'GO! DURBAN’ AS A CATALYST FOR DEVELOPMENT, AS MEANS OF INTEGRATING MIGRANT WORKERS AND THE CITY.

A Mixed Use Inter-Modal Transport Hub for Durban.

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2016

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the NRF.
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DECLARATION

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. This document is submitted in partial fulfilment of the requirements for the degree of Masters in Architecture at the Faculty of Social Studies and the Built Environment, University of Kwa-Zulu Natal, Durban, South Africa. None of the work has been previously submitted for any degree or examination in any other University.

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DEDICATION

This document is dedicated to MY PARENTS without your continual support and belief I would not have got here. Furthermore thank you for providing me with a conducive work environment regardless of my (often ridiculous) demands; always being there for me even when that meant giving me a wide berth, you always knew what was required, without me saying a word.

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ABSTRACT

This study stemmed from the high transport cost experienced by migrant workers who commute from the periphery to the city on a daily basis for work. This problem is a result of a combination of modern and apartheid city planning. The cost of the commute usually makes up the majority of the salary of a migrant worker and requires them to spend lengthy periods in transit due to inefficient systems.

This dissertation aims to address the high costs faced by migrant workers in commuting on a daily basis to and from the City. It intends to use the GO! Durban Proposal as a catalyst for urban regeneration in an attempt to achieve meaningful integration of marginalised individuals living on the periphery, with the city.

The theory explored is that of “Right to the City” by Henri Lefebvre and its progression into Social and Spatial Justice with a focus on the works of Peter Marcuse, David Harvey and Edward Soja. The theory provides new perspective to the research problem suggesting that in order for integration to occur migrant workers need to be provided with the opportunity to participate in their city and shape the spaces which they occupy, along with being granted permanent access as opposed to the current visitation right experienced by migrant workers.

The research has guided the architectural design of a mixed-use intermodal transport hub for Durban city center which will incorporate the activities and systems which exist on site while providing infrastructure to facilitate the GO! Durban transport proposal. This provides the opportunity for top down development to meant bottom up activism in order to create a space in the city which accelerates the integration of migrant workers and the city.
DEFINITION OF TERMS

Migrant Workers- People who have moved from rural areas to an urban environment in order to find employment. This pertains to individuals who have been forced to reside on the periphery and commute into the city on a daily basis due to socio-economic reasons.

Public Transport- A service provided or subsidised by the state to facilitate the commute of people in and around the city. A low tariff service aimed toward the lower rungs of the economic ladder of society.

GO! Durban- Transport system proposed for Durban upon which implementation has begun. The system is composed of a Bus Rapid Transport (BRT) system as well as a rail link and a feeder system which will be services by mini bus taxis.

Gentrification- To renovate a house or district to meet middle-class taster. In this dissertation it refers to the inability for the urban poor to remain in convenient locations in close proximity to resources due to the land value being increased and made unaffordable as it becomes attractive to the middle-class.

Typology- Refers to a Building type for example a house, school or religious building.

Spatial Disparity- Difference in terms of distance between the periphery and the city center

Periphery- The outer limits or edge of an area. The less important part of a subject or group. This refers to the settlements which have formed on the outer edge of our cities and are treated with less importance due to their informality.
Marginalised- To make a person or group feel less important or powerful. This refers to the urban poor who have less influence in a capitalist economy in the absence of social justice.

Justice- The quality of being fair and reasonable. To treat someone or something with due fairness.

Social Justice- To provide equal rights to those who have less power as those with economic and social power.

Spatial Justice- To design spaces that allow equal right for marginalised individuals to participate in them as powerful individuals.

Sustainable- Ability to be sustained. To create a system that allows for continued success through growth and adaptation.

Development- A new stage in a changing situation. An area of land with new buildings on it. The new stage refers to the current frame in time of the changing environment of our cities. This dissertation refers to the development of our city and how the current built form can be developed in order to cater to the changing needs of the users.

Regeneration- To bring new life or strength. This dissertation refers to the regeneration of the city as means of bringing it back to life to suit the new needs of the users thereby strengthening the relevance of the built forms.

Constant Flux- Continuous change.

Bottom Up- A means of development that starts on the ground incorporating the users in the design process to ensure the end product caters to their needs.
**Top Down** - A means of development that is run by powerful individuals removed from the problems experienced on the ground.
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"An advanced city is not one where even the poor use cars, but rather one where even the rich use public transport," - Enrique Peñalosa
INTRODUCTION

This chapter contextualises the topic by providing a brief background to the research. It presents the aims, objectives and key questions to be explored by the research, as well as laying out the approach taken in terms of the gathering of information. The conceptual and theoretical frameworks will be outlined to later be explored in depth. This will provide an understanding of the processes undertaken in the construction of the argument. The research problem and hypothesis will be stated, providing the direction of investigation for this dissertation to follow. The chapter will then conclude with the suggestion of a design idea which will continue to develop throughout the dissertation.
1.1 RESEARCH BACKGROUND

1.1.1 INTRODUCTION

With the declining conditions in rural South Africa, which result in increased numbers of migrant workers moving away from rural areas towards our cities, it has become vital that we plan our infrastructure in a manner that takes cognisance of the impact it has on both the flow of people entering our cities as well as the way users interact with and traverse our cities.

One such proposed infrastructure plan is the implementation of Go! Durban. Go! Durban is a Transport infrastructure plan proposed by the eThekwini Municipality, the objective of the development is to link the marginalised individuals living on the periphery to each other, as well as to the city center through efficient and affordable public transport. Go! Durban will be further explored in Chapter 2.2 of this dissertation.

This Dissertation seeks to make use of the development of Go! Durban as a catalyst for Urban Regeneration within Durban’s deteriorating city center. The purpose of this regeneration is to compliment the short term access to the city granted by public transport with medium to long term access to the city for the marginalised urban community who were previously forced to the periphery. The link between infrastructure development and land values will be explored in order to validate the catalytic properties of the GO! Durban proposal.
1.1.2 MOTIVATION / JUSTIFICATION OF THE STUDY

In the South African Context, with large numbers of people living in poverty on the periphery of our cities that are, forced to commute to and from work on a daily basis, it is becoming increasingly relevant to address the issues we have with access to our cities. People who make use of our public transport face issues such as inefficiency, discomfort due to poor maintenance and lack of cleanliness, as well as unaffordability. As a result of poor city planning, historical and socio-economic conditions, the urban poor have become marginalised and forced to live on the periphery as they cannot afford land within the city (Guiliano, 1995). We are thus in a situation where these marginalised individuals are forced to spend the most in order to get to and from work and other amenities and services.

The cost of transport for the marginalised sector of the urban population is not just a matter of rand value, but also involves time and often comes at a cost to the family unit. With parents often having to leave home before their children have woken up and returning home after they have had dinner, it results in children having to take on the household responsibilities of their parents and often look after younger siblings. This lack of household structure often leads to children joining gangs as this provides them with a sense of belonging and safety that their families fail to provide. (Cross, 2001)
Public Transport therefore becomes an important aspect of infrastructure as it is a way not only to afford people access to the city but provides a platform for development which grants people living on the periphery the opportunity to be integrated into the community of the city. Through efficient public transport we can save both time and money, providing the opportunity for these marginalised communities to improve their socio-economic circumstance.

This study makes use of the proposed GO! Durban Transport system as a platform from which to develop the city of Durban in a manner which facilitates the betterment of socio-economic circumstance of the aforementioned marginalised communities.

Figure 5- Reduced Time = Reduced Distance. Source: Authors own
1.2 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.2.1 DEFINITION OF THE PROBLEM

Due to urbanisation’s direct link to capitalism, the city centre has developed to become as profitable as possible. This ambition of profitability combined with the efficient ideals of modernisation resulted in the separation of functions. (Harvey, 2012) Apartheid legislature took this separation a step further, preventing black South Africans from owning land in the cities which has resulted in an economically segregated population (Posel, 2004). Even after the abolition of apartheid, as a result of gentrification and inflated property prices, migrant workers have been marginalised and forced to settle on the periphery (Nuttall & Mbembe, 2007).

The distance from the periphery or living environment to the city or work environment, combined with a poor public transport system results in marginalised individuals paying a large portion of their wages in order to commute to and from work.

Efficient and affordable public transport acts as part of an immediate solution which grants marginalised individuals visiting rights to the city (Marcuse, 2009). This dissertation explores the possibility of using public transport as a catalyst for development in a manner that grants an unrestricted right to the city to previously marginalised individuals.
1.2.2 AIM

This dissertation aims to address the high cost migrant workers face in commuting on a daily basis to and from the City. It intends to use the GO! Durban Proposal as a catalyst for urban regeneration in an attempt to achieve meaningful integration of marginalised individuals living on the periphery, with the city.

1.2.3 OBJECTIVES

Public Transport has been neglected by local government in the city of Durban; as a result, users have been forced to face many hardships when trying to utilize the transport services on offer. The Municipality has, however, recognised this and proposed a transport infrastructure plan called Go! Durban. This Dissertation seeks to understand the role public transport can play in encouraging development and thereby reducing the hardships faced by migrant workers in accessing the city.

Building on the visitation right granted by access to good public transport systems, this dissertation seeks to explore methods of providing more permanent unrestricted access and participatory rights to the city, for marginalised individuals.

Durban’s inner city has been deteriorating at an alarming rate; this is mainly due to the shift of large corporate headquarters away from the city and toward the sub-centres on the outskirts. It can thus be said that the function of the inner city has evolved; this dissertation therefore seeks to explore ways in which urban regeneration can be used as a tool to help the city adapt to its current conditions and cater to the new needs of its inhabitants.
1.3 SETTING OUT THE SCOPE

1.3.1 DELIMITATION OF THE RESEARCH PROBLEM

The Researcher understands the full scope of the research cannot be covered by this dissertation. The focus will rest on the integration of migrant workers and the city and the effect that GO! Durban as a transport system can have on the development of the city of Durban. The research will be limited to its specific context and therefore cannot be used as a General solution to a nationwide problem. There is, however, the possibility of a typology which stems from the research being used as a model to be adapted to similar cities.

1.3.2 STATING THE ASSUMPTIONS

This dissertation assumes that through a combination of Apartheid city planning and legislature, modernisation, capitalism and globalisation- the development of the city of Durban has resulted in the urban poor being marginalised to the periphery of the city and forced to spend large portions of their salaries to commute to and from the city for work and to gain access to amenities which do not exist on the periphery.

Due to our capital driven society, the disparity between rich and poor continues to grow not only economically, but spatially as well. Efficient and affordable public transport can reduce this spatial disparity by providing a link from the periphery to the city that will allow migrant workers ease of access to work and amenities. It is also assumed that the implementation of Go! Durban will be successful and go ahead as planned. As the proposed catalyst for urban regeneration, it is vital to the research that this transport infrastructure component is successful.
1.3.3 HYPOTHESIS

By utilising the short term solution to the research problem, of connecting migrant workers to the city through efficient and affordable public transport, as a catalyst the number of people entering the city will increase. The increase in users will stimulate development which if done correctly, providing affordable housing and economic opportunities, will create the platform for migrant workers to meaningfully integrate with the city of Durban.
1.3.4 KEY QUESTIONS

1.3.4.1 MAIN QUESTION
How can urban regeneration of the city of Durban help to integrate migrant workers and the city and furthermore, will integration reduce the cost of transport faced by marginalised individuals?

1.3.4.2 SECONDARY QUESTIONS
Can public transport successfully act as a catalyst for the redevelopment of Durban’s inner city?

How can we build on the visitation rights to the city granted by efficient public transport to provide more permanent unrestricted access and participatory rights to the city, for marginalised individuals?

Can urban regeneration make the inner city of Durban relevant again by helping the city adapt to its current conditions and cater to the needs of its new inhabitants?
1.4 CONCEPTUAL AND THEORETICAL FRAMEWORK

This dissertation focuses on three concepts in its exploration of a solution to the current disconnect which has been created by apartheid capitalist city planning. The first concept is that of the marginalised Migrant Workers; this concept seeks to understand the reasons for migration and contextualise the situation which exists in periphery settlements. The second concept is Public Transport; this concept will be explored as a linking element, seen as a short term solution with lasting repercussions, which provides improved access to the city for people living on the periphery. The third concept is Urban Regeneration; this concept seeks to create a more permanent living environment, seen as a long term solution, for migrant workers within the city. By exploring these three concepts this dissertation seeks to create dialectic between public transport and urban regeneration which will potentially allow for Durban city center to be rejuvenated in a manner that will create opportunities for the integration of marginalised migrant workers.

These three concepts will be directly related to the three theoretical strands being explored by this dissertation. The first concept of Migrant workers will be explored from the perspective of Right to the City; Public transport will be explored from the perspective of Access; and the concept of Urban Regeneration will be linked to the theories of Social and Spatial Justice which are intrinsically interlinked.
Migrant workers (1.4.1) – This concept unpacks the problem the research is dealing with. It seeks to explore the current conditions faced by migrant workers on the periphery of Durban. This exploration begins by exploring what it is that promotes migration in the current market before tracing the history of city planning which illustrates why migrant workers have been forced to settle on the periphery. This will then be linked to the theory of Right to the City, first put forth by Henri Lefebvre.

Public Transport (1.4.2) - This concept poses a short term solution to the problem highlighted in (1.4.1). It critically analyses the Go! Durban transport plan scheduled to be incrementally completed by 2027. It will evaluate the plans for this transport infrastructure, and attempt to link transport infrastructure to development, focusing on Durban’s inner city. This concept will be linked to the theory of Access which will explore the role of GO! Durban in providing the marginalised migrant workers living on the periphery with access to the city.
Urban Regeneration (1.4.3) - This concept builds on the short term solution (1.4.2) and provides a possible solution which could be more sustainable with long term implications. Once the connection between transport infrastructure and development has been established, this concept will expand on the access granted by public transport systems and further explore how this visitation access can be transformed into a more permanent and participatory access through the regeneration of the city center in a manner that caters to the needs of the new urban community. This concept will be linked to the theory of social and spatial justice which links to right to the city from the earlier concept of migrant workers (1.4.1) and explores what the right to the modern day city entails.
1.4.1 MIGRANT WORKERS

1.4.1.1 LABOUR MIGRATION
Labour migration in South Africa began due to a search for employment opportunities which led people to our cities; however the rural to urban migration has continued to increase even after the availability of jobs has decreased. This dissertation will explore the reasons for migration in the current South African conditions. The works of Catherine Cross and Doritt Posel will be used.

1.4.1.2 CAPITALIST CITY
Capitalism can be seen as the catalyst for urbanisation. In the profit (excess) driven capitalist market the goal was to make money off investments. The decision then was whether to reinvest the excess or to bank them. Since the ethos of capitalism is to make more money, a large portion of the profit is reinvested. Development occurs to provide a means for this excess to be absorbed. Cities therefore grew to cater for this excess market. This has resulted in a vast disparity between the bottom and top of the economic ladder and the spaces in the city which they occupy. People at the bottom of the economic ladder are forced further and further away from the center due to rising property values and a disparity between exchange value and use value (Harvey, 2012). The works of David Harvey will be used to expand on this section due to his vast volume of work on the subject and his direct link and commentary on the Right to the City by Henri Lefebvre.
1.4.1.3 MODERNIST CITY || APARtheid CITY

During the modern movement the city developed in a manner that separated the functions of the city, work became divorced from other aspects of living. Instead, there were clusters that developed; a cluster of office spaces, a cluster of industrial spaces and a cluster of residential spaces. Even the residential spaces were often divorced of each other with separations between multi residential block and suburban living (Scott, 2003). This separation was taken a step further in South Africa as the Apartheid government, who were in power at the time, sought to further divide the spaces of the city along racial lines, with Whites, Indians, Coloureds and Blacks all separated and forced to live in different areas.

1.4.1.4 CONDITION OF THE CITY OF DURBAN

The current CBD is in a state of disrepair. It is now addressing a new set of functions for a new group of users. This segment of the dissertation will explore what has caused this state of disrepair as well as determining what the new role of the CBD is in an attempt to set up for the successful regeneration of the City of Durban.
1.4.1.5 RIGHT TO THE CITY

Urbanization is fundamentally linked to capitalism, because of this; the poor become marginalized in our cities as they grow by means of gentrification due to the increase in land value. This process creates increasing disparity between the top and the bottom of the economic ladder (Harvey, 2012). The right to the city needs to be explored in terms of: Whose right? What right? What city? (Marcuse, 2009). For the purpose of the study, whose right is that of the migrant workers, what right is their right to be active participants in the city and what city refers to the urbanised center of Durban, including the informal periphery cities. The key authors being used in this dissertation are David Harvey and Peter Marcuse; they have been selected for their contrasting views and complimenting ideas on the right to the city concept.
1.4.2 PUBLIC TRANSPORT

1.4.2.1 ACCESS

The theory of access deals with how the access to amenities and infrastructure affects the value of the properties in close proximity. This dissertation will focus on the work of Dr Genevieve Giuliano. Dr Giuliano’s work is based mainly on the relationship between transport and land use which sheds light on the ideas upon which this dissertation is constructed.

1.4.2.2 GO! DURBAN

GO! Durban is a public transport system proposed by the eThekwini Municipality to address the poor public transport system in Durban. The Plan for GO! Durban is to provide an Integrated Rapid Public Transport system which links the new ‘nodes’ to the existing city center. The main function of this proposal is to provide greater access to the city for its residents as well as to improve the standard of living of the residents and make Durban a more sustainable city.
1.4.3 URBAN REGENERATION

1.4.3.1 SOCIAL JUSTICE
Social justice seeks equal political and social rights for all citizens irrespective of economic and political standing. The work of Peter Marcuse, a lawyer, speaks from a socialist and legal point of view; he suggests that spatial justice is a derivative of social justice. That a just society can exist within any space, making that space a just space. Susan Fainstein, an urban planner, draws on social justice and seeks to implement social justice through city planning. In her work she explains how we can change the way we plan our cities in order to achieve a just society. These two perspectives will be considered in this dissertation in order to establish what a truly just society entails as well as what role the built environment can play in achieving that.

1.4.3.2 SPATIAL JUSTICE
Spatial Justice speaks of the equal rights of access to public spaces, amenities and services across economic groups, when this is unachievable, social justice suggests that the needs of the disadvantaged should be prioritised. Edward Soja, in his work on spatial justice, suggests that social justice and spatial justice are separate elements and that dialectic exists between them. In South Africa it can be said that social justice has been achieved but spatial justice has not, this dissertation therefore puts forth that social justice can exist without spatial justice but spatial justice cannot exist without social justice.
1.4.5 SUMMARY

This dissertation explores the social and economic marginalisation experienced by migrant workers who have been oppressed on the lower rung of the economic ladder. The focus will be on how that oppression has affected their access and participation within the city. Once the current situation has been outlined the focus will change to how public transport can be used as a mechanism to promote access and participation within our cities by promoting urban regeneration which provides the opportunity for the city to develop to cater to the current needs of its new inhabitants. Thereby making the city of Durban a more inclusive and accepting city.
1.5 RESEARCH METHODS AND MATERIALS

1.5.1 RESEARCH METHODS

This Study will consist of qualitative methods in an attempt to understand the experience of the user in their attempt to utilize the public transport system in the city of Durban as well as what steps are being taken by the designers of these systems to improve the experience of the user. The sample will consist of migrant workers living in the periphery who commute to work on a daily basis.

The impacts on migrant workers of the current disconnect between them and the city will be analysed: by exploring the average income of migrant workers and comparing that to the cost of daily travel to and from work. The second part would involve exploring the experience of the current public transport systems, from the view of the everyday commuter travelling from the periphery to the city. This can be done by means of a questionnaire filled in by the sample group.

An observation will be conducted at taxi ranks and bus stops/stations to understand the frequency and punctuality of the public transport systems as well as to assess the conditions migrant workers experience in attempting to make use of public transport in the city of Durban.

The final part of the research will deal with public transport: exploring efficiency, cost and human quality standards. For this purpose a focus group will be conducted with members of the eThekwini Municipality who deal with transport systems, for example the BRT team. This focus group seeks to understand the rational of public
transport systems as well as how/if they aim to uplift people living on the periphery who require transport to and from the city on a daily basis.

1.5.2 RESEARCH MATERIALS

The research being conducted will be valid as it will be carried out in the current time period under current socio-economic conditions. The research aims to understand the problems faced on a daily basis by people making use of public transport in an attempt to improve their experiences when utilizing public transport systems.

The outcome of the research will be reliable as every effort will be made to ensure the data does not lose its integrity throughout the study. The questionnaire will not be set up in a way which will lead to skewed answers. The focus group discussions will not be channelled in any way, so as to avoid reaching a predetermined outcome. Every effort will be made throughout the research process to remain rigorous. All research will be conducted in an ethical manner; all unoriginal work will be referenced.
1.6 PROPOSED TYPOLOGY

The outcome of this dissertation is to find a way for the built environment to aid in the integration of migrant workers and the city. Building on the GO! Durban system, the proposed typology for this research is a “Mixed-Use Intermodal Transport Hub” which will consist of a transport hub servicing the rail, bus and taxi networks laid out by GO! Durban as well as providing residential and economic opportunities for marginalised individuals.
INTRODUCTION

It can be argued that the majority of existing social theory and the associated knowledge base are greatly influenced by thinking that placed a focus on social and temporal or historical aspects of being and with far less emphasis being placed on spatiality (Soja, 2013). According to Michel Foucault (1986), the tendency to see time as dynamic and developmental, and space as relatively fixed and dead background arose in Western thought in the last half of the nineteenth century and has continued to this day, to shape our thought without us realizing it.

“Throughout our lives, we are enmeshed in efforts to shape the spaces in which we live while at the same time these established and evolving spaces are shaping our lives in many different ways. We are thus inescapably embedded in the geographies around us in much the same way as we are integral actors in social contexts and always involved in one way or another in the making of our individual biographies and collective histories.” (Edward W Soja 2013)
Soja (2013) suggests that there are in fact three rather than two fundamental qualities of human existence, from which all knowledge is based: the social, historical, and spatial. He proposes that three-way dialectic exists between the social, historical and spatial existence of human life. The spaces we inhabit affect our social existence and therefore mould the history of a place, while the way we behave socially in a place also shapes the history and the spatiality of that space, equally the history of a place has an effect on the social idea of the place as well as the spatial perception of the space. [see Figure 10- Three-Way Dialectic]

This “ontological triad” as Soja terms it, needs to be rebalanced to ensure that knowledge production is simultaneously social, historical and spatial. It is likely that a given topic will have a particular emphasis and therefore not remain equally social, spatial and historical, the assumption of an “ontological triad” must, however, be kept in mind. The balance of these three aspects is difficult to achieve as it goes against the grain of how most of us have been educated, it is however an important
foundation from which to understand the workings of a critical spatial perspective and the new spatial consciousness that has recently been developing. (Soja, 2013)

The structure of this dissertation seeks to explore all three aspects of this “ontological triad’ or three-way dialectic. While the research conducted in this dissertation will make every effort to remain cognisant of the triad it will, due to its nature, give privilege to the spatial perspective. These three viewpoints of knowledge will cross the themes which have previously been highlighted for this dissertation namely; Migrant Workers, Public Transport and Urban Regeneration. The history will come from the exploration of urbanisation and the development of the urban fabric. The social will be explored through the implications caused by the methods of urbanisation highlighted in the historical. The Spatial will explore how the historical and social aspects spoken of can be translated into a successful spatial outcome.
2.1 MIGRANT WORKERS

2.1.1 LABOUR MIGRATION

In order to fully understand the need for public transport in South African Cities, it is important to first acknowledge the unique history of the country. During the 1970’s, there was a dramatic increase in the number of workers migrating from rural areas toward our cities due to the increasing demand for labour. This was at a time when the developed parts of the world had begun advances in Globalisation, resulting in development of infrastructural nodes and the global exchange of goods and services. The increase of migrant workers into the city aligned with advancements in industry and infrastructure, as industry began producing more to cater for the larger international market, it required a larger workforce and thus there were more opportunities available for migrant workers.

This is particularly relevant to Durban. As a major port city, Durban was responsible for a large percentage of South Africa’s imports and exports. The task of handling such a large number of goods required a large workforce to ensure tasks could be completed efficiently in order for shipping to occur.

Figure 11- Durban Port 1950.
Source: Google Images.
http://iancoombe.tripod.com/sitebuildercontent/sitebuilderpictures/durban1950.jpg
timeously. This demand for labour provided the opportunity for a large influx of migrant workers to the city.

Under the Apartheid regime, black South Africans who flocked toward cities in order to find work were not allowed to own land within the cities due to governmental legislature (Nuttall & Mbembe, 2007). This resulted in the formation of ‘shanty towns’ (informal settlements) on the edges of the established urban centres [see Figure 12- Durban City Map-1968]. As the population of migrant workers grew, these shanty towns began to form periphery settlements (Posel, 2004) such periphery settlements

Figure 12- Durban City Map-1968. Source: Ferguson, S. Stubbs, S. 2015. Masters of Architecture UKZN.
were formed in order for workers to be as close as possible to work. However, due to the distance between the periphery settlements and place of work within the city, workers were forced to spend large portions of their wages commuting.

Since the abolition of apartheid, although black South Africans can now own land within the city, the high land values make it increasingly unaffordable. This results in the sustained growth of periphery settlements [See Figure 13- Cato Manor 1963 &Figure 14- Cato manor 2000] and the continued disproportionate transportation expenses faced by migrant workers commuting to and from work.

In the current market there are fewer jobs available, yet people still flock from rural areas toward our cities. A study conducted by Catherine Cross (2001) suggests that labour migration responds directly to the development of infrastructure, this substantiates her argument that migration has increased even though employment
opportunities have dwindled. Cross’s argument is further substantiated by Gebre, Maharaj and Pillay, 2011) who state that the decision to migrate is motivated by a number of socio-economic factors including social networks, greater accessibility and availability of opportunities. Due to the continual increase of migrant workers flocking toward the city of Durban, it is becoming ever more relevant that we consider how to improve the lives these migrants will live once they arrive in our cities. Due to the increase in migrants living on the periphery of the city, the web of social networks continues to expand, making it easier for people to move toward the city because they have familiar faces in the periphery settlements to help them settle in and find their feet.

It has been determined that development of infrastructure has a direct correlation with rural to urban migration. It is important that this increase of population due to migration is considered when planning new development (Cross, 2001). While the availability of opportunities has diminished, the continued development of infrastructure in South African cities results in far greater accessibility to amenities and services such as education, health care, clean water and electricity.

According to a study conducted by the UN by 2030 71.3% of South Africa’s population will live in urban environments. In 2015 32.23 million people lived in urban environment in South Africa. By 2030 the urban population will rise to 37.97million, with Durban making up 10% of South Africa’s urban population. (UN Habitat, 2015)
With the declining conditions in rural South Africa, which result in increased numbers of migrant workers moving away from rural areas towards our cities, it has become vital that we plan our infrastructure in a manner that takes cognisance of the impact it has on both the flow of people entering our cities as well as the way users interact with and traverse our cities.

This will be particularly relevant for the GO! Durban proposal. The infrastructure needs to go beyond just the motorised public transport system and provide improved non-motorised forms of transport for commuters such as bicycle and pedestrian lanes, thus improving the way users interact with the city of Durban.
2.1.2 CAPITALIST CITY

Urbanism is a direct result of excess; cities have arisen from the concentration of social and geographical surplus product. It can therefore be said that urbanisation is fundamentally linked to capitalism. This relationship is however dialectic as without urbanisation there would be nowhere for the surplus to be absorbed. (Harvey, 2012)

Through the development of the capitalist city model, the urban poor have been continuously forced to reside on the periphery of the city. The capitalist development model has resulted in all the conveniences such as: supermarkets; schools; and health care, as well as infrastructure such as: roads; public transport networks; electricity; and access to running water, being concentrated within the city with great neglect to development of periphery zones. Furthermore, due to capital being the authoritarian power, the need for development of cities to absorb the surplus, forces the urban poor further out of the city as their property values rise and they are bought out of their homes and priced out of areas that are deemed to have high development potential. This cycle results in an ever increasing disparity between the top and bottom of the economic ladder. (Harvey, 2012)

It is due to this capitalist system that even now, 22 years after the abolition of apartheid, previously marginalised black South Africans still cannot own land within our cities. It is no longer because of government legislature, but rather due to the high property prices and the continued economic oppression forced onto them by the high tariffs they are forced to pay for their long commute to and from work every day, which constitute a large portion of their already low wages.
2.1.3 MODERNIST CITY || APARTHEID CITY

As a result of the capitalist market, the modern city seeks to achieve the utmost efficiency. One such model is the radiant city, a city plan for Paris derived by Le Corbusier. While there are many other modern city plans, the Radiant City or Ville Radieuse, was the most significant proposal, and is credited as the inspiration for many other “modern” city proposals. (Frampton, 2007)

Ville Radieuse was itself a development of a previous urban prototype developed by Le Corbusier called Ville Contemporaine, which was based on a hierarchic system whereas Ville Radieuse was focused more on a ‘classless’ dynamic. (Frampton, 2007)

While it could be said that Ville Contemporaine was more directly linked to Apartheid city planning, this research is focused on the urban fabric and therefore the separation of function is the primary focus. As a result of this focus, Ville Radieuse has been chosen due to the advances in Le Corbusier’s view of the machine age city and the development of his zoning method.
“The Ville Radieuse took the open-city concept of the Ville Contemporaine to its logical conclusion...” (Kenneth Frampton, 2007, p 178)

The zoning for Ville Radieuse was separated into parallel bands which were assigned the following functions: Satellite Cities dedicated to Education; Business Zone; Transportation Zone; Hotel and Embassy Zone; Residential Zone; Green Zone; Light Industrial Zone; Warehouses and freight rail; and Heavy Industrial. (Frampton, 2007)

A similarly segmented zoning plan can be drawn from the city of Durban [see Figure 17- Durban Land Use 1982. pg33]. This system of separation of the modern city was further used in the South African context to separate race groups through the group areas act. Many of the symptoms caused by this style of planning can still be felt in the city of Durban today. In many ways the planning of Durban's CBD is still restrictive when it comes to who lives and works there (Heller & Kracker, 2006). The separation of functions has resulted in Durban's CBD being predominantly businesses and accommodating the function of work, with very little residential accommodation available and equally few opportunities for entertainment in terms of outdoor spaces. According to the live work play ideal put forth by Jan Gehl, as the three components thought to interact to achieve the ideal urban condition, Durban City Center fails dismally as it caters to only the work component.
‘GO! DURBAN’ AS A CATALYST FOR DEVELOPMENT, AS MEANS OF INTEGRATING MIGRANT WORKERS AND THE CITY:

A Mixed-Use Intermodal Transport Hub for Durban.

Figure 17- Durban Land Use 1982. Source: Madhoo, S. Moodley, VR. 2015. Masters of Architecture UKZN.
Furthermore, the Apartheid view of zoning the CBD for work and having residential accommodation on the outskirts has resulted in a unique characteristic developing in Durban’s CBD. In most cities around the world, the CBD acts as a central point which draws people in, in Durban the CBD acts in the opposite manner, forcing people out after the working day has concluded. This was carefully designed by architects and planners during the apartheid era when people of different races were only allowed to mix during the working day and were forced to leave the city back to their racially separated suburbs after dark.

As a result, the regeneration of Durban City Center needs to entail the development of both Work and Play, incorporating more accommodation as well as more entertainment space with an emphasis on a strengthening of the Public realm. This will be enhanced by the use of Public Transport and the introduction of supporting non-motorised transportation systems which will allow the pedestrians to engage with each other as well as with the street facing facades of buildings. This interaction will stimulate a sense of community amongst residents of varying backgrounds and histories as well as providing valuable economic opportunities for small retail stores and entrepreneurs which are already prevalent in the city of Durban.
2.1.4 CONDITION OF THE CITY OF DURBAN

As mentioned previously, the function of the CBD under the apartheid government was that of business, it did not cater to residential needs, therefore after the work day concluded, the CBD effectively shut down. Residential high-rise blocks in the Albert Park and surrounding areas catered to ‘white’ civil servants who worked at the harbour or the railway. This created a typology of bachelor apartments and small residential units. This resulted in the user shifting after the abolition of apartheid from civil servants to students and young professionals. This change in residents prompted a shift in the businesses located in the CBD from large financial houses to smaller entrepreneurial business. (Heller & Kracker, 2006)

All in all the CBD has undergone a transformation in terms of who lives and works there since the abolition of apartheid. As a starting point, the racial groups which reside there have shifted from being white only to a majority black population with the presence of all other races. Furthermore the accommodation has shifted from being targeted at public servants to catering to a multitude of classes from the poor to the upper middle class. This depends largely on area, although it is not uncommon to find an upper class building with off street parking just down the road from a building in disrepair with no running water or electricity. There is, however, one pattern which has emerged, a mass exodus toward the suburbs of mobile middle class families who tend to leave the city as they accumulate capital (Heller & Kracker, 2006). This can be due to the more sought after schools which are found in the suburbs or the separation from the noise and pollution which exists within the
A further deterrent could be the negative view South African’s living in the CBD seem to have toward foreigners. The CBD has become a first port of call for foreign nationals entering Durban. The city offers easy access to a large transport hub in the form of Warwick Junction which in turn provides access to many suburbs and townships. These immigrants are sometimes deemed to be in the country illegally and are exploited due to their circumstances. They often fall victim to slumlords who rent out small units often separated by chipboard or curtains, with no running water or electricity. The condition of these buildings is often inhumane with insufficient sewage services to cater to the large number of users. (Heller & Kracker, 2006)

Throughout the changes which the CBD has undergone, there has been a recurring theme of urban decay within the city which has been constant since 1994; it is however, no longer blamed on racial mixing or the ‘white flight’. Symptoms of this urban decay include: business flight, crime and grime, building decay and general squalor. It is suggested that this decay is the result of capital exploitation as opposed to the previously assumed racial tension. (Heller & Kracker, 2006)

After the abolition of apartheid, estate agents realised there was an opportunity to sell to young black professionals as the CBD provided affordable accommodation in close proximity to places of employment. The estate agents however exploited the naivety of first time buyers by failing to mention the added costs of rates and levies. These first time buyers could not afford to pay these rates and levies which resulted in them sub-letting the rooms in order to cover costs. As a result of the large extent
to which this practice spread, the infrastructure of the building often could not cope with the overcrowding which resulted in the failure of service provision such as sewage and running water. (Heller & Kracker, 2006)

Flats with outstanding levies could no longer afford to maintain the building and as a result it would inevitably go into disrepair. At this time owners of property in the CBD often decided to sell. With new owners of the property and an increased demand for property within the CBD, rental began to increase. As the rental costs increased so too did the frequency of the practice of sub-letting. Some of the new owners were purely profit driven and were termed ‘absentee landlords’ as the residents had no idea who they were or how to contact them. These absentee landlords would often knowingly allow overcrowding as a means of extracting the highest possible rent. They also had a tendency to neglect paying rates to the municipality which would result in residents being left without water and electricity. Due to this lack of upkeep and general disregard for the building condition, the buildings would inevitably go into disrepair at which point they would be abandoned by the owner as they were difficult to sell. (Heller & Kracker, 2006)

The current condition of many of the residential buildings situated in the CBD is one of disrepair. This is brought on mainly by overcrowding. It must be acknowledged that the only reason “slumlords” are able to operate is due to the desperate need for affordable accommodation closer to places of work for the urban
poor. The desperation of the need is further highlighted by the inhumane conditions in which people often live within the city.

This can be seen as an opportunity as it highlights the need for accommodation within the city and suggests that any affordable residential development which could come up as a product of urban regeneration will not be short of possible users.
2.1.5 RIGHT TO THE CITY

The right to the city, complemented by the right to difference and the right to information, should modify, concretize and make more practical the rights of the citizen as an urban dweller (citadin) and user of multiple services. It would affirm, on the one hand, the right of users to make known their ideas on the space and time of their activities in the urban area; it would also cover the right to the use of the center, a privileged place, instead of being dispersed and stuck into ghettos (for workers, immigrants, the “marginal and even for the “privileged”).

- (Henri Lefebvre, 1996)

Right to the city is a concept first theorised by Henri Lefebvre, in 1967, and has recently regained interest. It is however criticised for being too vague. Through the revival, theorists such as Peter Marcuse and David Harvey seek to answer: Who’s right? What right? and What city? Lefebvre was referring to.

Marcuse suggests that the right should belong first to the impoverished and marginalized as they do not possess the power to compete with the well-to-do. Furthermore it is the impoverished and the marginalised that are starved of basic needs such as running water and shelter, their needs should therefore be met before the wants of the middle class whose basic needs have already been met. (Marcuse, 2009)
Both Harvey and Marcuse put forth that it is the right of every citizen to shape the space in which they live. This is more than just a visiting right of an individual or group to access the resources that the city embodies (Marcuse, 2009), but rather the right to change and reinvent the city more after our own heart’s desire. (Harvey, 2012) The city must therefore remain in constant flux, which will allow the citizens to shape the spaces which they inhabit. For this to be successful there needs to be a detachment of power, otherwise the powerful will once again exploit spaces to their personal desire. If power is involved it will become costly to shape the space, this will play into the hands of the wealthy as they will once again have the advantage over the urban poor. (Plyushteva, 2009)

One element Lefebvre is explicitly clear on is what city; it is not the right to the current city but rather a right to a future city in which there is no distinction between the city and the country.

“[The Right to the city] can only be formulated as a transformed and renewed right to urban life” – (Henri Lefebvre, 1967, p 158)

Due to the increase of the urban population over the last few years as well as the predicted increase of the urban population over the next few decades, the disparity between the city and the country has begun to diminish. There are however two major rights left somewhat under attained specifically by the urban poor: the right to participate in the shaping of space (social justice) and the right to access amenities
and services required to meet ones basic needs (spatial justice). These will be explored further in sections (2.3.1 & 2.3.2).

Currently in the CBD the participatory right and the right to access amenities and services required to meet ones basic needs are both absent in many instances. Residents of many of the buildings in the CBD are unable to utilize the spaces they rent fully due to overcrowding by absentee landlords who control the way the spaces within the building are subdivided. (Heller & Kracker, 2006) Furthermore these absentee landlords fail to maintain the facilities required to provide tenants with amenities and services they need to meet their basic needs such as running water, electricity and a working sewerage system. (Heller & Kracker, 2006) It can therefore be said that many of the current residents in the CBD have been robbed of their right to the city by “powerful” landlords driven by a capitalist system.

It is therefore clear that the current right to the city is extremely limited with the power sitting disproportionally, with the majority of the decision making power held by the minority of the citizens of the city. Therefore the right to the city sits isolated amongst the wealthy urban population.

In order to achieve true integration of user and the city it is vital that this right to the city be equally divided amongst all the occupants of the city, be it as a visiting right or as a more permanent participatory right. All users of the city should have the opportunity to shape their environment to suit their own desires. While many restrictions are placed on the users of the city, one need only venture into Warwick
Junction which sits adjacent to the CBD to see how the people using the spaces have adapted, converted and reused previously rigid environments and objects to suit their own desires. This is a space which is in constant flux and is therefore possibly the closest example of a part of Durban which exhibits characteristics of a successful city by virtue of the principles laid out by Henri Lefebvre in his Right to the City.

Figure 18 illustrates the adaptability of Warwick by the use of shopping trolleys as mobile cooking units; the need for mobility highlights the flux of the space and the need for traders to adapt to suit the market requirements and the transient community they service.
2.2 PUBLIC TRANSPORT

2.2.1 ACCESS

The concept of access is pivotal in the theory of metropolitan spatial structures. The standard model explains that urban structures are developed as a trade-off between access to employment and housing costs. Therefore, improved access to employment increases property value. However, there are many other influences on property value, these include access to: schools, public space, retail stores and transport facilities. (Giuliano et al., 2010)

The development of cities in this manner resulted in the highest density being concentrated at the center with a continued decrease in density as development sprawled outward. This decrease in density toward the outskirts makes it difficult to maintain public transport into the city as efficient public transport relies heavily on density to make it affordable. (Giuliano et al., 2010) In Durban this resulted in government implemented public transport existing mainly within the city, and private transport systems servicing the outskirts and periphery of the city.

This is increasingly problematic to migrant workers who are forced to live on the periphery and commute to work. They become exploited by privatised public transport service providers as they have no other alternative, as governmental public
transport exists primarily within the inner city. Occasional bus trips are possible into the city but the frequency and reliability poses issues to marginalised individuals attempting to access the city.

There has now been a shift in the development model of our cities, with the affluent individuals choosing to move outward, away from the noise and pollution of the city center. (Giuliano et al., 2010) Due to the developments in technology, it has become possible for companies in sectors such as banking, investment, telecommunications, law and the like to move away from the city center. This has resulted in white collar job opportunities being displaced to the outskirts of cities as companies seek the more serene settings available away from the noise and air pollution, in order to create a better work environment for their employees.

The shift of employment opportunities for white collar professionals has resulted in a proportional shift in land value as the affluent members of the urban community move away from the city center toward the outskirts. This has inflated the property value on the outskirts of the city. (Giuliano et al., 2010)
This is illustrated in Durban by the development of sub-centres such as uMhlanga, Ballito and Hillcrest, which have seemingly popped up overnight, as large corporates seek to move away from the inner-city and set up in areas which provide an improved environment in terms of quality of life. The quality of life sought after constitutes a decreased density of living, with a shift toward free-stand housing within gated estates, as well as a move away from the pollution and noise generated in areas such as Mobeni, the South Beach light industrial area and the harbour.

As a result of the shift of professionals away from the city, and the increased property value of the outskirts, the property value within city centre has inversely decreased. (Giuliano et al., 2010) This has allowed lower income groups to move into the city, closer to their places of work. This is based on the assumption that lower income groups occupy blue collar jobs in factories and industrial areas which are situated within the inner-city.

This shift allows for the lower income communities to have access to the benefits that ideally come with city living, such as access to schools, public space, retail stores, and public transport.

However, as highlighted in section (2.1.4) the current state of Durban’s CBD is one of disrepair with lower income communities being exploited by wealthy landlords who provide accommodation in buildings which are often inhumane. The structure of the city also creates very little opportunity for engagement with public spaces and
other benefits of city living. Schools for example are few and far between due to the modernist apartheid planning of the Durban CBD.

The positive that can be taken from this, however, is that through the change in structure of the city, the correct user group is now able to occupy the city. This provides the opportunity for redevelopment to suit the needs of the new citizens of the city, this has the potential to increase density as well as providing a more efficient and affordable public transport system. It is important that these two elements work together in order to create a dialectic in which efficient public transport brings more people to the city which increases the number of users on the transport systems thereby reducing the cost and bringing in more people and thus increasing the density and so the cycle continues. This dialectic is pivotal to the success of the GO! Durban proposal.
2.2.2 GO! DURBAN


GO! Durban is the brand created to market Durban’s Integrated Rapid Public Transport Network (IRPTN). Their vision is for eThekwini Municipality to be Africa’s most caring and liveable city by 2030. (GO! Durban, 2016) The IRPTN system is based on that of Bogotá Columbia which will be explored further in chapter 3.1 of this dissertation.

GO! Durban seeks to allow Durban to fulfil its potential to become the most liveable and sustainable city in Africa. The system aims to connect across large distances, increasing the employment opportunities of each individual as well as providing easier access to social facilities such as schools and health care. By
creating a fully integrated transport network GO! Durban intends to connect not only different parts of the city but also connect citizens with parts of the city they would not have otherwise encountered. GO! Durban is aimed not only at improving the layout of the city, but also the lifestyle and quality of life, of the citizens of Durban. (GO! Durban, 2016)

GO! Durban seeks to achieve its’ sustainable and eco-friendly goals by reducing the use of private transport, thereby reducing pollution, as well as encouraging non-motorised transport by providing infrastructure which will encourage people to walk and cycle around the city. (GO! Durban, 2016)

The goals of GO! Durban, include urban revitalisation and rejuvenation. This will be achieved through the construction of mixed use stations. Stations are to be designed as mixed use buildings, with main stations becoming public centres that facilitate jobs and improve the standard of living of Durban’s residents. Furthermore, the passive economic upliftment resulting from the efficient public transport network will further assist in the urban revitalisation of run-down areas. Another goal of GO! Durban is to improve the economic and social standing of citizens of Durban. This is highlighted by the inclusivity of the GO! Durban system, which is dedicated to ensuring equal access to all and has thus made a concerted effort to ensure the entire system, is universally accessible. (GO! Durban, 2016)
The development plan is divided into four phases, all of which are scheduled to be completed by 2030. The initial stages will include 62km of road construction as well as new and improved bus stations and terminals. New corridors are currently under construction which connects Warwick Junction, Bridge City and uMhlanga. There has also been development of the railway which will link Bridge City with KwaMashu and via Berea Road Station to Umlazi and Isipingo. All together 190km of road based infrastructure is planned for the GO! Durban system. Of which 60km is scheduled to be completed during phase 1, which is to be completed by 2018. The routes incorporated in Phase 1 were selected to ensure recognisable benefit to the maximum number of users in the shortest period of time for the least amount of investment. (GO! Durban, 2016)
The system will implement CCTV cameras to aid in security as well as to monitor the everyday running of the system to ensure efficiency. The infrastructure is designed to protect pedestrians and cyclists from vehicles and reduce the number of accidents on the roads. All staff members will be well trained to cope with emergencies as well as walking routes, stations, and buses all having CCTV coverage so as to allow action to be taken during an emergency. Furthermore, all stations will be ensuring safety, through passive design measures. (GO! Durban, 2016)

Muvo Cards are the currency of the GO! Durban system. Users can then load credit onto their card in the form of cash or trips. During the initial purchase on a new card, the user will be asked to set up a pin. This pin acts as a safety measure as the pin is required when buying and loading trips. The Muvo card system further protects users’ safety by eliminating the exchange of cash on buses thereby reducing the risk of opportunistic crime. (GO! Durban, 2016)

Through the GO! Durban system, people commuting from the periphery to the city will be able to enjoy a more affordable, reliable and safe experience to the current modes of transport available to them. This grants improved access to the city for these individuals living on the periphery. The affordability aspect is of particular importance as it allows more people the opportunity to access the city. In doing so this increases the opportunities of each individual to find employment. The long term implementations of this are that an increased standard of living of people on the
bottom rung of the economic ladder can be achieved, thus promoting growth and development as these individuals move into the city in order to be closer to work. As mentioned in section (2.1.4) most of the residents of the city are young professionals as it provides an affordable option which is in close proximity to work thus lowering travel costs, it can therefore be said that the city will provide an excellent incubator for the marginalised individuals who arrive with the aim of integrating with the city. With an increased number of residents in the city, how can the development, which results from the economic benefit of an increase in users, help these migrant workers to integrate with the city in a meaningful manner? This is the question that will be further explored in Chapter 2.3.
2.3 URBAN REGENERATION

2.3.1 SOCIAL JUSTICE

Referring back to the theory of Right to the City by Henri Lefebvre, the right to the city is more than just a visitation right granted by affordable and efficient public transport. It is a participation right, which allows everyone an equal right to influence the society they live in; this includes legal and spatial influences.

Social justice is the equality of rights regardless of socio-economic standing, where equality cannot be achieved; the needs of the many must be prioritised. This suggests that the law should protect the needs of the marginalised as they make up the largest portion of the South African population.

The voices of these disadvantaged individuals should be equal to those with financial and political power. (Fainstein, 2009) Good social justice provides the legal platform for the marginalised and oppressed to challenge the politically and economically powerful on an equal footing and fair playing field.

This is illustrated in South Africa by the constitutional court ruling that President Jacob Zuma is to pay back the money for the non-security upgrades of Nkandla based on the report produced by the public protector, Thuli Madonsela.
The reason for the creation of the public protector by the South African constitution was to provide the marginalised with the power to challenge those more connected and better resourced. This illustrates that the constitution of South Africa does contain the legal resources required to achieve social justice.

Susan Fainstein uses the example of the Bronx market in Detroit, USA. The market was a provider of employment for many traders who lived in the area and traded at the market to provide for their families, these traders also provided work for other members of the community who would help with the everyday running of their businesses.

The property on which the market sat was owned by the municipality but was leased out to a private individual on a long term lease. The owner neglected the building and eventually reached an agreement to sell the property to an investor in a private sale without involving the municipality or the sale being advertised to the general public. (Fainstein, 2009)
The investor went on to propose a shopping center for the site, clearing out the old Bronx market along with the jobs of many residents living in the nearby area. The family owned businesses and traders would be replaced by large retail stores which would supposedly uplift the area. (Fainstein, 2009)

The traders attempted to oppose the construction of the new shopping center, but they did not carry the political or financial power to do anything to stop the construction. (Fainstein, 2009)

The construction of a mall in this area would not only destroy the jobs of many breadwinners but also create a capitalist cycle where the poor people living there would be forced to work for the large retail stores, get paid low wages for their services and be forced to buy the products sold by the retail stores at higher prices than they would have been paying at the old market. (Fainstein, 2009)

This is an example of poor social justice. As a starting point, the sale of the property was unjust in that it was a private sale behind closed doors of a municipally owned asset. In a just society, the sale of such an asset should be public knowledge and allow for multiple buyers in order to ensure a fair, competitive market. Furthermore, the proposal for construction on the site should also have been public knowledge and put to a public vote as the resultant building would affect the community far more than the investor. The community should therefore have had a say in what it is that they need and they feel could improve the area. The processes
followed however were an example of top down thinking where the investor believed he knew what was best for the community.

Development should be community inclusive (bottom up) this results in the needs of the immediately affected community being met while also allowing for the economic development and upliftment of the area, to increase revenue for the state as well as private individuals. (Fainstein, 2009) This is important as a lack of investment is not good social justice, there needs to be a balance in the involvement of investors and the participation of the community.

When the community attempted to challenge the processes used in the Bronx Market through legal channels, they were met with many hardships as they did not have the financial or economic power to challenge the investor through such channels. The lack of inclusion of the community in the planning process resulted in a missed opportunity for the amalgamation of the retail mall with the market traders which could have resulted in a much stronger and more successful development. (Fainstein, 2009)

A further illustration of poor social justice is the lack of alternative provided for the individuals whose jobs had been lost by the demolition of the market. This forced them into the economically oppressive capitalist cycle where they would have to work for the retail stores, who would pay them low wages and they would then be forced to support the same retail stores having to pay more for goods and services than they would have paid at the market.
A local example of better social justice is the Early Morning Market in Warwick Junction, which underwent a similar situation to the Bronx market in the build up to the 2010 world cup. A proposal was made to do away with the market in favour of a shopping mall. In this instance however the proposal was stopped by the voices of the traders, who despite a lack of political and economic power, were treated by the South African justice system as having equal or even greater rights to the space as the ‘powerful’ individuals proposing the development of a shopping center. This was not a perfect example of social justice because even though the traders triumphed over the investors and managed to retain their place of work, no development has since occurred to improve the conditions faced by the traders at the early morning market. They have instead been left to their own devices, to manage with what is made available to them and often even restricted by government policy which dictates where they can and cannot trade. The traders are therefore stifled in their ability to shape the city as active participants. Furthermore, due to the lack of accommodation available the traders are often granted only a visiting right to the city, ‘allowed’ to work within prescribed guidelines but unable to integrate in a meaningful manner.

While the legal system has protected the marginalised individuals, illustrating good social justice, to a degree, the inability for these individuals to shape their city illustrates the poor spatial justice which exists in the city of Durban.
2.3.2 SPATIAL JUSTICE

Edward Soja (2013) comments on the “Just City” idea put forth by Fainstein and Marcuse; by describing it as a “normative discourse which reflects the utopian ideals of planning theorists”. He criticises it for not adopting a critical enough spatial perspective but acknowledges its appeal to those not looking for a more forceful form of spatial explanation. Soja (2013) in turn takes the view of there being a dialectic which exists between social and spatial justice, he suggests that everything social is simultaneously and inherently spatial, just as everything spatial in the human world is simultaneously and inherently social.

Space in the past has been treated as a fixed background, it is acknowledged that it has some influence on our lives yet is viewed as remaining external to the social world and is thus excluded from attempts to make the world more socially just. While there is no justifiable reason for prioritising time over space, such privileging occurs frequently in social science and philosophy as well as in socialist theory. (Soja, 2013)

In recent years there has been a ‘spatial turn’ which suggests that a rebalancing is occurring between social, historical and spatial perspectives where each is treated with equal importance to the other. While spatial form shapes and influences the social relations and developments that occur within it, so too do the social processes shape and give purpose to the spatial form. (Soja, 2013)

This relationship can be both positive and negative as space has the power to uplift individuals by providing a platform for protest or it can be negative by promoting
inequality and exploitation (Soja, 2013). This is illustrated by the group areas act during apartheid in South Africa which sought to separate the different race groups and provide lesser services and amenities to the groups it aimed to oppress and marginalise. On the flip side of this, the spatial restrictions placed on citizens by the apartheid government created politically charged spaces outside of governmental buildings which became a platform for the protests which eventually led to the abolition of apartheid.

Due to the influential power of space on politics, justice, development and planning, Soja (2013) suggests that space should be put first when spatialising such concepts. This does not however mean to suggest that spatial thinking should occur in isolation, divorced of social and historical realities but rather that space should be prioritised due to the neglect of spatial thinking in the past. The idea is that, in doing so, new possibilities and new ways of dealing with injustice can be given the opportunity to surface. (Soja, 2013)

“...we are at all times engaged and enmeshed in shaping our socialized spatialities and, simultaneously, being shaped by them.” – (Edward W Soja 2013)

Just like the relations between space and time, the social and the spatial exist in dialectic. Space is not empty; it is filled with politics, ideology and other forces which have an influence on shaping our lives. (Soja, 2013)
Justice has become the focus of struggles in recent times as we struggle over job opportunities and urban regeneration. Activist groups seeking justice aim not to stop development, which is often the case, but rather to achieve development with justice. (Soja, 2013) Drawing again on the earlier example of the early morning market, here development with justice was not achieved. The planned development was stopped, and in the last 6 years which have followed, no development has gone on to uplift the users of the space.

The vital role that space plays in achieving justice is best described by Soja in Seeking Spatial Justice:

“The renewed recognition that space matters offers new insights not only to understanding how injustices are produced through space, but also how spatial analyses of injustice can advance the fight for social justice, informing concrete claims and the activist practices that make these claims visible. Understanding that space - like justice - is never simply handed out or given, that both are socially produced, experienced, and contested on constantly shifting social, political, economic, and geographical terrains, means that justice- if it is to be concretely achieved, experienced, and reproduced- must be engaged on spatial as well as social terms. Thus, those vested with the power to produce the physical spaces we inhabit through development, investment, planning- as well as through grass roots embodied
activisms- are likewise vested with the power to perpetuate injustice and/or create just spaces… what a just space looks like is necessarily kept open, but must be rooted in the active negotiation of multiple publics, in search of productive ways to build solidarities across difference. This space- both process and product- is by definition public in the broadest sense; the opportunity to participate in inscribing its meaning is accessible to all… justice is therefore not abstract, and not solely something “handed down” or doled out by the state, it is rather a shared responsibility of engaged actors in the socio-spatial systems they inhabit and (re)produce.”- (Edward W Soja 2003, p 671)

The emphasis here is that Just space, can only be achieved through an amalgamation of top down and bottom up effort. It is in the hands of the ‘powerful’ individuals to provide investments which allow for justice to occur, while it is in the hands of the user to ensure that the space remains true to its intention of being a just space by actively being involved in the shaping of the space.

This relates back to the right to the city and the right to participate within the city. The concepts of right to the city and seeking spatial justice have become so interwoven in their contemporary usage that it has become increasingly difficult to tell them apart. As discussed earlier the main idea which resulted in the resurgence of the right to the city is the need for those most negatively affected by the urban condition to take greater control over the social production of urbanised space.
“Justice reaches its ideal level when, as Rawls describes it, the prospects of the least fortunate are as great as they can be (under given circumstance), and when the more advantaged are contributing to meet the expectations of the least advantaged, assuming an acceptable democratic social order to begin with.”

- (Edward Soja 2013)

Soja uses the example of Apartheid to illustrate how colonial planning aimed to oppress the colonised individuals and ensure that the colonisers retained control. This system of planning resulted in the creation of spaces which Soja terms as spaces of underdevelopment. These spaces of underdevelopment perpetuate geographies of dependent development, cultural domination and efficient economic exploitation. This idea is in essence at the heart of every relationship between core and periphery or first and third world. These geographies, almost impossible to erase completely, continue to linger; creating what has been termed the postcolonial condition. (Soja, 2013)

As these geographies have evolved, the upper quintile of the economic ladder have begun to leave urban public life in favour of insular “privatopias” as termed by Evan Mackenzie (1994), this migration of the well to do is due to both fear and voluntary preference. This trend has resulted in a growing number of isolated residential societies disconnected from the public realm. Along with the flee of the well to do, there has been a disappearance of collective ownership of land or
common spaces in favour of the largely accepted “three-sided ownership” as termed by Soja, of individual/family, corporate and state/institution even when it creates and perpetuates injustice. (Soja, 2013)

The combination of a flee of the upper quintile combined with the disappearance of common ownership will continue to perpetuate injustice and degradation of the urban public realm. This is due to the lack of financial power of the individual remaining in the urban public realm to influence the development of space along with the attitude of the three-way ownership being; if it doesn’t belong to you, you don’t need to take care of it. This can be linked back to section (2.1.4) as it very aptly explains the theoretical reasons for the current state of the Durban CBD.

Beyond creating injustice and perpetuating urban degradation, it has created a tension between private and public ownership and between private and public space. Therefore, for some, the starting point to achieving spatial justice is the defence of public space against commodification, privatisation and state interference. Public space in this sense is seen as common property, or the commons. Streets, squares, plazas, and transit networks including buses and trains all form part of the commons. (Soja, 2013)

The idea of the commons is that, for example, a group of 100 herders share a field for grazing, and the field can manage 100 cows grazing on it. Therefore each herder brings 1 cow. However if each herder decides to bring one extra cow to increase his revenue then each herder is only increasing the strain on the field by 1% but if each
of them bring an extra cow, the strain will be increased by 100% and the field/commons will die, as will the cows and eventually the herders. This theory of the tragedy of the commons assumes that each individual will only look out for their own self-interest and that there will be no feedback from the participants. (Hardin, 1968)

This highlights the important role of both the users on the ground making use of the commons and providing their own contribution as well as the regulation of a state or private entity to ensure the total maintenance of the commons against ‘overgrazing’. In other words, the commons allows the user or urban citizen the right to engage with and shape a space; however it is the role of the governing organisation to facilitate the activities that take place to ensure the survival of the commons.
CHAPTER 3.0

3.0 PRECEDENT STUDIES

The precedents used in this section were selected to show the influence of BRT systems, informal trade and a combination of the two existing in a symbiotic relationship.

The first precedent is located in Bogota which has a similar geographic and socio-economic circumstance to South Africa. The poor are located on the outskirts and forced to commute to the city center for work on a daily basis at a great personal cost. Bogota implemented a BRT system to counter this geographic divide; this precedent seeks to unpack positives and negatives of the BRT system in order to improve on the existing model for the South African Context.

The Second Precedent is located in Durban, South Africa. Warwick junction is an example of a thriving informal economy which relies on the transport networks which exist in the precinct. This precedent begins to unpack the symbiotic relationships which exist between trade and transport and provides a contextual understanding.

The final Precedent is located in Johannesburg South Africa. The Baragwanath transport interchange and traders market is an example of trade and a BRT system operating in a South African setting.
3.1

3.1 BOGOTÁ

3.1.1 TRANSMILENIO (BRT)

**Project Leader:** ENRIQUE PEÑALOSA (MAYOR OF BOGOTÁ), CITY OF BOGOTÁ

**Location:** BOGOTÁ, COLUMBIA

**Project Year:** 2000

Figure 25- Map Of Bogota. Source: Google Earth. www.google.co.za/maps/place/Bogotá
Transmilenio is a rapid bus transport system which was implemented in the city of Bogotá in Columbia. The system was opened for operation on the 18th of December 2000 after a lead time of approximately 3 years.

The state of public transport in Bogotá prior to the implementation of the transmilenio was similar to the current state of public transport in Durban. In Bogotá the main mode of transport was buses, in Durban it is the mini-bus taxis. Prior to transmilenio all of the buses in service were operated by private companies, these companies however did not own the buses. The buses largely belonged to numerous small operations or private drivers. The private companies would purchase licenses for particular routes and the bus owners would then pay them in order to traverse the route. The companies therefore made the most money by holding the licenses to the busiest routes. This led to too many buses operating within the city and too few reaching the periphery areas where the poorer part of the population lived. As with the taxi system in Durban, the drivers are paid according to the number of passengers they transport this leads to dangerous driving, stopping to pick up passengers with little or no regard for designated pick up areas and long working...
hours. Furthermore it led to poor maintenance of vehicles as they were run for longer in order to maximise profits. The system became highly exploitative, with suggestions of corruption, due to questionable allocations of routes to private companies. These companies then charged to the bus owners’ higher fees. The drivers also often increased prices by a small percentage in order to increase their margins, this all resulted in the end user or passenger being forced to pay inflated rates. (Gilbert, 2008) While these are all characteristics of the bus system in Bogotá, they can also be used to very aptly describe the condition of the mini-bus taxi system in Durban.

In order to ease the transition from the old system to the new transmilenio system, the city developed a hybrid system. In the hybrid system, the private and public sector share the responsibility of providing the transport service. The buses belong to private companies who are contracted by the state to provide the service along the designated routes. The drivers are then employed by the private companies and are paid a standard salary. The same system applies to the feeder buses which belong to separate private companies, also contracted by the state. Transmilenio SA who are a state organisation overlook the everyday running of the system and track the buses via satellite, they also have direct communication with the drivers to ensure that the service is provided according to plan. Transmilenio makes use of red articulated buses along the main routes with green feeder busses carrying passengers to the main stations. Each articulated bus is capable of carrying 160 passengers. These buses operate along the reserved corridors, usually made up of
two lanes in each direction. To avoid the exploitative operation of the previous bus system, passengers must purchase travel cards prior to boarding, a fixed fare is charged irrespective of distance travelled; these fairs are collected by a private third party company. The fixed fare was implemented to aid the poor, due to the poor being forced to live on the periphery of the city, they are forced to travel further, by creating a fixed rate, the shorter distances travelled by the well off, subsidise the travel of the poor. Furthermore, the feeder system is free to use, to passengers riding the main red buses. Due to the periphery areas requiring a larger feeder network due to their disbursement from the main routes, the fees paid by the wealthy who live toward the centre of town and don’t require feeder systems, subsidise the feeder system for the poor. (Gilbert, 2008)

The plan for the transmilenio system was for it to be constructed in 8 phases and to be completed by 2031. It will eventually consist of 25 corridors spanning 386.6 km’s and catering to 80% of the transport need of the citizens of Bogotá, as stated by Gomez (2004) as cited in (Gilbert, 2008). These corridors would be constructed along major roads, with pedestrian bridges linking to the stations in order to ensure passenger safety. The proposed infrastructure for transmilenio would all be financed from public funds. While funding was initially made available for a metro system, the rapid bus transport system proved a much more suitable response. Metro systems work well in linear or compact cities where many stops lie along a small number of routes. Bogotá and Durban, however, are cities with a far greater sprawl which require ‘tying together’ through far reaching efficient public transport systems. The
Buses allow for a much wider reach and at a fraction of the infrastructural cost of a metro. Furthermore, the bus system could be implemented much sooner than the metro due to it making use of existing infrastructure. (Gilbert, 2008)

Since the implementation of transmilenio, the accident rate along the corridors serviced by the red articulated buses has reduced drastically, both inter vehicular accidents as well as accidents involving pedestrians and vehicles. There has also been a noted reduction in air pollution and traffic congestion, the latter resulting in significantly reduced journey times, with buses able to travel at an average of 27km/h as opposed to a previous average of 18 km/h. The new public transport system also caters for disabled persons, a feature which was not present in the previous public transport system. Transmilenio was designed to cater for a diverse range of users, from poor to rich. Currently the largest portion of users belong to the middle class of Bogotá, this is however reflective of the current routes which have been completed, with the far reaching routes, which extend to the periphery areas where the poor live, yet to be completed (Gilbert, 2008). While this makes financial and logistical sense with the routes through the city requiring the least infrastructural investment and offering the largest concentration of users, it must be questioned whether this approach is socially just? The users living on the periphery are still forced to use other means of transport to get from their homes into the catchment areas in order to utilize the transmilenio system. The planned network will eventually reach the poor, however in the current situation; the poor are not getting the most out of the new system. This therefore illustrates of a lack of social and spatial justice as
the needs of the poor have not been prioritised and as mentioned in (2.1.5) the right should belong first to the impoverished and marginalized as they are starved of basic needs, their needs should therefore be met before the wants of the middle class whose basic needs have already been met. In this case the impoverished cannot afford private transport and should therefore benefit from public transport first, before the middle class who already commute with private transport.

Early criticism of the system mainly revolved around teething issues with regard to how people use the system. As time went on however, other issues began to be raised. These include: the poor quality of materials, with pavers used along the routes already beginning to deteriorate; poor upkeep of the stations; and later poor service delivery brought on by the system not being able to cope with the increased number of users during peak times and people enduring longer wait times between buses along certain routes. Built onto these grievances was the fact that users feel that transmilenio SA are divorced from the problems users experience on the ground and therefore cannot cater to their needs. This could be further fuelled by the fact that transmilenio has increased its percentage of the fares from 3% in 2004 to 6.95% in 2006. Another issue that has arisen is the issue of crime, pick pockets have begun operating on the buses, despite the efforts of the police and Transmilenio SA to station guards and policemen at the stations. The combination of these issues has resulted in a decrease in the approval rating of the system from local residents, it is however widely agreed that the implementation of transmilenio has improved both
the city of Bogotá and the level of public transport available to citizens. (Gilbert, 2008)

There have been suggestions that the number of users has dropped, this calculation was however based on the number of commuters per bus, with the routes expanding to less busy regions as well as an increase in the number of buses in operation, even if the number of users remained the same, the number of commuters per bus would on average decrease. This is however an important finding to consider when moving forward, as a reduction in users per bus means an increase in fares which could result in a further reduction of users which in turn would create a vicious cycle resulting in the failure of the system.

![Bogota Unemployment Rate](http://colombiareports.com/bogota-economy-statistics/)

Figure 27- Bogota Unemployment Rate. http://colombiareports.com/bogota-economy-statistics/
Illustrated in the graph above (see Figure 27- Bogota Unemployment Rate. http://colombiareports.com/bogota-economy-statistics/Figure 27) is the unemployment rate of Bogotá in comparison to the unemployment rate of the rest of Columbia. Prior to 2006, Bogota had a much higher unemployment rate in comparison to the rest of Columbia. After 2006 however, the employment rate has been better than that of the rest of Columbia. While this could be a result of many factors, one of those factors is the accessibility of jobs to residents who previously did not have access to job opportunities. This is as a result of a healthy public transport system which allows people from the periphery to traverse to the city in order to find employment at an affordable rate, thus allowing the poor, the opportunity to better their own standard of living. When combined with urban regeneration, this will provide the poor with an opportunity to integrate into the city.

In terms of access the Transmilenio system does well to connect citizens with all parts of the city. Although the immediate impact was not felt on the periphery, the finished system would reach far enough to provide even the poor citizens living on the periphery with access to the city center and all the amenities and services that are part of city life.

At the moment, transmilenio is purely a transport system that hasn’t had a large impact on the built environment. Therefore the system provides people with purely a visitation right to the city which has failed, as of yet, to evolve into a participation right.
As a result of the Transmilenio system marginalised individuals are better connected to the city yet still remain unable to shape the space which they utilize in the city. It can therefore be said that a transport system alone, without any other form of development cannot achieve social nor spatial justice.
3.2 DURBAN

3.2.1 WARWICK JUNCTION

Architects: WARWICK JUNCTION URBAN RENEWAL PROJECT, ASIYE ETAFULENI
Location: DURBAN, SOUTH AFRICA
Project Year: 1995 (ON GOING)

Figure 28- Warwick Junction Map. Source: Google Maps. www.google.co.za/maps/search/warwick
Positioned at the “entrance to the city” Warwick junction is located between the CBD and the residential suburbs of Glenwood and Berea. The market hub of Warwick sits underneath the fly-overs which connect the CBD to other inland business hubs via the national highways. The somewhat forgotten and covered up location of Warwick Junction can be seen as a metaphor for the previously nonchalant attitude the state and private investors had taken toward the precinct.

Street traders are attracted to Warwick Junction due to the large volume of people who pass through the precinct on a daily basis. This is largely due to the numerous public transport systems which exist in and around Warwick Junction, as
well as it being within a 10 minute walking distance from the CBD [as illustrated in Figure 29- Warwick junction]. (Dobson et al., 2009)

In 1995 the local authorities set up an urban renewal project for the Warwick Junction precinct. This project was set to undertake a very different method to most other local authority projects both in South Africa and internationally as Street traders would be included in the urban planning process. (Dobson et al., 2009)

The local authority took the decision to include street traders due to the acknowledgment of the important role traders’ play both in the economy of the city as well as toward supporting often large families in the rural areas. Furthermore there are many previous examples of infrastructure being provided for traders but left unused due to it not meeting the needs of the traders. Therefore including the traders from the outset would ensure that all parties achieved the maximum output as the traders would receive the infrastructure they require and the municipality would not waste funds providing infrastructure which does not meet the needs of the traders. (Dobson et al., 2009)

The urban renewal project in Warwick has been very successful and has received numerous awards and accolades; key to that success has been the shift in approach by the local authorities. This shift was from an aristocratic top down approach to an interdepartmental participative approach which combined the skills of city officials in the immediate renewal and the on-going management of the precinct with the efforts from traders and organisations on the ground in shaping the change they wished to
see in the precinct. Part of this new approach of the local authorities involved locating the project center in Warwick junction. In so doing, the officials would go to the traders instead of it being the other way around, as it would previously have been done. This is an important factor as it illustrated to the traders that the officials were trying to do things differently to the old apartheid government and went a long way in establishing a trust in the partnership between the traders and officials. (Dobson et al., 2009)

The system set up for traders works as a lease on a property does, the traders pay a fee to the local authorities which provides them with a license to trade, each license is associated with a “plot number” each “plot” is denoted by lines painted on the ground. Most street traders are not provided with any infrastructure on their plots but can bring in their own table and chairs as long as it sits within their denoted space to trade. A further restriction is that whatever infrastructure they do bring in themselves has to be removed every night so that the streets can be cleaned. (Dobson et al., 2009)

This raises the question of possible over management by the local authorities. Could the traders not be treated as tenants in a shopping mall are? Could they not be provided with a stall and be responsible for its upkeep. This would illustrate the street being part of the commons as opposed to it being a state owned asset that is leased to traders with restrictions and limitations.
This is especially pertinent as it was the traders who began to implement safety systems among themselves to improve the environment in which they work as they saw it as a benefit to their business if the area was safer as more people would walk through it which would provide more customers for them. (Dobson et al., 2009)

Could the same logic not be applied to cleanliness and upkeep?

Contrary to the over management exercised by the state in terms of licensing, the bovine Market in Warwick acts as an example of the top down and bottom up approaches combining for the betterment of the commons. The bovine market is a market where the traditional African cuisine of cows’ heads is served. The chefs skin the heads, remove the meat and cook it all in the market. Previously this occurred on the street and resulted in grease clogging the municipal storm water system. Through the Warwick Junction renewal project, infrastructure has been provided for these traders to facilitate the already existing activities. The infrastructure consists of a shelter, concrete tables and a central drain with systems to deal with the grease [see Figure 31- Bovine Market Sketch below]. (Dobson et al., 2009)
The Warwick renewal project has illustrated that it is possible for the state and/or private investors to work together with users on the ground to improve the commons. Through the shift in approach by the local authorities the traders in Warwick who had already been achieving a level of right to their city by shaping their space to suit their own desires were afforded the opportunity to have an input to the development of the area which has resulted in the local authority providing infrastructure which helps the traders to shape their work space to suit their own desire instead of hindering the process and thereby oppressing them. It can therefore be said that through active participation combined with a new approach from local authorities, spatial justice has now been achieved in Warwick junction. Importantly this is an area where social justice had already been achieved as illustrated in the Early Morning Market example mentioned in (2.3.1) where the traders took legal action against the development of a shopping mall on the site of one of the most prominent markets in Warwick which would have led to the destruction of the market and many jobs and livelihoods with it.

Although the traders in Warwick Junction have attained the right to their city, they have not yet been integrated with the city as they still face long commutes to their homes on the outskirts of the city. “If they (the traders) live too far away or have not made sufficient income in the day to pay for transport home, they face a night sleeping on the streets.” - (Dobson et al., 2009)
3.3 SOWETO

3.3.1 BARAGWANATH TRANSPORT INTERCHANGE & TRADERS MARKET

Architects: URBAN SOLUTIONS ARCHITECTS + URBAN DESIGNERS

Location: JOHANNESBURG, SOUTH AFRICA

Project Year: 2006

Figure 32- Johannesburg Map. Source: Google maps. www.google.co.za/maps/place/ Johannesburg
Baragwanath Transport Interchange & traders Market or “bara” as it’s more popularly known to locals, was initiated in an attempt by local authorities to improve the link between the township of Soweto and the Johannesburg CBD. (See Figure 33 Below) The development also included the Metro Mall which will be further explored in section (4.1.1).

![Transport Route Bara - Metro mall](www.google.co.za/maps/dir/Metro+Mall)

Bara developed from the existing functions which had developed over a period of time. It started off as a bus stop and later taxis and traders arrived as the informal market began to flourish in South Africa. The need for public transport as well as the acknowledgement of the importance of informal trade resulted in the development of a formal built structure which could facilitate these practices, providing shelter, seating and other necessary functions such as ablutions.
Much like the Warwick Junction urban renewal project, the design process engaged with the users from the inception of the project so as to ensure that the knowledge gained through the development of the space could be utilised in the design of the built form.

During the development of Bara it was important to not displace the existing users as the site provided a livelihood which not only impacted on the traders but also on those who they supported with their income. For this reason, it was decided that the construction be split into phases so as to limit the impact on the traders. The decision to make use of phased construction proved beneficial in that designers could witness the success and failures of initial phases and make corrections or improvements to the phases to come.

The building made use of two different trading typologies, the street traders who were provided with a table on which to sell their goods [see Figure 34- Bara Internal Space], and the larger traders who were provided with a lockable space. The street traders were located along the main spine or pedestrian corridor as they traded in quick turn over goods such as fruit and cigarettes. The larger spaces were located off the spine and this has proven...
problematic as the facilities are left largely unoccupied due to a lack of engagement with possible customers.

The Bara interchange and traders market was initially set up to provide improved access to the Johannesburg CBD for marginalised individuals living on the periphery township of Soweto. This was achieved through the amalgamation of taxi and bus systems into one central location, providing an ease of access to the user. The trade segment of the development, much like Warwick provided the traders with improved infrastructure as well as allowing them the opportunity to shape the spaces in which they work to their own desire. This is highlighted by both the incorporation of the traders in the design process as well as the on-going developments at Bara which
allow traders to improve the infrastructure to suit their needs. This highlights that much like the traders in Warwick; they have been provided with a participation right.

The interchange is however located roughly 16km away from the CBD and therefore cannot be considered as part of the defined Johannesburg CBD, however as Lefebvre stated, the right to the city needs to extend to all urban life. With the definition of City extending to all urban life, it could be said that the traders of Soweto have attained a participation right but have not been integrated with the city, albeit by choice. This is important as it is the first example of informal traders working close to home, benefiting from the dense numbers of people in the city and earning a living in conditions and a volume, usually associated with the city. Furthermore, state investment has not often extended to periphery areas even after the abolition of Apartheid. This illustrates that if the periphery is acknowledged as urban and investment from the state and private sector reflect this, marginalised individuals can indeed gain a right to the city and do not necessarily need to be integrated to the city to gain access to amenities and resources associated with the city.
3.3.1 CONCLUSION

The three selected precedent illustrate that transport and the ability to shape ones space are not enough to rectify poor urban planning. In order to reintegrate the marginalised on the periphery with our cities there needs to be an introduction of affordable and accessible accommodation within the city for such individuals.

Transmilenio Illustrates that access to the city is vital however it does not necessarily result in spatial and social justice being achieved. Warwick junction illustrates that acknowledgement of the informal economy and development that allows for top down to meet bottom up results in spatial and social justice being achieved. However without access in the form of residential or transport infrastructure integration cannot be achieved. Baragwanath illustrates that even a combination of access through efficient public transport and the ability to shape ones space and create economic opportunities does not result in true integration but rather a superficial integration as people are forced to leave the precinct after a certain time due to a lack of residential accommodation.

It is only through a combination of efficient public transport, economic opportunities and the availability of residential accommodation that marginalised individuals can begin to integrate with our cities.

CHAPTER 4.0

CASE STUDIES
4.1 NEWTOWN- JOHANNESBURG

4.1.1 METRO MALL

Architects: URBAN SOLUTIONS ARCHITECTS + URBAN DESIGNERS

Location: JOHANNESBURG, SOUTH AFRICA

Project Year: 2002

Figure 36- Johannesburg Map. Source: Google Maps. www.google.co.za/maps/place/Johannesburg
Metro Mall is situated in the Johannesburg CBD and was developed along with Baragwanath as bookends to the major transport route identified by the Johannesburg municipality post-apartheid to transport marginalised individuals from the township of Soweto into the city. (See Figure 33. Pg. 75)

The site is comprised of two previously degenerated parcels of land. The location acts as a link between Braamfontein to the North and Newtown to the South. The aim of the project was to provide much needed ranking facilities for the already thriving informal taxi system as well as to formalise the existing street trade. The taxis already operational in the precinct formed the primary source of public
transport. Prior to 1994 however there were no ranking facilities available for the taxis and they therefore congested the inner city roads.

The project sought to take advantage of the relationship between traders and taxis in order to maximize the potential for economic growth of the informal sector. For this reason, the taxi rank was internalized within the building in order to provide the traders with two active edges on each of the four sides of the block (see Figure 38). This however has not worked out as planned; the pedestrians now enter the taxi rank from the vehicular entrance thereby reducing the activity in the trading spaces.

Metro Mall is an example of good spatial justice as it provides the infrastructure and development to facilitate the current activity on the site as well as improving the experience of the users. The development sought to cater to the needs of traders by locating them along the busy pedestrian corridors. The downfall, however, is that the glazed shop fronts sit along the busiest pedestrian street and these stores demand a rental which is too high for most informal traders. Ironically, these shops act more as destination stores which could be located internally without it being detrimental to their sales, whereas informal traders rely heavily on passing feet.
The building seeks to address the corners by opening out to them as well as with prominent built features which pronounce the corners. Furthermore, the main entrances are located on the corners. This has been successful in that the corners do not create dead space [see Figure 39- Metro Mall Expressed Corners].

The presence of stairs at the main entrances has however created a pedestrian flow around the building as opposed to through it; this is a missed opportunity to provide the traders with a larger flow of pedestrian traffic. It is understood that these stairs act as a privacy barrier between the building and the street, however it is important to understand the role of a public building in the African context as it differs from that of a public building in a European context where privacy and control are at the forefront of the design requirements. In an African context public buildings need to be accessible and allow for the free movement of people in order to be successful. This is because of the direct relationship between movement of people and informal economic activity like markets and taxis. It is in the presence of taxis and markets that public spaces become safe as there are people who take ownership of the space and seek to maintain it.
In terms of the transport system, the infrastructure provided for the taxi’s works well. It provides the taxis with a platform for the facilitation of their previously existing organised system, in a more conducive environment. This has resulted in a clean environment with an improved experience for commuters due to the provision of seating areas, shade and the availability of shops and food outlets in extremely close proximity.

The proposed integrated bus and taxi system however has not been as effective with the buses largely dying off bar a few that pass by along Lilian Ngoyi Street during peak morning and afternoon times. As a result the taxi system has thrived as it has grown to take on the longer bus routes as well as the shorter taxi routes.

Metro Mall has provided marginalised individuals on the periphery of the city with access to the city in a dignified manner, by legitimising and catering to a much needed public transport service which had previously been bastardised by the apartheid government.

Furthermore it acknowledged and catered to informal traders who had previously existed on the site in order to service the informal taxi rank. The informal traders had shaped the space to suit their needs in order to cater to a niche and make a living. Metro mall provided the infrastructure to facilitate the activity of informal trade. It can therefore be said that metro mall is an example of good spatial justice as it provided the traders with infrastructure to facilitate their needs.
The traders are however only granted a visitation right as they are still forced to commute to and from the periphery on a daily basis, the plans to include residential components in this building and in the surrounding context has not materialised. This could be seen as part of the reason why the bus system has failed in this precinct as a timeous, efficient and affordable public transport system requires a dense context with a large number of residents in order to be successful.

In terms of a right to the city, the traders have not attained a right to their city even though they were able to shape their space, the space has now become rigid and controlled by governing bodies, and this has restricted the traders in terms of how and where they can trade. The informal traders have been forced to operate in the less optimal spaces due to the more established retail spaces being designed to sit along the most active edges.
4.2 WARWICK JUNCTION - DURBAN

4.2.1 BEREA STATION

Architects: **UNKNOWN**

**Location:** DURBAN, SOUTH AFRICA

**Project Year:** Apartheid Era

Figure 40- Berea Station Map. Source: Google Maps. www.google.co.za/maps/dir//Berea+Station
Located on the train tracks which divide Warwick Junction and the city, adjacent to the road network which stitches these two precincts together and forming part of the pedestrian link from the markets of Warwick into the city, Berea Station can be seen as a definitive marker of the entrance to Durban City center. During Apartheid this was used to racially segregate the population and control access to the city. The Berea Station consisted of racially exclusive platforms and dedicated circulation routes in order to separate race groups [see Figure 42- Berea Station Stair Cases]. Berea Station deliberately controlled
the access of Black individuals into the inner city; it was the only elevated crossing over the rail corridor connecting the inner city with metro wide public transport routes (Dobson & Design Collaborative, 2011). By segregating and controlling circulation through the building it became possible to control the differing access allowed to each racial group.

Today the location of the station and its link to major transport routes has resulted in the area in and around the station becoming an integral part of the taxi network which services the province, with approximately 1550 mini bus taxis departing from here each day. Along with the taxis approximately 300 buses depart here each day together servicing 166 000 passengers daily. (Dobson et al., 2009) It can therefore be said that the precinct is a good example of access as it provides 1000’s of commuters with access to the city and its associated functions on a daily basis, albeit a visitation right.

While the bus and taxi networks have been provided for in terms of ranking facilities, these ranks are located on the ends of the precinct resulting in the taxis causing an element of congestion on the roads as they wait for commuters to hop on and off in the heart of the precinct. Furthermore the ranking facilities provided are little more than a steel portal frame with a sheet metal roof. There are no ablutions to speak of and often not even running water is provided. The station itself still services a rail network albeit a dwindling market with the lack of maintenance of the lines and the trains resulting in commuters choosing other alternatives.
Berea Station was designed as primarily a train station during the apartheid period in South Africa’s history. During this period the architecture of public buildings was one of an authoritarian style designed to control the movement and interaction of users both with the building and with each other when inside the building, this was done with a particular focus on segregating spaces along racial lines. This is illustrated by the long central movement corridors designed to create a fast flow of people through the space which is flanked by arcades which act as a relief from the fast movement of the central space and allow for the interaction with the small shops located within the station. This could be said to be a successful train station design.

After the abolition of Apartheid and the shift in dynamic of both users and provision of public transport, there has been an evolution which has occurred in Berea station. The small retail shops have been replaced by the more established traders from the surrounding markets. The arcades have been commandeered by the traders in search of heavy pedestrian movement which is found closer to the main circulation space. This was done as the traders sought quick interactions with commuters looking to purchase fruit, airtime, and other everyday items on the go.

Walking through Berea Station, it is easy to see the adaptation that has occurred in the way the new users have re-used the spaces which existed for an entirely new purpose catering to a new set of activities [see Figure 43 – Inside Berea Station]. In the process of this adaptation it can be said that the traders expressed their right to the city as well as their spatial justice by adapting the spaces to suit their own
desires. While the infrastructural intervention from the top has been largely non-existent, the active participation from the bottom is clearly visible for all to see. From large gestures such as commandeering the arcades to get closer to their customers, to the use of pallets, garage doors and other materials purchasable at the local hardware to facilitate their specific needs, the traders have truly shaped the spaces within Berea station to suit their desires.

Berea station is therefore an example of incomplete spatial justice, located in a precinct which is a forerunner in the attempt to achieve social justice in a post-apartheid South Africa. It yet needs to integrate with the rest of the city and provide for complete equality in the current multi-racial society. While there are still steps to be taken in terms of infrastructure provision from the top and the ability for previously marginalised individuals to reside in the city, the ability for marginalised individuals to participate in and shape the space which they occupy is a step in the right direction. Particularly in a precinct which is still largely influenced by the apartheid planning ideal of being a work zone which empties at 5pm on a weekday void of other aspects of living.
CHAPTER 5.0

5.0 DATA ANALYSIS
5.1 INTRODUCTION

The spatial disconnect that exist between the economic rungs of the South African population is not a problem specific to the country. It is a problem shared by many countries globally in both the first and third world. It is a problem brought on by the capitalist system and is therefore a global issue. In South Africa, however, the oppression went a step further during the apartheid era by intentionally oppressing black South Africans through the existing global systems of modern city planning (separation of functions) and the capitalist economy.

In order to overcome these issues of the past, development in the present as well as in the future needs to be aimed at providing access to the city and the resources which go with city living to marginalised individuals as well as providing the opportunity for such individuals to shape their space and become active participants in the city. In order to do this, migrants, who have been forced to settle on the periphery of South African cities, need to become integrated with the city as it is only through this integration that they can be allowed the opportunity to shape their space and reside within the city. It can therefore be said that dialectic exists between the integration of migrant and the city; and achieving social and spatial justice.

The sample for this study consisted of two groups, the migrant workers affected by previous city planning methods and professionals from the built environment; with the decision making power to affect the way the city of Durban develops moving forward.
The interactions with the migrant workers consisted of observations in the way they use the spaces they occupy in the city as well as how those spaces provide for their needs. Observations were chosen for this segment of research as it was important to take an objective view on what is required. Through interviews and questionnaires information is often subjective, based on ideal situations and removed from the contextual understanding. Through observations and interactions it became possible for the research to understand the complexity of the systems that exist in Warwick Junction as well as to gauge the priority of needs from the users of the space.

A focus group was held with professionals from the built environment in order to gauge how the city planned to address the needs of the marginalised. The focus group was selected as the method of research in order to spark conversation and allow opposing points of view to come to the fore. The subjects consisted of members of the GO! Durban team who head up the transport proposal for Durban as well as participating in the future city plan for Durban; and members of Asiye eTafuleni, an NGO, who have been working with the traders in Warwick Junction since 1995 in an attempt to improve the experiences of previously marginalised individuals.

Some of the difficulties experienced during the conducting of this research were finding concrete tangible plans for the proposed development of Durban’s inner city as well as extracting information on how the built environment can aid in what can be
defined as a largely social problem. The unavailability of tangible information was mainly due to the proposal being in its juvenile stages with no concrete decisions made as of yet. This could be seen as an opportunity where the research has identified issues in relation to the space and has the opportunity to address them unshackled by existing proposals. In terms of the problem being social in nature, with reference to the theory this dissertation explored, social issues translate directly into spatial issues as the two feed of each other in dialectic. It was therefore the responsibility of the researcher to determine how the social issues could be addressed through spatial means.

After conducting the research, the validity of the study and the real tangible need for intervention became clear. This created confidence in both the subject of the study as well as the selected location of the study.
5.2 FINDINGS

5.2.1 OBSERVATIONS

The observations were carried out in the Warwick Junction Precinct which is seen as a transport hub that links the outer areas of Durban with the inner city. The precinct consists of a train station, multiple taxi ranks as well as a Bus rank (See Figure 44 below). The taxi ranks are a complex system consisting of three large ranks which service the south coast, north coast and inland catchment areas. There are however further street ranks which cater to a shorter distance.
The condition of the street ranks have highlighted a disconnect between municipal departments as they have been provided with legal rights to rank on the street but have not been provided with basic facilities required for a taxi rank such as running water and ablutions. This often results in fines and harassment by the police for washing taxis on the street with water collected in buckets and occasionally public urination. The lack of running water and provision of ablutions plays a large part in the condition of the precinct. Even though the users have made an effort to improve the cleanliness it is difficult to do so without the correct infrastructure.

The issue of ablutions is one that carries across to the traders as well with women having to walk an unreasonable distance to use a bathroom. Most of the traders in Warwick Junction are woman and most of them operate stalls alone, this means that they have to leave their stalls unattended for the duration of time that it takes for them to get to a bathroom and back. With most of the stalls being unsecured tables they rely on each other to keep an eye on goods. This system works but could be made easier through the provision of more suitably arranged ablutions.
Another problem faced by traders is that of storage. With the majority of traders working from tables and having to pack up their things at the end of the day the need for storage within the precinct is extremely high. The current solution is for the traders to pack their goods into wooden boxes (see Figure 45 right) which are transported by barrow pushers to one of the storage facilities located within the precinct. These storage facilities are secure from a safety point of view but not necessarily safe from the elements. Another issue is that the traders pay the barrow pushers who intern pay for the use of the storage facility, this system leads to barrow pushers occasionally sleeping with the goods to keep them safe instead of paying for the use of the storage in order to pocket extra money.

As highlighted in section 2.1.4 the current situation in the city is still suffering the effect of apartheid city planning with the city being predominantly a place of work with very few residential opportunities. As a result of the lack of residential opportunities available, traders commute on a daily basis. If a trader does not make enough profit on a given day and does not have enough money to pay for the commute home they are forced to sleep on the streets that night. This accentuates
the need for accommodation within the city at a rate that is affordable for traders and other low income workers employed within the city of Durban.

Above all else the observations bring to light the systems that exist in Warwick Junction and how these systems are finely balanced and often go unseen but act as the cogs that keep the machine in operation. Systems such as the relationship between taxi ranks and traders, which appear random but have developed in a manner that positions specific goods (generally refined goods such as church uniforms) close to long distance ranks and other goods (perishable goods such as fresh produce) close to short distance ranks. Other systems involve the relationship between traders and barrow pushers as mentioned earlier. The interdependency of these systems suggests that an intervention in Warwick Junction needs to be a multi-functional interdisciplinary intervention that caters to all facets of the interwoven systems or none at all in order to maintain the fine balance in which the precinct operates.
5.2.2 FOCUS GROUP

During the focus group there were somewhat contrasting views on the approach that should be taken in terms of developing the Warwick Junction precinct. The idea that development is required was, however, unanimous. The two methods could be described as top down from the GO! Durban point of view and bottom up from the NGO point of view. This is brought on by GO! Durban being designed by individuals who are extremely knowledgeable in their field but detached from the inner workings of Warwick Junction, they have, however, acknowledged Warwick Junction as the heart of the transport network for Durban with all the major corridors intersecting in the precinct. The NGO, Asiye eTafuleni, on the other hand has been solely working in Warwick for over a decade and therefore have an in-depth understanding of its operations and have constructed relationships with its users which make conversation easier as trust has been established.

Bottom up refers to the method of development which understands the needs of the users/participants and caters to those needs through inclusive design practices providing the user with a say in how the development unfolds. Top down on the other hand consists of well educated professionals making decisions on how to develop an area based on a detached perspective from a stance of the current practices being flawed.

The bottom up approach of the NGO’s suggests that there is a need to understand the systems in place and how they relate to each other to create a working whole. An example of this is the relationship between traders and taxis. In
order to design in a manner that incorporates the relationship between traders and taxis it is first important to fully understand that relationship.

We all know the theories that the taxis are important but I think people look at the logic of it slightly naively and they think that they can engineer it from a formal point of view. The taxis have their own dynamic within them, so the question is what is the destination of the taxis so are they long haul taxis or commuter taxis? Brook Street and Berea Station are interesting, because the taxis you have on the south are generally long haul taxis so they are going to high flats, Ixopo and places like that. So for instance the people who are on them have completely different shopping patterns to those who will be out here on this rank out near here [Short distance rank to Tongaat and Verulam]. They are more a local commute mix. The taxis only leave when they are full. So the standing time of those taxis is completely different to these ones.

It is important to look at the queuing dynamics and the shopping patterns and where people are going. So as I said this simplicity in people’s thinking- you can’t think just because there are taxis they’re going to generate business. This thing has got to have a level of robustness about it that has this level of flexibility. We’ve got to move
away from the first world shopping mall mentality for these people [users of the informal sector]. – Asiye eTafuleni (2016)

As pointed out in the observations section of this research the destination of the transport determines the types of goods commuters are willing to purchase and an understanding of that relationship allows for the design to incorporate the different levels of trade that exist in the informal economy by creating spatial relationships between each layer of trade and the relevant transportation node.

Referring back to the Metro Mall example however, the traders have not benefited as planned by the development despite the architects aiming to provide the traders with more active edges to work from.

What you mentioned at Metro Mall isn’t that there is a mismatch it’s just been designed very simplistically. Also the dynamics change and the shopping patterns change. It’s a very dynamic mix. I think what happened with Metro Mall is that economics came in to play when the rentals starts to climb year in and it just made it unaffordable for the guys who which it was originally intended for and of course a kind of informal economy gentrification occurred. – Asiye eTafuleni (2016)

At metro mall the taxis are grouped together regardless of destination as a result the differing markets are no longer separated and the traders are all forced to compete for space regardless of their level of trade. Small fresh produce traders are
forced to compete for space with refined goods traders; as a result the smaller traders are priced out and cannot survive economically. In order to intervene in areas with such finely balanced dynamics it is vital that the dynamics be fully understood in order to cater to the needs of the user effectively.

The method used by Asiye eTafuleni has largely been that of inclusive design whereby the users are involved in the project from the early stages and continue to be involved throughout. This has borne successful results during the Warwick Junction Rejuvenation project. Furthermore it has led to new solutions being found as professionals from Asiye eTafuleni and other participants are pushed further in order to meet the needs of the user. An example mentioned by Asiye eTafuleni is that of the stoves at the bovine head market which were a point of controversy for a long period as the department would not allow open flames for safety reasons and traders could not afford the gas for gas cookers. Eventually a new solution was found in the form of a combustion cooker which uses bio materials which meets the demands of safety put forth by the department as well as providing a cheap fuel which would not affect the traders’ revenue. In terms of the theory explored in this dissertation inclusive design is an example of a way in which spatial justice can be achieved as the user is given a voice and thereby has the opportunity to shape his/her own space.

GO! Durban on the other hand has taken the approach of a top down development which has analysed movement patterns in the city and has designed
infrastructure which can improve the methods of movement in and out of the city. While the GO! Durban project has been an inter-disciplinary project; the input of users has been minimal.

According to members of the GO! Durban team, the project aims primarily at creating an intermodal public transport network to facilitate ease of movement and create a connected city from the basis of the poly-centric city model upon which Durban has developed. The poly centric city consists of multiple developmental centres; in Durban’s case these include the CBD, uMhlanga, Ballito, Hillcrest, Pinetown, Umlazi and KwaMashu, among others.

They acknowledge that in order for the transport system to be successful there needs to be an increase in density within our urban centres. The suggestion by the Go! Durban team is that the CBD itself needs to increase its residential density by four times. In order for this to happen, development needs to occur. This development requires top down funding, as the urban poor who currently make up the majority of the city’s occupancy cannot afford to fund such developments.

The introduction of good public transport is aiming to create lucrative investment opportunities for private investors by increasing the number of people passing through the city.
The team states that the development does not seek to change the socio-economic dynamic of Warwick Junction but rather to cater to it, improving the experience of the city for its users regardless of socio-economic standing.

Instead of a participatory approach to design the GO! Durban team have chosen to take a flexible approach to the project by completing the design of the preliminary corridors but waiting to learn from them before completing the design of the phase to follow and so on and so on. This allows them to learn from mistakes as well as things which have gone well in order to improve on the system and the way it works. This method might not engage with the users but is ultimately determined by the users as it is only through the way in which the users interact with the system that the designers and decision makers can learn.
5.3 ANALYSIS

As illustrated by the South African examples highlighted in chapters 3 and 4, there have been major strides taken in correcting the wrongs of apartheid city planning. These strides have, however, provided only the platform upon which to build by providing migrant workers with improved access to the city. This extends to a visiting right which has not yet fully evolved into a participatory right. The research suggests that access forms the short term solution to the problem of a disconnected city fabric which exists in South Africa. As illustrated in the Warwick Junction and Berea Station examples, where social justice is achieved it becomes easier for spatial justice to be attained.

The research suggests that the impact of bottom up development is too small to make a significant difference in overcoming the significant influence of apartheid city planning while the top down approach has the potential for big change; it fails to effectively carry out its intentions to benefit the marginalised. Therefore in order to make significant and meaningful change there needs to be a combination of top down development with bottom up understanding. By marrying the two approaches it becomes possible to fully understand the needs at a grass roots level while maintaining the power to make bold decisions on a large scale to overcome the bold decisions of the past. This ties back to the theory of right to the city and spatial justice as it is the marginalised users who need to make their voices heard and become active participants in the shaping of the city while it is the responsibility of the people with the decision making power to effect the change for the marginalised.
CHAPTER 6.0

CONCLUSION & RECOMMENDATIONS

6.0.1 INTRODUCTION

This dissertation has explored the development of South African cities and highlighted the issues which have resulted from the process of development which the county has undergone.

Theories of right to the city, access and social and spatial justice were explored in order seek a resolution to the highlighted issues. Through these theories it was suggested that efficient public transport and economic opportunities within the city would help to integrate marginalised individuals and the city.

Having looked at a series of precedents and case studies a conclusion can be drawn and recommendations offered.
6.1 CONCLUSION

Apartheid has created a problematic city fabric with lasting repercussions; however this problem isn’t particular to South Africa as modern city planning has done similar things in other countries. We must acknowledge this in order to learn from the ways in which other countries are overcoming the disconnected city fabric caused by previous planning methods.

Steps have been made in the right direction with a change in approach and a change in mind-set toward the future of our cities. Quality public transport has proven to be an excellent starting point toward creating a more inclusive city and provides the foundation for development which can sustain integration between migrant workers and the city.

There are already attempts being made by the eThekwini municipality to foster good spatial justice in the city of Durban. These include the formation of interdepartmental bodies who work with NGO’s and other organisations to ensure that the voices of the people on the ground are heard. Furthermore there has been a shift in approach from a rigid top down approach of the past to an inclusive and collaborative approach in which the users become integral from the planning stages.

Beyond the systems implemented by the municipality there needs to be a shift in mind-set from the current view of ownership belonging to one of three entities: private, state, or corporate. Once that mind-set has been addressed and the idea of the commons has been reintroduced to foster a relationship between people and the
care for spaces, it will become easier to achieve a development strategy of top down
development meeting bottom up activism. The idea of the commons is that everyone
benefits from its existence and therefore it is in everyone’s best interest to maintain it
and ensure its general upkeep, this fosters active participation. The balance of top
down and bottom up is pivotal in achieving spatial justice in a capitalist society as the
active participation from the bottom guides the top down development from
individuals with the power to make the large moves which shape the environment we
live in. Furthermore without the top down monitoring of the commons it becomes
easy for each user to marginally over step his bounds creating a collective miss use
that could become detrimental to the commons. The role of the state should be to
manage and oversee the commons so as to ensure its well-being while allowing the
users to shape it to suit their own desire.

The current problem being addressed in Durban is that of public transport,
therefore most of the development in the city is aimed at improving the public
transport system, namely GO! Durban. This will result in larger numbers of people
having access to the city and therefore provides the opportunity for the development
being undertaken to take cognisance of the short term fix that public transport
provides and include with it the availability of economic and residential opportunities.
By creating a system that allows improved access to the city as well as opportunities
for living and working within the city, it becomes possible to sustain the influence of
the transport system in integrating migrant workers on the periphery with the city
center.
6.2 RECOMMENDATIONS

6.2.1 URBAN CONTEXT

i. Acknowledge the existing context.

ii. Facilitate the implementation of the GO! Durban System and the Durban City Plan and its integration with the existing context.

6.2.1.1 CITY FABRIC

iii. Acknowledge the problematic city planning which is based on Modernist and Apartheid values of separating functions and race groups.

iv. Facilitate the redevelopment of the city fabric with the purpose of bringing functions closer together.

v. Introduce a residential component into the city to increase the number of people living in the city in order to facilitate a public transport system and improve the environment within the city.

6.2.1.2 TRANSPORT ROUTES

i. Acknowledge the existing relationship between various transport networks and the corresponding types of trade e.g. long distance taxis and traders trading in refined goods like church uniforms.

ii. Facilitate these relationships by locating corresponding trade and transport types together.

iii. Introduce the GO! Durban transport systems in place of the existing systems keeping in mind the characteristics of the new and existing systems and making decisions on the corresponding trade.
6.2.1.3 PEDESTRIAN ROUTES
i. Acknowledge the large number of pedestrians who traverse the city, as well as the increase in this number due to the introduction of a successful public transport system.

ii. Facilitate the movement of pedestrians within the city.

iii. Introduce Pedestrian priority zones and re-blocking to make movement easier for pedestrians. Introduce bicycle lanes to encourage the use of non-motorized transport.

6.2.1.4 BUILT FORM
i. Acknowledge the need to intensify and diversify the function of the built form within the city to cater to the growing urban population

ii. Facilitate the introduction of residential buildings and the intensification of commercial buildings in order to provide increased economic opportunities.

iii. Introduce more mixed use typology buildings which activate the street edge while providing economic and residential opportunities.

6.2.1.5 PUBLIC OPEN SPACE
i. Acknowledge the need for public space in the city

ii. Facilitate leisure activities within the city.

iii. Introduce public space and green zones to create a more inviting atmosphere allowing for leisure activities.
6.2.1.6 INFORMAL ECONOMY
   i. Acknowledge the contribution of the informal economy
   ii. Facilitate the continued growth of the informal economy
   iii. Introduce infrastructure to improve the experience of participants in the informal economy

6.2.1.7 SYMBIOTIC RELATIONSHIPS
   i. Acknowledge the current practices in Warwick Junction with particular reference to how elements feed off each other as well as how one element depends on another in order to thrive.
   ii. Facilitate these relationships within the building ensuring they are retained and each element is afforded the opportunity to thrive.
   iii. Harness these relationships between elements to strengthen the relationship between spaces within the building.

6.2.1.8 HISTORICAL CHARACTER
   i. Acknowledge the deep historical relevance of Warwick Junction
   ii. Facilitate the preservation of the good historical qualities, change the negative historical connotations brought on by the apartheid era.
   iii. Introduce an identity for the space based on the historical characteristics of the space.
6.2.1.9 DENSITY

i. Acknowledge that the current inner city density of 35 people/hectare is too low neither to sustain a public transport system nor to achieve successful city living.

ii. Facilitate an increase in density that reaches the target of 250 people/ha in order to achieve successful city living and sustain the GO! Durban public Transport system.

iii. Introduce more residential opportunities to the city in order to facilitate an increase in density.
6.2.2 SITE DEVELOPMENT

i. Engage in an approach of top down meets bottom up

ii. Maintain a north/north-east orientation as far as possible

iii. Engage in passive design principals to reduce heat gain and make the building comfortable

iv. Provide relevant solar shading in order to control the heat gain of the building

v. Design with acoustic qualities in mind as the railway line will create a noisy environment

vi. Choose site contextual materials in terms of aesthetics, history and robustness.

vii. Introduce green space to create spaces of relaxation as well as addressing the need for public space

6.2.2.1 SITE CHARACTER

i. Acknowledge Warwick Junction as the entrance to the city, due to its location as well as its function as a public transport hub.

viii. Facilitate the public transport systems making entrance to the city easier for marginalized individuals.

ix. Introduce an integrated public transport hub which creates an ease of transition for people entering the city.
6.2.2.2 CONNECTIONS

i. Acknowledge the important role Berea Station plays in linking the inner city to Warwick Junction and the Berea across the railway line.

ii. Facilitate the pedestrian movement across the railway lines and roads as well as the opportunity to engage in commercial activity along the way.

iii. Introduce a strong connection that extends into the CBD with the building acting as the entrance to the city.

6.2.2.3 PEDESTRIAN MOVEMENT

i. Acknowledge the need for pedestrian movement across the site which is split by high volume vehicular movement.

ii. Facilitate the link between Warwick Junction as the entrance to the city and the inner city itself.

iii. Introduce a level split allowing public transport and pedestrian movement to be separated from private vehicular movement.

6.2.2.3 MARKETS

i. Acknowledge the important role the Markets of Warwick play in catering to the informal sector as well as defining the character of Warwick

ii. Facilitate the activities that occur in the markets and allow for the character to remain constant.

iii. Introduce infrastructure which develops the markets in a manner that makes the jobs of the traders easier.
iv. Acknowledge the location of the markets and understand the reasoning behind it

v. Facilitate a similar market environment in the built form which will not affect the business of the traders even if relocation is necessary.

vi. Introduce intensified circulation and gathering spaces to further enhance the conditions for trade.

6.2.2.4 COMMONS

ii. Acknowledge the need for a paradigm shift in terms of the ideas of ownership from public space being state owned to being part of the commons.

iii. Facilitate the idea of the commons by improving the quality of existing public space such as streets

iv. Introduce more open public space, which is currently in short supply in both Warwick and the city, to create a better urban environment and encourage people to spend more time in the city.
6.2.3 TYPOLOGY- MIXED-USE INTERMODAL TRANSPORT HUB

6.2.3.1 MIXED-USE
   i. Is the combination of a variety of functions such as retail, commercial and residential or in this case transport, retail, agricultural and residential.

6.2.3.2 INTERMODAL
   i. This refers to the combination of multiple modes of transport in one building. In this case the inclusion of the BRT bus system, 2 Taxi feeder systems, and the IRPTN rail network.

6.2.3.3 TRANSPORT HUB
   i. As opposed to a station which is defined purely as a stopping point, a Transport hub is defined by a large number of users. Acting as the entrance to the city and servicing a bus, rail and 2 taxi systems the volume of users will be significant.
6.2.4 PUBLIC ZONES

i. Acknowledge that the current site is fundamentally public in nature.

ii. Facilitate the need for public movement to freely flow through the building.

iii. Introduce private spaces into public zones which allow for the public functions, which line the movement corridors, to have service spaces such as washing facilities.

6.2.4.1 TRANSPORT

i. Acknowledge the importance of public transport systems in Warwick:
   - Brings people to the precinct
   - Acts as a stimulator for the informal economy
   - Defines Warwick Junction as the entrance to the city

ii. Facilitate the integration of the existing public transport systems with the proposed GO! Durban Transport system.

iii. Introduce a built form which combines the various transport nodes which will create an easier transition between transport routes and modes for users.

iv. Introduce facilities for private vehicular access to the site (parking)

6.2.4.3 CIRCULATION

i. Acknowledge the need for circulation both across the railway line for the public not making direct use of the building as well as between transport nodes. This results in a large volume of users circulating through the building
ii. Facilitate the high volumes of public circulation through the building removed from the ground floor which is broken by large transport routes (main road as well as rail).

iii. Introduce pedestrian circulation on the first floor along with the relevant functions that rely on passing feet. Create pocket spaces away from the main circulation routes which act as rest spaces and gathering spaces.

6.2.4.2 MARKETS

i. Acknowledge the need for markets to engage with high traffic pedestrian movement zones, passing feet idea where the more people pass by the more chance of economic interaction.

ii. Facilitate the relationship between pedestrian movement and trade by locating trade along the heaviest movement corridors.

iii. Introduce formal retail opportunities away from the main circulation route to act as destinations in order to increase the area available with high pedestrian movement for informal trade.

iv. Acknowledge the symbiotic relationships between traders and transport

v. Facilitate the continuation of these symbiotic relationships through the development of the new transport system.
6.2.5 PRIVATE ZONES

6.2.5.1 RESIDENTIAL
i. Acknowledge the need for residential opportunities for migrant workers within the city as well as the need for increased residential within the city to create an improved urban environment.

ii. Introduce residential opportunities for migrant workers in close proximity to their place of work, i.e. accommodation for the traders working in the markets of Warwick.

iii. Acknowledge the need for residential circulation to be recessed away from public circulation to allow for privacy.

iv. Facilitate engagement through visual connections between private and public zones

6.2.5.2 FARM
i. Acknowledge the need for fresh produce within the city.

ii. Facilitate the trade of locally grown produce by informal traders

iii. Introduce space for the traders to grow their own produce to create jobs within the city and allow traders to be more self-sufficient instead of relying on suppliers.

iv. Acknowledge the need for restricted access to farms

v. Facilitate privacy for farms by locating them away from public zones.
6.2.6 SERVICE AREAS

i. Acknowledge the need for service spaces both in the formal and informal sector
   - Delivery, storage and ablution facilities for traders
   - Delivery and storage spaces for formal trade
   - Drying yards and service ducts for residential
   - Tool storage, change rooms and produce washing facilities for farms

ii. Facilitate these service spaces away from public movement routes providing a privacy gradient even in public zones

iii. Introduce delivery bays away from pedestrian movement corridors to maintain safe movement corridors for pedestrians.
6.2.7 STRUCTURAL

v. Acknowledge the need for overdesigned structural elements due to the nature of the building

vi. Facilitate the oversized structural elements by designing to suit their scale

vii. Introduce a human scale into the building to make the spaces inviting and comfortable for the user.

6.2.7.1 FOUNDATIONS

i. Acknowledge the current capabilities of the foundations of the buildings

ii. Introduce foundations which allow for future expansion of the building.

6.2.7.1 COLUMN GRID

i. Acknowledge the existing column grid of Berea Station, designed for collision protection, it is therefore extremely strong.

ii. Acknowledge the existing structure of the early morning market for historical value

iii. Facilitate the preservation of historically significant built form

iv. Introduce structural underpinning to support expansion and future expansion onto historically significant buildings.

6.2.7.2 SLABS

i. Acknowledge the need for vibration control in all slabs of the building

ii. Facilitate movement of the built elements through expansion joints.

iii. Introduce slabs with sufficient depth where faming occurs.
6.2.7.3 WALLS

i. Sheer walls to be designed for adequate collision protection

ii. 280mm double skin walls on exterior with 50mm air gap between skins to allow for passive heating and cooling of the building.

iii. Internal walls to be 115mm single skin brickwork

6.2.7.4 ROOF

i. Acknowledge the need for protection from the elements as well as light throughout the building

ii. Introduce skylights to provide additional light into the building.
6.3 CONCLUSION

This research set out to provide a possible solution to the high daily cost experienced by migrant workers in commuting to and from the city. The aim was to provide a solution which could be adapted to suit various sites within a South African city context. Through these recommendations, a built form can be generated which will provide the necessary combination of efficient public transport, economic opportunities and residential accommodation in order to integrate migrant workers and the city and thus reducing the daily cost experienced by these previously marginalised individuals.
‘GO! DURBAN’ AS A CATALYST FOR DEVELOPMENT, AS MEANS OF INTEGRATING MIGRANT WORKERS AND THE CITY:
A Mixed-Use Intermodal Transport Hub for Durban.

PART II
CHAPTER 7.0
7.0
DESIGN DEVELOPMENT
7.1 INTRODUCTION

This section serves to answer the research problem outlined at the start of this dissertation:

Efficient and affordable public transport acts as part of an immediate solution which grants marginalised individuals visiting rights to the city (Marcuse, 2009). This dissertation explores the possibility of using public transport as a catalyst for development in a manner that grants an unrestricted right to the city to previously marginalised individuals.

The design of the built form therefore seeks to draw on the literature explored in chapter two in order to integrate previously marginalised individuals with the city with an unrestricted access.

In order to achieve social and spatial justice and grant migrant workers a Right to the City, there must be a degree of flexibility of spaces which will allow the users to take ownership and shape the space to their own desire.

As the dissertation has proved, public transport does act as a catalyst for development and thus the built form needs to form part of a transport development. The built form needs to go further by including a residential component which will allow migrant workers to reside within the city.
7.2 SITE OPTIONS

7.2.1 SITE SELECTION CRITERIA
The site criteria were based on the research concepts of this Dissertation and were thus used to assess the rating of each site in order to select the best one. The Criteria are:

i. **Public transport**
   - Proximity to Public *TRANSPORT*

ii. **Migrant workers**
   - Proximity to *JOBS* requiring unskilled/semi-skilled labor.
   - Provision of *RESOURCES* ‘associated’ with the city.

iii. **Urban regeneration**
   - Deteriorated *URBAN CONDITION*.
   - Mix of *FUNCTIONS* allowing for ‘Live Work Play’.
Chapter 7.0 DESIGN Page 134

7.3.1 SITE A- RIVERHORSE VALLEY

Figure 46- Site A. Source: Google Maps. www.google.co.za/maps/place/Riverhorse+Valley

7.3.1.1 Location:
Durban, South Africa

7.3.1.2 Justification:
The site was selected for its close proximity to both rail and road networks as well as the availability of employment and residential opportunities.
7.3.1.3 ASSESSMENT

i. **Transport** [8] - Lack of direct connection to major transport networks however, Secondary access to both rail and major road transport networks is available.

ii. **Jobs** [9] - Close to industrial areas such as Newlands East, Phoenix industrial area, Riverhorse Valley & Briardene

iii. **Resources** [5] - Basic services and amenities are available such as running water, electricity and sewage (they will however require connections).

iv. **Urban condition** [0] - Greenfield site.

v. **Functions** [5] - Homogenous functions result in a lack of access to amenities as well as the availability of jobs in the commercial and service sector.

**TOTAL** [27]
7.3.2 SITE B- MOBENI

7.3.2.1 Location:
Durban, South Africa

7.3.2.2 Justification:
The site was selected for its close proximity to both rail and road networks as well as the availability of employment and residential opportunities.

Figure 49- Site B. Source: Google Maps. www.google.co.za/maps/place/Mobeni
7.3.2.3 ASSESSMENT

vi. **Transport** [10] - Direct connection to the M4 and R102 (coastal roads) as well as the N2 and railway.

vii. **Jobs** [7] - Close to industrial areas such as Mobeni, Merebank & the SAPREF plant

viii. **Resources** [7] - Basic services and amenities are available such as running water, electricity and sewage


x. **Functions** [6] - Homogenous functions result in a lack of access to amenities as well as the availability of jobs in the commercial and service sector.

**TOTAL** [37]
7.3.3 SITE C- WARWICK JUNCTION

7.3.3.1 Location:
Durban, South Africa

7.3.3.2 Justification:
The site was selected for its close proximity to both rail and road networks as well as the precinct currently acting as a public transport hub. The site is adjacent to the CBD and therefore provides high economic opportunities but due to the planning of the city residential availability is low.
7.3.3.3 ASSESSMENT

i. **Transport** [9] - Direct connection to both rail and major road transport networks is available with active public transport networks servicing the precinct.

ii. **Jobs** [10] - Close to industrial areas such as South Coast Road, availability of commercial opportunities as well in areas such as grey street and Warwick itself, both in the formal and informal sectors.

iii. **Resources** [8] - Basic services and amenities are available as are infrastructural elements like health care and schools, in rudimentary form.

iv. **Urban condition** [8] - Currently mainly medium to high-rise buildings in reasonable condition, with a mix of some residential but predominantly commercial.

v. **Functions** [8] – a variety of functions provides access to jobs in different sectors as well as the option for residency.

**TOTAL** [43]
7.4 SITE SELECTION

Site C has been selected for its link to transport networks as well as the benefit of the existing land use catering to the live, work principles highlighted by this document as necessary to allow for migrant workers to achieve a right to their city. Furthermore the existing presence of social justice in the precinct, illustrated by the protest against the early morning market becoming a shopping mall, creates the ideal conditions for achieving spatial justice.

Figure 55- Selected Site. Source: Google Maps. www.google.co.za/maps/place/Berea+Station

The site provides a good urban condition but does require development in order to achieve the density required to facilitate an efficient public transport system.
7.5 CONTEXTUAL ANALYSIS

7.5.1 MACRO CONTEXT

Figure 56- Macro Context. Source: Google Maps. www.google.co.za/maps
7.5.4 MICRO CONTEXT

Figure 57- Micro Context. Source: Google Maps. www.google.co.za/maps
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7.6.1 DURBAN DEVELOPMENT PLAN [2040]

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Figure 59- Warwick precinct Plan. Source: eThekwini Municipality
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Figure 60- Pedestrian Circulation. Source: eThekwini Municipality
7.6.4 VEHICULAR CIRCULATION

Figure 61- Vehicular Circulation. Source: eThekwini Municipality
7.6.5 FUNCTIONAL ZONING

Figure 62- Development Plan. Source: eThekwini Municipality
7.7 BRIEF

**Project Name:** BEREA STATION MIXED-USE INTERMODAL TRANSPORT HUB  
**Client:** eThekwini Municipality  
**Location:** Berea, Station, DURBAN, SOUTH AFRICA

These facts and figures indicate the scale of activity in the area:

1. 460 000 people walk through it every day.  
2. 300 buses and 1 550 mini bus taxis depart from here each day.  
3. 166 000 public transport passengers use Warwick.  
4. 38 000 vehicles drive through it each day.  
5. Between 5000 and 8000 people trade informally here, earning between R1000 and R8000 a month

The traders in Warwick have been active for many years now and yet are still forced to feel as though they are temporary custodians of the space. Although they have been able to shape the space to an extent to suit their desires there has been little to no infrastructural investment from the top (state or private investors) which helps to facilitate the activities that occur in this area.

While the ability to shape ones space is an important starting point in the attempt to achieve spatial justice, the upliftment of economically poor areas by the state as well as private investors remains important. It is only through the combination of top down investment and bottom up participation that a true spatial justice can be achieved.
The Proposed transportation upgrade (GO! Durban) provides an opportunity to develop the Berea Station in a manner that can achieve spatial justice. The transportation system acts as a catalyst for the development of the station which has been adapted from being a train station to becoming more of a market place in order to suit the needs of the traders over the past few years.

The brief for this project is to provide infrastructure which facilitates the activities which exist in Berea Station and incorporate the GO! Durban system in terms of the proposed changes to the transport infrastructure. The aim is to understand the systems that exist in the current station and provide infrastructure which facilitates the integration of those systems with the proposed new transport system.

### 7.7.1 ACCOMMODATION SCHEDULE

<table>
<thead>
<tr>
<th>Function</th>
<th>Number of</th>
<th>Approximate Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Train Station</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train Station</td>
<td></td>
<td>180 m²</td>
</tr>
<tr>
<td>Ticket Office</td>
<td>1</td>
<td>60 m²</td>
</tr>
<tr>
<td>Platforms</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Public Ablutions</td>
<td>2</td>
<td>120 m²</td>
</tr>
<tr>
<td><strong>Market</strong></td>
<td></td>
<td>17640 m²</td>
</tr>
<tr>
<td>Stalls</td>
<td>1500 [6 m²]</td>
<td>9000 m²</td>
</tr>
<tr>
<td>Shops</td>
<td>500 [15 m²]</td>
<td>7500 m²</td>
</tr>
<tr>
<td>Trader Storage</td>
<td>150 (10 traders each) [6 m²]</td>
<td>900 m²</td>
</tr>
<tr>
<td>Public Ablutions</td>
<td>4</td>
<td>240 m²</td>
</tr>
<tr>
<td><strong>Formal Trade</strong></td>
<td></td>
<td>7720 m²</td>
</tr>
<tr>
<td>Shops</td>
<td>70 [60 m²]</td>
<td>4200 m²</td>
</tr>
<tr>
<td>Service Providers</td>
<td>30 [60 m²]</td>
<td>1800 m²</td>
</tr>
<tr>
<td>Restaurant</td>
<td>1</td>
<td>1600 m²</td>
</tr>
<tr>
<td>Public Ablutions</td>
<td>2</td>
<td>120 m²</td>
</tr>
<tr>
<td><strong>Residential</strong></td>
<td></td>
<td>17675 m²</td>
</tr>
<tr>
<td>1 Bed Units</td>
<td>15 [35 m²]</td>
<td>525 m²</td>
</tr>
<tr>
<td>2 Bed Units</td>
<td>40 [60 m²]</td>
<td>2400 m²</td>
</tr>
<tr>
<td>3 Bed Units</td>
<td>25 [80 m²]</td>
<td>2000 m²</td>
</tr>
<tr>
<td>Urban Farm</td>
<td></td>
<td>12 750 m²</td>
</tr>
</tbody>
</table>
7.8 THEORETICAL FRAMEWORK

The theoretical framework follows on from this dissertation. The theories of right to the city, access and social and spatial justice will inform the design of the built form. For this reason the built form must allow for:

i. The needs of the marginalized to be prioritized.

ii. Users to actively participate in the city by shaping their own space to suit their desires.

iii. The user must be granted a permanent access right to the city, not just a visitation right.

iv. There must be an acknowledgement of the historical as well as social context of the site and translate that into a spatial manifestation.

7.9 PROBLEM STATEMENT

The exclusionary city fabric created by apartheid and modernist city planning has resulted in disconnect between migrant works and the city.

i. Short Term - Access through public transport [GO! Durban]

ii. Medium Term - Economic opportunities residential development

iii. Long Term - Dialectic between short and medium term solutions to achieve a sustainable solution
7.10 CONCEPTUAL FRAMEWORK

7.10.1 KEY WORDS

- Spatial Equality
- Transport Orientated Development
- Migrant Workers
- Access
- Inclusive Space
- Flexible Space

7.10.2 BIG IDEA

Use public transport (GO! Durban) as a catalyst for inclusive inner city development

7.10.3 WHO

Migrant workers in Durban

7.10.4 WHAT

Provide Economic and Residential opportunities for migrant workers within the city.

7.10.5 WHY

To create an opportunity for migrant workers to become active participants in the city of Durban.

7.11 TYPOLOGY

Mixed-Use Intermodal Transport Hub
7.12 DESIGN PRINCIPALS

7.12.1 Spatial Organisation

The idea of this principal is that priority be given to the least fortunate individuals; this decision has been guided by the right to the city and the need to prioritize the needs of the less fortunate before the wants of the fortunate. In this case the trades are given privilege and are located along the busiest circulation paths in order to maximize exposure and increase their opportunity for business. Traders rely heavily on passing feet to sustain their business whereas formal trade attracts people as a destination and therefore can sustain itself without being located on the heavy movement corridors.

7.12.2 Movement

There are two major circulation routes on the site, one running east west through the building linking the city and Warwick Junction and the other running north south connecting brook street taxi rank to the victoria street market via the brook street market.
7.12.3 Access

As illustrated in the Urban Design, Warwick Avenue has been pedestrianized and is therefore the access point for pedestrians (Grey) into the building. Market Street remains open to vehicular traffic and therefore forms the vehicular access (Red) to the site.

7.12.4 Site as Link

The railway line historically created a divide between the city center and the surrounding areas. This was used to limit the access black South Africans had to the CBD during the apartheid era. The existing train station acted as the only pedestrian route across the train tracks, thus making it the control mechanism. In following on with the theoretical discourse of this dissertation the CBD needs to be connected to Warwick junction and the Berea in order to grant people access into the City. This needs to be done via the site in order to make a statement of a new, connected city.
7.13 PROCESS DRAWINGS

7.13.1 SITE PLAN

The historical value of the Early Morning Market has been acknowledged and is honoured by maintaining the original walls of the market as well as the iconic roof. Warwick Avenue changes from a 5 lane road with narrow sidewalks to a 2 lane road for public transport only with wide side-walks to allow for existing trade and the ease of movement of pedestrians. Market Road changes from a 5 lane one way road to a two-directional road with two designated public transport lanes to service the BRT routes. The Brook Street taxi rank remains as a feeder system for the inner city.
7.13.2 PLANS

7.13.2.1 FIRST FLOOR PLAN

On the concourse level of the train station the building links from the victoria street cemetery which has been repurposed as a park, to Warwick Avenue via the Early Morning Market. The East-West link becomes the main circulation space with the informal traders located along it and the formal trade recessed in pocket spaces which are off the main circulation corridors. Double volume spaces allow for a visual connection with the railway line below. Glass is used to enclose the gathering spaces allowing for a visual link with the trains as they depart as well as framing
views of the Moses Mabida Stadium to the north and iconic Sugar Terminals to the south in order to orientate the view and allow them to know where the trains are going. Access is controlled to the platforms by turn styles located along the main circulation corridor. The number of turn styles provided as well as the decision to allocate one escalator per platform, serves to reduce the bottleneck effect. The introduction of ramps serves to allow universal access to the upper floors. A ramp from the first floor up to the roof serves as a transport ramp to move produce from the roof down into the market.
7.13.2.2 THIRD FLOOR PLAN

The roof is a private space and access to it is controlled by the circulation cores as well as the ramp for produce transportation. The produce is farmed on the various roof gardens, which are 500mm deep to allow for the planation of selected fruit trees on the perimeter which further act as a noise buffer for the residential units located toward the middle of the floor plate. At the center of the floor plate are skylights which allow light into the concourse below and align with the double volume space creating shafts of light which penetrate to the platform level. The residential units are provided in three unit types, a 1 bedroom, 2 bedrooms and 3 bedroom modules.
7.13.3 ELEVATIONS

7.13.3.1 NORTH ELEVATION

Solar shading is applied to the glazed gathering spaces on the north façade to reduce heat gain. Stairs on the east and a ramp on the west allow for circulation up and down the concourse. Residential units are each expressed to provide each unit with an individual identity. The circulation cores act as visual markers.

7.13.3.2 SOUTH ELEVATION

On the south glazing is left exposed. A ramp leads from the concourse level in the early morning market down to the public space outside the English market.
7.13.4 SECTIONS

7.1.13.4.1 SECTION A-A

Skylights allow light to penetrate to the platform level. Changes in roof heights differentiate between large public spaces and more intimate gathering spaces and shops.

7.1.13.4.2 SECTION B-B

The skylights allow for a visual link into the station serving as a security measure, eyes on the street principal which suggests that passive surveillance creates safer public spaces.
7.13.5 3D RENDER

![3D Render](image)

Figure 75- 3D Render. Source: Authors Own

7.13.6 PHYSICAL MODEL

![Physical Model](image)

Figure 74- Physical Model. Source: Authors own
7.14 FINAL DESIGN DRAWINGS

7.14.1 SITE PLAN

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8.3.1 INTERVIEW SCHEDULE

8.3.1.1 FOCUS GROUP

The Warwick Junction Rejuvenation Project is one of the few examples of true Spatial Justice, what design principles would you recommend for projects attempting to achieve a similar goal?

Trade in Warwick developed mainly around pedestrian movement and the principles of “passing feet”, would you say any of the markets have grown to the point where they are now a destination and no longer rely on being located along the main movement paths to trade successfully? (Metro Mall Example)

Ideally what would you provide for the traders in Berea Station?

Which segment of the population is GO! Durban Targeting?

Will the GO! Durban Stations incorporate street traders that currently thrive on the taxi orientated transport system?

How are Taxis and buses being integrated in order to best service the citizens of Durban?

What steps are being taken to learn from the mistakes of IRPTN in similar areas such as Bogotá and other South African examples such as Johannesburg?
Statistics show that transport stations are most successful when they are surrounded by a high density built environment. Currently the city of Durban does not contain enough density to support a major public transport system, what is the plan to promote development around the stations in order to ensure the sustained success of the GO! Durban system?

Is the GO! Durban system being planned as infrastructure which will promote development, if so what is the aim of this development?