INTRODUCTION

Densification, sustainability and socio-spatial justice outline the broad framework of the research. Countless arguments, theories and tests present positive and negative connotations of densification. Wirth (1938), Calhoun (1962), Fuhrer and Kaiser (1994) Regoeczi (2002), Baldea and Dumitrescu (2013) have presented negative explanations and arguments associated with increasing residential density, over several years. Simultaneously, Freedman (1975), Schmidthomé, Haybatollabi, Kytä and Korpi (2013) have formulated positive positions. Turok (2011) establishes that well located higher density housing is crucial to restructuring apartheid South Africa. On this foundation, the collective study on the impact of density renders an inconclusive end. The success of densification within a human settlement depends on its contextual situation. Whilst acknowledging that an optimal density exists, none is specifically prescribed for all residential settlements (Regoeczi, *op. cit.*; Jacobs, 1961). A substantial branch of the debate about density is based on the perceptions of society towards higher densities (Freedman, *op. cit.*; Flint, 2005; Lawson 2010). Successful densification is further influenced by spatial design, configuration and land use (Lawson, *ibid*; Ekshureleni Metro Municipality, 2008).

Regardless of the debate about densification, it is a major restructuring tool for sprawling urban settlements on a global scale and important for spatial (and social) restructuring on a local scale (eThekweni Municipality, *op. cit.*). Balancing social, environmental and economic factors (Berke, 2002) is one of the main reasons for the interest in densification (Jenks et al, 1996). Smart growth, new urbanism and the compact city critiques of American suburbia (Congress of New Urbanism, 2001) rely on densification to achieve sustainability (Calthorpe, 1960, 1996 & 2010; Feinstein, 1999, Berke, 2002, Duany et al, 2009; Burgess and Jenks, 2004 and Mtanto, 2012). Neuman (2005) and Burton (2000) reiterate that the success of sustainability akin to that of densification is debatable. This chapter will outline the relevant concepts, theories and precedent of their application. Most studies on densification are internationally based, cases occurring in Australia (Ruming, Houston and Amati, 2012), Los Angeles, (Myers and Soja, 2011; Gish, 2007), Texas (Duke, *op. cit.*), Brazil (Selvanayagam, 2012) and London (U.K Government, 2014). There has been a focus on inner city infill development; however suburban infill and densification are likely to transform the spatial landscape (Urban Land Institute, 2005, Steinacker, 2009). Insufficient literature exists in the case of increasing local residential densities particularly pertaining to affordable housing infill and the effects it may have on social

integration. The chapter will make apparent, the link between the concepts and relevant theories and grand narratives, further explaining the important notions put forward thus far.

## 2.2 CONCEPTUAL FRAMEWORK

### 2.2.1 DENSITY AND DENSIFICATION

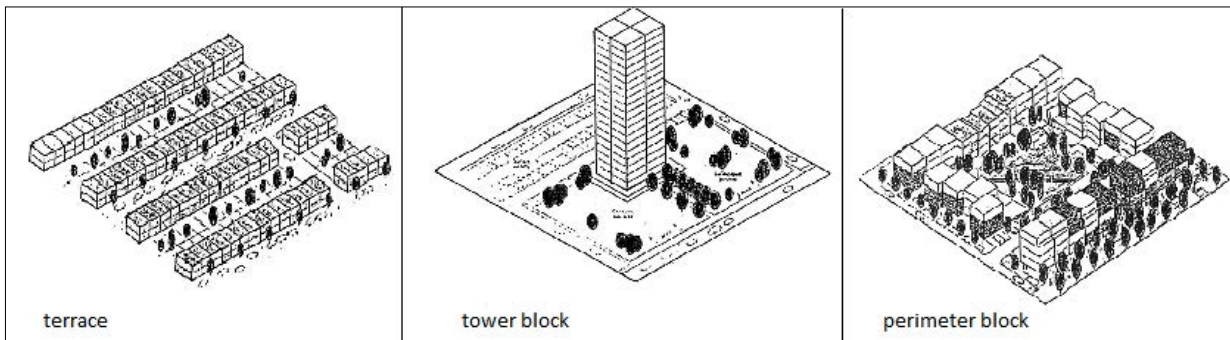
*“If there is one thing people hate more than sprawl, it is density” (Flint, 2005; 2).*

Historically, Freedman (1975) stated that “density itself is not unpleasant” and that the perception associated with density depends on whether the situation is pleasant or unpleasant for the person who experiences it. According to Freedman (ibid), successfully achieved density is determined by the quality of the environment. The concept of density has always had dual connotations (Baldea and Dumitrescu, 2013). The positive stance suggests that higher densities ensure the sustainable use of scarce resources and create strong social links. Conversely, higher densities have been associated with creating slums (Fuhrer and Kaiser, 1994) and having negative effects on human stress levels (Baldea and Dumitrescu, op. cit.). This assumption is explored later in the chapter. Lawson (2010) proves that many of the problems attributed to high density relate to spatial geometry; however, high density determines an increase of the negative perceptions of the environment. He (ibid; 292) concludes that “... for a well - balanced urban space in relation to the needs of its inhabitants, spatial configuration and the contents of that space are important and problems of spatial perception could be avoided by an attentive design.” Residential density depends on the percentage of land allocated to residential and non-residential uses and the efficiency of its distributed layout (Ekurhuleni Metro Municipality, 2008).

Flint (op. cit.) determines that high densities appeal to specific demographics. He states that unattached professionals often choose to live in higher density areas with a greater sense of community and access to all amenities, facilities and transit options (ibid). The eThekweni Municipality CDS (2013; 5) adopts Forsyth's (2003) outlook that, “Density is a controversial term... feared by those who imagine ugly buildings, overshadowed open space, parking problems and irresponsible residents and promoted by those who value urbane streetscapes, efficient infrastructure supply, walkable neighbourhoods, and increased housing options”. Concern towards densification shows as both a physical and social matter that has shown itself not as a new trend but throughout development history.

Infill is a means of increasing urban densities through developing vacant land or underutilised sites in existing urban settlements (E.M SDP, 2013). Brownfield development generally constitutes infill, as development within an existing urban area, utilised land or building lying derelict or vacant (Mtantato, 2012; 205 and Mashayekh, Hendrickson & Matthews, 2012). Infill and brownfield development allows the efficient use of existing resources and services and reduces sprawl. Negative aspects of this development pertain to the size of land available for development, the lack of infrastructure capacity to support new development, the impact on the environment, financial implications, lengthy land assembly processes and opposing public perceptions about increased densities and land use changes (ibid). There are various types of densification through infill development to increase residential densities at varying degrees that may be immediate or incremental. Roaf (in Ng, 2009) states that there is a limit to high density that must be determined contextually. Higher densities may be incorporated by subdividing large residential plots into two or more residential sites or in the form of medium density attached houses or high density high-rise flats (E.M, 2013). Figure 2.1 (page 16), shows higher densities achieved in various ways, maintaining the same density in each development typology. Recent studies by Schmidt-Thomé, Haybatollahi, Kytä and Korpi (2013) conclude that dense infill developments have been attractive, adding positively to the urban fabric, urging continued infill development. The methods used for their studies involved data collection through GIS and internet based surveys sent to respondents in a delineated urban area to measure density levels, perceptions and lifestyles of residents. There is no universally prescribed density for all places; the right density is indicated by the way that it performs in an area (Jacobs, 1961, The Delta Foundation, 2000). Turok (2011; 51) on deconstructing density in urban South Africa states that there have been “enormous difficulties in desegregating apartheid cities and creating economically vibrant and accessible settlements for all”. Well located, higher density housing development is crucial to achieving successful restructuring (ibid). According to Jenson (1966), given the ever-increasing urban population, finding ways of designing high density cities, needs to be one of our humanitarian goals. Ng (2009) notes that high density cities will soon be the normal pattern of living and development.

Fig 2.1: Density depicted in different building forms



Source: City of Cape Town, 2012; 4

Density has various context-specific definitions and consequently no standard measure. In planning, measuring population density is expressed as the number of people or households per given area, giving a measure of physical density (Forsyth, 2003; Cheng, 2014). Residential density is regarded as the ratio of the population in relation to residential land, expressed as net or gross densities (ibid; E.M, 2013; The Delta Foundation, 2000). Gross residential density takes into account the geographic area utilised for allocating residential and non-residential spaces such as internal roads, parks, schools, community centres and facilities whereas net residential density refers to the entirety of a residential plot; land covered by residential development and attached gardens (The Delta Foundation, op. cit.). In the United Kingdom, this measurement of density includes half the width of roads abutting properties, but this area is not included in all contexts (Cheng, 2014). The variations in quantifying density make measurements inconsistent and difficult to compare using a universal benchmark (ibid).

Occupancy density refers to the inhabitants of a specific enclosed area or site (ibid). Occupancy density indicates the number of individuals in an area and quantifies the services needed within the area. Measuring an occupancy rate may show the capacity and adequacy of a building in serving its inhabitants. Regulations of minimum occupancy rates are often in place to safeguard health and sanitary conditions (ibid). Stimulating a high standard of living within higher density affordable housing developments, may make sure that an overall increase in density within a neighbourhood does not have negative effects. Perceived density according to Cheng (2014) and Kytta, Broberg, Tzoulas & Snabb, 2013) refers to the way individuals perceive the number of people in a specified area. It takes into account the social attributes and interaction in an environment. Perceived density deals with spatial density and social density. People interact within defined spaces; the spatial environment is the platform upon which social interaction takes place. Cheng (op. cit., 12) states that “... it involves the various sensory modalities, the



mechanisms for controlling interaction levels, such as spacing, physical elements, territorial boundaries, hierarchy, the size and nature of the group involved, its homogeneity and rules for behaviour in which these qualities affect the rates of social interaction”. In high density spaces people are often forced to interact with too many others. Crowding is a consequence of too large a population in too small a space. Proposals of higher density are often falsely associated with crowding or overcrowding (Forsyth, 2003 and Churchman, 1999). Architectural features or design (building height, spaces, light traffic etc.) may change perceptions and decrease the apprehension towards high social densities. As shown in a study conducted by Flachsbarth (1979) human scale development may lower perceived density, although not significantly.

The term suburb has more than one meaning, traditionally according to Pickett and Cadenasso (2013; 274) suburbs contain higher concentrations of low-income populations with less green space, with suburban areas especially in the developing world comprising largely of informal settlement development. Contemporarily the authors (ibid) note that the suburbs are a “component of broadly recognised urban areas... primarily residential... single or multiple household dwellings... interspersed with the open spaces of lawns and generous street landscaping... a locus of wealth and power.” Suburbs may have commercial nodes but seldom have industrial land uses within them (ibid). This second, contemporary or new world (ibid; 274) definition of suburbs is accepted as the most relevant to the research and context in terms of most cities, particularly applicable to well established South African residential suburbs developed through apartheid planning.

Dunham-Jones and Williamson (2012) in *Retrofitting Suburbia* explore alternative ways of densifying suburbs and increasing the efficiency of suburban areas by highlighting the potential for infill development of several existing uses. These transformations within suburban areas include residential subdivisions to increase densities, innovatively transforming and adapting the urban environment. They emphasise the potential of using extensive greyfields to meet housing demands. Multiple innovative development projects across U.S suburbs show greater efficiency through residential subdivisions and secondary units on large plots, conversions of large failing grocery stores and strip malls into community centres, libraries and higher density contemporary housing and park and ride facilities used as mobile markets. Re-greening projects accompany the various developments through the revitalisation of green spaces and the promotion and implementation of urban agriculture using road frontages, front yards and malls. Retrofitting is the conversion of targeted under-performing sites in neighbourhoods (Dunham-Jones and Williamson, 2009). Williamson (2013; iii & 39) refers to development trends in suburbia as

incremental metropolitanism that shows a substantial transformation of land use patterns “upending the piecemeal logic of conventional development”. There has been a change in demographics within the suburbs, which requires new investment to improve quality of life (Puentes, 2005). Developing suburbs has become the development of concentrated urban nodes creating a polycentric metropolitan form to complement the core and serve the suburban population. Williamson (n.d; 728) describes them as hybrids that exhibit characteristics of both centeredness and decentralisation.

High density is a “matter of perception” (Cheng, 2014; 14 and Cheng 2012; 16) and depends on contextual norms. One of the main arguments against introducing higher density housing within existing neighbourhoods relates to the property market (Kupke, Rossini and McGreal, 2011). As observed in later chapters there has been no proven link between decreasing property values and introducing higher density development. In terms of discussion on the competitiveness of countries the Economic Intelligence Unit (2012) states that efficiency is more important than size. Higher density development must be efficient, to succeed in its intent. There is a need for thorough planning and control to avoid negative impacts of high density. Higher density may lead to psychological stress through increased levels of social interaction and competition for services and facilities. However, an increased proximity of people may facilitate social interaction and promote neighbourly relationships. Because high building density leaves more space for social facilities and spaces, it may aid in creating a sense of place and community. Cheng (op. cit.) further states the difficulty in determining what makes good planning of high density cities. The UN-Habitat (2013) reiterates this by insisting on a sustainability agenda for housing and human settlement development. Roaf (in Ng, 2010) highlights that an optimal density needs to be found for each specific planning context, in light of global urbanisation. The sustainability of high density depends on the capacity (of economic, social and environmental eco-systems) and constraints of each area or city in relation to the resources available. Roaf (ibid) lists social equity as one of the most important factors in creating a socially sustainable high density city. This shows that sustainability means equity and increased quality of life which, if focused on, will lead to an optimal density.

### 2.2.2 AFFORDABLE HOUSING

*“Housing is one of those basic social conditions that determine the quality of life and welfare of people and places” (UN-Habitat, 2012; 3)*

In 2005 the UNDP (United Nations Development Programme, 2013) predicted that within 25 years, approximately 2 billion people would be in need of housing and basic services and infrastructure. By 2030, 96 150 housing units per day will be required (approximately 4000 units per hour) to meet this demand (ibid). Adequate, affordable housing accompanied by sustainable infrastructure and service development is required to support growing middle class populations (ibid). The concept of affordable housing refers to providing housing within the means of a lower to middle-income population. The sect is known as the gap population, with limited housing opportunities afforded to them. Within the Habitat Agenda (UN, 2000; Paragraph 60) the terms adequate housing, shelter and affordable housing are used interchangeably with the definition that “Adequate shelter means more than a roof over one’s head... adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location of work and basic facilities: all of which should be available at an affordable cost. Adequacy should be determined together with the people concerned, bearing in mind the prospect for gradual development. Adequacy often varies from country to country, since it depends on specific cultural, social, environmental and economic factors. Gender-specific and age-specific factors, such as the exposure of children and women to toxic substances, should be considered in this context.”

UN-Habitat (2012) highlights the key priority of adequate, affordable housing provision that meets the sustainability expectations of governments in addressing slum and informal settlement development. The UN (ibid) highlights the role of housing as crucial to achieving sustainable development, promulgating it through a notion of sustainable housing. The realisation of housing as a heterogeneous good has been implemented on a national level through the Department of Human Settlements to influence and highlight the importance of holistic, integrated development. The UN-Habitat (ibid) housing strategy is developed out of global issues of climate change and the widespread economic and development disparities. Planned densification within areas of affluence has shown great strides in the practice of pro-poor housing provision. Housing has a direct influence on social development, quality of life and the economy. Affordable housing has not always been sustainable and inclusive (Bradlow, Bolnick

& Shearing, 2011). The cost of providing affordable housing is often the opportunity cost of ensuring that planning, provision and design briefs meet the sustainability criteria (Bond & Tait, 1997;Bradlow et al (ibid))

Housing provision incorporates a physical structure in relation with to the surrounding physical environment, and a social structure of resident activity and interaction that affects the wider social community, establishing the need for corresponding policy (UN-Habitat, 2012). There is a need to explore the design of affordable housing developments to decide on a design that works, uncover design that has failed and reasons for failure that will affirm the best practice. According to Baldea and Dumitrescu (op. cit.), mass housing often implies a focus on quantity and the view that quality is neglected. Arguments of poor quality or shoddy workmanship of high density mass housing has emerged in local and global urban contexts. High rise and mixed housing typologies are the most relevant in light of the research subject and the case study. Another significant factor in providing mass affordable housing is the location of development. The modernist period of planning left significant setbacks in social and spatial development compromising future sustainable development. Planned affordable housing may enable economic development and dignified shelter. High density infill as social housing development is particularly relevant to the study on infill in the eThekweni Municipality.

### 2.2.3 SOCIAL INTEGRATION, COHESION AND SOCIAL JUSTICE

*“... old ‘ghosts’ of segregation, poor government– society relations, and social tension just don’t disappear” (Robinson 1998, Myers, 2011; 96)*

In light of social integration as a main theme within the research and given the background and context of the study, Feinstein (1999; 31) states that, “Democratic rule can deprive minorities of their livelihood, freedom, or self-expression”. Principles of social justice should be maintained in the outcomes of planning decisions. Spatial injustice affects sociality, addressed by Soja (2010) as the reassertion of space. Soja (1989; 80) asserts that urban space is a product of urban society that “arises from purposeful social practice”. Current integrated development planning is a product of the above findings, encapsulated in the notion of sustainability. It focuses on balancing priorities of the economy, environment and society achieved through sustainable development. Sustainable development is defined as “... development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987; 16 and UN, 2005). These overarching approaches link local and global concerns (Haughton, 1999).

Research conducted by Burton (2000) in the paper, *The Compact City: Just or Just Compact?* highlights the question of whether higher densities promote social equity. The paper focuses on the high density aspect of compact cities, stating that communities are likely to be more mixed and that low-income groups are less likely to suffer from the disadvantage of being spatially segregated. There is “evidence of increased segregation as a result of decentralisation” and “urban or suburban sprawl” (Burton, 2000; 1975). The basis of the paper is American cities and a South African context needs to be framed. Burton (2000) uses universally accepted sustainable development indicators to reach a quantitative measure of density and social equity. The study found that lower levels of social segregation are linked to higher levels of density due to a smaller portion of wealthy households. Density is vital in limiting segregation. On a broad scale, in New Zealand; Spoonley, Pearce, Butcher and O’Neill (2005) resolve that “settlement policies that contribute to a cohesive society require a focus on both the immigrants and the hosts.” Spoonley et al (ibid) further state that immigrants need to develop a sense of belonging and acceptance and value in all aspects (social, economic, cultural), while, the existing (host) population need reassurance that the influx of people – new settlers will not threaten or compromise their way of life. Immigrants face challenges in seeking housing, education, employment and healthcare and have left their existing social networks. Simultaneously the host community struggles to understand and accept immigrants (ibid). According to Spoonley et al (ibid), government influences social cohesion through human rights legislation, social development and immigration policy and the level of social cohesion is indicated by gaps in the outcomes.

Jenson (1998) suggests that social cohesion in society occurs when groups have a strong sense of belonging, the opportunity to participate and be included, recognised and legitimised. A socially cohesive society is the development of a community with shared values, challenges and opportunities (Canadian council on social Development, 2000; 34). The New Zealand Immigration Strategy uses this definition to guide outcomes. Cohesion may further be defined in relation to exclusion as it requires active involvement and inclusion of all in society (Spoonley et al, op. cit.). When combined with poverty, spatial (geographic) concentration may lead to social exclusion of future generations. This point has been a common standpoint throughout the literature. Creating social sustainability is through ensuring diversity and inclusion in neighbourhood life (Papillion, 2002). Social capital, that focuses on the social relations of groups, networks, contacts, public engagement and institutions within a society; is an important part of greater social cohesion. Social integration is a variant of social cohesion that includes

assimilation, diversity and cultural pluralism. Heterogeneity is a permanent phenomenon in societies (Spoonley et al, 2005; 96). Social integration and justice are fundamental components in creating social sustainability. According to UN-Habitat (2012), in fulfilling the basic need of shelter, housing provision must meet other social needs such as access to transport, facilities, education, healthcare and all other aspects that facilitate human development. Provision should increase social capital and capacity, community cohesion, integration, participation and well-being (ibid).

Economic disparities, visible through social and spatial segregation and exclusion, hinder sustainable development. Redistributing wealth and opportunities is necessary in bridging the gap between the rich and poor to enable social justice (ibid). This further encompasses *the right to the city* (Soja, 2010) and spatial justice notion. There is a need for affordable housing development to be well-integrated into the existing neighbourhood and sustained by adequate facilities to remove any stigmas attached to affordable housing and its residents. Seamless integration is promoted through design, diverse development in terms of tenure and housing typology, income and ethnic or racial groups (UN-Habitat, 2012).

*“Good social relationships have positive impacts on physical and mental health, but also on economic resilience and productivity – if people are better connected with each other, they share news, knowledge and skills and help each other to cope with various everyday challenges – from assisting in childcare to providing small loans and to creating joint ventures.”(UN-Habitat, 2012; 40)*

#### 2.2.4 SUMMARY

The concepts discussed are inextricably linked and are relative within a global context. Affordable housing provision is significant in enabling social justice and equity. When linked to densification there are pertinent questions to be answered about the justness and sustainability of densification in providing affordable housing and whether density influences social behaviour. Densification may take place without elements of sustainability, resulting in slum creation, lower standards of living and poor quality of life (Delmelle, Zhou and Thill, 2014). Densification in a planned manner, particularly within areas of affluence, has shown that there have been great strides in the practice of pro-poor housing provision. Attentive design and layout for high density development, within affluent neighbourhoods may promote positive perception and greater efficiency of the development itself and to the surrounding development. Affordable

housing thus becomes the means of implementing densification on a sprawling, unevenly developed landscape and the mechanism used to knit together the disintegrated social fabric. There exists no universal prescription for density, the notion of density is context specific and measures and standards differ across the globe, in different scenarios. The way the tool of densification performs in an area on a social, environmental and economic level indicates the optimal density. Optimal density as highlighted by Roaf (op. cit.) is achieved when social equity is acknowledged as significant and social sustainability taken into account. Therefore an increased quality of life leads to successful development of higher density neighbourhoods. Further explanation of these concepts and the notions put forward by the relevant literature and practices are substantiated by theories in the subsequent section.

## 2.3 THEORETICAL FRAMEWORK

*“Do not be too hasty in trying to define the city; it is much too big, and there is every likelihood that you will get it wrong.” (George Perec, 1974; p.119 trans. in Scott, 2013; 2)*

### 2.3.1 INTRODUCTION

The theoretical framework outlines the established literature to inform and validate the credibility of the research and form a link between the existing and accredited theory and ensuing practice (Simon, 2011). The literature will focus on the origins and histories of urban and suburban development and urban planning endeavours. It will critically analyse the assumptions put forward in the related theories and explain why these theories are relevant to the study. In analysing the problem, it is important to look at the causes at the root. Theories and practice that have led to the proposed research topic include those born out of the modernisation era. There are often limitations to what theory can explain because of differing contexts and scenarios and the dynamic nature of the planning sphere. Theories are often generalised (Warf & Arias, 2008) and premised on observations of the developed world that does not account for or adequately explain African contexts (Myers, 2011). Nevertheless, planning theory generates new ideas and planning practice takes shape from this (Sandercock, 1998). The theoretical framework is divided into two categories. The first contends with sustainability as a theory encompassing and explaining several concepts that stem therefrom. The second explores social theories that aim to explain social justice, cohesion and integration. Although social aspects are a component of sustainability further investigation is necessary and central to the research.

### 2.3.2 SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT

In terms of relevant literature on densification, the lines between theoretical and conceptual narratives are unclear. As a solution to the problems created by the above systems, suburban infill and densification is a tenet of smart growth, new urbanism and compact city narratives (Duany et al, 2009) promulgated by Calthorpe's (1996; 2010) critique of the suburbs. These concepts advocate for sustainability and are a part of sustainable development. The extent to which planning theories are relevant are limited and only key generalisations can be drawn from each, in terms of the study. Sustainable development has become a universal philosophy directing global policies, and within planning is perceived to create balanced human environments (Berke, 2002). A key goal underpinning sustainability and sustainable development goals is achieving good quality of life and high standards of living for all. According to Sahin, Fasli and Vehbi (2007; 1) "Quality of life is defined as an interaction of social, health, economic and environmental conditions that have an impact on the development of the individual and society... Quality of a residential area is related to a group of people who are sharing the common physical, social and environmental conditions where objective values determine the quality of life."

Elliot's (2013; 1) writing on sustainable development theory deals with the "challenges and opportunities of finding more sustainable patterns and processes of development..." Achieving sustainability through sustainable development has become a general policy practice and goal on a global scale, spearheaded by the UN through the Millennium Development Goals (2000). These goals are geared towards poorer societies in creating more equitable outcomes in areas such as housing among fulfilling other needs and attempting to solve issues created by climate change, income disparities and global resource depletion. Interconnected and interdisciplinary interventions are necessary in addressing global issues, fundamental to attaining sustainable development (Elliot, 2013; 2).

An appropriate approach and process is necessary to combat the context-specific challenges and opportunities of sustainable development to provide for the "human well-being and development" it seeks to achieve (Elliot, 2013; 2). Economic issues such as differences in wealth and income inequality have significant influences on sustainable development practices and unsustainable spatial patterns. This is further linked to social issues of equality, human rights and development as well as dignity, justice and equality. A key global concern highlighted at the World Summit on sustainable development was poverty, inequality and exclusion. Elliot (ibid;



3) states that most issues “are a result of affluence, not poverty”. Gore (2006), Weinzettel, Hertwich, Peters (2013), Belk, Ger and Askegaard (2000), Strange & Bayley (2008) confirm and reiterate Elliot's statement. The preceding authors emphasise the impact on the environment and the implications for the poor that are vulnerable to external threats such as climate change. The affluent are able to attain increasing amounts of land in their own and other countries that contain developing and vulnerable nations, thereby increasing their wealth and capacity to further consume (Weinzettel et al, 2013). The authors predict that the global land and ocean footprint will increase by 70% by 2050 due to population growth and increasing, distorted affluence. They propose sustainable intensification, increasing productivity to reduce the development footprint and simultaneously conserve biodiversity.

The 1987 definition on sustainable development (WCED; 43), noted on page 20, upon which the concept and ensuing development endeavours are based led to a later comprehensive definition of sustainable development as a mandate stating that “the way that our communities develop, economically, socially and environmentally, must respect the needs of future generations as well as succeeding now. This is the key to lasting, rather than temporary solutions...” (ODPM, 2003; 5 in Rogerson et al, 2011; 5). The sustainable development mandate recognises that there exist, limits to the growth of development and is founded on promoting equity, empowerment (social) and environmentally sensitive economic development (Raco, 2005). Sustainable development has become one of the main universal approaches to planning for long-term benefit of society, the environment and the economy. Giving the notion further impetus were reports on economic development that conserved and promoted the careful use of resources, compiled by universal organisations; The World Bank, United Nations and the World Conservation Union (ibid). The discourse of sustainable development has since evolved into a five dimensional approach, encompassing the three original pillars of economic, social and environmental factors and two contemporarily relevant factors of technological and cultural sustainability that affect and are affected by human development (UN-Habitat, 2012).

Standard of living as stated by the Centre for Environment Education (CEE, 2007; 8) is, “the consumption of goods and services by an individual. It relates directly to economic development, whereas the well-being or quality of life of a population refers to a combination of attributes that provide physical, mental, spiritual and social well-being.” These are encompassed by the other tenets of sustainability. Sustainable development “implies economic growth together with the protection of environmental quality, each reinforcing the other. Sustainable

development is, thus, maintaining a balance between the human need to improve lifestyles and feelings of well-being on one hand and preserving natural resources and ecosystems, on which we and future generations depend” (ibid; 9). This obligates all spheres of human life to undertake prudent consumption of resources. Sustainable consumption refers to the balancing of production, consumption and distribution across the globe in ensuring that all human needs are met, with reduced wastage and environmental degradation. Sustainable consumption, according to the CEE (2007) involves the satisfaction of human needs, good quality of life and standard of living, equal distribution of resources, concern for future generations, careful consumption and producing minimal waste and pollution. The literature shows that a stage of sustainable consumption has not been reached, given the spatial, social and economic disparities that exist and the negative environmental impacts that result from this.

#### 2.3.2.1 SUSTAINABLE DEVELOPMENT PRACTICES

Urban densification is one of the foundational tools of sustainable development (Jenks et al, 1996). The focus on sustainable urban development has led to a revival of interest in the compact city notion (Burgess & Jenks, 2002; 9). Concepts of the compact city and smart growth have been reinforced by this premise, reliant on high densities for the functioning of their principles towards sustainability (Mtantato, 2012). The built form proposed by the compact city ideal opposes the earlier planning designs and ideologies introduced during the modernisation era, reminiscent of suburban sprawl. The “physical urban structure is deemed critical to sustainable development” (Rice, 2010; 2), requiring co-ordination between human behaviour and urban form. The aim of compact development is to encourage a holistic change in behaviour and lifestyle. Much of the concept occurs in northern, developed countries practicing new urbanism, implemented through smart growth strategies and transit-oriented development in the U.S, and sustainable communities’ agendas in Europe (ibid).

Although the main concern for the compact city argument is with energy efficiency, this depends on high densities. Some argue that higher densities within a more compact city will “create a more liveable urban environment” and “urban concentration will support local services” (Skovbro, 2001; 4) enabling walkability and access to good public transportation networks (Rice, 2010) and reduce social segregation (Neuman, 2005). The compact city will need to address poverty and social inequality (Burgess & Jenks, op. cit., Smith, 2010; UN-Habitat, 2014). Urban policy and practice needs to respond to changes in the global environment by examining cases in both developing and developed countries. The compact city proposes that the most significant sustainability endeavour is retrofitting the existing suburbs. This development

requires an intensification of residential units or dwellings within suburbs by inserting dwellings in between and next to existing ones, conversions of other desolate land uses and buildings to residential use, above store residential development and higher density apartments (Rice, 2010 and Williamson, 2013).

The minimum density prescribed in compact development is 50 dwelling units per hectare (du/ha) of land (Rice, 2010; 3) with between 50 and 80 du/ha considered as still being suburban (Rice, 2010; Barton et al, 2003). Rice (ibid) reiterates the eThekweni Municipality City Densification Strategy (2013) by stating that densities should be reduced relative to the distance from activity nodes or public transport facilities. Accessibility and quality transportation is important in creating higher density, sustainable compact forms. The studies conducted by Rice in the U.K indicated the physical feasibility of retrofitting residential suburbs by increasing densities with concurrent development of new centres and good accessibility. However, the focus of this study was soft densification through increasing amounts of single family units. Retrofitting neighbourhoods into compact developments was shown to increase vitality and viability of local centres (nodes) providing greater potential for social capital and community and offering a range of mental and physical health benefits. The study concludes that intensifying suburban areas have many potential benefits for sustainability.

Compact city development makes use of brownfields and infill development. Compaction increases density and therefore impacts on society. The question is linked to social justice and whether social equity and integration is attainable in the process. Debates exist on the affordability of housing and quality of life within a compact city of higher densities. Burton (2000) discovers increasing land costs due to scarcity of land resources within urban areas. Less space is available to households as domestic living space and crime levels are perceived to increase resulting in lower levels of walking and cycling (ibid). It is significant to note the literature on, *The Compact City Fallacy* (Neuman, 2005). Neuman's (ibid) argument is that compact city form will not automatically induce sustainability. His research has shown that inhabitants and developments use resources intensively and that the design of urban systems and not density make the urban form sustainable.

The new urbanism ideology is design oriented and focused on spatially creating diverse neighbourhoods with higher densities (Kunstler, 1996). The design considers residential typologies, population groups of different economic and social status and mixed use development with a well-defined centre, edge and a specific, limited size (Feinstein,

1999;Calthorpe, 1996; Duany, 1992; Berke, op. cit.). It is a direct response to and critique of the divided and fragmented society created by American suburbia that encouraged sprawl and increased environmental degradation. The concept is criticised for the assumption that spatial order shapes aesthetic and social order (Harvey, 1997). The approach led to smart growth practices and established several development principles (Congress of New Urbanism, 2001). While the concept seeks to create a better quality of life, it may not build sustainable communities. Berke (op. cit.) argues that new urbanism needs to adopt more principles of sustainability to balance social, environmental and economic factors and important cultural and spatial aspects.

Housing fulfils one of the most fundamental needs of society; however, housing densification programmes are not always socially accepted. UN-Habitat (2012; 11) endorses sustainable housing as part of the agenda of sustainable development that achieves multiple benefits. Benefits include improved quality of life and dignity for all, offering access to affordable housing, improved health and better labour productivity overall bettering conditions of human development in areas of employment, creativity and economic growth. Sustainable housing is further thought of as durable and low maintenance, to improve efficiency and save on energy and other physical resources, protecting against natural hazards by adapting to and mitigating against climate change. It further aids in environmental protection and enables improved sanitary conditions. Sustainable housing practice leads to urban growth that promotes social inclusion, cohesion and socio-political stability. Sustainable compact cities may be created by concentrating development in existing, decentralised settlements that, if located near new urban centres, minimise car travel distances (Banister and Anable, 2009). To an extent, tenets of the compact city, new urbanism and smart growth practices are necessary components in achieving a sustainable built form.

#### 2.3.2.2 SOCIAL SUSTAINABILITY

A Gross National Happiness indicator established in Bhutan in 1972 proposes a holistic definition of the quality of life, in psychological terms, and not economic measurement (CEE, 2007). The indicator takes into account the ability of material and spiritual (social) development to reinforce each other (ibid). The UN publishing of The World Happiness report has aided in establishing sustainable development goals. Happiness as an aspiration for all is a measure of social progress. The universal evaluation of happiness is of human satisfaction with life and not happiness as the emotion, also referred to as well-being. Poverty stricken populations express low levels of happiness or satisfaction with life in its entirety (UN Org, 2013). Thus, if happiness

is seen as an indicator of quality of life, then social development depends on this dynamic. The question exists of affluent societies that exclude poorer populations, of whether they regard the privileges available to them as greater than the attainment of happiness by all in society.

Well-being has become a guide for developing government policy and is central to sustainable development efforts. Well-being or the level of happiness directly affects quality of life and the contrary. The Happiness indicator shows what might be done to improve quality of life (UN Org, 2013). Mental illness, according to the UN (ibid) is a leading cause of unhappiness within particular societies, depression and anxiety disorder being the most common. Psychological well-being is important for personal fulfilment and satisfaction in life, difficult to achieve under high levels of depression and anxiety. Family relations, friendship and social interaction affect individuals' self-identity and opportunity to form relationships and engage in their social surroundings. Human well-being affects social behaviour because "... we observe a dynamic relationship between happiness and other important aspects of our lives, with influence running in both directions" (UN Org, 2013; 55). In terms of human and social behaviour, high levels of well-being resulted in positive moods, increased interest in social activities and higher quality interactions across cultures and social networks (Lyubomirsky, King, & Diener (2005); Myers (2000); Diener & Seligman (2002); Cunningham (1988b); Baron (1987 & 1990); Berry & Hansen (1996) in UN Org, 2013).

Happier individuals avoid risky behaviour. There is a link between well-being and social behaviour, those with higher levels of well-being exhibited sympathy, compassion, greater inclusiveness and willingness to help others, including ethnic groups, contributing to community integration (UN Org, 2013). "... being happy raises pro-social behaviour" as determined by Aknin's studies (2011 and 2013; UN Org, 2013; 66). Happiness does not mean an individual in a constant state of positivity and euphoria. More recently there has been a push towards human well-being and happiness as derived from other human needs such as social capital, a psychological balance and virtue and not just economic attainment (UN Org, ibid). A significant decline in ethical behaviour, even with the rise of economic capital, was shown in the U.S since the 2008 economic decline (Bartolini, 2013). Aristotle (Fielding, Rackham and Watt (1996), proposed that well-being is a matter of public policy and the responsibility of the state to exercise control over matters that affect it; however, should the state neglect its duties, every citizen has the duty to exercise and instil virtue in their society. Examining the Marxist theory (further explained on page 31) based on dynamics between those that accumulate the goods and control the resources versus those that do not have and are oppressed, state intervention is

necessary to provide goods as a basis for fulfilling fundamental humanitarian needs and enabling social justice. Public policy distributes well-being across society. Faced with consumerism, Sachs (2011; UN Org, 2013; 92) reflects that “there must be enough regard for the poor to meet their basic needs and protect social and political stability”. The spatial distribution of social well-being and economic inequality within countries has gained considerable interest.

Well-being concerns are shaping local policy on a global scale, promulgated by the OECD (2013). The OECD method of measuring well-being includes sample, survey and questionnaire design, data processing and coding, set across countries and smaller groups. Household and general social surveys undertaken to evaluate well-being included questions inquiring how satisfied the individual felt with life and how worthwhile the individual felt about things they do in their lives. Questions were rated on a scale from 0-10 with 0 being not worthwhile and 10 being completely worthwhile. Further questions asked related to how the individual felt yesterday whether happy, worried or depressed with 0 being they did not experience the feeling and 10 being they felt that way all of the time (OECD, 2013; 253). Other information necessary to the studies included demographic data such as age, gender, marital and wealth status, number of children and household type and size; material conditions that included household income, consumption and wealth, housing conditions and deprivation; quality of life information that required data on employment, health, education status, personal security and social and civic engagement and governance and environmental quality and; psychological measures such as future aspirations and expectations (UN Org, 2013; 119). Limitations to these studies were that people responding to surveys make up just one representative of the household in which they live and perceptions differ between people, so feelings of well-being may differ. Another factor is residents of households may not be permanent or may not be the owners of that property and their responses may hold less relevance.

### 2.3.3 SOCIOLOGICAL THEORIES AND THEORIES OF SOCIAL JUSTICE

Sociology is the study of the world and the processes that occur within it that affect people. Sociological theories are broad as they cover a variety of social science themes, attempting to answer questions of social structure, composition and comparisons between societies, the development of societies in relation to the human race and human behaviour (Mills, 1959 in Education Scotland, 1998). Sociology determines how society shapes individuals and how individuals contribute to the dynamics in society (Abercrombie, Warde, Deem, Penna, Soothill, Urry & Walby; 2000). Human geography in 1960 began following a sociological approach to determine the issues associated with structural racism and associated discrimination, segregation

and inequality (Anderson, 2011). From 1980 there was a shift in studies from ethnic segregation to a focus on political theory. Saldanha (2011; 454) postulates that “demands of European and Western power” constructs racial difference. The Marxist approach emergent in 1970 (Scott, 2013) describes the apartheid city structure and that of the current city form in South Africa (ibid). The city is conceptualised as a stage of class struggle with “political claims about rights to urban space and resources”, as an ideological construct of diverse economic, social and political occurrences (Scott, 2013). Theoretical literature has developed as part of a critique of old theories, shifting to include cities that do not conform to universal generalisations (Robinson, 2010). Most theories are based on the peripheries of cities being low density suburbs as in the northern hemisphere (ULI, ibid).

#### 2.3.3.1 MARXISM

Herod (2011) defines class as making a stratified distinction between individuals based on their social and economic status within various societies. One of the most influential socioeconomic, spatially constructed theories on class is from Marxism (ibid). Marx premised that class categories in social relations arose out of peoples’ means of production that differed among society. Two groups existed, the bourgeoisie that owned and the proletariat (working class) that did not own, the means of production. Marxist theory (Marx, 1859; 20-21) further assumes that these are economic ownership dynamics, forming the base (substructure) determining political and social spheres. Based on the observation that classes emerged out of a social struggle for control, Marx deduced that communism, an ideology based on collective ownership through state control and distribution of resources, was the means to abolish class stratification (ibid). Classes exist in relation to one another, but there is “tension between them” and “they are fundamentally in conflict” (Herod, ibid). Control in the hands of the rich is at the expense and exploitation of the poor. Whilst Marx focused on class division emerging out of struggles of production, prominent theorists founded on Marxism, Weber and Durkheim focused on class stratification emerging out of uneven distribution and consumption of economic opportunity (Gane, 2005 and Kerbo, 2006). These theorists considered greater skills as the means to better opportunities and influence, domination and subordination (inequality and oppression) within society (Johnson & Hall, 1995 and Kerbo, 2006).

Weber (19th century) theorised class based on economic, social and political aspects governing individual’s interest (Gane, op. cit.). Marx and Weber were conflict theorists, believing that conflict between and among groups of society was fundamental and social orders developed with various social actors seeking to further their own interests at the expense of others (Herod,

ibid and Giddens & Sutton, 2010). It is important to take note that Durkheim's theory in contrast to Marx and Weber believed that social cohesion of like groups of society, shared interests and divisions of labour shapes societal constructs. Although this notion is true to an extent, history (segregation, apartheid, colonialism) has shown that conflict theory has had stronger relevance. Conflict theory is tied into Harvey's later publication of *Social justice and the City* (1973), linking the built environment form to capital accumulation. Class struggles shape the built environment and the state prevents extended capital accumulation. Walker's (1981) assumptions of the encouragement of suburbanisation as an effort to oppress and dominate the working class led to writings on 'housing classes' shaped by economics and ethnicity (Rex and Tomlinson, 1979). Home ownership does not solve class issues as consumption and political interests of society still differ.

Mandel (1975) stated that owners of the means of production (capitalists) acquire surplus profits by monopolising the access to assets to meet goals of increased profits and resource acquisition. The argument by Mandel extends Marx' Ground Rent theory which establishes land as a commodity through the appropriation of rent by owners (ZHU, 2014). Although Marx' theory alludes to agricultural land there is relevance in his proposition which has been adapted to housing provision. Land owners distribute their land in return for *differential ground rent*, requiring income based on demand, due to inherent advantages such as a favourable location or high capital investment input (Clarke and Ginsburg, 1975). According to Clarke and Ginsburg (ibid), a landowner or developer may increase desirability of the land by investing in amenities or facilities, which increases the costs of affordable development. The monopoly of land ownership determines the value owners may generate from the land through rental as *absolute ground rent*. Absolute rent arises through land owners' determination of the return required and increases based on improvements on the land such as services or buildings. Location and the monopoly of land ownership by a few, allows the existence of ground rent. A *monopoly rent* determined by a buyer's needs and ability to pay for property also exists. The housing market revolves around the three rents, but to a large extent is monopoly rent based on the preferences of buyers to live in certain areas driving the price of housing up under the capitalist system. As mentioned, only a few in societies accumulate the greatest share of resources (such as land); as a result poverty remains, and increases among the working class population (Mandel, 1975). The increasing social and economic disparity results in social disintegration. Marx envisioned that these disparities would mobilise the working class and lead to the fall of capitalism, but this has not materialised, Marx further did not foresee the rise of the working class, in gaining resources,



assets and capital accumulation, (proletariat) within the capitalist system (Levitsky, 1994). There is a relationship between what is, the housing struggle and class struggles (Clarke and Ginsburg, 1975; 3), meaning that owner-occupied housing of high quality is attainable by middle to high income society with the means to afford it.

Marxism and related theories are too economically based and assume that class capitalism is neutral in terms of race and gender, failing to acknowledge the shaping of societal relations by dominant forces e.g. white race groups in the South African context. Theories reinforce that, “class is geographically constituted and constituting” (Herod; 423) meaning that class and space are inextricably linked. Post Marxism is a “pluralisation of conceptualisations of sources of inequalities and injustice” (Barnett, 2011; 432). Marxist theory fails to recognise the effect and nature of state power dynamics and influence on inequality, wealth and resource distribution, patterns of ownership and neglect of addressing societal issues of those in need, in light of capitalistic interests (Gore, 1984; Dunham, 1978). Marxist theory of social change argued that capitalism would result in communism (Giddens and Sutton, 2010). This has not yet taken place, and society is constructed of both forms of capitalism and the tenets of communism at varying degrees. Contemporary sociological studies on class have developed to consider everyday contexts of housing, education, politics, employment and social divisions (McDowell, 2009). The affluent ultimately controlled the planning landscape by dominating development and ownership of land even during periods of democratic state control, through programmes of economic development and agendas intended for job creation. Affordable housing is influenced by government budgets and policies.

Yiftachel (1998) reiterates the deficiencies and more sinister nature of planning rarely elaborated on by authors, as a tool of the elite and state to oppress, and control society. Planning is described as double-edged used for both progression (conventional ideology) and regression (reality) of society. Yiftachel (ibid) relates the concepts of control and oppression, as interchangeable, both terms implying domination and inequality. The state may deliberately or without intention to, exercise their powers in this way (ibid). Planning began as a means of intervention by the state for the public good, oriented to reform and improve prevailing social conditions. Social, spatial and political changes of urbanisation posed a threat to existing social, economic and political structures of the elite and this influenced state power in shaping and controlling development (Mitchell 1991). State (and elite) societal relations are in constant tension in terms of reform and control (Yiftachel, 1998). State control exercised through planning may be territorial in dictating spatial controls. These controls become exclusionary

policies inhibiting participation in decision-making procedures, exacerbating unequal distribution by controlling cultural and socio-economic standings through homogeneous planning. The modern state often advances the interests of social elites and dominant groups at the expense of weaker (ibid) groups. To a degree, social control is important to preserve public rule.

State intervention was introduced to supply adequate housing to the lower and middle classes, which capitalist housing markets failed to produce (Clarke and Ginsburg, 1975). State housing attempts to regulate the housing market by providing subsidies to increase owner occupation and control rental costs among the middle class. There is a trade-off between state responsibility to provide public housing and the state responsibility of creating economic growth and development. This responsibility is intertwined with issues of personal (individual) gain within the state entity. Although the state attempts serve those unjustly deprived of resources through past planning programmes, interventions often result in the indirect gain of the wealthy. The development pattern of South African cities depicts an image of contested space, shaped by past race conflict and recent class divisions that share similar characteristics. Suburbs designed to reinforce social stratification patterns are now changing in structure, through affordable housing development within them. What is needed is a balance of both public and private interests which the notion of affordable housing in affluent suburbs offers by serving both interests of the state in working for the public good and private developers in capital gain. Inclusionary housing coupled with mixed use development is a good example of fulfilling state mandates and reaching state targets. The dynamic of introducing diverse societies into existing communities does not necessarily induce social cohesion between the different groups or guarantee that a postmodern, plural utopia would emerge.

For successfully implemented infill and densification Nolon et al (2013) propose an approach to resolving and managing land use related disputes or conflicts between parties to carry out development projects. The link is in terms of social integration and cohesiveness reinforced through public participation and negotiation that enables mutual interests to be met; a critical element for successful infill development and seamless suburban densification. This may lead to sustainable communities and the integration of the new development into the existing physical (built) and social fabric. Considering Marxist theories, language and communication barriers exist between groups in society, and cultural barriers that influence interests and concerns of different groups. The success rate of endeavours that fulfil the public interest versus the protection of, favour and resources that are allocated to serve and promote private interests is

skewed in favour of the latter. Marxism is relevant in its linking of “human freedom and human dignity to the issues of who should own the means of production and how wealth should be distributed” (Levitsky, 1994; 6).

### 2.3.3.2 THEORIES OF SOCIAL JUSTICE

*“... increasing polarization in the distribution of wealth and power are indelibly etched into the spatial forms of our cities...” (Harvey, 2012; 15)*

The contemporary notion of *Spatial Justice*, referring to the “explicitly spatialized concept of justice” aids our theoretical understanding and offers new insights in achieving justice and democracy (Soja, 2009; 1). The notion stems from Lefebvre’s “Right to the city” notion coined in 1968 (Aalbert and Gibb, 2014) contributing to the spatial turn and broadening of the conceptualisation of space as more than just physical, but also as a force that governs justice, injustice, social, environmental and political processes that shape human life (Soja, 2009). Spatial Justice is a propos of the “fair and equitable distribution in space of socially valued resources and opportunities to use them” (ibid; 2). Right to the city focuses on what “individuals believe is their spatial right versus the rights of others” (Duke, 2010; 56). The notion depends on how homogeneous or diverse society is; whether the public space is appropriate for all society within it and whether society (or individuals or groups) are able to inform and influence decisions on the public urban space within which they operate (ibid). In the Right to the City debate housing plays a significant role in overcoming social injustices. The sociological concept describes the right of individuals to belong to and influence the urban spaces that form part of daily life and the rights they have within this notion of social, political, economic, educational, health, recreation and urban accommodation platforms. The notion encapsulates the right to participate in quality urban life. Lefebvre’s concept was a response to social movements against undemocratic governments of exclusion in Europe. “The forces of alienation... active in urban space constantly need to be challenged and contested” (Aalbert and Gibb, 2014; 208). This speaks against the privatisation and commoditisation of space to urban space having use value over capitalist value. It should be noted that *Right to the city* does not typify a city, but encapsulates the “right to belonging to any place...” (Aalbert and Gibb, 2014; 209). The capitalistic production of space is at the detriment of the social space in the sense that it creates exclusion rather than inclusion. Soja (op. cit.) highlights these points in his studies of Los Angeles and the way space is produced and designed defensively to exclude the unwanted population. Contemporary Marx theorist Harvey (2012) notes high levels of class disparity

shown by the control the wealthy have on the urban form. Harvey (ibid) reiterates Lefebvre in the realisation that those with capital influence the state decisions on development and should not be the sole decision makers because they make capitalist decisions to benefit themselves and not the poor majority.

The struggle for access to housing has been evaluated as part of the right to the city notion by various authors (Aalbert and Gibb, 2014; Cattell et al, 2010; Marcuse, 2014). Lefebvre's concept is useful in understanding the process in terms of different socio-economic groups and opposition to affordable housing. Exclusion may take place in the decline of provision of affordable housing. Housing is a concrete dimension of the concept attached to the abstract social dimension. Prejudices due to race, class and gender imposed on populations and enforced through geographical location are the basis of spatial injustice and discrimination and create spatial structures of distorted privilege and segregation. Spatial structure is politically determined and controlled through exclusionary zoning and territorial apartheid. Distribution often favours the wealthy and leads to spatially uneven development and underdevelopment (Soja, op. cit.). The Marxist paradigm explains the manifestation of uneven and unequal distribution. Stemming from this Allport's (1954) Contact Theory assumes that increased contact between differing groups – referring to race and not class (Yinger, 1986) will decrease prejudice and ideals of segregation. The theory depends on specific conditions such as perceived equal status, an interdependence across different groups and the potential for friendships (for instance, between neighbours or within a community) (Witting and Grant Thompson, 1998). The theory is relevant in understanding the intent of government in developing policies of inclusionary housing, explaining social housing (Duke, 2010). Gans (1961) postulated that social integration occurs due to similar backgrounds or interests of people and that people have good relationships with neighbours of similar social status. Briggs (1999) found that housing projects, enabling ethnic minority group's entry into majority white neighbourhoods to create income and diversity did not improve the social cohesiveness and may instead increase internal isolation. "Barriers of assimilation are imposed by the host society in some domains of interaction, but also by migrants who may wish to resist total assimilation, opting instead to preserve their ethnic identity" (Bolt, Ozuerkren and Phillips, 2010). Access to home ownership does not equate to assimilation into society (Bolt et al, ibid). This conclusion is applicable to the South African context where higher densities are planned; a large influx of people (outsiders of differing background) relocates at once and may be grouped together and not easily assimilated into the

existing social fabric. Planning oriented towards social integration may not achieve social justice. There is the possibility of greater injustice derived from a society forced together.

### 2.3.3.3 BEHAVIOURAL THEORIES

Disciplines of social science produce theories of human behaviour in various contexts originating from psychology, anthropology and sociology. A large part of behavioural studies focuses on individual behaviour as it relates to the influence of external factors such as the social and physical environment on choice, habit and attitude (Morris, Marzano, Dandy and O'Brien; 2012). "Objects and environments become active in the production of behaviour" (ibid, 4). Sharma and Romas (2012) consider the Health Benefit Model founded on the notion that threats to the well-being and the effect of outcomes of actions on individuals, determines behaviour. An important part of the model is the individual's perceived threat to situations that may affect them. This perceived threat that individuals have results in specific, sometimes detrimental consequences due to counter actions developed to reduce the threat or mitigate perceived outcomes by establishing barriers (Webb, Sniehotta & Michie; 2010). The model is useful in explaining and understanding behaviour patterns, but fails to consider social and economic norms and expectations that control choice and human behaviour in instances individuals cannot control, such as institutional actions (Morris et al, 2012). Diffusion Innovation theory postulates that "behaviour will change more rapidly if innovations are perceived as being better than previous options" (ibid; 14). Thus, greater benefits are perceived and the forthcoming change is consistent with the existing value system, compatible with the existing situation. The theory focuses on the diffusion of new ideas for adoption (and acceptance) through social systems, relying on societies to be homogeneous in individual characteristics and status. The critique is that a wider scope of knowledge and various perceptions are required; therefore a diverse population offering a greater variation in input is necessary. Innovative solutions may develop during inclusive participation processes, influencing a change in attitudes and greater innovative solutions not possible within like groups of society.

Morris et al (2012), in their analysis of various behavioural theories, conclude that social context influences human behaviour. The authors (ibid) agree that interventions should address individuals, decision makers and wider societal contexts to influence sustainable behaviours. Interventions proven successful in similar situations have a greater probability of acceptance. It was found that threats and risks to lifestyle, livelihood or stakeholder outcomes are the main influences of behaviour and may be mitigated by meaningful communication that enables thorough understanding and innovation. Sociological and behavioural theories on urban life and

social dysfunctions examined in terms of higher densities and concentrations of people and the mixing of different social classes and cultures are relevant to the research. There are no conclusive results on the effect of density on human behaviour. The effects of overcrowding are not straightforward. Wirth (1938) theorises that “size, density and heterogeneity explain the effects of urban life on humans”. Being confronted with a large number of strangers daily causes withdrawal from community life and results in higher crime rates (Regoeczi, 2002; 506). Calhoun’s (1962; 144) laboratory studies showed that overcrowding results in increasing demand on resources and an ensuing behavioural sink. This refers to an incident whereby normal behaviour and reproductive processes fail as aggression sets in with the competition for resources. It is therefore determined that an optimal density exists after which an increase in density leads to a deterioration in behaviour (ibid). However, Regoeczi (2002) states that individuals incapable of handling high densities relocate themselves. It is referred to as self-selection of location into lower density housing (ibid, 506). Whilst these studies offer insights into the issues of suburban flight and the links between society and density they do not attend to these issues. There is a question of the extent of choice and control individuals have in relocating out of dense situations (Kain and Quigley, 1975). Household freedom of choice is constrained by accessibility into housing markets and affordability amongst social and political influences (Bolt et al, op. cit.). Social Housing for instance, is determined by government laws that omit certain persons from the process and determine living locations; therefore a form of exclusion is unavoidable.

#### 2.3.4 SUMMARY

Greater levels of well-being enabled by providing basic needs such as shelter and services that increase standards of living and quality of life of people are the foundation for community integration and cohesion. There are further benefits of economic development as productivity increases, benefits to the environment through stewardship of surroundings and social implications of participation, belonging, sense of place and communication that develop human capital. Personal perception drives individual behaviour, often linked to the fear of change. There is a need to develop policy that promotes human development, increasing well-being and happiness and promoting social cohesion and integration. A compact city allows easier, more affordable access to urban services and employment opportunities and a better sense of community integration and cohesion (UN-Habitat, 2012). Good sustainable design influences the social processes that take place within the environment, to an extent, regardless of the population density that exists within it. Based on the above, the objective is achieving higher

density residential neighbourhoods designed to increase quality of life whilst creating sustainable communities. Factoring in this need, no single model to attain all necessary tenets of sustainability has been created. "... There is a level at which density creates social, economic and environmental congestion and undermines sustainability" UN-Habitat (2012; 15). It is important for new higher density residential development within existing settlements to maintain the character and appearance of the surrounding urban form. However, it is important for settlements to evolve in light of adaptability and dynamic transformation in response to growing urbanisation, increasing populations and societal needs. There is a need for a balance between maintaining and improving the amenity that the current population of a neighbourhood enjoys and creating an enabling high density environment. An increase in density must be accompanied by an increase in other uses that will support higher densities such as economic and social opportunities. Racial exclusion played a large part in the existent overcrowding in non-white areas in South Africa and minority race areas in the U.S, where densities were inappropriately increased by government mandate. Housing has thus become the foundation of public development policy in South Africa and most world contexts (Jay and Bowen, 2011).

These theories when related to planning highlight planning as the two-edged sword, being both constructive and destructive, giving impetus to many social ills. Planning can be both oppressive, feeding the social divide in terms of class and race as well as progressive. Marxist theory lays the foundation for explaining the social issues spatially manifested in the South African landscape and other cities in both developed and developing worlds. There are several approaches highlighted within the relevant theories that point towards solutions to the socio-spatial problems and show the explicit linkage to housing provision and the need for state intervention within the sector to enable social justice within a capitalist society.

## 2.4 GLOBAL APPLICATION OF SUBURBAN DENSIFICATION

### 2.4.1 INTRODUCTION

Densification stems from the universal philosophy of sustainability and has informed current concepts influencing planning (Owens & Cowell; Wheeler; Hopkins, 2013). The next section of the literature review explores the relevant debates, cases and ideas that constitute the subject in relation to global cases illustrating theories and concepts. Cases in both developed and developing countries were selected according to their suitability to the study and to give a comprehensive picture of application and insight on the subject.

#### 2.4.2 AMERICA

Observation of the ensuing development of Los Angeles called for an alternative theory to the Chicago School model of urban structure (Soja, op. cit.). This model is significant when compared to the development patterns of South African cities (Myers, op.cit.). A national movement towards spatial justice in Los Angeles centred on Lefebvre's right to the city notion by the Urban Planning Department at the University of California has gained global impetus (Soja, 2009). According to Gish (2007), the transformation of residential Southern Los Angeles from low density sprawling suburban development to higher density urban form has been an occurrence since 1900. Although a significant change in densities occurred over a 25 year period, architectural design directives for flats maintained the character of single family homes in appearance. Higher density residential development as *apartments in disguise*, somewhat quelled objections to the changing urban form (ibid; 146) leading to the area becoming characteristically urban by the 20th century. A demand for rental housing units led to the remodelling of residential homes to allow for rental accommodation and the opportunity to increase household incomes and further popularity of the four-flat typologies. As the densities within the area increased, most buildings then developed as mixed use to accommodate the economic and residential needs of the influx of people. During this period of development most of these areas prohibited non-white ethnic groups from occupying residential accommodation. This racial exclusion led to overcrowding in the few zones that were unrestricted to minorities (blacks, Hispanics, Chinese) who had limited access to funds to develop their areas to accommodate the large densities. This resulted in uneven development among white and non-white residential areas, creating undesirable non-white neighbourhoods (ibid).

Studies by Duke (2010) consider homeowner reactions to public housing in Texas (U.S) where public housing was implemented in the affluent, predominantly white neighbourhoods of Dallas and Fort Worth. In Dallas, the relocation of an entire public housing development and in Fort Worth, the development of a few units of public housing within a larger neighbourhood. Public housing policy has become more inclusionary, eliciting resident opposition. Opposition is communicated through public meetings, the media and other channels. NIMBY-ism was observed as one of the main forms of opposition in the middle to higher income suburbs. However, residents could not distinguish between public housing units in the Fort Worth development and greater integration into the neighbourhood was achieved. The main findings were that the key reason for opposition by existing residents are the misconceptions of an increase in crime rates, decrease in property values and an ideological mismatch between the



beliefs of existing residents and housing mobility programs. Findings suggested that the fundamental cause of opposition was racial and class discrimination. It was found that people have personal ideas about what constitutes their spatial rights and the rights of others. Duke (ibid) concluded that policies need to influence changes in ideological beliefs about rights, social justice and societal morals to induce socially cohesive communities.

Horizontal housing development strategies by the Brazilian government are perceived as unfeasible and dangerous given the magnitude of the inherent housing problems in large cities (Selvanayagam, 2012; s14). There is a high demand and competition that has developed within the informal (*Favelas*) housing market, exacerbating housing issues. Sustainable, affordable housing can be achieved with large-scale, high quality, high-rise (vertical) housing development of sufficient unit size in locations accessible to transportation, amenities, facilities and services with high rates being avoided through simple security amenities (ibid). According to the UN-Habitat (2013(b)) housing demand in Brazil is approximately 7 million units. The Brazil *Minha Casa Minha Vida* (My House My Life) Programme, depicted in Appendix 6, implemented since 2009 (phase 1, with phase 2 from 2011 to 2014) developed in response to the shortage of affordable housing, aiming to increase the adequate housing stock and promote social inclusion. The programme was made to fit the housing situation in Brazil. Public-private partnerships are a key component in producing the social housing projects to enable funding, capacity, significant input and support. One of the main challenges faced by the programme is the “socio-spatial and environmental implications of housing developments” (UN-Habitat, 2013(b); 1). Thus, the location of the projects is important in creating urban integration and preventing spatial fragmentation and sprawl. Quality and innovative design is important in integrating affordable housing into the existing neighbourhoods. Provision for commercial activity has been included in housing development projects to aid in job creation. These mechanisms increase the viability of the projects to build communities geared towards socioeconomic sustainability. The programme has become one of the main government tools in combating the central issues of socioeconomic inequality, socio-spatial segregation and poverty at a large scale. According to the UN (ibid), the main lesson learnt in achieving success of the programme is the co-ordination of stakeholders, government spheres and society that includes professionals of the built environment and citizens.

The provision of good quality basic infrastructure and services that promote social well-being, such as crèches and community centres; environmentally friendly and conducive housing construction, affordable prices; structures that conform to engineering principles and generate

employment and income are thought of as necessary tenets to achieve housing goals (ibid). Overall, this would meet affordable housing needs and aid in building communities. Developing high rise, high density housing has been the approach to providing mass affordable housing in Sao Paulo Favelas, Mexico Barrios, Europe, America and Asia. According to CONAVI (2011) in 2011 the estimated demand for housing in Mexico tallied just less than 9 million houses (Maes et al, 2011 and UN-Habitat, 2012). A four-year national government plan was created in 2008 to supply 6 million homes incorporating environmental measures and eco-technology to reduce otherwise predicted carbon emissions expected from new developments. Through these eco-interventions (solar water heaters, water-saving sanitation systems, energy-efficient lighting, wall and roof choices and paints) the living costs of receiving families would be reduced. Further affordability is ensured through cheap finance and government subsidies available to those earning less than minimum wage. However, location is an issue for some of the developments that are criticised for being planned away from new centres and exclude citizens from the process because they are employed within the informal sector. Wealthier families gain access to affordable mortgages and subsidies and use this to acquire a second dwelling. Despite these setbacks Mexico has become one of the foremost developing countries in terms of government affordable housing policy (UN-Habitat, 2012).

Since 2010, housing policy in Mexico has taken on a sustainable urban development approach, with a focus on social housing to serve the needs of the low-income population through densification, stakeholder and community participation (SHF, 2012). Public development has begun focusing on developing multi-storey housing and apartment buildings (Patel, 2014). Compact city development is becoming important due to growing urban populations, as a result the need for more affordable housing on land near centres of employment is increasing.

#### 2.4.3 UNITED KINGDOM

*'A move towards cosmopolitan living (in London) has come about in recent decades and the compact city movement and smart growth movement is now being advocated to cure the ills of sprawl (which occurred from the move towards suburban style living' (Ekhureleni Metropolitan Municipality, 2008; 13).*

The densification strategy in London is envisioned to promote sustainable development and solve the housing backlog through high-rise, high density residential development around existing and planned transportation centres. There has been a prominent shift in Germany and United Kingdom (U.K) agendas from a focus on assimilation to community cohesion (Flint,

2010). The strategy recognises the growing need for accommodation and the need to accommodate the range of cultures within the population to create an equitable society and sustainable environment (United Kingdom Government London Plan, 2004 & 2014, Bolt op. cit). The ideal approach highlighted in the plan is to densify London around transportation hubs in sprawling outer London suburbs.

In the compilation of guidelines for New Forest Council in the U.K, Butter, Evans and Payne (2006) note that planning is important in creating and fulfilling the sustainable communities agenda. The U.K Government in this light has set out specific density guidelines and plans for development to make sure that all places including buildings, are sustainable, in the choices of lifestyles they offer, land allocation, access to transport and environmental impact. The design of the development plays an important part in the overall sustainability of the development. Design integrates green-building that ensures efficiency of energy use such as green roofs and materials, underground parking, space efficiency, grey water collection and design that allows maximum light. The guidelines align residential development to local and national policies and guide the application process. The proposals of higher densities concern the public in the particular towns and villages because of a perceived threat to neighbourhood character. Butter et al (2006) reiterates that through good design, character of these areas may be enhanced and limit greenfield development, allowing greater opportunity to provide affordable housing and environmental conservation. Higher density developments are not treated as isolated developments to merely achieve a quantitative density target. The existing site context is important in determining the design and density warranted by the site. “Some sites will warrant a freedom to aspire to something different” (Butter et al, 2006; 20). Higher density developments are expected to consider sense of place and identity, access, movement and permeability and respond to activity and social expectation (Susilo, Williams, Lindsay and Dair, 2012).

#### 2.4.4 INDIA

The case of affordable housing density in Mumbai is based on the paper by Gill and Bhide (2012). The paper examines the urban development of innovative vertical densification to create affordable housing stock. Housing is constructed by private developers that receive preferential development rights in “other higher-end residential and commercial zones of the city” (ibid; abstract). Land and housing are scarce, expensive resources in Mumbai with suburban islands existing due to land reclamations over the last 20 years increasing the city and suburban footprints. There is a backlog of about 1.5 million housing units (ibid; 2), almost 50% of the population live in slums without proper access to facilities, sanitation and other basic services

and efforts have been futile with the lack of land constraining the development of physical infrastructure. Housing costs are high and distorted and middle class populations can only afford low quality housing in peripheral locations. For the very poor, their only choice is informal or slum settlements on vacant, well-located, private and public land. This has caused those that have the means to move to suburban areas (ibid). Strict and outdated zoning and control regulations such as F.A.R, the Rent Control Act and others, limits the amount of land that may be developed for housing, which together with commercial development makes up 41% (Clarke Annez, Bertaud, Patel & Phatak; 2010). The “vertical resettlement of slum dwellers occupying expensive urban land offers a promising and affordable solution”, that helps free up vital land for other essential services (ibid; 2). The solution known as *verticalization* supplies affordable housing, facilitated by the private sector for resettlement of the slum, informal and poorly housed population. The vertical housing model enables the availability of expensive urban land occupied by informal housing and the supply of land for essential infrastructure and service provision to supply adequate, necessary housing. The process involves collaborations between all stakeholders in private and public sectors, non-governmental and community organisations.

The model of housing provides free housing with secure tenure to the poor with access to the full range of services and can accommodate double the households initially situated on the land. Better living conditions are enabled with minimal cost to government in providing for basic needs and developing a more liveable city, meeting higher standard of living and quality of life targets. Corporate social responsibility of the private sector is offset by gains in allowances for higher income residential development. The projects are successful because expensive urban land is recovered during the process. The design of the development and the mobilisation of community’s influence acceptance, accommodating the needs and preferences of vulnerable groups such as the elderly and providing for mixed use such as commercial activity within residential buildings. Over 15 years, approximately 130 600 housing units were provided. Developers are responsible for building maintenance for a ten-year period. The implementation plan developed by the state could not be implemented to its full extent due to the onerous and impossible task of updating and providing infrastructure and the lack of land for development. The challenge of implementing such a strategy is that there must be gains from freeing up land, requiring high land values in the areas of development. Another challenge is in the resettling of residents into the high density, high-rise developments. Resettlement requires investment into training and preparation of the population, monitoring of maintenance, requires mechanisms to

redress complaints and promote transparency. The model may be replicated in countries where high land values or prime land exists to mitigate the challenges of increasing urbanisation.

#### 2.4.5 SUMMARY

Higher density development must be in proximity to centres of urban development where social, transportation and economic opportunities exist. Development initiatives need the support of facilities and services to become sustainable developments. As a significant tenet of sustainability agendas social cohesion, has become a focus for European governments that have adopted a more pluralistic, postmodern approach to settlement development by embracing race, class, and ethnic diversity. Perceived threats to neighbourhood character by existing residents may be limited by good, inclusive and holistic design and complete transparency, interaction and participation of all groups of the population involved. Site and local area context and innovative solutions are important for the success of new higher density development. This is relevant in attaining sustainability and environmentally efficient development. The cases discussed have shown that implementing eco-efficient mechanisms increase affordability of daily service expenses for the poor and fulfil a global sustainability mandate. Vertical models of affordable housing are feasible when the poor population they are intended for are taken into account in terms of their cultures, the lifestyle changes they are required to make and their needs and preferences. The private sector has both the means and the skill to help solve the housing crisis in most developing countries and this potential should be harnessed to supply adequate housing and decrease disparities between social groups. Higher density vertical apartments allow expensive, scarce urban land to be freed up for more efficient use such as service provision, increased economic opportunity and environmental and social purposes. Housing development in both developed and developing countries is used to redress social imbalances incited by past planning policies. Affordable housing provision has thus taken on the dual role of fulfilling sustainability agendas that affect a global population and correcting local social issues.

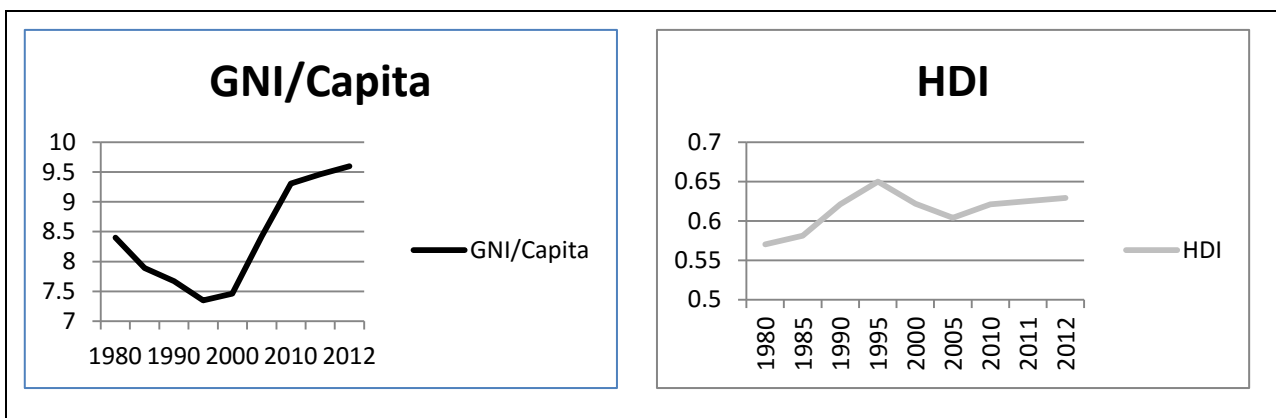
## CHAPTER 3: THE SOUTH AFRICAN CASE STUDY

### 3.1 INTRODUCTION

*“Like most South African cities, albeit perhaps more dramatically so in topographical terms, post-apartheid Cape Town is still a ‘starkly polarized city’ with ‘poverty stricken and overcrowded settlements’ in the Flats and around its edges, and an affluent, mostly white core and near-core suburbs hugging Table Mountain (Turok 2001: 2349; Lemansky and Oldfield 2009: 636)” - Myers (2011).*

The Human Development Index (HDI) is a universal measure used to assess the long-term progress of human development on three levels; longevity and health, access to knowledge and standard of living (UNDP, 2013). Standard of living is measured by the Gross National Income (GNI) per capita and is an economic evaluation. The Human Development Report contains HDI data that compares countries internationally. South Africa ranks 121st of 187 countries and is in the medium development category, shared with Indonesia. The GNI per capita has increased since 1985 as shown in Figure 3.1 (adapted from UNDP HDR, 2013). Although the GNI per capita has shown an overall increase since 1980 and a notable increase since the year 2000, the HDI shows less consistency and a steady increase until 1995, decreasing thereafter and remaining almost constant since 2010. Thus the standard of living has not shown a significant increase despite the rise in overall income. This is due to the uneven economic distribution across the country whereby a small segment of the population has the opportunity of increasing their standard of living. Reduced poverty levels in 2011 led to the establishment of a major goal by the RSA presidency in 2012, to decrease poverty and inequality.

Fig 3.1: S.A GNI/Capita and HDI



Source: Adapted from UNDP HDR, 2013

Research conducted by the CSIR into the housing situation in South Africa, consistent with the backlog of over 2 million housing units (Van Wyk, 2013; 4) has determined the following statistics outlined in Box 3.1.

Box 3.1: CSIR housing backlog statistics

40% of households do not have refuse collected once a week
14.5% of households live in informal dwellings
20% of households do not use electricity for lighting
42% of households do not use electricity for heating
34% of households do not use electricity for cooking
53% of households have no access to piped water inside the dwelling
45% of households have no access to flush toilets connected to sewerage
8% do not have access to any toilet facility

Source: Van Wyk, 2013; 4

Within South Africa, as a response to the dire situation emphasised by the prevailing statistics, development policy has adopted sustainability as the overarching philosophy, in the creation of viable human settlements. Housing development is at the core of promoting good quality of life and higher standards of living (Sahin, Fasli & Vehbi, 2007; Skovbro, 2001). Densification as a development tool has been considered in light of addressing poverty and inequality (Smith, 2010; UN-Habitat, op. cit.) left by the apartheid city structure. As acknowledged, the apartheid planning system left an ever-increasing housing backlog and a lack of social integration upon a fragmented and dispersed spatial landscape (Turok, op. cit.; Myers, 2013). Another reason for densification is the notion of spatial justice (Soja, 2009; 1). This notion is addressed with the Spatial Land Use Management Act 16 of 2013 (Spatial Land Use Management Act (SPLUMA, 2013) assented by the South African Government to redress the spatial imbalances, giving cognisance to the housing rights of the disadvantaged through enabling access to well-located land and promoting well integrated human settlements. Densification as a tool has been implemented as affordable housing infill of varying typologies within suburban areas of low density surrounding main metropolitan conurbations.

### 3.2 THE SPATIAL LANDSCAPE

The physical and social planning problems are inseparable in South Africa. The availability and distribution of space and the spatial patterns that exist influence social integration and the housing backlog. Factors that determine space and its functionality, the dynamics of space concerned with political, social and economic aspects and environmental influence will need to be considered. Observations put forward by Soja (1980) confirm that “Space has been shaped

and moulded from historical and natural elements, but this has been a political process. Space is political and ideological. According to Lefebvre (1977; 341), “It is a product literally filled with ideologies”. This is the case of the South African landscape in its spatial layout of both urban and rural land. Soja (op. cit.) further links the concepts embodied in the research by linking spatial perspectives with social justice (space within a social and political arena) applying this in the sprawling city of Los Angeles “... all social justice struggles can be interpreted to have a spatial aspect” (Soja, *ibid*; 207 in Nordquist, 2013; Duke, 2010).

Socioeconomic resources were concentrated in white suburban areas, in contrast with peripheral black townships, deprived of adequate resources (Hindson, 1996). According to Harrison (2003; 12), the social and spatial inequalities of apartheid are consistent with the outcomes of the modernisation period. Contemporary South Africa is just as fragmented as the apartheid city with a shift from a racial standpoint to market or class division (*ibid*). The comparison of Johannesburg to Los Angeles within the postmodern dichotomy is similar in terms of the polarization of social classes, presence of fortified urban enclaves (gated communities) and decreased public space (Bremner, 2001:1). The postmodern era has reinforced apartheid geography. In Cape Town and Durban these social dynamics are reiterated through increased and rapid development of affluent edge cities (as opposed to peripheral apartheid townships) such as Umhlanga (Bremner, 2001 and Todes, 1998).

Infill development hails as a solution to sprawl, a means of increasing density, revitalising depressed neighbourhoods and moving away from dispersed, low density peripheral development (McConnell and Wiley, 2010). This is the occurrence in areas of the United States; however the South African city has dense settlements on the peripheries with dispersed lower density suburbs surrounding the core (Duminy, 2007). These areas are highly accessible in terms of infrastructure and services, facilities and amenities. Zoning regulations often prevent optimising densification and limits land use. McConnell and Wiley (2010) further discuss the obstacles to infill development and perceived negative externalities. Most studies have focused on inner city infill development; however, suburban infill and densification is likely to transform the spatial landscape (Urban Land Institute, 2005, Steinacker, 2009). Analysing the spatial landscape in light of the above aspects enables greater understanding and insight into the composition of the built environment. This further highlights the concerns and interests in light of housing, human settlements and the social sphere, giving direction to solutions.



Yiftachel, (1998) acknowledges the oppression of peripheral groups of society. In the apartheid era, marginalised race groups were relocated to the peripheries as a way of containing and controlling society (Massey and Denton, 1993). South Africa exhibits one of the most concerted contemporary efforts towards inclusive, consensual planning since the apartheid era. The failure of post-apartheid housing policy is portrayed from a power perspective as a struggle between different ideological directions (Tomlinson 1998) of economic orientation on the one hand and social orientation on the other, the exclusion of disregarded actors, the disinterest of the private sector and overall division of parties. Efforts of collaborative planning have evolved since the Reconstruction and Development Programme of 1994 and can be seen in the development of housing policies, programmes and projects on a national, provincial and local level. There exists a gap between the rhetoric (what is proposed and decided upon) and the action (Feinstein, 1999, 16). “Just including more people in active, contested democratic politics and decision making, or allowing for popular influences on demands for services... empowering people – did not lead to immediate and evident improvement in the quality of life for poor urban South Africans” (Myers, 2011; 121).

### 3.3 URBAN PLANNING POLICIES AND GUIDELINES

Policy is shaped by universal guidelines and filters into legislation, policies and local frameworks. United Nations guidelines have a considerable influence on national, provincial and local agendas. From a developing country perspective, strategies among BRICS (Brazil, Russia, India, China and South Africa) nations focus on developing affordable housing within countries with large urban populations. These developing countries portray characteristics similar to the South African context, share ideas for growth and development and diverse, innovative thought and solutions with the potential to create a new urban planning model (BRICS Summit, 2012).

Programs by the United Nations present global perspectives and frameworks and comprehensive insights into local contexts; linking and showing the similarities between local and global scenarios. This allows for South African policies and goals designed in line with global development, in consideration of local circumstances. Relevant legislation, policies and guidelines from global to local scales in light of their influences on densification are listed and explained in Table 3.1 (page 51). Policy specific to eThekweni Municipality such as the eThekweni Integrated Development Plan (IDP, 2013/14), eThekweni Housing and City Densification Strategy (2013) and Local zoning legislation is detailed in Chapter 4.

The Constitution of South Africa (1996), as the supreme law is the overarching legislative foundation for all development specific laws and policies. Within Chapter 2, Section 26 of the Bill of Rights every person is entitled to the right to access to adequate housing further detailed in subsequent chapters of the mandatory document. In terms of housing, this culminated in the Housing Act of 1997 aimed at ensuring access to adequate housing. In terms of densification, the Act sets out a legislative framework to facilitate sustainable housing development (RSA Human Settlements, 1998). The Breaking New Ground (BNG) Policy document published by the National Department of Housing in 2004 provides important guidelines that discuss and affect issues of higher density development. The policy promotes densification and integration of excluded groups into the city to enjoy benefits typical to urban areas, creating sustainable human settlements. Within the BNG policy document the Densification policy considers “suitable policy instruments and adjustments to promote densification” (RSA Human Settlements, 2004; 12). The instruments include planning guidelines regarding zoning, consolidation and subdivision and property taxation. The BNG policy (2004) attempts to address the location of development in terms of access to opportunities, activities and amenities, integration, compact development, social (medium density) housing and housing design. Residential development permits and fiscal incentives are an important part of the policy strategy for incorporating more affordable housing provision in urban areas (RSA Human Settlements, 2004). Inclusionary housing development through policy providing for the inclusion of lower cost housing units within higher income or private projects and the allowance of additional units on private property catering to lower income populations facilitates affordable housing provision.

Table 3.1: Guidelines and Policy Documents

	DOCUMENT NAME	YEAR	PURPOSE
<b>POLICY</b>	White Paper on Housing	1994	Identify the lack of housing and incoherency of housing legislation. To enable housing development (RSA Human Settlement, 1998).
	KZN Human Settlement Guidelines: Guidelines for Human Settlement Planning and Design	2000	Guidelines for the development of quality human environments culminating in sustainable settlements to eradicate imbalances of the past and meet needs of future populations. Establishes guidelines and standards for higher density, compact, mixed use development.
	Breaking New Ground (BNG): A Comprehensive plan for the development of Sustainable Human Settlement (NDoH)	2004	To address the failure of housing delivery, create sustainable settlements through enabling multiple finance mechanisms and housing typologies and increased capacity (Smeddle Thompson, 2012).
	National Spatial Development Perspective (NSDP)	2006	Strategic assessment of the spatial distribution and socioeconomic characteristics and understanding of the distribution of economic activity and potential across South Africa.
	KZN Provincial Growth And Development Strategy (PGDS)	2011	Set within the parameters of the NSDP, Framework for local development that meets needs sustainably.
	National Development Plan	2030	An overall Vision to guide development through strategies for spatial restructuring of human settlements in terms of inclusion, suitable locations and efficiency in terms of densities and resources.
<b>LEGISLATION</b>	The Housing Act 107 (Of 1997)	1997	To abolish and replace apartheid legislation and provide a single housing Act stating government priorities (RSA Human Settlements, 1998).
	KZN Planning And Development Act No.6 Of 2008	2008	Calls for a wall to wall planning schemes to encourage the transformation of the spatial landscape and highlights the need for densification (to avoid sprawl) as important in development applications (Ovens and Kitchin, 2013).
	Spatial Land Use Management Act (SPLUMA)	2013	To address racially based planning legislation to replace the fragmented planning system across provinces and bring about sustainable development patterns (South African Local Government Association (SALGA), 2014).

Source: Author, 2015

The SPLUMA, Act No. 16 of 2013 is a more recent legislative document intended to carry out the purposes of the BNG. SPLUMA states the government's role and the responsibilities of the various tiers of the state in fulfilling social, economic and environmental rights to meet basic needs of the disadvantaged. The Act uses spatial planning and land use management to promote social and economic inclusion, unity and equal opportunity, desirable settlement patterns and sustainable development (RSA Government (SPLUMA), 2013 and SALGA, 2014). Land use schemes, a regulatory component of SPLUMA (Section 25), are intended to promote economic growth, social inclusion and efficient land use development. SPLUMA takes into account Section 26 of the South African Constitution (1996) for the right to access to adequate housing, including equitable spatial patterns and sustainable human settlements. The Act further guides municipal SDF's stating that they must include estimates of housing demand across the various socio-economic categories and the planned location and density of future housing developments (S21 (f)). According to the Constitution (ibid), municipality's must identify applicable areas for inclusionary housing development (S26 (i)) and land use schemes must make provision to include affordable housing in residential land developments (S24 (d)). The various policy documents and legislative frameworks are interlinked and overlap one another, producing development guidelines and plans to be implemented to fulfil long term visions and realise the Constitutional mandate. The goal of spatial restructuring and transformation of South Africa is a guiding theme of policy and legislation to be achieved through human settlements, specifically housing provision. The provision of housing is seen as a heterogeneous process to fulfil the entire spectrum of needs and duties set out within the Constitution to tackle past imbalances, current requirements and future sustainability on social, economic and environmental levels. In this process, there has been recognition that one of the main solutions is increased densities and compaction of cities. Although earlier housing frameworks have merit they failed to sufficiently meet housing needs on a large scale and cost effective manner. To an extent they perpetuated the spatial inequalities created by apartheid planning. Early democratic legislation can be attributed with setting the foundation for progress.

### 3.4 AFFORDABLE HOUSING

The democratic government that emerged in 1994, deemed a "period of unrealistic expectations" adopted a largely market-centred approach to housing provision in South Africa (Bond and Tait, 1997; 19). This can be seen as one of the reasons for the inefficiency of the early housing provision system and the snowballing effect on what has become the current crisis in housing. As with the global movement towards sustainable development, a more balanced approach to

housing provision has manifested. The market-centred approach to governance is not a South African undertaking, but has proven its failure in the U.K neoliberal system before adoption of the *Sustainable Communities* approach, a hybrid of aspects favouring both sustainability principles and market related structures (Raco, op. cit.). The current system of densifying through high rise alternative housing results from the deficiencies of the RDP market-centred approach and the realisation that providing the required amount of housing was an unreachable goal due to a lack of well-located, cheap land, funding and growing housing needs. The continued allocation of affordable housing to non-white populations within the apartheid townships exacerbated social polarisation and was unfavourable to residents as work and new opportunities were located within the city they were now entitled to become a part of. Affordable housing is therefore a means of eradicating informal settlements, a manifestation of these issues and failures and a way of providing gap housing to the rising middle class population that have emerged over the past two decades of democracy. Affordable housing was a limited, poorly planned endeavour with the dominant housing typology being detached single family dwellings on individual plots (eThekweni Municipality, n.d). Significant changes were made to housing policy that have enabled rental housing, social housing and multiple unit housing to be included as options to the poor and emergent middle income population.

To find out the long term needs and problems of existing recipients of low cost housing schemes Jay and Bowen (2011) conducted a survey in South Africa identifying concepts to evaluate scheme design and quantify resident's values. Most affordable housing has thus far been poorly located and of substandard quality and design. Failure of the 1994 RDP strategy led to the adoption of the BNG policy document (2004) with a focus on sustainable communities, as a response to growth in the population, households, unemployment, and urbanisation (Jay and Bowen, 2011). Research by Jay and Bowen (ibid) concludes that a problem exists in trying to attain policy goals of mass delivery whilst trying to meet specific individual needs. The BNG attempts to solve this problem. A major concern of long term residents was quality of life. High levels of public and stakeholder participation are necessary, for high density development. They offer a cost effective solution in light of state provided funding limits but require community acceptance. Densification is intended to generate "economic opportunities, social facilities and services and enable the cost effective provision and optimal use of infrastructure (CTCC, 2009; 5)" (Jay and Bower, 2011; 14).

The realisation of the urgent need for affordable housing in South Africa was explicitly recognised by the national government in 2014, by significant inclusion in the Budget (Minister

Gordhan, 2014) prioritising investment areas to improve the provision of affordable and social housing. The areas of investment highlighted as essential included R35 billion in housing development and a further R105 billion in the services that support housing delivery, such as free basic water, sanitation, electricity and waste removal services. The eThekweni Municipality Housing Strategy (2012) aligned to the National Housing Act 107 of 1997 outlines the numerous housing projects by grouping objectives under individual ownership or rental categories. The objectives include addressing the overall housing backlog through rural housing, upgrading and greenfield development. Another aim is addressing affordable housing and rationalising the municipal role as landlord of rental stock which includes social housing and council rental stock such as hostels and flats and community residential units. This has been the case in most South African cities. Between 2004 and 2010 the Johannesburg Social Housing Company provided housing for 30 000 people around Johannesburg, meriting the UN scroll of Honour award for holistic, good quality, affordable shelter provision (City of Joburg, 2010). These interventions constitute brownfield infill development detailed in chapter 2 (page 14), and are comprised of various housing typologies based on social, economic, environmental and physical aspects of their situation. Higher densities are incorporated through the subdivision and redevelopment of plots into medium density housing or the development of larger sites into high density flats (E.M, 2013). The subsequent sections of the chapter explore affordable housing models in South Africa that exhibit innovative precedents of infill development.

#### 3.4.1 AFFORDABLE HOUSING MODELS IN SOUTH AFRICA

The Missionvale higher density housing project in the Eastern Cape (Figure 3.2, page 55) offered three housing typologies to the community within their current location, benefiting households from the community. Higher density typologies, although incurring potential issues of privacy offered a greater living space to occupants of each dwelling, given the meagre state subsidy of R16 000 at the time. This funding was required to cover costs of a 240sqm plot of land as service provision and a top structure for each beneficiary as was typical of standard affordable housing provision. The high density housing concept was accepted as a realistic alternative to the community's existing informal housing structures (The Delta Foundation, 2000). However, the group (The Delta Housing Foundation) determined 3 options that could be offered within the subsidy constraint. These were:

1. Single storey, detached dwelling of 30sqm (standard)
2. Semi-detached single storey dwelling of 44sqm
3. Semi-detached fourplex (quad), double storey dwelling units of 56sqm each

Fig 3.2: Missionvale fourplex housing



Source: The Delta Foundation, 2000

The average site size was 110sqm with 497 freehold houses produced by 2000 (GMSA Foundation, 2000). Social acceptance of the project within the community may be noted as being for three reasons. The project beneficiaries were from within the existing community, as a result there was no need for acceptance of a new or different population group. Secondly, the community and the beneficiaries were of similar income levels and economic status. Lastly, the community played a major role in informing the design from the conceptual level through implementation phases, although not a self-help project as this was found to be the most time consuming and impractical method. The project aimed to show the “desirability and viability of high density housing as a solution” to providing affordable housing to the poor (The Delta Foundation, 2000; 13). The project was further used as a tool for social reconstruction of the impoverished community. A post implementation social programme was undertaken to settle the community into the new way of life and draw them out of the socioeconomic depression of informal living. Participation from the conceptualisation phases to post implementation was a significant part of the housing provision process. Leaders were appointed within the development to undertake civil society matters as a liaison with councillors and authorities and to intervene in conflicts between households. It further provided a social network and advisory or financial support to community members. The Missionvale project was replicated in areas in both Cape Town and Kimberley. Conclusions drawn from the Missionvale development project highlight that an important relationship ensues between housing and land uses through the integration of new and existing development that decreases deficiencies in both, progressive intensification and changes of land use. GMSA (2000) found that 14% of residents were not

satisfied with the new higher density homes because of their informal background. The semi-detached and four-plex homes, although offering larger living space and quality shelter required a trade-off between space which they had little of before and privacy offered by their individual informal dwellings. The project further showed that demo models of the intended structures were required for poorer communities to comprehend the concept of the proposed development to prepare them for the changes of new homes and inform them on what was to be provided.

### 3.4.2 SOCIAL HOUSING

The social housing agenda is aimed at redressing the spatial distortions created by apartheid planning, through the provision of affordable housing to low and medium income groups in proximity to socio-economic opportunities. Social Housing is one of the affordable housing mechanisms included in South African government, national legislation and strategies to enforce notions of social justice through inclusion, opportunity and access to those without right to the city (HDA, 2013 and Lefebvre, 1968).

The dissertation does not discuss funding mechanisms of social housing in depth, but highlights the relevance of the approach in light of affordable housing, spatial restructuring and increasing urban density, social inclusion and integration within South African cities. In broad terms social housing provides rental accommodation at subsidised rates. A Restructuring Capital Grant subsidy, combined with an Institutional subsidy contributes 64% of funding to projects to ensure development of suitable quality located in particular areas or zones (HDA, 2013). Social Housing seeks to give access to rental housing options for low to middle income populations through the state and/or non-profit organisations, “accredited social housing institutions... in designated restructuring zones” (Social Housing Act No. 16 of 2008 and HDA, 2013; 7). Nodes and corridors are taken as optimal restructuring zones because of the social and economic opportunities they enable, facilitating in the locating of social housing developments (ibid). eThekweni has been designated the most Restructuring Zones (19) with Johannesburg second (16) and Msunduzi third with 10 zones. KwaZulu Natal has the highest number of zones, demonstrating that the province has the greatest need for housing stock and restructuring. Municipalities in other South African provinces have designated RZ’s including the Western Cape – Cape Town (5), Gauteng – Tshwane (7) and Ekurhuleni (5) and other areas in the Free State, Eastern Cape and North West Province (Godehart, 2007).



The social housing movement originated with the realisation that inner city areas were degenerating and the mechanism of delivering housing as a means to economic growth (as promulgated by RDP and GEAR (Growth, Economic and Redistribution) policies) was a failing mandate in most South African cities. Urban regeneration in South African planning has evolved since its inception as part of the Reconstruction and Development Plan (1994). Social housing attempts to overcome residential challenges through urban restructuring, regeneration and renewal. There are three dimensions that determine social housing. The dimensions include the spatial aspect that involves the restructure of apartheid patterns, economic (revitalisation and generating employment opportunities) and social in creating diversity in terms of race and income class as well as reducing neighbourhood crime. Urban restructuring includes notions of compact city development, integration and connection through efficient public transport systems and densification (HDA, 2013; 10). There are various typologies of social housing that are implemented, including inner city and grey areas social housing (HDA, 2013; 24).

The bulk of social housing investment and delivery has been within the inner and outer suburban areas, in contrast to inner city areas and grey zones that exist between former white designated areas and previously black townships. These suburban areas offer the best location in terms of land costs and access to opportunities and the outer suburbs face less bureaucratic setbacks than inner suburbs and the CBD (HDA, 2013). Introducing these developments into suburban areas increases the population diversity. More extensive projects that increase the population are able to take place in suburban areas where land is more available. Local authorities are reluctant to release land that is well located for this development and timelines for releasing land become lengthy. There is a risk of projects developing in isolation to the surrounding environment and the focus of development may shift to physical aspects rather than taking a holistic approach. Using private developers and organisations may conflict with the nature of development as municipal intent is not always carried out by the appointed developers that have private interests and the goal of making a profit (HDA, 2013). For effective social housing development as part of overall housing provision Igbino (2013; 25) determines that the social housing stock should be architecturally similar to surrounding development, be an inclusive part of residential areas, be regularly maintained and controlled by the responsible institution.

### 3.5 SUMMARY

Apartheid planning policies implemented as racial segregation tools have had far reaching effects on social, spatial and economic development and environmental concern in the contemporary planning setting. South Africa has made great strides in its approach to affordable housing delivery that recognises housing provision as a heterogeneous process. This is essential for restructuring the social and spatial landscape to attain social justice. Housing serves as the fundamental basis for human development and the way that individuals function within the broader societal structures and contribute to economic well-being. International Housing Solutions (IHS) findings show that affordable housing development in the Western Cape has been transforming the social structure of the country (Van Dyk, 2013; 7). According to Morris et al (op. cit.) individual and societal behaviours change over time and a more contextual planning practice suited to contemporary conditions, transformation and envisioned restructuring at a neighbourhood level is imminent. The link between concepts, theories, global and local cases of densification, implementation strategies and policy development has been demonstrated in Chapters 2 and 3. Throughout these chapters there have been strong arguments made by various authors and the connection between the main concepts of social justice and integration, affordable housing development, sustainability and the notion of densification. This has laid the foundation for the research being undertaken and gives guidance to the data collection and analysis process.

## CHAPTER 4: CASE STUDY OF UMHLANGA INFILL

### 4.1 INTRODUCTION

“ A case study as an evaluation method is a means of learning about a complex instance, based on a comprehensive understanding of that instance obtained through extensive description and analysis of that instance taken as a whole and in its context” (United States Government Accounting Office (GAO), 1990; 15).

The case study chapter regards affordable housing development in Umhlanga Ridge, such as the apartments known as Manhattan Mews, in relation to the established Prestondale neighbourhood, located adjacent. A locality map is provided in Map 4.1.

Map 4.1: Locality plan of study area



Source: eThekweni Municipality GIS, 2015

### 4.2 THE BROADER CONTEXT

#### 4.2.1 THE ETHEKWINI MUNICIPAL AREA (EMA)

The distribution of density in the EMA reflects the apartheid planning system with fragmentation, low density central, well serviced areas (suburban areas of Durban North, Westville, Pinetown, Tongaat, Verulam) and peripheral areas of poor service and high densities

(eThekweni Municipality SDP, 2013). Undulating topography of the EMA further contributes to incoherent physical development (Turok, 2011). Residential land use is the dominant use that shapes the urban form and is separated from unevenly distributed economic uses. The lowest densities are within the southern and outer west planning regions earmarked as having potential for densification. Land is vacant and available in the north of the municipality, but issues of distance between living and working opportunities exist. These spatial patterns have implications on social, economic and environmental spheres, transportation and infrastructure. The Spatial Development Plan (eThekweni Municipality SDP, 2013; 39) promotes spatial concentration and efficiency to encourage compact development by increasing densities in suitable areas, reducing the separation between working and living areas, optimising development in areas of opportunity and efficient use of infrastructure and facilities. The plan promotes the optimal use of land by encouraging urban infill and the fostering of a socially equitable environment with accessible resources, opportunities and amenities (ibid). A core focus of the municipality is on equity and restructuring of spatial race and class divisions.

Affordable housing of adequate quality is not sufficiently provided by the formal market and the state has determined the demand for rental stock (ibid). Obstacles to densification within the EMA include high construction costs of top structures and the perception that low income housing should be detached and on single plots of land (Turok, Smith; op. cit.). The eThekweni Municipality uses zoning as a tool to increase densities in urban areas and reduce urban sprawl. The Urban Development Line is demarcated to restrict development within specific urban areas of the metro and the SDF conceptual plan identifies areas where infill and densification opportunities should be pursued in line with zoning regulations. The SDF restructures the municipality into a compact city and identifies areas where sustainable growth should take place, in areas of optimal accessibility. The Northern Urban Development Corridor (SSI, 2001) map depicts accessibility in the northern planning region that includes the Umhlanga area (Map 4.2, shown on page 61).

Map 4.2: Accessibility



Source: SSI (2011)

#### 4.2.2 POLICY CONTEXT

eThekwini City Densification Strategy (CDS) has a direct impact on local plans and is guided from the global level. Immediate influences on the CDS have been national policies such as principles in the BNG (2004) for the creation of sustainable human settlements to guide housing development projects. The policy document outlines compact urban form as the most sustainable for South Africa (Smith, 2010). Important local guidelines directing the CDS are incorporated within the eThekwini IDP (2013/14), the most comprehensive development directive in the pursuit of sustainability from a local level. The IDP (ibid) is a tool developed by municipalities by way of national legislation, to direct development interventions in line with national and provincial mandates. Chapter 4 of the IDP titled *Quality Living Environments* deals directly with social inequalities in housing supplied as a heterogeneous commodity (a sum of components that form the process and package) that creates sustainable human settlements. Local housing programs are developed from the IDP with the goal of creating an integrated, non-racial society through spatial restructuring. A key strategy is to transform the sprawling, fragmented city into a more sustainable, efficient compact settlement. It is within this context that the eThekwini CDS

was developed. The CDS manages challenges associated with the scarcity of natural resources, high population growth and rural urban migration, increasing sustainability and liveability, making use of net residential dwellings per hectare. It seeks to develop along integrated transport networks, identified nodes and corridors within the urban development line and areas of service, social facilities and economic opportunity. Nodal development is a particular focus of development within South Africa as a tool in achieving higher densities within urban areas, compactness and transportation efficiency (eThekweni Municipality SDP, 2013). The focus is on brownfield development and creative land assembly and housing typology strategies, design innovation to reduce environmental impacts and the creation of healthy and safe communities. The statutory planning process may hamper progressive development through rigid planning regulations, zoning controls and time consuming and expensive procedures. This hinders affordable housing processes, restricts and dictates land use and may contribute to social exclusion imploring a need for harmonious interlinking and coordination between all factors that influence planning.

#### 4.2.3 THE ETHEKWINI MUNICIPALITY CITY DENSIFICATION STRATEGY (CDS)

The eThekweni CDS (2013) is a recent policy document offering a filter through which existing infill can be analysed and giving a point of review in light of other development policies. Information provided outlining the eThekweni CDS are details gathered by analysis of the strategy itself unless otherwise indicated by way of citation or a part of reflection on the document. The strategy aims to enable efficient, equitable and sustainable development using density as a tool. The eThekweni CDS sets out a framework for density in the eThekweni Municipality and presents contextual insights to enable practical, realistic interventions that incorporate and align key stakeholders. The aim of the strategy is to achieve density targets and quality living environments of higher densities within suitable areas. Compilation of the CDS involved thorough research into understanding the concept of density and densification, its use both locally and globally and its impacts on efficiency, sustainability, transportation, social dynamics, environmental and geographical aspects, economic and institutional spheres. The CDS is linked to the eThekweni SDF and package of plans providing guidelines for implementing specific densities under specific circumstances. Detailed and contextual studies are necessary for development within certain areas, thus specific density propositions are not made within the strategy, but incorporated into lower order spatial implementation plans to facilitate more sustainable density levels (CDS, 2013).

Limited land in well located areas for non-white race groups led to high density development in these areas of eThekweni (such as in Clermont, Inanda and Grey Street). Before 1990 the growth of northern (Umhlanga and Mt. Edgecombe) and western (Hillcrest) suburbs was limited due to extensive sugarcane farming which became popular as affluent areas of development. During this period, further incentive to develop in these suburban or *old line* areas was influenced by mass private car development and lower house prices, increasing sprawl. The availability of infrastructure to encourage development in outlying suburbs increased investment and development ventures in these areas. Densification according to the CDS (2013) may include increasing the number of dwelling units or people through infill and compaction (redevelopment) of sites. It is difficult to compare South African city structures with other cities as the pattern of development is often inverted. Turok, (2011) observes that density increases with distance from the city. Densification as a planning tool has been influenced by the goal of attaining social equity, and efficiency through restructuring of the apartheid city pattern. A high population growth rate shows increased urbanisation in the municipality in the northern region (40%) and higher density development is required to accommodate the increasing population. Overall in eThekweni approximately 193 000 dwelling units are required to fulfil housing needs (CDS, 2013; 14).

Net density in the eThekweni Municipality is low, at 4 dwelling units per hectare due to an uneven distribution of density across the landscape. There is increased density on the periphery and in informal areas that have limited control and regulation. Existing land use legislation such as zoning and development controls and standards prevent higher density proposals from being approved. The eThekweni CDS sets out preconditions necessary for densification to be deemed suitable within an area. The criterion is listed in Table 4.1 (page 64) alongside an analysis undertaken by the researcher that establishes the case study area as viable for densification.

Table 4.1: Preconditions for densification (E.M CDS, 2013)

<b>E.M CDS (2013) Preconditions for densification of an area</b>	<b>Case study area: Umhlanga Ridge (Analysis)</b>
1.Suitable development controls and building regulations (F.A.R, coverage, setbacks, minimum lot sizes and zoning, parking, height and restrictive conditions of title)	Within Umhlanga Ridge new town, planning regulations are conducive to higher densities and pedestrian oriented development with planned building setbacks and streetscapes.
2.Market demand in a particular residential environment	High Market demand.
3.Availability of finance for development	Public, private partnerships and International funding (IHS).
4.A high quality reliable public transport network	Easy access to major roads (M41 freeway and M12 (Umhlanga Rocks drive)), Public bus and transport facilities at Gateway centre and in Umhlanga rocks.
5.Infrastructure provision and capacity	Infrastructure and management model developed by Tongaat Hulett (developers).
6.A clear vision and direction for development within local plans	Private developers applications to develop the area are in line with municipal visions and plans.
7.Availability of land	Vacant land for development.
8.Creation and protection of urban amenity	Planning and building regulations in place to guide development.
9.Cultural acceptance	Development of Umhlanga Ridge brings new cultures into the area. Adjacent communities in neighbourhoods preceding the new development may be cynical to the changing social environment.

Source: Researcher, 2015

The details provided in Table 4.1 are elaborated further in the chapter and are derived from the research. Increased density is “a means towards accomplishing the bigger goals of a more sustainable and resilient city” (E.M CDS, 2013; 20). Within South Africa, urban development that increases the overall building footprint of the built environment is resource intensive. Approximately 60% of prime agricultural land used for farming is lost to development, a large portion being residential (Van Wyk, 2013). The strategy aims to achieve a model compact city through implementing appropriate densities in suitable locations. City densification is not an

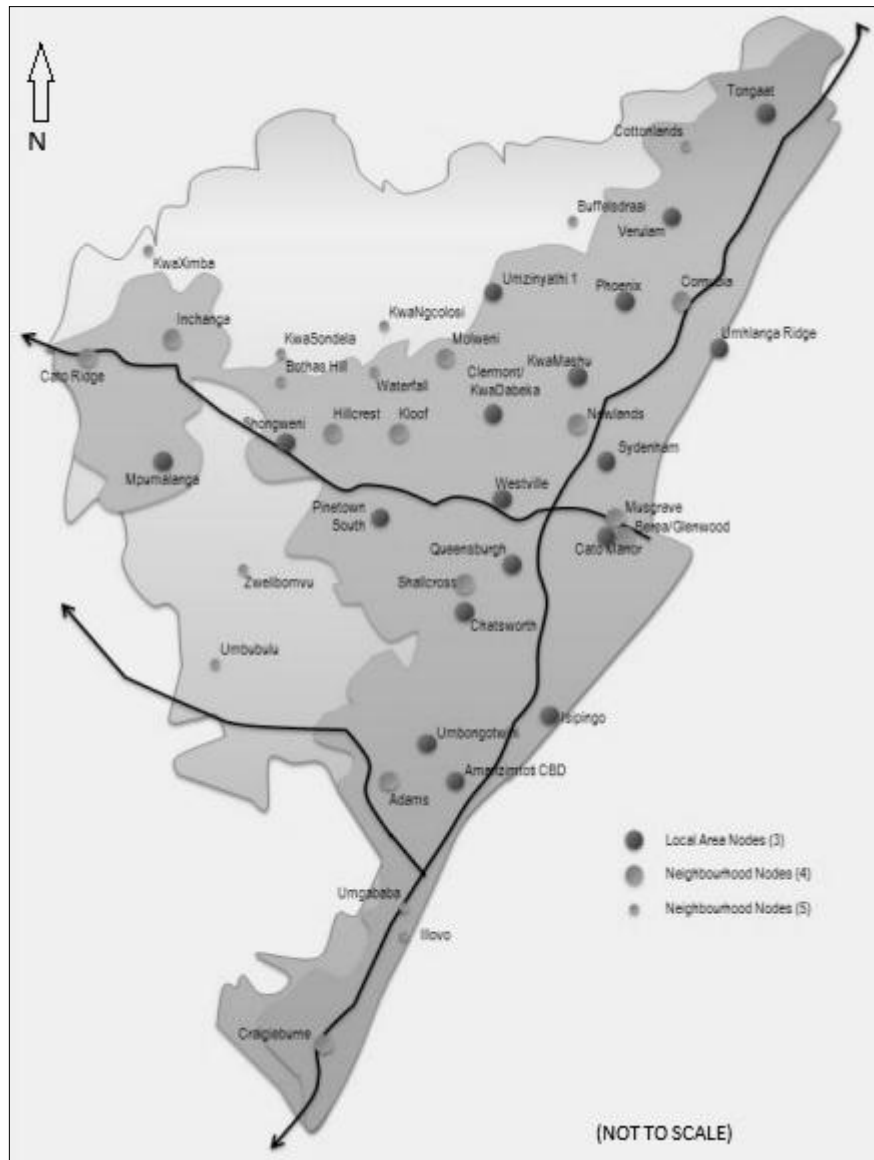


isolated increased population or housing density agenda but meant to be co-ordinated with suitable activity nodes and activity corridors and protection of natural assets. The strategy is guided by a social equity, environmental and functional sustainability agenda. Densification must ensure sustainable resource use and overall sustainable human settlements. The integrated principles guiding residential densities in the E.M are that a hierarchy of residential densities through diverse housing typologies are necessary to meet market needs and that such development should fit infrastructural and environmental capacities. Principles include requirements for well-located higher densities to maximise public transport opportunities and reduce travel demand and lower residential densities in areas compatible to environmentally sensitive regions such as wetlands (E.M CDS, 2013; 20-21).

Target areas identified for densification are provided in the guidelines as areas within and in proximity to local and neighbourhood nodes (E.M CDS, 2013). The strategy depicts these areas in map format as exhibited in Map 4.3 (page 66). These areas include higher density zones and contain nodes that should be close to development with a cluster of activities (mixed land uses such as shops, restaurants, post offices, banks, community centres, municipal offices, hospitals, clinics, institutions, stations and parking). The areas demarcated as being within this category include: Tongaat, Hillcrest, Verulam, Umhlanga, Phoenix, Westville and Chatsworth amongst others. The conditions for higher density development within these areas are the proximity to a multi-functional node which influences access to public transport routes and facilities, social facilities, public open space and an overall intense mix of uses (ibid, 2013; 23). The strategy determines a level of nodes, setting out a hierarchy of nodal types. These areas, as mentioned, are level 3 and 4 nodes where density guidelines specify that the minimum net density of 40-80 dwelling units per hectare (160-320 people per hectare) of development should take place within 800m and level 5 nodes, within 500m of the node. Other target areas demarcated on various maps in the strategy show where density should be managed or where high density should be occur. Locational attributes are an important factor in considering sites for higher density residential development. On-site issues that need to be managed or remediated and design responses affect the development potential of the site. Developers and stakeholders have found that in eThekweni high density nodes in the north near new growth centres have increased. This is because higher densities on sites maximise financial returns. Development controls, such as parking requirements are a constraint to density and NIMBY- attitudes prevail within existing neighbourhood groups. Housing, Framework Planning and Land Use Management departments within eThekweni play a direct role in influencing and facilitating higher density development

within the municipal area. The CDS guidelines are to be incorporated into the SDF and SDP's, local area and precinct plans.

Map 4.3: Strategic areas of eThekweni demarcated by the City Densification Strategy



Source: eThekweni Municipality, 2013

#### 4.3 LOCAL STUDY CONTEXT

The case study evaluates the viability of densification through infill development in eThekweni suburban areas by analysing the developments and the (receiving) community affected by endeavours. In broad generalisation, Umhlanga is an affluent residential suburb of a low density residential population. The Umhlanga residential area was developed and demarcated as a white planning area and has experienced rapid densification through infill development. Prestondale is an established, affluent neighbourhood in Umhlanga adjacent to recently developed Umhlanga

Ridge, New Town (Map 4.4). The precinct contains higher density, mixed income residential development and commercial development. Manhattan Mews is an example of the affordable, higher density residential development in the area. The new development increases population densities and adds high rise development to the existing social fabric and built form. Chosen areas have enabled vital observations to be made allowing conclusions about local densification to be drawn.

Map\_4.4: Updated aerial image of area



Source: Google Earth, 2015

Umhlanga Ridge land owners Tongaat Hulett have been developing the area for approximately 20 years, converting the land from agricultural sugar cane fields into an urban environment (Hogg, 2013). Two thousand hectares of land have been developed with infrastructure being a large part of urban development and the establishment of public-private partnerships (ibid). Umhlanga has developed as an Edge city 15 km north of the Durban inner city with Umhlanga Ridge as a secondary metropole to Durban CBD. The developments are governed by Tongaat Hulett's development unit that sets parameters to buildings developed on the land (Wood, 2008). This provides restrictions to prevent adverse developments that may conflict with the structure of adjacent development, property investments, form and land use (Schauffer, 2004). The development is based on the concept of new urbanism focusing on a high quality public domain

ensured through the urban form, ongoing management and maintenance and security structures (ibid). Development of the public domain has been a key concept in creating a successful, sustainable higher density environment.

The residential lifestyle options offered in Umhlanga Ridge, accommodate the needs of a diverse population. The settlement now comprises an urban area (Umhlanga New Town), the existing suburban area (Prestondale) and gated enclaves (Izinga Ridge), as shown in Figure 4.1. Urban settlements are higher densities, the suburban neighbourhood comprises low density and gated estates contain medium residential densities. The built form is structured in a functional hierarchy, typical to that prescribed by the SSI (2011; 14 - 15).

Fig 4.1 : Residential lifestyle options in Umhlanga



Source: Google Earth aerial Imagery, 2015

#### 4.3.1 THE MANHATTAN MEWS

The affordable Housing development depicted in Fig 4.2 comprises multi-storey blocks with 477 units that vary in size from between 37sqm and 55sqm (Rosen, 2013). Social housing is included as 61 units (12.8% of the housing stock); inclusionary housing has a 10 year title deed restriction that limits the selling price. The development seeks to expand the affordable housing footprint within Kwazulu Natal (Rosen, 2013) with a price range of between R400 000 and R800 000 (Avoca Developments, 2012). Occupying a unit was calculated at a cost 20% below 2012 market prices (Hancock, 2012). The IHS, 2013) organisation involved in funding of the development has undertaken social evaluations of their projects carried out in South Africa since 2012. Results of the evaluation indicated that residents enjoyed an improved quality of life. A goal of the IHS (ibid) has been to provide sustainable communities, improve standards of living and quality of life (Rosen, 2013; 1). The apartment blocks contain public recreational areas (pool and braai) within the development (detailed images are depicted in photoplate 4.1 on page 70)

Figure 4.2: Manhattan Mews Aerial Image



Source: Manhattan Mews, 2015

As an affordable residential development, there is a risk that investors may purchase multiple apartments and resell them at higher prices to more affluent buyers. Although government may control the percentage of inclusionary housing required, the developers are private and control the sales of social housing units and the remainder of the development. Advertisements found on internet websites accessed on the 22<sup>nd</sup> May 2015 (depicted in Appendix 7) for the Manhattan Mews apartment units show that individual investors or owners are renting the apartments out at

rates that do not cater to a lower to middle income population. For instance an advertisement for a 2 bedroom unit shows a monthly rental fee of R8, 700 and a one bedroom apartment for R6, 500. Another avenue for units entering the market is in the form of a fully furnished one bedroom apartment being let out by the owner as holiday or short term (6 month) accommodation. The prices for letting are R1100 per night during peak seasons of Easter and December and R700 a night off peak. Given that the gap housing market comprises lower to middle income earners of between R3, 500 and R15, 000 a month this disqualifies them from receiving government subsidies as well as preventing them from entering the private property market (Tibane and Vermeulen, 2013). Thus obtaining an apartment unit at Manhattan Mews becomes unattainable to those in need of affordable housing.

Photoplate 4.1: Manhattan Mews



Source: Author, 2015

The land that the apartments are developed on is zoned ‘New Town Centre’ (depicted in Map 4.5 on page 73) compatible with high density residential development and under related building

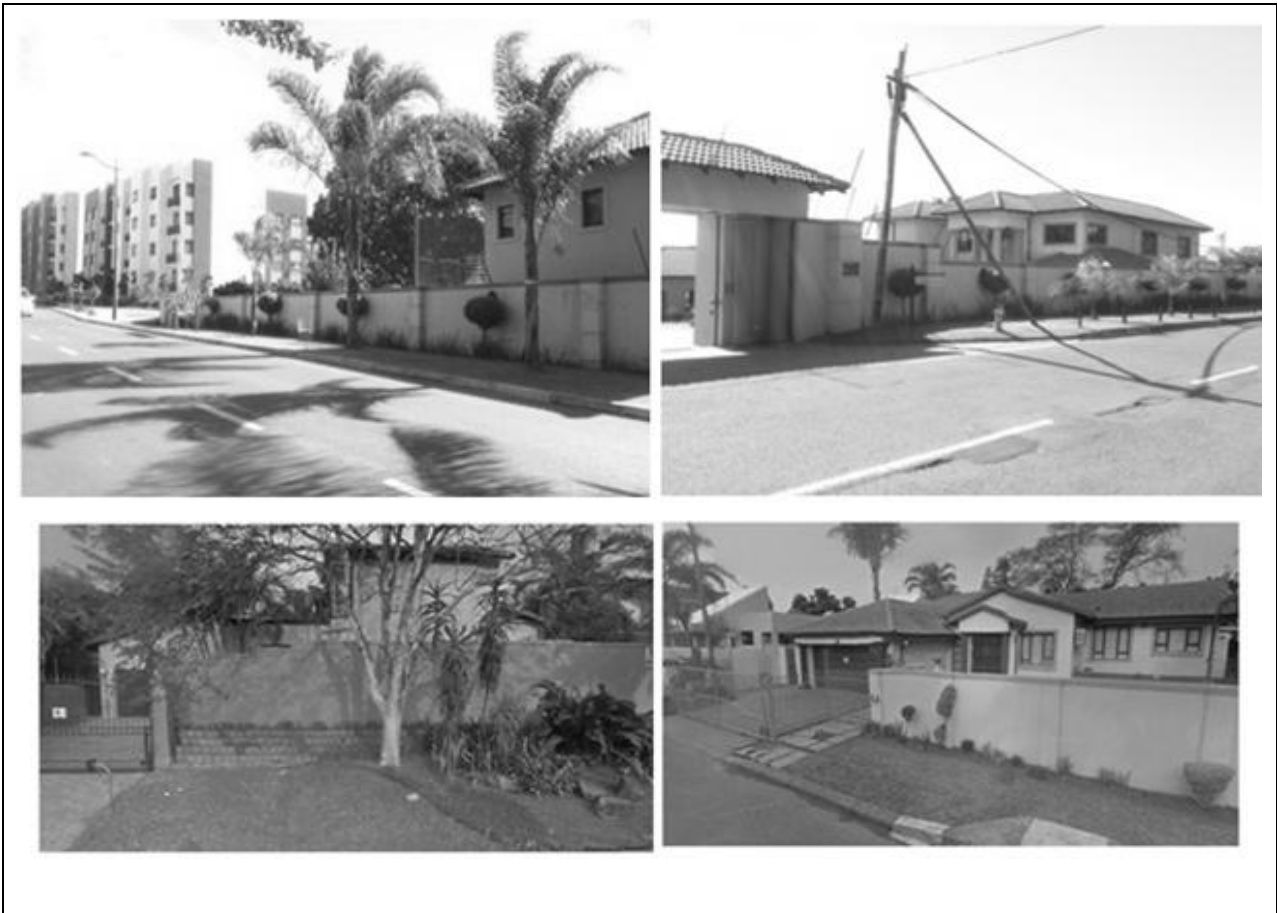
controls to bring development in line with the municipal and developer visions for the area. The 'live, work and play' development concept of the Umhlanga New Town is appealing to young buyers that want to invest in property with low maintenance responsibility and social and economic opportunity. Other investors in the development are holiday makers or retired buyers.

#### 4.3.2 PRESTONDALE

Prestondale is an affluent suburb in the west of Umhlanga depicted in photoplate 4.2 (page 72). According to property agents, the average residential property size in Prestondale is approximately 900sqm, ranging from 320sqm to 7000 sqm with the average price of properties being R6.5 million (Property24, 2015). Prestondale is adjacent to Izinga Ridge, a luxury, high income gated enclave ranging from between R4 million and R10 million for ownership (Muller, 2013). A field analysis (Author, 2015) confirmed that the neighbourhood has well-built family homes that have various personal security mechanisms to protect and secure property. Home security includes gates, fencing and walls, alarm systems and a neighbourhood watch. Adjacent to the Manhattan Mews, within Prestondale is the Driftwood Estate, a multi-unit high income development. This form of residential development although vastly different in architectural style and lower in density than the high rise residential development offers a means of transition from the high density new town into the lower density neighbourhood. Personal amenities such as private swimming pools, personal internet access and motor vehicles keep residents' lives isolated from each other within the neighbourhood. There is no need to visit public facilities of which none exist in proximity and residents do not require public transportation.

During the day pedestrian activity in the area includes residents walking for recreational purposes, construction workers and people employed within private residences. In comparison to the Umhlanga Ridge development, the neighbourhood contained less pedestrian or vehicular traffic. Development controls within Prestondale restrict development in terms of compatibility with and in keeping with the residential nature of the neighbourhood. Development contradictory to or detrimental to the amenity and environment of the neighbourhood is prohibited.

#### Photoplate 4.2: Prestondale Neighbourhood



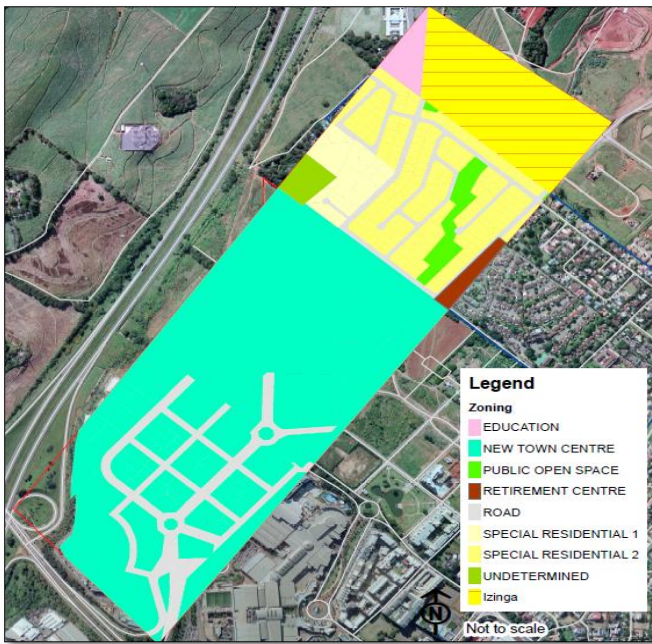
Source: Author, 2015

#### 4.3.3 LAND USE AND ZONING

Map 4.5 and 4.6 (page 73) and 4.7 (page 74) depict the way the area is used in terms of activities. The legal framework is depicted by the zoning map (Map 4.5). Land use (depicted in Map 4.6) corresponds broadly with the zoning framework. A gradual progression of land uses is shown from the town centre (commercial) northwards into business activity, mixed use comprising retail and business and upper floors of residential units shown in Figure 4.3 (page 73). Within mixed use development vertical land use differs per site where multiple uses are included in a single structure. High density residential units are next to mixed use areas with medium to low density and medium to high density Izinga residential development. Of the cross sectional area analysed, approximately 43% is residential. Mixed use accounts for approximately 35%. The mixed use area is a transitional zone between commercial and residential areas with different concentrations of residential development.

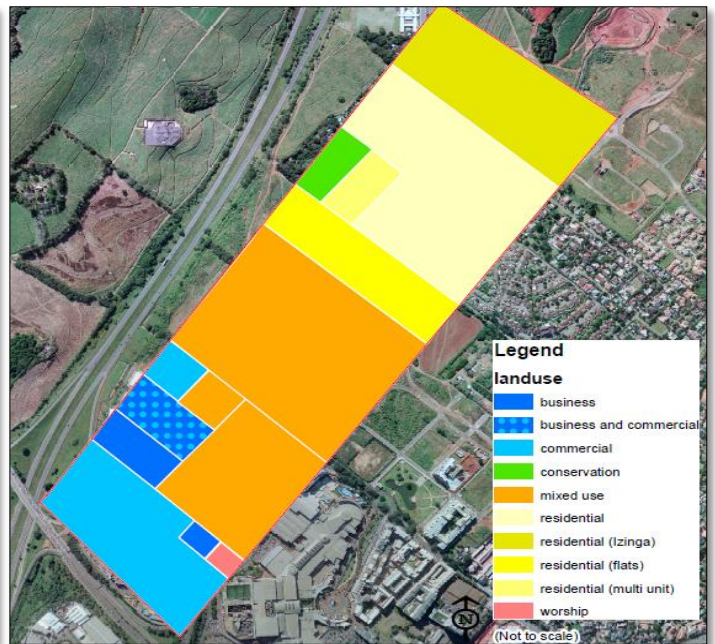


Map 4.5 Zoning



Source: Researcher, 2015

Map 4.6 Land Use



Source: Researcher, 2015

Figure 4.3 Mixed use buildings



Source: Google Earth, 2015

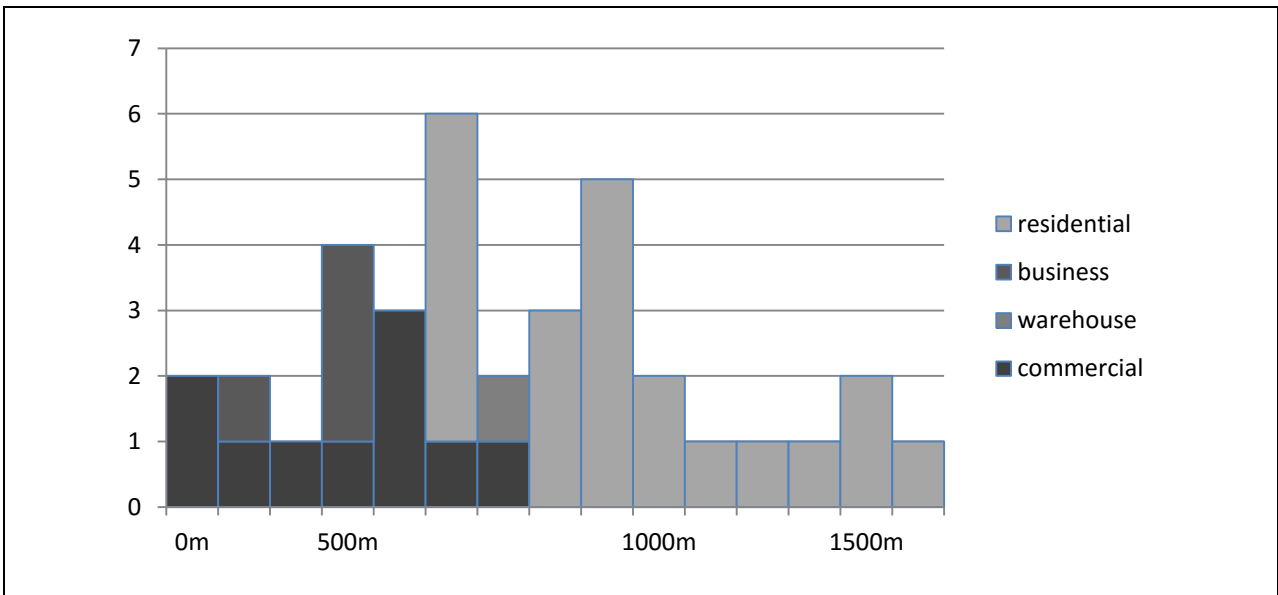
Map 4.7 Residential use



Source: Researcher, 2015

4.3.3.1 PROGRESSION OF LAND USE/ ACTIVITY

Fig 4.4: Vertical land use



Source: Author, 2015

Figure 4.4 represents a cross section of the Umhlanga Ridge CBD through to the Prestondale neighbourhood and the Izinga development (through Meridian and Preston drive in a north east

direction) as depicted in Map 4.8 between points A and B. There is a gradual progression of uses into residential use but higher density residential is found closer to the CBD ranging from mixed use commercial, business and residential buildings to residential only flats moving into the low density residential neighbourhood of Prestondale and then medium to high density, high income, Izinga Ridge estate. There is a transition between higher density CBD residential and low density Prestondale with 200m of multi-unit development (gated estate).

Map 4.8 Cross section of vertical land use of Umhlanga Ridge



Source: Google Earth, 2015

#### 4.4 SUMMARY

The foregoing chapter has explored the case study of infill development within the Umhlanga Ridge new town centre and the adjacent residential neighbourhood of Prestondale. The area of new development and the nature of residential and commercial development are appropriate and efficient in terms of location and other noted factors that contribute to the sustainability of a settlement. Mixed use areas are considered an efficient land use and mixed use buildings are significant to the concept of Umhlanga Ridge development plans. Although the Manhattan Mews development is considered affordable within Umhlanga it may not be affordable in all contexts (Leading Architecture Design, 2012). As part of the Gateway precinct the plans have been well prepared by developers in alignment with municipal planning visions and national planning goals. Consideration of the existing adjacent neighbourhoods during transformation of

the built environment and the social fabric is necessary. The next chapter will analyse the research findings of the survey undertaken by the Prestondale residents incorporating data collected during fieldwork as pertains to the research questions and objectives sought.

## CHAPTER 5: FINDINGS AND ANALYSIS

---

### 5.1 INTRODUCTION

To benchmark current conditions and performance of densification within the case study characteristics of sustainable human settlements and improved quality of households defined by the Housing Act 107 of 1997 and the South African Government are used (Mpumalanga Provincial Government, 2010). These characteristics focus on access in terms of accessible, adequate accommodation that is suitable, relevant, appropriately located and affordable; access to basic services such as water, electricity and refuse removal and; access to basic social services and economic opportunities within reasonable distances. Security of tenure (ownership, rental, formal or informal) is emphasized as an important element in creating sustainable human settlements and improving household quality. These characteristics are reiterated by Burton (2000; 1972 - 1976) as important for identifying the effects of equity on compactness.

In 2005 the eThekweni Municipality survey revealed that 35% of residents were satisfied with their quality of life (QOL), 40% dissatisfied and 25% neutral. Part of the survey conducted is adapted from the eThekweni Municipality survey on QOL. There is a need to find out the satisfaction of residents with their QOL. Housing satisfaction depends on home ownership, comfort, safety and security and affordability (eThekweni QOL Survey, 2005; 12). It was necessary to gauge perceptions of the surrounding population on whether the suburb is perceived to have improved in recent years, how it has improved or deteriorated in terms of infrastructure and service provision, housing facilities, crime and overcrowding. Social well-being and sense of belonging was determined by measuring participation levels of residents in neighbourhood groups and organisations, awareness and social activity, feelings of safety and security.

In terms of adequate housing, the UN-Habitat (2012; 4) regard the provision of adequate shelter as being, “adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and reliability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost.” The analysis determines the adequacy of affordable housing developments and whether these basic needs as pertains to shelter are met, enabling a high standard of living and quality of life to residents. Demographic data and data on QOL (such as employment and the surrounding

environment) help to measure and understand well-being and therefore attitudes and beliefs, that determining social sustainability.

## 5.2 DATA PRESENTATION AND FINDINGS

### 5.2.1 SOCIO ECONOMIC PROFILE

#### 5.2.1.1 RACE AND ETHNICITY

The ethnic diversity of the sample population was not extensive. The results are contrary to national South African statistics in terms of black and white populations. According to national statistics the population comprises 80.2% African (Black), 2.5% Indian or Asian, 8.8% Coloured and 8.4% White (Stats SA, 2014; 3). Of the respondents within the Prestondale neighbourhood 88% of the population are white as indicated in table 5.1. No black respondents were indicated. The respondent that indicated coloured is Zimbabwean; white respondents include a British and an American citizen with the majority of the population being South African. The population pattern points to earlier spatial planning, resulting from apartheid and decentralisation, spatial and socioeconomic disparities still exist between race groups. The neighbourhood has little diversity in terms of racial structure and ethnicity. Greater diversity exists within newer developments surrounding Prestondale due to greater affordability, housing options and access to transportation routes. Although the findings of the survey show a lack of diversity within Prestondale, observation of the area indicated other ethnicities such as Asian.

Table 5.1: Race category

<b>Race Group</b>	<b>Number of Respondents (F)</b>	<b>Percentage</b>
Black	0	0%
Coloured	1	3%
Indian	2	6%
White	29	88%
No indication	1	3%
<b>Total</b>	<b>33</b>	<b>100%</b>

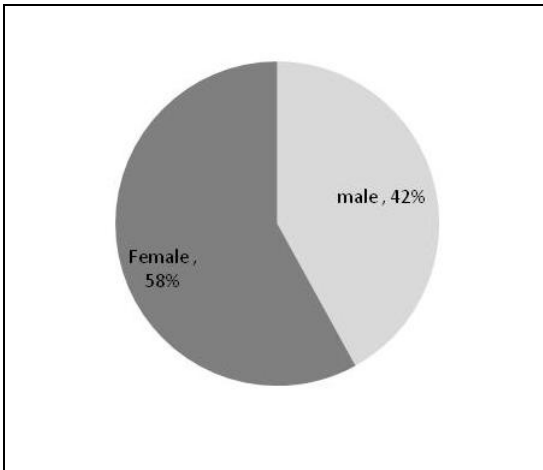
Source: Author, 2015

#### 5.2.1.2 AGE CATEGORY AND GENDER

Figure 5.1 (page 79) shows that less male residents responded to the surveys, (42%) compared to (58%) female respondents. As shown in Figure 5.2 (page 79), all respondents were over the age of 30 with the youngest respondent being 32. Most male respondents were between the age of 55 and 59 and most female respondents between the ages of 35 and 39. The eldest male respondent was 61 and the eldest female 75. The average age of the population is 49; portraying the community as a relatively mature and elderly population. The population dynamics coincide

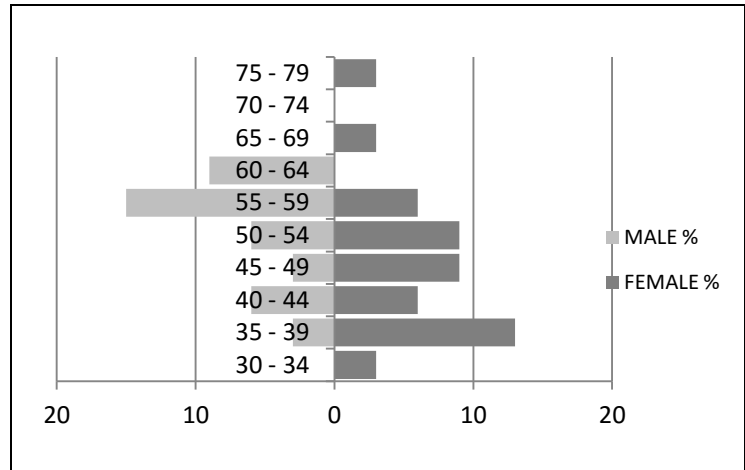
with the lifestyles associated with stages of life (Mintz, 1993). Respondents are family oriented or those moving into retirement age and away from the city.

Fig 5.1: Gender



Source: Author, 2015

Fig 5.2: Age Category

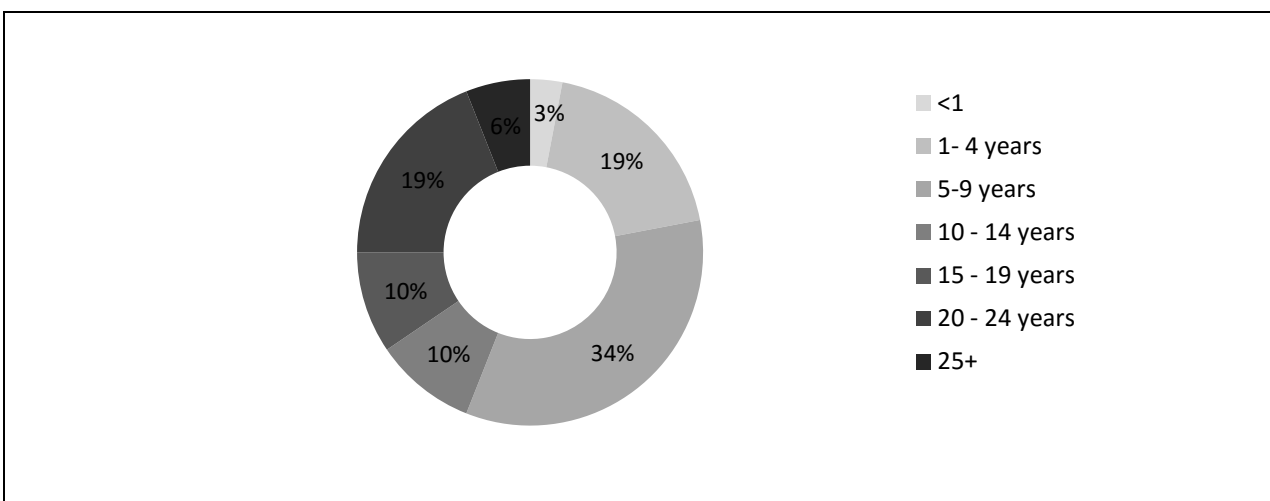


Source: Author, 2015

### 5.2.1.3 PERIOD OF STAY IN PRESTONDALE NEIGHBOURHOOD

The respondents indicated that they have lived in Prestondale between less than a year and 26 years (Figure 5.3). Results showed that 3% did not indicate how long they had been living in the area. There is not much correlation between the years lived in the area and particular race or age category. The average number of years resided in the area is 11 years; 45% of the population have lived in the area for over 10 years. This shows that there may be resistance to change from the community and may account for the attitudes and opinions of the population towards affordable housing and associated social changes.

Fig 5.3: Period of stay in Prestondale

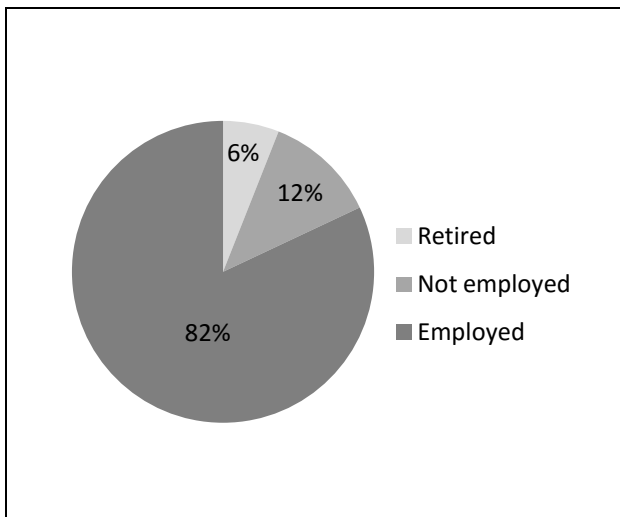


Source: Author, 2015

#### 5.2.1.4 EMPLOYMENT STATUS

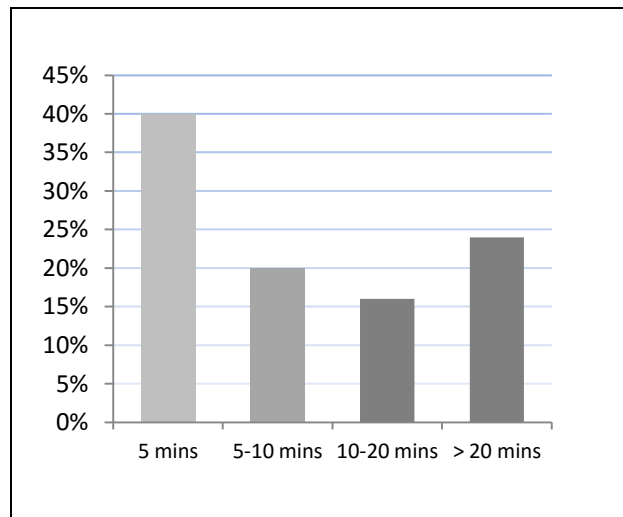
It was determined that 6% of respondents are employed in the informal sector. As depicted in Figure 5.4, 12% of respondents are not employed with 6% being of retirement age. Those not employed are female, all are elderly or supported by other adult members in their home i.e. spouses. All those not employed spend less than 25% of household income on a rent or bond. 21% of respondents, all of working age spend between 25% and 50% of household income on their housing, of these only 3% of respondents has rental tenure and lives in a multi-unit development. Results show that 60% of the population live fewer than 10 minutes travel time from their place of employment with 24% working more than 20 minutes from home, outside the Umhlanga area. The remaining 16% (depicted in Figure 5.5) work between 10 and 20 minutes away from Prestondale. All respondents rely on personal cars for commuting.

Fig 5.4: Employment



Source: Author, 2015

Fig 5.5: Distance to work (minutes)



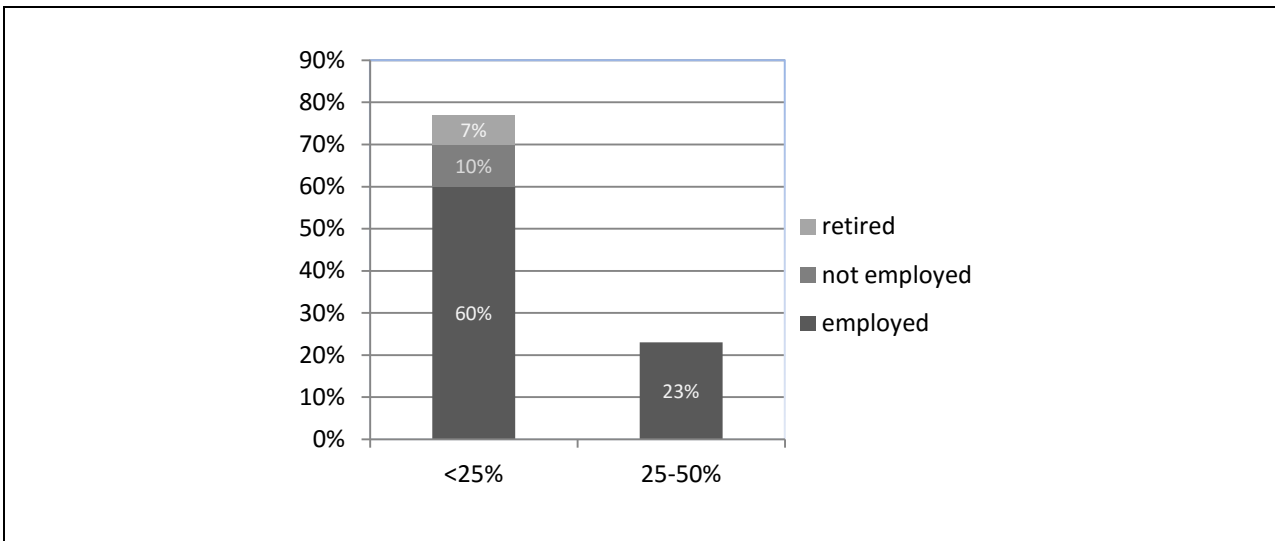
Source: Author, 2015

#### 5.2.1.5 INCOME SPENT ON HOUSING

Figure 5.6 (page 81) shows that 77% of households spend less than 25% of their income on housing. This indicates their housing as affordable to them, further showing a high standard of living as more income is disposable to them. All enjoy the tenure of ownership and not all members of households are employed. The 23% of households spending 25-50% of their household income on housing are employed and enjoy ownership of their properties. A significant number of these respondents are within a middle aged working category and the results correlate with a typical lifestyle pattern for their stage of life.



**Fig 5.6: H/h Income spent on housing**

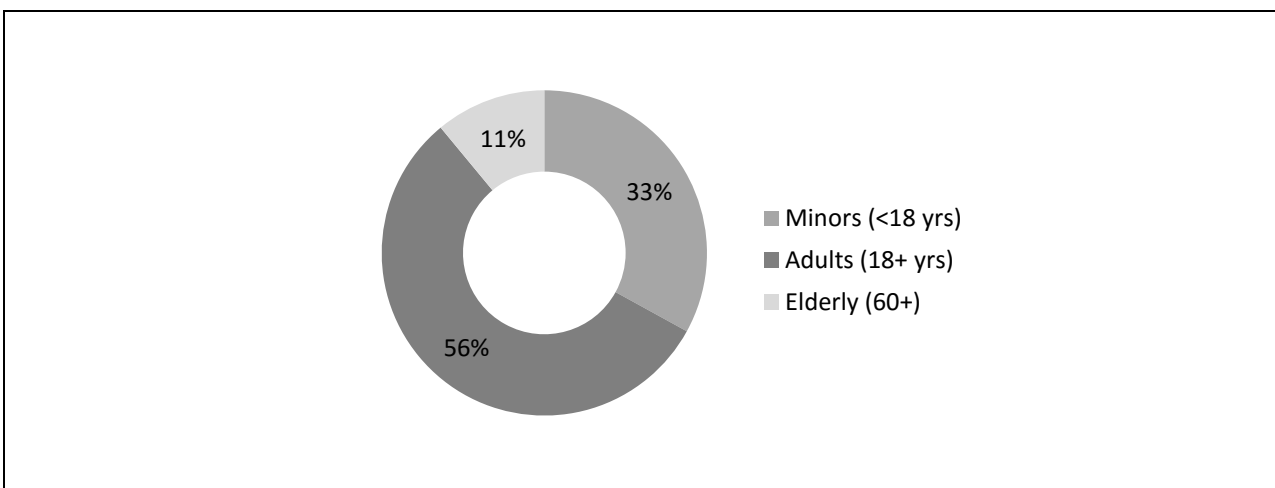


Source: Author, 2015

**5.2.1.6 COMMUNITY COMPOSITION**

The community composition is based on the family profiles of residents. Household distribution revealed the community composition depicted in Figure 5.7. The average household size is 3.3 persons per household, lower than the average household size in eThekweni of 4 persons per household (eThekweni Municipality Economic Development and Investment Promotion Unit, 2013). The eThekweni household average includes a large number of impoverished households in the region. Prestondale is a wealthier neighbourhood and a lower average means an increased standard of living. Figure 5.7 shows 56% of the population is of adult age, economically active and independent, and able to contribute economically. Given the adult age, the number of minors (an average of less than 1 per adult) is appropriate.

**Fig 5.7: Community Composition**



Source: Author, 2015

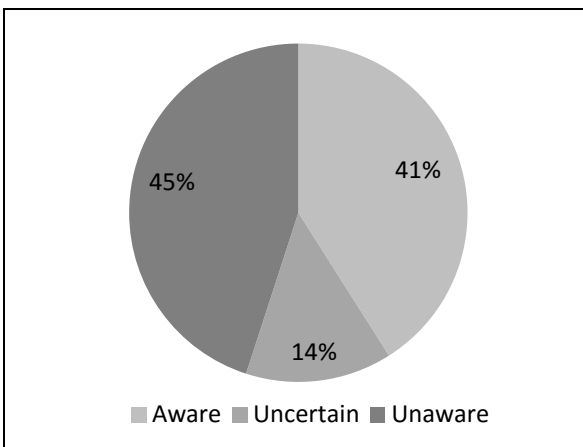
## 5.2.2 QUALITY OF LIFE, ATTITUDES AND BEHAVIOUR

This section determines quality of life, attitudes and behaviour based on the awareness of residents to affordable housing development in the area, the quality of the area or surroundings as perceived by residents, the level of social interaction and participation, feelings about safety and security and residents access to services and facilities.

### 5.2.2.1 AWARENESS OF AFFORDABLE HOUSING

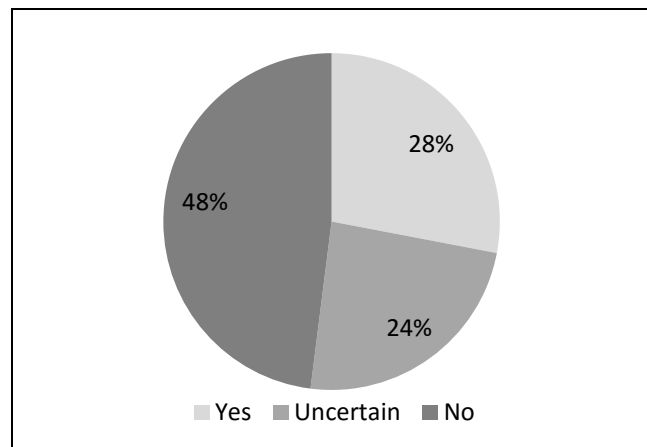
Figure 5.8 portrays the awareness of residents to affordable housing development in the area (being the adjacent Umhlanga Ridge). It was indicated by 41% of respondents that they were unaware of such development. Those that were unaware had a more positive attitude towards affordable housing development in the area. Awareness of affordable housing development in drew positive and negative responses. Unawareness may be attributed to good design and overall integration of the affordable development into the neighbourhood. Figure 5.9 shows that 28% of respondents indicated that plans for affordable housing development in the area would prompt them to relocate.

Fig 5.8: awareness of A.H development



Source: Author, 2015

Fig 5.9: Possibility of relocating

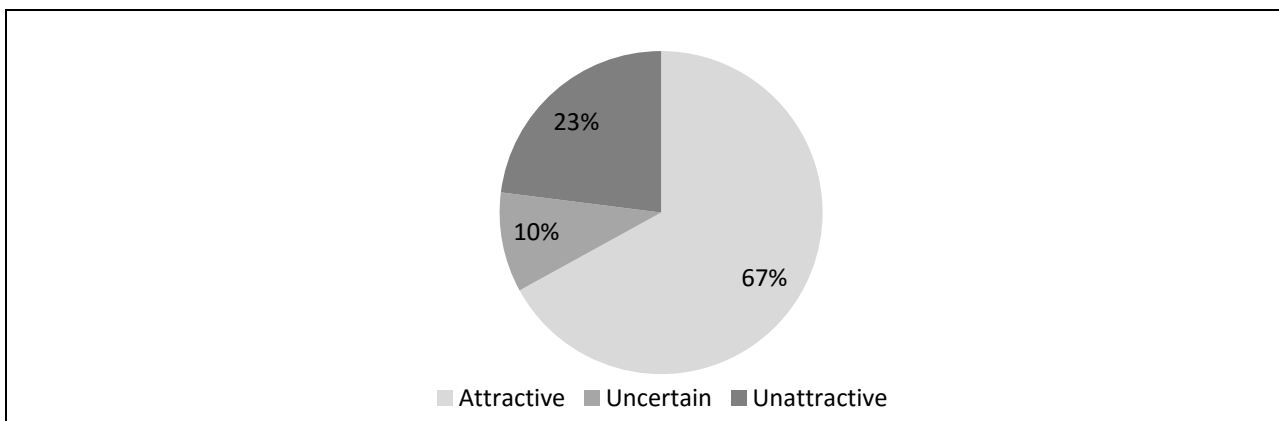


Source: Author, 2015

### 5.2.2.2 QUALITY OF AREA AND SURROUNDINGS

The way people feel about their suburb affects their quality of life. A greater percentage of residents indicated that their area has deteriorated (48%) rather than improved (45%) in recent years. However, as depicted in Figure 5.10 (page 83) over two thirds consider the area aesthetically attractive. A perceived increase in criminal activity, increased population, through-traffic and disturbances (noise and dust) from construction contribute to the responses of those that feel the area has deteriorated.

Fig 5.10: Aesthetic appearance of area



Source: Author, 2015

#### 5.2.2.3 DECLINING PROPERTY VALUES

There is the perception that implementing affordable housing in the area, will cause property values to decline. Whilst property values have not shown a decrease since development was implemented in the area, values portray a correlation to forecasts of property values in South Africa which showed average house price growth at 5% in 2015 and 4% from 2016 to 2020 (House Price S.A, 2011). At the end of 2013, ABSA (2015) recorded a greater increase, determining a rise in house values equal to 10%, between 2012 and 2013 and 9% in 2014. This shows that in this light, property devaluation is a baseless fear of private residents and property owners and that property prices are market related. According to real estate professionals' Chas Everitt International (2015), residential property prices in Umhlanga have risen by 8% to 10% since 2014. The agents (ibid) further affirm a notable demand for family homes from R2.5 million, to luxury apartments priced at R10 million due to high end facilities and high standards of living offered. The continued high demand for housing in Umhlanga may further be due to the opportunities provided by the mixed use development being undertaken, increasing convenience and access to commercial, employment, living and recreational opportunities in proximity.

#### 5.2.2.4 SOCIAL INTERACTION AND PARTICIPATION

Social interaction and the extent of participation affect sense of belonging, discussed further in the data analysis section of the chapter. The survey indicated that 60% of respondents' were not involved in community organisations. A similar percentage (54%) of recipients revealed they did not participate in community activities or events, or make use of public facilities (66%). Most respondents further stated that they were unaware of any public facilities in the area. A high number of respondents, 86%, indicated that they have good relationships with their neighbours. However, neighbouring residents within Prestondale have similar economic statuses. Residents

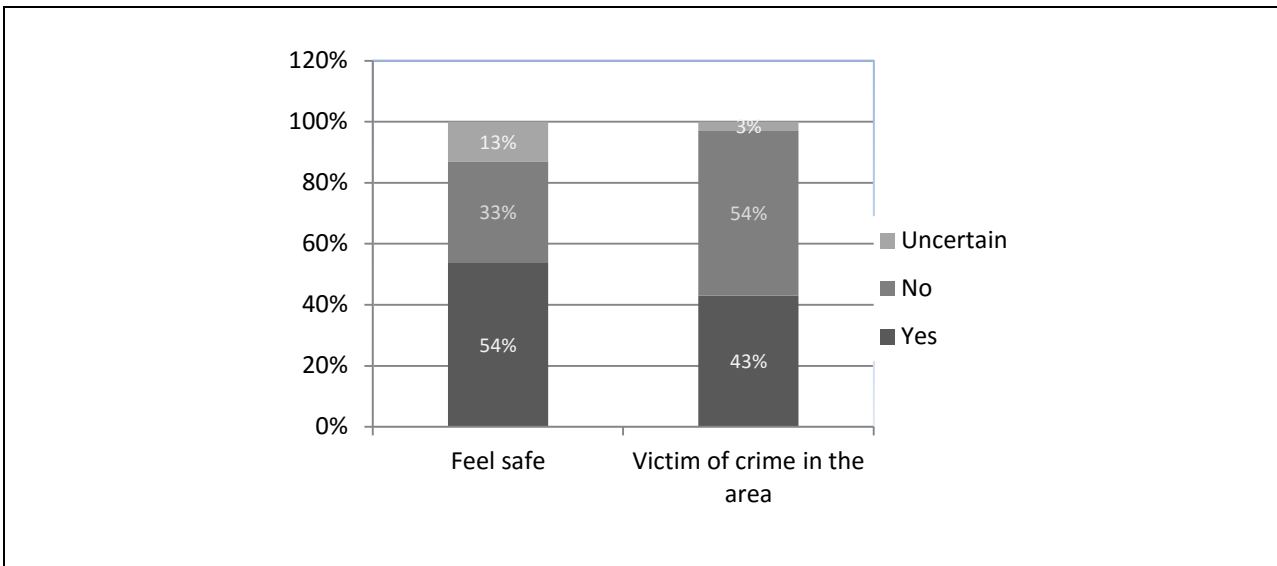
have clear boundaries between properties and in most cases, high fences and walls to ensure adequate privacy and thus more harmonious relationships between neighbours.

#### 5.2.2.5 SAFETY AND SECURITY

Based on media reports (Northglen News, 2014), the Umhlanga Ridge and Prestondale neighbourhood have faced issues of crime over several years. Crime statistics for Umhlanga based on security company response for 2011 show that 40% of security alerts and responses were due to suspicious persons or vehicles being in the area with approximately 15% being house breaking and house robbery (Sun Cell Watch, 2011). Residents themselves have become proactive in attempting to make the area safer. No statistics were available for subsequent years, but, a social webpage developed for reporting and alerting the Umhlanga community to crime or suspicious behaviour in the area shows much of the same crime being committed in 2015 (Durban North & Umhlanga Community Police Forum: Sector 2, 2015). Articles stated that crime in the area had worsened the statistics and as a result property values were decreasing, according to Fraser (Manager of the Umhlanga Neighbourhood Security Trust established by residents). There is no evidence of this or the mention of affordable housing causing the perceived devaluing of properties or proof that any decline is not a consequence of current market conditions. To prevent crime, private security companies had been selected to work in co-ordination with the local police. According to the manager, as mentioned, the intended result is that lifestyles and property values would improve. A meeting in 2013 cited neglected municipal facilities, the increase in foot traffic and access and entry points as reasons for the increased crime in the neighbourhood (Aberdeen, 2013).

According to the eThekweni Municipality (2005), crime victims experience a lower quality of life. The management association is responsible for security management in the new development. Security is coordinated between the metro police service, the SAPS and a 24 hour security system with a control room, CCTV surveillance and a helpline linked to rapid response security teams. Within the Prestondale neighbourhood, as mentioned, it was observed that residents had fences and walls, arrangements with private security companies and a neighbourhood watch. As shown in Figure 5.11 (page 85), over half the respondents indicated that they felt safe within their neighbourhood (Prestondale), the same percentage of respondents indicated they had not been a victim of crime in the area. It was shown by 46% of respondents that they were uncertain or had been victims of crime, corresponding with indications of personal fears for safety.

Fig 5.11: Safety and crime



Source: Author, 2015

Umhlanga Ridge has been designed to accommodate long term traffic demands and give direct links to main routes. Residents of Prestondale found that through-traffic, commuting through the neighbourhood to reach the Gateway commercial centre had increased. The development of the adjacent area has increased the amount of pedestrian and vehicular traffic, bringing concerns for criminal activity, speeding and the safety of residents. According to the eThekweni Municipality Quality of Life Survey (2005) crime which includes prostitution, substance abuse, alcoholism and child abuse are major problems. Sources confirmed that since the development of the Umhlanga Ridge, there are increasing incidents of crime within the new residential component in the form of speeding, illegal racing and prostitution (Personal Communication, Councillor de Boer; 2015).

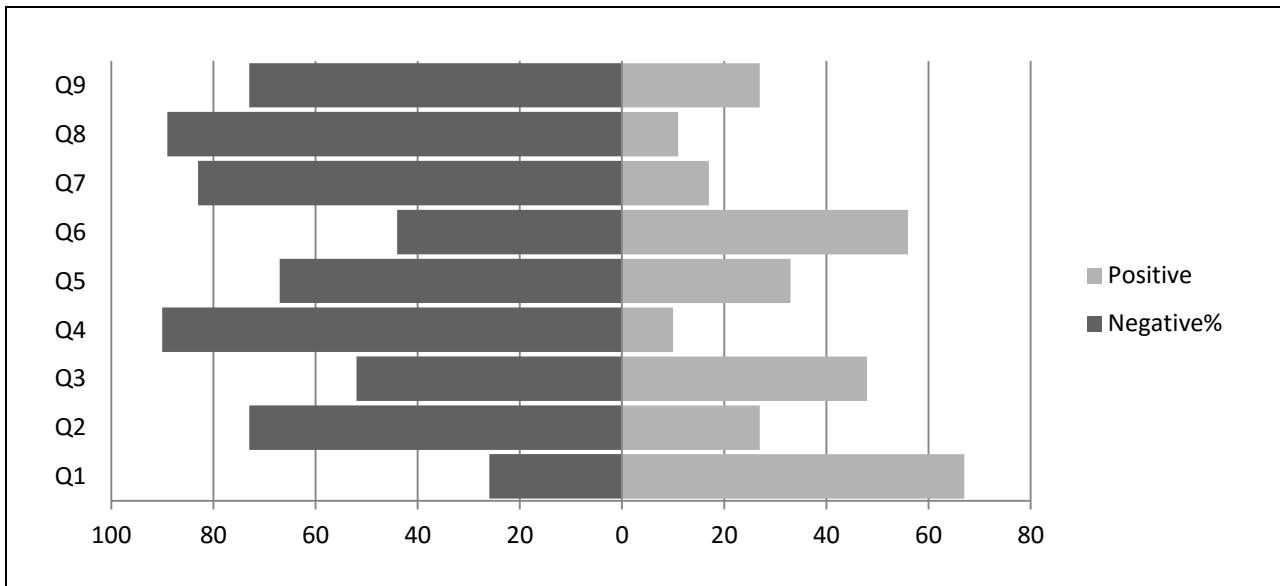
### 5.2.3 ATTITUDES AND BELIEFS

Residents were asked questions to reveal their viewpoints on affordable housing development in the area. Responses reflected either a positive or negative attitude or behaviour towards affordable housing development and the social elements of implementing the new developments in and around the Prestondale neighbourhood. In response to the questions answered to determine the attitude and beliefs of the residents towards affordable housing development the following figures show the overall response of residents to each question and uncovered the reasons individuals have in justifying their responses.

Figure 5.12 depicts the overall attitudes and beliefs of respondents towards affordable or lower income housing development close to or within their neighbourhood and determines their

feelings on social integration. A majority of residents, as depicted on the graph responded with a negative position. Overall, two thirds (66%) have a negative attitude towards affordable housing development and answered in a manner not conducive to social integration, 33% responded positively.

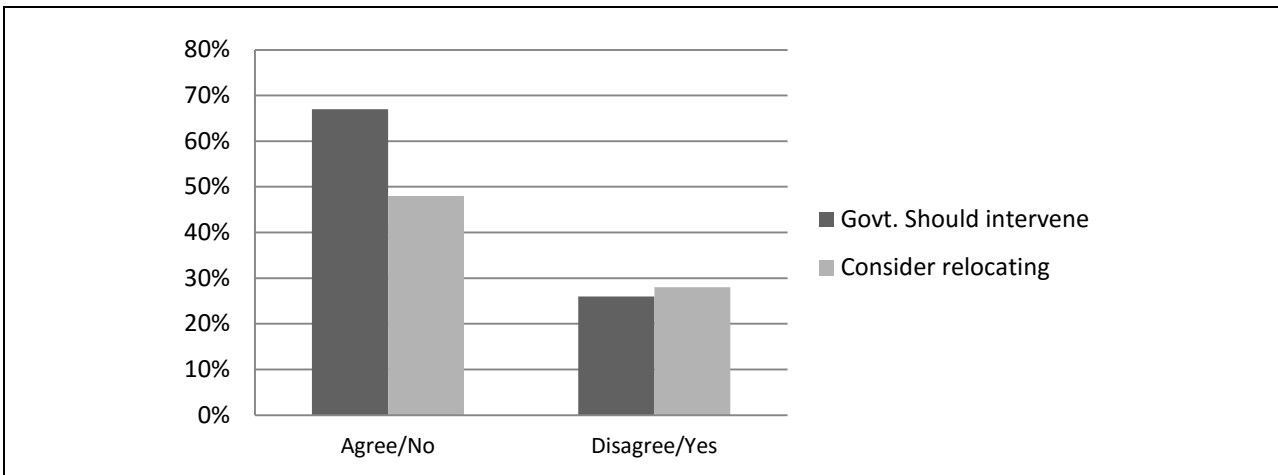
**Fig 5.12: Attitudes and beliefs towards affordable housing and social integration**



Source: Author, 2015

The following figures depict the attitude and beliefs of the residents towards integrating affordable housing near or within their neighbourhood. Results show that 7% of respondents somewhat agreed and somewhat disagreed that the government should intervene thus giving a neutral response. Figure 5.13 (page 87) analyses attitudes of residents towards affordable housing development by looking at responses to two related aspects; the way residents’ feel about government intervention in providing affordable housing and whether residents would feel inclined to relocate should the government have plans to develop affordable housing in their area. The graph shows that 67% of residents support government attempts to provide affordable housing to the less fortunate, but 28% of these respondents indicated (as aforementioned) that they would consider relocating should plans of affordable housing be considered for their area. Of the 28% of respondents that would consider relocating if plans to develop affordable housing in their area were realised, all agreed that government should intervene; only 7% of respondents disagreed.

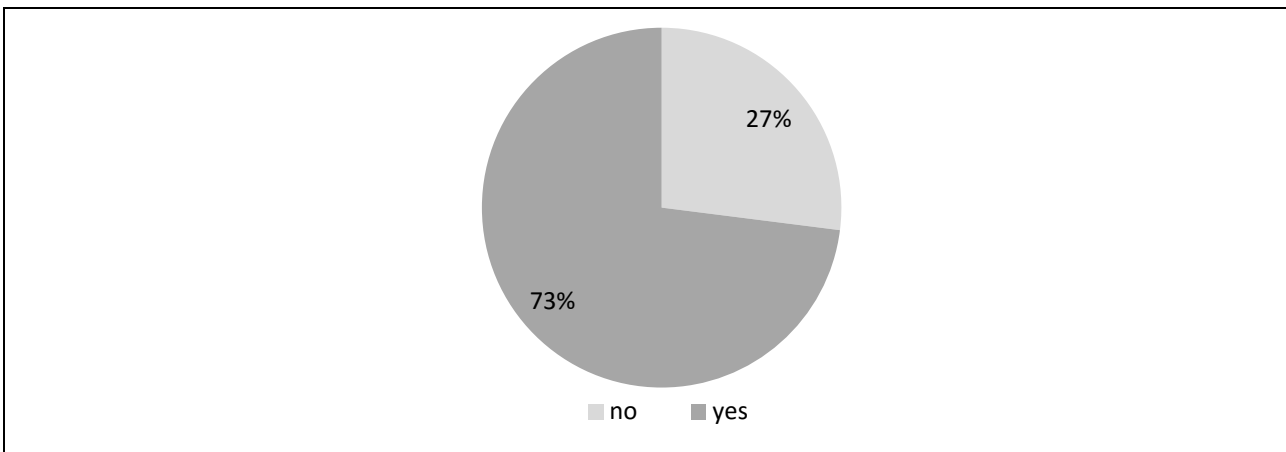
**Fig 5.13: Attitude toward A.H and government intervention**



Source: Author, 2015

A third of the residents responded negatively, indicating that they thought government affordable housing projects infringed on the rights of private homeowners in the areas that they are implemented. As shown in Figure 5.14, 73% of respondents are of the view that the rights of private owners are not considered when the government implements affordable housing projects within an area. This view is given impetus by the belief that lower income housing development in proximity to properties, lowers private property values by bringing crime and degradation to the area.

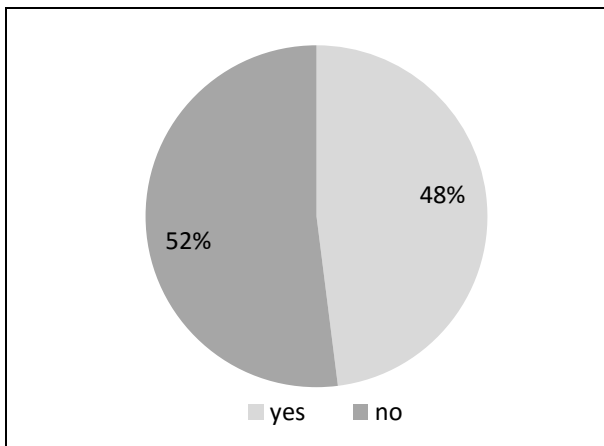
**Fig 5.14: A.H projects infringe on private owner rights**



Source: Author, 2015

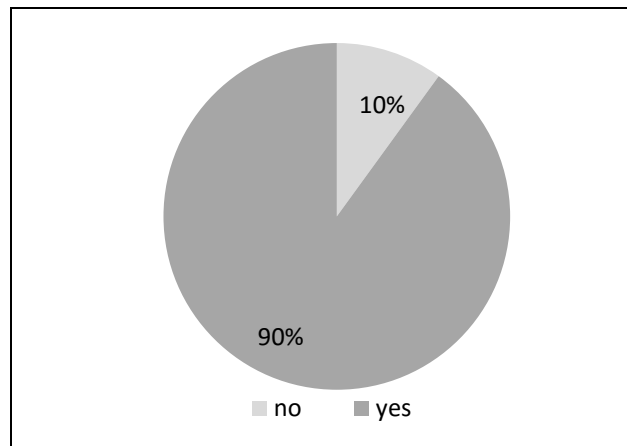
As depicted in Figure 5.15 (page 88), more than half the respondents disagreed that having people of diverse race and culture would enhance the neighbourhood and 90% as shown in Figure 5.16 (page 88) indicated they would prefer people of similar economic backgrounds as them in their neighbourhood.

Fig 5.15: Diverse society enhances the neighbourhood



Source: Author, 2015

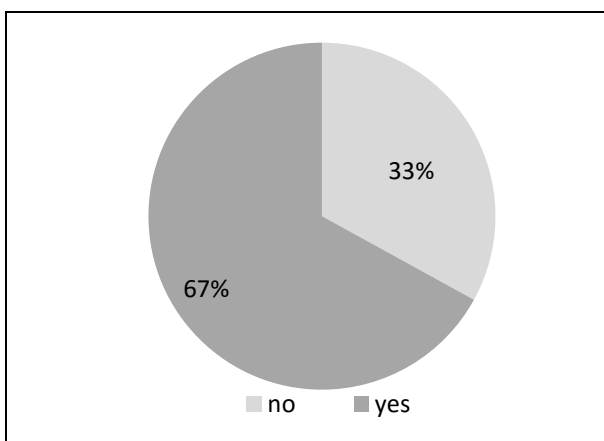
Fig 5.16: Prefer people of similar economic background



Source: Author, 2015

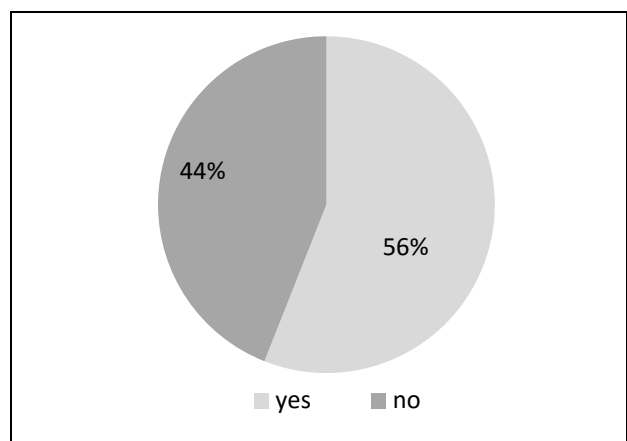
In addition, 67% of the population, as shown in Figure 5.17 indicated that their belief that people who earn higher incomes make greater contributions to society and should have more say in decision making. A large percentage (44%) shown in Figure 5.18 indicated that lower income people should not be able to choose where they want to live. Both these responses show negative attitudes towards integrating lower income people into the area and affect the notion of mixed income, integrated and diverse neighbourhoods and communities.

Fig 5.17: Higher Income people contribute more to society



Source: Author, 2015

Fig 5.18: Low income people should be able to choose where they want to live



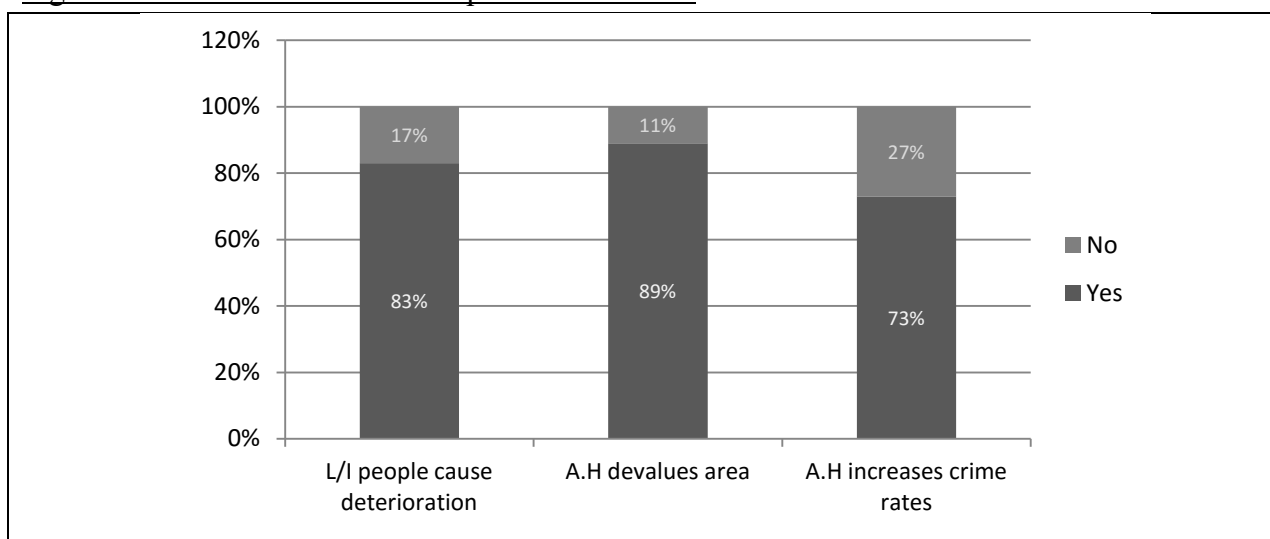
Source: Author, 2015

Figure 5.19 (page 89) depicts respondents' views on the effect that they presume affordable housing is having or will have on the Prestondale neighbourhood. This is linked to the negative attitudes of the respondents with regards to low income populations within their neighbourhood.



83% are of the opinion that the area will deteriorate by integrating lower incomes through affordable housing. Part of the presumption that the area would deteriorate stems from the fear of decreasing property values. Negative attitudes toward affordable housing development are shown by 73% of respondents, who deduce that crime rates have and will increase. This response coupled with 46% of the population shown in Figure 5.11 (page 85) depicting 46% of respondents as victims of crime add to the reasons that residents may oppose integrating a less affluent population into the neighbourhood.

**Fig 5.19: The effect of A.H development on the area**



Source: Author, 2015

### 5.3 DATA ANALYSIS

The research looked at the high income area of Umhlanga to conduct the study. Contextually, the area fits the profile of a high income neighbourhood (Pretondale) undergoing surrounding development change of a mixed use nature, including elements of affordable housing, necessary to produce planned socio-spatial transformation. It is important to study the prevailing constructs both physical and social, the urgent need (for affordable housing, social equality and integration) and the existing opportunities that should be capitalised on to improve quality of life and standard of living. The data findings show the percentage of respondents (%) with a positive or negative opinion of affordable housing development and integration within their neighbourhoods. The discussion will give a thematic analysis of the data findings and perceptions in corroboration with the theories and literature presented and the prevailing reality. Quality of life indicated by well-being, is a central theme dealing with the sustainability of changing housing environments and covers the aspects dealing with sustainable development that affect the preceding themes. Sustainability indicators should be based on and specific to the

case study (Ghalambor Dezfooly, 2013). Sustainability of the neighbourhood, being the Umhlanga Ridge affordable housing developments and the Prestondale community is reliant on the quality of life and well-being of the residents who affect and are affected by aspects of sustainability. The relevant tenets of sustainability explained within the interconnected themes include access and transportation, residential, social and cultural, environmental, economic, technological, safety and security and manageability.

### 5.3.1 DENSITY AND DENSIFICATION

The literature reveals that higher densities are often perceived in a negative light. This is coupled with the belief that the entering population is low income or impoverished and devalue the area. The negative perception leads to negative attitudes toward high density development presumed to be lower cost or more affordable housing. The study has shown that while housing developments are high density, they are not within your means of the lower income population. Affordable housing units are merely more affordable within the context of the affluent Umhlanga location. It was found that flat units are rented or owned by a majority of young professional's, middle income families and retirees. The perception that higher density development leads to slum creation and overcrowding subdued by a strict management system and board of trustees in place to manage the maintenance and tenants of the Manhattan Mews development. However, there are oversights in the form of sharing and sub-letting of flat units that may lead to a greater number of people occupying the development. Furthermore, residents that do not own units are less likely to take stewardship over their living space or the surrounding area and neglect to maintain it at the standard required. The influx of people assimilates a diverse society into the economically homogeneous area, necessary for the socio-spatial transformation of the country from a local level and people may adapt to their surroundings altering their behaviour according to increased standards of living and quality of life presented.

Densification has an effect on the natural environment of an area which has an impact on sustainability in terms of natural functional systems and aesthetics that affect well-being, quality of life and future resilience of a neighbourhood and community. Half the respondents felt that the area had deteriorated over recent years; however, two thirds felt that the area was still aesthetically attractive. The developers of the Umhlanga Ridge New Town Centre have given considerable thought and provided management guidelines for all environmental concerns, security and area management aspects. Most residents within the affordable housing development experience a good quality of life based on increased security measures, and the

management of the environment. On the contrary Prestondale residents may feel that their quality of life is negatively affected by the increase in vehicular and pedestrian traffic and noise, both short term due to construction and long term due to increased activity, population and commercial business near their residences.

The study shows that property values do not decrease with an increase in density in the area. There may be an increase in property values that results from progressive development and increased amenity. Regardless of these factors, property values are market-related and Prestondale and Umhlanga Ridge are well-located with access to various opportunities, eliciting high demand and value. There is a correlation between the increasing value of land through capital investment in facilities and amenities on the land that increase the return land owners seek for the property, explained by Ground Rent theory in Chapter 2. The increased development in Umhlanga and the immediate surroundings have made social, economic and residential opportunities and transportation options more accessible, increasing the desirability of the location and the demand from higher income purchasers.

Respondents' perceive an increased density to be unpleasant. Many have lived in Prestondale for a long period and enjoyed the benefits of a low density, homogeneous community. The literature shows that higher densities are associated with slum creation and low quality human environments as presumed by respondents in this study. It was also acknowledged in Chapter 2 that an attentive design of higher density development alters perceptions. Half the respondents showed that they were unaware of affordable housing development in the area; this is due to the design and standard of workmanship of development and the gradual progression of land use from the Umhlanga CBD to the mixed use residential transitional zones into the area of high density residential development and lower density Prestondale neighbourhood. Densification is an inevitable increasing trend occurring on different scales as a product of urbanisation. Advocates of sustainable development have noted that both vertical development and the subdivision of properties in low density suburban areas are likely to be undertaken to achieve sustainability. Social equity is considered by the literature to be one of the most important factors creating socially sustainable high density. Sustainability is thus attained through a combination of equity and increased quality of life which leads to an established optimal density.

### 5.3.2 AFFORDABLE HOUSING

Whilst residents of Prestondale are somewhat wealthy or employed at varying distances from their residences and able to afford private cars for commuting, general populations of middle income housing rely on public transportation. In terms of the analysis, using the Manhattan Mews development as a generic for affordable housing developments within close proximity to Prestondale, the residential development is seen as being accessible to growing economic opportunities and public transportation networks. Access as one of the sustainable factors in terms of the location of affordable housing depends on the distance of employment, cost and time efficiency in proximity to places of work and individual household income. New residents of such development benefit if employment and social opportunities are local. Investment opportunities for the gap housing market are seldom attainable through this form of development as a small percentage is maintained for social housing and private, wealthier investors have purchased a considerable amount of the development. This means that residents of lower to middle income may not be afforded the opportunity to buy their units. Housing tenure becomes insecure and residents are not likely to develop a sense of ownership and stewardship towards their housing or surrounding environment that comes from long term housing security in an area.

The lack of racial or ethnic diversity is an outcome of the apartheid spatial planning history described in Chapter 3, the lack of affordable housing within Prestondale and the limited tenure options. Private ownership options target the limited group of society able to afford high housing costs. In accordance with Marxism, high land costs make desirable property that is well-located attainable to purchasers with the means to afford living in such an area. This is a way of controlling the socioeconomic composition to maximise capital gain for developers and land owners. Whilst housing is affordable to the residents of Prestondale who own their homes, high property values are a barrier preventing others of middle income that require exorbitant financing at stressful interest rates from being able to own a home and sustain a comfortable, high standard of living expected of residents in the area. The lower to middle income population is thereby constrained in terms of choice.

Several residents showed that they were unaware of affordable housing development in the area; this may be due to the development not having been completely developed for lower income people or, the poorest of the poor. Some developments contain a percentage of affordable units and others, although low in cost in terms of location are not affordable to those in the low to medium income bracket. Awareness of projects is positive if the respondent's perspective of

affordable housing development is positive (i.e. supportive of affordable housing developments). A third of respondents indicated that they would consider relocating should affordable housing development plans be implemented in the area. This response shows that they are unaware of the elements of affordable housing already implemented. Affordable housing is perceived as being of poor quality and design, reinforced by existing affordable public housing projects in South Africa over the past years in areas like Umlazi and Phoenix. The development taking place in Umhlanga Ridge is assured to be of a high standard due to extensive private sector involvement and the interest of capital gains to developers and investors. The government lacks the capacity to develop affordable housing on a realistic scale, to high standards, within adequate cost and time frames, due to rigid planning and zoning regulations and processes and a lack of internal capacity. This brings to light, whether these factors hinder the development from being affordable and accessible to the gap housing market. Although the requirements of adequate, affordable housing are met in terms of access to services, opportunities and networks, design and comfort the development lacks the element of affordability when removed from the context of the location and surrounding property values. The theoretical section of the literature review has explained that earlier city planning used the spatial landscape and the fundamental process of housing development to repress populations of people. The level of affordability prevents low and middle income people from attaining their constitutional right to adequate housing and their literal right to the city. Due to the capitalist nature of housing development, even with government involvement, affordable housing projects are not often found in convenient locations, a factor that is necessary for assuring affordability.

The study has shown that while densification plays a part in providing affordable housing, there are factors that hinder lower to middle income people from acquiring such. These reasons, as explained throughout the dissertation result from the purchase of affordable housing by higher income property investors making housing less affordable to lower income earners. The small percentage of affordable housing set aside as social housing is insufficient and there is a lack of affordable housing development that offers rent to own potential. The location of affordable housing is a major factor in determining affordability as housing becomes less affordable with commuting costs to and from places of work. The Manhattan Mews and other developments in Umhlanga Ridge are made more viable rather than affordable due to the existing and developing transportation networks and the employment opportunities being generated in the area.

### 5.3.3 SOCIAL INTEGRATION, COHESION AND JUSTICE

It is suggested by the average length of time residents have lived in the Prestondale neighbourhood, regardless of their race that a collective culture has developed based on class. From the outset, to live in the area long-term residents have to afford the lifestyle based on options available to them in terms of facilities, the need for private transportation modes, high housing and living costs. These factors bring an exclusiveness and exclusion, a denied right, as Lefebvre's Right to the city argues, to the neighbourhood by offering limited lifestyle options. A third of the population within Prestondale are minors and education facilities in the area are private institutions. There is not much opportunity for integration between groups of minors of differing socio-economic status and background unless partaking in activities outside the neighbourhood. This has bearing on future social sustainability.

According to the literature underpinning social sustainability in Chapter 2, friendship and dynamics of social interaction affect self-identity and the opportunity to form relationships and engage in the social surroundings. A majority of the population is not socially oriented or active within the immediate area; this influences their perception on social integration and may lead to scepticism in engaging or accepting a more diverse population. Individual social well-being is enriched by interaction with diverse cultures and socio-economic groups. There is a link between happiness derived from well-being and the level of inclusiveness residents are willing to extend. State provision fulfils humanitarian needs, enabling social justice (Soja in chapter 2). Over fifty percent of the population in Prestondale do not take part in social activity in the area or make use of any nearby social facilities. Relationships with people and affiliations (such as worship groups, organisations, and colleagues) affect sense of belonging. Close knit neighbourhoods increase an individual's sense of belonging. Participation in activities and events in an area is further affected by feelings of safety. Over eighty percent of respondents have good relationships with their neighbours attributed to their similar interests, economic backgrounds, socio-economic statuses, mutual respect, desire for physical boundaries between properties and levels of privacy afforded. These aforementioned conditions are necessary for contact theory to take effect. This contrasts with relationship dynamics between residents of Prestondale and those outside the community considered as the other.

Observation of the area and analysis of the new developments within Umhlanga Ridge (including Manhattan Mews) showed that environments within the new developments have elements to enhance social interaction such as public braai areas and swimming pools, available to apartment residents. These areas where public interaction is encouraged do not exist outside

the developments, creating a form of gated enclaves. Within the neighbourhood no public places are available to induce social interaction and integration through creating a sense of public ownership and encouraging cohesion within communities. As shown by Prestondale residents and observed in the field, little social interaction takes place between neighbours in Prestondale owing to defensive structures in place to deter criminals and those not wanted in the area. Social sustainability depends on well-being and human satisfaction with life (happiness) explained in the literature (Chapter 2), this indicates quality of life. According to the UN (UN Org, 2013) this is further linked to levels of affluence. The Prestondale neighbourhood is largely affluent; overall, a negative perception is exhibited towards affordable housing development in the area due to the belief that it would impose negative effects on the social fabric of the community.

Based on the case study, Marxism is proven to be true to an extent in its assumption that ownership dynamics (economic) determine the political and social sphere. Tongaat Hulett is the monopolistic land owner in the northern region of the eThekweni Municipality. As both the land owner and primary developer Tongaat Hulett have control over the capital input, gains and nature of development on the land. Although the eThekweni Municipality has been included and brought into a partnership with the land owners and developers this is mainly for consensus and the realisation of an unhindered, prompt development planning and implementation process. The direction of development is ultimately controlled by the company, with the foremost aim of attaining maximum profit. A large share of development is dedicated to the private, high end property market with a minimal amount dedicated to what is considered the affordable housing sector within the Umhlanga Ridge CBD, restricting the target market to a small, homogeneous socioeconomic group of higher income people and investors. Verticalization increases the capital value that may be gained from land in unit sales or rentals so higher density development such as the Manhattan Mews and surrounding apartment buildings maximise profits to developers while not entirely being beneficial to the gap housing market that are unable to afford high rental values or ownership costs. The high costs of housing in certain locations, linked to theories on differential ground rent explain why class and space are linked (Lefebvre). The Prestondale neighbourhood contains high income populations because it is not possible for lower income classes to live in these higher income areas.

Residents did not feel that populations of diverse socioeconomic background or culture would enhance the neighbourhood. Noting that all respondents are middle to upper income residents, an exclusionary attitude towards lower income populations and those who would bring a different demographic into the area ensues. The majority of respondents presume that affordable housing

development near their residences would devalue their property. This is also linked to those that think development of affordable housing projects infringes on private ownership rights. It may be suggested that development of affordable housing in proximity would not infringe on private owner rights, but private owner privilege of being an inhabitant of an exclusive area. Marxism explains the apartheid city structure and current city form in Chapter 2. To enforce this suggestion, two thirds indicated that higher income people should have more say in decision-making as they make more of an economic contribution to society. Over forty percent indicated that lower income people should not have a choice in where they want to live because they do not have the means.

As a result of the rapid growth of the area and the influx of a different societal group, a new culture not necessarily harmonious with the existing community culture that has been established in Prestondale, is introduced. This may prove sustainable over time and increase the viability and vibrancy of the neighbourhood and community; however, temporary conflict and differences may hinder this process. Within the specific South African context, the apartheid government created widespread disparities with the white population given access to opportunities to enable capital gain and accumulation of wealth and well-located land resources as noted in Chapter 3. This led to the spatial and social segregation reinforced by housing patterns and explains the dynamics of the nature of housing and resident composition within Prestondale. Research showed a majority of male respondents of the white-race and over the age of 50 further confirming the effect of apartheid and capitalist notions of wealth accumulation. The shift of the social structure in the surrounding area to a diverse society of a majority of working class (middle income), young, non-white residents portray the results of state intervention in changing government policies within the capitalist system. While Marx envisioned a fall of capitalism, many lower to middle income people gain access to financial, institutional and business opportunities to enable them to become owners of production and generate wealth within the system.

A third of the respondents indicated that they would consider relocating but agreed that government should supply affordable housing for those in need. Although the residents think government should play a role in providing affordable housing (an element of social justice) they would be dissatisfied if it was developed near their homes. This reiterates the Marxist theory that class and space are linked (Herod, 2011; 423). The community believes in social justice however, their acceptance of social integration is limited. If social justice threatens to change the status quo by directly affecting their lives (socially, culturally and economically) then



attaining social justice for all becomes less of a cause for residents to promote. A majority of respondents are of the view that the rights of private owners are not considered when the government implements affordable housing projects within suburban areas. It may be argued that affordable housing implementation then becomes social injustice inflicted on those with a higher socioeconomic status. This would be a valid issue if planning tools for spatial transformation were not aimed at correcting the imbalances of past injustices of the planning system to put an end to skewed resource distribution. The state has a responsibility to correct the spatial imbalances of social well-being and inequality (Chapter 2 and Chapter 3 of the dissertation) but the transformation of the socioeconomic spatial landscape is limited due to the power and influence that the wealthy have over the state in terms of capital creation and economic growth.

#### 5.3.4 QUALITY OF LIFE AND STANDARD OF LIVING

Respondents differed in opinions, levels of awareness, concerns towards the new affordable housing developments taking place and the intended population. Quality of life is a measure of sustainability. Insight into the quality of life experienced by residents' of an area is linked to their attitudes and behaviour towards development in their area, being the development of new or different land uses, the inclusion of affordable housing or entry of new population groups. The research found that while not unhappy within their neighbourhood, residents of Prestondale exhibited the same fears and concerns typical of those opposed to and living close to lower income residential interventions. Initially the area did not develop as a mixed income neighbourhood and residents of similar class, although in recent years of varying racial profiles have lived in Prestondale.

Findings deduce that the residents of Prestondale are satisfied with the quality of life afforded to them. Respondents have secure tenure (ownership) with private security access to opportunities within and beyond their surrounding neighbourhoods due to their economic resources and private transport options. Their responses indicated changing variables such as increased densities, affordable housing developments bringing increased amounts of pedestrian and vehicular traffic and perceived devaluation of properties, heightened crime and poverty to the area will lead to their dissatisfaction and lower their quality of life. Although each of the factors affecting quality of life is explained within the preceding themes, further discussion of the findings and implications of the following factors is necessary.

#### 5.3.4.1 STANDARD OF LIVING

Quality of life is further affected by the standard of living of existing residents and intended residents of affordable housing developments. The location of housing, quality and proximity from areas of employment and opportunity and the surrounding higher income population will influence higher standards of living for the lower income population. The standard of living is affected by employment and income, poverty, traffic congestion, housing and access to services and facilities. According to the eThekweni Survey (2005) reasons that residents are dissatisfied with life, such as financial problems, unemployment and illness, do not apply to the Prestondale residents, as the responses show external factors, such as fear of crime and living environment as affecting the quality of residents' life. Affordable housing development does not cater to the low income population except for a small percentage of social housing units within the development. The gap housing market caters to middle income people that suit the lifestyle within the commercial town centre. Residents of Prestondale are among middle and higher income or of an affluent lifestyle category and expect a high standard of living.

Ownership of residential property increases a sense of safety and security. The majority of residents of Prestondale has ownership of their homes. For the respondents' housing is affordable but not typically to those residing in Umhlanga Ridge. The household size of Prestondale residents is small and residents are fairly wealthy. Tenants within affordable housing developments are not necessarily secure in terms of tenure; private investors may lease units for short periods of time or evict tenants unable to keep rental payment agreements. The affordability of units is not always guaranteed and tenants may pay more than they can afford for housing (i.e. over 30% of income spent on housing). There is always a question of comfortability when living in a high density residential environment as noted in earlier chapters. Residents live in confined spaces close to others as opposed to those in Prestondale where most properties are private with detached housing.

Access to good community healthcare facilities and basic services increase quality of life. Both areas are planned and have formal roads in good condition with street lights, pavements, necessary signposts and drainage. Management and lot owners associations in Umhlanga Ridge are intended to keep high standards of maintenance. There is a lack of facilities targeted at catering for the low to middle income population in proximity. Medical, educational and commercial facilities such as Crawford, the Gateway Umhlanga private hospital, La Lucia and Gateway shopping Malls are high end, private options targeted at attracting higher income patrons (Chas Everitt and Author, 2015). This denies access to those unable to afford them and

is a form of exclusion and barrier to entry into the neighbourhood. There is a need for social facilities intended to enhance the quality of life of poorer populations such as affordable shops, resource centres, clinics and schools near affordable housing development so they are able to experience the same conveniences and standards of living as higher income residents.

#### 5.3.4.2 CRIME AND SAFETY

Sustainable housing has elements of security that enable residents to feel safe. Residents have privatised security, defensive structures surrounding their properties and neighbourhood security mechanisms in place. Although a significant number of respondents indicated that they felt unsafe in the area and had been victims of crime, criminal activity and increasing crime statistics are a South African occurrence and cannot be accredited to an increase in density and influx of the population in Umhlanga alone. Prestondale has experienced higher levels of crime and through-traffic due to the rapid development of Umhlanga Ridge bringing an influx of commercial development, residential development (high density, affordable) and traffic (Personal communication, Councillor de Boer; 2015). As mentioned in Chapter 4 increased incidents of crime within the new residential development is in the form of speeding, illegal racing and prostitution (ibid). The insecurity created by awareness of this crime infiltrates into the surrounding neighbourhoods causing residents to feel ill at ease even if the crime in their immediate environment does not escalate. Quality of life of residents is negatively affected by a poor sense of safety and reduced personal freedom to enjoy the residential environment. The increase in the number of entry and exit points to the neighbourhood and the significant amount of traffic has created issues of road and pedestrian safety. The development of commercial sports car dealerships in Umhlanga Ridge and young professional consumers moving into the vicinity is changing the character of the area bringing in high speed traffic inappropriate for the neighbourhood environment.

The literature reviewed determined that experiencing a higher quality of life and greater well-being; mean individuals undertake less risky behaviour, suggesting that the population entering Umhlanga would not pose a threat to safety and security. The perception that an influx of lower income people leads to an increase in crime is misconstrued as heightened crime levels may be attributed to the mere influx of people, meaning a greater number of incidents that occur. The intended population is not impoverished as they are perceived to be by respondents, but are retirees, middle income and young professionals employed and earning decent incomes.

#### 5.3.4.3 PROPERTY VALUES AND QUALITY OF AREA

Management of the area is an important aspect of current and long term sustainability. The developers (Tongaat Hulett) have provided a management model for the area. Umhlanga Ridge is managed by a Lot Owners Association comprised of all property owners and professionals employed by the developer to administer services such as safety and security, cleaning services, landscaping and traffic control. This will ensure that similar to private rates paid for by Prestondae owners that take the responsibility to employ services on a private basis, Umhlanga Ridge development is also well-maintained. As mentioned, the number of Prestondale residents against higher density affordable housing perceives their private property rights as being infringed upon and presume that their property values would decrease. Property is an expensive and long term investment for most residents and the many external variables and pressures affect values. However, the preceding sections have found that development in Umhlanga Ridge has had no negative effect on property values and residents' fears are misplaced. Development has been found to increase the demand for property and land ownership due to the increasing social, economic and residential opportunities and accessibility.

#### 5.4 SUMMARY

The chapter used existing and primary research undertaken in preceding chapters to evaluate and understand the viability, impact and perceptions of the affected population in light of affordable housing development near affluent established suburbs. The chapter showed that quality of life determined by internal and external factors of individuals or collective household's impacts attitudes and beliefs towards residents' acceptance of affordable housing development and the associated increase and diversity of the population it brings to the area. Quality of life is affected by elements discussed in the analysis of social well-being affected by a sense of belonging and crime, a standard of living affected by employment, income, poverty, traffic congestion, housing and access to services. Some residents revealed that they are not aware of affordable housing development in the area. This may indicate that development of housing implemented in the area is not true to what is considered affordable housing, and not within the means of the segment of the population that falls within the low to middle income bracket. Thus, the development does not necessarily contribute to social integration of diverse income groups or decreasing the housing backlog to provide for low cost housing needs. Conversely, this may mean the development conforms to the aesthetic characteristics and the nature of the surrounding neighbourhood and residents of the surrounding neighbourhood are unable to discern the affordable housing development from a more upscale residential environment. There is strong

fiscal and technical support from private, public and international entities (IHS) in the Manhattan Mews development increasing the rate of success. The IHS has produced sustainable housing projects proven to increase quality of life and access to amenities for beneficiaries (Leading Architecture, 2012). Based on the findings, the next chapter will offer recommendations and conclude the research, determining whether densification is a tool that encourages sustainable housing development and social integration.

## CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

---

### 6.1 INTRODUCTION

This chapter summarizes the research conducted and the final conclusions drawn. The dissertation has determined whether densification through suburban infill is an effective tool for combating the interconnected issues of housing and social integration by answering the key questions in relation to the aim and objectives and main research question. The questions were engaged within the dissertation and the chapter will conclude with recommendations derived from the research.

### 6.2 SUMMARY OF FINDINGS

In conclusion to the main research question, densification has been found to be a sustainable tool for future development within the eThekweni Municipality. Densification is a dual spatial and social tool that shapes both the physical landscape and the societal fabric through compact development and incorporating design elements that maximise existing resources, directed at diversifying and integrating communities contrary to apartheid and colonial planning legacies. Whilst enabling the provision of affordable housing within desirable locations, social justice is met through enhanced quality of life for the disadvantaged. Increased standards of living have been shown to improve communities and increase quality of life. Although existing communities are reluctant to accept affordable housing developments in proximity to their residential area, most fears of these developments are baseless and stem from a lack of information on the projects and the unawareness of development at inception. The landscape of South Africa is changing in terms of spatial and social demographics; this change is both inevitable and necessary for growth and development. The acceptance of change to the built form and social fabric affects the success of these changes and depends on the attitudes of residents towards social justice, integration and inclusion. The research deduced that infill development that establishes higher densities in an area cannot take place in isolation of the elements necessary and equal to social and economic requirements of the society upon which it has been induced. One of the main assumptions is that the well-being of the impoverished population are raised through developing mixed income and affordable housing in more affluent areas. To an extent the research concurs that standards of living improve subject to several factors, including access to social and economic opportunities, the meeting of basic needs with service provision and facilities and acceptance and sense of belonging created by the existing community. The aesthetic design elements of affordable housing developments used to disguise and integrate

lower income housing into middle and higher income areas may not address the underlying issues of concern to opposing neighbouring residents.

### 6.3 RECOMMENDATIONS

Existing residents need to be made aware of intended implementation plans for affordable housing in their neighbourhoods to ease any misconceptions which may be gleaned from failed precedents in other contexts. Strategic, intentional interaction gives communities more say in local plans and a sense of control showing that their rights as residents, property owners and citizens are being considered. This approach will help to prevent NIMBY-ism. Affordable housing development, such as discussed in the case study enable opportunities to the sector of the population that otherwise would not have the opportunity of investing in housing in accessible, desired locations likely to improve their standard of living and increase quality of life. There is a need for stricter control in terms of purchasers of affordable housing, a greater effort should be made to make sure that lower to middle income people are the ones to benefit and are encouraged to invest in such developments. A challenge is the lack of financial assistance available to middle income households towards gap housing and the need for government to provide incentives and safety nets to encourage financial institutions in lending.

It is necessary to establish the specific context in which plans for densification are being undertaken. Innovation in housing provision of higher densities is necessary to improve standards of living and assists with integration and acceptance of developments by existing communities. Innovative high density plans are essential for ensuring environmental efficiency and sustainability, social integration, economic viability and optimal management systems. To transform the spatial landscape, planning needs to be redefined as adaptable, contextual and considerate of the existing built and natural landscape. Strict regulations that govern zoning and land use need to be revisited to allow for more flexible development to meet the needs of a changing society. Planning must allow for economic opportunities near living areas for a wide spectrum (low, medium and high) of economic groups and housing development that accommodates greater amounts of affordable and social housing options.

The following tenets that should be considered are derived from the research based on relevant case studies, theories and related concepts and guiding universal policies and principles. Implementing infill and densification in a viable, sustainable manner based at a grass roots level with community participation and input on plans by both existing residents (home owners) and residents of affordable housing developments. Further development should be of an advantage

and benefit to all. Densification should create innovative, unique and diverse development that creates a sense of place, is both functional and aesthetically pleasing and will create a dynamic urban area both private and public. There is a further need to accommodate the local culture, upholding standards and principles that meet fundamental universal standards and principles such as basic human rights. Development should be balanced where residential accommodation and increased density is met with equal capacity of economic, social and environmental amenities, services and facilities and accessible opportunities. It is imperative that high density development considers broader development plans, enabling integration with the local, national and global space. Higher densities require carefully considered public spaces e.g. public parks, community centres, streets, recreational facilities to facilitate social integration, instill community pride and build new communities for the future. To be sustainable and fundamentally promote social justice, the basis and distribution of public development projects (such as the product of affordable housing) should not be political or to fulfil political agendas. There must be an element of affordability and a system in place to enable ongoing maintenance, safety, and sustainable mechanisms (such as recycling systems, grey water usage, renewable energy systems and walkability).

#### 6.4 CONCLUSION

Opposition to infill affordable housing development from existing communities impact the success of creating sustainable integrated neighbourhoods. The transformation of the interconnected social, economic and spatial landscape of South Africa requires a collective acceptance of mechanisms such as density and affordable housing programmes by all levels of society. The notions of social justice and equality and the right to the city explained in the dissertation, encapsulated by the Constitution (RSA, 1996) are important in the acceptance to bring forth spatial justice. Densification is an important tool in combating issues created by past planning in South Africa. It provides a means for creating equal opportunities for housing amongst the various socio - economic groups within desirable locations. This can only occur if undertaken with the goal of social equity and justice. Government plans for densification threaten to knit the fabric of society together in ways that unsettle the lifestyles of the affluent. There is a variety of ways densifying a residential area can be undertaken which affects the degree of ensuing success and sustainability. The research determined that for densification to succeed it must take on specific characteristics and be context specific. Within the prescribed parameters densification can thus contribute to socially integrated communities and enable an efficient, alternative mechanism for sustainable, affordable housing delivery in South Africa.



## BIBLIOGRAPHY

---

Aalbers, M.B. and Gibb, K. (2014) 'Housing and the right to the city: Introduction to the special issue', *International Journal of Housing Policy*, 14(3), pp. 207–213. doi: 10.1080/14616718.2014.936179.

Abel, J.R., Dey, I. and Gabe, T.M. (2011) 'Productivity And The Density Of Human Capital', *Journal of Regional Science*, 52(4), pp. 562–586. doi: 10.1111/j.1467-9787.2011.00742.x.

Abercrombie, N. and Warde, A. (eds.) (2000) *The contemporary British society reader*. Malden, MA: Polity Press.

Aberdeen, Z. (2013) *Bid to beef up uMhlanga safety*. Available at: <http://www.iol.co.za/news/crime-courts/bid-to-beef-up-umhlanga-safety-1.1523912#.vbfvg.mqqko> (Accessed: 20 July 2015).

ABSA (2015) *House Price Indices: Property Research*. Available at: <http://www.absa.co.za/Absacoza/Individual/Borrowing/Home-Loans/Property-Research> (Accessed: 22 October 2015).

AGANG S.A (2013) *Agang SA - dear nation builder, the phoenix residents*. Available at: <https://www.facebook.com/agangsouthafrica/posts/266573273489894> (Accessed: 2 May 2014).

Aknin, L.B., Barrington-Leigh, C.P., Dunn, E.W., Helliwell, J.F., Burns, J., Biswas-Diener, R., Kemeza, I., Nyende, P., Ashton-James, C.E. and Norton, M.I. (2013) 'Prosocial spending and well-being: Cross-cultural evidence for a psychological universal', *Journal of Personality and Social Psychology*, 104(4), pp. 635–652. doi: 10.1037/a0031578.

Aknin, L.B., Dunn, E.W. and Norton, M.I. (2011) 'Happiness runs in a circular motion: Evidence for a positive feedback loop between Prosocial spending and happiness', *Journal of Happiness Studies*, 13(2), pp. 347–355. doi: 10.1007/s10902-011-9267-5.

Anderson, K. (2011) *The Wiley-Blackwell companion to human geography (Blackwell companions to geography)*. Edited by John A. Agnew and James S. Duncan. United Kingdom: Wiley-Blackwell (an imprint of John Wiley & Sons Ltd).

Bâldea, M. and Dumitrescu, C. (2013) 'Contemporary High-Density Housing. Social and Architectural implications in Acta Technica Napocensis', *Civil Engineering and Architecture*, 56(3).

Banister, D. and Anable, J. (2009) *Planning for Climate Change: Strategies for Mitigation and Adaptation for Spatial Planning: Transport policies and climate change*. Edited by S Dovoudi, J Crawford, and A Mehmood. London: Earthscan.

Barnett, C. (2011) *The Wiley-Blackwell companion to human geography (Blackwell companions to geography)*. Edited by John A. Agnew and James S. Duncan. United Kingdom: Wiley-Blackwell (an imprint of John Wiley & Sons Ltd).

Barney, W. and Arias, S. (2008) *The spatial turn: Interdisciplinary perspectives*. London: Taylor & Francis.

Bartolini, S., Bilancini, E. and Pugno, M. (2011) 'Did the decline in social connections depress Americans' happiness?', *Social Indicators Research*, 110(3), pp. 1033–1059. doi: 10.1007/s11205-011-9971-x.

Belk, R., Ger, G. and Askegaard, S. (2000) *The why of consumption: contemporary perspectives on consumer motives, goals, and desires*. Edited by S Ratneshwar, D.G Mick, and C Huffman. London and New York: Routledge. Pp 98–119

Berke, P.R. (2002) 'Does sustainable development offer a new direction for planning? Challenges for the Twenty-First century', *Journal of Planning Literature*, 17(1), pp. 21–36. doi: 10.1177/088122017001002.

Bolt, G., Özüekren, A.S. and Phillips, D. (2010) 'Linking integration and residential segregation', *Journal of Ethnic and Migration Studies*, 36(2), pp. 169–186. doi: 10.1080/13691830903387238.

Boone, H. and Boone, D.. (2012) 'Analyzing likert data', *Journal of Extension*, 50(2), pp. 1–5. Available: <http://www.joe.org/joe/2012april/tt2.php>. (Accessed: 20 February 2016)

Bradlow, B., Bolnick, J. and Shearing, C. (2011) 'Housing, institutions, money: The failures and promise of human settlements policy and practice in South Africa', *Environment and Urbanization*, 23(1), pp. 267–275. doi: 10.1177/0956247810392272.

Bremner, L.. (2000) 'Post-Apartheid Urban Geography: a Case Study of Greater Johannesburg's Rapid Land Development Programme', *Development Southern Africa*, 17(1), pp. 87–104. Taylor & Francis

Brundtland, G. (1987) 'Brundtland Commission definition: Our Common Future: Report of the World Commission on Environment and Development', Oslo: United Nations. .

Bryman, A. (2012) *Social research methods*. 4th edn. NY: Oxford university press.

Burgess, R. and Jenks, M. (2004) *Compact cities sustainable urban forms for developing countries*. London: Taylor & Francis.

Burton, E. (2000) 'The compact city: Just or just compact? A preliminary analysis', *Urban Studies*, 37(11), pp. 1969–2006. doi: 10.1080/00420980050162184.

Butter, G., Evans, L. and Payne, R. (2006) *Housing design, density and character supplementary planning document*. Available at: [http://www.newforest.gov.uk/media/adobe/7/e/Housing\\_design\\_density\\_and\\_character\\_SPD.pdf](http://www.newforest.gov.uk/media/adobe/7/e/Housing_design_density_and_character_SPD.pdf) (Accessed: 12 September 2014).

Calhoun, J. (1962) 'Population Density and Social Pathology', *Scientific American*, 206(3), pp. 139–148.

Calthorpe, P. (1996) *The next American metropolis: Ecology, community, and the American dream*. 4th ed. New York, NY: Princeton Architectural Press.

Calthorpe, P. (2010) *Urbanism in the Age of Climate Change*. Washington: Island Press.

Cape Town City Council (2009) *Cape Town Densification Strategy Technical Report*. Available at: [http://www.capetown.gov.za/en/sdf/Documents/Densification\\_Strategy\\_web.pdf](http://www.capetown.gov.za/en/sdf/Documents/Densification_Strategy_web.pdf) (Accessed: 20 June 2015).

Cattell, I, Dodge, D, Kasdan, A., Nunn, A. and Sinha, A. (2010) *We call these projects home*. Available at: [http://righttothecity.org/wp-content/uploads/2014/02/We\\_Call\\_These\\_Projects\\_Home-2.pdf](http://righttothecity.org/wp-content/uploads/2014/02/We_Call_These_Projects_Home-2.pdf).

Centre for Environment Education (2007) *Sustainable development: An introduction*. Available at: <http://www.sayen.org/Volume-I.pdf> (Accessed: 24 August 2014).

Chas Everitt (2012) *2015 Umhlanga property market*. Available at: <http://www.chaseveritt.co.za/2015-umhlanga-property-market> (Accessed: 22 October 2015).

Cheng, V. (2014) 'Understanding density and high density', in Ng, E. (ed.) *Designing high-density cities: For social and environmental sustainability*. London: Earthscan Publications, pp. 3–17.

Chew, S. and Denemark, R.A. (eds.) (1996) *The Underdevelopment of development: Essays in honor of Andre Gunder frank*. Thousand Oaks, CA: Sage Publications Pvt.

City of Joburg (2010) *City of Johannesburg - UN award for Joshco*. Available at: [http://www.joburg.org.za/index.php?option=com\\_content&view=article&id=5729&catid=88&Itemid=340](http://www.joburg.org.za/index.php?option=com_content&view=article&id=5729&catid=88&Itemid=340) (Accessed: 16 March 2014).

Clarke Annez, P., Bertaud, A., Patel, B. and Phatak, V.. (2010) 'Policy Research Working Paper: Working with the market: a new approach to reducing urban slums in India', World Bank: . .

Clarke, S. (1975) 'The political economy of housing. In Political Economy and the Housing Question. Papers presented at the Housing Workshop', London: Conference of Socialist Economists.

Cohen, K. and Lindblom, C.E. (1979) *Usable knowledge: Social science and social problem solving*. New Haven: Yale University Press.

CONAVI (2013) *Vivienda Sustentable: Sustainable housing in Mexico: Mexico's National Housing Commission*. Available at: <http://www.conavi.gob.mx/viviendasustentable> (Accessed: 9 September 2014).

Congress of New Urbanism (2001) *Charter of new urbanism*. Available at: <http://www.cnu.org/charter.html> (Accessed: 20 March 2013).

Dave, S. (2010) 'High urban densities in developing countries: A sustainable solution?', *Built Environment*, 36(1), pp. 9–27. doi: 10.2148/benv.36.1.9.

De Souza Briggs, X., Darden, J.T. and Aidala, A. (1999) 'In the wake of desegregation', *Journal of the American Planning Association*, 65(1), pp. 27–49. doi: 10.1080/01944369908976032.

Delmelle, E., Zhou, Y. and Thill, J.-C. (2014) 'Densification without growth management? Evidence from local land development and housing trends in charlotte, north Carolina, USA', *Sustainability*, 6(6), pp. 3975–3990. doi: 10.3390/su6063975.

Diener, E. and Seligman, M.E.P. (2002) 'Very happy people', *Psychological Science*, 13(1), pp. 81–84. doi: 10.1111/1467-9280.00415.

Douay, N. (2010) 'The emergence of a collaborative approach challenges Hong Kongs urban planning model', *China Perspectives*, (1), p. 97.

Duany, A. and Plater-Zyberck, E. (1992) *Towns and Townmaking principles: Andres Duany and Elizabeth Plater-Zyberck, architects*. Edited by Alex Krieger and William Lennerz. Cambridge, MA: Harvard University Graduate School of Design.

Duany, A., Plater-Zyberck, E. and Speck, J. (2000) *Suburban nation: The rise of sprawl and the decline of the American dream*. United States: North Point Press.

Duany, A.A., Speck, J. and Lydon, M. (2010) *The smart growth manual: New urbanism in American communities*. New York: McGraw-Hill Companies, The.

Duke, j (2010) 'Exploring Homeowner Opposition to Public Housing Developments', *Journal Of Sociology & Social Welfare*, 37(1), pp. 49–74.

Duminy, J.W.A. (2011) *Rapid urban development and fragmentation in a post-apartheid era: the case of Ballito, South Africa, 1994 to 2007*. PHD thesis. RSA. .

Dunham-Jones, E. and Williamson, J. (2012) *Retrofitting suburbia: Urban design solutions for redesigning suburbs*. United Kingdom: Wiley, John & Sons.

Durban North & Umhlanga Community Police Forum: Sector 2 (2015) *Social Media: Facebook Community Forum*. Available at: <https://www.facebook.com/DurbanNorthSector2> (Accessed: 28 October 2015).

E.U (Council of Europe) (2000) *Diversity and cohesion: New challenges for the integration of immigrants and minorities*. Available at: [http://www.coe.int/t/dg3/migration/archives/documentation/Series\\_Community\\_Relations/Diversity\\_Cohesion\\_en.pdf](http://www.coe.int/t/dg3/migration/archives/documentation/Series_Community_Relations/Diversity_Cohesion_en.pdf) (Accessed: 4 March 2016).

Education Scotland (Govt.) (1998) *Sociology: Studying Human Society, the sociological approach (4084soci2 tcm4 124368)*. Available at: [http://www.educationscotland.gov.uk/Images/4084soci2\\_tcm4-124368.pdf](http://www.educationscotland.gov.uk/Images/4084soci2_tcm4-124368.pdf) (Accessed: 2 May 2015).

Eisler, R.T. (2007) *The real wealth of nations: Creating a caring economics*. United States: Berrett-Koehler Publishers.

Ekhureleni Metropolitan Municipality (2008) *Densification Framework status quo: Analysis & findings document*. Available at: <http://www.ekurhuleni.gov.za/486-residential-densification-strategy-lowres/file> (Accessed: 15 May 2014).

Elliott, J.A. (2013) *An introduction to sustainable development*. 4th edn. New York: Taylor & Francis.

eThekwini Municipality (2005) *Quality of life survey in eThekwini municipality*. Available at: <http://www.sacities.net/what-we-do/programmes-areas/strategy/indicators/projects/quality-of-life-survey-in-ethekwinimunicipality> (Accessed: 15 May 2015).

eThekwini Municipality (2013) *eThekwini municipality integrated development plan 2013/14*. Available at: [http://www.durban.gov.za/City\\_Government/City\\_Vision/IDP/Documents/eThekwini%20IDP%202013\\_14.pdf](http://www.durban.gov.za/City_Government/City_Vision/IDP/Documents/eThekwini%20IDP%202013_14.pdf) (Accessed: 4 March 2016).

eThekwini Municipality (no date) *Ethekwini Municipality Housing Typologies Study Precedents And Bibliography Presentation 1/5*. Available at: [http://www.durban.gov.za/City\\_Services/engineering%20unit/City%20Architects/Documents/Water%20Services%20Development.pdf](http://www.durban.gov.za/City_Services/engineering%20unit/City%20Architects/Documents/Water%20Services%20Development.pdf) (Accessed: 16 May 2014).

eThekwini Municipality Economic Development and Investment Promotion Unit (2013) *EDGE: A look at eThekwini's Labour Market for Quarter 1: 2012/13*. Available at: [http://www.durban.gov.za/Resource\\_Centre/edge/Documents/EDGE%20Labour%20Market%20Research%20Paper%20June%202013.pdf](http://www.durban.gov.za/Resource_Centre/edge/Documents/EDGE%20Labour%20Market%20Research%20Paper%20June%202013.pdf) (Accessed: 24 May 2015).

eThekwini Municipality (2013) *eThekwini city density strategy*. Available at: [http://www.durban.gov.za/Resource\\_Centre/reports/Framework\\_Planning/Documents/eThekwini%20City%20Density%20Strategy%20-%20May%202013.pdf](http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Documents/eThekwini%20City%20Density%20Strategy%20-%20May%202013.pdf) (Accessed: 20 January 2015).

eThekwini Municipality (no date) *eThekwini Municipality Housing Typologies Study Precedents and Bibliography Presentation 1/5*. Available at: [http://www.durban.gov.za/City\\_Services/engineering%20unit/City%20Architects/Documents/Water%20Services%20Development.pdf](http://www.durban.gov.za/City_Services/engineering%20unit/City%20Architects/Documents/Water%20Services%20Development.pdf) (Accessed: 4 May 2014).

Ezzy, D. (2013) *Qualitative Analysis*. London: Routledge.

Fainstein, S.S. (1999) 'New Directions in Planning Theory', *Urban Affairs Review*, 35(4), pp. 451–478.

Feinstein, S. and Hirst, C. (1996) 'Neighborhood Organizations and Community Power: The Minneapolis Experience', in Keating, D., Krumholz, N., and Star, P. (eds.) *Revitalizing Urban Neighborhoods*. Kansas: University Press of Kansas, pp. 96–111.

Fielding, H., Aristotle, Rackham, H. and Watt, S. (1996) *The Nicomachean ethics*. United Kingdom: Wordsworth Editions.

Flint, A. (2005) *The density dilemma: Appeal and obstacles for compact and transit-oriented development (Working Paper: WP05AF1)*. Available at: [https://drcog.org/documents/density\\_dilemma.pdf](https://drcog.org/documents/density_dilemma.pdf) (Accessed: 4 March 2016).

Flint, J. (2010) 'Faith and housing in England: Promoting community cohesion or contributing to urban segregation?', *Journal of Ethnic and Migration Studies*, 36(2), pp. 257–274. doi: 10.1080/13691830903387386.

Forsyth, A. (2003) 'Measuring Density: Working Definitions for Residential Density and Building Intensity Design Center for American Urban Landscape', *Design Brief*, 8.

Frank, A.G. and Ram, N. (1973) 'Capitalism and Underdevelopment in Latin America', *Social Scientist*, 1(7), p. 73. NY. doi: 10.2307/3516275.

Freedman, J.. (1975) *Crowding and Behavior*. viii edn. England: Oxford.

Galster, G., Tatian, P., Santiago, A., Pettit, K. and Smith, R.. (2003) *Why not in my backyard. Neighborhood impacts of deconcentrating assisted housing*. NJ: New Brunswick, Center for Urban Policy Research.

Gane, N. (2005) 'Max Weber as social theorist: "Class, status, party"', *European Journal of Social Theory*, 8(2), pp. 211–226. doi: 10.1177/1368431005051764.

Gans, H.J. (1961) 'The balanced community: Homogeneity or heterogeneity in residential areas?', *Journal of the American Institute of Planners*, 27(3), pp. 176–184. doi: 10.1080/01944366108978452.

Ghalambor Dezfooly, R. (2013) 'Sustainable Criteria Evaluation of Neighbourhoods Through Residents' Perceived Needs', *International Journal of Architecture and Urban Development*, 3(2), pp. 39–48.

Giddens, A. and Sutton, P.. (2010) *Sociology: Introductory readings*. 3rd edn. U.K: Polity Press.

Gill, M. and Bhide, A. (2012) *Densification through vertical resettlement as a tool for Sustainable Urban Development*. Available at: <http://siteresources.worldbank.org/INTURBANDEVELOPMENT/Resources/336387-1369969101352/Gill-et-al.pdf> (Accessed: 4 March 2014).

Gish, T.. (2007) *Building Los Angeles: Urban Housing in suburban Mropolis 1900-1936*. PHD thesis. California: ProQuest. Available at: [http://gateway.proquest.com/openurl?url\\_ver=Z39.88-2004&res\\_dat=xri:pqdiss&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:dissertation&rft\\_dat=xri:pqdiss:3278383&\\_ga=1.47039911.148296623.1457083715](http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:pqdiss&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&rft_dat=xri:pqdiss:3278383&_ga=1.47039911.148296623.1457083715) (Accessed: 13 April 2014).

Gleeson, B. (2011) "'Make no little Plans": Anatomy of planning ambition and prospect', *Geographical Research*, 50(3), pp. 242–255. doi: 10.1111/j.1745-5871.2011.00728.x.

GM South Africa Foundation (2000) *Balfour heights (Missionvale)*. Available at: <http://www.gmsouthafricafoundation.com/content/balfour-heights-missionvale> (Accessed: 9 September 2014).

Godehart, S. (2007) *Draft Report: Scan of Restructuring Zones*. RSA: HDA.

Gore, A. (2006) *An inconvenient truth: The planetary emergency of global warming and what we can do about it*. London: Bloomsbury Publishing PLC.

Habermas, J., McCarty, T., the, R., Jeurgen, H. and McCarthy, T. (1987) *Theory of communicative action Vol. 1: Reason and the Rationalisation of society*. Boston: Beacon Press, c1984-.

Harrison, P. (2003) 'Fragmentation and Globalisation as the New Meta-Narrative', in Harrison et al (ed.) *Confronting fragmentation: Housing and urban development in a democratising society*. Lansdowne, Cape Town: Juta Legal and Academic Publishers, pp. 13–23.

Hart, G.P. (2002) *Disabling globalization: Places of power in post-apartheid South Africa*. Pietermaritzburg: University of Natal Press.

Harvey, D. (1973) *Social justice and the city*. Ann Arbor, MI: [Baltimore] Johns Hopkins University Press [1973].

Harvey, D. (1997) 'The new urbanism and the communitarian trap', *Harvard Design Magazine*, Winter/Spring 1997 .

Harvey, D. (2012) *Rebel cities: From the right to the city to the urban revolution*. New York: Verso Books.

Haughton, G. (1999) 'Environmental justice and the sustainable city', *Journal of Planning Education and Research*, 18(3), pp. 233–243. doi: 10.1177/0739456x9901800305.

Healey, p (1996) 'Planning through debate: the communicative turn in planning theory', in Fainstein, S.S. and Campbell, S. (eds.) *Readings in Planning Theory*. London: Oxford: Blackwell, pp. 234–257.

Healey, P. (1992) 'A planner's day: Knowledge and action in communicative practice', *Journal of the American Planning Association*, 58(1), pp. 9–20. doi: 10.1080/01944369208975531.

Healey, P. (1998) 'Building institutional capacity through collaborative approaches to urban planning', *Environment and Planning A*, 30(9), pp. 1531–1546. doi: 10.1068/a301531.

Healy, P. (2003) 'The Communicative Turn in Planning Theory and its Implications for Spatial Strategy Formation', in Campbell, S.S. and Fainstein, S. (eds.) *Readings in Planning Theory*. London: Blackwell, pp. 237–255.

Helmenstine, A.M. (2014) *The definition of 'Theory'*. Available at: <http://www.chemistry.about.com/od/chemistryglossary/g/theory-definition.htm> (Accessed: 1 September 2015).

Herod, A. (2011) 'Chapter 29: Class Part I', in Agnew, J.. and Duncan, J.. (eds.) *The Wiley Blackwell Companion to Human Geography*. UK: Blackwell Publishing Ltd, pp. 415 – 425.

Hindson, D. (1996) 'The apartheid city: construction, decline and reconstruction', Paris: Orstom Editions. pp. 75–106.

Hogg, A. (2013) 'Tongaat Hulett release of 42 hectares for R50bn Ridgeside development to stimulate R12bn in fresh investment', *Interviews*, 10 December. Available at: <http://www.biznews.com/interviews/2013/12/10/ulett-release-of-42-hectares-for-r50bn-ridgeside-development-to-stimulate-r12bn-in-fresh-investment/> (Accessed: 13 April 2015).



Hopkins, D. (2013) 'Sustainability narratives and planning agendas: Charting the influence of sustainable development discourse on planning policy in western Australia', *International Journal of Society Systems Science*, 5(3), p. 245. doi: 10.1504/ijsss.2013.055888.

House Price South Africa (2011) *What will average property prices look like in 2050?*. Available at: <http://housepricesouthafrica.com/2011/01/27/what-will-average-property-prices-look-like-in-2050/> (Accessed: 22 October 2015).

Housing Development Agency (2012) *Regenerating a neighbourhood: Useful lessons from eKhaya, Case Studies*. Available at: [http://www.thehda.co.za/uploads/files/HDA\\_Regenerating\\_a\\_neighbourhood\\_case\\_study.pdf](http://www.thehda.co.za/uploads/files/HDA_Regenerating_a_neighbourhood_case_study.pdf) (Accessed: 4 April 2014).

Housing Development Agency (2013) *Reviving our Inner Cities: Social Housing and Urban Regeneration in South Africa*. Available at: [http://www.thehda.co.za/uploads/files/HDA\\_NASHO\\_reseach\\_report\\_lo-res.pdf](http://www.thehda.co.za/uploads/files/HDA_NASHO_reseach_report_lo-res.pdf) (Accessed: 4 April 2014).

Igbinoba, R. (2013) 'Developing a successful Social Housing Framework for Africa', *Affordable Housing Summit*. Johannesburg, August 2014. Available at: <http://www.affordablehousinga.com/media/9349/25611.pdf> (Accessed: 23 November 2014).

Innes, J.E. (1995) 'Planning theory's emerging paradigm: Communicative action and interactive practice', *Journal of Planning Education and Research*, 14(3), pp. 183–189. doi: 10.1177/0739456x9501400307.

Innes, J.E. (2004) 'Consensus building: Clarifications for the critics', *Planning Theory*, 3(1), pp. 5–20. doi: 10.1177/1473095204042315.

Innes, J.E. and Gruber, J. (2005) 'Planning styles in conflict: The metropolitan transportation commission', *Journal of the American Planning Association*, 71(2), pp. 177–188. doi: 10.1080/01944360508976691.

Irwin, J. (2012) *Suzuki elders : North Vancouver urban densification: a panacea or an apocalypse of the future?*. Available at: <http://www.suzukielders.org/tag/urban-densification/> (Accessed: 23 February 2014).

Jay, I. and Bowen, P. (2011) 'What residents value in low-cost housing schemes: Some south African concepts', *Building Research & Information*, 39(6), pp. 574–588. doi:10.1080/09613218.2011.617082.

Jenks, M., Burton, E. and Williams, K. (1996) *The compact city: A Sustainable urban form?*. Edited by M

Jenks, E Burton, and K Williams. United States: Taylor & Francis Group.

Jenson, J. (1998) *Mapping social cohesion: The state of Canadian research*. Ottawa: Canadian Policy Research Networks.

Johnson, J.. and Hall, E.. (1995) 'Class, work, and health', *Society and health*, , pp. 247–271.

Kain, J.F. and Quigley, J.M. (1975) *A Theory of Urban Housing Markets and Spatial Structure. Housing Markets and Racial Discrimination: A Microeconomic Analysis*. Available at: <http://www.nber.org/chapters/c3711.pdf> (Accessed: 9 April 2014).

Kerbo, H.R. (2006) *Social stratification*. Available at: [http://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1064&context=ssci\\_fac](http://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1064&context=ssci_fac) (Accessed: 3 April 2014).

Khoza, R.B.. and Kabir, H. (2014) 'An evaluation of South African low-income housing delivery process: from project quality management perspective', *Public and Municipal Finance*, 3(1), pp. 32–42.

Kirby, M., Kidd, W., Koubel, F., Barter, j, Hope, T., Kirton, A., Madry, N., Manning, P. and Triggs, K. (1997) *Sociology in perspective*. Oxford: Heinemann Educational Secondary Division.

Kunstler, J. (1996) *Home from Nowhere: Remarking our everyday world for the 21st Century*. NY: Simon and Schuster.

Kupke, V., Rossini, P. and McGreal, S. (2011) *A multivariate study of medium density housing development and neighbourhood change within Australian cities*. PHD thesis. Pacific Rim Real Estate Society. .

Kyttä, M., Broberg, A., Tzoulas, T. and Snabb, K. (2013) 'Towards contextually sensitive urban densification: Location-based softGIS knowledge revealing perceived residential environmental quality', *Landscape and Urban Planning*, 113, pp. 30–46. doi: 10.1016/j.landurbplan.2013.01.008.

Lawson, B. (2014) 'The Social and Psychological Issues of High Density', in Ng, E. (ed.) *Designing high-density cities: For social and environmental sustainability*. London: Earthscan Publications, pp. 285–292.

Lefebvre, H. (1996) *Writings on cities*. Oxford: Blackwell.

Levitsky, S.. (1994) *Marx, K., & Levitsky, S. L. Das kapital: A critique of political economy*, The Bureau .

Li, P.S. (2003) *Destination Canada: Immigration debates and issues*. Canada: Oxford University Press, Canada.

Litman, T. and Brenman, M. (2012) 'A new social equity agenda for sustainable transportation', *Transportation Research Board Annual Meeting Paper 12-3916*. Canada, 8 March 2012. Available at: <http://www.vtpi.org/equityagenda.pdf> (Accessed: 20 June 2014).

Lyubomirsky, S., King, L. and Diener, E. (2005) 'The benefits of frequent positive affect: Does happiness lead to success?', *Psychological Bulletin*, 131(6), pp. 803–855. doi: 10.1037/0033-2909.131.6.803.

Mandel, E. (1975) *Late Capitalism*. Edited by Trans. J de Bres. London: Verso.

Manhattan Mews (2014) *News*. Available at: <http://www.manhattanmews.co.za/news.php> (Accessed: 4 April 2014).

Marcuse, P. (2014) 'Reading the right to the city. Part two: Organisational realities', *City*, 18(2), pp. 101–103. doi: 10.1080/13604813.2014.896646.

Marx, K., Dobb, M., Translated, Ryazanskaya, S.W. and Dobb, M. (1970) *A contribution to the critique of political economy*. Moscow, : Progress Publishers, : Progress Publishers.

Mashayekh, Y., Hendrickson, C. and Matthews, H.S. (2012) 'Role of Brownfield developments in reducing household vehicle travel', *Journal of Urban Planning and Development*, 138(3), pp. 206–214. doi: 10.1061/(asce)up.1943-5444.0000113.

McCarthy, J. (2007) *Partnership, collaborative planning and urban regeneration (urban and regional planning and development series)*. Aldershot: Ashgate Publishing.

Mercury (2013) *Durban Residents facing eviction expose housing scandal*. Available at: <http://www.iolproperty.co.za/roller/news/entry/durban-residents-facing-eviction-expose> (Accessed: 2 May 2014).

Meyerson, M. and Banfield, E.C. (1964) *Politics, planning, and the public interest*. New York: Collier-Macmillan.

Mills, W.C. and Mills, C.W. (1959) *The sociological imagination*. United Kingdom: Oxford University Press.

Minister Gordhan, P. (2014) *National Budget Speech National Government*. RSA. 26 February.

Mintz, S. (1993) 'Life stages', *Encyclopedia of American social history*. (3) 7-33. NY: Charles Scribner's Sons.

Mo<sup>a</sup>teanu, D., Mihăilălică, G., Halmaghi, E. and Mo<sup>a</sup>teanu, R. (2014) 'The sustainable development - human development', *Revista Academiei Fortelor Terestre*, 19(1), pp. 106–113.

Morris, J., Marzano, M., Dandy, N. and O'Brien, L. (2012) *Theories and models of behaviour and behaviour change*. Available at: [http://www.forestry.gov.uk/pdf/behaviour\\_review\\_theory.pdf/\\$FILE/behaviour\\_review\\_theory.pdf](http://www.forestry.gov.uk/pdf/behaviour_review_theory.pdf/$FILE/behaviour_review_theory.pdf) (Accessed: 22 November 2014).

Mtantato, S. (2012) 'Chapter 11: Impact of Current Land use patterns on Public Transport and Human Settlements', *Division of Revenue Technical Report*, 2012/13, pp. 202 – 217.

Mthembu, B. (2008) *Quota home project gets green light*. Available at: <http://www.iol.co.za/news/south-africa/quota-home-project-gets-green-light-394186#.VDuk7fmSySo> (Accessed: 13 October 2014).

Muller, J. (2013) *FM - SA's top suburbs not yet on solid ground*. Print article. Available at: <http://www.financialmail.co.za/coverstory/2013/10/31/sa-s-top-suburbs-not-yet-on-solid-ground?service=print> (Accessed: 27 April 2015).

Munshi, J. (2014) 'A method for constructing Likert scales', *SSRN Electronic Journal*. doi: DOI: 10.2139/ssrn.2419366.

Myers, D.G. (2000) 'The funds, friends, and faith of happy people', *American Psychologist*, 55(1), pp. 56–67. doi: 10.1037/0003-066x.55.1.56.

Myers, G.A. (2011) *African cities: Alternative visions of urban theory and practice*. United Kingdom: Zed Books.

Neuman, M. (2005) 'The compact city fallacy', *Journal of Planning Education and Research*, 25(1), pp. 11–26. doi: 10.1177/0739456x04270466.

New Zealand Immigration Service (2004) *A Future Together: The New Zealand Settlement Strategy*. Available at: <http://www.immigration.govt.nz/community/stream/support/nzimmigrationsettlementstrategy/> (Accessed: 28 August 2014).

Ng, E. (ed.) (2009) *Designing high-density cities: For social and environmental sustainability*. London: Earthscan Publications.

Ng, E. and Cheng, V. (2012) 'Urban human thermal comfort in hot and humid Hong Kong', *Energy and Buildings*, 55, pp. 51–65. doi: 10.1016/j.enbuild.2011.09.025.

Nolon, S., Ferguson, O., Field, P. and Babbitt, B. (2013) *Land in conflict: Managing and resolving land use disputes*. United States: Lincoln Institute of Land Policy.

Nomico, M. and Sanders, P. (2003) 'Dichotomies of urban change in Durban', *Urban Design International*, 8(4), pp. 207–222. doi: 10.1057/palgrave.udi.9000102.

Nordquist, M. (2013) 'Seeking spatial justice by Edward W. Soja', *Contemporary Political Theory*, 12(1), pp. 16–18. doi: 10.1057/cpt.2011.40.

Norris, C. and Norris, C. (1985) *The contest of faculties: Philosophy and theory after deconstruction*. London: Routledge.

Northglen News (2014) *Upper uMhlanga takes back community safety*. Available at: <http://www.northglennews.co.za/41810/upper-umhlanga-takes-back-community-safety-2/> (Accessed: 20 July 2015).

Nussbaum, M. (2010) *How to Write a (Thesis / Dissertation) Proposal*. Available at: <http://ualr.edu/ma/list/uploads/2010/03/proposalhowto.pdf> (Accessed: 2 June 2014).

Organisation for Economic Co-operation and Development (2009) *Doing better for children*. Paris: OECD Publishing.

Organisation for Economic Co-operation and Development (2013) *OECD guidelines on measuring subjective wellbeing*. Paris.: OECD Publishing.

Ovens, W. and Kitchin, F. (2013) *Consolidated Report: New Provincial Planning Legislation for South African Cities: Understanding and Learning from the Reform Process*. Available at: <http://sacitiesnetwork.co.za> (Accessed: 23 November 2014).

Owens, S. and Cowell, R. (2011) *Land and limits: Interpreting sustainability in the planning process*. 2nd edn. USA: Routledge.

Papillon, M. (2002) *Immigration, diversity and social inclusion in Canada's cities*. Available at: [http://cprn.org/documents/17243\\_en.pdf](http://cprn.org/documents/17243_en.pdf) (Accessed: 4 March 2016).

Parthasarathy, B. (2008) *The ethnographic case study approach*. Available at: <http://www.globalimpactstudy.org/2008/07/the-ethnographic-case-study-approach/comment-page-1/> (Accessed: 4 April 2014).

Patel, K. (2014) 'J. Bredenoord, P. Van Lindert and P. Smets (2014) (eds): Affordable housing in the urban global south—seeking sustainable solutions', *Journal of Housing and the Built Environment*, 30(4), pp. 711–713. doi: 10.1007/s10901-014-9435-0.

Pickett, S.T.. and Cadenasso, M.. (2013) 'Urban Ecology', in *Ecological Systems*. New York: Springer, pp. 273–301.

Pillay, U. (2008) 'Urban policy in post-apartheid South Africa: Context, evolution and future directions', *Urban Forum*, 19(2), pp. 109–132. doi: 10.1007/s12132-008-9038-5.

Pillay, Y. and Nyathikazi, T. (2007) 'Westville Residents reassured', *eThekwini Metro Ezasegagasini*, 24 August, p. 3.

Property 24 (2015) *Umhlanga property valuations: Property prices, trends, statistics, valuations*. Available at: <http://www.property24.com/property-values/umhlanga/kwazulu-natal/185> (Accessed: 27 April 2015).

Puentes, R. (2005) 'The Evolution and Current State of First Suburbs: An Agenda for Action', Hofstra University, NY: Center for Suburban Studies. Available at: [http://www.brook.edu/metro/speeches/20050318\\_firstsuburbs.pdf](http://www.brook.edu/metro/speeches/20050318_firstsuburbs.pdf) (Accessed: 9 September 2014).

Raco, M. (2005) 'Sustainable development, rolled-out Neoliberalism and sustainable communities', *Antipode*, 37(2), pp. 324–347. doi: 10.1111/j.0066-4812.2005.00495.x.

Regoeczi, W.C. (2002) 'The impact of density: The importance of Nonlinearity and selection on flight and fight responses', *Social Forces*, 81(2), pp. 505–530. doi: 10.1353/sof.2003.0018.

Rex, J., Tomlinson, S., Hearnden, D. and Ratcliffe, P. (1979) *Colonial immigrants in a British city: A class analysis*. London: Routledge & Kegan Paul Books.

Rice, L. (2010) 'Retrofitting suburbia: Is the compact city feasible?', *Proceedings of the ICE - Urban Design and Planning*, 163(4), pp. 193–204. doi: 10.1680/udap.2010.163.4.193.

Robinson, J. (1998) '(Im)mobilizing space – dreaming of change', in Judin, H. and Vladislavic, I. (eds.) *Architecture, Apartheid and After*. Rotterdam: NAI Publishers, pp. 163–71.

Robinson, J. (2010) 'Cities in a world of cities: The comparative gesture', *International Journal of Urban and Regional Research*, 35(1), pp. 1–23. doi: 10.1111/j.1468-2427.2010.00982.x.

Rosen, J. (2013) *Affordable housing developed for upmarket Umhlanga*. *Commercial Property News*. Available at: <http://www.eprop.co.za/news/item/15505-affordable-housing-development-for-upmarket-umhlanga.html> (Accessed: 22 April 2015).

RSA Human Settlement Housing Portfolio Committee (1998) *Housing legislation: Briefing*. Available at: <https://pmg.org.za/committee-meeting/6179/> (Accessed: 8 March 2015).

Ruming, K., Houston, D. and Amati, M. (2012) 'Multiple suburban Publics: Rethinking community opposition to consolidation in Sydney', *Geographical Research*, 50(4), pp. 421–435. doi: 10.1111/j.1745-5871.2012.00751.x.

Sachs, J. (2012) *The price of Civilization: American values and the return to prosperity*. New York, NY: Random House.

Sahin, A.P.D.N.P., Fasli, A.P.D.M. and Vehbi, A.P.D.B.O. (2007) *An assessment of quality of life in residential environment: Case of Selimiye Quarter in walled city of Nicosia, North Cyprus*. Available at: [http://www.gla.ac.uk/media/media\\_48178\\_en.pdf](http://www.gla.ac.uk/media/media_48178_en.pdf) (Accessed: 4 March 2016).

Saldanha, A. (2011) 'Race Part II', in Agnew, J.A. and Duncan, J.S. (eds.) *The Wiley-Blackwell companion to human geography (Blackwell companions to geography)*. United Kingdom: Wiley-Blackwell (an imprint of John Wiley & Sons Ltd), pp. 453–464.

SALGA (2014) *SPLUMA : Key Municipal Steps Towards Readiness Municipal Managers' Forum (Mbombela)*. Available at: <http://www.salga.org.za> (Accessed: 5 May 2015).

Sandercock, L. (1998) 'Chapter 4: The difference that theory makes', in *Towards Cosmopolis: Planning for Multicultural Cities*. England: John Wiley and Sons Ltd, pp. 85–104.

Schauffer, A. (2004) 'KwaZulu-Natal Neighbourhood Watch - Umhlanga Ridge', *Property Magazine - KZN edition* (November).

Schensul, D. and Heller, P. (2010) 'Legacies, change and transformation in the post-apartheid city: Towards an urban sociological Cartography', *International Journal of Urban and Regional Research*, 35(1), pp. 78–109. doi: 10.1111/j.1468-2427.2010.00980.x.

Schmidt-Thomé, K., Haybatollahi, M., Kytä, M. and Korpi, J. (2013) 'The prospects for urban densification: A place-based study', *Environmental Research Letters*, 8(2), p. 025020. doi: 10.1088/1748-9326/8/2/025020.

Scott, A.J. and Storper, M. (2013) 'The nature of cities: The scope and limits of urban theory', *International Journal of Urban and Regional Research*, 39(1), pp. 1–15. doi: 10.1111/1468-2427.12134. Perce, G. (1974) *Especies d'Espaces Paris* (Quote)

Selvanayagam, R. (2011) *India Urban base of the pyramid housing affordability study: Habitation for the planet*. Available at: <http://www.habitationfortheplanet.org/blog/2011/11/india-urban-base-of-the-pyramid-housing-affordability-study/> (Accessed: 16 May 2014).

Selvanayagam, R. (2012) *Why Brazil's affordable housing strategy is weak: Habitation for the planet*. Available at: <http://www.habitationfortheplanet.org/blog/2012/05/brazil-affordable-housing-strategy-weak/> (Accessed: 5 May 2014).

Sharma, M. and Romas, J.A. (2012) *Theoretical foundations of health education and health promotion - 2nd edition*. 2nd edn. Sudbury, MA: Jones and Bartlett Publishers.

Shearmur, R. (2008) 'MOTTE, Alain (dir.) (2007) les agglomérations françaises face aux défis métropolitains. Paris, Economica, 272 p. (ISBN 978-2-7178-5354-4)', *Cahiers de géographie du Québec*, 52(146), p. 369. doi: 10.7202/019612ar.

Shen, L.-Y., Jorge Ochoa, J., Shah, M.N. and Zhang, X. (2011) 'The application of urban sustainability indicators – A comparison between various practices', *Habitat International*, 35(1), pp. 17–29. doi: 10.1016/j.habitatint.2010.03.006.

SHF (Social Housing Foundation) (2010) *Project review series: Consolidated review of subsidised rental housing projects including policy lessons learned*. Available at: <http://www.shra.org.za/resource-centre/shf-archives/project-review-series> (Accessed: 15 May 2014).

Shields, R. (2013) *Spatial questions: Cultural topologies and social spatialisation*. Los Angeles, CA: Sage.

Simon, M.K. (2011) *Dissertation and scholarly research: Recipes for success: A practical guide to start and complete your dissertation, thesis, or formal research project*. 2nd edn. United States: Dissertation Success.

Skovbro, A. (2001) 'Urban Densification: An innovation in sustainable urban policy', *Area Based initiatives in contemporary urban policy*. Copenhagen, 17 May 2001. .

Soja, E.W. (1989) *Postmodern geographies: The reassertion of space in critical social theory*. 6th edn. New York: Verso Books.

Soja, E.W. (2010) *Seeking spatial justice*. Minneapolis: University of Minnesota Press.

*Spatial Land Use Management Act (SPLUMA), Act No. 16 of 2013 2013, c*. Available at: [http://www.ruraldevelopment.gov.za/phocadownload/SPLUMB/draft%20spluma%20regulations\\_vers2.pdf](http://www.ruraldevelopment.gov.za/phocadownload/SPLUMB/draft%20spluma%20regulations_vers2.pdf) (Accessed: 2 July 2014).

Spoonley, P., Peace, R., Butcher, A. and O'Neill, D. (2005) 'Social cohesion: A policy and indicator framework for assessing immigrant and host outcomes', *Social Policy Journal of New Zealand*, 24(1), pp. 85–110.

SSI (2011) *Local area plans: Northern Urban Development Corridor*. Available at: [http://www.durban.gov.za/Resource\\_Centre/reports/Framework\\_Planning/Documents/NUDC\\_Spatial\\_Concept\\_v3.1\\_Final\\_18February2011.pdf](http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Documents/NUDC_Spatial_Concept_v3.1_Final_18February2011.pdf) (Accessed: 4 March 2016).

Stats SA (2014) *Statistical Release P0302: Mid Year Population Estimates 2014*. Available at: <http://www.statssa.gov.za/publications/P0302/P03022014.pdf> (Accessed: 5 May 2015).

Strange, T. and Bayley, A. (2008) *Sustainable development*. Available at: <http://dx.doi.org/10.1787/9789264055742-en> .

Sun Cell Watch (2011) *Crime stats: Umhlanga Rocks*. Available at: <http://www.suncellwatch.co.za/pages/crimestats.asp> (Accessed: 28 October 2015).



Susilo, Y.O., Williams, K., Lindsay, M. and Dair, C. (2012) 'The influence of individuals' environmental attitudes and urban design features on their travel patterns in sustainable neighborhoods in the UK', *Transportation Research Part D: Transport and Environment*, 17(3), pp. 190–200. doi: 10.1016/j.trd.2011.11.007.

Sutherland, C., Robbins, G., Scott, D. and Sim, V. (2013) *Durban City Report: City Growth and the Sustainability Challenge Comparing Fast Growing Cities in Growing Economies*. Available at: [http://www.chance2sustain.eu/fileadmin/Website/Dokumente/Dokumente/Publications/publications\\_2014/C2S\\_CR\\_No03\\_Durban\\_V1-2.pdf](http://www.chance2sustain.eu/fileadmin/Website/Dokumente/Dokumente/Publications/publications_2014/C2S_CR_No03_Durban_V1-2.pdf) (Accessed: 5 October 2014).

The Delta Foundation (2000) *Report: Guidelines: Higher densities in new low income development (Based on the Missionvale experience)*. Available at: <http://www.gmsouthafricafoundation.com/download/26> (Accessed: 5 February 2015).

Tibane and Vermeulen (2015) *South Africa yearbook 2013/14*. Available at: <http://www.gcis.gov.za/content/resourcecentre/sa-info/yearbook2013-14> (Accessed: 5 May 2015).

Todes, A. (no date) 'Reintegrating the Apartheid City? Urban Policy and Urban Restructuring in Durban', *Millennium Conference*. London, 17 December 1998. Available at: <http://sociology.sunimc.net/htmledit/uploadfile/system/20100924/20100924023740804.pdf#page=633> (Accessed: 5 October 2014).

Tomlinson, M.R. (1998) 'South Africa's new housing policy: An assessment of the First Two years, 1994-96', *International Journal of Urban and Regional Research*, 22(1), pp. 137–146. doi: 10.1111/1468-2427.00128.

Turok, A. (2011) 'Ch3: State of the Cities report', in *The Built Environment*. RSA: SAC Network, pp. 45 – 85.

U.K Government (2014) *London plan 2004 & 2014-15*. Available at: <http://justspace.org.uk/2014-plan/> (Accessed: 16 May 2014).

U.N – Habitat (2012) *Sustainable Housing for Sustainable Cities: A Policy Framework for Developing Countries*. Nairobi: UN Habitat.

U.N – Habitat (2014) *The State of African Cities 2014: Re-imagining sustainable urban transitions*. Kenya: UN Habitat.

U.N Habitat (2013) *(b) Scaling-up affordable housing supply in Brazil: The 'My house my life' Programme; Programme Minha Casa Minha Vida*. Kenya.: UN Habitat.

U.N Org, Helliwell, J., Layard, R. and Sachs, J. (Eds) (2013) *World Happiness Report 2013*. Available at: [http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013\\_online.pdf](http://unsdsn.org/wp-content/uploads/2014/02/WorldHappinessReport2013_online.pdf) (Accessed: 25 August 2014).

U.S AID (2013) *Evaluative Case Studies: Technical Note VI*. Available at: [https://www.usaid.gov/sites/default/files/documents/1870/IE\\_Technical\\_Note\\_2013\\_0903\\_Final.pdf](https://www.usaid.gov/sites/default/files/documents/1870/IE_Technical_Note_2013_0903_Final.pdf) (Accessed: 5 March 2016).

U.S G.A.O (1990) *Case Study Evaluations*. Available at: [http://www.gao.gov/special.pubs/10\\_1\\_9.pdf](http://www.gao.gov/special.pubs/10_1_9.pdf) (Accessed: 5 March 2016).

UNDP (2013) *The rise of the south: Human progress in a diverse world: Human Development Report: Explanatory Note on 2013*. Available at: <http://www.undp.org/content/dam/undp/library/corporate/HDR/2013GlobalHDR/English/HDR2013%20Summary%20English.pdf> (Accessed: 28 August 2014).

United Nations General Assembly (2005) *World Summit Outcome, Resolution A/60/1*. Available at: <http://www.un.org/womenwatch/ods/A-RES-60-1-E.pdf> (Accessed: 4 May 2014).

Van Wyk, B. (no date) *Research design and methods part I*. Available at: [https://www.uwc.ac.za/Students/Postgraduate/Documents/Research\\_and\\_Design\\_I.pdf](https://www.uwc.ac.za/Students/Postgraduate/Documents/Research_and_Design_I.pdf) (Accessed: 5 April 2014).

Van Wyk, L. (2010) 'Efficacy of innovative technologies in subsidised housing in South Africa: A case study', *CSIR 3rd Biennial Conference 2010*. CSIR International Convention Centre, Pretoria, 30 August 2010. South Africa: CSIR. Available at: <http://hdl.handle.net/10204/4249> (Accessed: 1 February 2015).

Watson, V. (2009) "'The planned city sweeps the poor away...': Urban planning and 21st century urbanisation', *Progress in Planning*, 72(3), pp. 151–193. doi: 10.1016/j.progress.2009.06.002.

Webb, T.L., Sniehotta, F.F. and Michie, S. (2010) 'Using theories of behaviour change to inform interventions for addictive behaviours', *Addiction*, 105(11), pp. 1879–1892. doi: 10.1111/j.1360-0443.2010.03028.x.

Weinzettel, J., Hertwich, E.. and Peters, G.. (2013) *Affluence drives the global displacement of land use*. Available at: [http://ec.europa.eu/environment/integration/research/newsalert/pdf/324na4\\_en.pdf](http://ec.europa.eu/environment/integration/research/newsalert/pdf/324na4_en.pdf) (Accessed: 10 September 2014).

Welldon, J.E.. (1987) *Aristotle's The nicomachean ethics*. NY: Amherst: Prometheus Books.

Wheeler, S.M. (2013) *Planning for sustainability: Creating livable, equitable and ecological communities*. New York, NY: Taylor & Francis.

Williamson, J. (2013) *Designing suburban futures: New models from build a better Burb*. United States: Island Press.

Williamson, J. (no date) *Retrofitting Suburbia: A Pedagogical Perspective*. NY: John Wiley & Sons.

Wirth, L. (1938) 'Urbanism as a way of life', *American Journal of Sociology*, 44(1), p. 1. doi: 10.1086/217913.

Wood, E. (2008) 'The Umhlanga Ridge New Town Centre - Primary Developer: Tongaat Hulett', *Architecture South Africa* pp. 50–54. Available at: <http://www.gapp.net> (Accessed: 2015/10/3)

Yiftachel, O. (1998) 'Planning and social control: Exploring the dark side', *Journal of Planning Literature*, 12(4), pp. 395–406. doi: 10.1177/088541229801200401.

Zhu, J. (2014) 'Marx's Ground Rent Theory and Innovation of China's Urban Land System', *Asian Agricultural Research* 2015, 7(1), pp. 74–76.

## APPENDICES

---

APPENDIX 1: LOCALITY PLAN

APPENDIX 2: FIELDWORK INSTRUMENTS

APPENDIX 3: INTERVIEW QUESTIONS AND RESPONSES

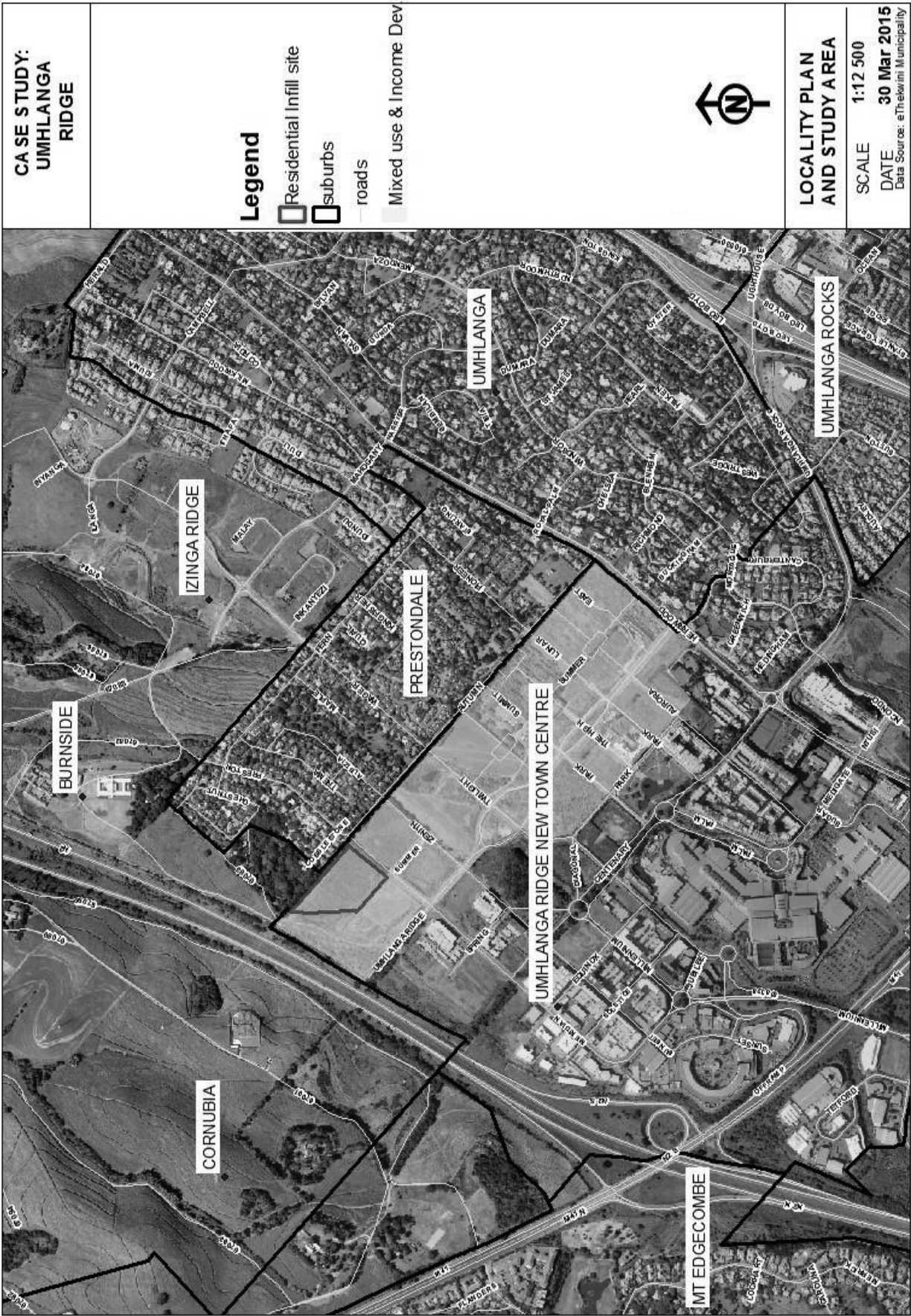
APPENDIX 4: EMAIL CORRESPONDENCE, SAMPLE POPULATION LIST,  
EXAMPLE QUESTIONNAIRE AND ANALYSIS TEMPLATES

APPENDIX 5: WARD COUNCILLOR CORRESPONDENCE AND CONSENT

APPENDIX 6: BRAZIL MINHA CASA AFFORDABLE HOUSING

APPENDIX 7: ADVERTISEMENTS: MANHATTAN MEWS UNITS FOR SALE

APPENDIX 8: ETHICAL CLEARANCE LETTER



## PERSONAL OBSERVATION

- Questions to be answered by researchers observation and analysis of site
  - to observe whether within development and surrounding community; overall house characteristics, subject attitudes to receiving particular questionnaire, how the person fits into their environment.
1. Has a sense of place been created?
  2. Does the development appear to be part of the surrounding development?
  3. Are private properties surrounded by defensive structures (walls, heavy security)?
  4. Is there a lot of pedestrian activity? What types of people are walking around? Traffic?
  5. The location of the development in relation to –
    - Employment Opportunities
    - Environmental hazards
    - Facilities and amenities
    - Social environment (culture, diversity) e.g hostile community
    - Affordability (shopping facilities, housing, health and education, recreation)
-

## UNSTRUCTURED INTERVIEWS

- i. WARD 35 CLLR (UMHLANGA) MR H DE BOER (23 FEBRUARY 2015 (MONDAY), 8:30 a.m, Durban North)

**Interview with regards to Manhattan Mews Development and Prestondale suburb. Questions asked by the researcher were with regards to the nature of development, sustainability and integration of the development within the area. Social, economic and environmental aspects were covered by the interviewee and insight into the first hand impacts of development on the surrounding neighbourhood was gained.**

SUMMARY OF RESPONSE (EDITED BY RESEARCHER):

- With the development of the Umhlanga Ridge it was noted that there was an increase in crime – speeding, and prostitution. Also issues of overcrowding due to sub letting of units.
- Increased traffic within Prestondale, both pedestrian and vehicular induced by surrounding neighbourhood development.
- Change in population demographic within the area. Although not particularly low income residents, residents were found to be young professionals and of mostly Indian (Muslim) and Black populations.
- Increased noise
- Increased commercial activity and nature of commercial activity unsuitable to the existing neighbourhood environment. E.g. nightclubs, car dealerships.
- A 'mini-city' development therefore with all the ill's associated with the CBDs
- A good international precedent: Brazil
  
- In terms of sustainability – Management of the area is an important factor
  - Umhlanga town centre management association
  - Residents pay additional rates for management and maintenance (Urban Improvement precinct (UIP))
  - Development based on 'Broken Window Theory (Guiliani – Mayor of NYC)
  - Social Fragmentation exists
  - Environmental factors – seems unsustainable in the current state in terms of transportation systems – conflict between environmental and transport departments in feasibility of taxi ranks.
  - There is an increased demand for high density development and therefore necessary upgrades to transportation system
  - Low capacity in terms of water and sewerage, electricity and road networks
- Contacts for potential electronic survey to be conducted
- Contacts for potential input from developers at Tongaat Hulette.

- ii. IMPROMPTU INTERVIEW WITH SRCURITY AT MANHATTAN MEWS

**Questions were asked on the following issues in greater detail, a brief summary is provided below:**

Crime in the area – No, Police patrolling and private security

Traffic – Due to construction and residents of development during peak hours

Noise – Quiet during the day

APPENDIX 4: EMAIL CORRESPONDENCE, SAMPLE POPULATION LIST, EXAMPLE QUESTIONNAIRE AND ANALYSIS TEMPLATES


i. CORRESPONDENCE AND LETTER TO COMMUNITY

**Michael**  
To: Kimi Barger <  
Tue, Feb 24, 2015 at 9:13 AM

Hi Kim

That is fine

I can also help you conduct an electronic survey that makes reporting an analysis easier.  
I subscribe to SurveyMonkey so it won't cost you anything.


 **Appendix 1 - Survey Questionnaire\_24 Feb 2015.pdf**  
82K

**Michael**  
To: Kimi Barger <  
Tue, Mar 3, 2015 at 10:10 AM

Ok I will distribute today

Please give me a brief outline regarding your studies and the objective of the survey for my intro letter.

You could draft a letter asking the community for the info that I can use as an introductory covering letter which I will process.

 **[SURVEY PREVIEW MODE] Prestondale Quality of Life , Standard of Living and Lifestyle Survey.mht**  
327K

**From:** Kimi Barger |  
**Sent:** 02 March 2015 09:27 PM

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]


---

**imi Barger** <  
, Michael ,  
Tue, Mar 3, 2015 at 2:14 PM

Hi Michael,  
I have attached the letter. Please feel free to add or omit as you see fit.

Kind Regards,  
Kimi  
[Quoted text hidden]

---

 **draft participation letter\_survey.docx**  
34K



**From:** Kimi Barger  
**Sent:** 06 March 2015 12:02 PM


[Quoted text hidden]


[Quoted text hidden]

[Quoted text hidden]

---

**2 attachments**

 **Responses\_All\_150311.pdf**  
376K

 **Sheet\_1.xls**  
19K

**Michael .**  
To: Kimi Barger <  
Cc: Heinz De Boer <durbanward35

Wed, Mar 11, 2015 at 3:31 PM

**Kimi Barger** <  
To: ' Michael

Tue, Mar 31, 2015 at 12:53 PM

Hi Michael,

Hope all is well,

Would you be able to tell me how many potential respondents the survey link was emailed to for my methodology chapter. Also, how have you used this particular survey instrument in the past, just general).

Kind Regards,  
Kimi

[Quoted text hidden]

---

**Michael .**  
To: Kimi Barger <

Tue, Mar 31, 2015 at 2:30 PM

About 180

I haven't used it for this sort of study before I use it at work quite a lot

3/6/2015

Gmail - Survey Prestondale



**Kimi Barger** <

---

**Survey Prestondale**

**Michael .** | <

Fri, Mar 6, 2015 at 1:16 PM



how can we help you?

Good Morning

Kim Barger asked me to help her do a survey to assist her with her Masters degree in town planning .

Please take a few help Kim with information she requires for her studies. Her letter of request and information and background to this request follows on my mail .

I assure you this is entirely confidential and we will not have any idea who the responses are coming form .

Your assistance is greatly appreciated . Please click on the link below to enter and complete the survey

<https://www.surveymonkey.com/r/MYW93SL>

To see the full legal disclaimer pertaining to this e-mail refer to www.fnb.co.za

Follow us on



Confidential

<https://mail.google.com/mail/u/0/?ui=2&ik=f8acde2d38&view=pt&search=inbox&msg=14beecdad13bdb1b&siml=14beecdad13bdb1b>

1/2

### The Prestondale Community

Dear participant

My name is Kimi Barger, I am a Master of Town and Regional Planning student (Student Number : \_\_\_\_\_ at the University of KwaZulu-Natal (Howard College Campus) conducting research on *Densification as a tool for sustainable housing development* as a requisite in fulfilling course requirements.

The reason for the studies being conducted is to gain insight and practical understanding of the effectiveness of densification being implemented through residential infill projects. This will enable an evaluation of the affordable housing scenario and extent of social integration within the eThekweni Municipality. The study is expected to enroll neighbouring households as participants. Response to the survey will also provide information on existing surrounding community perspectives.

The participation sought is voluntary and respondents are free to withdraw from the study at any stage for any reason. Participants will remain anonymous. The information once used for this research will be stored as per University of KwaZulu-Natal rules and then disposed of.

The study has been ethically reviewed and approved by the UKZN Humanities and Social Science Research Ethics Committee (approval number HSS/1553/014M).

Please feel free to contact me should you have further queries. In the event of any problems or concerns/questions you may contact the researcher at | \_\_\_\_\_ or the academic supervisor Mr L Chipungu at \_\_\_\_\_ or the UKZN Humanities & Social Sciences Research Ethics Committee at \_\_\_\_\_

Sincerely,

ii. LIST OF RESPONDENTS AND SAMPLE OF RESPONSE AS ARRANGED BY SURVEY MONKEY

RespondentID	CollectorI	StartDate	EndDate	IP Address	How Many years have you resided in Prestondale ?
					Open-Ended Response
3816058961	65206962	03/09/201	03/09/201	105.236.61.18	16
3816043790	65206962	03/09/201	03/09/201	105.186.67.213	5
3815866589	65206962	03/09/201	03/09/201	41.162.36.38	17
3815851134	65206962	03/09/201	03/09/201	105.224.18.82	4
3815806184	65206962	03/09/201	03/09/201	197.89.125.108	5
3815154908	65206962	03/08/201	03/08/201	105.226.69.210	20 yrs
3814833395	65206962	03/08/201	03/08/201	105.210.72.47	4
3814279365	65206962	03/07/201	03/07/201	197.88.42.61	10
3814009781	65206962	03/07/201	03/07/201	105.226.88.246	4
3813853986	65206962	03/07/201	03/07/201	105.226.89.91	8
3813208781	65206962	03/06/201	03/06/201	105.229.136.143	5
3812909115	65206962	03/06/201	03/06/201	197.88.28.96	25 years
3812290751	65206962	03/06/201	03/06/201	197.89.54.165	9
3812154108	65206962	03/06/201	03/06/201	105.210.68.103	7
3812099856	65206962	03/06/201	03/06/201	105.210.68.232	1
3812092235	65206962	03/06/201	03/06/201	105.225.115.81	9
3812069118	65206962	03/06/201	03/06/201	105.225.115.241	22
3812038282	65206962	03/06/201	03/06/201	197.89.83.113	20
3811917431	65206962	03/06/201	03/06/201	197.96.163.182	23
3811849440	65206962	03/06/201	03/06/201	197.229.191.175	23
3811822750	65206962	03/06/201	03/06/201	41.13.182.129	2
3811806673	65206962	03/06/201	03/06/201	41.162.7.202	7
3811751181	65206962	03/06/201	03/06/201	197.77.165.224	7
3811743345	65206962	03/06/201	03/06/201	197.77.183.213	7 yrs
3811710931	65206962	03/06/201	03/06/201	41.156.67.31	
3811681670	65206962	03/06/201	03/06/201	41.0.30.21	5
3811645248	65206962	03/06/201	03/06/201	197.88.85.85	20
3811639905	65206962	03/06/201	03/06/201	197.89.116.68	14
3811638711	65206962	03/06/201	03/06/201	105.210.90.211	11 years
3811628070	65206962	03/06/201	03/06/201	196.11.233.80	26
3811612405	65206962	03/06/201	03/06/201	41.0.153.194	0
3811612291	65206962	03/06/201	03/06/201	105.224.237.38	3
3811606594	65206962	03/06/201	03/06/201	41.0.153.244	17 years

iii. SURVEY MONKEY USAGE CONSENT LETTER



SurveyMonkey Inc.  
www.surveymonkey.com

For questions, visit our Help Center  
help.surveymonkey.com

Re: Permission to Conduct Research Using SurveyMonkey

To whom it may concern:

This letter is being produced in response to a request by a student at your institution who wishes to conduct a survey using SurveyMonkey in order to support their research. The student has indicated that they require a letter from SurveyMonkey granting them permission to do this. Please accept this letter as evidence of such permission. Students are permitted to conduct research via the SurveyMonkey platform provided that they abide by our Terms of Use, a copy of which is available on our website.

SurveyMonkey is a self-serve survey platform on which our users can, by themselves, create, deploy and analyze surveys through an online interface. We have users in many different industries who use surveys for many different purposes. One of our most common use cases is students and other types of researchers using our online tools to conduct academic research.

If you have any questions about this letter, please contact us through our Help Center at help.surveymonkey.com.

Sincerely,

SurveyMonkey Inc.

iv. **ONLINE QUESTIONNAIRE**

3/6/2015

Prestondale Quality of Life , Standard of Living and Lifestyle Survey

**Prestondale Quality of Life , Standard of Living and Lifestyle Survey**

**1. How Many years have you resided in Prestondale ?**

**2. How old are you ?**

**3. Race Group**

Black

White

Indian

Coloured

3/6/2015

Prestondale Quality of Life , Standard of Living and Lifestyle Survey

**Prestondale Quality of Life , Standard of Living and Lifestyle Survey**

**4. Nationality**

South African

Other

**5. Gender**

Male

Female

Prev

Next

Powered by **SurveyMonkey**

Check out our [sample surveys](#) and create your own now!

**6. Are you employed?**

Yes

No

**7. Are you employed in the formal or informal sector?**

Formal

Informal

**8. Type of transport?**

Cycle/walk

car

Public Transport

**9. Place of work distance form home in minutes?**

5 Minutes

5 to 10 Minutes

10 to 20 Minutes

Greater than 20 Minutes

**10. Dwelling Type**

Apartment

House

Multiple Unit Dwelling

**11. Type of tenure?**

Rental

Ownership

**12. Number and age distribution in the home.**

Minors ( below 18)

Adult 18 +

Elderly 60+

**13. % of Family income spent on rent and bond repayments?**

Less than 25%

Between 25% and 50%

50%

More than 50%

#### 14. Please complete the following selections

yes

uncertain

no

Are you aware of any affordable housing developments in your area?

If there were plans to have affordable housing in your area would you consider moving?

has your area improved in recent years ?

Has the area deteriorated in recent years?

Do you regard your area as aesthetically attractive?

Are you a member of any community organisations?

Do you participate in community activities?events?

Do you have a good relationship with your neighbours?

Do you make use of public facilities in the area?

Do you feel safe?

have you been a victim of crime in your area?

**15. Please comment on any of the aspects questions raised in the questions above to assist us in gaining a clearer view of these issues.**

**16. Please complete the following choices?**

Strongly agree      Somewhat agree      Somewhat disagree      Strongly Disagree

1. The Government should intervene to help people with affordable housing?

2. Government Housing projects infringe on private owners rights?

3. Having persons of diverse race and culture enhances the neighbourhood?.

4. I prefer having people of a similar economic background to me living in the neighbourhood?

5. People with higher incomes contribute more to society and therefore should

have more say in community decision making?

6. Low income people should be able to choose where they want to live?

7. Bringing low income people into our neighbourhood will cause it to deteriorate?

8.Developing  
Affordable Housing  
in teh area will  
devalue properties?

9.Affordable/Low  
cost hosing  
development  
increases crime  
rates ?

Prev

Done

Powered by **SurveyMonkey**  
Check out our [sample surveys](#) and create your own now!

ps://www.surveymonkey.com/r/MYW93SL

4/4



**v. DATA ANALYSIS TEMPLATE**

**Question set 2**

QUESTION	RESPONSE (No. of espondants/ percentage)		
	Yes	Uncertain	No
1. Aware of any affordable housing developments in the area?	12(41%)	4(14%)	13(45%)
2. If there were plans to have A.H would you consider moving?	8(28%)	7(24%)	14(48%)
3. Has the area improved in recent years?	13(45%)	4(14%)	12(41%)
4. Has the area deteriorated in recent years?	14(48%)	2(7%)	13(45%)
5. Do you regard your area as aesthetically attractive?	20(67%)	3(10%)	7(23%)
6. Are you part of any community organizations? **	11(37%)	1(3%)	18(60%)
7. Do you participate in community activity/events?	13(46%)	-	15(54%)
8. Do you have a good relationship with your neighbors?	25(86%)	2(7%)	2(7%)
9. Do you make use of public facilities in the area?***	9(31%)	1(3%)	19(66%)
10. Do you feel safe?	16(54%)	4(13%)	10(33%)
11. Have you been a victim of crime in the area?	13(43%)	1(3%)	16(54%)

**QUESTION SET 3**

LIKERT SCALE – RESPONSE SCORE SHEET (TEMPLATE)

Perception of Affordable housing development, Social integration, the living environment.

4 = Positive    3 = Somewhat positive    2 = Somewhat Negative    1= Negative

Response option	Score given reflecting response			
	S.A	S.W.A	S.W.D	S.D
Question				
1	4	3	2	1
2	1	2	3	4
3	4	3	2	1
4	1	2	3	4
5	1	2	3	4
6	4	3	2	1
7	1	2	3	4
8	1	2	3	4
9	1	2	3	4

\*S.A – Strongly Agree    S.W.A – Somewhat Agree    S.W.D – Somewhat Disagree    S.D – Somewhat Disagree

APPENDIX 5: WARD COUNCILLOR  
CORRESPONDENCE AND CONSENT

2/19/2015

Gmail - Letter Informing and seeking ward councillor consent



Kimi Barger <

---

**Letter Informing and seeking ward councillor consent**

1 message

---

**Kimi Barger** <

To: durbanward35

Cc: .....@stu.ukzn.ac.za

Wed, Feb 18, 2015 at 5:54 PM

Good day Cllr. de Boer,

I am a final year masters in Town and Regional Planning student at the University of Kwazulu Natal currently undertaking research for the completion of my dissertation. Kindly assist me as per the attached correspondence. Your prompt response would be greatly appreciated.



**Cllr H de Boer\_required consent.pdf**

424K

**durbanward35**

Reply-To: durbanward35

To: Kimi Barger <

Fri, Feb 20, 2015 at 7:51 AM

Morning

I have no objection to you performing the intended research in my ward

Regards

Cllr Heinz de Boer,

Sent from my BlackBerry® wireless device

BY E-MAIL  
18 February 2015

MR HEINZ DE BOER  
WARD COUNCILLOR – WARD NO: 35

Dear Sir

**RE: LETTER INFORMING AND SEEKING CONSENT TO UNDERTAKE HOUSEHOLD SURVEY IN  
UMHLA PRESTONDALE NEIGHBOURHOOD FOR THE PURPOSES OF  
MASTE**

My name is Kimi Barger; I am a Master of Town and Regional Planning student (Student Number ( : ) at the University of KwaZulu-Natal (Howard College Campus) conducting research on *Densification as a tool for sustainable housing development* as a requisite in fulfilling course requirements.

The reason for the studies being conducted is to gain insight and practical understanding of the effectiveness of densification being implemented through infill development projects. This will enable an evaluation of the affordable housing scenario and extent of social integration within the eThekweni Municipality. The study is expected to enrol approximately 50 neighbouring households as participants in a survey.

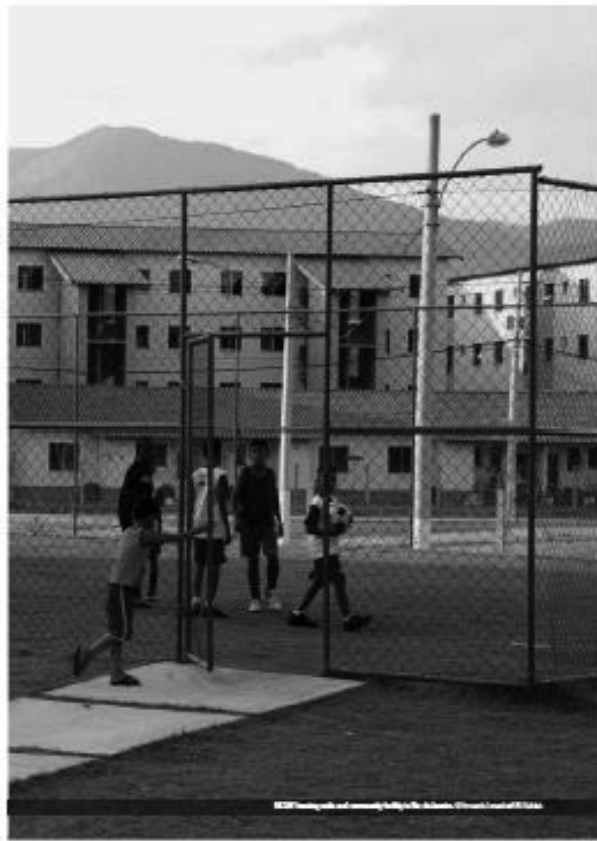
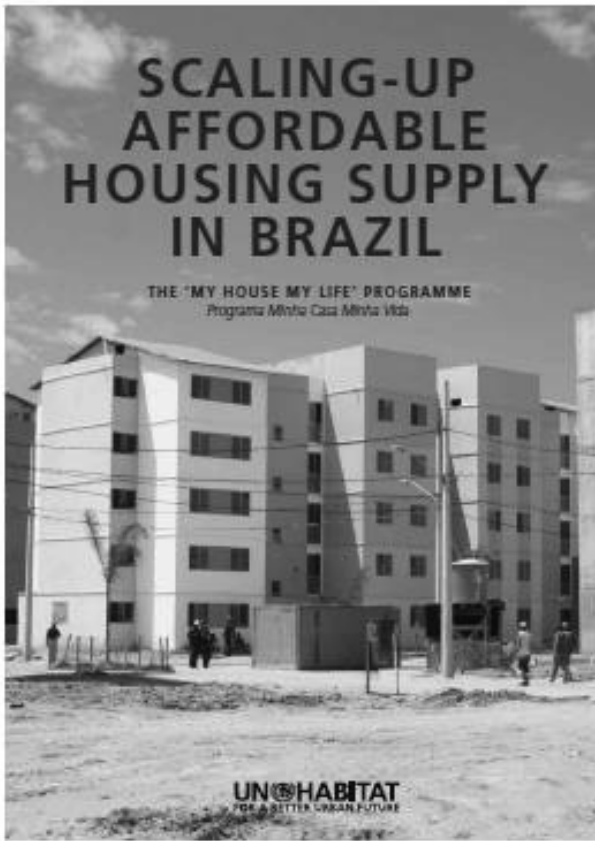
Please note that the participation to be sought from the intended community is voluntary and the respondents would be free to withdraw from the study at any stage for any reason, participants will remain anonymous. The information once used for this research will be stored securely for as per University of KwaZulu-Natal rules and then disposed of.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Science Research Ethics Committee (approval number **HSS/1553/014M**).

**As a requirement of the University I hereby seek your written acknowledgement of and consent to conduct the survey in respect of the above.**

Please feel free to contact me should you have further queries. In the event of any problems or concerns/questions you may contact the researcher at ( : ) or the academic supervisor Mr L Chipungu at ( : ) or the UKZN Humanities & Social Sciences Research Ethics Committee at ( : ) or (Tel: : )

Yours Sincerely,  
Ms Kimi Barger





Ad 1.

**Manhattan Mews brand new 2 bedroom - Showstopper unit in Umhlanga Ridge for rental**

R 8,700



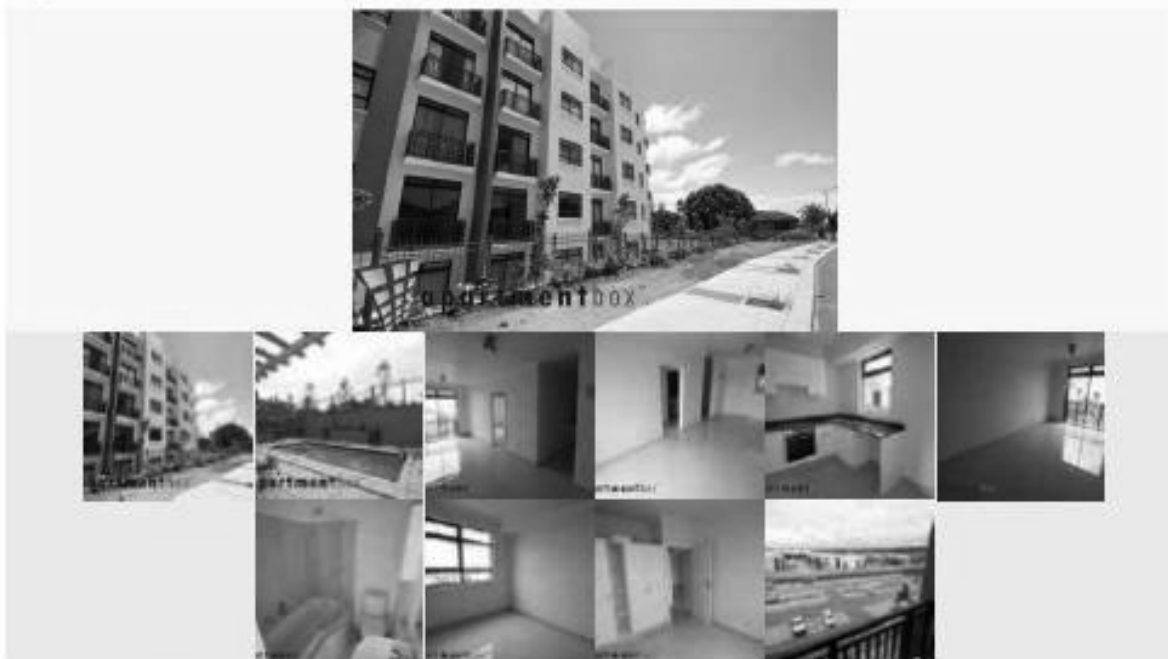
- Date Listed 07/05/2015
- Location Umhlanga, North Suburbs
- For Rent By **Owner**
- Available From 2015/5/12
- Dwelling Type Apartment
- Bedrooms (#) **2 bedrooms**
- Bathrooms (#) **1 bathroom**
- Furnished **No**

The apartment boasts an array of modern features including porcelain tiled floors, Hansgrohe bathroom fittings and granite tops in the kitchen and comprises two bedrooms, one bathroom, an open plan living area with integrated kitchen and OUTDOOR Living space. The open plan living area provides space for both lounge and dining suites, with sliding doors opening onto the outdoor living area. Both bedrooms have built in cupboards and a modern bathroom. The apartment is brand new. The bonus of this unit is it is on the ground floor which gives you more outdoor living space as well as extra light into the unit given its corner location. It is the showstopper unit of the complex. This new development is situated in the bustling Umhlanga Ridge New Town Centre within walking distance of Gateway Shopping Centre and Chris Saunders Park. The development offers 24 hour security and controlled access, as well as three communal pools, club houses and braai areas, and an on-site laundry.

<http://www.gumtree.co.za/a-rentals-offered/umhlanga/manhattan-mews-brand-new-2-bedroom+showstopper-unit-in-umhlanga-ridge-for-rental/1001277671390910036525009>

**One Bedroom Manhattan Mews**

R 6,500



- Date Listed 18/05/2015
- Location  
Umhlanga, North Suburbs
- For Rent By Agency
- Available From 2015/6/1
- Dwelling Type Apartment
- Bedrooms (#) 1 bedroom
- Bathrooms (#) 1 bathroom
- Parking Covered
- Furnished No
- Smoking No
- Pet Friendly No

This modern one bedroom apartment is situated within a brand new development located in the popular Umhlanga Ridge Mew Town Centre. The fully secured development is within walking distance of Gateway Shopping Centre and Chris Saunders Park and boasts three communal pools, club houses and braai areas, as well as its own on-site laundry. The apartment boasts an array of modern fittings, including porcelain tiled floors, Hansgrohe bathroom fittings and granite tops in the kitchen, and comprises one bedroom, one bathroom, an open plan living area, kitchen and balcony. The living area spans the length of the apartment and provides plenty of space for both a lounge and dining suite and has a sliding door opening onto the balcony. The kitchen is neat with granite tops and built in units, as well as a Bosch oven, hob and extractor and room for all mod-cons. The bedroom boasts built in cupboards while the modern bathroom is fitted with an all in one bath and shower suite. A single secure parking bay is reserved for the residents of the apartment, which will be completed and available for rent with immediate effect, unfurnished.

<http://www.gumtree.co.za/a-rentals-offered/umhlanga/one-bedroom-manhattan-mews/1001281955370910004431809>

**Lovely self-catering Apartment -short term and holidays**  
 Negotiable



Date Listed 11/05/2015

Location

Umhlanga, North Suburbs

For Rent By **Owner**

Available From 2015/5/19

Dwelling Type **Apartment**

Bedrooms (#) **1 bedroom**

Bathrooms (#) **1 bathroom**

Furnished **Yes**

Smoking **No**

Pet Friendly **No**

Lovely self-catering apartment available for holiday bookings. and short term renting will to take up to 6 months , Spacious apartment featuring 1 bedroom, bathroom with shower, fully fitted self catering kitchen with large lounge area - open plan leading to garden. Apartment is on the ground, security access to the building and secure parking available. Dstv connected - Bring your own card Located at Manhattan mews Umhlanga Ridge close proximity to Gateway shopping Center - 10 minute walk away. 5 min drive Peak Rates: December/Easter - R1100 a night Off Peak Rates: R700 a night week nights Mon to Thursday R500.00 Contact Athisha on mobile 083\*\*\*\*\*

<http://www.qumtree.co.za/a-rentals-offered/umhlanga/lovely-self+catering-apartment--short-term-and-holidays/1001279130210910181655709>





29 January 2015

Ms Kimi Ramonia Barger 208513528  
School of Built Environment and Development Studies  
Howard College Campus

Protocol reference number: HSS/1553/014M

Project title: **Densification as a tool for sustainable housing development: Case studies of Umhlanga and Phoenix infill in the eThekweni Municipality.**

Dear Ms Barger

**Expedited Approval**

In response to your application dated 14 October 2014, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.**

**Please note: Research data should be securely stored in the discipline/department for a period of 5 years.**

**The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.**

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)

/px

cc Supervisor: Mr L Chipungu  
cc Academic Leader Research: Professor MP Sithole  
cc School Administrator: Mrs Meera Dalthaman

Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za) / [snymanm@ukzn.ac.za](mailto:snymanm@ukzn.ac.za) / [mohuno@ukzn.ac.za](mailto:mohuno@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville