

Moving Towards a Design Approach to Low-income Housing in Urban Cape Town: The case of Joe Slovo Park

Nisa Mammon

BSocSci (Hons) MCRP (UCT)

Kathryn Ewing

BAS (UCT) BArch (UCT) PhD (Glasgow)

NM & Associates Planners and Designers, Cape Town, South Africa
e-mail: nisa@visionplan.co.za or katie@visionplan.co.za

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Abstract

The housing debate is by no means a novel phenomenon. Low-income housing and informal settlements have been hotly debated in the past four decades on international ground [1]. However, the urgency of the basic need for shelter and the plight of the urban poor cannot be ignored in the current inadequate housing response, continual overcrowding and growing number of informal settlements in Cape Town, South Africa. This paper seeks to present an Urban Design Framework (UDF) for Joe Slovo, one of the N2 Housing Gateway Projects. The argument examines appropriate design responses for low-income housing. Housing is not seen in isolation from the complex layers of urban society [2], but rather as an integral component to the totality of settlement. A key concern is that housing cannot be considered in isolation of other fundamental urban imperatives, including land, capital, financial resources, technology, transport, communication systems, people and energy. Access to these vital resources can generate substantial economic opportunity, innovation and income growth. Although the initial spatial approach takes a sensitive and holistic viewpoint towards housing environments, a major downfall within the project is the lack of participation with the beneficiaries and surrounding communities in the planning and design process, combined with a top-down approach to deliver 'numbers' of 'housing units' within a very tight time frame. We emphasise that this is directly opposed to a more value-based approach to making human settlements.

1 Introduction and Background

Lucien le Grange Architects and Urban Planners and NM & Associates Planners and Designers were appointed in association by the City of Cape Town (CoCT) in January 2005 to prepare an UDF for the establishment of Joe Slovo Park [3], as part of the N2 Gateway Projects actively supported by the three tiers of government - national, provincial and local. The CoCT is the landowner of the properties in question.

The brief required that the Framework for the site provide for medium density residential development and allow for a mix of land uses within an integrated urban environment. This was in line with a new approach to housing delivery in South Africa which seeks to address the fundamental mismatch between delivery and development in the urban environment in terms of the Breaking New Ground Policy [4]. This policy is a comprehensive and approved housing delivery policy programme which acknowledges the need to see housing as an instrument to spatial restructuring by creating sustainable human settlement.

The design strategy focuses on the role of the site as a significant public environment for positive functioning and sustainability within the local context of Langa and the Cape Town Metropole. The housing units proposed for Joe Slovo form an integrated component of the UDF. The quality of public space is inclusive of edges, paths, landmarks, platforms, pedestrian zones, trees and landscaping, community gathering points and facilities as positive public elements. It is important to note that the existing informal settlement patterns provide significant spatial clues that assist the design approach to the UDF. A further contextual informant to design is the CoCT's existing housing infill programme, which challenges the typical hostel typology through an urban intervention that addresses a public spatial structure, diversity in scale and positive interface conditions.

Housing helps to form a positive spatial structure in relation to the public spaces and internal residential courts that it creates. One of the intentions of the Joe Slovo housing typologies was to expand the diversity of form and density of the housing units around internal courts and activity routes. The use of different units allow for variation which was not previously provided for in the original hostel developments of Langa. The flexibility of the layout of the housing units, both horizontally and vertically, allow for the possibilities of current recommended rental housing to one of freehold title, sectional title or group ownership over time. However, the topics of incremental growth and tenure options need further investigation with the future of housing and most importantly with the beneficiaries of Joe Slovo, particularly because the South African housing subsidy regime is limited in promoting a variety of tenure forms.

The paper is divided into three integrated parts. Firstly, a context for the housing debate is provided; secondly the design principles and proposals for Joe Slovo Park are conveyed; and thirdly we discuss the components of the urban layout for Joe Slovo.

2 The Context for the Housing Debate

2.1 The broader context of Housing in Cape Town

There are presently approximately 800 000 households in Cape Town. Of these, about 265 000 are said to be in need of adequate housing. The rate of subsidised housing has been inadequate to respond to this need as well as to the new households that are forming as a result of in-migration and population growth, the majority of whom are poor. As a result, the number of informal shacks has grown significantly, increasing from 28 300 in 1993, to 59 854 in 1996, to more than 100 000 in 2004 [5].

In addition to overwhelming backlogs, inadequate housing provision and resource inefficiencies, the modernist approach to planning adopted after the second world-war reinforced the strategy of apartheid to:

- Separate and divide the city and its land uses into racially-divided group areas;
- Create discreet pockets of land uses and mono-functional housing estates, especially in the south east sector of Cape Town; and
- Use planning standards based on quantity, not quality that sought to create suburban instead of urban environments.

As a result, housing and public facilities provision has up until now largely only been dealt with through formulae that deal with the issue of integrated human settlements at a very superficial level. Modernism is still very much the underlying driving force behind current day planning practices. In this paradigm there is an overriding focus on numbers as a fundamental underpinning of making 'successful' settlements, whether they are integrated, humane and sustainable or not. As a result of spatial and racial segregation, fragmentation and polarisation, Cape Town still experiences a significant degree of "spatial division of the city into zones of relative advantage and disadvantage which are now perhaps defined increasingly in terms

of the categories of socio-economic status or class rather than those of “population group” or ethnicity which predominated in the apartheid era” [6].

Location is a key element in respect of creating advantage for the poor. Against this background, it is important to point out that Joe Slovo is well located to existing agglomerations of urban opportunities, especially to the larger employment centres such as Epping Industria and accessible to the CBD of Cape Town. It is relatively well connected to the region, via Vanguard Drive, one of Cape Town’s major north-south linkages. It is therefore crucial to optimise the opportunity of Joe Slovo’s locational value. The proposed development should reinforce design principles to allow Joe Slovo to generate a well-performing and integrated urban environment rather than producing the maximum number of housing units required, as has been delivered in the past. Integrated human settlements should ideally be based on a vision and ideas that consider the whole as the sum of its parts, ensuring that the context and its people transform into humanely – performing environments that add value to society at all levels, the region, the city, the neighbourhood and the household.

While there is a need for all sectors to respond as best they can in a context of limited resources, it is recognised that having shelter, a place to live – a roof over one’s head is a right and an opportunity. Shelter or a home must however not only provide protection and comfort but also value to begin to access the other elements of sustainable livelihood. Value is considered as income possibilities and inclusiveness as part of building sustainable communities. It is about restoring dignity and human capabilities to reach the heights people are competent of [7].

2.2 The contextual environment of Joe Slovo Park, Langa

Joe Slovo Park forms one of the recently announced housing pilot projects in South Africa, being considered the key focus of the N2 Gateway Proposal. The N2 Corridor is a key regional and metropolitan focus that warrants public investment to continue its economic and regional access role.

Joe Slovo Park is located on the southern and eastern periphery of the oldest established (township) local area of Langa. It is bounded by Bunga Avenue to the west, the fast flowing regional mobility route of the N2 to the south, separated by the polluted Jakkelsvlei Canal, and the heavy vehicular Vanguard Drive to the east. The N2 freeway is spatially divisive presenting a particular challenge to knit the surrounding communities from an urban restructuring and integration point of view.

Langa was established in the 1920’s to absorb the influx of people primarily from the Eastern Cape who could not be located within the Ndabeni, Cape Town area designated for Africans at the time. Against the resistance from the people to be located in the new township of Langa, the authorities forced people to live in this ‘location’ in terms of the Natives (Urban Areas) Act of 1923. By 1935 family housing and hostels were developed along Washington Drive as the main street.

Within Langa there is a variety of housing types including single-storey free standing formal middle-income housing, backyard or free-standing shacks, 1 to 4 storey hostels and single storey row housing units. The 4-storey hostels are a historical memory of the past, which are associated with immense social and cultural problems of overcrowding, one access point, poorly maintained infrastructure and under-utilised space between the buildings. The different existing housing typologies accommodate a range of income groups, although the temporary nature of the hostels, informal settlement and backyard shack dwellers creates a transitory sense of belonging to Langa.

Joe Slovo is a relatively recent settlement. It is densely populated and fraught with the social pathologies and energy-related fires typical of informal settlements in Cape Town. It is well known that Joe Slovo has experienced fires frequently over the last few years and very recently (January 2005) a large fire in which

12 000 people lost their homes. The population of Joe Slovo is very young, and require access to cultural, social, recreational, economic and educational opportunities. The majority of residents are presently unemployed, or underemployed, undereducated and living below the Household Subsistence Level (HSL). Most of the population is living in fewer than two rooms per family. It is therefore important that sufficient and usable outdoor spaces and streets are provided to bring relief to tight indoor living. This places an obligation on the part of city planners and designers to ensure that various flexible housing typologies relate to open communal areas that are catered for in a sustainable manner.

3 The Role of Design in Low-income Housing

3.1 Over-arching Planning and Design Principles

Turner [8] argued in the 1970's, "Conventionally defined housing problems, stated in terms of quantitative deficits, arrived at by applying physical standards, concentrate attention on end products and simultaneously divert attention from deficiencies in the housing process itself." Little seems to have changed in the housing sphere in the past 10 years in South Africa where there is still a mismatch between the peoples' needs and desires and the delivery process. This disparity was currently revealed in the protests and unrest experienced in Cape Town by back-yard shack dwellers and people living in poverty [9]. Against the housing context of Cape Town we believe that it is worth re-creating approaches to human settlement making that begins to form a strong value-based perspective. In this regard, the following principles were informed by considerations at various scales i.e. from the city scale to Langa local area to Joe Slovo.

The overarching principle is the creation of the *Compact City*. The idea of the compact city is fundamental to mitigate the problems of inefficiency and fragmentation associated with the continued provision of single detached housing and site and service housing schemes, including the lack of positive public spaces, interfaces and private thresholds as the primary form of social and public investment for residential areas. The vision for the Compact City at the scale of the whole is:

- *A socially just city* where justice, food, shelter, education, health and hope are distributed fairly and equally and where peoples' most basic needs are heard, understood, articulated in government, responded to and met so as to raise the capabilities of society to maximum levels, focusing directly on the poorer sectors as a priority.
- *An integrated compact city* where access and proximity to the essential goods and services, including emergency services, information and people, is had with ease and safety especially for movement on foot.
- *A diverse democratic city* where a broad range of people with overlapping interests, cultures and activities come together and part on a regular basis in the spaces and places that promote public interest, public debate and public life.

Change and Growth over Time is concerned with the dynamic nature of communities and incremental step by step growth over the short to medium term. It takes account of the mobile nature of communities entering urban areas for the first time, and seeking accommodation either with family or to rent. This could serve as additional income generating opportunities, thus requiring flexibility in design to provide for a number of accommodation alternatives. At the same time, it hints toward a minimalist approach to design that can begin to provide the urban structure that people can respond to in terms of appropriating space.

Balance and Equity refer to finding the mean between excess and insufficiency in respect of the spatial constitution of the city and ensuring equitable access to resources and opportunities. They promote the idea of structural distribution or urban restructuring to ensure that those parts of the city that are under-performing in terms of providing citizens choice to fulfil their most basic needs, are adequately responded to.

The key principle informing design at the scale of the local area is *Urban Continuity and Integration*. This principle mitigates against the discontinuous, vehicle-based approach to urban planning and design in the modernist paradigm. The principle promotes the idea of nodes (urban generators) and links focused on public and non-motorised transport (NMT) movement to clusters of social and economic opportunity, transport interchanges, and residential fabric within the established local area as well as the city.

Diversity of Urban Fabric and Housing Form relates to the site scale. It mitigates against the low density, mono-functional suburban sprawl typical of the low-income housing estate. There is a need to explore the range of housing typologies i.e. self-help walk-up units, multiple dwelling units, courtyard housing, group housing, infill opportunities through densification. Options for a range of forms and types of procurement and tenure choices should be promoted at this scale. Moreover, typologies should include possibilities for employment and trade. The emphasis of this principle on housing choice is crucial to establish a level of autonomy for the prospective community. This must encompass grassroots imagination and other role-players' sensitivity to enable dynamic urban settings to be created.

In our view, these principles contribute to a value-based frame to achieve a sustainable human settlement across the scales.

3.2 The Design Proposal for Joe Slovo Park

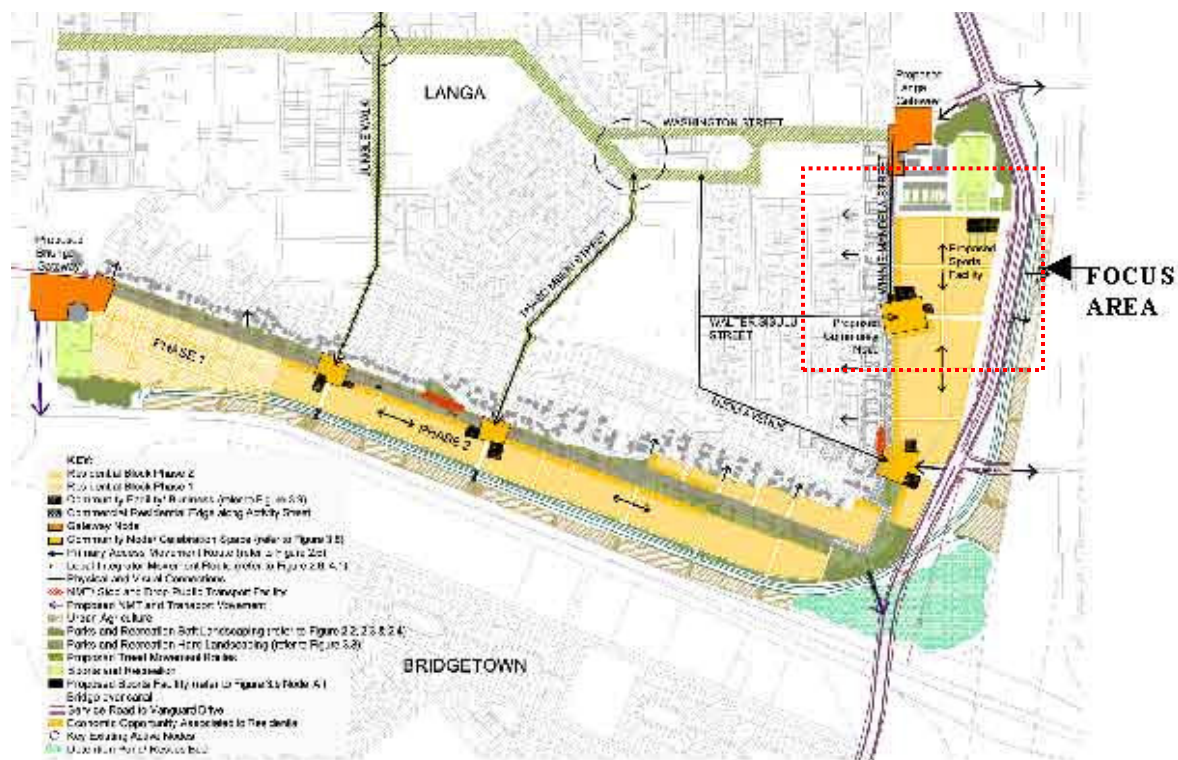


Figure 1: Urban Design Framework for Joe Slovo Park

In designing urban environments for low-income settlements, the fundamental principles discussed above help inform and reinforce the potential of a spatial structure, which in turn leads to a Conceptual Urban Design Framework (UDF). The UDF for Joe Slovo aims to achieve integrated mixed-use development parcels that help to create a sense of social and cultural place, commercial viability, local identity, environmental harmony and functional efficiency. The urban structure refers to the arrangements of different spatial components such as development blocks, streets, buildings and open spaces that constitute a well performing urban environment. Positive amalgamations of various public and private components of the

urban structure generate dynamic spatial networks and sustainable community neighbourhoods that support a range of socio-economic activities. Therefore, the focus is rather on the collective environments than isolated residential dwellings.

The following elements are developed to inform the design of Joe Slovo UDF.

- *Landscape and green network:* The provision of landscaping should compliment the residential block and movement framework with a view to connecting public spaces. The elements that form a landscape network include open spaces, movement corridors, parks, urban agriculture, community squares and residential streets.
- *Public place, building form and scale:* Higher order public spaces allow for more commercial, mixed-use developments for small-scale enterprises and home-based income generating options. Smaller residential courts provide a sense of safety with stairs accessing these spaces, people hanging washing, children playing and adequate lighting, therefore providing a level of surveillance, combined with a positive interface condition to the public spaces.
- *Hierarchy and movement framework:* the movement framework concerns the structural aspects of movement routes. The primary emphasis within low-income areas is on a safe and sustainable non-motorised transportation and an adequate public transport system, which seeks to provide a maximum choice for how people move between destination points. Different scales of street widths assist the overall design of the movement structure, for example, 6m to 8m road reserves serve a predominantly pedestrian or low order movement route in a residential area, whereas 10m and 12m road reserves allow for increased public transport and private vehicular mobility as well as generous side walks for NMT. The 20m road reserve serves a main activity function through residential areas mainly associated with commercial enterprises or clusters of facilities.
- *Urban Blocks:* The development of the block varies in dimension due to surrounding local conditions. Differing street configurations, plot subdivisions and building types change the block module. The block dimensions are generally based on a comfortable walking distance between streets, for example a large block is based on a 90m x 90m module, although this dimension varies due to site constraints and opportunities. The average gross density of an urban block is approximately 129 dwelling units per hectare¹ (du's / ha), which creates sufficient thresholds for a viable human settlement.
- *Development parcels and plots:* The desired housing typologies, mixed use possibilities, massing of houses and form of tenure / ownership generally inform particular parcels of development. There is also a key structuring role for community / economic nodes to initiate development parcels onto which the residential fabric would clip.
- *A mix of land uses:* Communities benefit from a range of educational, health, recreational, civic and commercial uses, which are carefully and conveniently located close to residential areas by way of safe movement routes. In addition, residential units allow for a mix of living and working possibilities including home industries especially along the main activity routes.
- *Climate, energy and resource efficiency:* Appropriate building orientation in low-income housing is important to maximise the efficient functioning of individual housing units, urban courts, spaces and urban blocks. The issue of water control is also fundamental to understand and design appropriately for potential flooding, drought and water recycling. Landscaping is suggested as a means of protection from the elements. Heights of buildings not only allow for maximum sunlight to inner courts but also play an important role in climate control and protection.

¹Langa currently has a population density of 564 people per hectare which translates to 141 dwelling units per hectare at 4 people per dwelling unit. To be consistent, densities of any new developments such as Joe Slovo Park upgrade should conform to this trend.

3.3 The Components of the Urban Layout for Joe Slovo



Figure 2: Detailed public spatial structure



Figure 3: Blocks, internal courts and nodes

Figure 2 illustrates the proposed conceptual public structure for a focus area on the north eastern boundary of Joe Slovo Park. A clearly defined open space network, which can be seen in Figure 3, allow for residential units to actively engage with the internal courts and proposed small-scale facilities. A proposed community node and associated facilities form a core social gathering space, offering economic opportunities and a positive residential interface. The urban blocks are structured as to maximise the 90m x 90m module, but allow for adequate movement routes and quality public spaces.

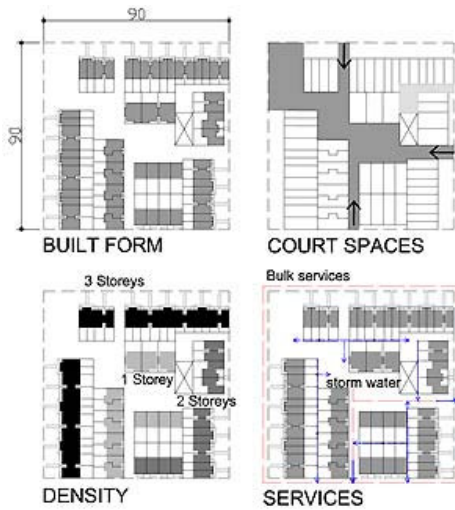


Figure 4: Typical 90m x 90m block

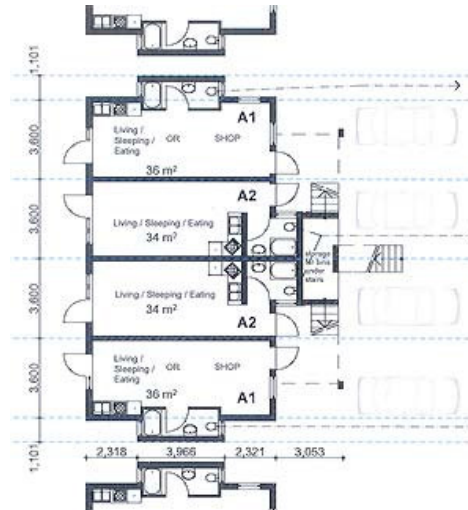


Figure 5: Type 'A' housing typology

The typical 90m x 90m block also allows for a flexible variant in relation to the site conditions and nature of housing. Each internal court relates to a community facility or possible economic opportunity. Careful design consideration has been given to appropriate servicing for the block to each residential unit. There is a range of seven housing typologies proposed. These typologies provide a varied sense of scale and massing to the settlement. A mixture of unit types allows for the beneficiaries to develop their own sense of identity and belonging to each unit and in essence different public courts. Although not all the typologies are represented in this paper, we emphasise that diversity of housing types can respond to varied demands.

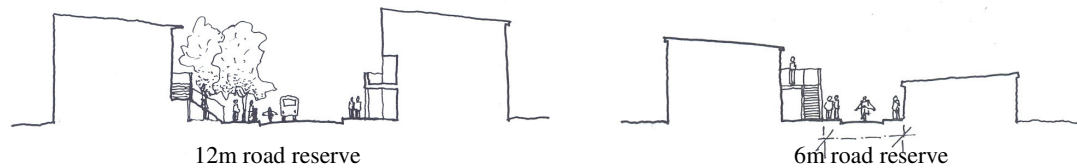


Figure 6: Street interface conditions on 12m and 6m movement routes

Street widths vary from 6m to 8m, 10m, 12m and 20m. The residential units provide active frontages to these streets, the edges of which are animated by the provision of regular entrances, openings, narrow frontages, balconies, stairs and the articulation of facades. This allows for clearly defined transitory zones between the public, semi-public and private domains. Although the combinations and variety of components are more complex than portrayed in this paper, the principle aim was to illustrate a sustainable Urban Design Framework for Joe Slovo Park.

4 Conclusion

This paper argued for a value-based approach to be re-introduced as a more positive direction for the planning and design of local areas, and in particular housing for the urban poor than the modernist planning paradigm. We demonstrated that housing can assist to form a positive spatial structure in relation to the public spaces and internal residential courts that it creates, in addition to creating the larger public spatial realm informed by a set of values and principles that assist to provide appropriate densities and scale of integrated development. As we write, implementation of Phase 1 of Joe Slovo Park is taking place with limited regard for the value-based ideas and concepts that were established in this UDF. This is happening for various reasons, including the focus on achieving much greater densities than proposed.

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