EXPLORING THE ADAPTIVE REUSE OF 'PROBLEM BUILDINGS,'

towards a multi-use building for urban regeneration in Durban

by

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DECLARATION

I declare this dissertation to be my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. It is submitted in partial fulfilment for the degree of Masters of Architecture in the Faculty of Humanities, School of the Built Environment and Development Studies, University of KwaZulu-Natal, Durban, South Africa.

None of the work has previously been submitted for any degree or examination in any other university.

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DEDICATION

This dissertation is dedicated to the most beautiful people in my world, my wife, son and daughter. This experience deepens ones' reason for existence. I could simply never had succeeded without this amazing support system. It is a testament to unconditional love. I am forever grateful and I love you all to the moon and back. Thank you for allowing me to fulfil this dream.

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Inner city property owners

Inner city residents & users

ABSTRACT

The quality of our built environment effects the standard of our everyday life. This dissertation is interested in the phenomenon of problem buildings, as observed throughout the inner city of Durban. It is concerned with the perception these problem buildings reflect and their impact on the quality of the built environment. The investigation focuses on exploring possible opportunities to adapt these structures positively to provide a more meaningful experience for the contemporary inner city user and in so doing, catalyzing a better quality urban environment and sense of place. This will be informed through the method of the phenomenology of perception and place theory. The concepts of adaptive reuse and urban regeneration are reviewed, to integrate and create a positive urban image and regeneration for the contemporary user. The aim is to expose any failings of current city planning and bylaws as well as the current exploitation of the city inhabitants, and to seek an appropriate balance through the exploration of multiple use building typologies. It further argues to adaptively reuse existing infrastructure to regenerate the urban environment of the inner city of Durban.

Key words: *adaptive reuse; problem building; existing infrastructure; multi-use building; urban regeneration.*

'The problem is not architecture. The problem is the reorganisation of things which already exist' (Brillembourg, et al., 2012).[1]

[1] As cited by Yona Friedman

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APORIA an irresolvable internal contradiction or logical disjunction in a text, argument, or theory (Oxford Dictionaries, 2010).

AUTONOMY the right or condition of self-governance. Freedom to build, dweller control of building process (Oxford Dictionaries, 2010).

EPISTEMOLOGY the theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion (Oxford Dictionaries, 2010).

EXTRALEGAL (of an action or situation) beyond the province of the law (Oxford Dictionaries, 2010).

FISCAL relating to government revenue, especially taxes (Oxford Dictionaries, 2010).

GLOBAL NORTH generally refers to the richest nations, located in the Northern Hemisphere.

GLOBAL SOUTH the developing nations of Africa, Central and Latin America, and most of Asia are collectively known as the Global South. These nations face great challenges and are generally the poorest countries of the world (Mihram & Mihram, 2012).

HEGEMONY leadership or dominance, especially by one state or social group over others (Mihram & Mihram, 2012).

INFRASTRUCTURE the systems placed within the urban fabric that make life possible.

INTEGRATED DESIGN an approach to urban design, based upon utilizing characteristics of infrastructure, architecture and landscape together to create spaces that promote urban activity.

ITRUMP Thekweni Regeneration and Urban Management Programme.

LEFT OVER SPACE the unused, un-designed or lost space among the infrastructure of the urban fabric.

PROBLEM BUILDING 'problem building' means a building or portion of a building which (a) is derelict in appearance or is showing signs of becoming unhealthy, unsanitary, unsightly, or objectionable; (b) has been abandoned by the owner, or appears to have been abandoned by the owner, regardless of whether or not rates or service charges are being paid; (c) is overcrowded; (d) has been hijacked; (e) has been the subject of one or more written complaints, charges or convictions regarding criminal activities being conducted in the building, as confirmed in writing by a member of the Durban Metropolitan Police Service or the SAPS; (f) is illegally occupied; (g) has refuse or waste material unlawfully accumulated, dumped, stored or deposited; (h) has been unlawfully erected or has a part which has been unlawfully erected; (i) has been changed and its subsequent usage is unauthorized; (j) is partially completed, or structurally unsound or showing signs thereof, and is or may be a threat or danger to life and property; or (k) is in contravention of one or more of the Municipality's By-laws (Ethekwini Municipality, 2011).[2]

PALIMPSEST something reused or altered but still bearing visible traces of its original form (Oxford Dictionaries, 2010).

URBAN CONTINUITY an urban fabric that is defined by sequential spaces that site urban activity.

URBAN FABRIC the physical form of the city, defined by infrastructure, landscape and architecture.

LIST OF ABBREVIATIONS

ABM	Area Based Manager.
CBD	Central Business District.
CLB	Community Land Bank.
NGO	Non-Governmental Organization.
NYC	New York City.
UK	United Kingdom.
PIE ACT	Prevention of Illegal Evictions ACT.
RSA	Republic of South Africa.
UCT	University of Cape Town

[2] as defined in the 'Problem Building Bylaws'

CHAPTER 1: BACKGROUND AND METHODOLOGY

This chapter introduces the research interest of the observed problem buildings of Durban's inner city. It establishes the background to the research, as well as outlines the approach to be pursued. A hypothesis is postulated and key questions are formulated. The research aims to prove this hypothesis and answer these questions. In so doing, attempting to reveal principles for positive intervention for problem buildings. The concept of adaptive reuse and urban regeneration will be explored. The aims and objectives are set out and determine the direction the investigation will follow, elaborating on key issues. It outlines the research methods to be implemented. This consists of reviewing relevant literature and precedent studies as examples of appropriate interventions utilized in similar circumstances. Qualitative research in the form of case studies as well as through conducting interviews with key agents connected to existing problem buildings of Durban's inner city, will additionally be explored.

1.1 INTRODUCTION

1.1.1 BACKGROUND

Modern cities are experiencing the greatest rural to urban migration in human history, with more than half of the world's population currently residing in urban centres today (United Nations, Department of Economic and Social Affairs, Population Division, 2014). Africa and Asia remain mostly rural, with 40% and 48% respectively living in urban centres (United Nations, Department of Economic and Social Affairs, Population Division, 2014). These figures are expected to rise closer to 70% by 2050 (United Nations, Department of Economic and Social Affairs, Population Division, 2014), as global population growth is expected to rise by 1.1% per annum (United Nations, Department of Economic and Social Affairs, Population Division, 2014). How will cities absorb this influx, in a sustainable manner?

For a sustainable urban environment to exist, cities are essentially required to be compact and dense to share resource as best as possible. What we are observing though, is that cities are sprawling horizontally out to suburbs as opposed to vertically, consequently creating micro cities that are spread out and isolated from one another, accessible predominantly by motorized transportation.

The current city plan is based on separating uses into different zones. To experience the city becomes heavily reliant on transportation, effectively creating isolated pockets. This is essentially un-sustainable, insofar as valuable farmland is developed unnecessary, long and costly hours in the automobile cause unnecessary environmental pollution, not to mention wasted time whilst travelling, with devastating economic and quality of life implications. Another outcome of urban sprawl, and one that forms the study area of this dissertation, is that many inner-city cores suffer degradation, leaving existing buildings in a state of disrepair.

The reality of current planning is essentially a strict guideline that is inflexible and un-adaptive to change over time in response to economic cycles or demographic shifts. This leads to the decline of city neighborhoods and commercial districts (Gause, et al., 1996), as has been the case of Durban's inner city.

Vanessa Watson of the African Centre for cities at UCT, suggests that current urban planning systems are part of the problem in many parts of the world as they serve to promote social and spatial exclusion, are anti-poor, and are doing little to secure environmental sustainability (Watson, 2009). Journalist and urban critic Robert Brandes Gratz shares this sentiment, suggesting that the real challenge to the overlapping professions of urban design, planning, architecture and policy-making is to move away from having to be 'controllers and proscriptive experts' and toward being better 'listeners, observers and enablers' of urbanism (Johnson, 2014). This system does not exist at present, and laws become more onerous, with additions from time to time.

The focus of this dissertation is to research how cities, particularly the inner city of Durban, can better adjust to contemporary user requirements, by making better use of existing infrastructure. It will focus on samples of so called problem buildings, intervening through the concepts of adaptive reuse and multi-use development to avoid repeat of the problem building phenomenon and rather see vulnerable existing building stock as an opportunity to adapt to better suited use more easily and efficiently, essentially through a less onerous law. It argues for a more sustainable reuse of the city's existing infrastructure, to adapt to contemporary use. Consequently, contributing to a vibrant, safer and regenerated inner city, becoming a catalyst for a better balanced and integrated inner city.

The capitalist and globalized nature of the world we live in, constantly demands innovation and ideas. Why then does this not apply to the physical world we live in too (in the form of the buildings that make up the urban environment)? Placing too many restrictions on this realm quite simply restricts the ability to compete with the rest of the world.

Evidence of this is the observation of the vast amount of abandoned, degraded and unmaintained buildings in Durban's inner city. Per a statement by Dr. Musa Gumede in 2011 on the Ethekwini Website, there are 87 buildings in the Durban's inner city that have been listed as bad (problem) buildings, 45 outside the Inner City as well as 130 vacant plots and abandoned properties (eThekwini Municipality, 2011).

If these buildings had the flexibility to more effectively adapt to contemporary need, perhaps the buildings viability would remain intact and be more resilient towards the detrimental state they now find themselves in. Distressed properties affect the quality of life in the community, bring down the values of surrounding properties and become focal points for criminal activity (Costa, 2015). This reflects a negative perception where many would not want to be around at all, especially during the later hours of the day.

The reality is that despite the state, these problem buildings continue to be inhabited. This is a simple case of adapting to what the immediate inhabitants require the building to be, an example of 'reporting from the front.' This issue has been identified by Human Settlements Committee

Chairperson, Councilor Nigel Gumede, and comments: 'We need to identify some of these bad (problem) buildings to house people and address the social housing issue' (eThekwini Municipality, 2011).

Is this not reasoning enough to review current policy to become more flexible and adaptive to allow for additional uses as times demand? We see this most noticeably in the residential realm of abandoned or 'hijacked' buildings, of which people move into despite the condition thereof. Inhabitants have figured that it is more beneficial and affordable to chance these dire conditions within the CBD, than to find alternate accommodation elsewhere, which primarily would be in the suburbs and periphery of the city, requiring valuable time and money to commute in and out every day. Can we not learn from and accept this occurrence, and allow an easier transformation of a building to current demand?

The intention is to conduct research on existing problem buildings in Durban's inner city, to unpack perceptions from differing viewpoints, and demonstrate how one could imagine these buildings, especially the abandoned, rather as an opportunity to adapt and be reused more appropriately for contemporary use, to regenerate the urban environment.

1.1.2 MOTIVATION / JUSTIFICATION FOR THE STUDY

Most of the world's population resides in cities today (United Nations, Department of Economic and Social Affairs, Population Division, 2014), and it is expected that even more will make a city their home in the future. The dissertation focuses on problem buildings as observed in the inner city of Durban and the opportunities they present to accommodate the contemporary user and allow the city to cope more effectively and sustainably to the anticipated influx. Cities have undergone tremendous change throughout history, attempting to adapt to various forces, movements and contemporary demands. Cities are dynamic living organisms (Simone, 2011), and to sustain this attribute, its buildings need to likewise be dynamic themselves to adapt to contemporary need.

A personal interest in how changes over time have shaped the urban environment, and particularly to the detriment of the environment, motivate this research, to determine what contributes to this urban blight, and to seek possible solution to avoid repeat thereof.

It seems that there is much restricting the required adaption, noticing the vast amount of abandoned, high jacked or so-called problem buildings scattered throughout the city (eThekwini Municipality, 2011).[3] The aim of the dissertation is to research this phenomenon, in an attempt to unpack and suggest intervention to avoid this occurrence as a means to better understand and accept this reality and the current situation in Durban's inner city. There appears to be a need for flexibility of planning to allow for these city user requirements. The aim is to demonstrate how multi-use building typologies are essential for urban regeneration, discrediting the current predominantly single use zoning controls.

Durban's inner city, like many of the worlds cities, has failed to adapt to contemporary use as observed by the derelict state of some of its buildings in the inner city. At face value this has caused a perceived poor reputation and an increased migration of corporate users to areas like Umhlanga Ridge and Ridgeside developments, where a new financial hub or satellite city is fast developing.

African (global South) cities have primarily been planned on borrowed ideas from the global North (from Europe through colonisation) (Watson, 2009). Planning therefore bears little significance to the African context. Urban spaces in both the global South (and North) have changed significantly, in terms of economy, society, spatial structures and environments and yet planning systems adapt very

[3] According to Dr Musa Gumede there are 87 buildings in the Durban's Inner City that have been listed as 'bad buildings', 45 outside the Inner City as well as130 vacant plots and abandoned properties.

slowly accordingly (Watson, 2009). These possible sources will be explored to inform a conclusive architectural response and intervention that can be applied not only to existing problem buildings, but also to new buildings within the inner city.

1.2 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.2.1 DEFINING OF THE PROBLEM

We are faced with the reality of problem buildings as observed throughout the inner city of Durban (eThekwini Municipality, 2011). These buildings are perceived to contribute poorly to the image of the city - distressed properties affect the quality of life in the community, bring down the values of surrounding properties and become focal points for criminal activity (Costa, 2015). With the expected rural to urban migration, and the changing dynamic of the city, these buildings could provide infrastructure that could cater for the contemporary city user, and through their adaption could catalyze urban regeneration and a brighter urban image.

1.2.2 AIM

The aim is to research contributors to the occurrence of problem buildings of Durban's inner city, and to seek solution to avoid a repeat thereof. Additionally, it is the aim to rather see all buildings able to effectively transform and adapt to contemporary user need more efficiently and sustainably, promoting multiple-use building typologies and providing a range of housing options to accommodate a more diverse range of people within the inner city.

1.2.3 OBJECTIVES

- To intervene in the current occurrence of problem buildings in the inner city of Durban.
- To expose the impacts of developments that have gained problem building status in the inner city of Durban.
- To analyze the possibilities of a coherent alternative and to identify an appropriate and responsive architectural intervention that could potentially avoid re-occurrence and ensure positive and effective adaptation to suit contemporary need.
- To regulate a building conversion process in the inner city of Durban, that will ensure safe and humane living conditions.

1.3 SETTING OUT THE SCOPE

1.3.1 DELIMITATION OF THE RESEARCH PROBLEM

This research has been conducted on the issues pertaining to problem buildings within the inner city of Durban, specifically focusing on the areas with a highest concentration of these buildings. The focus is on studying current conditions of these properties, to provide insight to a range of options that are convenient for the contemporary user.

The areas of research are delimited to current planning policies of the city, the implementations of multi-use building typologies, and the adaptive reuse of existing problem building's structures and infrastructure.

It is with great optimism that the results in this dissertation bear relevance beyond the situation investigated; however, the intention is not to create a formula to be replicated without acknowledgment of the contextual relevancies.

1.3.2 STATING THE ASSUMPTIONS

The dissertation assumes that the city currently places less importance on regenerating the existing infrastructure of the inner city, which has very low population density and unused land and infrastructure, and that more emphasis is placed on the so-called edge or satellite cities such as La Lucia ridge and Umhlanga Ridge developments, as well as Umhlanga's new town area. It is assumed that the city authorities have deduced that the inner cities problems are too complex and the easier solution is to develop Greenfield sites instead.

It is assumed that the society is one of a capitalist construct, where there is a need for greater density, not only to house a greater population expected in the inner city, but also to provide greater economic, social and sustainable opportunities for the inhabitants.

The existential phenomenological approach assumes a certain equivalence of meaning for the respondents whose experience this research probes. In other words, the claim is that 'people in a shared cultural and linguistic community name and identify their experience in a consistent and shared manner' (Seamon, 2013).[4]

[4]As cited by von Eckartsberg

1.3.3 HYPOTHESIS

The occurrence of problem buildings is a consequence of the inflexible, onerous and ever increasing planning restrictions imposed upon the property owner by the city. The need for the adaptive reuse of obsolete building uses is restricted by these planning restrictions. A review of laws to first and foremost consider the social context of the users of the buildings and further to promote multiple uses and higher density outcomes, will thereby provide better options and convenience for the contemporary city user, that could potentially omit problem buildings from the inner city and catalyze urban regeneration instead.

1.3.4 RESEARCH QUESTIONS

1.3.4.1 PRIMARY QUESTION

- How can problem buildings be adaptively reused in a positive manner to accommodate contemporary use in Durban's inner city?

1.3.4.2 SECONDARY QUESTIONS

- How can problem buildings be better adapted to serve their communities, and to act as a catalyst for urban regeneration?
- Why do buildings become problem buildings?
- When do local planning policies become precursors of problem buildings?

1.4 THEORETICAL & CONCEPTUAL FRAMEWORK

INTRODUCTION

The theoretical framework consists of an exploration of the experiential phenomenology of perception and its impact on 'place making' or 'sense of place'. The conceptual framework explores the concepts of 'adaptive reuse' as a catalyst for 'urban regeneration.' These theories and concepts aim to add a deeper understanding of problem buildings, and to rather transform this otherwise negative phenomenon, into a positive contribution to the urban environment.

1.4.1 PHENOMENOLOGY OF PERCEPTION

What is the notion of phenomenology? Per Merleau-Ponty in his book 'Phenomenology of Perception', it is still in the process of being defined (Gallagher, 2010). Merleau-Ponty's own response to the question remains true: that phenomenology is 'a philosophy which places essences back into existence and does not think that human beings and the world are comprehensible except based on their facticity (or being in the world)' (Merleau-Ponty, 1982). The aim then, according to Merleau-Ponty, is an explicit method of exploration and description of a phenomenon.

There are many more attempts at describing what phenomenology should be. David Seamon describes phenomenology simply as the interpretive study of human experience (Seamon, 2013). Finlay suggests that applied to research, phenomenology is the study of phenomena: their nature and meanings (Findlay, 2009). The focus is on the way things appear to us through experience, or in our consciousness where the phenomenological researcher aims to provide a fresh, complex and richly textured description of lived experience. Berrios says phenomenology strives to capture experiential essences that are but higher forms of knowledge with which the phenomenologists expects to reconstruct reality on a firmer footing (Berrios, 1989).

Phenomenology has the potential to penetrate deep into the human experience, tracing the essence of a phenomenon and clarifying its meaning in its original form as experienced by the individuals. This quality of illumination of the core state of being of a phenomenon requires very careful attention and the outcome is naturally greater than the sum of its parts (Kafle, 2011).

Phenomenological researchers generally agree that the central concern is to return too embodied, experiential meanings aiming for a fresh, complex and rich description of a phenomenon as it is concretely lived (Findlay, 2009).

The research will generally begin with a physical description of the lived situation, such as the lived situation of a problem building, and then record the first-person account of the phenomena, set down in the raw language of the subject. Although the data is viewed openly without prejudice, 'there is a reciprocal insertion and intertwining of one in the other,' says Merleau-Ponty (Merleau-Ponty, 1982, p. 138). As researcher and co researcher intermingle in 'pre-analytic participation', (Merleau-Ponty, 1982, p. 203) each touch and influences the other. If this more explicitly relational approach to phenomenological research is adopted, data is seen to emerge out of the researcher- co researcher relationship, and is understood to be co-created in the embodied dialogical encounter (Findlay, 2009).

The architectural phenomenological theorist Christian Norberg-Schulz, emphasizes that phenomenology is, 'a method well suited to penetrate the world of everyday existence' (Norberg-Schulz, 2000, p. 15). Drawing especially on Martin Heidegger, Norberg-Schulz presents phenomenology as a 'method' whereby one might understand the world, including the world of architecture (Shirazi, 2012), which would be applicable to Durban's problem buildings.

As a second representative of phenomenological theory in architecture, Juhani Pallasmaa presents phenomenology as, 'purely looking at' the phenomenon, or 'viewing its essence' (Shirazi, 2012). He claims that, by means of a 'naïve seeing,' we are able to approach the 'essence of things unburdened by convention or intellectualized explanation' (Shirazi, 2012).

This dissertation intends to create a richer and deeper account of the phenomenon of problem buildings, analysed through the eyes of various agents directly related to these buildings of Durban's inner city, through the method of experiential phenomenology of perception. The focus is on unpacking rather than accuracy, and avoiding prior knowledge for amplification. It further aims to demonstrate that the existential phenomenological approach offers an alternative method of assessing the person-environment relationship and for identifying and understanding its complex, multi-dimensioned structures. This approach highlights the necessity to engage with multiple agents, and avoids a one dimensional, or top down approach.

1.4.2 SENSE OF PLACE

'Place Making is like home making. Home making turns a house into a home. Place Making turns a space into a place.' - David Engwicht.

Urban places are records and expressions of the cultural values and experiences of those who create them (Behrens & Watson, 1996), it is therefore accepted that people are the foundation of what constitutes a sense of place, and that the public space and built environment should be adapted to heighten this experience, and not the other way around.

Roger Trancik suggests that 'Architecture must respond to and, if possible, enhance environmental identity and the sense of place... An integrated city will only prevail if, in the process of transforming worn-out urban areas, we bring infill development into harmony with the predominant existing patterns' (Trancik, 1986, p. 114). He further suggests 'Responsiveness to the historic evolution of a place will avoid superficial repetition and a retrogressive, cosmetic treatment that does not respond to the spirit of the times' (Trancik, 1986, p. 98). He states that certain spaces will require 'remedial intervention' due to improper planning and lack of vision in the past (Trancik, 1986). Durban's inner cities problem buildings offer an oppertunity to be investigated through this lense.

Lewis Mumfords theory describes a city as 'a theatre of social action' (LeGates & Stout, 2011), emphasizing the city as a place of interaction among users. This comparison of the city to theatre or performance is reiterated by Jane Jacobs' theory of successful sidewalks, when referring to a stretch of street outside her apartment block as 'a scene of intrinsic sidewalk ballet' (Jacobs, 2011). 'The ballet of the good sidewalk never repeats itself from place to place, and in any one place is always replete with new improvisations,' emphasizing the city from multiple users point of view (Jacobs, 2011).

Enabling the architecture to create a 'sense of place,' will enhance a positive perception, responding carefully and considerately to the contemporary user requirements - the people of the inner city - so that one may feel a sense of belonging and ownership to the immediate environment.

1.4.3 ADAPTIVE REUSE

Adaptive reuse is the process of finding new use for a building, when the current use becomes obsolete. It is often described as a 'process by which structurally sound older buildings are developed for economically viable new uses' (Austin, 1988). Adaptive reuse is a process that reaps the benefit of the embodied energy and quality of the original building in a dynamic and sustainable manner (Latham, 2000). It involves conversion of a building to undertake a modified change of use required by new or existing owners (Douglas, 2006). Historically the concept has been effective in the preservation and conservation of historically significant buildings, essentially protecting against demolition. Humankind has exhausted immense resource and time, developing and creating the built environment, becoming elements that define and symbolize communities. When these structures uses become obsolete, it impacts the community and it's important that the community sees these spaces as opportunity rather than a problem. We must see these as prospect for new and exciting development, rather than as social ill (Adaptive Reuse, 2009-2015).

For this dissertation, the primary objective is that of rehabilitating to contemporary use. This concept argues for an architect's ingenuity and inventiveness for a solution to effectively reuse what already exists, as opposed to a demolition and rebuild, or unnecessarily develop another Greenfield location. Creativeness will however determine its financial feasibility over a rebuild. Adaptive reuse preserves the buildings historical contribution to the 'sense of place.'

Per Jane Jacobs, preservation of buildings is an important principle for urban revitalization (Jacobs, 2011), 'Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them. By old buildings I mean not museum-piece old buildings, not old buildings in an excellent and expensive state of rehabilitation, although these make fine ingredients, but also a good lot of plain, ordinary, low-value old buildings, including some rundown old buildings' (Jacobs, 2011). These structures offer an excellent opportunity to provide affordable and decent accommodation, that is so lacking in Durban's inner city.

Theoretically, by reusing existing stock and infrastructure, it has economic benefit, as well as being environmental sustainable. It involves lower costs in relation to materials, transport, energy, and pollution, effectively more sustainable than a new build (Douglas, 2006). It reduces the need to purchase replacement material as well as omits the carbon emissions related to production and delivery of new product and material (Douglas, 2006).

Problem buildings are especially suited to adaptive reuse due to their state of disrepair. It is widely accepted that abandoned properties attract vandals, homeless, arsonists, drug dealers and in Durban's inner city attracts foreign migrants, and thus drive down property values, taxes, and services, and discourage investment in a community (Cantell, 2005).

In addition to draining property values, tax revenues and attracting crime, they strain the city resources of local police, fire, building control, city architects, water, electricity, home affairs, licensing and health departments.

Conclusions from a study done by the Pennsylvania Horticultural Society summarize as follow, 'the problems created by abandoned lots and structures cannot be contained within property boundaries or city limits or stopped at county lines; they spillover to affect surrounding communities (The Pennsylvania Horticultural Society, 1995). As abandonment increases in a neighborhood, property values decline and owners become less willing, and perhaps less able, to maintain their real estate. In turn, more and more properties fall into disrepair and eventual abandonment. It is this self-perpetuating dynamic that makes the word 'blight,' with its association of disease and contagion, an apt metaphor for neighborhood distress. In the worst cases, the downward spiral of deterioration and abandonment continues until entire blocks and neighborhoods are rendered virtually uninhabited' (The Pennsylvania Horticultural Society, 1995).

This cycle of deterioration also means that if one is to visit these areas of disrepair, one is certain never to willingly return, thus enticing a negative phenomenological view of the inner city.

Donavan D. Rypkema calls property rehabilitation a 'catalytic activity,' as one renovation supports another (Rypkema, 1994). He is confident that 'the renovation of properties begins a cycle that improves the economic attractiveness of the neighborhood.' Furthermore, the cost of rehabilitation has the effect of producing local jobs, since it is more labor intensive, and requires less material to be transported, making a more sustainable form of development than new construction (Rypkema, 1994).

1.4.4 URBAN REGENERATION

Don Johnson, an urban designer and economist defines urban regeneration in its broadest sense as a process of a city or neighborhood improvement, after being undesirable (Johnson, n.d.). He continues by suggesting that urban regeneration is often linked to property values. If property values increase after a long period of decline or stagnation, that's a good sign that regeneration is happening (or is imminent) (Johnson, n.d.).

But relying purely on property values can be misleading. The word 'regeneration' implies rebirth, and there are many examples in popular culture and the academic literature of places that got 'regenerated' that lost something in the process (especially when we are talking about the precursor to 'regeneration' called 'urban renewal,' which usually involves relocating people and tearing down buildings) (Johnson, n.d.). Often the only difference between 'urban regeneration' and 'gentrification' is the person speaking (Johnson, n.d.).

He continues to rather link ' urban regeneration' to 'vitality.' If a place is gaining vitality, then it's being regenerated (Johnson, n.d.). A parking lot that has been turned into shops or apartments has been regenerated. A neighborhood laden with vacant lots or buildings that have been re-inhabited has been regenerated. The big difference between Soho in the 1970s and Soho today is not the shop front windows, the awnings, the designer cupcakes or the traffic - It's the *people* (Johnson, n.d.).

There is connection between regeneration and safety. Bill Hilliar, Professor at the University of London in his laboratory of Spatial Syntax, has investigated the flow between crime, place and population and concludes that similarly to Jane Jacobs theories, a compact and dense city is safer than residential neighborhoods with low density (Porada, 2013). Mono-functional zones with little housing presence, that loses vitality and pedestrian activity at a certain hour, are also less safe. The ideal kind of city consists of blocks with business on the first floor and apartment buildings on the upper floors, confirming streets and animated and heterogeneous neighborhoods that mix distinct types of people and activities (Porada, 2013).

This dissertation will link urban regeneration to a gained vitality of the street and an increased participation of and ownership for the people of Durban's inner city problem buildings.

1.4.5 SUMMARY

This theoretical and conceptual framework, seeks to establish a basis for the research. It will form the foundation to assist the researcher to gain a point of departure for a richer and deeper understanding of the phenomenon of problem buildings in the context of Durban's inner city. From this phenomenological understanding and through the implementation of the concepts of adaptive reuse and urban regeneration, a more informed platform will be established from which an appropriate architectural response can be achieved, to verify the hypothesis and to answer the questions raised.

1.5 RESEARCH METHODS AND MATERIALS

INTRODUCTION

The chapter defines the research approach and methodology to be utilized in this dissertation. It describes the procedure for data collection and identifies the research techniques and methods. Research will be conducted using primary sources such as conducting interviews and exploring case studies (qualitative research), and through secondary source information of reviewing existing literature (existing empirical research) and precedent studies. The collection and analysis of the information aims to provide further clarity and a better understanding of the research questions.

1.5.1 PRIMARY SOURCES

This data will be gained from firsthand experience of the phenomenon of problem buildings, as well as the gathering of descriptive accounts from key respondents. The case studies will include two deemed problem buildings located in Durban's inner city, each bearing similarities, but additionally representing unique issues. These studies will form a major portion of the primary data gathered and analyzed in the research. The agents linked to these case studies will be interviewed to further enrich the understanding of the phenomenon of problem buildings. The interviews aim to further enhance the findings deduced by the author.

1.5.1.1 CASE STUDIES

The case studies have been selected based on criteria that seek to provide the greatest understating of the issues relating to problem buildings in Durban's inner city. A few of the criteria are outlined as follows: firstly, the buildings need to have problem building status, as stipulated by the 'problem building bylaws'; secondly, the need to be in the inner city of Durban; and thirdly the need to represent a degree of adaptive reuse of structure to one not originally intended for.

The first case study is known as the 'Station Shelter' located in Umgeni Road, directly below Durban Station. This building represents an existing structure that has been adapted over its 110-year history, to accommodate the need of the times. Today it has been adapted to provide multiple uses, including retail outlets along Umgeni Road and affordable accommodation, albeit in contravention of municipal bylaws. Although it provides a solution to the affordable housing problem faced by the city, the city condones the way this has been achieved as it is perceived to offer inhumane and unsafe living conditions.

The second case study is known as the 'Honchos' building. It is located along Denis Hurley Street in the historically Indian area of the 'Casbah.' It too represents a building that has been adapted throughout its history, and today has been converted into a mixture of uses including retail along the street front, as well as affordable housing cubicles to the rear and on the first storey.

These case studies have been analyzed through empirical observation, entailing direct observation of the conditions related to problem buildings of Durban's inner city, and quantifying the evidence in qualitative form. The structure of the analysis aims to provide an argument that attempts to link it to the secondary research and thus avoiding discussions in isolation.

1.5.1.2 QUALITATIVE INTERVIEWS

The interviews aim to provide a further informed understanding of the conditions and issues relating to problem buildings. The information afforded provides valuable insight as perceived by the interviewees. This qualitative meaning and experience offers an in-depth and rich account of the phenomenon, from the perspectives of these actively involved agents. These accounts will be carefully studied to identify underlying commonalities and patterns that could be presented and provide a deeper description of this phenomenon.

The interviews are semi-structured and open-ended, to allow the respondents to carefully describe their experience of this phenomenon in their own manner. The responses are the opinions of the interviewees only. The interview samples can be found in the appendices of this document.

The first interview was conducted with the head of the Inner Thekweni Regeneration and Urban Management Programme (iTrump) and the Area Based Manager (ABM) for the inner city. He is actively involved with programs aimed at regenerating the inner city and is instrumental in the writing of and implementation of the 'Problem Building Bylaws.' He has been involved with the successful turnaround of many of Durban's inner city problem buildings. His opinion and insight provides an invaluable account from the cities perspective.

1.5.2 SECONDARY SOURCES

1.5.2.1 LITERATURE REVIEW

This chapter consists of reviewing existing literature by the specialists understanding of the theories and concepts. The material was sourced from a range of literature including published books, journals, articles, papers, newspaper articles, documents published by registered organizations and the internet - all duly referenced and acknowledged. The structure of the review is based on creating a conversation from various perspectives and perceptions including that of the city, the property owner and the contemporary city user. Although they are written from each perspective, there is a distinct effort to interrelated each view point with one another, to avoid reading each perspective in isolation, and enforcing the argument.

1.5.2.2 PRECEDENT STUDIES

The two precedent studies were selected to compare similar situations to that of Durban's inner city and its problem buildings. Both are international examples with a similar social context albeit at a differing scale. Both aim to cover the conceptual and theoretical material discussed.

The first precedent study is a building located in Caracas Venezuela known as Torre de David. This building represents an incomplete high rise in the inner city that was adaptively reused to provide housing and a thriving, sustainable community of 750 families. It represents opportunity in the face of abandonment. It presents an example of how the tactics of the contemporary user adapted existing infrastructure to suite their immediate need. A solution was produced (albeit illegally) without the direct aid of the government, and without additional economic or infrastructural strain on the government to provide for this.

The second precedent is a study of the precinct of Harlem in Manhattan Island in New York City. Harlem bears a similar historical and social context to that of Durban's inner city, and has witnessed periods of triumph as well as degeneration. The current urban regeneration tactics are of importance to this dissertation. A multi-use building by David Adjaye, is reviewed, highlighting the importance of this typology to catalyze urban regeneration.

1.6 CONCLUSION

This chapter has outlined the research background, parameters and guidelines including the methodology, the theoretical and conceptual framework that aim to inform the outcomes of this dissertation. The combined primary and secondary research will be used to formulate the brief as well as develop an appropriate architectural / urban design intervention, which addresses the research problems. The findings established will help to inform the space requirements, schedule of accommodation, philosophical stance, urban response and other architectural requirements of the proposed redesign of an existing structure to suite the contemporary user.

CHAPTER 2: LITERATURE REVIEW: THEORETICAL AND CONCEPTUAL FRAMEWORK

INTRODUCTION

This chapter discusses the theoretical framework informing the study. The perceptions of Durban's inner city authority, its property owners and its present-day users will be unpacked to gain a better understanding of the contemporary city, focusing on the phenomenon of problem buildings. The central issues of the perceptions will be explored to shape and organise the research.

The literature argues for a more flexible urban planning policy that directly suits the ever-changing contemporary user and allows the building owners to assist the user, reviewing literature to support this argument, highlighting any shortcomings of current policy and the need for a more appropriate and adaptable framework.

As it was argued by Jane Jacobs in her book, 'The death and life of great American Cities' this dissertation is a critique on current city planning policy and rebuilding, focusing on the effects planning has on the occurrence of problem buildings. It is an attempt to introduce interventions to adapt this phenomenon for greater densification and urban regeneration, taking multiple perspectives and perceptions into account.

2.1 PHENOMENOLOGY OF PERCEPTION: THE URBAN CITY

Ethekwini Vision Statement:

'By 2020 the eThekwini Municipality will enjoy the reputation of being Africa's most caring and liveable city, where all citizens live in harmony (eThekwini Municipality, 2011).[5] This Vision will be achieved by growing its economy & meeting people's needs so that all citizens enjoy a high quality of life with equal opportunities, in a city that they are truly proud of' (eThekwini Municipality, 2011).

What exactly is the city offering to achieve this optimistic vision? What are the options regarding growing the economy, simultaneously offering affordable housing with regards to the inner city? What are current planning policies doing to achieve this? As of 2016 one would perceive that the city offers little regarding safe and secure offices and even less to accommodate the insurgent citizens, people with limited financial means, and foreign immigrants who are the major inhabitants of the area. In an Ethekwini news flash report, Musa Mbhele outlined the inner-city challenges in 2015 which included crime and grime, abandoned and invaded buildings, migration of businesses out of the area, traffic congestion, informal traders and road safety especially for pedestrians (eThekwini Municipality, 2015).

'Cities exist to facilitate an exchange of information, friendship, culture, insight, skills and an exchange of emotional, psychological and spiritual support (Engwicht, 2007). For a truly sustainable environment we need to maximize this exchange whilst minimizing the travel necessary to do it,' as defined by David Engwicht. Describing Durban's inner city as such, the current urban condition is simply not ideal. Complaints from permanent residents are voiced more regularly about the poor state of the inner city. Business owners claim that the crime and grime in Durban's CBD is having a major negative impact on the economy and tourism in the inner city (City Watch, 2016). Reading these reports and statements in the press, one would conclude that the condition is bordering chaotic, inhumane and is becoming out of control. 'My customers have a hard time entering my shop and have reported muggings and theft in the area. These little streets are prime property and a tourist destination for Durban, but the negative aspects are bringing them down. Tourists do not want to come here because they are scared they might become another crime statistic' as reported by a business owner Nazeer Abdul Rahim (City Watch, 2016).

[5] As agreed at the Alpine Heath Workshop

Complaints include, breaching of municipal by-laws such as defecating and urinating on the roadside, littering, speeding and bad behaviour by taxi drivers, parking meters inactive, theft and pick pocketing (City Watch, 2016). A perceived lack of pride in many respects by these users, but a more important argument is that the laws implemented by the city to control this behaviour, are being ignored. Business owners report a decline in foot traffic, in turn having a negative impact on the economy and facilitating a loss of revenue to businesses, but also to the city in the form of rates, and a declining tourism base. Distressed properties affect the quality of life in the community, bring down the values of surrounding properties and become focal points for criminal activity (Costa, 2015).

Durban's inner city has in many ways shown signs of decay and dereliction that mirror the problems faced in other declining and 'decentring' cities around the world. The early nineties saw the rise of 'crime and grime' in the inner city. Across states and cities of Europe and North America there is a growing awareness of urban sprawl, consequences of disinvestment in urban core areas and central city decline, a reliance on the use of private cars and the loss of open space and scenic areas in and close to metropolitan regions (Dieleman & Wegener, 2004).[6] This perception was exacerbated by the flight of many businesses from the formerly white affluent areas of the inner City. Despite some attempts by local government to upgrade and improve the situation of the city, the trend has continued to a large extent. The 'crime and grime' is an issue at the forefront of people's perception of Durban's inner city, creating a negative phenomenological point of view by visitors and business owners.

These perceptions have had an extensive influence on the development of South African cities and in many ways resulted in the dynamics of urban decay in Durban's inner city leading to the so-called problem buildings appearing. This has also lead to the production of 'edge' or 'satellite cities' away from the fear inciting urban core. Many wealthier citizens and businesses have migrated to the North of the City in search of 'safer' and better controlled environments. Cheap available land on the outskirts, the relocation of the airport Northwards and accessibility of new developments by car have all exacerbated this migration. Per SAPOA research office vacancy report for December 2015, Inner city office vacancy rates remain high and at nearly double the level of decentralised nodes - a similar situation as the previous two cycles when vacancies were nearing peak levels (SAPOA, 2015).

[6] As cited by Burchell et al.,2000

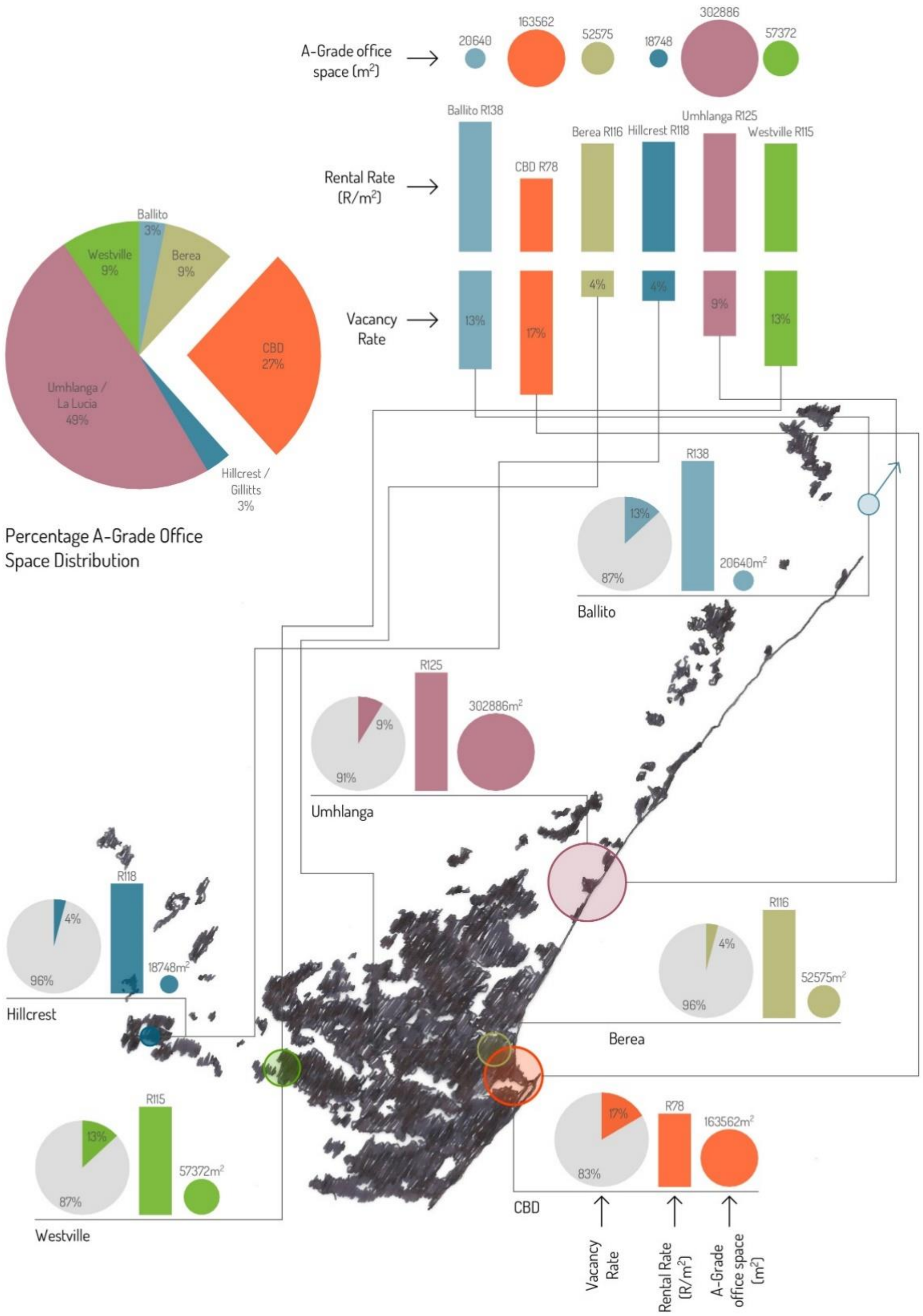


Figure 1: A-Grade office stock distribution, vacancy and rental rates in Durban and surrounds (Source: Author produced from data available from (SAPOA, 2015)*).*

Figure 1 illustrates the positions of A-grade[7] office rental in Durban and surrounding regions. Historically, Durban's business has been far more CBD based than any of the other national centres, with as much as 85% of grade A and B space centrally located up until 1990. However, vacancy rates in the inner city have increased from 2% to 11% between 1990 and in 1998 with as much as 76% being vacant in 2000 (Todes, 2000).[8] These statistics published by SAPOA (SAPOA, 2015), suggest the current trend for the office market is rapidly decentring to 'edge cities' such as Umhlanga, and beyond.

Currently the CBD has the second largest portion of rentable space (27% of stock or 163562m^2), it has the lowest average rental rate (R78 per m^2), and has the highest vacancy rate (17%), in comparison to the rest of the region. The highest portion of space belongs to the Umhlanga (49% of total stock or 302886m^2), with a much lower vacancy rate (9%) despite a higher average rental rate (R125/m^2).

At this point, it should be noted that in South Africa, due to the comfortable nature and inclusion of 'all essential safety features', offices are thriving elsewhere (Todes, 2000).

These figures demonstrate a firm preference for major business to relocate out of the inner city, suggesting that CBD business is on the decline and is desperate for tenants. The principal signifiers are that although 27% of all A-Grade office stock is in the CBD, the asking rental rates are the lowest in the region (R78 per m^2), and the vacancy rates are the highest. Vacancy has increased from 2% in 1990, 11% in 1998, to 17% (well above the national average of 10.5%) in 2015 (SAPOA, 2015). One can conclude that there is a decline of A-Grade office space in the inner city, despite the most attractive rental rate. This business is perceived to have much brighter prospects in the outer areas, especially northwards towards Umhlanga and Ballito.

[7] The South African Property Owners Association (SAPOA) defines A-grade office space as office space generally not older than 15 years or which has had major renovation, has high-quality modern finishes, air-conditioning, adequate onsite parking and is getting rents near the top of the range.
[8] As cited by SAPOA 1990 and 1998

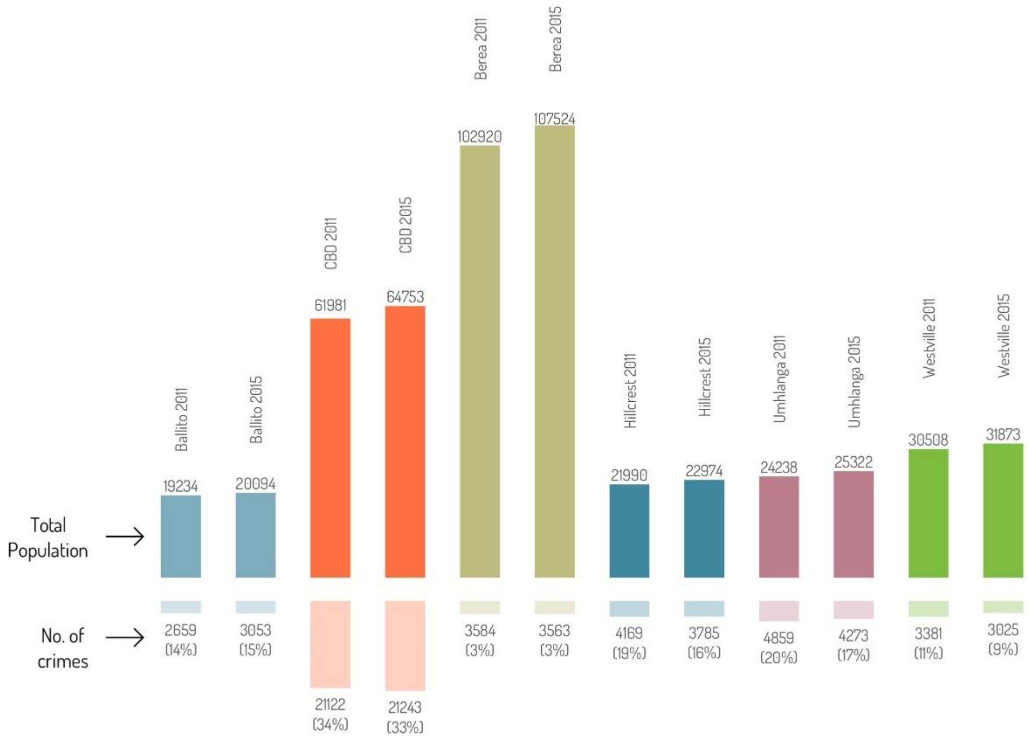


Figure 2: Population versus total crimes committed per precinct in 2011 & 2015 (Source: Author produced from data available from (Crime Statistics SA, 2015) *and* (Statistics South Africa, 2011).

Figure 2 indicates the approximate population per precinct, compared with the number of crimes committed in the years 2011 and 2015.[9] The statistics indicate that the highest number of crimes occur within the CBD, heavily outweighing the rest. It must be noted here that these statistics are the reported crimes only, and it is assumed that illegal foreign migrants may avoid reporting crimes in fear of deportation.

[9] Population statistics for 2011 have been sourced from 2011 Census results (Statistics South Africa, 2011). 2015 statistics have been based on the 2011 Census results, at an estimated growth rate of 1.1% per annum.

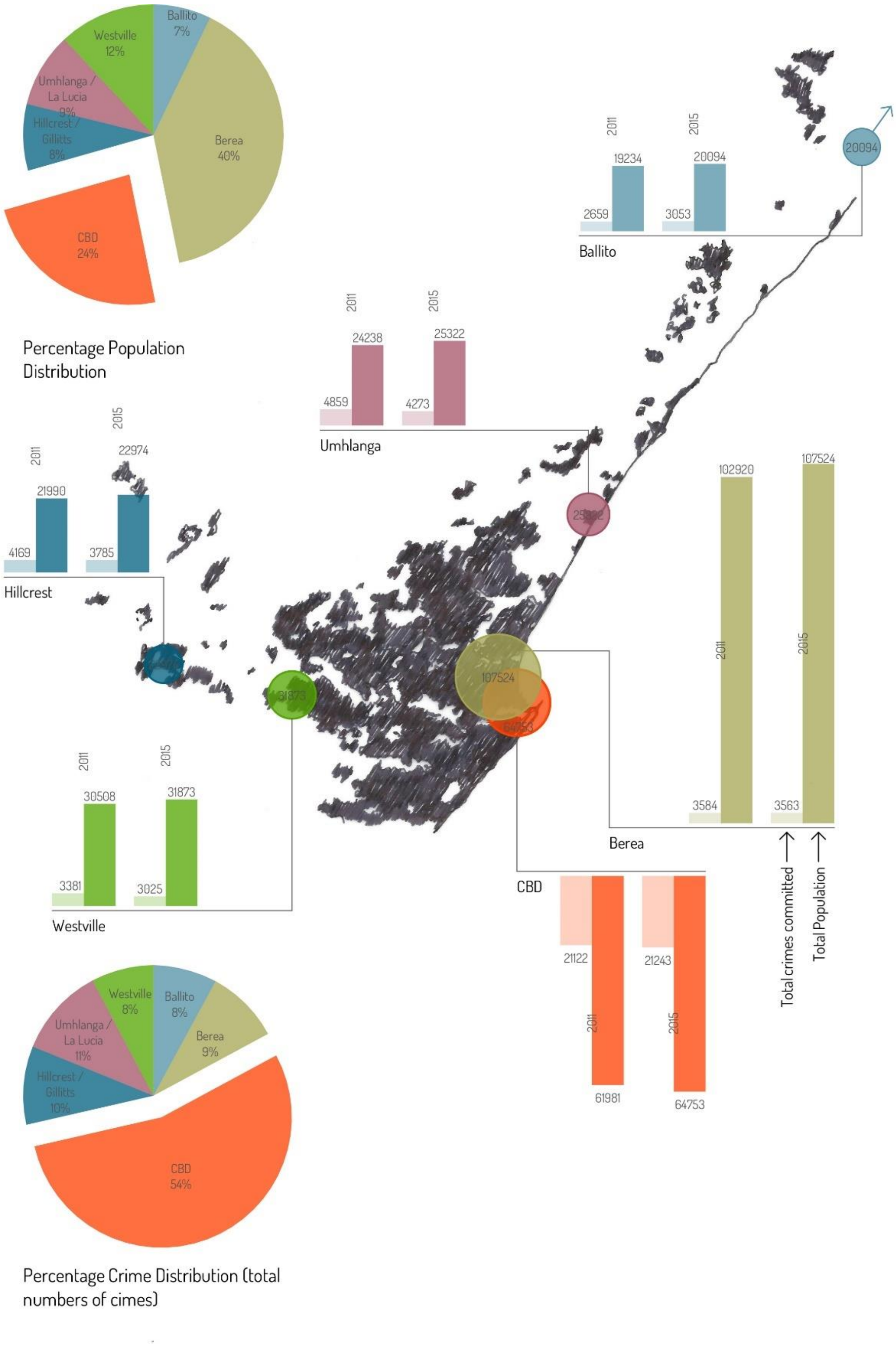


Figure 3: Population & Crime statistics per precinct (Source: Author produced from data available from (Crime Statistics SA, 2015) *and* (Statistics South Africa, 2011).

Figure 3 illustrates these figures slightly differently, with a clear comparison of population versus crimes committed per precinct. The CBD region has the second highest population, approximately a quarter of the sample, but has the highest number of crimes reported, more than half of the sample.

It has the most reported crime, and at the highest ratio. What is interesting to note is that Berea, which contains the highest population of this study, has the least number of crimes, at the lowest ratio, and this precinct directly flanks the CBD. This is evidence that the perception of an unsafe inner City is the reality.

Where does this leave the inner City then? 'If a broken window is left without repair, people will conclude that no one has taken ownership thereof, and that there is no one watching over it. Then more windows will be broken and the lack of control will spread from the buildings to the streets, sending a signal that anything goes and that there is no authority', as postulated by the Broken Windows Theory developed in 1882 by George Kelling and James Wilson.

The idea is simple, but powerful: bad habits spread quickly, but good ones, with strength and continuity, can displace the bad. How many things decline because of our indifference to the very first signs that something isn't right? How many 'broken windows' do we see each day? There seems to be a general lack of pride in the inner City by its contemporary users. Distressed properties affect the quality of life in the community, bring down the values of surrounding properties and become focal points for criminal activity (Costa, 2015), contributing negatively to a phenomenology of perception among the public. Kevin Lynch asserts that, 'A good environmental image gives its possessor an important sense of emotional security' (Norberg-Schulz, 1980).

The public and private sectors need to align if they are serious about turning the situation around. The government has recognised the need to provide adequate rental housing stock, with the introduction of the 'Rental Housing Programme.' The aim is to provide rental housing for low-income earners who cannot be accommodated in the formal private rental market. The programme seeks to bring low-income earners into areas where there are major economic opportunities and from which they would have otherwise been excluded because of the dynamics of the land market. It further aims to promote a mix of race and social class by promoting spatial integration. Before 2015 there were only but two accredited social housing institutions, it is now reported that a further 5 institutions are accredited today (eThekwini Municipality, 2015). Per the Social Housing Act (16 of 2008), the municipality must enter performance agreements with the accredited institutions, and provide preferential access to land and buildings for social housing development in designated restructuring zones. This arrangement seems plausible indeed and presents a possible solution for problem buildings.

The city additionally need to recognise the economy and demographic shift currently underway. With the A-Grade business relocating, showing no signs of returning, does the focus then need to adjust to facilitate the emerging informal economy which is manifesting. The Warwick Junction precinct has become the new city centre, and lessons could be learned from this, and similarly be implemented throughout the inner city.

Adrian Parr points out that the dominant line in urban theory concerns consolidation, the gathering up of land, lives, and things in a game of maximizing ground rent, generalizing property regimes and sorting out populations (Parr, 2015).

Jane Jacobs states that when dealing with cities we are dealing with life at its most complex and intense (Jacobs, 2011). Because this is so, there is a basic aesthetic limitation on what can be done with cities: 'A city cannot be a work of art' (Jacobs, 2011, p. 485). Because the life sciences and cities happen to pose the same *kinds* of problems does not mean they are the *same* problems. In the case of understanding cities, she suggests that "the most important habits of thought are to think of processes; to work inductively, reasoning from particulars to the general, rather than the reverse and to seek 'unaverage' clues involving very small quantities, which reveal the way larger and more 'average' quantities are operating" (Jacobs, 2011, pp. 573-574).

Depending on alarms, private armies and guarded walls, surely cannot become the accepted form of security for city dweller (Steenkamp, 2014). Reducing insecurity and fear is as much of a priority as making these neglected areas more efficient, integrated and creative (Steenkamp, 2014). We should begin to look at public space as the heart of modern life; its design, its use, its management and its new functions are all vitally important (Steenkamp, 2014). We should rethink the street, the plaza and the park, the woodland and the urban landscape and all that which permits us to construct an identity and to experience the encounter, the interchange and the difference. Heidegger argues that, 'a site only becomes a place when we appropriate it culturally' (Steenkamp, 2014).

Environments change. A sudden disaster may destroy a city, farms will be made from wilderness, a loved place is abandoned, or a new settlement is built on an obscure frontier. Slower natural processes may transform an ancient landscape, or social shifts cause bizarre dislocations. During these events, people remember the past and imagine the future (Nas, 2011).[10]

[10] As cited by Kevin Lynch

Lonberg-Holm argues that urban blight is a result of long-term inflexible planning, and recommends flexible time-zone planning (Zhijie, 2010, p. 7). Similarly, Switzer argues that flexibility in design can extend the economic life of buildings (Zhijie, 2010). Iselin and Lemer suggest that flexibility, in any way it is achieved, is a valuable characteristic that delays or avoids obsolescence (Zhijie, 2010, p. 7). Flexibility, as an explicit design goal, can ensure that the resulting building is better suited to accommodate future programmatic changes or operational modifications. Moreover, Schneider and Till suggest that flexibility in housing is a form of future proofing (Zhijie, 2010, p. 7). Flexible housing is particularly relevant to the provision of services which need to be both continually updated and protected against obsolescence (Zhijie, 2010, p. 8).

'We have reached an interesting time when the drivers of sustainable cities are the same as the drivers of livable cities, namely, mixed use, connectivity, high quality public realm, local character and adaptability. When these characteristics come together…they provide alchemy of sustainability, social benefit and economic vitality. These cities reduce their need for car travel, reduce energy consumption and emissions, use local materials, support local businesses and create identifiable communities' (Zhijie, 2010, p. 8).

As Carter pointed out in 1980: 'To a great degree, our understanding of the operative processes and consequent usage patterns in the city centre is completely inadequate. To chop out arbitrarily defined pieces and give them names is useful in so far as it advances comprehension of the complex, but it is no solution. Careful and detailed study of process is essential. This involves an effective realization of the interests of users of central land, the activities in which they are involved, the links which they can deploy. This must be carried out in the context of continuing change and flux over time' (Sim, 1982).

City planning needs to rather provide a framework that allows room for constructive dialog between all its users that avoids pre-determining use patterns - private enterprises know where their businesses are required to be, and it becomes obstructive when a city's master plan does not allow for these locations (The Smart Urbanist, 2014). The private enterprise will simply look at next best option, where it will be easier to implement elsewhere, often to the detriment of the city (The Smart Urbanist, 2014). This city mindset is a large reason for the flight of many, as well as the disinterest in new development (The Smart Urbanist, 2014).

'Simple, clear purpose and principles give rise to complex and intelligent behavior. Complex rules and regulations give rise to simple and stupid behavior' (The Smart Urbanist, 2014).[11]

2.2 PHENOMENOLOGY OF PERCEPTION: CITY REGULATIONS

The private owners of problem buildings in the inner city are in a predicament. The current decline of the inner City gives little confidence for businesses, which are an essential element for its economy. This contributes no incentive to maintain property, with the unfeasible financial returns anticipated.

Let's unpack what it means to be an inner-city property owner, to get into their headspace and understand the available options. Realistically, owning a property means owning a fixed asset. A fixed asset being an economic resource that an individual, corporation or country owns or controls with the expectation that it will provide future benefit (Investopedia, 2016). This is translated as an economic vehicle to benefit the owning entities operations, and can be thought of as something that can generate cash flow, and in the case of a fixed asset, continue to generate cash flow for a long period (years) (Investopedia, 2016). It is assumed then that it is in an owner's interest to protect their assets to continue to generate a passive cash flow. In the long term, the aim is for the property to increase in value, and have a capital gain. For this to manifest, these properties need to be sought after. Property values are heavily reliant on the context they are in, as well as the perception of context that is fundamental to successful business and a satisfied building owner.

What happens then when the context is poorly perceived and a once feasible property is now struggling for tenants, and even worse, property with the lowest rental rate in the greater region? With an unpredictable future, and no signs of regeneration, it does not make financial sense to plough money into a property and gamble on a major turnaround to occur. Do you then cut your losses and follow the market? Pursuing a white elephant does not make financial sense either.

An alternative, and the option that this research is interested in, would be to spend as little as possible to convert it to the market requirement, as quickly and quietly as possible, to ensure cash flow. In this defence, owners recognise the need of the contemporary city user. Simply a response to the market requirement, a viable business prospect. On one hand, it is complimentary and solves the serious issue of the lack of affordable housing in the inner City. However, this implementation is usually unlawful, as

[11] As cited by Dee Hock, CEO Emeritus VISA International

building owners seem to only have money on their minds at the expense of the tenant. The more serious other hand is the questionable and exploitative way this is approached.

The argument is that planning policy has not adapted to the change observed in the inner city, and are restricting progress. Cities constantly alter users and uses, however planning policy and regulation remains constant. Consequently, current planning policy contributes to the occurrence of problem buildings. It seems that the city of Durban, up until now, has failed to eradicate the occurrence of problem buildings, and in so doing the city vision will remain but a dream.

Current urban planning policies need to be reconceptualised considering the current state of African cities, post-colonial and post-apartheid. Vanessa Watson of the African centre for Cities at UCT, suggests that current urban planning systems are part of the problem in many parts of the world: they serve to promote social and spatial exclusion, are anti-poor, and are doing little to secure environmental sustainability (Watson, 2009). Urban planning, it is argued, therefore needs fundamental review if it is to play any meaningful role in current urban issues (Watson, 2009).

Watson continues to suggest that planning needs to be local context related and not imported. What is clear, is that over the last two to three decades, urban places in both the global North and South have changed significantly: in terms of their economy, society, spatial structure and environments. Yet it appears that planning systems, particularly in the global South, have changed sluggishly and some hardly at all. Many approaches and systems reflecting planning ideas from the global North have simplistically been transferred to Southern contexts through complex processes of colonialism and globalisation. The persistence of older forms of planning requires explanation (Watson, 2009).

Durban's city can be described as an Apartheid Planned city. This means it was heavily based on the concept of zoning, a principle adopted from the Global North. There was a residential zone for the 'black' people, another for the 'Indian' people, one for the 'white' people, an industrial buffer zone between the residential zones, an office zone in the inner city etc. These were all strategically designed as a tactic to control the movements of non-whites in and out of the CBD. (refer to *Figure 4*).

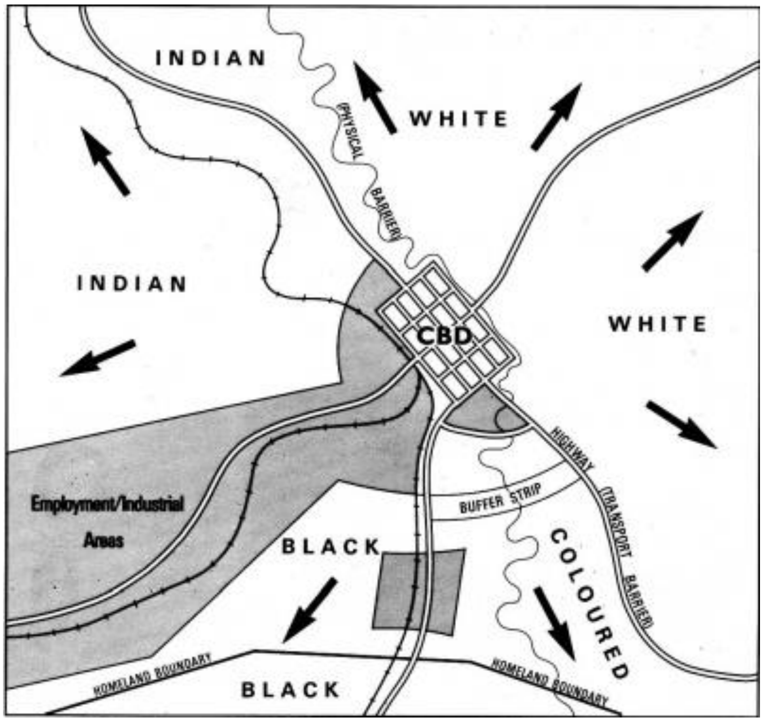


Figure 4: Graphic depicting a typical segregated 'Apartheid' city plan (Image sourced from: https://cesarlopezthesis2013.files.wordpress.com/2012/06/the-segregated-city_page_16.jpg).

Per Jane Jacobs, the predominately one use zoning, that forms the backbone of Durban's planning, is recipe for a sterile, dull environment, lacking vitality and diversity (Jacobs, 2011). She insists that uses need to be as diverse as possible, to ensure a constant interest and vitality throughout the day (Jacobs, 2011). 'Vitality throughout the day', is a fundamentally important principle. The experience of Durban's inner city is vastly different during the day compared with the evening. It becomes ghost-town like at night, as the people ensuring day time activity, vacate the centre, leaving no effective substitute.

What we need is a joint effort between the public and the private sector, to contextually review what the city has become and what is wants to be, and learn from this to realize the city's vision. There is an argument to review the permitted occupancies or population densities and residential limitations to f.a.r. to better align with how the city is currently operating (regardless of the laws). This could avoid the necessity for desperate building owners to 'take the law into their own hands' so to speak. Instead of transforming their properties illegally, contributing to the decline of the CBD, transform their buildings proudly and in line with an appropriate city policy, which can reflect positively for the city image and create a much required positive 'sense of place.' By the mere fact of the actions of problem building owners, means that they recognize the opportunity that exists. In this sense and from a phenomenological perception, these problem buildings can be described as positive contributors, as they provide an affordable option for the most vulnerable city users.

South African cities were designed and controlled primarily by the white colonialist. Apartheid laws and the rise of the modernist movement, made it increasingly difficult for people of color to claim any right to the city, as they were governed by curfews and the like. Non-whites were also governed by strict laws designed to control there every movement and make it as difficult as possible to have any claim to the space in the city. This ensured a majority white middle class population and control of the urban centers, with most African, colored and Indian people having to commute into and out of the center daily. The point here is that during all of this, the urban plan and design was primarily for the white person, and for this argument, designed to accommodate their lifestyle only, generating a perception of angst among blacks, colored and Indians.

Today the demographic has changed completely. With the abolishment of Apartheid and its controls, all South Africans now enjoy unlimited access to any part of the City. Now the city must deal with the reality of a large group of immigrants, as well as a diverse range of local citizens of many cultures, rituals and socio-economic backgrounds, all attempting to claim their space in this foreign place (Todes, 2000). The contemporary user needs to be explored and better understood to shape the city effectively.

If the major reason for migration into a city CBD is for maximum exchange, economically, socially and environmentally, and most importantly in the shortest time to achieve this (Engwicht, 2007), what good is it to have the bulk of the economic sector decentering out of the CBD? What seems to be occurring is that the city is heading towards a majority residential make up. Could this potentially create a similar situation where the new migrants will now have to commute to the new economic zone of Umhlanga for example?

The fact that most of eThekwini's population resides in settlements on the city fringe areas of Kwamashu and Umlazi, didn't attract big business and many economic opportunities there (although there are currently efforts to create economic opportunity - like Bridge City in Kwamashu), leaving little evidence that business will return to the CBD, if it too becomes majority residential. For a dense and compact city to exist, there needs to be a balance between economic opportunity, good public services, recreational spaces and affordable housing ideally within walking distance (or a short time to access). Economic opportunity plays a fundamental part in creating a successful urban space, and unless this returns to the CBD, the city will continue to decline despite perhaps providing affordable housing only. The argument then is that social housing institutions need to provide not only residential opportunity, but to additionally incorporate uses to enable sustainable urbanity to thrive.

2.3 PHENOMENOLOGY OF PERCEPTION: THE CITY USER

Most inner-city residents consider themselves to be fortunate. They don't live in one of the city's 500 squatter settlements, the informal favelas that have mushroomed around the city as an influx of rural to urban migration and foreign immigrants seek jobs in the inner city (Arde, 2014). The city says that there are about 300,000 shacks in Durban, each home to an average of 4 people, meaning 30% of Durban residents live in this way (Arde, 2014). Conditions in these slums are dreadful, with scarce running water and sanitation, illegally connected electricity leading to frequent electrocutions and flash floods that can wipe out entire settlements overnight (Arde, 2014).

The next best option is a $9m^2$ partitioned cubicle in an illegally modified commercial building with limited access to ablutions and cooking facilities. An estimated 12,000 people live in these types of slumlord run buildings. These are vulnerable to fires that could roar through these non-fire-rated walls, destroy the resident's possessions and cause major devastation (Arde, 2014).

Everybody's existential purpose varies. One thing is certain though, if you find yourself living in Durban South Africa, you will need to survive in its capitalist dominated society, where your ability to access money dictates where you can live. What this means is that here, you are required to negotiate enough income to survive, with the amount of money you have dictating the number of choices you have. Most of Durban's 70,000 inner city residents (Statistics South Africa, 2011) do not have much of an option, and are therefore vulnerable to exploitative landlords.

AbdouMaliq Simone describes cities as mobile entities - oscillating relational ties that stretch and retract, include and exclude, filter and circulate (Simone, 2011). Taken one by one as discrete administrative entities, most African cities exhibit a wide range of problems and constraints. But in following the multiple lines of articulation among them, largely etched through various everyday movements of their populations, it sometimes seems as if there is an insistence on a kind of city to be created, one that exists across multiple sites and permits different kinds of engagements by residents, sometimes here, sometimes there (Simone, 2011).[12]

[12] As cited by Roy

Vanessa Watson comments that the racial divisions put in place in South African cities under apartheid have been exacerbated in the post-democracy period as the country has opened to the global economy, although now taking the form of class rather than racial divides (Watson, 2009). The outcome is that South African towns and cities are now more spatially divided and fragmented than they have ever been.

This illustrates the need for a reimagining of current planning policy that better allows for flexibility and adaption to the needs of today's contemporary users and uses.

Van Den Bergh stresses that, 'Far too much Durban seems to be part of somewhere else. No specific place, just some anonymous other with buildings that satisfy some crude notion of practicality but which lack empathy with time, place and cultural context (Bergh, 1989). 'He further argues that, 'a great city is one which its citizens can feel is theirs - a place which celebrates in its planning and fabric their traditions, creative abilities, whims, heroes and idiosyncrasies,' thus emphasizing the necessity for creating a sense of place within Durban's built environment (Bergh, 1989).

Simone comments on the state of the Global South city that it is something that is hard to know, hard to get a handle on, however gives residents something to work with, even those with limited means (Simone, 2011). In these cities where the machinery of decision-making, planning, resource allocation, and service provision hobbles along in bureaucratic incompetence, makeshift deals, and enormously skewed distributions, most inhabitants still continuously construct and update the practices, designs, and materials that are put to work in engineering spaces of inhabitation (Simone, 2011). Perhaps more importantly, they reticulate the experiences, skills, perceptions, and networks of the people around them to materialize circuits through which needed goods, services, and information pass (Simone, 2011).

Simone suggests that people within African cities have a likelier tendency to improvise; they operate without delineated ideas of how a city is to be used (Simone, 2011). One could view a city as a flexible, mobile and provisional intersection of its inhabitants – not as a finite construct. The inhabitants respond with the circumstantial, with the incidental scenarios that these city-intersections create. Urban spaces are generally imagined to be contained functional destinations and whose regulatory regimes are not suited for high density residential areas. Behind this approach lies an urban environment that has few surprises, few chance-like qualities and regulated encounters between people and space. Social requirements often dismantle physical geography and infrastructure, what Simone calls 'counter urbanism' to the imposed city grid (Simone, 2011).

Figure 5: homeless people + empty buildings = society fails (Source: 'The social cinema' from (https://za.pinterest.com/pin/4433299603684265/)).

Figure 5 suggests that the current system is failing. It seems so obvious that existing unused/obsolete infrastructure simply must adapt to current need. We have a system that recognizes a lack of affordable housing options, and yet makes it increasingly difficult for problem buildings to be adaptively reused for a legitimate purpose.

By understanding the city from this perception, Simone challenges how researches, policymakers and urban activists are currently practicing, and to rather see and engage urban spaces in the ethnography of inner-city Durban.

CONCLUSION

We perceive atmosphere through our emotional sensibility - a form of perception that works incredibly quickly... Something inside us tells us an enormous amount straight away. We are capable of immediate appreciation, of a spontaneous emotional response.' - Peter Zumthor

We find Durban's inner-city in a state of crisis, where borrowed ideas have contributed to a slow process of adaptability for its contemporary user. The minority middle class white population, for whom the city was designed, has relocated from the inner city, making way for the majority non-white population, for which the city was not designed.

This shift has led to an occurrence of problem buildings. Buildings that were once flourishing but designed to serve a use, have now become problematic, effectively housing uses that they were not intended for but required. The current systems are simply failing.

This phenomenon can be viewed from various perspectives, and as has been outlined in this chapter, have both positive and negative bearing, depending on whose perspective you are viewing from. The phenomenology of perception of problem buildings from a top-down view or the city's view so to speak, without considering the perspective of the actual individuals who occupy the buildings or the building owners, contributes to a negative perception. However, if you engage with the occupants, and view the same buildings from their perspective, the perception of problem buildings may change to a positive one. There will be a realization that the people use the buildings positively, albeit in contravention to the city's view.

This outlines a strong argument that merely perceiving this issue form one perspective will fail to produce a flourishing city. From the building owner's perspective, we see a response to the need for the user, however is not supported from the city perspective.

The city needs to be viewed as a partnership between all agents that inhabit it - meaning that private development and local government should act together to create an overall positive image for its city, by understanding the fundamental needs of the city, from multiple perspectives. In the case of privately owned buildings in the inner city, there should be dialogue, fundamentally to make the correct decision in the interest of the user, the owner and the city. Rules and regulations need to be flexible enough to enable resilience with either party able to assist in times of crisis.

The state that these buildings are 'allowed' to become is a crisis for the image of the city, and evident by the 'flight' of corporate business and the middle class to the suburbs, which does not contribute to a flourishing City, as defined previously. The City should be compact and share resources, and by enabling sprawl to areas outside the city, is unsustainable - unsustainable because valuable agricultural land is being utilised for urban development, unsustainable because of the additional pollution by the transport required to get there and back, and economically unsustainable because of the additional time and unnecessary cost to travel.

Steven Holl suggests that the architect must embrace the contradiction between perception and logic, the slippage between architectural intention and realization, and unpredictability of the future's judgement upon the acting present, and 'resolve' or confuse these aporia's through his/her personal imagination (Holl, et al., 2007).

The spatial experiences are open ended. They form a network of over lapping perspectives (Holl, et al., 2007). The old conditions of linear perspective with its vanishing points and horizon line disappear behind us as modern life presents multiple horizons, hovering horizons, and multiple vanishing points (Holl, et al., 2007).

Within the experiential continuum of enmeshed space, we understand distinct objects, distinct fields, as a whole (Holl, et al., 2007). Our experience of a city can only be, however, perspectival, fragmented and incomplete. This experience, unlike a static image, consists of partial views through urban settings, which offer a different kind of involvement or investigation than the bird's eye view, which is typically used by architects and planners (Holl, et al., 2007).

Through this phenomenological study of problem buildings, ways are sought to incorporate the incomplete, perspective, experience of this space into one vision and fabrication of architecture. This multi perspective approach to problem buildings will facilitate perhaps an enlightened concept of urbanism, with an understanding of alternative ways.

The constant change of user must be accommodated for. If city planning can facilitate this phenomenon, our cities can adapt to the changing dynamic and become resilient.

One must also emphasize that phenomenology of perception has been an important ground stone for practicing architects involved with real-world design. Studying architectural themes phenomenologically can enable architects to think deeply about these themes and evoke helpful images and details. Architect Steven Holl explains further:

Phenomenology concerns the study of essences; architecture has the potential to put essences back into existence (Holl, et al., 2007). By weaving form, space, and light, architecture can elevate the experience of daily life through the various phenomena that emerge from specific sites, programs, and architectures. On one level, an idea-force drives architecture; on another, structure, material space, colour, light, and shadow intertwine in the fabrication of architecture (Holl, et al., 2007).

These theoretical and applied understandings of phenomenology's value to architecture, point to its potential for clarifying thinking about buildings and for facilitating design ideas. Though often quite different in their thematic emphases, these interpretations point toward the value of phenomenology as a 'way,' a 'method,' or an 'approach' by which architectural problems can be better identified and clarified. The suggestion is that phenomenology offers one pathway toward a deeper, more comprehensive understanding of architectural themes and problems, where problem buildings in Durban's inner city can offer an opportunity despite their negative perception.

CHAPTER 3: PRECEDENT STUDIES

INTRODUCTION

The following precedent studies present examples that aim to provide a better understanding of the phenomenon of problem buildings viewed though phenomenology of perception. One focusing on the adaptive reuse of an existing building, and the other on a similar context for urban regeneration.

The first precedent study provides an invaluable account of tactics of the urban working poor, who accommodated themselves and created a livelihood from abandonment. It provides a deeper understanding of how the contemporary city can facilitate and enable this reality. The objective of this precedent study is not to romanticize poverty, or to suggest that these living conditions are acceptable, however under this extreme situation, and one which is a reality to many cities across the world, this practice is manifest and can contribute positively.

The second precedent study attempts to reveal how a similar urban context and condition to that of Durban's inner-city, is undergoing a change for integration and urban regeneration.

3.1 TORRE DE DAVID - THE WORLD'S TALLEST SQUAT

'When the modern city does not adapt to the people, the people will adapt the city'. (Urban Think Tank, Trailer - Torre David: The World's Tallest Squat) (Urban-Think Tank, 2015).

Figure 6: 'Torre de David, a 45-story uncompleted skyscraper located in downtown Caracas, Venezuela (Image by Meridith Kohut, sourced from (Romero & Diaz, 2011)*).*

3.1.1 INTRODUCTION

Torre de David is a 45-storey skyscraper in Caracas (as seen in *Figure 6*), that has remained uncompleted since the Venezuelan economy collapse in 1994. It was the improvised home to an estimated 750 families or approximately 4,500 squatters who lived in an extra-legal and tenuous squat, that some have called 'the world's largest vertical slum' (Brillembourg, et al., 2012).

Figure 7: Improvised infill facades to the towers structural skeleton (Images by Iwan Baan sourced from (Baan, 2011)*).*

In the absence of formal planning structures, residents adaptively reused the existing building's skeleton (as indicated in *Figure 7*) and organized themselves to provide for their daily needs, with a hair salon, a beauty salon, a gym, small grocery stores, a butcher shop, a dentist, and a church, essentially creating a community where people lived, worked and raised their families in safety (Brillembourg, et al., 2012).

3.1.2 LOCATION MAP

Torre de David (The Centro Financiero Confinanzas), is situated in San Bernardino, Caracas, Capital District, Venezuela, in the heart of the CBD. It is the third highest building in the country, and pokes conspicuously up from the city center for all of Caracas to see.

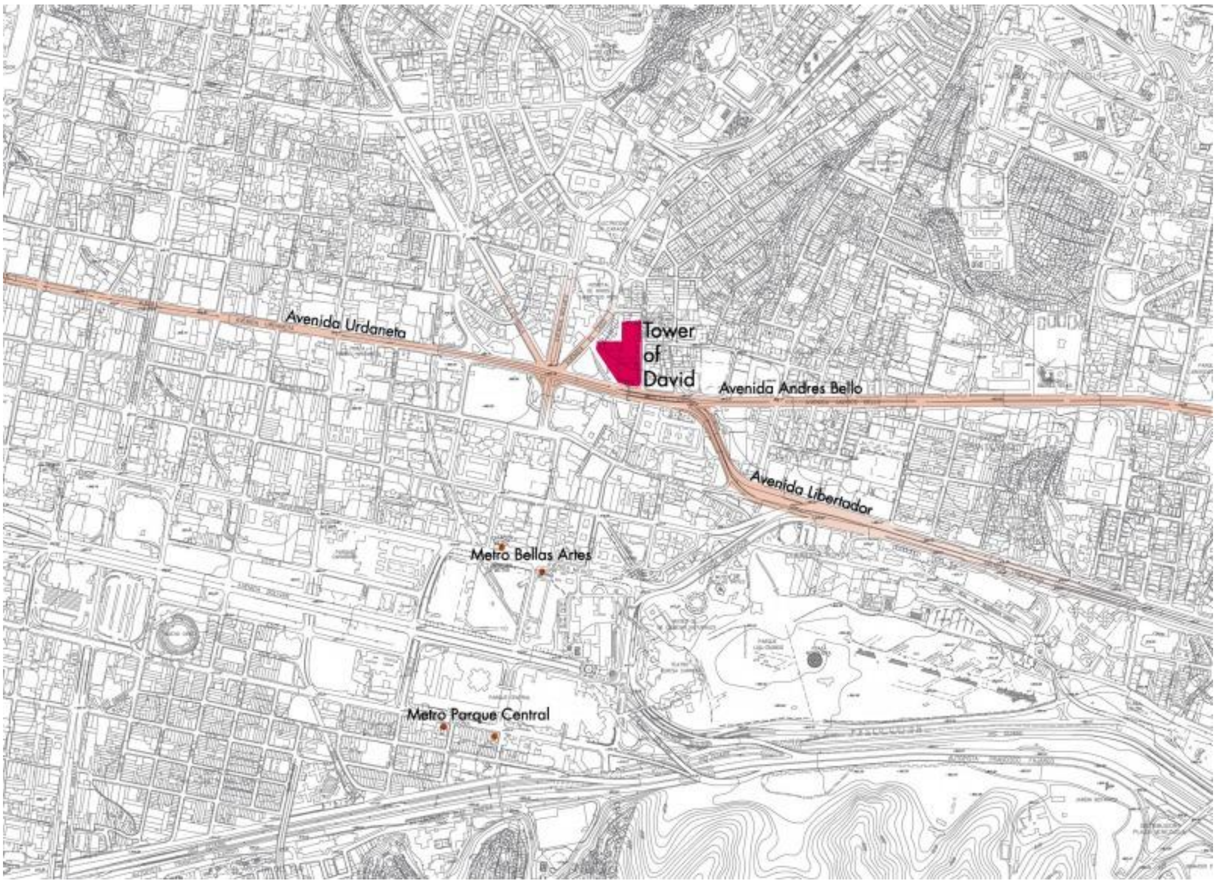


Figure 8: Tower of David complex in urban fabric (Image sourced from (Architecture In Development, 2011)*).*

Figure 8 illustrates Torre de David's central and convenient location within Caracas's inner city. The building has become a local and national embarrassment; however, it served an important purpose for the poorest people of Caracas (Berg, 2016).

3.1.3 MOTIVATION AND JUSTIFICATION

This project represents opportunity in the face of abandonment. It demonstrates the method of researching this problem building through phenomenology of perception, as described by the lived experience of the inhabitants, and the enabled community of this building. The adaptive reuse of existing infrastructure, to suite the immediate contemporary need, is what makes this precedent relevant to this dissertation. The lessons learned provide a deeper understanding and motivation for the intention to adaptively reuse Durban's inner city's problem buildings as an opportunity to accommodate the contemporary user. Despite the illegal nature of this occurrence, it provides an example of how the contemporary user adapted in a dire circumstance. The modern city can learn from such a building that enabled a thriving community to manifest despite the infringements of bylaws and policy. The reality is that the deprived occupants organized themselves and governed the successful administration of the building to maintain their presence in the center of the city.

3.1.4 BACKGROUND

The construction of Torre de David began in 1990 with the intention to develop luxurious apartments, up-market entertainment facilities, a hotel and luxury grade offices as well as the headquarters for Venezuela's financial center, Centro Financiero Confinanzas. It was supposed to represent a dramatic symbol of the country's wealth, but instead became a squatter's paradise (Berg, 2016). After the passing of developer David Brillembourg in 1993, the man behind Venezuela's economical landmarks of the decade, namely the National Brewery, the Union Bank, Mantex, Atlantica Industry (Architecture In Development, 2011), the project began to lose momentum. Coupled with the collapse of the Venezuelan economy in 1994, construction came to a standstill at 60% completion. The state institution Fondo de Garantía de Depósitos y Protección Bancaria (Fogade) (Suazo, 2010) inherited the 190-meter tall, 120 000 m^2, 45-storey skyscraper in 1994 (Romero & Diaz, 2011). It then led an unsuccessful attempt to auction the building in 2001, without receiving a single interested party (Berg, 2016). In 2005, the Municipality and some of its ministers unsuccessfully planned to relocate their headquarters to the tower. The continued vacancy laid the grounds for social groups eager for housing closer to economic opportunities (Architecture In Development, 2011).

In October 2007, a group of homeless people invaded the uncompleted building (Suazo, 2010). Soon there were thousands of people living in the building, who generated business and a thriving micro economy inside the tower (Architecture In Development, 2011). In June 2009, the residents formed a cooperative called, 'Cooperativa Casiques de Venezuela', formalized by a gangster turned evangelist named Alexander 'El Nino' Daza (Berg, 2016). This was a highly efficient system of self-organization. Inhabitants contributed a monthly fee to cover utilities and maintenance for the building's common areas to the 'homeowner's' association. The association further rented out the parking structure to bring in extra income for the building, eventually enabling it to become a paying customer of local utilities (Berg, 2016). There was representation for each storey, who attended fortnightly meetings with Daza. Most floors had locked access from the stairwell circulation, ensuring a degree of social control per floor (Urban-Think Tank, 2011). All decisions where voted in democratically, so long as they did not burden or prejudice anyone and were only beneficial to the community (Architecture In

Development, 2011). In an interview with the BBC, one resident commented that the association was better run than the government of the country (Berg, 2016).

However, outsiders perceived the tower to be a dreadfully violent place, and completely outside the authority of the countries law, having its own regulation, described as a representation of anarchy. Local media continually published story's that poorly illustrated the building condition. The building was portrayed as a slum, that was a dangerous place, where criminals live, where people got raped, where drugs were sold and where only murderers lived (Munoz, 2014). This is the general perception of these types of problem buildings, as conclusions are drawn without engaging the occupants, and without considering this quite different phenomenologocal perception. As Christian Norberg-Schulz and Juhani Pallasmaa stipulate, that without penetrating the world of the everyday existence, and without 'viewing its essence', a true understanding cannot be achieved.


Figure 9: (top left) church service in the tower (Image by Iwan Baan sourced from (Baan, 2011)*).*
Figure 10: (top right) a dressmaker's studio in the tower (Image by Iwan Baan sourced from (Baan, 2011)*).*

Figure 9 to *Figure 14*, illustrates the lived experiences of the inhabitants of Torre de David, where they have created a thriving community, where inhabitants live, work and play.


Figure 11: (top right) informal shop in tower (Image by Iwan Baan sourced from (Baan, 2011)*).*

Figure 12: (top left) friendly basketball game in tower (Image by Iwan Baan sourced from (Baan, 2011)*).*

Figure 13: (bottom left) an improvised family unit (Image by Iwan Baan sourced from (Baan, 2011)*).*

Figure 14: (bottom right) an improvised family unit (Image by Iwan Baan sourced from (Baan, 2011)*).*

Despite the buildings monumental height and downtown location, it represents a further empty space in Caracas' irregular urban topography. The building became a 'luxury shanty', with its function and legal status precarious, as its use was not that of what it was intended. There are many similar buildings like this at a smaller scale in Caracas (Urban-Think Tank, 2011).

In July 2014, the Venezuelan government announced its intentions to end the occupation and transform Torre de David into a commercial center and office tower, reportedly signing a deal with the Chinese government to redevelop the site (Berg, 2016). The police evicted residents, relocating most families to a new social housing project located in Ciudad Zamora, about 35km's south of Caracas, about an hour's drive beyond the outskirts of the city (Berg, 2016). Although the government never had to physically extend any additional municipal services, as the infrastructure in this inner-city location already existed, no additional construction was required and essentially no municipal funds were required to house the approximately 4,500 people in the tower, they went with the option of constructing new infrastructure and buildings to house these people elsewhere. This approach bears similarities to South Africa's current solution of providing social housing outside the economic centers, effectively isolated and unintegrated.

There have been mixed feelings about the relocation by the former residents. Although the new housing is a fair distance from the CBD, to some it is a 'dream come true' to be receiving a new apartment, after the seven years of struggle and suffering whilst living in the tower (Bercovitch, 2014). However, to many families it will take an immense effort to rebuild their lives an hour from the social networks or employment opportunities they had in Caracas, and the move could exacerbate the residents' poverty (Dunne, 2014).

As of June 2015, the future of Torre David is still uncertain. Since then the rumored Chinese deal has seemingly fallen through, and the building once again stands abandoned and empty (Urban-Think Tank, 2011). The supposed symbol of a corporate empire, is now an emblem of insecurity and abandonment in the public face yet again (Suazo, 2010).

3.1.5 CONCLUSION

The phenomenology of perception of this building can be perceived in many ways. First and foremost, it brings to light the dire issues of many of the most vulnerable and lowest earners of cities around the world, and portrays the reality they face. This well documented project has won architectural awards, represented by a never completed and abandoned building, somewhat supporting an illegal seizure and occupation of property. It represents an attempt for a successful informal/formal hybrid. It is an improvised urbanism. Economic and political circumstances lead to a shift in approach and through creativity, resourcefulness, ingenuity and imagination an unfinished concrete skeleton was transformed into a vibrant housing community for the poorest, an accomplishment planners have failed to produce formally. Here it happened spontaneously, without predefined rules or principles.

Essentially all that was required, was an open infrastructure of systems, able to adapt, and able to enable viability to manifest itself. As Jane Jacobs puts it, an organized complexity crafted from the leftovers of a capitalist failure (Jacobs, 2011).

The residents of Torre de David adapted an existing abandoned structure, intended for an entirely different purpose, and used it to meet their housing requirement (Jacobs, 2011). The community of Torre de David was neither a den of criminality, nor a romantic utopia. Rather, Torre de David was a building that possessed the complexity of a city. It merged formal structure and informal adaptation to provide an urgently required solution, and shows us how bottom-up resourcefulness can address prevailing urban scarcities (Urban-Think Tank, 2014).

The residents created a stable community, with autonomous organizational forms, that reinforced the sense of identity and solidarity. They created a stable solution for themselves. As one of the residents, a 31-year-old mother of five put it, 'the important thing is to have a stable home. Everything else is manageable' (Munoz, 2014).

Urban-Think Tank, who led local research of Torre de David's informal community, says the future of the tower is uncertain. Whatever comes, it won't be likely to erase the memory of the roughly eight years a makeshift informal community brought unexpected life to the Tower of David (Berg, 2016).

The benefits of its central location are undeniable, as can be seen from this example. What is evident is the ability for residents to adapt to their need, all that was required was the space and infrastructure. The inhabitants completed the rest. The tower provided a skeleton framework of essential systems that allowed the inhabitants to create their own original place.

Considering the housing crisis in Venezuela (much like many global South Countries including that of Durban), and the state under enormous pressure to house its people, an abandoned structure provided the solution, essentially costing the government nothing at all. Out of necessity, and a failed social program, residents had the will to build new lives for themselves. All services were ultimately connected legally and paid for by the residents, all construction completed by the residents. Yet, the government opted rather to spend on additional infrastructure and construction, in another location outside the inner city, which bears similarities to Durban's development approach.

Where adaptive reuse is a formal and controlled transformation of an existing structure, Torre de David represents an example of this process as an informal practice, and how it manifests if you leave it up to the people. 'Civilization rests on the fact that most people do the right thing most of the time' (Smart Urbanism, 2015). Largely ignored by governments and the formal private sector, city dwellers, like those in Torre de David, devised and employed tactics to improvise shelter, housing and livelihood.

3.2 HARLEM, NEW YORK CITY

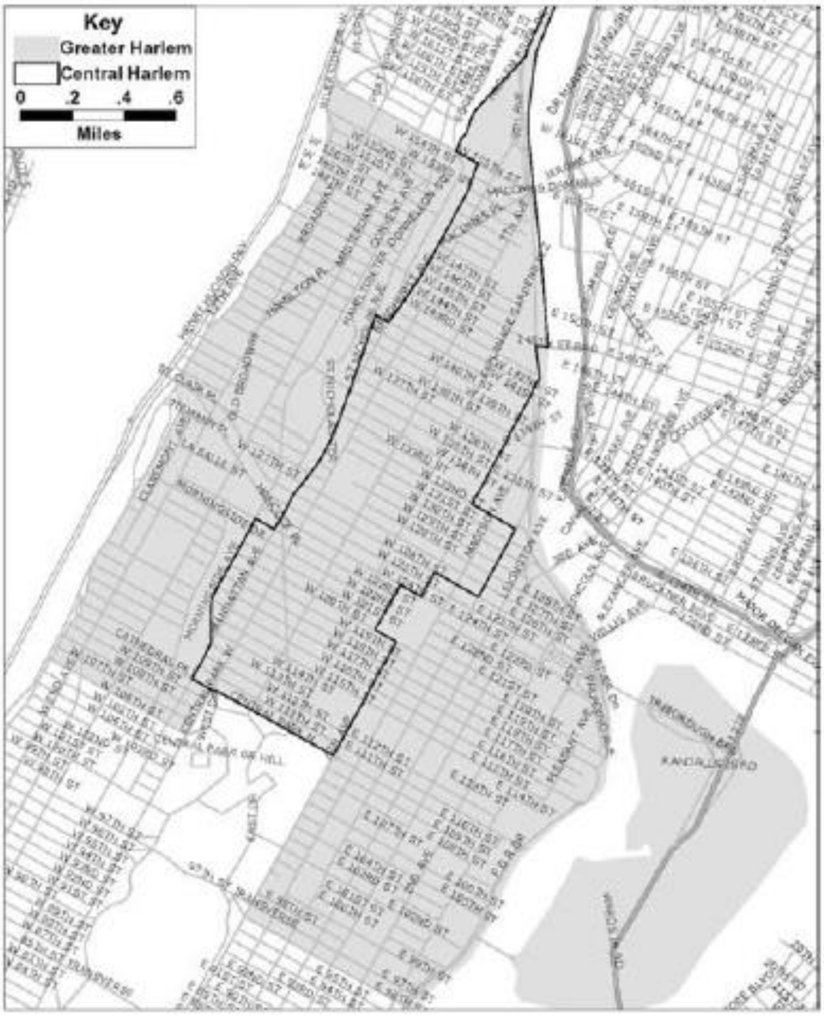
3.2.1 INTRODUCTION

This precedent study was chosen as it resembles similar developments to that of Durban's Inner city. Harlem is a neighborhood with a complex history that has shaped the United States political and cultural landscape and has been the long cultural epicenter for black people throughout the 20th century (Shaffer & Smith, 1986). Harlem was home to many world renowned black writers, artists, musicians and intellectuals. The Harlem Renaissance of the 1920's and 1930's (artistic outpouring) and the Negro Movement helped define the black experience in the Country. Harlem is an international symbol of black culture and its contemporary image is dominated by two principal themes (Shaffer & Smith, 1986). The first is a nostalgic image of Harlem Renaissance described as the 'spiritual coming of age' in which the black community could seize upon its 'first chance for group expression and self-determination' (Shaffer & Smith, 1986) [13] The second is the Harlem ghetto, one of the largest concentrations of black working-class and poor inhabitants in the U.S. This image is one of physical dilapidation, social deprivation, crime and drugs. Each theme portraying only a part of the real Harlem (Shaffer & Smith, 1986).[14] Durban's inner city is perceived by many to mirror this image, so it is with great optimism that the positive interventions currently being implemented in this neighborhood be unpacked and understood to avoid the same result in Durban's inner city.

3.2.2 LOCATION

Harlem is a neighborhood located on Manhattan Island in New York City, stretching approximately three kilometers to the north of Central Park as indicated in *Figure 16*. Greater Harlem neighborhood runs from river to river (east to west and to the north) and extends from East 96th Street and West 106th Street to West 155th Street and the Harlem River in the north. The heart of Harlem is known as Central Harlem and lies in the central area between Central Park and the Harlem River in the north, as seen in *Figure 15*. Harlem's total area covers approximately 10km^2.

[13] As cited by (Anderson 1982; Lewis 1981)
[14] As cited by (Osofsky 1971)



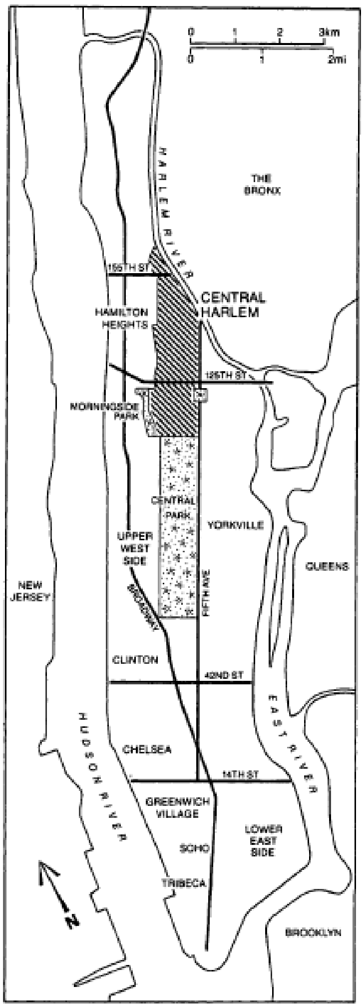


Figure 15: Left - Central and Greater Harlem delineated (figure sourced from (Beveridge, 2008)*).*

Figure 16: Right - Map indicating Harlem in relation to Manhattan Island (figure sourced from (Shaffer & Smith, 1986).

3.2.3 HISTORICAL CONTEXT

Harlem was founded by the Dutch in 1658, and was primarily a farmland settlement named Nieuw Haarlem (Dunford, 2007). It remained as such until the mid-nineteenth century when the New York and Harlem Railroad linked the area with Lower Manhattan (Dunford, 2007). The new rail line and the steadily developing suburb's new, fashionable brownstones (a typical building typology) attracted better-off immigrant families, mainly white German Jews from the Lower East Side (Dunford, 2007). Property speculators were quick to build good quality homes here. However, when the line opened in 1904 most of the buildings were never occupied, as any potential residents were uneasy at moving so far from downtown (Dunford, 2007).

Real-estate developers saw an opportunity and over the next 15 years, snapped up the empty houses for next to nothing. These were then rented to the city's growing community of displaced black people that comprised of former midtown residents who had been driven out by the construction of Pennsylvania Station in 1906-10, as well as black migrant workers from the Deep South seeking industrial jobs during World War I (Dunford, 2007). Once this real estate boom began, the white Jewish, German and Italian populations of Harlem relocated farther North to the Bronx and such like (Dunford, 2007).

Black migration from the South accelerated during the period between World War I and the great depression, and Harlem's population became increasingly black. The black Southern exodus was like a refugee flow as migrants fled racial, political, economic, and social oppression in search of opportunity and in search of democracy (Huddle, 2008). (The 13th Amendment to the U.S. constitution: The Abolition of Slavery of 1865 allowed slaves, who were black, to freely participate in U.S. society. Segregation was not legalised in the Northern areas of the U.S. as it was in the Southern areas, which many black southerners escaped during the migration).

Durban's black rural and immigrant to urban migration trend after the ending of Apartheid bears similarities. There has been an enormous influx of black people into the inner city of Durban, while the previous white population has left to the suburbs. Anyone can now enjoy freedom to reside wherever they please, allowing non-whites the option of avoiding long commutes from where they were previously forced to reside in the townships and other rural areas out of the city centre. Since of the abolishment of Apartheid, the inner city is predominately black today.

By the 1920's the Harlem Renaissance placed the area squarely at the forefront of black culture. It is estimated that 175,000 people occupied Harlem between 1920 and 1930 making this neighborhood the world's largest concentration of black people in the world (Huddle, 2008). Blacks accounted for 70% of total population in 1930, and peaked in 1950 at 98% in Harlem. The area realized no new construction at the beginning of the War, and housing disinvestment began seriously during the Depression. The Depression and post-war years were not kind to the area, and the Renaissance was followed by several decades of worsening economic conditions. Similarly, Durban's inner city is currently also realizing a period of disinvestment, as the vacancy rate of its A-grade office space has increased from dramatically since 1994, and the rental rates are at the lowest in the Durban region (SAPOA, 2015).

By 1960, Harlem had been transformed into a slum and quickly became the most notorious symbol of black deprivation in the United States. According to the 1980 census, 96% of Central Harlem was black of a total population of 300,000.

From 1980 on, Harlem has become increasingly integrated and diverse, and today the population is no longer black majority (Beveridge, 2008).

3.2.4 MARKET FORCES

Much like Durban's inner city, Harlem was perceived by the middle class (especially white) as threatening, having a universally depressed housing market, and possessing a cohesive social and political identity despite their central locations. Durban is bound by one of the busiest ports in Africa offering an important economic opportunity, and has an attractive shore line with great investment potential, while Harlem is situated immediately north of central park, presenting considerable economic opportunity for developers.

During the 1970's Manhattan island experienced an increase in total households, through a process of gentrification which saw SoHo, Tribeca, the Lower East Side, Chelsea, Clinton and the Upper West Side all experiencing rehabilitation of old primarily industrial building stock. By the late 1970's, Harlem represented Manhattan's largest concentration of working class residents with virtually no gentrification, despite its desired location (Huddle, 2008).

In the 1960's and 1970's, the area was notorious for illegal narcotics and street crime (Beveridge, 2008). The 1990's dilapidated state of Harlem was partially a result of these illegal activities in the prior decade's (Biography.com Editors, 2016). These events inspired the film 'American Gangster' in 2007, depicting scenes of Harlem at that time.

NYC mayor Bloomberg's twelve years in office (2001- 2013) left an undeniable impression on NYC's physical landscape. New and revised planning policies encouraged unprecedented growth of NYC and its outer boroughs. Per Matthew Schuerman, Bloomberg's term has made NYC's Skyline taller, has made the city more attractive and in turn more expensive (Vinnitskaya, 2013). Harlem's skyline today is becoming taller because of these greater densities allowed.

The rezoning permitted the construction of taller buildings and allowed mixed residential and commercial development in former solely manufacturing districts that are an obsolete use today. The rising heights and escalated growth of condominiums, luxury apartments, and affordable housing can be attributed to this massive rezoning of nearly 40% of the city's land mass. Since the early 2000's, construction and development of new high-rise housing has been unceasing throughout NYC (Vinnitskaya, 2013). In the 1980's Richard Shaffer argued a successful challenge against the current zoning regulations in the name of higher densities to improve the image of Harlem (Shaffer & Smith, 1986).

Although Harlem remains the capital of black America, the neighborhood has undergone a profound and accelerating shift. Since early 2000, Central Harlem's population has grown more than in any other decade since 1940, from 109,000 to 126,000. However, its black population comprising of approximately 77,000 in Central Harlem is smaller than at any time since the 1920's (Roberts, 2010).

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3.2.5 SUGAR HILL DEVELOPMENT

Figure 17: Sugar Hill Social Housing Complex (Image sourced from (Archdaily, 2014)*).*

The Sugar Hill Complex is located in West Harlem also known as Hamilton Heights, at West 155th Street at St. Nicholas Avenue, on the boundary of The Sugar Hill historic district (refer to *Figure 17* and *Figure 18* for contextual setting). The site stands at the crossroads of three distinct communities: Washington Heights, a stronghold of the region's Dominican population; Central Harlem, primarily African American; and West Harlem, a mixed community of blacks, whites and Hispanics. The area is characterized by a high poverty rate, overcrowded housing, escalating housing costs, and low educational performance (Broadway Housing Communities, 2014).

Figure 18: Sugar Hill Social Housing in Harlem, with NYC beyond Image sourced from (Archdaily, 2014)*).*

West Harlem is ranked first among Manhattan districts with children and adults who are eligible for public health insurance, but are not enrolled, indicating an evident need for access to government benefits and an array of community supports. Low levels of formal education, high unemployment, and the lack of proficiency in the English language combine to impede the social and economic progress of adults and children. Parents face obstacles participating in children's education because of language and cultural barriers (Archdaily, 2014).

These statistics stand in sharp contrast to the heritage of Sugar Hill, one of New York City's architecturally and historically rich neighbourhoods. Sugar Hill was named during the 1920's as an epicentre of the Harlem Renaissance when African American cultural, intellectual and social prominence and wealth flourished. W.E.B. Du Bois, founder of the NAACP, writers Zora Neale Hurston and Langston Hughes, Supreme Court Justice Thurgood Marshall, pioneering civil rights activists Roy Wilkins and Rev. Adam Clayton Powell, boxer Joe Louis, actress Lena Horne and musicians Paul Robeson, Cab Calloway, Count Basie and Duke Ellington all resided in Sugar Hill. Known as the foundation of the Civil Rights Movement, the area of Sugar Hill was named a municipal historic district by the New York City Landmarks Preservation Commission in 2000 (Archdaily, 2014).

Architect David Adjaye's development aims to combat poverty and revitalize the community (Archdaily, 2014). The Sugar Hill Development is a new typology for affordable housing, which includes a mixed program of museum space, early education programs, community facilities, offices and residential apartments. 'My hope is that the building-perched high on Coogan's Bluff-will offer a symbol of civic pride and be a valued new resource for the neighborhood,' says David Adjaye (Archdaily, 2014). From a phenomenological perception point of view, David Adjaye has understood an important requirement for the residents of Sugar Hill district, and responded by providing the vulnerable with an affordable housing option as well as public facilities, enabling this community to take ownership with pride.

The 13 storey Sugar Hill mixed-use complex, was initiated by the non-profit developer of supportive housing, Broadway Housing Communities (BHC), and was produced with limited funding and challenging site parameters. The concept challenges the traditional affordable housing typology. Unusually, the scheme incorporates a public program, with a children's museum and early childhood center, which resonate with Adjaye Associates' commitment to a wider urban and cultural responsibility. The public zone is located on the street entrance level as shown in *Figure 19*, while the office level layout is indicated in *Figure 20*.

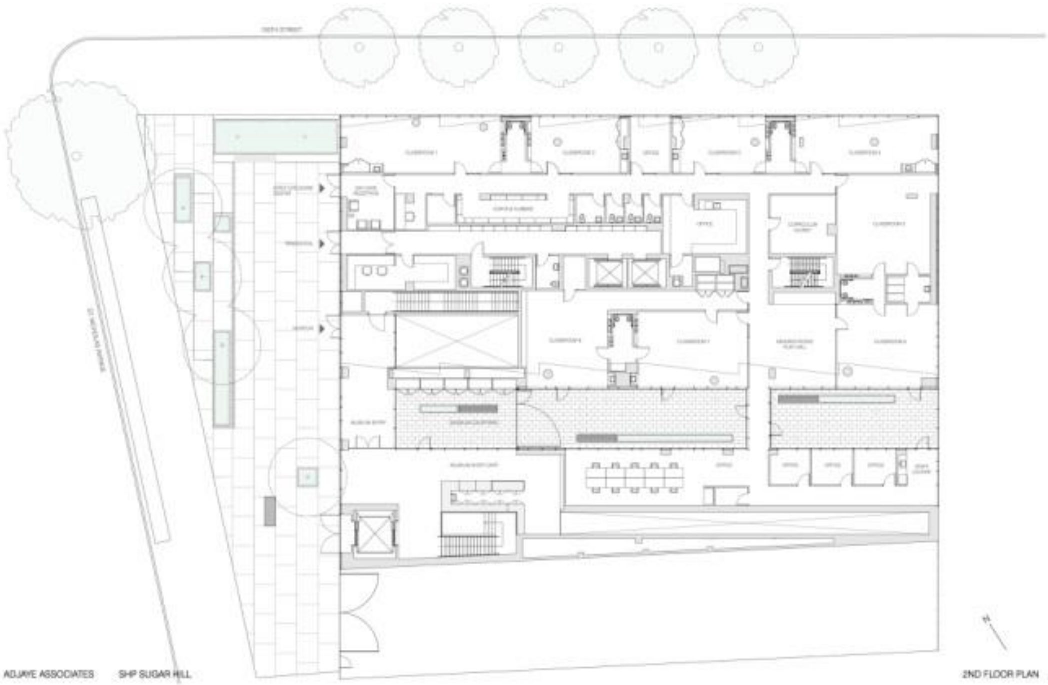


Figure 19: Second Storey (public entrance) Plan (Image sourced from (Archdaily, 2014)*).*

Figure 20: First Storey Plan (Image sourced from (Archdaily, 2014)*).*

Figure 21 represents a typical floor layout for the 124 affordable apartments, while *Figure 22* shows the 13 storey's in section, with public and office facilities on the lower 3 levels, and the private apartments on the remaining upper levels.

Figure 21: Levels 4 to 8 (Image sourced from (Archdaily, 2014)*).*

Figure 22: Building Cross Section (Image sourced from (Archdaily, 2014)*)*

His practice worked closely with the local community to ensure the design tied to its historical context, practical and aesthetic requirements, through a series of workshops and planning meetings, essential for gaining rich phenomenological perception from the user's point of view. The building provides affordable housing as well as housing for the homeless (Archdaily, 2014). *Figure 23* and *Figure 24* indicate the interiors of the apartments, depicting satisfied and proud occupants.

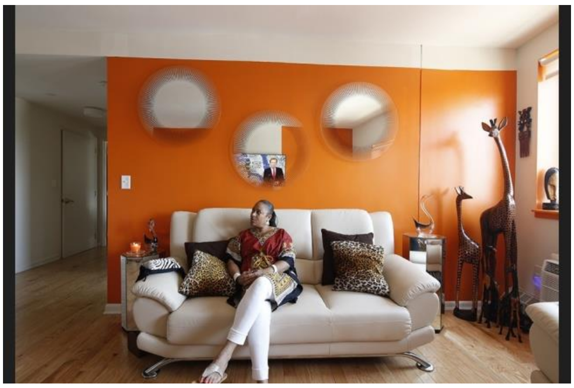
 

Figure 23: (Left image) Interior of a Musicians apartment (Image sourced from (Archdaily, 2014)*).*

Figure 24: (Right image) Inside a happy resident's apartment (Image sourced from (Archdaily, 2014)*).*

3.2.6 CONCLUSION

Harlem's history resembles similarities to what Durban's inner city is transforming into since the ending of Apartheid more than 20 years ago. A neighborhood that was primarily inhabited by middle class white people became majority black and a center that represented the black culture in the United States. Durban's approximately 70,000 inner city inhabitants (Statistics South Africa, 2011) are predominantly black today, following a similar trend to Harlem's hay day. During Apartheid, nonwhites were prohibited to reside in the inner city, indicating a major shift in the demographic of the inner city since then. Most inhabitants represent the black working class, foreign immigrants, young families, as well as black students.

Harlem became extremely degenerated and unsafe. Today with a new zoning that permits taller buildings and mixing of uses, higher densities can be achieved as an outcome, that has allowed developments such as Sugar Hill to catalyze urban regeneration in Harlem, encouraging integration of race and class, activating diversity, vitality, and a strong sense of place. Durban can learn from this experience through policies that can deal with new demographic realities, and promote mixed-use typologies to enable strong, safe and diverse communities to thrive.

CHAPTER 4: CASE STUDIES

INTRODUCTION

The following case studies are situated in Durban's inner city. Both are declared problem buildings by the city, and commonly include illegal housing accommodation. Both have additional uses, and can therefore be classified as mixed-use developments. These will be interrogated to reveal the realities of the contemporary city, its users and its property owners.

4.1 CASE STUDY: STATION SHELTER

Figure 25: 186/190 Umgeni Road (Photograph by Author (2016)).

4.1.1 INTRODUCTION

This study presents a private building owner recognizing the need to create affordable accommodation for the contemporary inner city user. The building has however been given 'problem building' status by the city, as it contravenes various bylaws, and is perceived to be providing inhumane living conditions for the residents. The building is set in an active context as can be seen in *Figure 25* and *Figure 26*, bordering Durban Station.

Figure 26: Immediate context, with informal traders along sidewalk with the building shown beyond (Photograph by Author (2016)).

4.1.2 JUSTIFICATION FOR CASE STUDY

This case study demonstrates a buildings transformation over the past 110 years of its existence.[15] The building's owner has adapted the building to the needs of the time throughout its history and today has adapted no differently. He has recognized a need for the contemporary city user and repurposed a portion of the structure to provide for this. The additional use has created affordable accommodation for the urban working poor, one that the city is failing to provide in the inner city. In a sense, the building owner is providing a solution to the city's problem of providing affordable housing, while the city, under its current stringent and un-adaptive bylaws, dismisses the operation by declaring it a problem building. The city bears no additional cost of providing new infrastructure, making additional land available or providing affordable transportation. The benefit of the central location as seen in *Figure 27*, makes it ideal stock for the users, while decreasing the pressure on the city's resources to provide for this.

Although conditions are perceived to be inhumane by outsiders and the city officials, the reality is that the occupants accept them, and from their phenomenological perception, dictate the situation to be beneficial. The affordability and location outweigh the detail of the buildings condition, which is an important point of departure for the justification to include this building as a case study.

The building owner has further provided a mixture of uses, ensuring 24-hour occupation of the premises, and in so doing contributing to a safer immediate context for residents and pedestrians.

[15] Author extracted information from City Engineers Archives (2016).

4.1.3 LOCATION & SITE DESCRIPTION

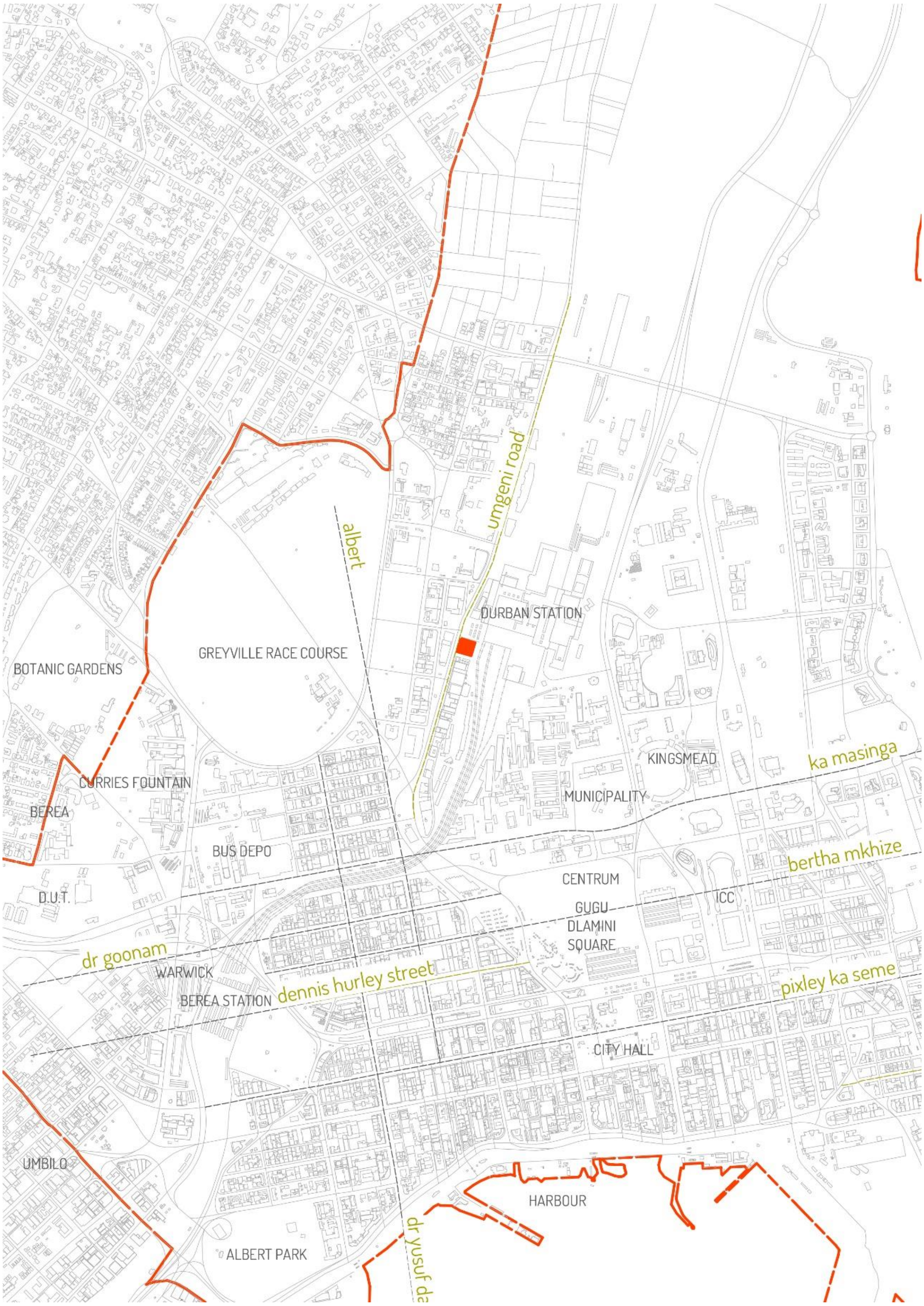


Figure 27: Figure-ground map of Durban's inner city and CBD - 186 to 190 Umgeni Road highlighted in red (Site plan drawn by Author from city engineers electronic drawing (2016)).

Figure 25 and *Figure 27* indicate the building's location on the corner of 186/190 Umgeni Road and Somtseu Road, in the Old Fort suburb of Durban's inner city. It directly borders Durban Station to the South, providing excellent transportation options, and additionally has numerous convenient amenities in the immediate vicinity. The cadastral description is Lot 1970 of Durban, with a registered site area of 1435m^2. The zoning is 'General Business', with a F.A.R. of 8.0 (limited to 4.0 for a Residential Portion), and no limitation on Coverage. This is a prime position for the vulnerable working class family or student. The building consists of a mixture of uses, including retail, storage and residential accommodation over 2 levels.

4.1.4 HISTORICAL AND SOCIAL CONTEXT

The building was originally developed in 1897 as a residential dwelling with a single retail store fronting onto Umgeni Road. After a fire damaged the structure in 1926, the Umgeni Road facade was converted entirely to retail stores, with a housing component to the rear of the site. In 1939, the retail stores included a butchery, a grocery store and jeweler. The building was extended in 1958 to include warehousing, retail stores and residential flats. The entire building was converted to warehousing and a clothing factory in 1964, and then warehousing and retail stores in 1981. The latest approved plans of 1989 indicate retail stores along both Umgeni and Somtsue Road, with factory space internally on the ground floor and warehousing on the first storey (as per *Figure 34* and *Figure 38*).[16] Today the retail stores fronting Umgeni Road on the ground storey remain, while the warehousing has been illegally adapted to residential 'shelter' accommodation.

[16] Author extracted information from City Engineers Archives (2016).

4.1.5 EVALUATIONS AND ANALYSIS

The building is effectively occupied throughout the day and night. The retail shops along Umgeni Road are 100% occupied and have constant foot and vehicular traffic throughout the day. These retail stores include - a cell phone repair outlet, a supermarket / cafe, a blanket and linen shop, a leather craft shop, a basic hardware store, and doctor's rooms. *Figure 28* indicates the logia covered sidewalk, with fully tenanted shops.

Figure 28: Logia covered sidewalk with fully occupied shops (Photograph by Author (2016)).

There are other amenities in the immediate vicinity, including a major transport node (Durban Station), a butchery, informal traders, a crèche, education and various economic opportunities.

The balance of the building consists of a residential shelter offering 155 units (71 on the ground and 84 on the first storey), of approximately 9m^2 to 12m^2 each.

These cubicles house between two and three inhabitants of various descent (most which are South African, but also include foreign immigrants). The units are fully occupied, ensuring presence through the evening. At an average of two and three persons per room, the estimated total number of people residing in the building is 394 people.

On the ground storey there is 3 showers and 10 toilets, while on the first storey there are 7 showers and 5 toilets, at an average of approximately 40 people sharing a shower, and 26 sharing a toilet.

Figure 29: Internal courtyard, showing washing lines, a toilet and shower block on the first storey, and playing and leisure area beyond (Photograph by Author (2016)).

Figure 29, shows internal courtyards, with washing lines, a toilet and shower block on the first storey open deck, and the open deck area for leisure.

Each unit is rented out at an estimated R1800 per month.[17] Therefore the total estimated rental received from the residential portion of this building is R250 000 per month.

The shelter accommodation is organized and ordered. The entrance to the shelter is off Somtsue Street, where residents enter through a security turnstile as seen in *Figure 30*.

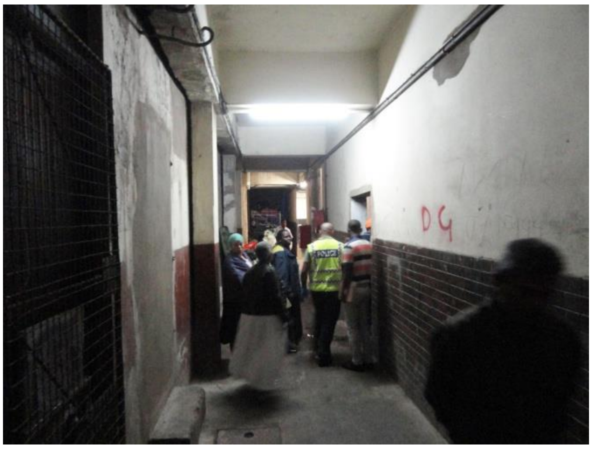
[17] Information sourced from building profile document conducted by iTrump (2011).

Figure 30: Security turnstile at entrance off Somtsue Street (Photograph by Author (2016)).

There is a reception area with a manager present. The establishment is governed by 'rules and regulations', that are prominently displayed on the reception wall as seen in *Figure 31*.

Figure 31: Rules and regulations displayed on the walls of the reception (Photograph by Author (2016)).

The residential rooms on the ground floor are made of a solid brick structure, each with a window and door, opening onto a wide circulation corridor, as seen in *Figure 32* and *Figure 33*. This corridor is open to the sky at various points, allowing adequate ventilation to the rooms, however no cross ventilation through the rooms. There is adequate filtered natural light, but no direct natural light to the rooms. There are communal bathroom facilities located on the ground floor.



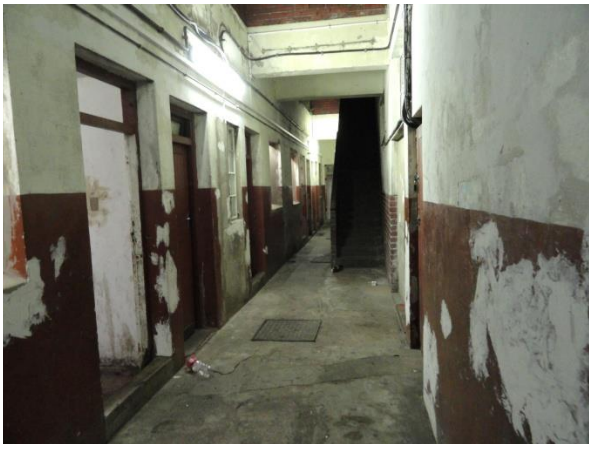


Figure 32: (right image) Corridors on the ground floor open to sky (Photograph by Author (2016)).

Figure 33: (left image) Ground floor circulation Corridors (Photograph by Author (2016)).

The latest approved plan (refer to *Figure 34*), has not documented the residential sections on the ground storey, with the factory and shop spaces remaining.

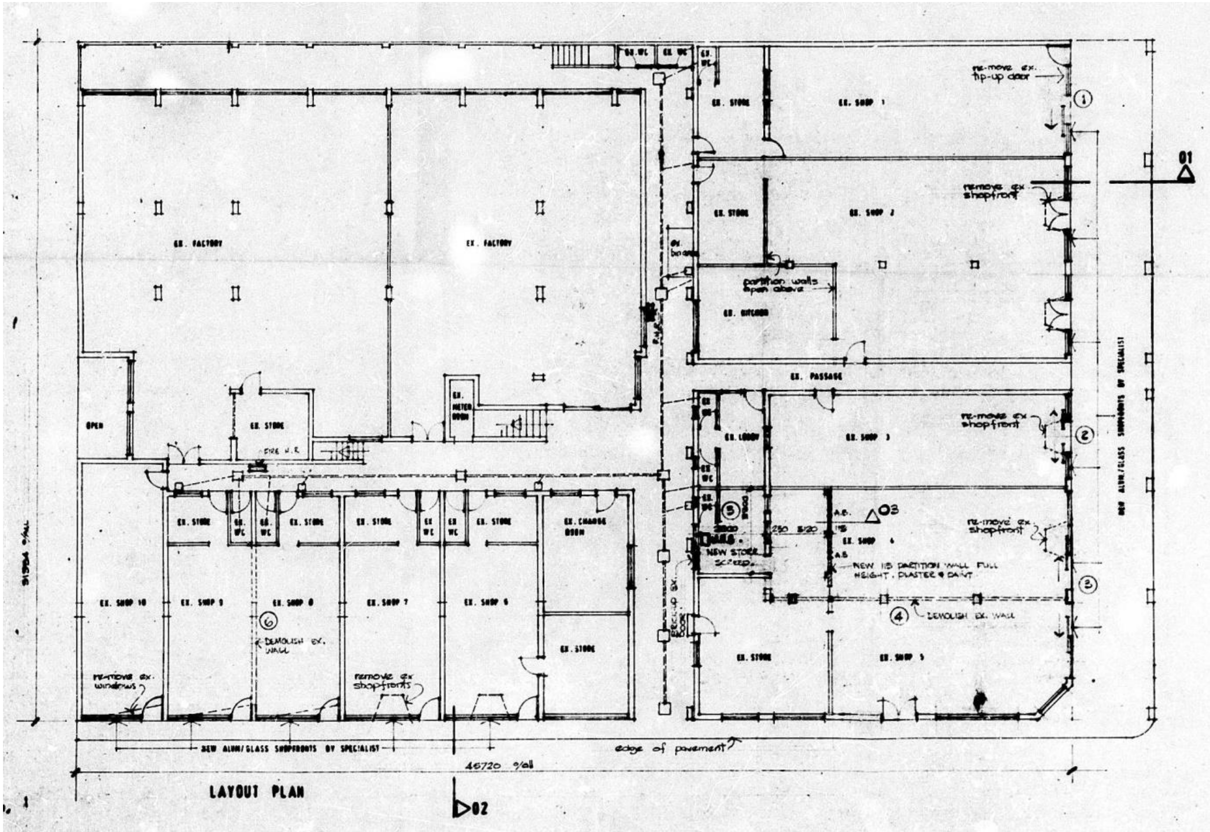


Figure 34: Latest approved Ground storey plan (1981) (Author extracted information from City Engineers Archives (2016)).

On the first storey, there is an open flat roof area centrally and towards the back of the site, above the residential units below, providing communal space for the hanging of laundry and a protected leisure area for children to play. To the southern side of the open area is the communal bathroom facility. The residential units are located over the retail section below, and extend over the pavement along Umgeni road, logia style.

This area has been converted from warehousing, to residential cubicles. The warehouse roof structure remains, with cubicles built within this structure. The cubicles structure consists of plasterboard partitioning, with a single hollow-core timber door as access, as seen in *Figure 35* and *Figure 36*. The cubicles are approximately 3 x 3m ($9m^2$) in extent. The walls of the cubicles extend to 2.4m high, stopping short of the warehouse ceiling, providing the only source of natural ventilation and natural lighting. The only units that do have sufficient natural light and natural ventilation, are the ones positioned along the perimeter of the warehouse structure, as seen in *Figure 25* and *Figure 37***.**

Each unit is equipped with a two-plate electric stove, but no water point. No fridges were observed.


Figure 35: (right image) Make shift electrical connections (Photograph by Author (2016)).

Figure 36: (left image) 3x3m partitioned cubicles (Photograph by Author (2016)).

Figure 37: Newly fitted windows for external units (Photograph by Author (2016)).

The latest approved plans as per *Figure 38*, indicate workshops along Umgeni road and an unconstructed warehouse over the remainder of the site.

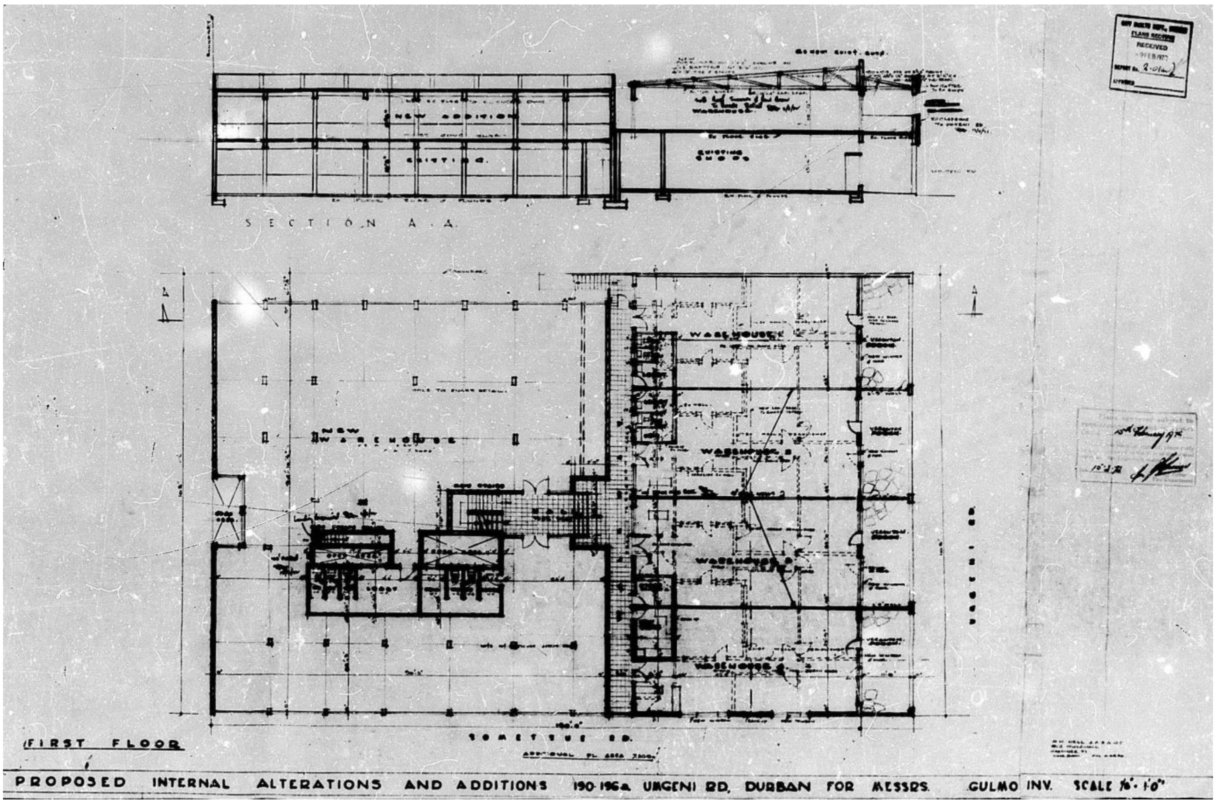


Figure 38: Latest approved First storey plan (1972) (Author extracted information from City Engineers Archives (2016)).

The monthly rent mentioned earlier includes electricity and communal water. The rules and regulations displayed at the reception (see *Figure 31*) strictly stipulated that a maximum of two persons are allowed per room. The rules also state that there are no children allowed. However, observation confirms that the reality was on average two to three persons per room, as well as children living there. The children were observed using the flat roof area as a playground.

Even though the actual living cubicles seemed quite small and claustrophobic, the circulation space and common areas are relatively spacious, providing communal meeting areas. The overall feel, or sense of the place is quite positive, with people merrily carrying on with life as if nothing was out of the ordinary. The resident's perception is that the conditions are acceptable.

Although there are visible signs of building dilapidation, with unfinished plastered walls, peeling paint, dripping water etc. this condition doesn't have much of an effect on the spirit of the place, and from the occupant's perception, is a beneficial experience.

In the eyes of the bylaws, there are obvious violations. The owner was issued a notice of infringement in 2011 outlining the following contraventions: inadequate laundry facilities; the premises is unmaintained, conditions are unhygienic and unsafe; there are inadequate cooking and food preparation areas and facilities; unmaintained ablution facilities; overpopulation exceeding the minimum of $5m^2$ per person as be the NBR; no designated bin area of adequate size that is hardened, curbed and draining to a gully and provided with a stand pipe; missing doors and door frames; broken ceilings; broken window panes; spalling concrete exposing steel rebar; rotting fascia boards; leaking storm water, gutters and downpipes; leaking waste water pipes; blocked storm water and waste water drains; un-waterproofed concrete slabs; waste water running into Somtseu Road; unpainted interior and exterior walls; outstanding submission of plans for approval before undertaking any alterations to avoid abortive work.[18]

The zoning for the building allows for all the current uses, in fact per the zone, the building is heavily under-developed, with approximately 6 times more bulk allowed.

In 2011, the owner was issued with a fine of R1000 from Durban Metro Police Service, for not being in possession of a valid registration certificate to conduct a business involving the supply of accommodation. Effectively what this means is that the rental received would not be declared and therefore would be unlawfully tax free and unrecovered by the city. The owner has continued to trade since then, with no further action taken by the city, and this R1000 fine compared to the R250 000 per month rental income is a negligible consideration that presents no incentive to cease trading at all. In fact, it borders a laughable effort by the city if they were serious about ensuring compliance.

In 2012 the city did implement a strategy that got the attention of the owners. This was in the form of changing the rates coding of the property, and effectively raised the rates approximately four-fold. The original rates were in the region of about R13 000, and with the coding change, the owner now is enforced to pay R42 000. This is a substantial increase of R29 000 and unexpected expense and loss of income to the owner. The owner subsequently has proposed that the coding be altered back to the normal and lower code. The city has not responded, and the coding remains high today. This however has not deterred the owner to cease trading either, indicating that the operation is still worth pursuing financially.

[18] Information sourced from copies of documents from iTrump (2016).

4.1.6 CONCLUSION

This case study presents an affordable housing solution, albeit in contravention to the city bylaws. There are no approved plans or occupation certificate for the current uses; however, in the eyes of the contemporary user, the reality is that the condition of this operation fulfills all their basic requirements. It is affordable, and avoids a costly and time-consuming commute into and out of the city. It provides an adequate roof over the occupant's heads, as well as communal facilities. It is well located close to a major transportation hub and network, as well as close to amenities, education and economic opportunity. Although the city views it as problematic, it serves an important function for the city, and contributes to the rates base (and even more so with the higher rates coding), as well as generates income from the subscription to the city's utilities. It further avoids urban decay, and vagrancy. Does this reality not present an argument to question the technicalities of these bylaws, to perhaps be relaxed in some respects?

In the eyes of the city, the conditions are inhumane, judged to be over crowded, lacking natural light and natural ventilation, dangerous electrical connections, leaking water pipes etc. These are valid concerns, and at a minimum should ensure a healthy and safe environment.

How then do building owners adapt their building structures to suite an important housing need, while prescribing to the municipal bylaws, cost effectively. The Torre de David precedent study, essentially allowed the residents to take the law into their own hands so to speak. No formal building permits were ever submitted, and a safe and flourishing community developed without a formal procedure. A solid structure was essentially provided (or claimed), leaving the finishing and services to the residents to implement, using only the knowledge of local skill and tradesmen. This case study bears similarity in the fact that the building owner has adapted an existing structure, and implemented an effective management system without formal permission, that has enabling a satisfied community.

However, there is room to improve the condition, under the facilitation of an Architect. One is left wondering why the owner simply doesn't submit plans to comply? This decision would perhaps be understandable due to lack of funds, however, as shown this building produces lucrative cash flow. This would further avoid the higher rates coding classification. The parking requirements would be the problematic issue, although this was never noted in the served notice.

The current arrangement could be immensely improved upon, with the implementation of simple architectural principles, such as light wells to provide natural ventilation and natural light. However, the greatest improvement would be to utilize all the bulk available to the site, and increase its density six-fold. This would enable affordable housing and economic opportunity to six times the current population, in a well-located building, and in this case within legal confines.

4.2 CASE STUDY: 'HONCHOS' BUILDING

4.2.1 INTRODUCTION

Much like the previous case study, this building presents an owner responding to the requirements of the contemporary inner city user. It provides affordable housing accommodation, however has been declared a 'problem building' by the city. The living conditions have been deemed inhumane in terms of the city bylaws. The building is known as 'Honchos', due to the branding of this fast food outlet on its front facade as seen in *Figure 39*.

Figure 39: Honchos signage dominating front facade (Photograph by Author (2016)).

Figure 40: Front facade of the 'Honchos' building at 83 Denis Hurley Street (Photograph by Author (2016)).

4.2.2 JUSTIFICATION FOR CASE STUDY

The building has been adaptively reused to provide affordable housing, within a previous warehousing structure. It has been declared a problem building, as the council has not approved the alteration, and transgresses municipal regulations and bylaws. Despite the property owner effectively providing a service that the city requires, the city condones this practice.

The beneficial centrality of the buildings location affords the opportunity to utilize existing infrastructure, positioning it ideally for affordable housing. Because of its location, the city is relieved from providing additional infrastructure elsewhere in an unfavorable location for the vulnerable, as is the case of its current solution. No additional resources are required by the city to provide this much-needed service.

The condition of this building is indeed questionable; however, it is home to a community of people who feel safe and secure. They have established a flourishing community. Their perception of this problem building, is that it is a saving grace, for which they are grateful for its existence despite the city's legal standing on this problem building.

The residential component is extremely hidden from outsider's view, an apparent deliberate tactic by the owners to keep it secretive from the eyes of the law. Perhaps if there were not so many hurdles to overcome to provide this type of use, the owner could spend more energy and money improving the condition for the occupants. Instead of the intentional secrecy of the practice, could it not rather be adapted openly and proudly, to reflect a positive perception for the doubtful?

4.2.3 LOCATION & SITE DESCRIPTION

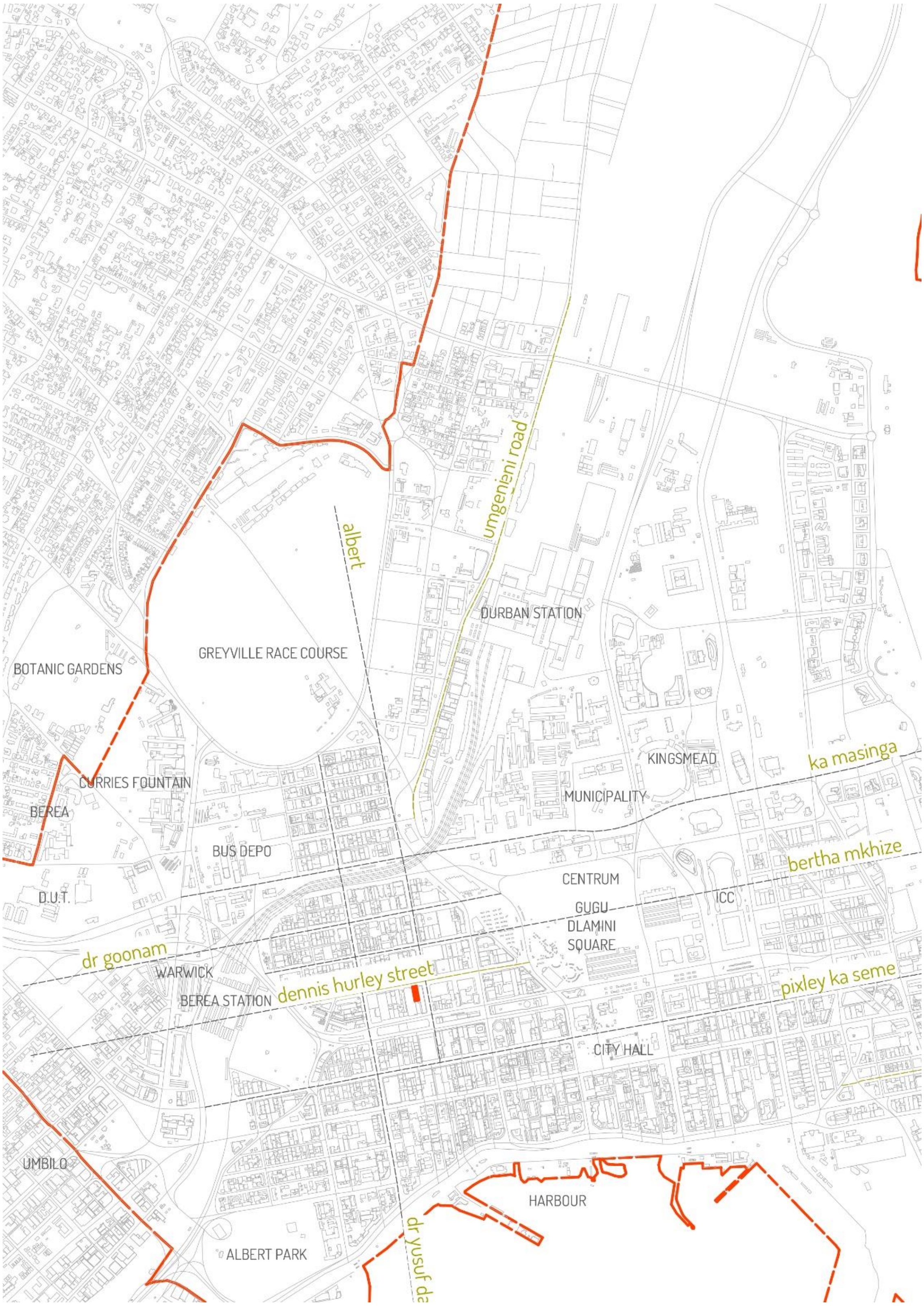


Figure 41: Figure-ground map of Durban's inner city and CBD - 83 Dennis Hurley Street highlighted in red (Site plan drawn by Author from city engineers electronic drawing (2016)).

The building is located at 83 Denis Hurley Street (Formerly Queens Street), in Durban's CBD, as seen in *Figure 41*. The cadastral description is Lot 1 of 11982 of Durban, with a registered site area of 716 m^2. The site is zoned as 'General Business', with a F.A.R. of 8.0 (limited to 4.0 for a Residential Portion), and no limitation on its Coverage.[19] Its central location is primly situated in the heart of the CBD, with access to transport, economic opportunity as well as many amenities in its immediate vicinity. The building has been partially developed over three levels (ground, first and first mezzanine). The ground floor consists of a fast food outlet 'Honchos - Flame grilled chicken and chips', a grocery wholesaler outlet, and a clothing store, all fronting onto Denis Hurley Street. The residential shelter occupies ground, first and first mezzanine storey's internally and to the rear of the site. The residential portion is well hidden from outsider's view.

4.2.4 HISTORICAL AND SOCIAL CONTEXT

The site is historically situated in an Indian dominated neighborhood known as the 'Casbah'. W. Dunn & Co. originally developed it as a single storey retail store in 1936. It was then added to and converted in 1953 by National Dry Cleaners to include retail, a workshop and change rooms to the rear of the site. It became a large wholesale grocery outlet known as the 'Carlton Supermarket' over 2 storey's in 1977 owned by Trafalgar Centre (Pty) Ltd. The first storey was adapted to a warehouse in 1991.[20]

Today the retail frontage onto Denis Hurley Street remains, while the warehouse component and back of house rooms have been converted into residential 'shelter' accommodation. These include approximately 3x3m (9 m^2) and 3x4m (12m^2) partitioned cubicles. This building has witnessed the Apartheid era, and accommodates a new generation of city users, who are trying to establish themselves in our capitalist dominated society.

The sidewalk and street are extremely busy during the day and early evening, making this location primly positioned in the heart of the CBD, where enormous opportunity exists.

4.2.5 EVALUATIONS AND ANALYSIS

This building is quite deceiving viewed from the street level, as seen in *Figure 39* and *Figure 40*. At first observation, the main function of the building appears to be a 'Honchos' take away restaurant, with this branding dominating the northern street fronting elevation. Little of what could be beyond the

[19] Author extracted information from Durban Central Town Planning Scheme (2016).
[20] Author extracted information from City Engineers Archives (2016).

front wall is revealed from the street. The other two street level shops have low-key signage over their entrances. These stores are all occupied, and are bustling with patrons. The only indication of life beyond the front row retail, is a dark shadowy entrance to the extreme left, next to the 'Honcho's' shop front, and another shadowy slot opening on the first level, to the right of the facade, as seen in *Figure 40*.

Upon entering the shadowy door on the right, one is confronted with a long dark passageway, leading to the back of the property as can be seen in *Figure 42*. The passage has a guard stationed at the start, who monitors a security gate at the entrance. This is the only entrance to the rear of the building, and doubles as the bin area. There is no formal reception area to speak of, at it seems the security guard takes on this role as well.

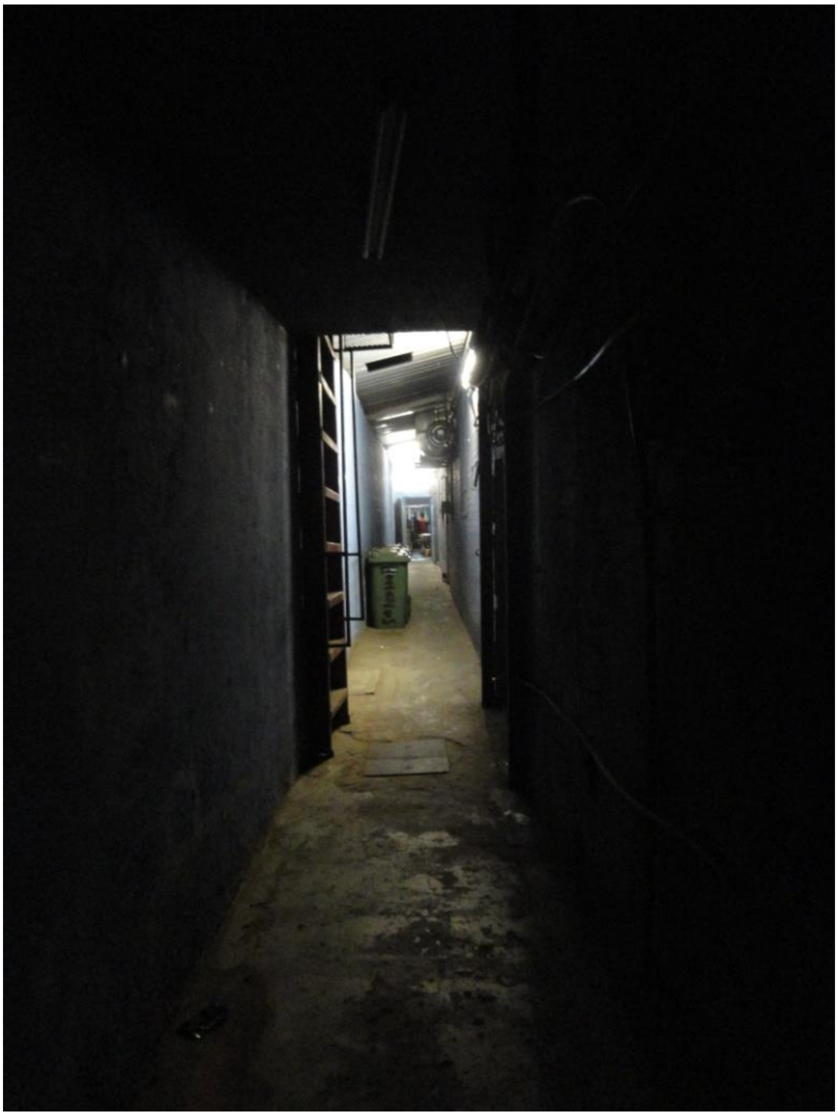


Figure 42: Dark entrance passageway to the residential units (Photograph by Author (2016)).

At the end of the passage is the beginning of the residential units. There are 56 rooms in total, spread over the three levels. The ground floor units comprise of approximately 9 and 12m^2 partitioned rooms, with only a single door in as seen in *Figure 43*. There is no natural ventilation or natural lighting to these rooms. The next floor is accessed by a wide stairway as seen in *Figure 44* and *Figure 45*.

At an average of 3 persons per room, there is an estimated 168 people residing in the building.

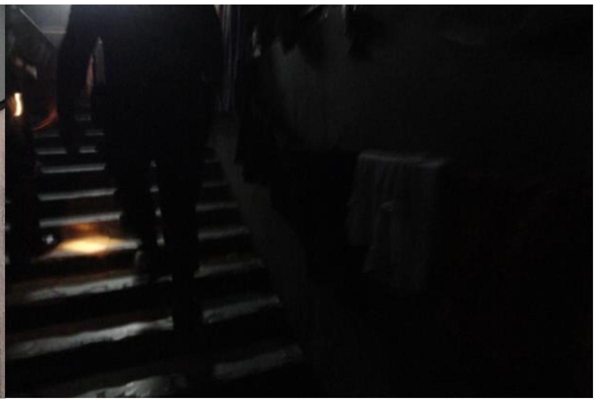



Figure 43: (left image) Ground storey units, with only a single door (Photograph by Author (2016)).

Figure 44: (right image) Poorly lit stairway leading to the first storey - during the evening (Photograph by Author (2016)).

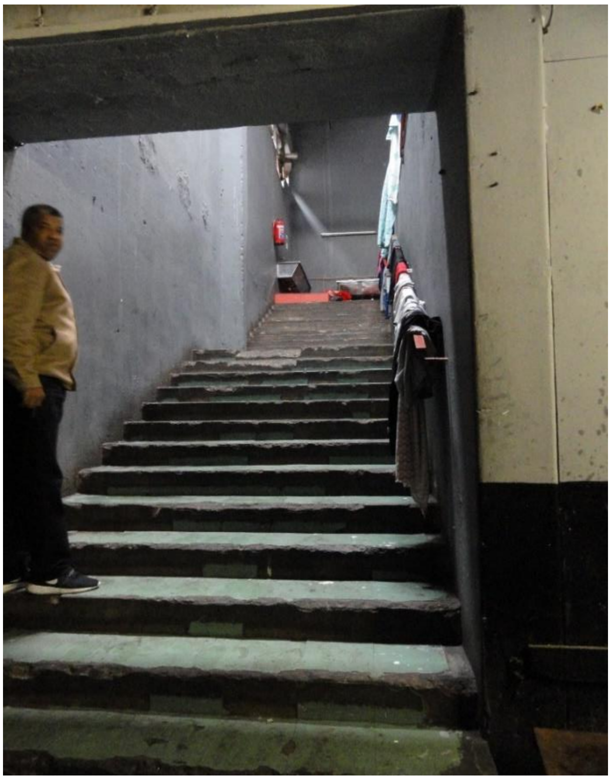


Figure 45: Stairway leading to the first storey - during the day (Photograph by Author (2016)).

Figure 46: Communal wash troughs at the top of the stair (Photograph by Author (2016)).

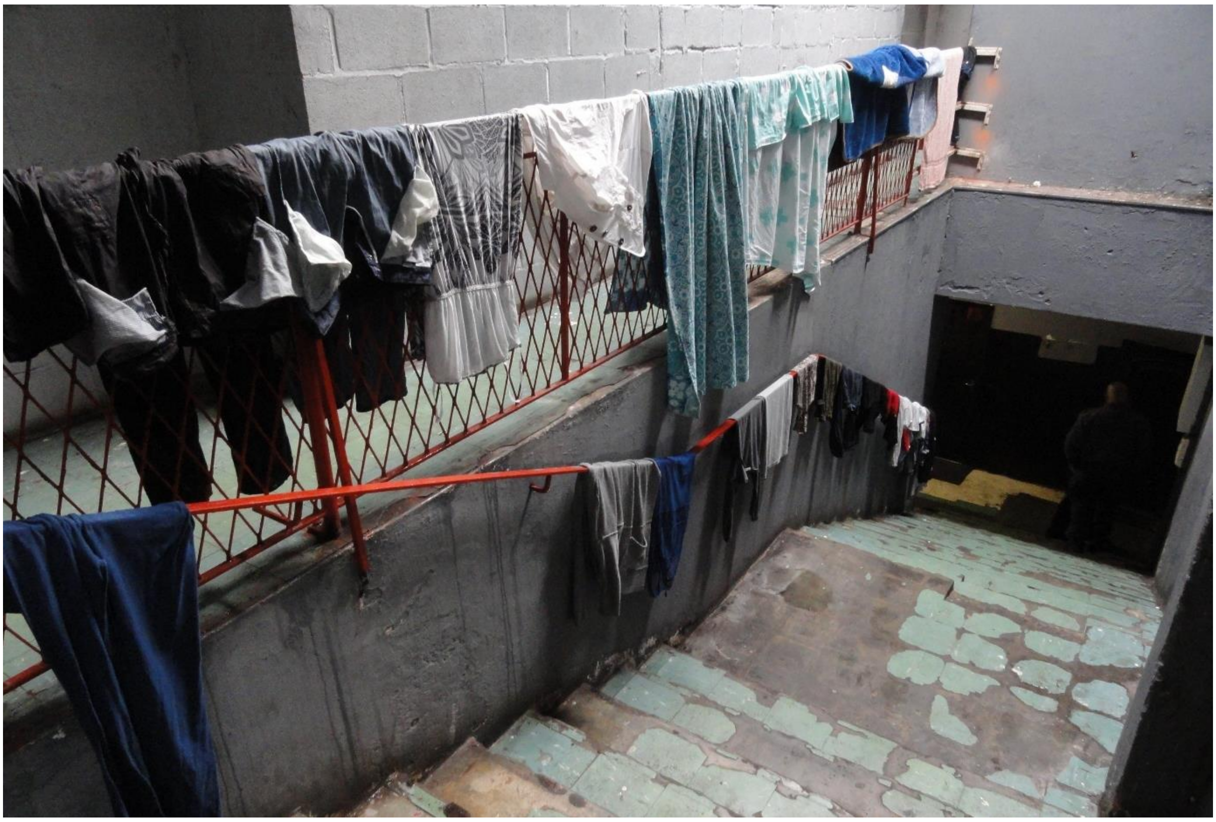


Figure 47: Washing hanging on balustrades (Photograph by Author (2016)).

There are communal wash troughs at the top of the stair as can be seen in *Figure 46*, with the stair balustrade utilized for the hanging of washing as seen in *Figure 47*.

From the top of the stair, the rest of the residential cubicles can be observed, as seen in *Figure 48*.

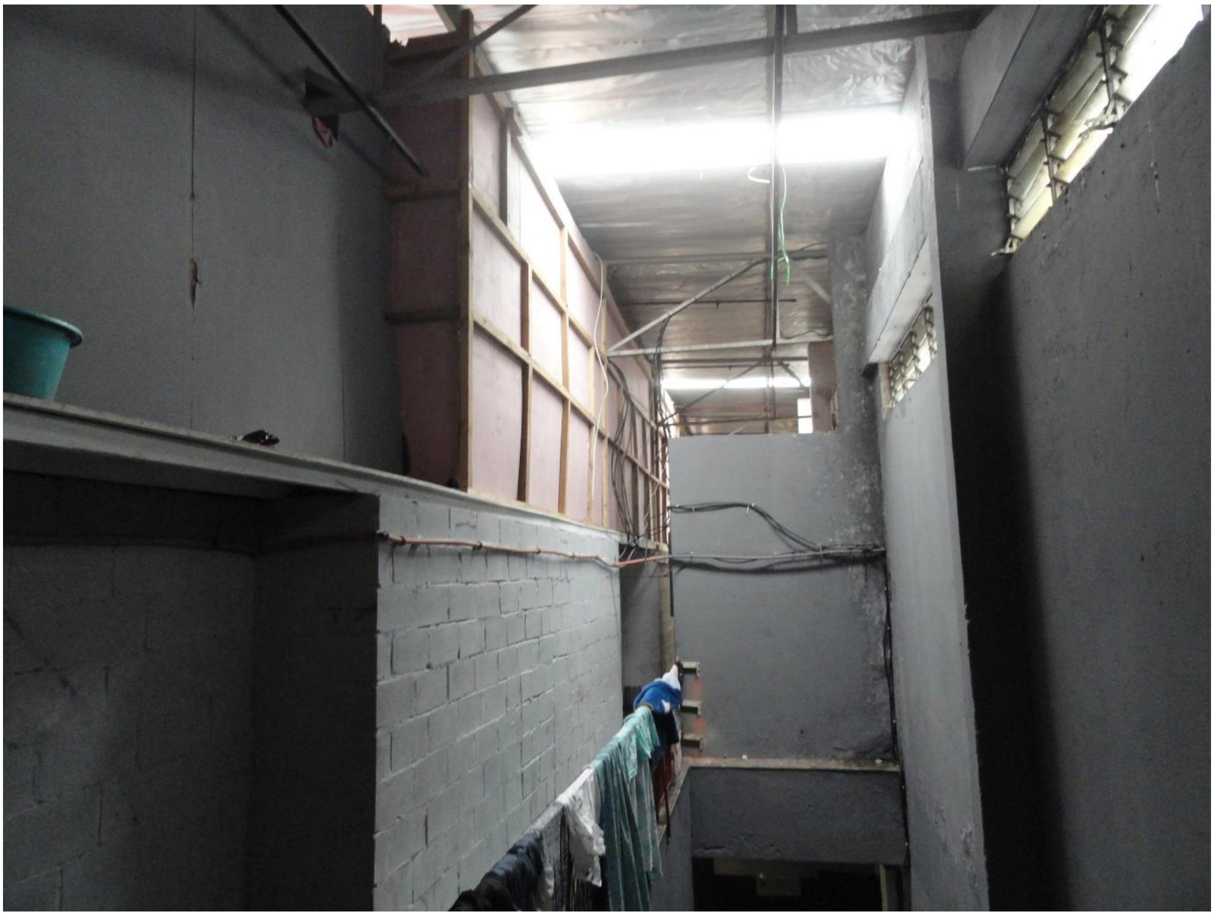


Figure 48: First and first mezzanine residential cubicles (Photograph by Author (2016)).

These units also consist of between 9 and 12m^2 units. The bottom units are constructed from cement blocks and are generally the slightly larger unit types, while the upper units are made up of plasterboard sheets clad onto timber battens frames. The separation between the two levels consists of shutter-ply boarding on a timber structure. There are a series of steel framed walkways and stairways interconnecting the various wings of upper units as seen in *Figure 49*.

Figure 49: Steel and shutter-ply walkways (Photograph by Author (2016)).

Each unit has a single door in, and has no natural lighting or natural ventilation. The bottom units are completely sealed boxes, while the upper unit walls are built just short of the steel roof structure over, providing the only form of ventilation (as seen in *Figure 51*). A tenant confirmed that the landlord provided them with a portable fan, as the only form of ventilation, as seen in *Figure 50*.

Figure 50: (Left image) Portable fan supplied by landlord (Photograph by Author (2016)).

Figure 51: (Right image) Interior condition of typical unit (Photograph by Author (2016)).

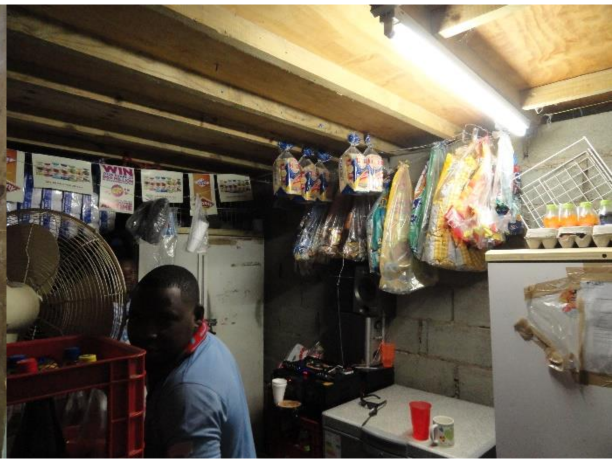


Figure 52: (Left image) Washing line area (Photograph by Author (2016)).

Figure 53: (Right image) Informal shop in one of the rooms (Photograph by Author (2016)).

There are communal washing lines available as seen in *Figure 52*. A few residents sell basic items from their units as pictured in *Figure 53*.

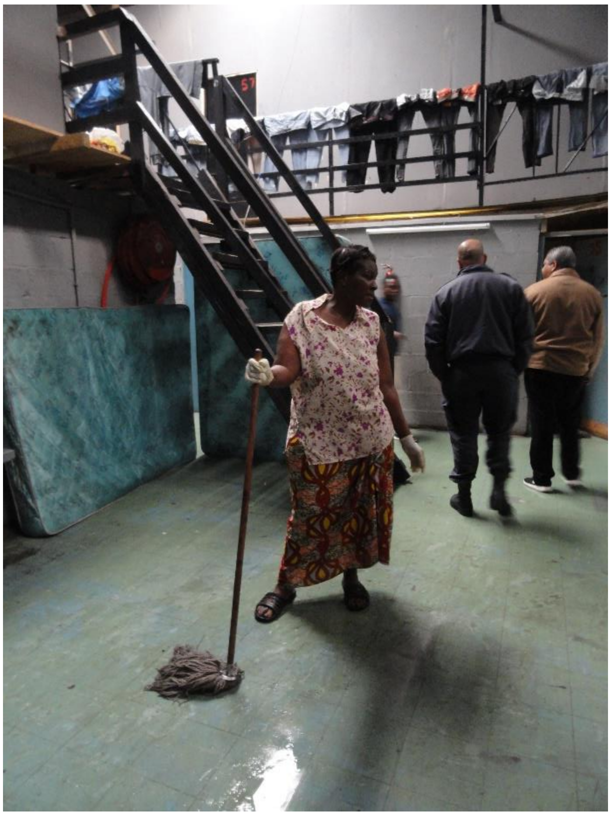


Figure 54: Proud cleaning lady posing (Photograph by Author (2016)).

The owner of the building has employed a lady (pictured in *Figure 54*), to keep all common areas clean. Her rental is subsidized to fulfil this role. She has resided here for 3 years now, and lives with her daughter and granddaughter. She is very happy to be living here.

There is a total of 11 toilets – 3 on the ground level, and 8 on the first level (an average of 15 toilets per person). There are 8 showers, and 8 whb / wash troughs (an average of 21 persons per shower and whb).

There are approximately three people living in each room, of both local and foreign descent. The average rental per room is R1800, with each person generally contributing R600 each. The estimated total rental income from the residential units would therefore be R100 800 per month.

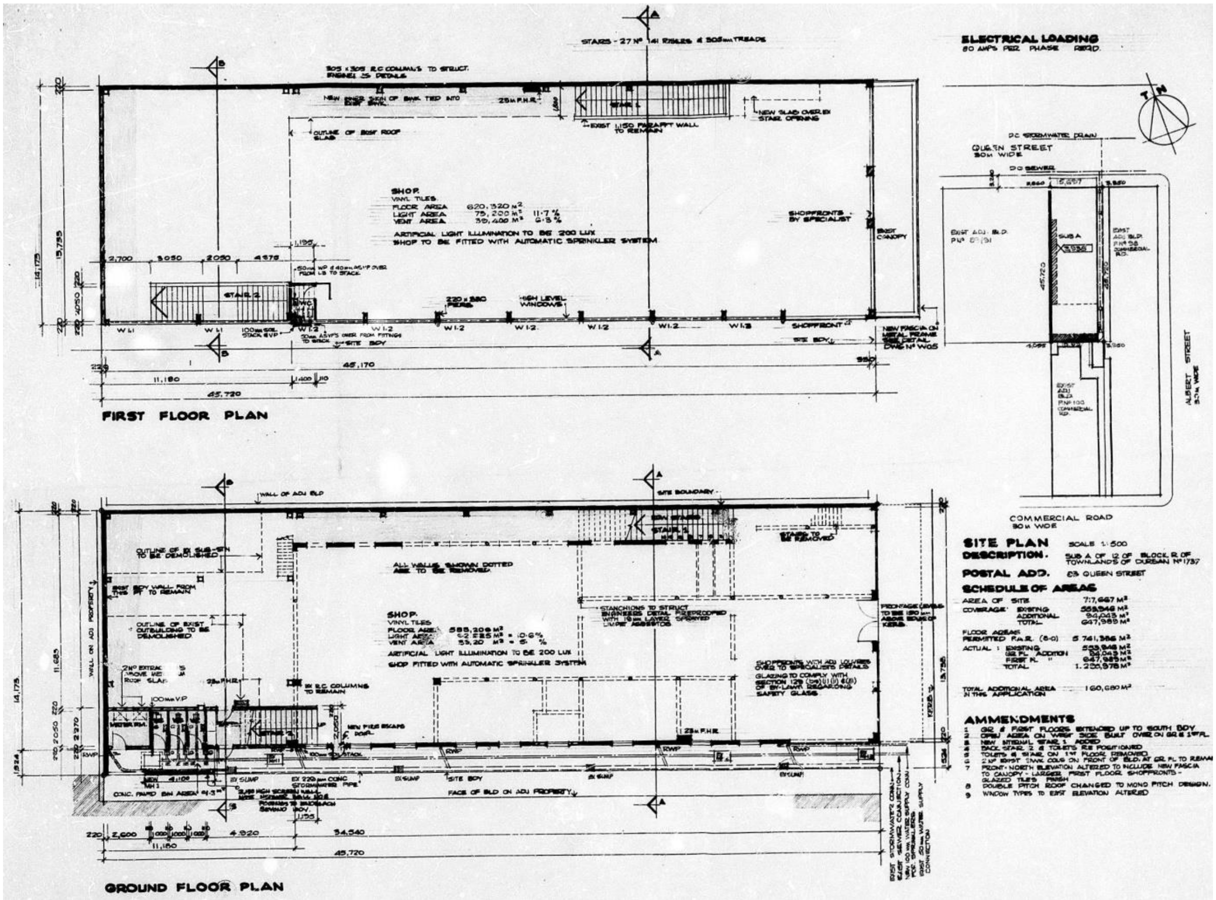


Figure 55: Latest approved plans (1977). (Author extracted information from City Engineers Archives (2016)).

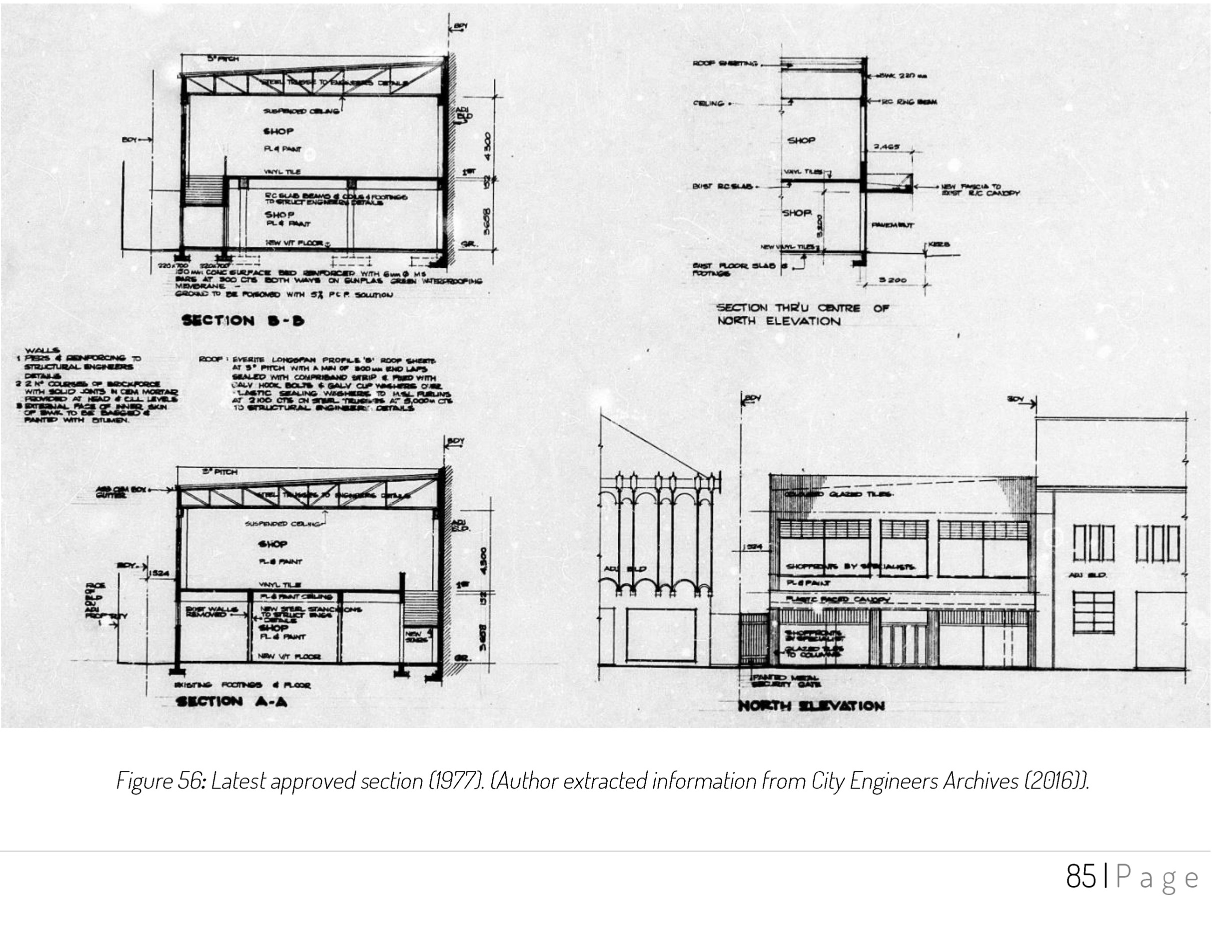


Figure 56: Latest approved section (1977). (Author extracted information from City Engineers Archives (2016)).

Figure 55 and *Figure 56* indicates the latest approved plans of 1977, with no indication of residential accommodation. The housing accommodation business has not been licensed to trade, and as such, the income is undeclared.

In the beginning of 2016, the city served notices of contravention to the owner.[21] The transgressions included: no valid accommodation establishment license; defective/broken water supply pipes, including flush pipes, cisterns, taps and other fittings; miscellaneous refuse stored on the property; defective sanitary fitments, waste pipes and drains; rodent infestation; defective roofs, windows, doors, walls, floors and storm water drains; inadequate light and ventilate to all habitable rooms; unsuitable refuse storage area (to be provided with standpipe drained to gully); no approvals in effect for multi-disciplinary business workhouse/ accommodation facility. No further action has been taken, and the building continues to operate as is.

As per the first case study, this building is grossly underdeveloped. The zoning allows for approximately six times more bulk, and therefore presents an opportunity to provide for many more vulnerable, who currently reside on the periphery of the city, and must make a timeous and costly commute in and out of the inner city every day.

4.2.6 CONCLUSION

This case study presents a phenomenology of perception wrestling match. All perceptions compete for a common purpose, however they are fundamentally disconnected, as they pull one another apart. Unpacking this phenomenon problem building, reveals some facts:

The city's intentions for affordable housing are being met. This is done so without any additional effort on their part, as no additional infrastructure is required, and no resources are spent. Secondly, the property owner has created a viable business, with what seems like a never-ending demand for product. The building contributes to the city's rate base and its economy. Thirdly, the residents have a roof over their heads, are located precisely where they need to be in the heart of opportunity, and at an affordable rental. Furthermore, the residents have created a close-knit community.

However, the property is declared unfit for habitation by the city, judged against rules and regulations that have been adopted from a European context, and that become more onerous and less flexible over time. To make the product affordable, the property owner must secretly conduct his business,

[21] Information sourced from copies of documents from iTrump (2016).

exacerbating the poor conditions for the residents, and has a phenomenology of perception of exploitation from an outsider's point of view. The occupants are left at the mercy of this complicated battle between the city officials and the property owners. This is the only convenient and affordable housing option available to the users, and however poor the condition may seem, they only practice gratitude for the opportunity.

This case study highlights to some degree an example of a solution for effective affordable housing for the contemporary city dweller. It highlights the importance of location, and places less on the condition thereof. There is legitimate concern for the health and safety infringements, however the reality is that the residents have a phenomenological perception of gratitude towards this problem building.

The building presents an example of a successful combination of parts working together, that despite the poor condition, have enabled a positive sense of place.

CHAPTER 5: PRESENTATION OF DATA AND ANALYSIS

INTRODUCTION

The interview with Mr Moola is an attempt to understand the perceptions of an influential figure to represent the city's point of view concerning problem buildings. He is the head of iTrump and the inner city's Area Based Manager, and has been under the city's employ for the past 30 years. He plays an instrumental role in the implementation of urban regeneration programmes for the inner city. For the purposes of this dissertation the focus for the dealings with him, were to gain insight into his understanding of issues relating to that of problem buildings, representing the city's point of view.

He was tasked with the implementation of the 'better buildings programme' in 2006, and is now influential in the implementation of the newly drafted 'problem buildings bylaws,' that have been in effect since March 2016. He is responsible for declaring any building to be problematic, and has arranged and headed up many municipal operations in conjunction with other key municipal departments, to profile and to serve notices of contravention to owners of these buildings. It is the city's intention to bring these problem buildings back to code, and Hoosen role is to oversee this process.

The findings suggest that the city recognises that opportunity exists to adaptively re-use problem buildings to provide an affordable housing solution. The government and municipal owned problem buildings were suggested as being prime stock to achieve this. Despite being owned by the city, as it were, and because of the city's complicated internal structures, or rules of procedure within its structures, has led to a confusion of responsibility to affect any change to these buildings. This presents a sad reality, and to a degree supports the hypothesis that some form of legislation or rule governing it restricts the transformation of problem buildings. Its own laws, resulting in an unclear future for these problem buildings, restrict the city authority. This, coupled with minimal resources from Hoosen's department, adds to the difficulty to effectively and meaningfully intervene in the occurrence of problem buildings.

Adapting privately owned problem buildings is also seen as an opportunity, as these buildings could potentially be bought cheaply allowing for better viability. However, to adapt these buildings, the current building codes must be met. It was however acknowledged that the current laws make it extremely difficult to achieve compliancy. An example of this difficulty is the requirement to provide parking. To insist that an existing building be retrofitted with off street vehicular parking is simply a law that is unreasonable. Not only is this an additional expense, it promotes the use of automobiles, which is a key contributor to urban sprawl and detrimental to cities. A survey of the various parking garages in the inner city, confirm that the number of vehicles utilising these structures is diminishing rapidly in the inner city. This is due to the new demographic that make more use of public transport and mini bus taxis to commute. These parking garages have become obsolete to a certain degree. Some have started to rent floor space for mini factories, churches and offices.

Hasn't enough of our city been designed and destroyed by the traffic engineer? Is there no room in the regulations to rather allow the users do the designing? Very few contemporary city users require a car, who alternatively move about by foot, or by mini bus taxi and are totally un-reliant on a private automobile. Is it not unreasonable to insist on providing parking, of which is not required by the user?

CHAPTER 6: CONCLUSIONS (AND RECOMMENDATIONS)

Primarily the findings suggest that there is an undeniably enormous market for affordable housing in the inner city, as observed by the high occupancies of the case study problem buildings, as well as other problem buildings witnessed during site visits. Despite the health and safety infringements, all the stock was occupied, suggesting that the benefits of the location outweigh any other consideration. The inner city is a sought-after location, and if more of this type of accommodation is offered, it too will be comfortably filled. It is therefore recommended that this model be used an example and learned from to implement similar accommodation that caters for the contemporary inner city user.

In the greater context and focus of the city, perhaps the idea of freely providing housing on the periphery and outskirts of the inner city should be rethought, and rather providing a means to allow housing to manifest instead. A case of focusing on the source, suggesting rather to enable secure employment and economic opportunity, that will allow one the means to house oneself in due course. The current model of handing an asset like this to someone is not providing the desired outcome, and for the most part the recipients are using this free asset to generate income for themselves by becoming a landlord, or even selling it on for financial gain. This suggests that the actual house is not the priority, and that the financial gain from it is more important. The reality is that the intention is not completely being achieved.

The major flaw in the current model is the question of location, and the fact that there is no affordable transportation option available to sustain it. These free houses are simply located to far from employment or business opportunity, requiring long, inconvenient and costly travel time. The only way housing will truly meet the desired outcome sustainably, is if it is centrally located close to economic activity, or at the very least, provided with an affordable commute option. The case studies have effectively and affordable enabled people and their activities to connect to one another in the shortest time possible.

An important finding from this research is that there is a legitimate market for compact living, despite the condition not meeting current municipal code. The 3 x 3m and 3 x 4m model, housing 2 to 3 persons is a principle worth further exploration. The current national building regulation of $5m^2$ per person, per these findings, should be challenged. It is recommended that this model be investigated further, to be improved upon and in so doing address the health and safety concerns.

The perceived notion that these buildings harbour criminal activity, was found to be incorrect. The communities that have manifested in these buildings consisted mostly of like-minded individuals, with a positive outlook for a brighter future. Many had their own informal businesses, and many more where students. Very few of them had criminal or illegal tendencies.

The lack of proper natural ventilation and natural lighting, were found to be important design principles that aid the poor-quality environments witnessed. There should be emphasis placed on correcting this, by implementing as much natural light and ventilation into the living spaces a possible. Spaces should be correctly positioned to allow cross ventilation though the spaces.

Another recommendation would be to have a full-time team of municipal representatives, dedicated to deal with these types of buildings, as it was reported and found that resources were thin. Mr Hoosen Moola claims he is the only person responsible for all the problem buildings of the inner city. It is simply an impossible undertaking to monitor every problem building that has been served with a notice. The current system now relies on a priority list, where the worst buildings are dealt with first. The case studies discussed in this dissertation are considered low on this priority list. In respect of the 'Station Shelter' case study, notices were served in 2011 and today, five years later, the building is still functioning without having addressed all the infringements noted in 2011. The city organised operation visited this building early in 2016 (refer to appendix: B for personal account), to follow up and check that the issues had been addressed. The owner had not dealt with all the infringements and continues to trade as before, with no further action being taken by the city. There is not enough physical manpower available. To get the city to commit more resources to this problem has proved to be problematic, and needs to be addressed.

The research presented a case to provide convenience and options for the contemporary city dweller. Single uses have proven to be inefficient in creating diversity and connectivity. The only solution to this is mixing uses, and this arrangement therefore shall be explored further. In both the precedent and case studies, the buildings had multiple functions. All these buildings had a form of retail conveniently located not only for the residents, but for the greater public as well. Torre de David had the most diversity, with retail, offices, religious, educational, after care and leisure facilities available in addition to the residential units. The Harlem Sugar Hill development provided an additional interesting function, essentially enabling the public to engage with a public children's museum on its pavement level, further embedding the building into the local community. It is recommended that the affordable housing, be mixed with as many of these additional functions as possible, in response to what's missing in the immediate context, and thus provide options, convenience and vitality. And once vitality is achieved, then urban regeneration shall follow.

The use of the method of phenomenology of perception, aided in revealing interesting facts about problem buildings. When viewing this phenomenon though various lenses and from differing perspectives, the generally negative association to these buildings, can be viewed in a far more positive light, and exposes the importance of these buildings as opportunities rather than degeneration. It highlighted the shift in the contemporary city user over time, and exposes the failings of the current rules and regulations (that have remained unchanged) in dealing with this shift.

These findings based on the exploration of problem buildings, show that the components together provide a general understanding of how existing problem buildings or new buildings should be formalised for urban regeneration.

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APPENDIX: A (INTERVIEW SCHEDULE)

NAME OF PERSON INTERVIEWED: Mr. Hoosen Moola

POSITION HELD: Head of iTrump and ABM for the inner city of Durban.

DATE: 20 June 2016

GENDER: Male

In your opinion:

1. What are the city's views on problem buildings as observed throughout the inner city, and what does the presence of these buildings mean for the city?

2. What has the city done to improve the conditions of these buildings?

3. Does the city view these buildings as opportunities at all?

4. Do these buildings have a negative impact on the surrounding context, causing business to relocate?

5. What are the current constraints that cause buildings to gain problem building status?

6. What are the opportunities of these buildings?

7. Are these buildings providing a solution to a current need of the city - such as affordable housing shortage?

8. Does the city assist these buildings in any way - in terms of debt write offs etc.?

9. Once a building reaches problem building status, what is the process to resuscitate it to compliancy?

10. What revenue are these buildings generating, and who should be receiving this?

11. If the buildings are catering for a need (as observed by the occupation thereof), albeit illegally, is the shear desperation of these inhabitants not a clue to a solution?

12. Is the city perhaps responsible for these buildings, by having such stringent and controlling laws, for example, the bylaw demanding excessive off street parking spaces?

13. What does adequate housing mean for you? Elaborate on its proximity to other functions, like commercial/economic opportunity, amenity and public places.

14. How do these buildings deal with services?

15. Are there any contextual trends that lead to the occurrence of problem buildings?

16. What impact do these buildings have on the economy of the inner city?

- End of interview -

APPENDIX: B (ORGANIZED SITE OPERATION BY ITRUMP).

INVITED BY: Mr. Hoosen Moola

POSITION HELD: Head of iTrump & ABM for the inner city of Durban.

DATE: June 2016; Thursday from 19.00 to 23.00

Personal account of event:

I requested an Uber, as there was no chance I was driving myself into the perceived dark underworld of Albert Park, especially after the sun had gone. I was nervous, and had no idea what to expect, venturing into an area that had such an undesirable reputation of violence, drugs, prostitution and everything illegal one could imagine.

The operation was scheduled to begin at 19:00, but I wanted to get there early to experience the feeling of the area after dark. I knew I would be in the safety of the police station grounds, with a steel palisade fence as protection, and not to mention the policemen and women coming and going. The Uber driver did not seem nervous at all, but as we neared Alexander Street, he promptly ensured that all the doors were locked.

When I arrived at the grounds, I felt surprisingly at ease and began to feel quite comfortable. I inquisitively took a walk around the perimeter of the police station grounds, and was surprised to see a lot of positive activity going on just beyond the property fence. There were a group of children involved in a football game on one end of Albert Park, cheering each other on, and seemingly having a fun time. The permanent 'park gym' equipment was packed with eager gym goers, with even more waiting for a chance to get onto a machine. There was an aerobics/Zumba type class going on in another corner. I could see a bunch of men playing a football game in the distance. It was very poorly lit, but this did not seem to deter the numerous activity underway. The area had great vitality about it.

I looked down the main road of Diakonia Avenue, and watched loads of people merrily walking up and down, popping into the small retail shops as they went. It felt like it was the norm for these people, and despite the reputation of the area, I felt that I would also be safe if I had to walk the streets. These scenes were slowly playing with my mind, and suggested that its reputation was perhaps a little skewed. My perception had changed a little after witnessing these scenes.

19:00 o'clock was approaching, as more and more people and city officials were arriving. Metro police were assembling, SAPS were starting to get into formation, members from the city's water, electricity, health, licensing, city architects, law enforcement and home affairs departments began to gather around a common area of the parking lot. I could see paper work, that I assumed were search warrants and notices, being handed out to certain members of the team. There was a friendly atmosphere developing, as greetings were shared and it seemed everyone was quite excited to be involved. This was not what I was expecting at all. I was excited and keen to get the operation underway.

Everyone split into two groups, one would be targeting the CBD and surrounds, and another the point and beach precinct. I chose to join the CBD operation. The specific sites were not revealed to anyone, to avoid any chance of 'tipping off' the buildings occupants.

The vehicles all started to line up - this was now getting exciting! There were about seven cars per operation, mostly police vans, but some private vehicles of the various department representatives. A few kombi vehicles carrying the police force and a lock-up truck in case of any arrests.

Away we went! Lights flashing, sirens sounding, faster than normal speeds, traffic intersections were blocked for the processions right of way… I felt like I was the president, with his blue brigade. This excited me and had my adrenaline pumping! Funny how one's perception changes when you are on the controlling side of the law…

The first stop was a site at 186/190 Umgeni road, bordering Durban Station to the South. We drove past the site on the opposite side of the road, and swooped around the traffic light intersection slightly higher up, stopping in front of the building. The police force quickly went in, and once it was deemed safe and controlled, the rest of the team followed. I was one of the last to enter. From the front, the building looked like it was a mix of retail along the entire Umgeni Road front, with retail storage towards the back of the site. On the first storey, it looked like residential accommodation.

We entered through a door down the side street, Somtseu Road. It had a reception area, where a manager was stationed (the manager quickly vacated out the front door once he realized what was going on). There were signs on the walls with the name of the establishment prominently displayed, 'Station Shelter, daily accommodation,' as well as the rules and regulations of the establishment. From that point, I observed mainly woman walking around with towels covering and wrapped around their bodies, as this floor seemed to house the communal bathroom facilities. There were many rooms on this floor. These were not very spacious, I would guess about 4x3m (12m^2), that would house around 3 people on average each. They had a single door entrance as well as a window onto the relatively wide corridor that was open to the sky. I then moved to the upper storey. There was a huge flat roof expanse over the rooms below, where washing lines were positioned to the back end of the site, what looked like a newly constructed block of toilets towards the middle and side. The area over the retail portion below was a covered structure. There were loads of children playing on the open deck area, as well as inquisitive residents peering over the parapet walls trying to ascertain what the commotion was.

I then walked into the structure over the retail below. There was a conglomerate of partitioned off cubicles, mostly constructed from plasterboard partitions with timber batten structure. The ones facing the street, had windows out, but the ones in the central space, merely had a single swing door into the cubicle. The cubicle walls stopped short of the ceiling, and this was the only form of 'natural ventilation' for these units. Each unit seemed to have a cooking facility, a two-plate stove, but no water source. I never saw to many fridges, and wondered where their raw food was stored. The residents did not seem to mind the conditions, although all I was thinking was that the environment could be so much nicer if it were planned properly, and felt a bit disappointed that people had to live like this, when I could clearly see a better option. I spoke to a woman who said she was a student, and that the arrangement was ideal for her, as it was close to her college and she did not have to spend a lot of money on transport from here. This was interesting, and revealed another perspective that I never imagined before - that these types of buildings with their seemingly inhumane conditions, were serving a positive purpose.

The next building was within walking distance, only a few buildings down at 72 Umgeni Road. This was called the 'Phezulu Shelter', and judging from the signage and setup, was very like the previous building that one could assume it was the same owner. I never ventured further than the reception of this building, as the word from the police officers was that it was the same condition as the building before. The only difference was that it had very little window frontage onto the street, so therefore more rooms would have a ventilation issue, which made me sad again. Both buildings housed predominantly female students, who paid approximately R1800 per room, which they divided among about 3 people per room (average cost of R600 per person). This included water and lights. The first arrest happened at this address; a black male did not have his residency papers on hand, and was loaded into the lock up van. I must comment that there was no resistance from him, and it was a very peaceful arrest, something that I anticipated would be a lot more of a violent and resistant process.

The next stop was Carlisle Street. Number 22, 24 and 34, are all neighbor problem buildings. Number 22 is an abandoned site - generally abandoned and empty lot. Number 34 is a single storey structure that looks like it has not been maintained in ages, with overgrowing foliage in the front yard section, and piece meal patched up areas with second hand materials. Number 24 is a two storey structure, which has been dilapidated with a missing roof structure and missing windows and doors. The brick structure is the only remains. The structure has a facade resembling that of the Victorian era typology, and no doubt has a historical and architectural significance. The group of police officers and department members, commented how attractive the building looked and envisaged how lovely it would be if rehabilitated. Some started scheming about how much it would cost to restore, and then rent out. They all agreed this could be a viable business. It is worthy of the comments indeed, and one wonders how the owner or the city could let this building dilapidate to its current state - this was sad to witness once again.

There did not seem to be anyone occupying number 22 or 24. There was no direct access off Carlisle Street, so the police officers had to jump the boundary wall to inspect. They returned reporting no activity visible inside. I found this odd, and assume that the inhabitants heard us coming and fled, or perhaps were tipped off that we were on our way, or it was simply inhabitable, even to squatters. I say this because all the previous times I have been past this building during the day time, there had been people lurking outside the building. A friend of mine who lived in an apartment building further down Carlisle Street, had warned me about these people, as they were suspected of dealing illegal substances from these abandoned sites and perceived to be dangerous.

The single storey, number 34, had occupants. I never entered, but from the pavement, saw a mother and child enter one of the rooms. Overall, there was no illegal activity found on any of these properties, so the operation retreated and readied for the next building.

Our next stop was at 83 Dennis Hurley Street, to the building known as Honchos (A fast food outlet in the retail street facing space). From the outside, this building looked like a retail and office/ storage type building. There were no signs of habitation from the street at all. This was my favorite stop. It was classic case of hiding illegal activity from the world! I was not prepared for what was to come. The entrance was next to the Honchos steel roller doors. It was a long and narrow passage that directed you to the back of the property, about a 50m walk, passed the refuse bins lined to the side of the passage. In the distance, you could see clothes hanging. At the end of the passage it opened to a central space, where with you could turn left to a wide stair leading to the first floor or straight past to some rooms and bathroom facilities. There was a communal stove with some food cooking in this space. The rooms on the ground storey where original brick it seemed, with a door and window to each, much like the Umgeni road ground storey units.

The journey up the stairs was an eye-opening experience. There was washing hanging on the balustrades, and everywhere you could find a spot to hang really. At the top of the stair, were communal wash troughs, neatly constructed. The rest of this floor and the mezzanine storey above could be viewed from this position. It was pretty much an open warehouse structure, steel framed with a sheeted roof over. Within the volume where tiny partitioned rooms, the bottom ones where made of block work, and the upper unit's partition boards, with timber batten structure. The floor of the upper units where timber, what looked like shutter ply, which formed the ceiling of the unit below. All these units had only a door into each, no window openings at all. I have no idea how the units where ventilated, and this seemed so inhuman to me. At least the upper units had slight ventilation over the walls that did not quite meet the warehouse ceiling, but never the less; there was no ventilation through the roof, and only through a narrow door opening onto Dennis Hurley Street. I spoke with three women who occupied one of the upper units. They were students, and said they paid R2000 for the unit, which included lights and water. They used the communal bathroom and wash up facilities. I asked about communal space, like a lounge area or open deck area for example, and they said that there were no such places available, and that any communication with neighbors etc. would happen in the passageways or clothes hanging area. I asked them why they chose to stay here, and not find something like a bachelor unit that would be a lot bigger and have its own bathroom and kitchen facility. They said that it would be excessively expensive, and that this was the only option that they had. I asked about the ventilation, and if it was comfortable to live with no natural ventilation or natural light. They said the landlord provided a standing fan for ventilation. I was shocked that they accepted this or even that the landlord had the audacity to even suggest this an option, knowing full well that the ventilation wasn't sufficient. This was a clear case of desperate individuals being terribly exploited. For R2000, I would expect at least natural light, even a tiny window and at least ventilation, as well as a private bathroom and kitchen.

I continued my tour to see how the rest of the occupants were coping. At this point, I slowed down to absorb the vibe of the place. All the occupants at this stage were peering out their units, also inquisitive to what was going on. As I was the only white person from the operation, I quickly got the name of 'malungu'. This was a great icebreaker, and the atmosphere was surprisingly up-beat and happy. As I walked past and greeted people, I could hear 'malungu, malungu', with bursts of laughter after. I am not sure what else they were saying in the language I could not understand, but whatever it was it seemed cheerful. Despite the condition of the units, these people seemed to adapt to the situation well, and accepted their circumstance, or made the most of what it was. I was surprised that they did not complain more to the landlord, but I guess they felt they weren't able to demand much, as they knew there were hundreds or even thousands of others willing to replace them in desperation. My last conversation was with a mother of three. They lived in a unit on the first storey, one that was in the middle of the warehouse space, constructed of brick walls, with zero ventilation. The boys were happily running up and down the corridors and the mom was settling in the room watching T.V. one boy posed for a picture. They seemed content with the conditions, judging by their smiles and laughter. I asked the mother about how she coped with the heat, and she said it was very difficult and a bad situation.

This visit was important to me, and I learnt the most from it. It made me realize that although the conditions were not per the municipal or sans standards, these situations existed, and seemingly had a legitimate purpose and that people were willing to accept these conditions and cope just fine.

The next building was at 152 Bertha Mkhize Street. This was a high-rise building consisting of 8 storey's. It was a narrow but deep building, what looked like an office block from the street. However, when entering the building, it was completely residential. These partitioned rooms seemed to have been built for a while now, and even the partitioning looked in disrepair. They were similarity sized to the previous building, and only form of ventilation was in the fact that the partition walls stopped short of the ceiling. I witnessed a lot of woman in the rooms, who had sewing machines and stored linen, suggesting that this was their place of work as well. I could not imagine the heat that could be generated during a hot summers day. The street pavement outside, was littered with rubbish, among some late informal traders who clearly had no care for the environment. It was about 21:00 at this point.

A resident from a buildings a couple away from this one, started to talk with the party I was standing with on the pavement, while waiting for the police officers to exit the building. It was interesting to hear what he had to say, and how the police officers he was talking to responded. He was complaining that the operations came here once a month, but nothing was being done to evict the occupants. He was pretty much complaining that the government was allowing this to happen (the illegal occupation and their disregard for the surrounding environment). The police officers responded that it was not as easy as throwing all the occupants out onto the street, as people have rights, and that it was an ongoing process that was underway to sort the building out since they were aware of the activity here. The neighbor then proudly stated that he had been a resident in the area for the last 40 years, and that he has witnessed the downgrade of the area, with no one from the council doing anything about it. The police officers then politely explained to the man that the reason for the downgrade cannot simply be blamed on the occupants of the building, and that it was the person that owned the building who deliberately erected the cubicles and allowed people to occupy the premises, to make money. The source is not the occupants, but the greedy building owner, who is seemingly exploiting the occupants. If the owner does not care about the condition of the cubicles or the environment for the occupants, then why should the tenants care about looking after the building or the surrounding area for that matter? This results in the condition of the building and the immediate street surrounds. This will then catalyze a creep effect known as the broken window theory.

In addition, this was the point of the operation, to find enough evidence in contravention of bylaws, to take the matter to the high court, to legally enforce the owner to make a change or cease to trade. If they do not change, and therefore do not get income, they could stand to lose the building, by selling or foreclosure.

Next stop was 88 Maud Mfusi Street. This looked like a regular apartment block with retail on the ground floor. The residential floors consisted of rooms with a communal bathroom per floor. The issue here was that the units were overcrowded. Most of them had natural ventilation and natural light. Here I witnessed two immigrants who had failed to produce residency papers, being escorted to the lockup vehicle. The vibe on the street was vibrant. There were people everywhere, some eating on the sidewalks, playing pool in a pool hall and generally, I would say a happy vibrancy in the air.

Our final stop was at a building in Warwick junction, right opposite the footbridge to D.U.T. This building was five storey's high, and somewhat isolated from the rest of the urban fabric. It seems out of scale for its location, as there were no immediate neighbors, and the closest were around two to three storey's high, making this building stick out like a sore thumb. It was a great location for advertising, which it had on the side facing the highway - this was illegal advertising I believe.

I had entered this building before, the previous year as part of a project for that year so I knew a bit about it already, we called it 'Bradley's' building, after one of its residents we got to know. This is a regular apartment building, with regular sized apartments, and retail on the ground floor. The retail portion is vacant and unused, which seemed a waste, as there was loads of foot traffic past it during the day. All the apartments were occupied. These were not overcrowded; the issue here was that the building had a reputation for harboring drug dealers. I entered the building and noticed that it was poorly lit and extremely uninviting - I could not see myself venturing here alone. I headed for the roof space, as I knew it had great views from up there. On the way up, I could see the residents out in the corridors being searched by the police. I took a few photographs from the roof top, and then left the building. The only transgression found, was that multiple units were running off the same electrical meter. The residents were warned that the following day this would be rectified, so they were to plan for this.

And this was the end of the operation. I believe there were 11 arrests made in all - 9 of which couldn't produce residency papers and 2 in the possession of illegal substances. These people were taken to the central police station, and dealt with accordingly.

I made my way home, on a natural high, as this was a fantastic adventure, and something that one doesn't experience every day, and that I probably wouldn't ever again. It was worthwhile to see the reality of what is happening in buildings of Durban's inner city, and providing huge insight to a problem that needs to be dealt with. I was willing to take on this challenge, and start a process that can change Durban.

- End of operation -

PART TWO

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CHAPTER 7: DESIGN REPORT

INTRODUCTION

This chapter introduces a notional client to develop a brief that responds to their requirements. The theoretical and conceptual framework set up in part one, forms the basis for the design. The chosen site is presented, selected in an area with a high concentration of problem buildings in the inner city of Durban. The site contains an abandoned parking garage structure in a state of disrepair. The building is currently owned by the Provincial Government. The site inspection suggests that the building's structure is intact, however the roof is crumbling with gaping holes appearing, and signs of structural instability. Consequently, the building is unprotected from water ingress, and water is seen to be pooling on every level, with constant dripping through each concrete slab. The 1.2m sunken basement, is completely water logged, forming a gigantic pool of water, with no sign of drainage measures into any storm water outlet, or into the natural ground. The aim is to adaptively reuse this fast deteriorating structure more positively to serve the needs of the contemporary inner city user – who are currently Durban's most vulnerable. This design report utilizes the information of part one to explore an architectural response, directed by the client's brief.

7.1 THE NOTIONAL CLIENT

National Government has set significant targets for the delivery of social housing over the next 5 years (27 000 units or 5 400 units per year, of which only 3 000 units per year are currently being achieved). The Ethekwini Municipality has a significant responsibility for ensuring the delivery of this stock, and in so doing contributing to the restructuring of the city.

The Ethekwini Municipality in co-operation with a Social Housing Institute (SHI), aims to provide a range of adequate social housing and other affordable housing options with appropriate amenity in the inner city of Durban. The aim is to bring vulnerable low income earners (who currently have a long and expensive commute) into areas of major economic opportunity, to promote a mix of race and social classes, and promote social integration.

The Ethekwini Municipality recognizes the need for a private party to manage the running of the building, and therefore seek the co-operation of a social housing institute to take on this role. The municipality will fund the land purchase as well as all construction and professional related costs, while the day to day operation and maintenance of the building will be managed by the SHI.

The municipality requires the services of an Architect to identify a suitable site to fulfill these requirements. This development aims to act as an example of how underutilized blocks and buildings can be adaptively reused to help alleviate the housing backlog and provide positive urban environments.

7.2 THE CLIENT BRIEF

Based on the research of part one of this dissertation, recommendations to the client are as follows:

- There is opportunity to find a site located in the inner city, to take advantage of the existing service infrastructure (avoid having to install additional services elsewhere).
- There is an opportunity to locate a building that is currently classified as a problem building, that is abandoned, dilapidated, and in a state of disrepair, providing a negative impact on the immediate context. (creating an opportunity to purchase at the lowest rate as well as take advantage of the existing structure).
- A mixed-use typology is recommended, to include a range of connected uses to form a symbiotic relationship.

- The primary purpose is to provide a range of housing options for the contemporary user. These should include temporary type accommodation with shared amenity, as well as self-contained units of various sizes, to serve as gap and social housing options.
- A strong emphasis should be placed on the connection to quality public space, to fulfill leisure requirements for the residents and for the greater public.
- The development should aim to be a catalyst for similar problem buildings to be transformed into something meaningful for the contemporary user and in turn for urban regeneration for its immediate context.

7.3 SITE SELECTION

The site has been selected based on criteria influenced by the literature review as well as by the primary research done by the author. A comparison of the following criteria will be conducted to find a suitable site to demonstrate the intentions of this dissertation:

7.3.1 SITE SELECTION CRITERIA

7.3.1.1 PHYSICAL FEATURES

The site should contain an existing structure that has been declared a 'problem building' as per the 'problem building bylaws', and therefore able to demonstrate the concept of adaptive reuse.

From the official definition of 'problem buildings', the building on site should be limited to: (a) is derelict in appearance or is showing signs of becoming unhealthy, unsanitary, unsightly, or objectionable; (b) is overcrowded; (c) is illegally occupied; (d) has been changed and its subsequent usage is unauthorized; (e) is partially completed, or structurally unsound or showing signs thereof, and is or may be a threat or danger to life and property; or (f) is in contravention of one or more of the Municipality's By-laws. These buildings have been plotted on *Figure 1* below.

Figure 1: Durban's inner city site plan, plotting all problem buildings highlighted with red dots (Site plan drawn by Author from city engineer's electronic drawings (2016), information sourced from iTrump (2016)).

7.3.1.2 ZONING

Ideally the current use should be in contravention of the town planning scheme, to demonstrate the argument of the dissertation, requiring planning to be flexible to cater for contemporary uses.

The site should be situated in a context containing similar problem buildings in the vicinity, requiring urban regeneration to demonstrate a catalytic intervention for this.

The building should demonstrate that its original intended function is now obsolete.

7.3.1.3 ACCESS TO PUBLIC TRANSPORT

The site should be in walking distance to public transport to maximize convenience for the local user who will primarily access the site by walking.

7.3.1.4 PEDESTRIAN ACCESS

Conducive too easy, unhindered access for any pedestrian, with emphasis on unrestricted pedestrian access to and from the site.

7.3.1.5 VEHICLE ACCESS

By virtue of the site being located with direct access to the street, access for private / public transport and for service / delivery vehicles should be achieved.

7.3.1.6 LOCATION

The site needs to be in the inner city of Durban, where it is likelier to be of higher density than suburban areas, focusing more on vertical settlement typology.

It needs to be able to make use of existing infrastructure and facilities.

The building should have prominent street exposure, and not be isolated away from the street.

7.3.1.7 SITE AREA

The size of the site must be able to accommodate uses that will ensure 24 hours of use (live, work play and eat, work and stay), in whatever arrangement to suit the contemporary use.

Live - being a residential component which ensures occupation through the evening; Work - an office and makerspace component ensuring occupation during the day; Play - in the form of retail for eating. This arrangement to be determined by the specific context and research of part one.

The height should allow for at least 4 storey's for sufficient density.

7.3.1.8 ORIENTATION

The site should merely be orientated towards the street to allow for eyes on the street, to support the requirements for urban regeneration.

The orientation is not fundamental to the choice of site, however strategies to capture natural light and energy will be an important design principle. More importantly is the relationship to the sidewalk.

7.3.2 SITE OPTION 'A'

The site address is 115 Maud Mfusi Street which is situated between Maud Mfusi Street (previously St. Georges street) and McArthur Street, as shown in *Figure 2* below. The context has undergone major change since pre-apartheid times. The area previously was the once prestigious 'whites' only inner city suburb, and now is home to the likes of prostitutes and drug dealers and has a 'slum' like environment.

It is reported that there are unscrupulous landlords operating in the area, who charge exorbitant rentals to desperate and vulnerable tenants in overcrowded and subhuman conditions, who collect rentals religiously but neglect to pay levies for maintenance and services which contributes to this slum characteristic of the area.

Figure 2: Site plan showing 115 Maud Mfusi Street – highlighting the site in yellow (Background image sourced from Durban Municipality public GIS system (2016)).

STRENGTHS

- Context of predominantly residential use.
- It has two street frontages, facilitating pedestrian and vehicle access in any form.
- Existing built area covers little of the site.

WEAKNESSES

- Well ingrained in the urban fabric.
- As with most inner-city sites, this site footprint is small (654 sqm).

OPPORTUNITIES

- Potential to introduce additional uses.

- Potential for urban revitalization.
- Potential to further develop and to use the entire site.

THREATS

- The context has become 'slum' like, with high crime rate.
- Major destination for foreign migrants.

7.3.3 SITE OPTION 'B'

The site address is 9 Pickering Street which is situated between Pickering Street, Dr. Langalibalele Dube Street and Robin Lane as shown in *Figure 3* below.

Figure 3: Site plan showing 9 Pickering Street – highlighting the site in yellow (Background image sourced from Durban Municipality public GIS system (2016)).

STRENGTHS

- It has three street frontages, facilitating pedestrian and vehicle access in any form.
- Context of predominantly residential / bordering light industrial use.
- It is a consolidated site with a large area (1395sqm)

WEAKNESSES

- Well ingrained in the town fabric.
- Existing buildings use all the site area.

OPPORTUNITIES

- Potential to introduce additional uses.
- Potential for urban revitalization.

THREATS

- The context has become 'slum' like, with high crime rate.
- Destination for foreign migrants, who are often exploited.

7.3.4 SITE OPTION 'C'

The site address is at 16 Dr. Gooram Street which is situated generally in the center of the inner city, between Ka Masinga Street in the North and Bertha Mkize in the South, Joe Slovo Street to the East and Ingcuce Road in the West as shown in

Figure 4: Site plan showing 16 Dr. Gooram Street – highlighting the site in yellow (Background image sourced from Durban Municipality public GIS system (2016)).

STRENGTHS

- It has two street frontages, facilitating pedestrian and vehicle access in any form.
- Well ingrained in the town fabric.
- Large site area (3000sqm).
- Context of predominantly business use.
- Near major transportation networks.

WEAKNESSES

- Existing building makes good use of the site.
- Well ingrained in the town fabric.

OPPORTUNITIES

- Potential to introduce additional uses.
- Potential for urban revitalization.
- Potential to increase density.
- Potential to revitalize the entire surrounding block.

THREATS

- No major threats to speak of.

7.3.5 SITE SELECTION TABLE

The table below indicated a comparison between the sites, based on a score rating system out of ten, indicating performance under the criteria:

Scoring gauge: 1-poor; 5-average, and 10-great; for the objectives of this dissertation topic

		A	B	C
1.	PHYSICAL FEATURES	5	6	9
2.	ZONING	8	5	7
3.	PUBLIC TRANSPORT	7	6	9
4.	PEDESTRIAN ACCESS	7	8	8
5.	VEHICLE ACCESS	6	7	8
6.	LOCATION	6	5	9
7.	SITE AREA	5	6	7
8.	ORIENTATION	7	9	7
		51	**52**	**64**

7.3.6 FINAL SITE SELECTION

From the results of the performances listed in the table above, site: C scored the highest average rating. The major advantage of site C is its excellent location, its site area size, and the fact that the existing structure has been abandoned and is in a state of disrepair. The current use of parking garage, is also obsolete, and will provide a perfect example for the concept of adaptive reuse.

CHAPTER 8: ARCHITECTURAL DESIGN DRAWINGS

INTRODUCTION

The following drawings document the architectural design process, for the new design for a mixed-use building at 16 Dr Gooram Street, Durban. It must be noted that all drawings have been reduced to fit on pages for this document and are therefore not to scale.

EXPLORING THE ADAPTIVE REUSE OF PROBLEM BUILDINGS: TOWARDS A MULTI-

PROBLEM BUILDINGS:
Derelict; abandoned; overcrowded; hijacked; illegally occupied; unlawfully erected.

MIXED-USE DEVELOPMENT:
The use of a single building for different purposes simultaneously.
The aim is to form a symbiotic relationship between the uses, and provide 24hour presence on site.

EXISTING INFRASTRUCTURE:
Tap into infrastructure and service systems that already exist.

ADAPTIVE REUSE:
A process that reaps the benefit of embodied energy and quality of the original building in a dynamic and sustainable manner.

URBAN REGENERATION:
A process of city or neighbourhood improvement, after being undesirable.

WHO:
The vulnerable low income earners.

WHY:
Inadequate housing options that are unaffordable or poorly located on the outskirts of any opportunity.

HOW:
By adaptively reusing problem buildings.

WHAT:
A mixed-use building to include a range of housing options & essential supporting amenity.

PHENOMENOLOGY OF PERCEPTION:
The method of exploration & description of the lived experience of a phenomenon – Merleau-Ponty.

SENSE OF PLACE:
'Place making is like a home making. Home making turns a house into a home. Place making turns a space into a place.' – David Engwicht.

PROBLEM STATEMENT:
Contradictory planning realities of social housing provision and problem buildings within the inner city.

BRIEF BREAKDOWN:
Ethekwini Municipality in co-operation with a Social Housing Institute (SHI), aims to redevelop an existing DEGENERATED INNER CITY BLOCK, to provide a range of adequate housing options and appropriate amenity.

SOCIAL HOUSING:
Rental or co-operative housing option for low income earners, with the institutional management by an accredited SHI.

RENTAL HOUSING PROGRAMME:
Aims to bring low income earners into areas of major economic opportunity;
Promote a mix of race and social classes;
Promote spatial integration.

NATIONAL HOUSING TARGET:
27000 units, or 5400 units per year
Currently achieving 3000 per year.

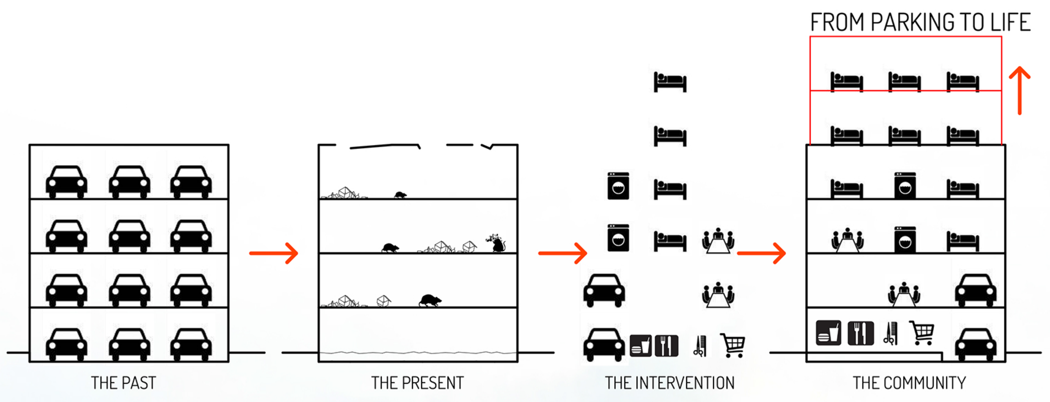
LOCALITY PLAN

ZONING:
General Business (intense commercial and business activities).

ACCESS:
Accessible from all directions, for both pedestrian and vehicle. Free access is hindered by the sunken railway network in the North, and the retaining barrier along the East. A large tract of land (Centrum site) currently disconnects the site from the greater city.

ORIENTATION:
Predominantly North South orientated.

URBAN CHARACTERISTICS:
Fairly dense precinct. Close proximity to taxi rank, and general amenity.



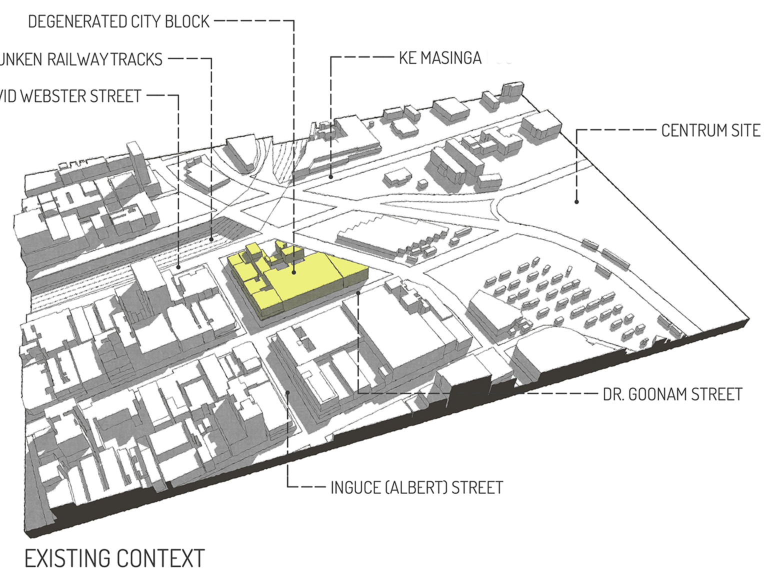
THE BIG IDEA

WHAT IS A CITY:
'Cities exist to facilitate an exchange of information, friendship, culture, insight, skills and also an exchange of emotional, psychological and spiritual support. For a truly sustainable environment we need to maximize this exchange whilst minimizing the travel necessary to do it.' – David Engwicht.

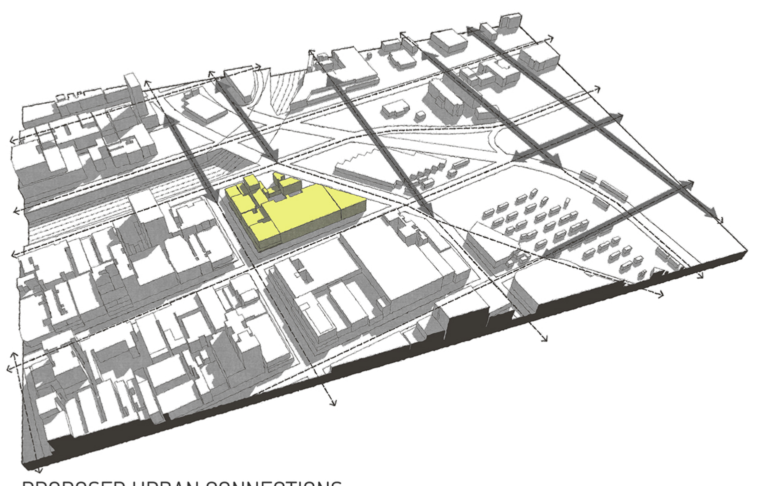
URBAN PRINCIPLES:
Become better connected to the city fabric.
Make use of existing infrastructure.
Walking and public transport priority.
Provide opportunity for rapid economic access.
Inner city housing.
Provide access to immediate and long term investment in efficiency and economic, social & cultural exchange opportunity.
Physical proximity equals efficiency, effectiveness and productivity.
Build neighbourhoods and not just housing.
High density development, functionally diverse, well connected mixed-use development.
Associated with good public space and public transport.

SOUTH WESTERN VIEW FROM GOORAM STREET

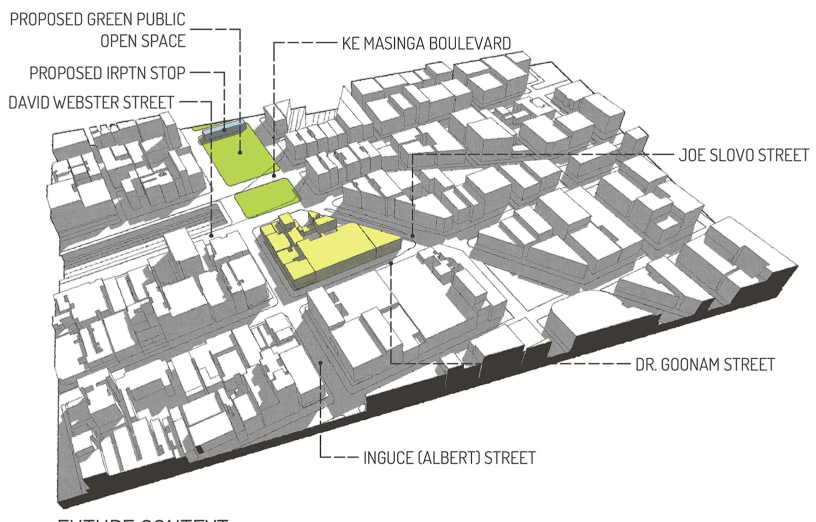
-USE BUILDING FOR URBAN REGENERATION IN DURBAN



EXISTING CONTEXT

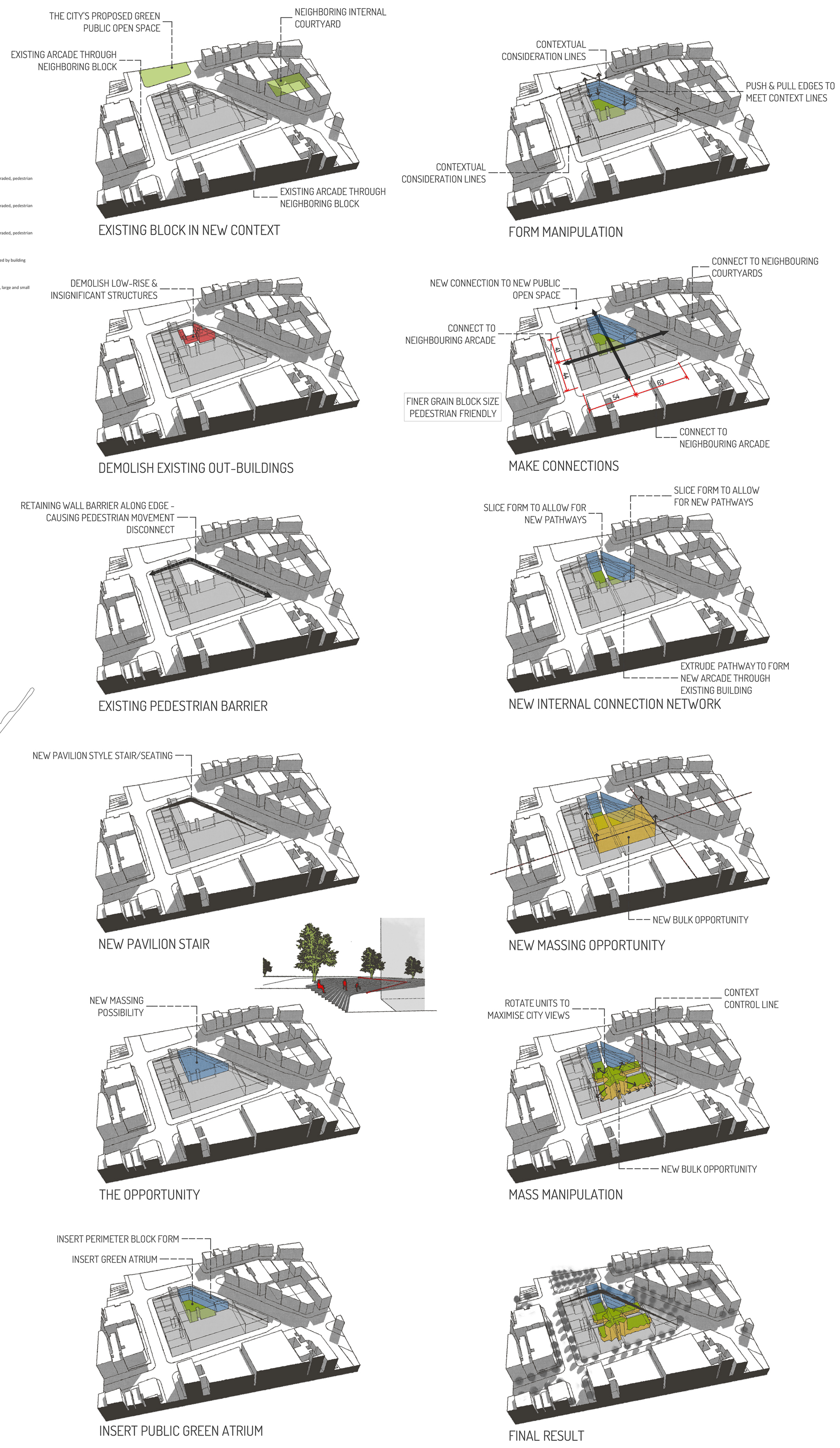


PROPOSED URBAN CONNECTIONS

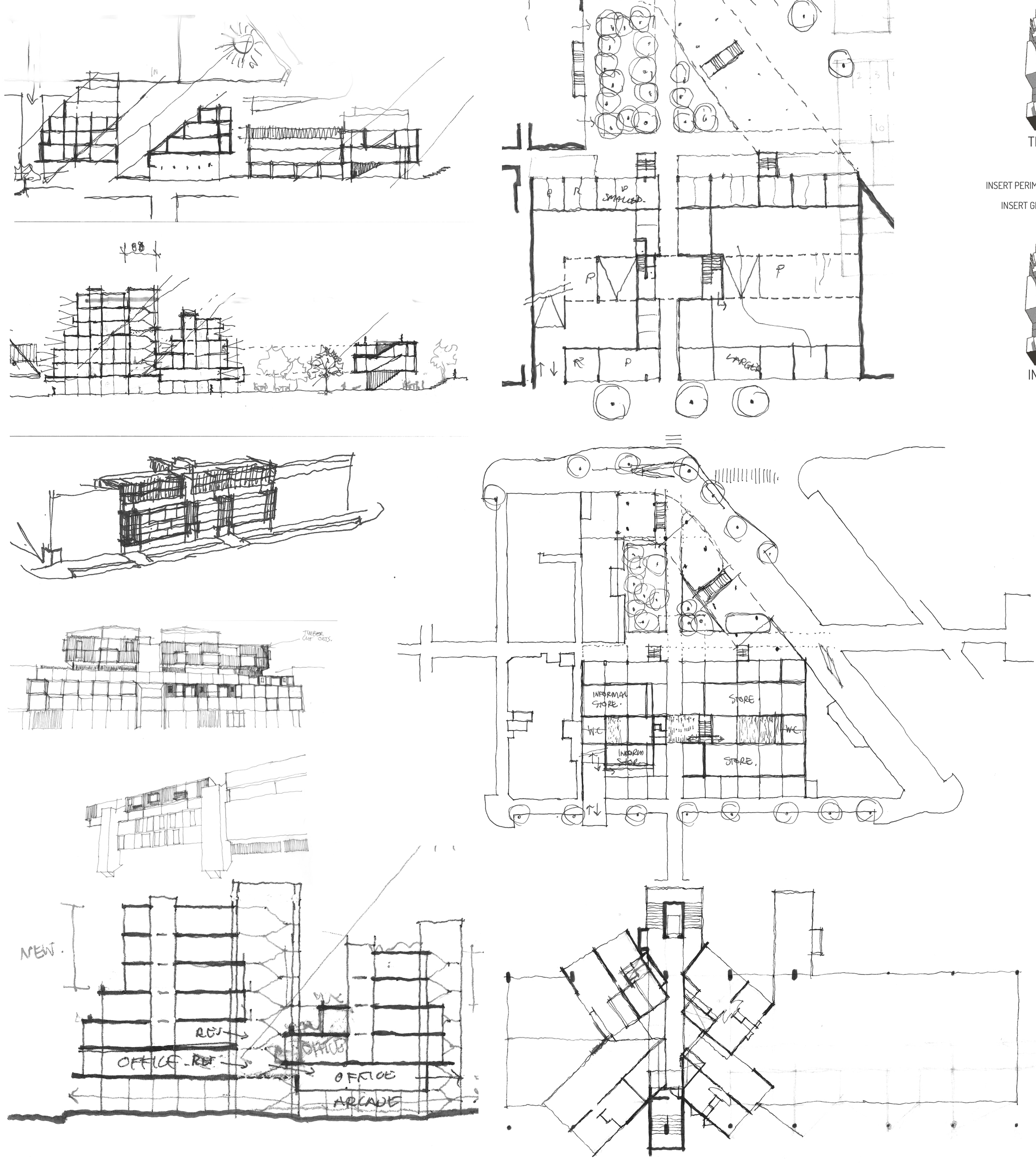


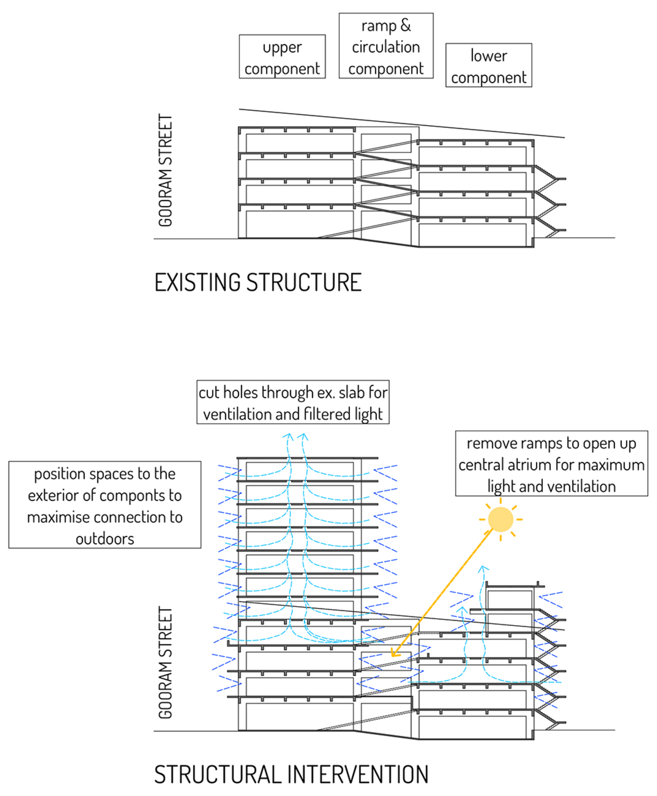
FUTURE CONTEXT

PROPOSED INNER CITY FRAMEWORK



DESIGN DEVELOPMENT SKETCHES

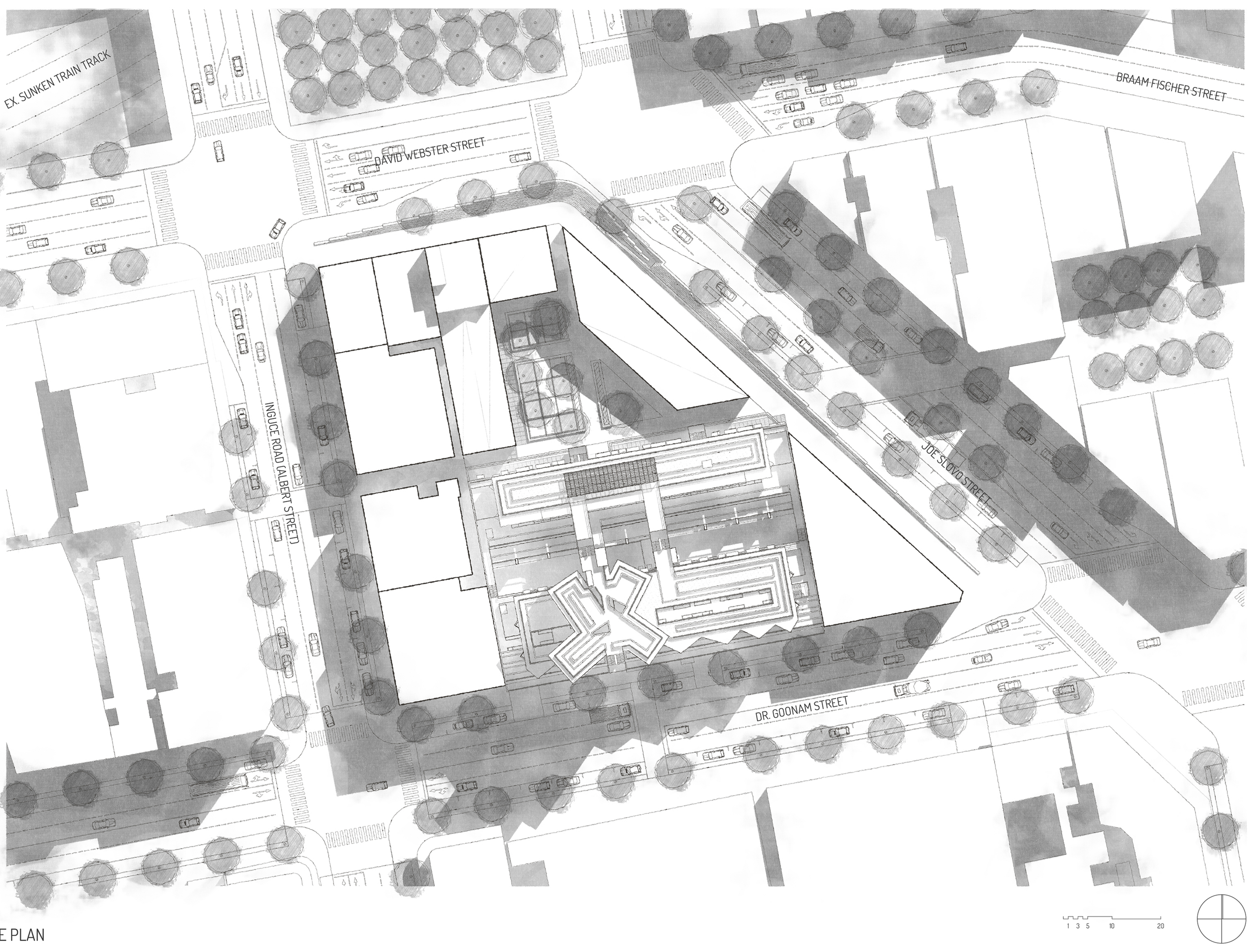




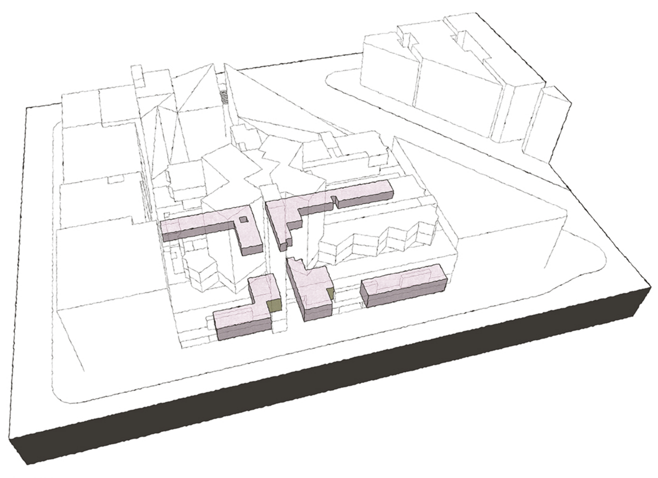
BEFORE & AFTER

EXISTING SITE CONDITION

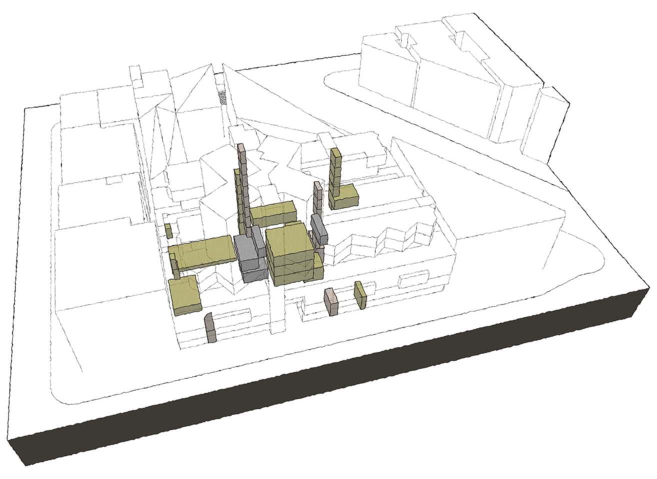
by MICHAEL BLUMRICK (215081636)



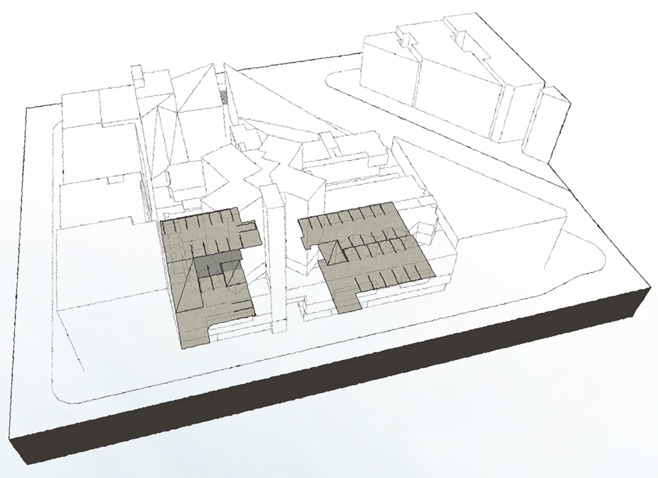
SITE PLAN



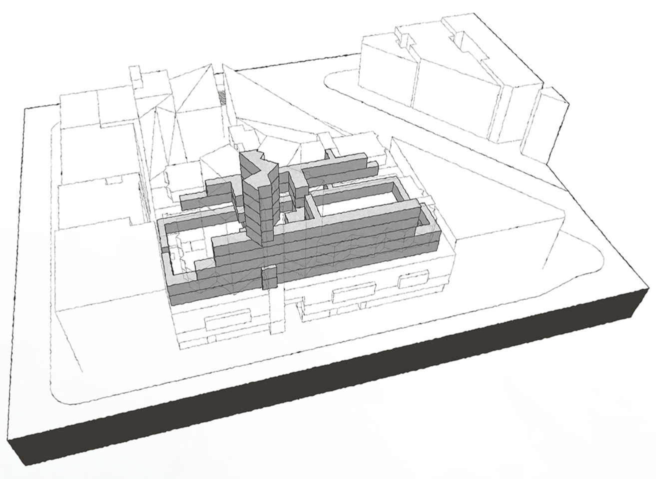
RETAIL
Area: 760m²



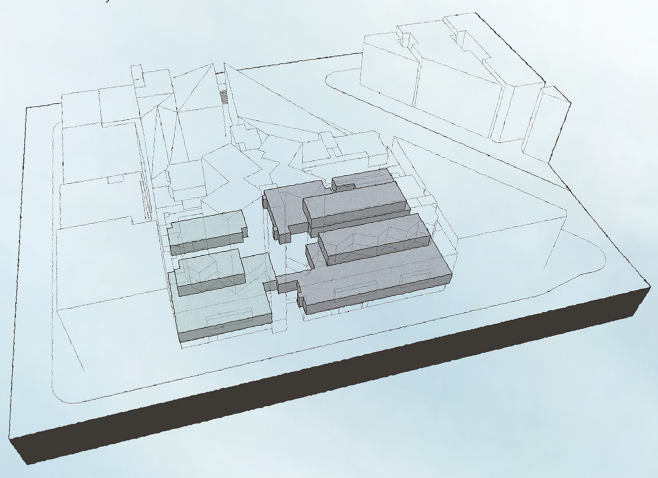
SERVICES



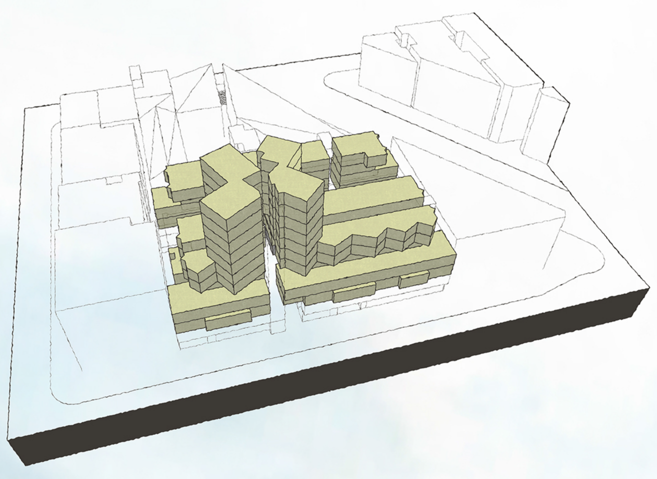
PARKING
Undercover Bays: 52



HORIZONTAL CIRCULATION

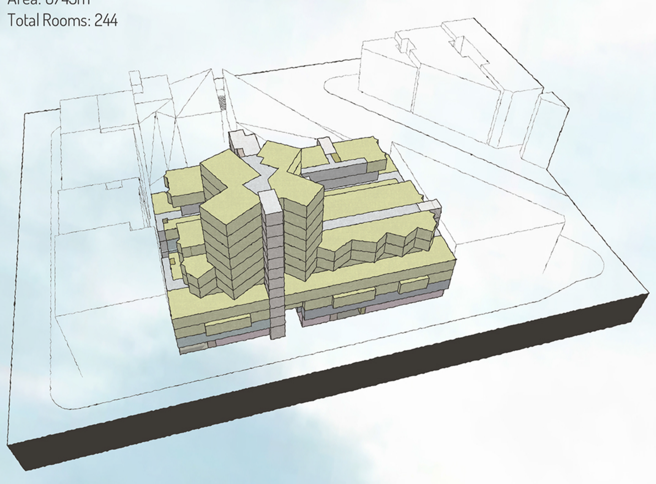


OFFICE & MAKERSPACE
Office Area: 1660m²
Makerspace Area: 680m²



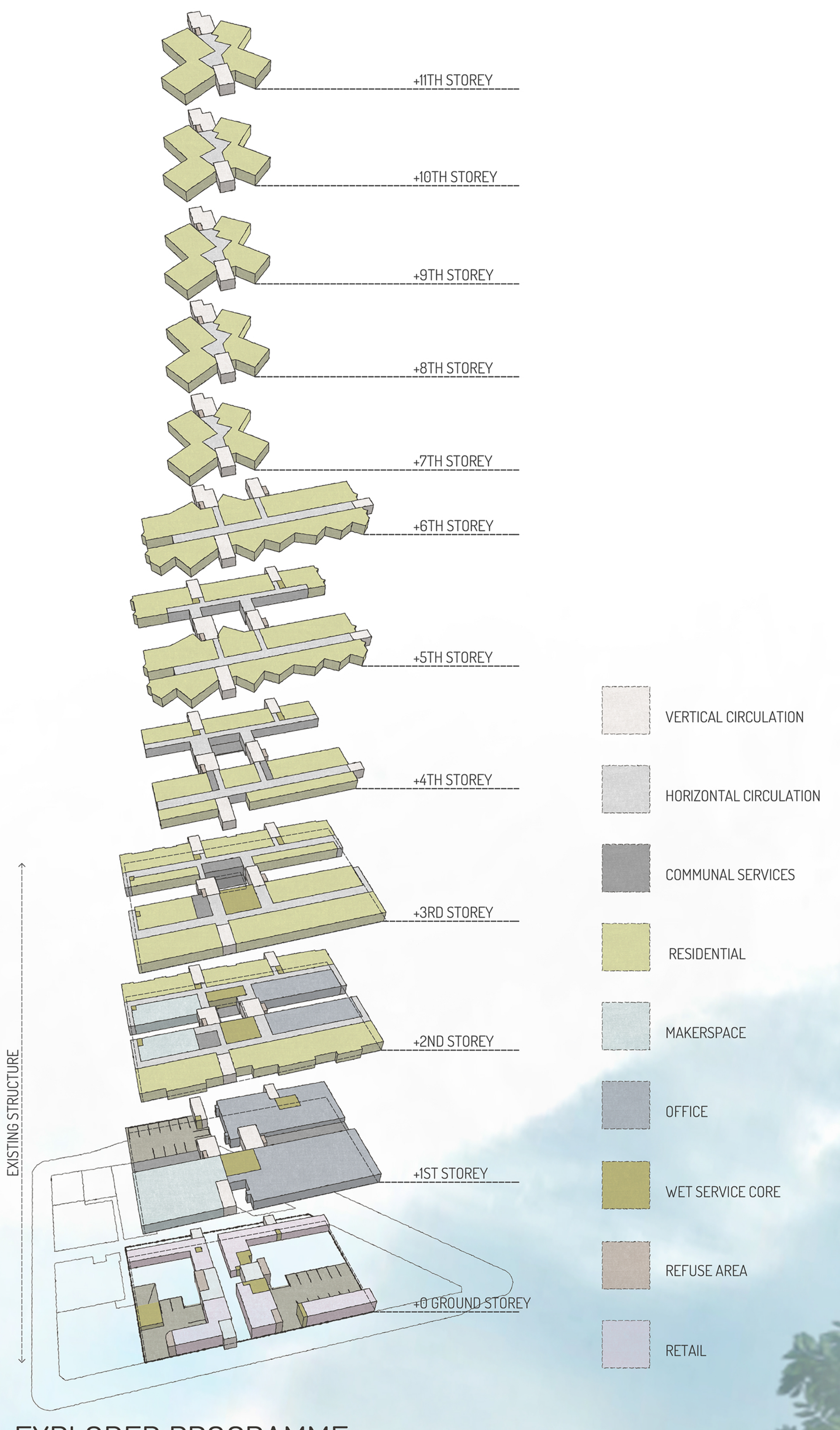
RESIDENTIAL
Area: 6745m²
Total Rooms: 244

VERTICAL CIRCULATION



FULL PROGRAM
Area: 16720m²

ISOLATED PROGRAMME



EXPLODED PROGRAMME

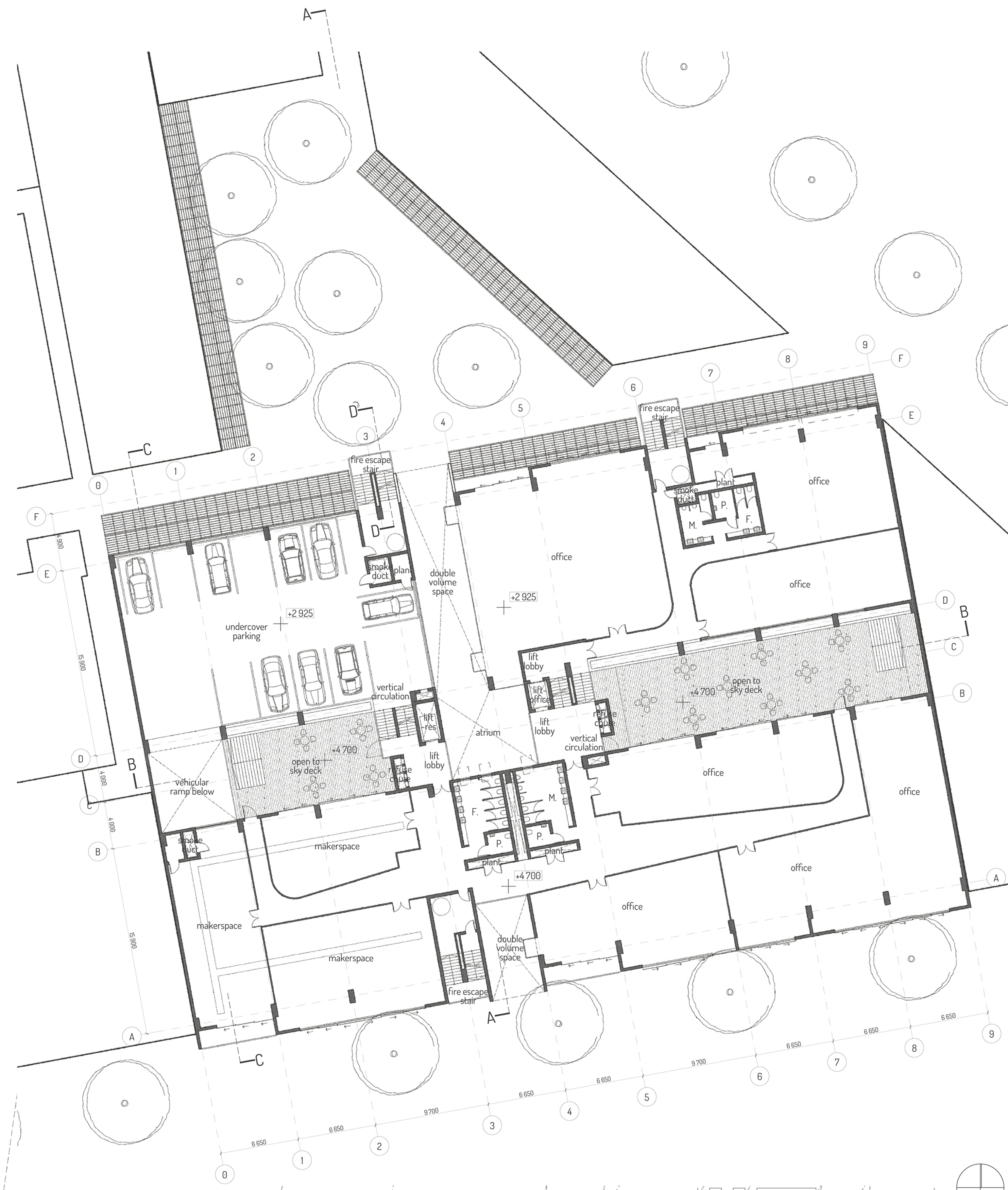
AREA SCHEDULE

site area:		3030
designed area:		16720
parking required:	no minimum	
parking provided:		52
retail provided:		760
office provided:		1660
makerspace:		680
residential provided:		6745
(total bedrooms)	244	
+0 GROUND STOREY		
retail		765
ablution(s)		60
bin area(s)		55
service core(s)		25
circulation		140
mechanical plant		70
arcade		205
undercover parking		1430
+1 FIRST STOREY		
offices		1220
craft makerspace		390
service core(s)		20
ablution(s)		115
garbage chute(s)		10
circulation		235
undercover parking		370
+2 SECOND STOREY		
offices		440
makerspace		290
residential		1020
communal area		80
service core(s)		20
ablutions		130
garbage chute(s)		10
circulation		605
+3 THIRD STOREY		
residential		1510
communal area(s)		155
service core		20
ablution(s)		90
garbage chute(s)		10
circulation		650
+4 FORTH STOREY		
residential		790
communal area		220
service core(s)		40
garbage chute(s)		10
circulation		685
+5 FIFTH STOREY		
residential		1205
communal area		70
service core(s)		30
garbage chute(s)		10
circulation		445
+6 SIXTH STOREY		
residential		770
garbage chute(s)		10
circulation		270
+7 SEVENTH STOREY		
residential		290
garbage chute		5
circulation		110
+8 EIGHTH STOREY		
residential		290
garbage chute		5
circulation		110
+9 NINTH STOREY		
residential		290
garbage chute		5
circulation		110
+10 TENTH STOREY		
residential		290
garbage chute		5
circulation		110
+11 ELEVENTH STOREY		
residential		290
garbage chute		5
circulation		110
TOTAL		16720

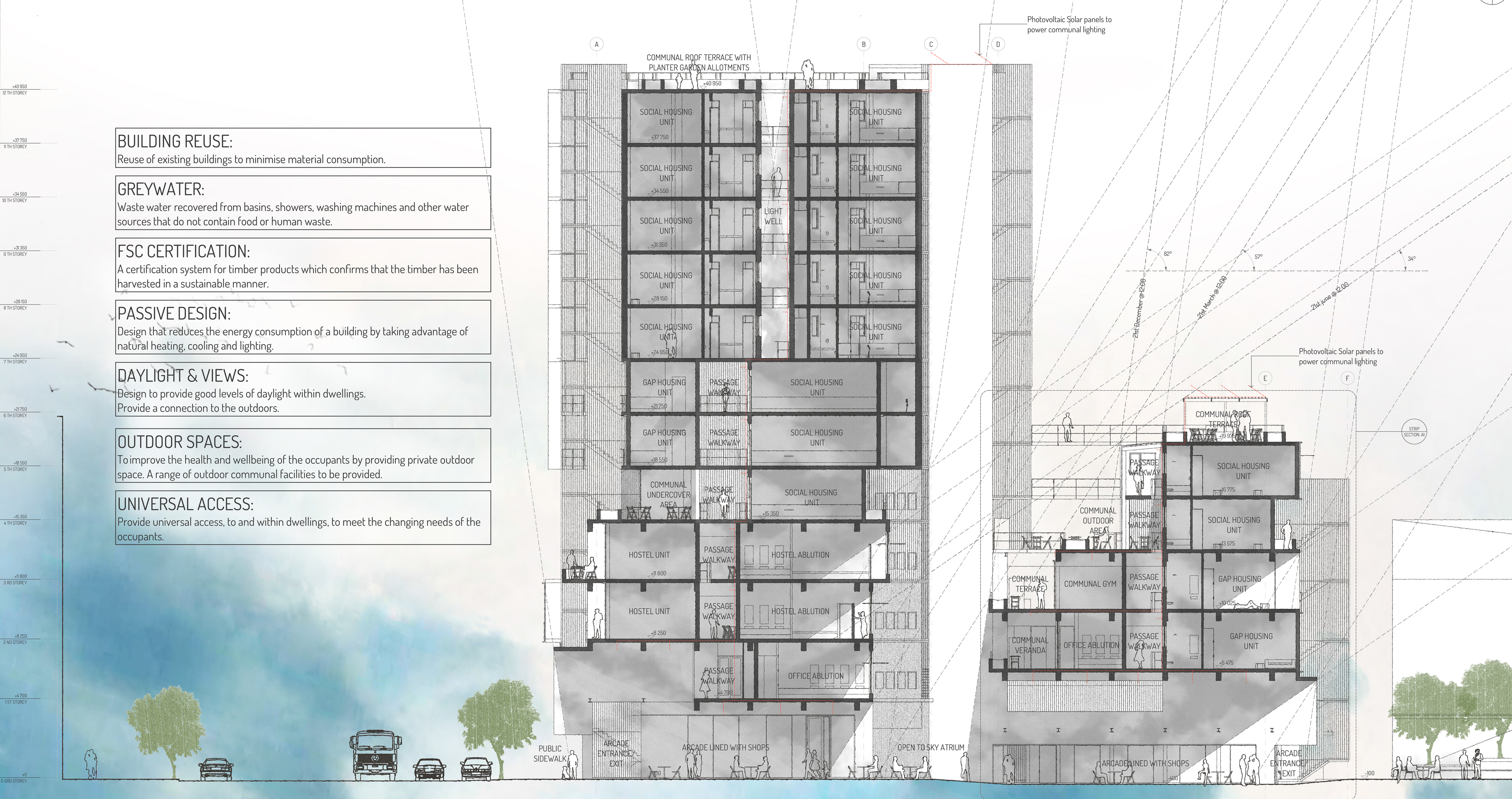
NORTH WESTERN VIEW ACROSS URBAN PARK

EXPLORING THE ADAPTIVE REUSE OF PROBLEM BUILDINGS: TOWARDS A MULTI-

GROUND STOREY PLAN



FIRST STOREY PLAN



BUILDING REUSE:
Reuse of existing buildings to minimise material consumption.

GREYWATER:
Waste water recovered from basins, showers, washing machines and other water sources that do not contain food or human waste.

FSC CERTIFICATION:
A certification system for timber products which confirms that the timber has been harvested in a sustainable manner.

PASSIVE DESIGN:
Design that reduces the energy consumption of a building by taking advantage of natural heating, cooling and lighting.

DAYLIGHT & VIEWS:
Design to provide good levels of daylight within dwellings.
Provide a connection to the outdoors.

OUTDOOR SPACES:
To improve the health and wellbeing of the occupants by providing private outdoor space. A range of outdoor communal facilities to be provided.

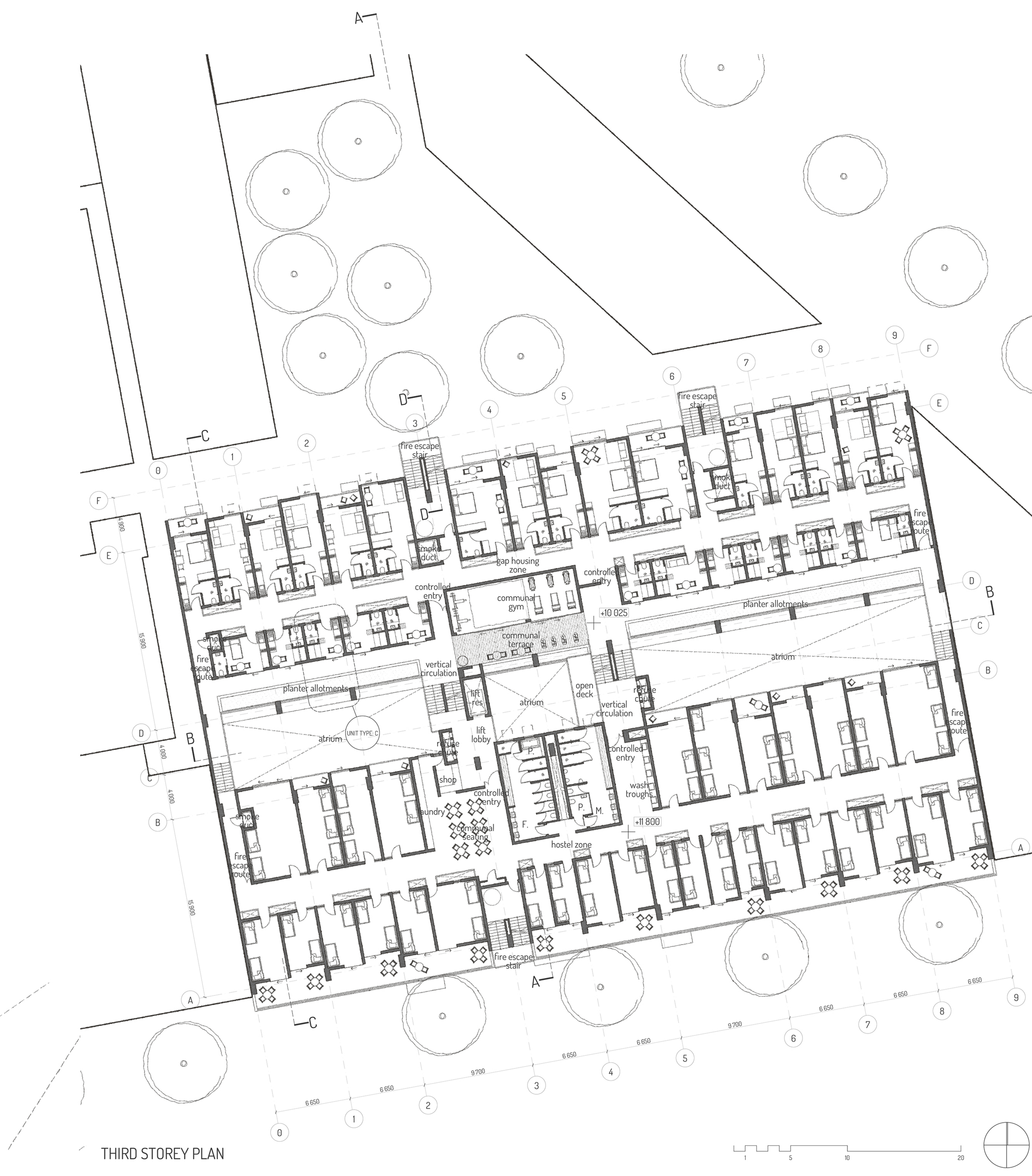
UNIVERSAL ACCESS:
Provide universal access, to and within dwellings, to meet the changing needs of the occupants.

SECTION: A-A
SCALE 1:100

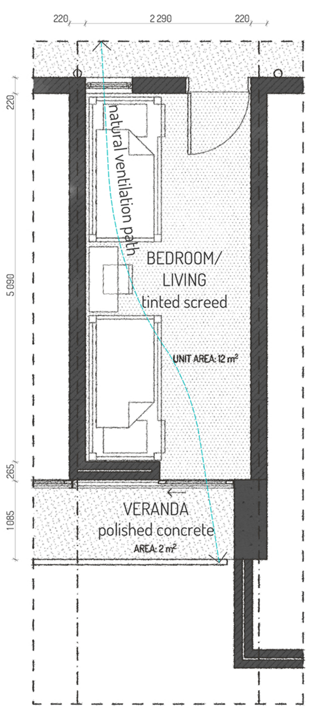
SOUTH EASTERN VIEW FROM GOORAM STREET

-USE BUILDING FOR URBAN REGENERATION IN DURBAN

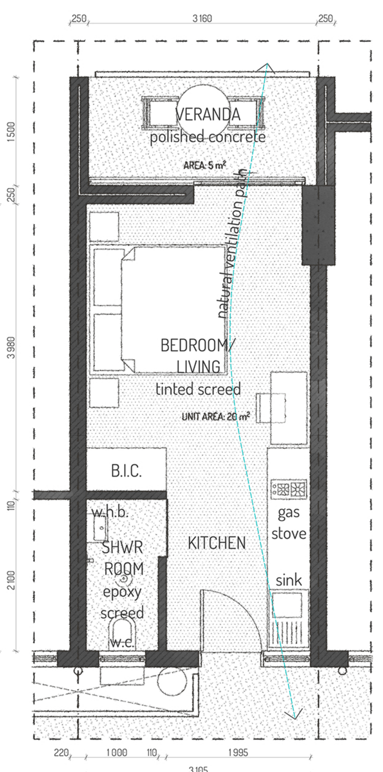
SECOND STOREY PLAN



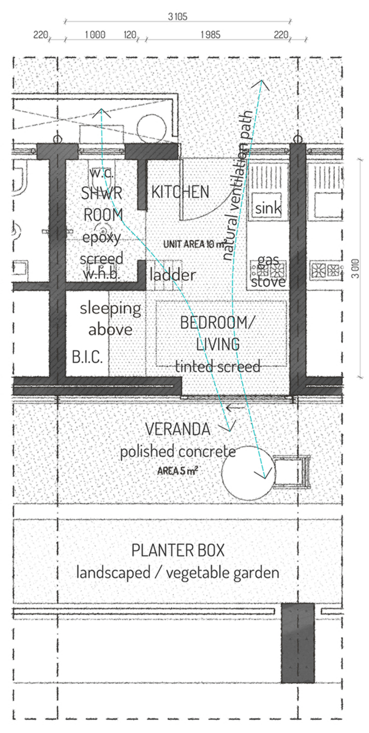
THIRD STOREY PLAN



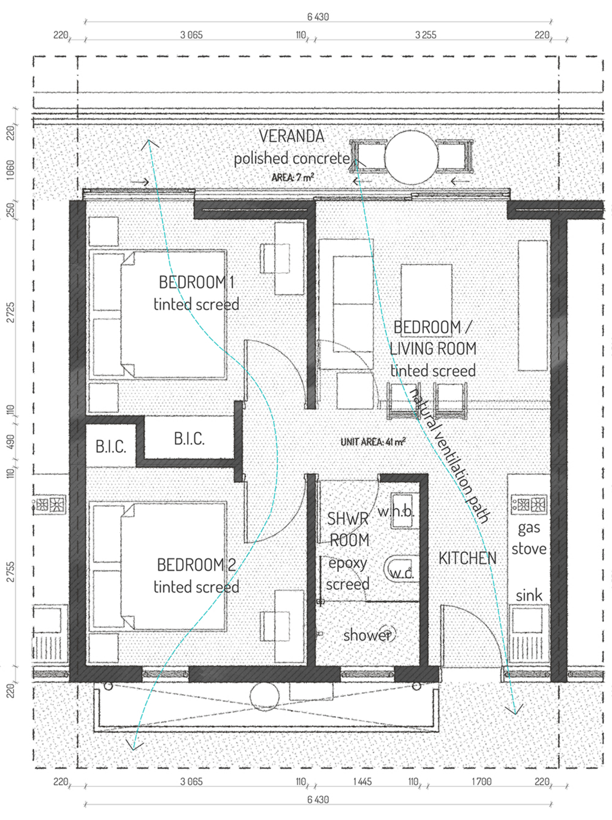
UNIT TYPE: A (HOSTEL UNIT)
SCALE 1:50



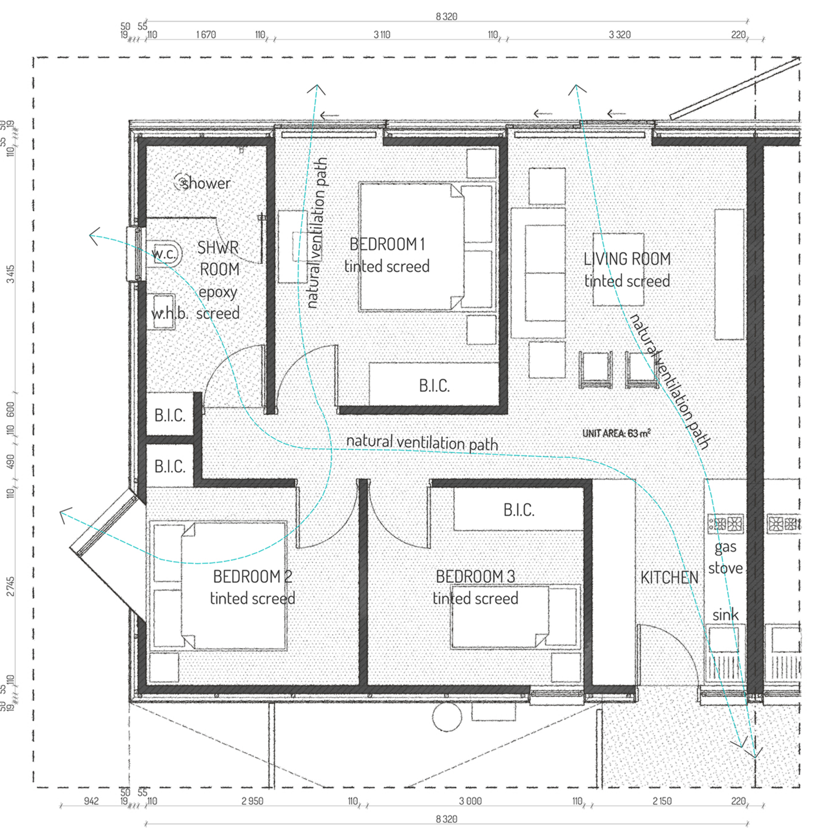
UNIT TYPE: B (GAP HOUSING)
SCALE 1:50



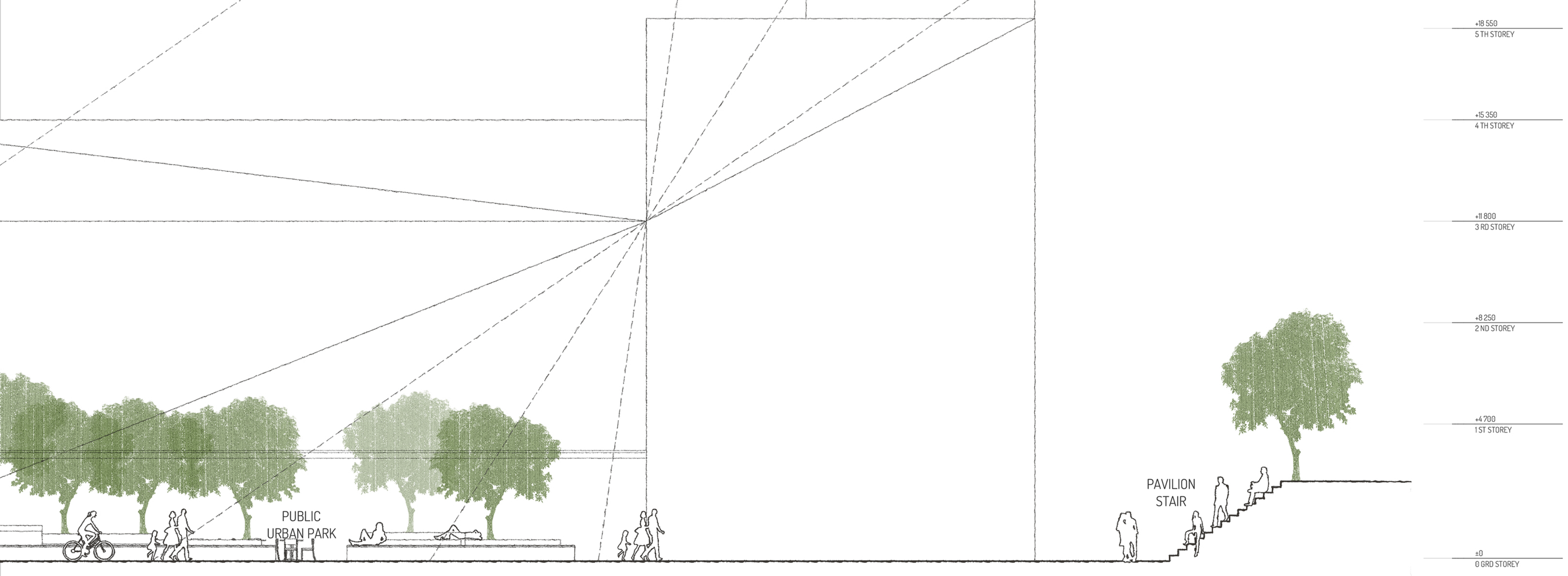
UNIT TYPE: C (GAP HOUSING)
SCALE 1:50



UNIT TYPE: D (SOCIAL HOUSING)
SCALE 1:50



UNIT TYPE: E (SOCIAL HOUSING)
SCALE 1:50



NATURAL VENTILATION:
The process of supplying and removing air in building spaces by natural means, by using openings in the facade, non-powered ventilators, solar chimneys and infiltration processes.

PHOTOVOLTAICS:
The use of semiconductor technology to generate electricity direct from the sunlight.

COMMUTING MASS TRANSPORT:
Site near public transport to facilitate the use of mass transport.

EFFICIENT DWELLING SIZE:
Efficiently sized dwelling units and reduced material consumption.

URBAN CONSOLIDATION:
Make use of compact development patterns to increase land utilisation efficiency.

MICRO STORE - DBN CBD

44 STANLEY - JHB

MADRESSA ARCADE - DBN

44 STANLEY - JHB

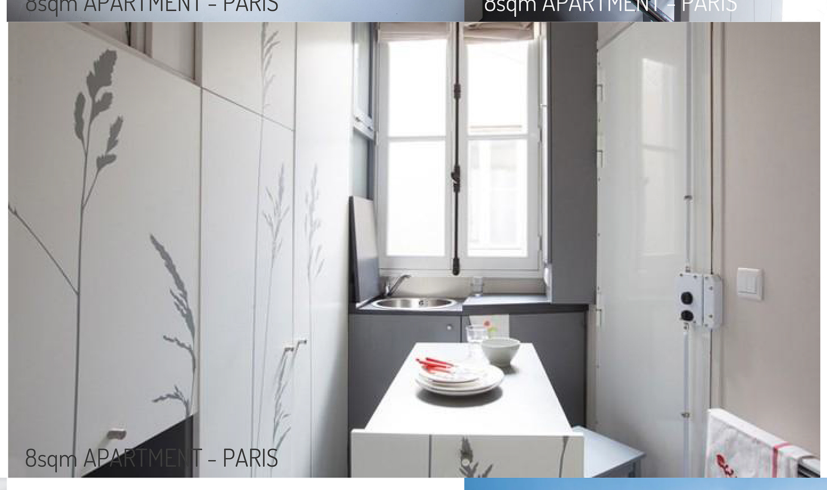
MADRESSA ARCADE - DBN

44 STANLEY - JHB

8sqm APARTMENT - PARIS

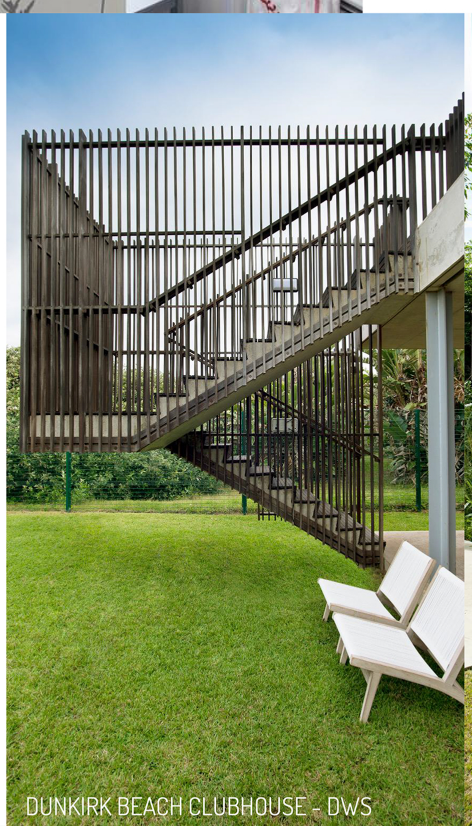
8sqm APARTMENT - PARIS

8sqm APARTMENT - PARIS



8sqm APARTMENT - PARIS

POD IDLADLA - JHB



DUNKIRK BEACH CLUBHOUSE - DWS

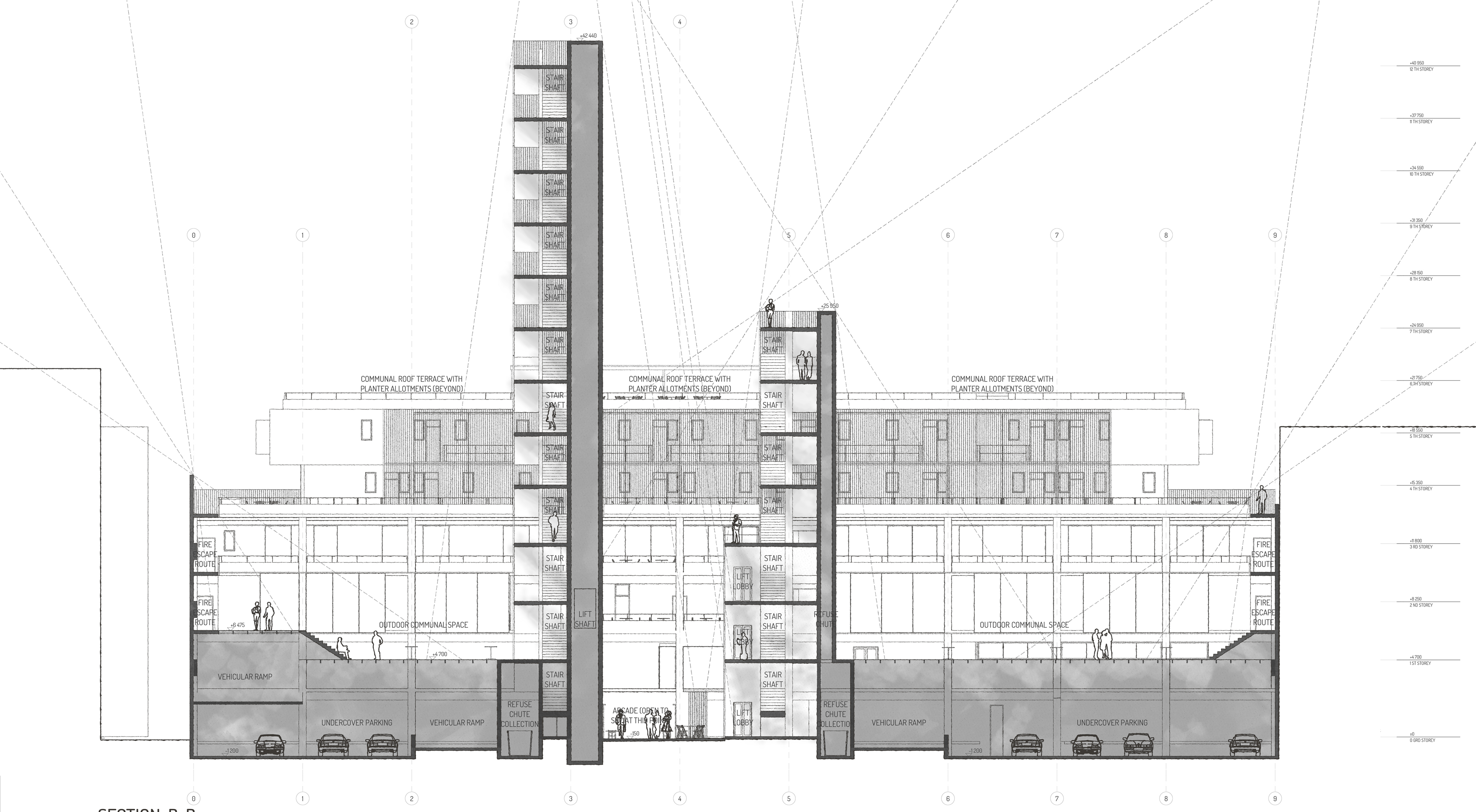
DASH APARTMENTS - DWS

PRECEDENT IMAGES

by MICHAEL BLUMRICK (215081636)

FORTH STOREY PLAN

FIFTH STOREY PLAN

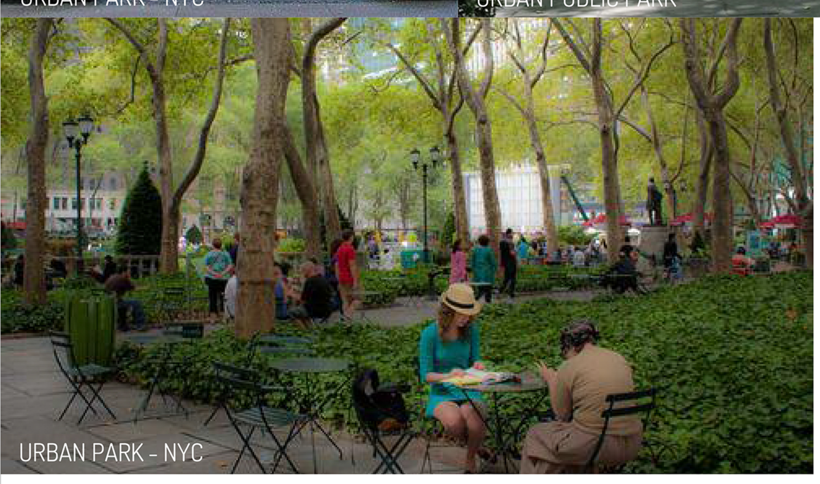


SECTION: B-B
SCALE 1:100


URBAN PARK - NYC


URBAN PUBLIC PARK


URBAN PUBLIC PARK

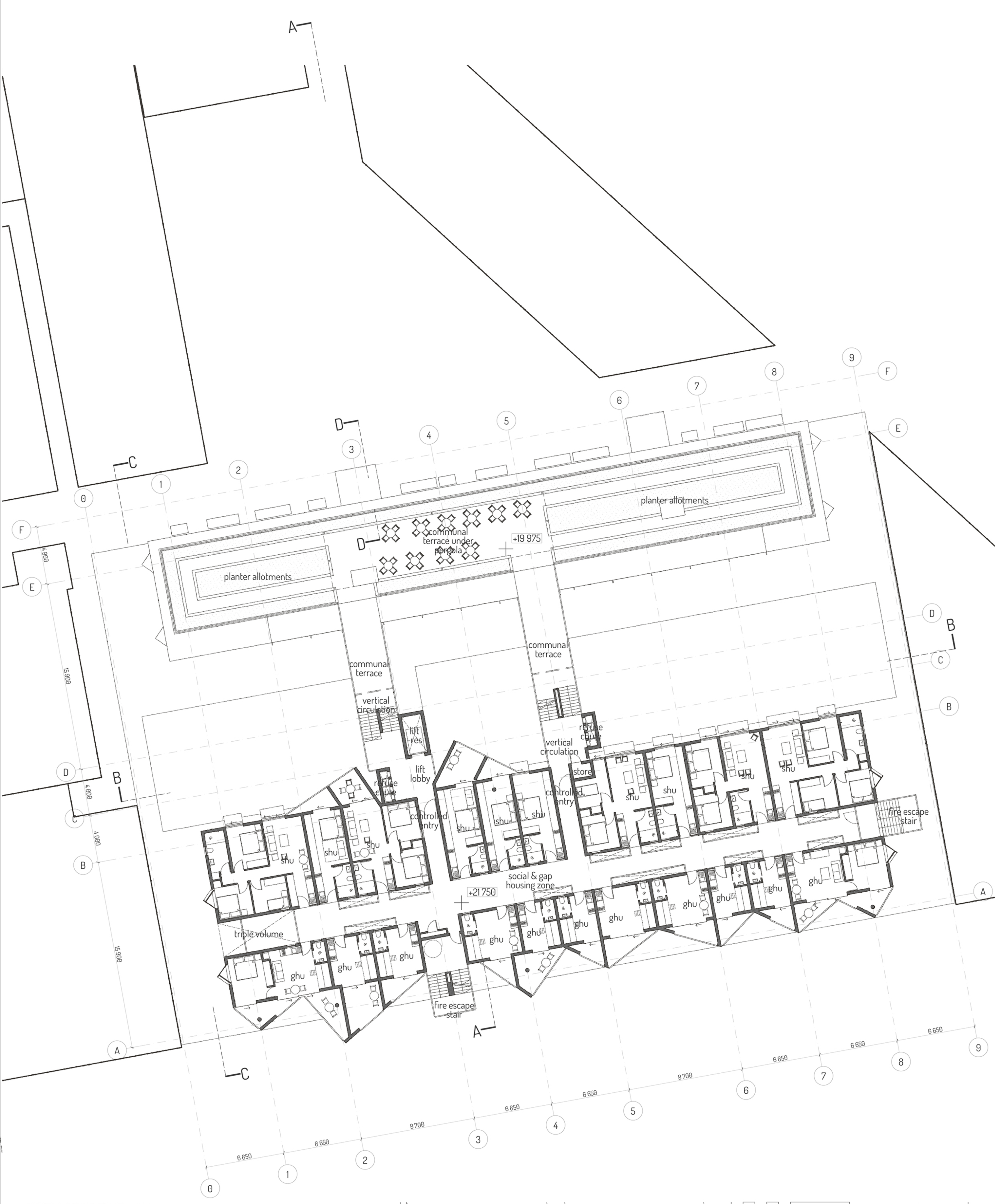

URBAN PARK - NYC


TORRE DE DAVID - CARACAS

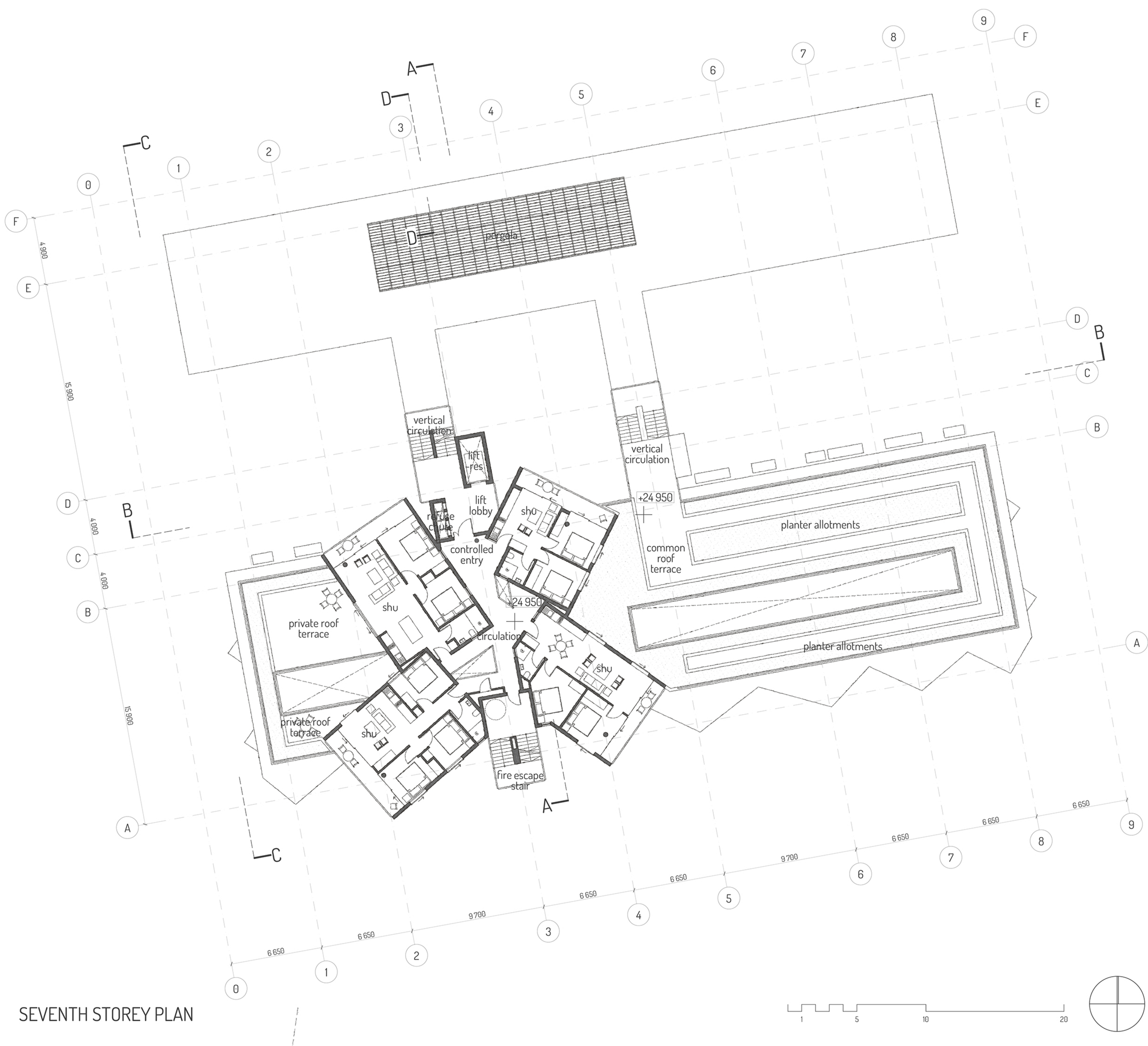

TORRE DE DAVID - CARACAS


VIEW FROM INTERNAL OFFICE DECK & ATRIUM

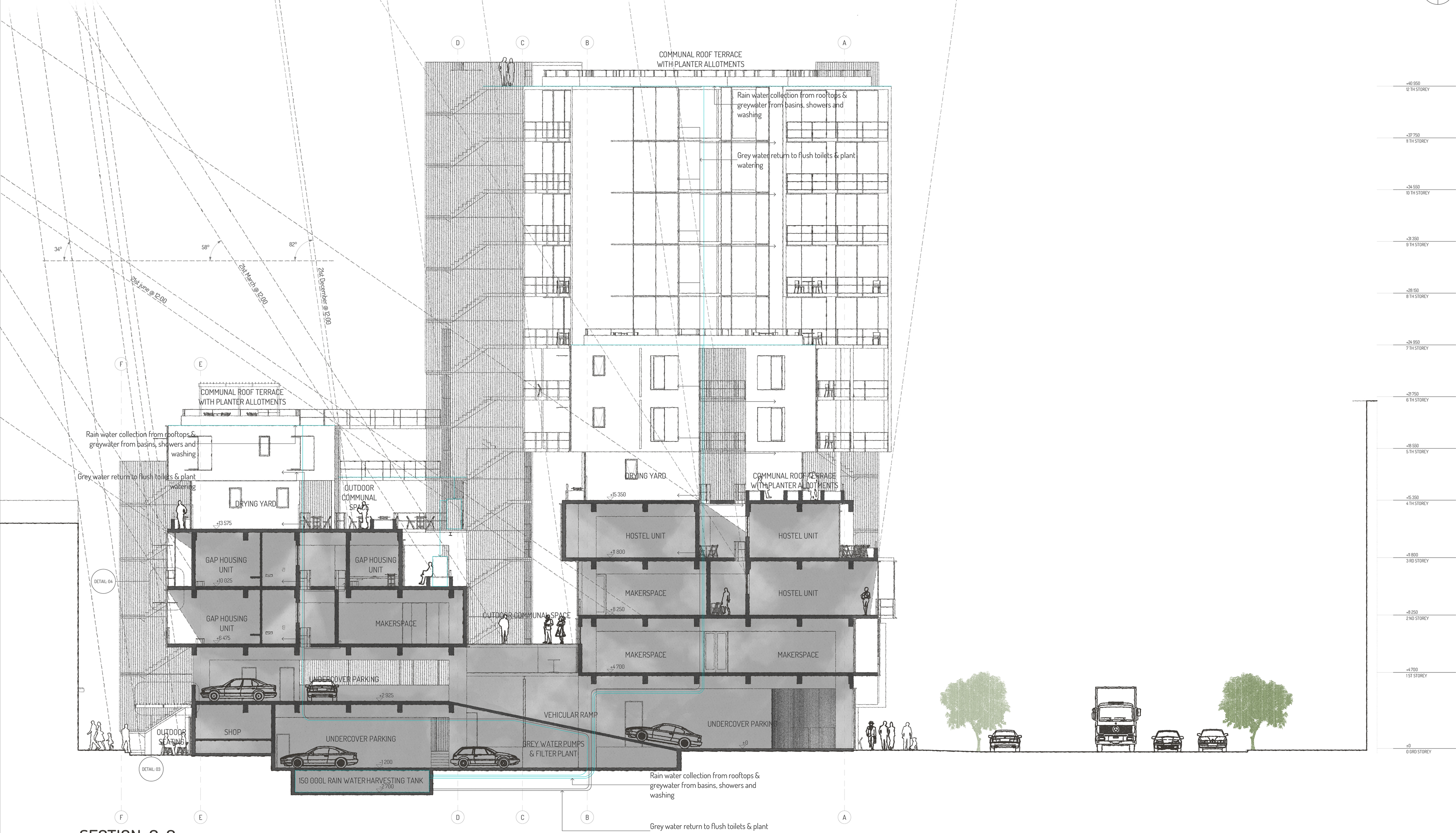
EXPLORING THE ADAPTIVE REUSE OF PROBLEM BUILDINGS: TOWARDS A MULTI-



SIXTH STOREY PLAN



SEVENTH STOREY PLAN



SECTION: C-C
SCALE 1:100

DETAIL LEGEND:

RAINWATER GOODS:
N1. ALUMINIUM WATERPROOFING FLASHING - POWDERCOATED MATT WHITE COLOUR.
N2. 110 DIA. HDPE STORMWATER DOWNPIPE - WHITE COLOUR.
N3. 75 DIA. HDPE STORMWATER DOWNPIPE - WHITE COLOUR.
N4. 175x300mm PURPOSE MADE-TO-FIT SEAMLESS ALUMINIUM BOX-TYPE GUTTER - POWDERCOATED MATT WHITE COLOUR

CEILINGS:
C1. SOFFIT PLASTER: 12 TO 15mm SOFFIT PLASTER, SLAB TO BE KEYED TO PREVENT DE-LAMINATION - PAINTED SATIN WHITE COLOUR.
C2. OFF SHUTTER CONCRETE SOFFIT FINISH - TO CONFORM TO CLASS 3 FAIR FACED OFF-SHUTTER SPEC.
C3. GYPSUM PLASTERBOARD CEILING SYSTEM: 12mm GYPSUM PLASTERBOARD CEILINGS, FIBERGLASS TAPED AND SKIMMED JOINTS - PAINED SATIN WHITE COLOUR.
C4. ALUMINIUM HANGING SYSTEM: ALUMINIUM CEILING HANGER AT APPROVED CENTRES.
C5. ALUMINIUM CORNICE: 25mm SATIN WHITE EPOXY COATED SHADOW-LINE CORNICE ('SIGMA' PLASTER TRIM) - WITH 5x25mm WALL ANCHORS @ 450mm CENTRES.

DOORS, WINDOWS:
G1. INTERNAL HOLLOW CORE DOOR FIXED TO TIMBER DOOR FRAME: PAINTED SATIN WHITE COLOUR.
G2. ALUMINIUM SLIDING DOOR: WISPECO 'CREALCO - PALACE' SLIDING DOOR SYSTEM, FITTED WITH 'LOW E' SAFETY GLASS WITH ALUMINIUM FRAME EXTERNALLY FITTED TO ARCHITECTS DETAIL - POWDERCOATED SATIN LIGHT GREY/WHITE COLOUR.
G3. ALUMINIUM WINDOW: WISPECO 'CREALCO' - WINDOW SYSTEM, FITTED WITH 'LOW E' SAFETY GLASS WITH ALUMINIUM FRAME TO ARCHITECTS DETAIL - POWDERCOATED SATIN LIGHT GREY/WHITE COLOUR.

COLUMNS:
CL1. EX. 1100x450mm CONCRETE COLUMN.
CL2. NEW 180x180mm GALVANISED STEEL SQUARE TUBE COLUMN - PAINTED SATIN CHARCOAL GREY COLOUR.
CL3. NEW 250x250mm CAST IN-SITU CONCRETE COLUMN.
CL4. NEW 180x75mm TIMBER COLUMN, NOTCHED AT TOP TO FIT 180x50mm TIMBER RAFTER @ 5°.

BEAMS:
BE1. NEW 200x180mm GALVANISED STEEL 'I' SECTION BEAM - PAINTED SATIN LIGHT GREY/WHITE COLOUR.
BE2. EX. 1100x450 REINFORCED CONCRETE BEAM, WITH 900x300mm TRANSVERSE BEAMS.

FLOOR SLABS:
S1. EX. CONCRETE SLAB: 250mm CAST IN-SITU REINFORCED CONCRETE SLAB WITH 700mm DOWNSTAND BEAMS, TO P.R. ENGINEER SPECIFICATION.
S2. NEW CONCRETE SLAB: 250mm CAST IN-SITU REINFORCED CONCRETE SLAB, ALL TO P.R. ENGINEER DETAIL & SPECIFICATION.
S3. 25x25mm EDGE FILLET TO CONCRETE SLAB.

ROOF:
R1. 250mm CAST IN-SITU WATER PROOF CONCRETE (WITH CRYSTALLINE WATERPROOFING TECHNOLOGY ADMIXTURE) REINFORCED & CRANKED AT 1:100 FALL TO FULBORE OUTLET, TO P.R. ENG. SPEC.
R2. 180x50mm TIMBER RAFTER @ 5° PITCH - TO P.R. ENG. SPEC.
R3. POLYCARBONATE ACRYLIC TRANSLUCENT ROOF/CLADD SHEETING, FIXED TO 75x50mm TIMBER BATTONS.
R4. 75x50mm TIMBER BATTONS.

WALLS:
W1. 250mm EXTERNAL CAVITY WALL: MASONRY DOUBLE SKIN CAVITY WALL (2 OFF 110mm) WITH 30mm AIR GAP COATED WITH BITUMINOUS LAYER ON OUTSIDE FACE OF INTERNAL SKIN, WITH 2 COARSE STEPPED DPC AT SLAB LEVEL AS REQUIRED AND 5mm DIA. CORROSION RESISTANT METAL BRICK-TIES EVERY THIRD COURSE, ABOVE AND BELOW WINDOW AND DOOR OPENINGS.
W2. DOUBLE SKIN WALL: 220mm MASONRY DOUBLE SKIN WALL BUILT OFF SLAB, WITH 2 COARSE STEPPED DPC AT SLAB LEVEL AS REQUIRED AND 5mm DIA. CORROSION RESISTANT METAL BRICK-TIES EVERY THIRD COURSE.
W3. SINGLE SKIN INTERNAL WALL: 110mm MASONRY SINGLE SKIN WALL BUILT OFF SLAB, WITH DPC AT SLAB LEVEL AS REQUIRED AND 5mm DIA. CORROSION RESISTANT METAL BRICK-TIES EVERY THIRD COURSE.
W4. DPC: 375 MICRON 2 COARSE STEPPED DPC WITH MORTAR HAUNCHING WHERE REQUIRED ABOVE EVERY EXTERNAL OPENING, SLAB JUNCTIONS OR BRICKWORK JUNCTIONS AND COPINGS AS DETAILED.
W5. PRECAST CONCRETE LINTOL: 75x110mm SINGLE PRECAST CONCRETE LINTEL BUILT IN OVER ALL UNIT DOOR OPENINGS.
W6. EXTERNAL BRICK COURSE: 75x110x230mm BRICK ON EDGE.
W7. 15mm PLASTERED ON THE OUTSIDE SKIN - REFER TO PAINTING SCHEDULE FOR FINISHING COLOUR AND SPEC.
W8. 12mm PLASTER ON BOTH SIDES - REFER TO PAINTING SCHEDULE FOR FINISHING COLOUR AND SPEC.
W9. 50mm PROFILED TIMBER SKIRTING (TO ARCHITECTS DETAIL PROFILE) MERANTI TIMBER FIXED TO BRICKWORK WALL WITH STEEL MASONRY NAILS.
W10. RAKED PERPENDS - TO ALLOW MOISTURE ESCAPE.
W11. 5mm BAGGED AND PAINTED PLASTER - REFER TO PAINTING SCHEDULE FOR FINISHING COLOUR AND SPEC.

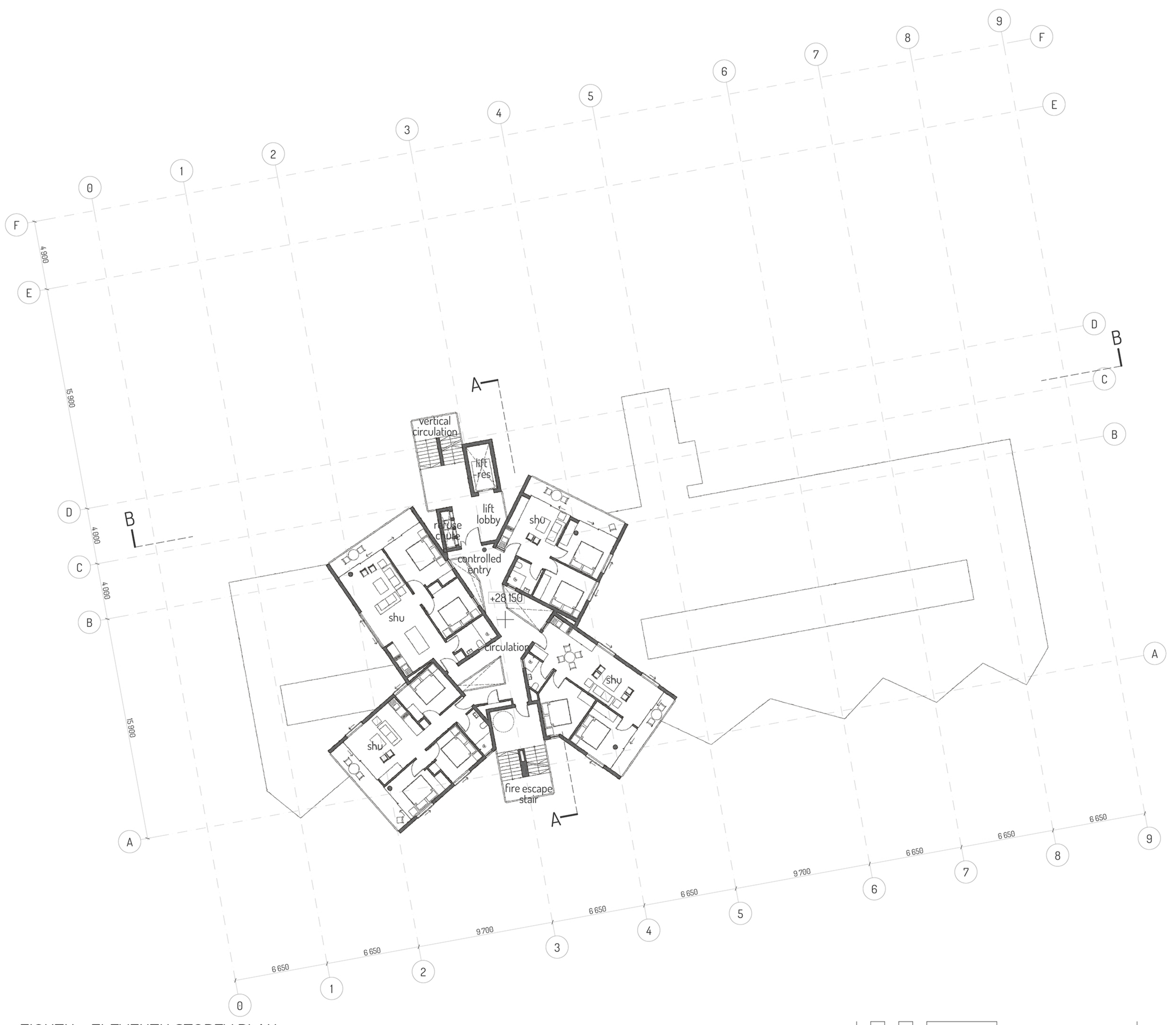
FLOORS:
F1. DPM: CONTINUOUS 250 MICRON DPM WITH MINIMUM 200mm TAPED SIDE AND END LAPS.
F2. BRICK PAVER'S: 200x60x60mm BRICK PAVER'S ON 50mm RIVER SAND BINDING AND DAMP PROOFING MEMBRANE ON COMPACTED EARTH.
F3. TINTED SCREED: 'CEMCRETE' OR SIMILAR APPROVED ADMIXTURE TO CEMENT 35mm CEMENT AND UMGENI SAND SCREED - REFER TO FINISHES SCHEDULE FOR COLOUR & FULL SPEC.
F4. POLISHED CONCRETE: CONCRETE GRIND AND POLISH.

STAIRS AND BALUSTRADES:
B1. STAIR: 170mm RISER, 250mm TREAD CAST IN-SITU REINFORCED CONCRETE (WITH CRYSTALLINE TECHNOLOGY ADMIXTURE), TO P.R. ENG. SPEC.
B2. PURPOSE MADE GALVANISED STEEL BALUSTRADE COMPRISING: 1200x75x10mm GALVANISED STEEL FLAT BAR, FIXED INTO STRUCTURE WITH 100x10mm Ø PINS - PAINTED SATIN LIGHT GREY/WHITE COLOUR.
B3. PURPOSE MADE GALVANISED STEEL BALUSTRADE COMPRISING: 500x75x10mm GALVANISED STEEL FLAT BAR, FIXED INTO STRUCTURE WITH 100x10mm Ø PINS - PAINTED SATIN LIGHT GREY/WHITE COLOUR.
B4. PURPOSE MADE GALVANISED STEEL HANDRAIL COMPRISING: 75x10mm BRUSHED STAINLESS STEEL FLAT BAR, FIXED INTO STRUCTURE WITH 100x10mmØ PURPOSE MADE PINS WITH 50mm RADIUS BEND AS PER ARCHITECT DETAIL - PAINTED SATIN LIGHT GREY/WHITE COLOUR.
B5. 75x19mm TREATED BALAU TIMBER DECK BOARDS, FIXED INTO 75x10mm GALVANISED STEEL FLAT BAR MOUNTING FRAME, TO ARCHITECT DETAIL.
B6. PURPOSE MADE GALVANISED STEEL BALUSTRADE COMPRISING: 1200x75x10mm GALVANISED STEEL FLAT BAR WELDED ONTO STEEL ANGLE FRAME - PAINTED SATIN LIGHT GREY/WHITE COLOUR.
B7. BALUSTRADE: 5x90mmØ PURPOSE MADE COVER PLATE WITH SLOT - PAINTED SATIN LIGHT GREY/WHITE COLOUR.

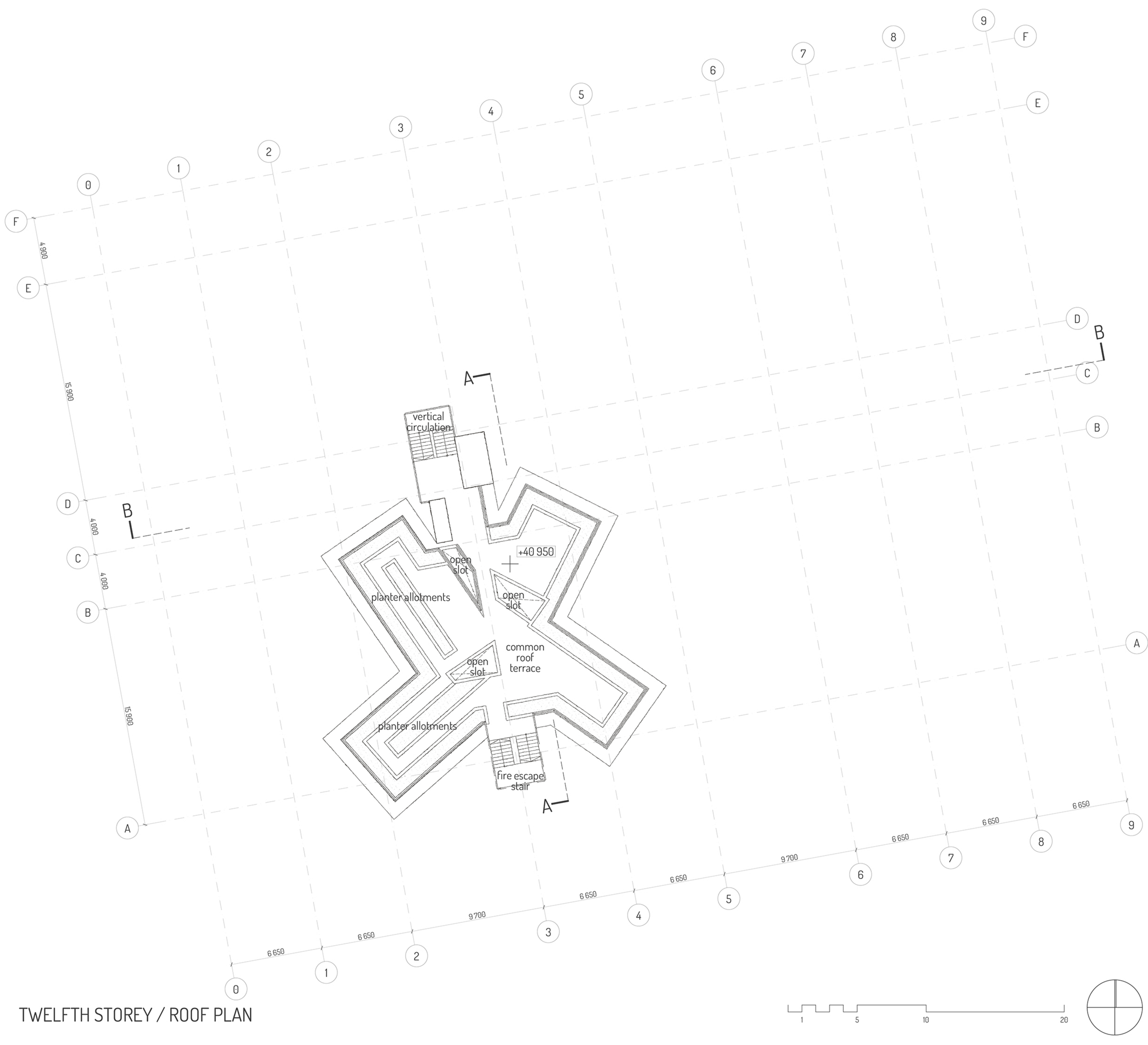
MISCELLANEOUS:
M1. 19x90mm BALAU TIMBER DECKING.
M2. CEMFLEX O.E.A. WATERPROOFING BANDAGE.
M3. PLANTING TOPSOIL, WITH SAND AND GRAVEL SUBSTRATA.
M4. GEO-FABRIC POROUS MEMBRANE OVER 25mm STONE CHIPS.
M5. 19x90mm TREATED BALAU HORIZONTAL BLADE CLADDING.
M6. 150L KWIKOT GEYSER.
M7. HEAT PUMP.
M8. 75x75mm GALVANISED STEEL ANGLE BRACKET - PAINTED SATIN WHITE COLOUR.
M9. DRAINAGE LAYER: 'DORKIN' O.E.A. DRAINAGE MATT.
M10. 50mm Ø CORED & CHIPPED HOLE, SEALED WITH WATERTIGHT EPOXY SURROUND - TO HOLD 10mmØ STEEL PINS.
M11. 200x50mm TIMBER BEAM FIXED TO STEEL BRACKET.
M12. PURPOSE MADE GALVANISED STEEL BRACKET TO HOLD PERGOLA MEMBERS - PAINTED SATIN WHITE COLOUR.
M13. 50x5mm STEEL LUGS, TO HOLD PERGOLA TIMBER MEMBERS.
M14. 225x100x10mm GALVANISED STEEL BRACKET - TO HOLD ALUMINIUM SLIDING DOOR SYSTEM, AND STEEL LIGHT-SHELF.
M15. PURPOSE MADE STEEL LIGHT-SHELF, CUT AND BENT AS PER ARCHITECT DETAIL - PAINTED SATIN WHITE COLOUR.
M16. STEEL LIGHT-SHELF FIN (BEYOND) - TO ARCHITECT DETAIL.
M17. 75mm FIBRE-GLASS ROCK-WOOL CAVITY BAT INSULATION LAYER.
M18. CONCRETE FOUNDATION TO P.R. ENG. DETAIL

-USE BUILDING FOR URBAN REGENERATION IN DURBAN

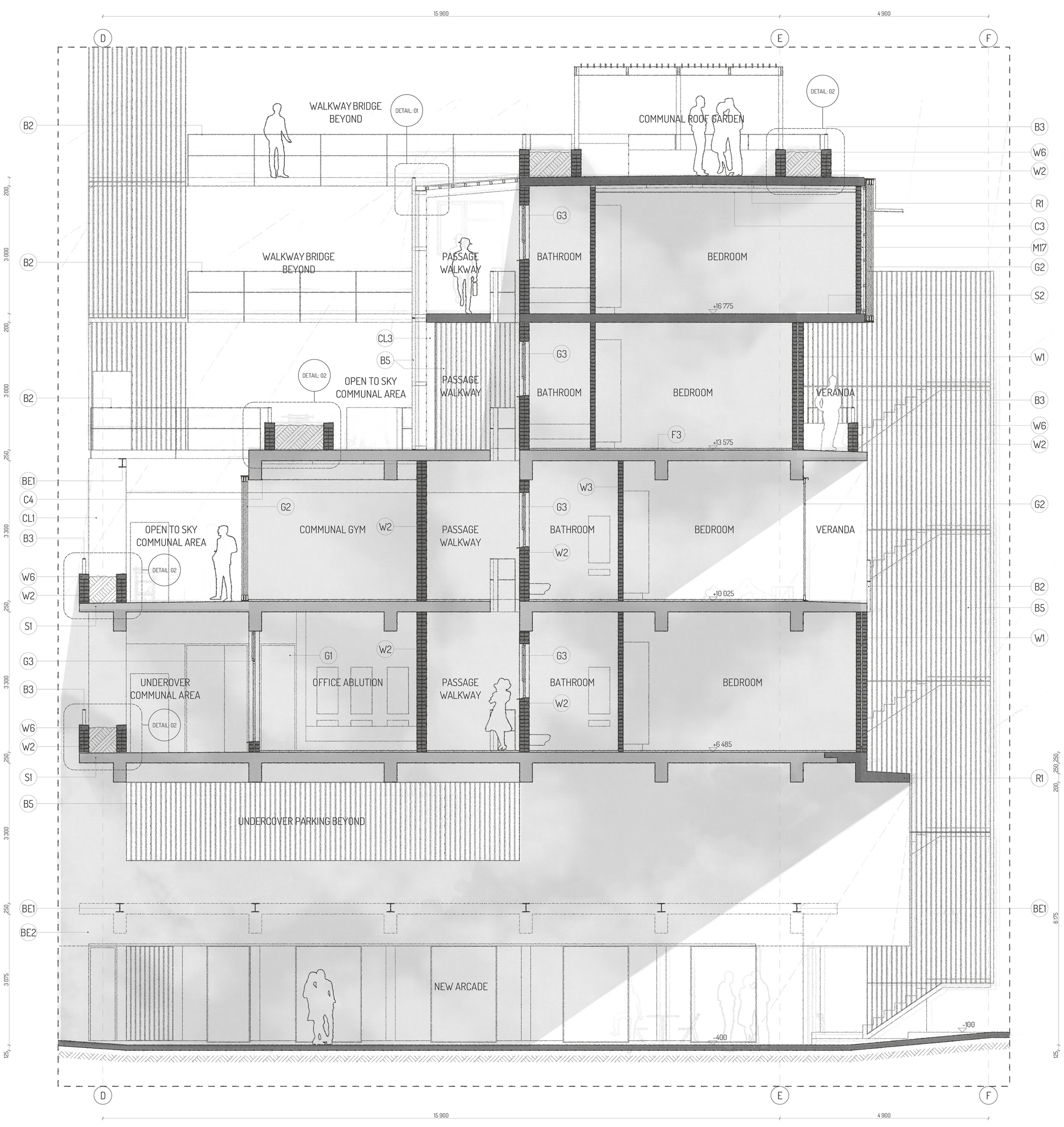
MATERIAL PALETTE



EIGHTH - ELEVENTH STOREY PLAN



TWELFTH STOREY / ROOF PLAN



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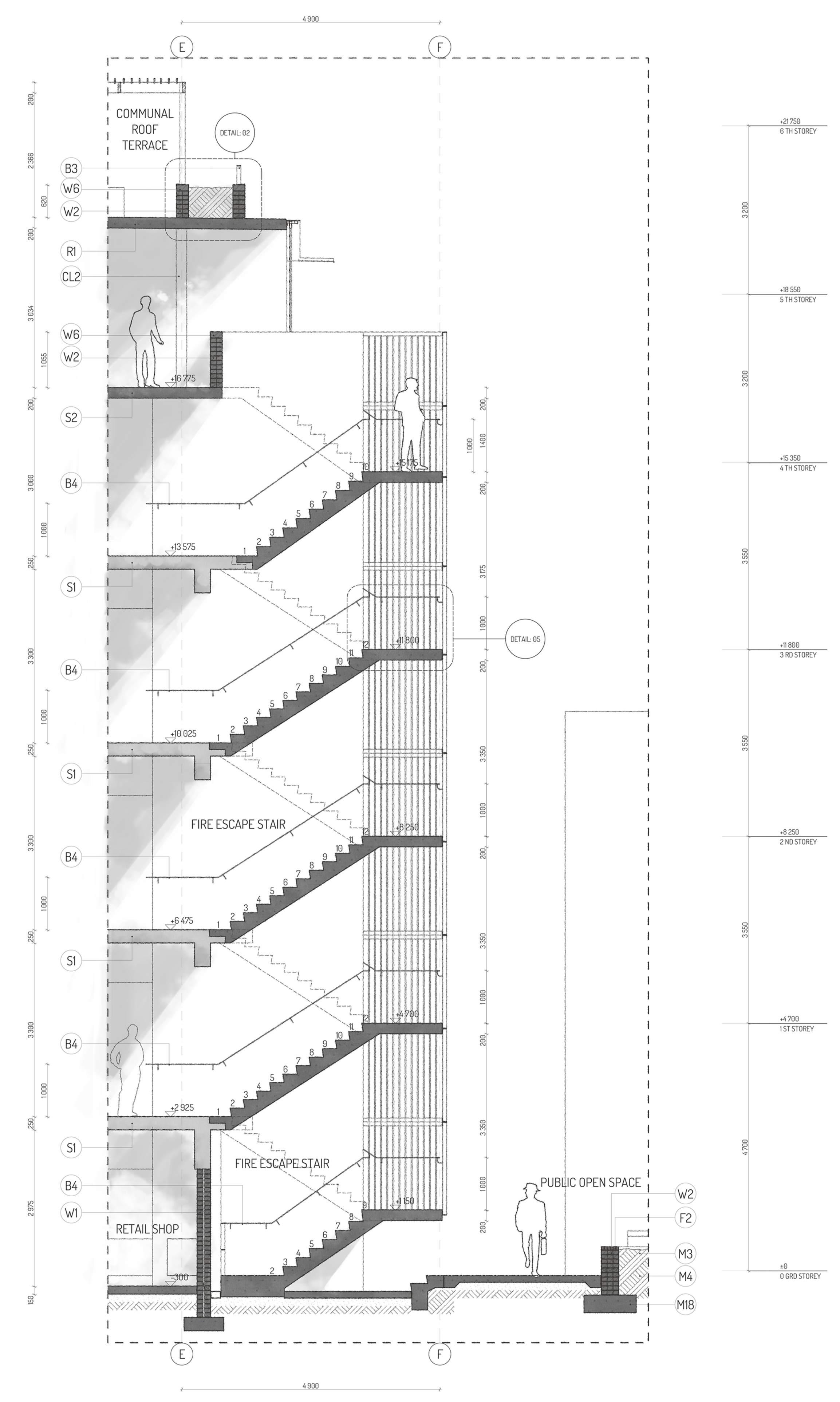

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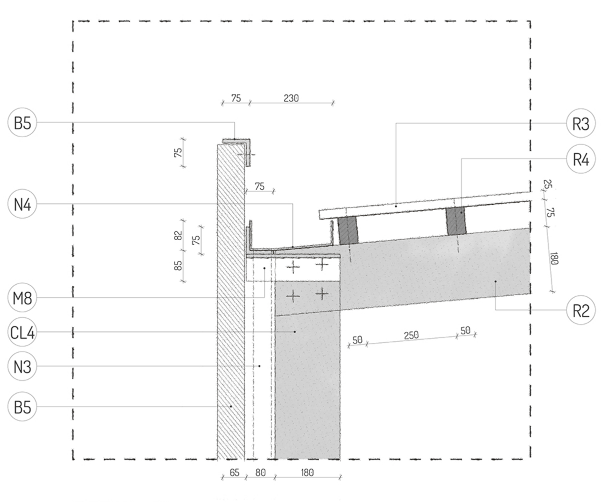

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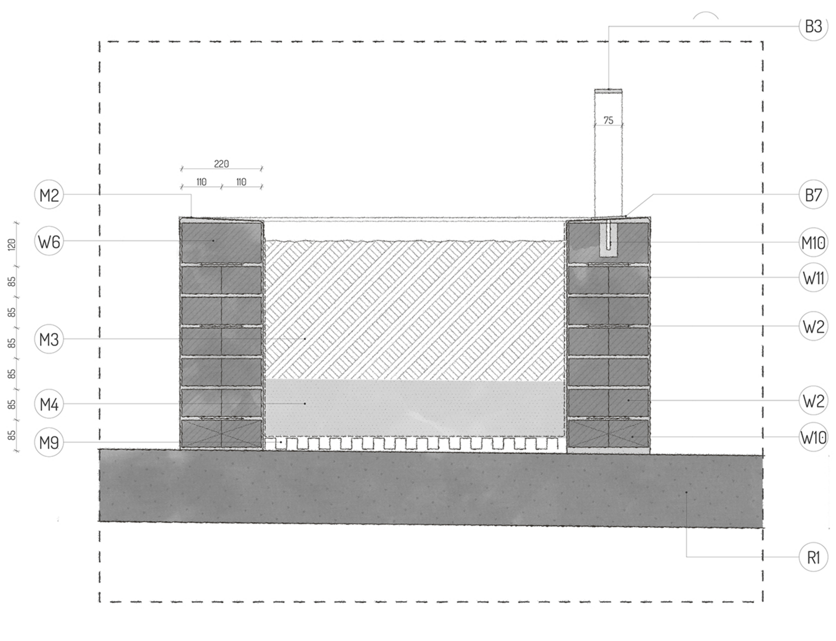

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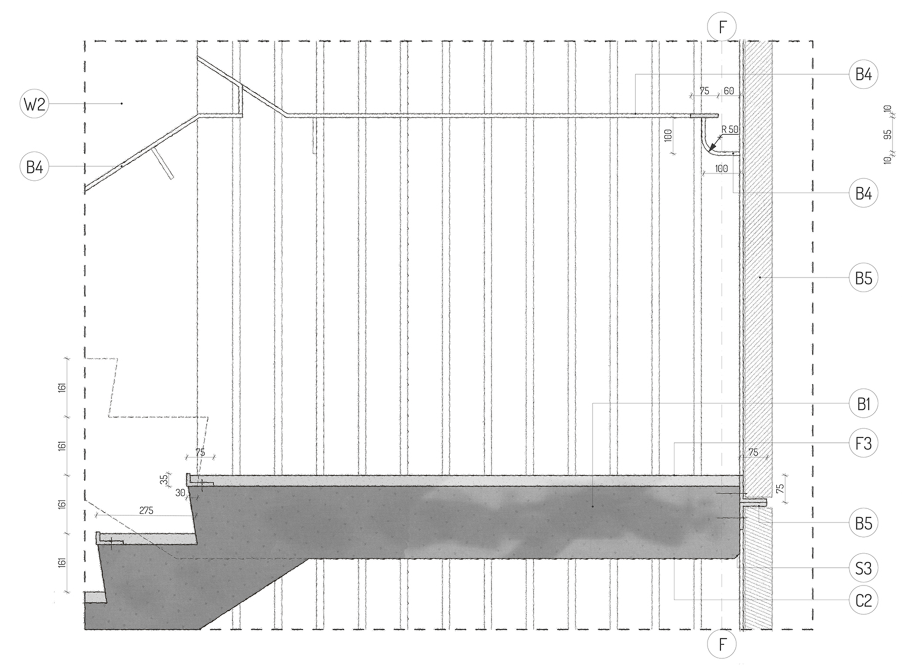

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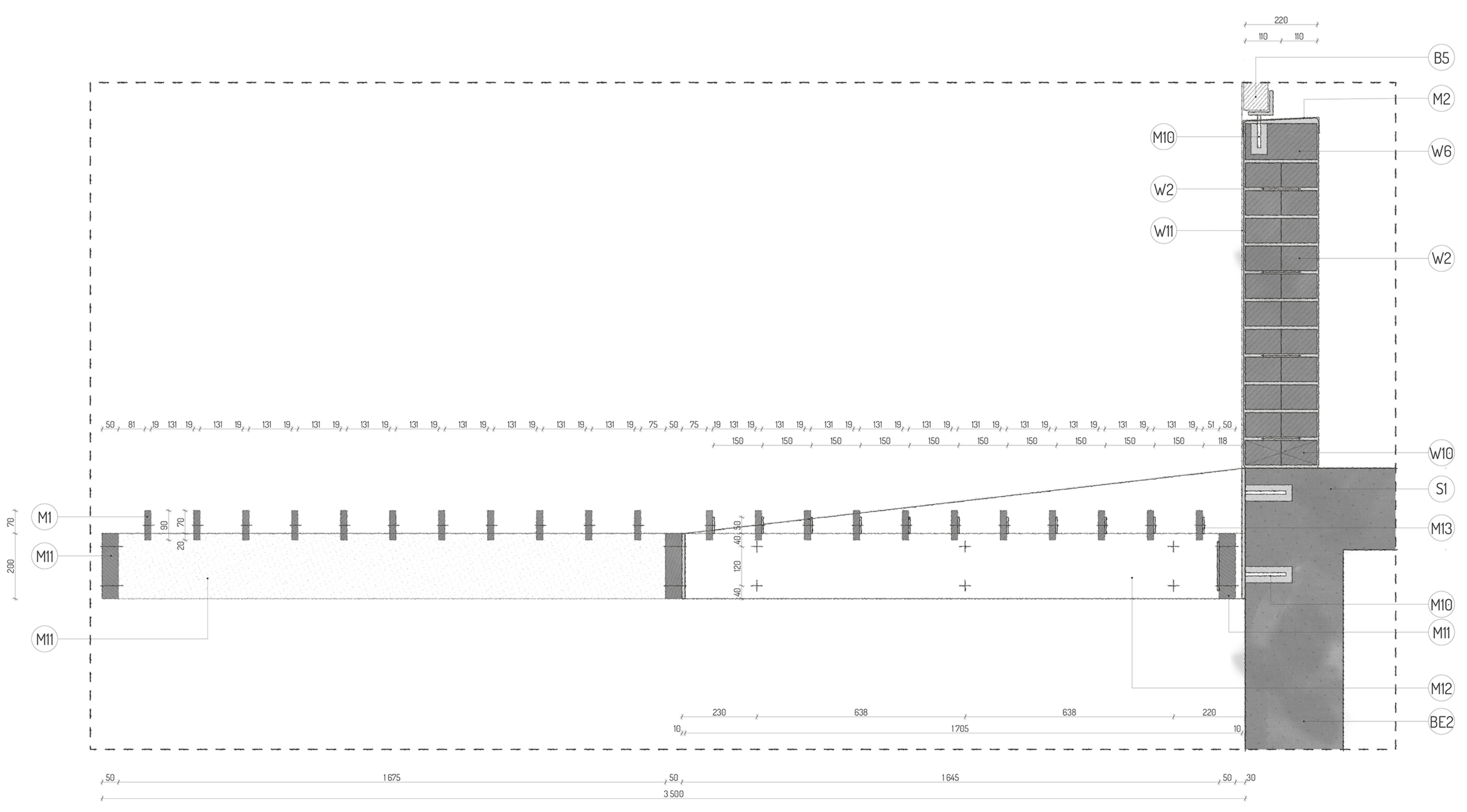

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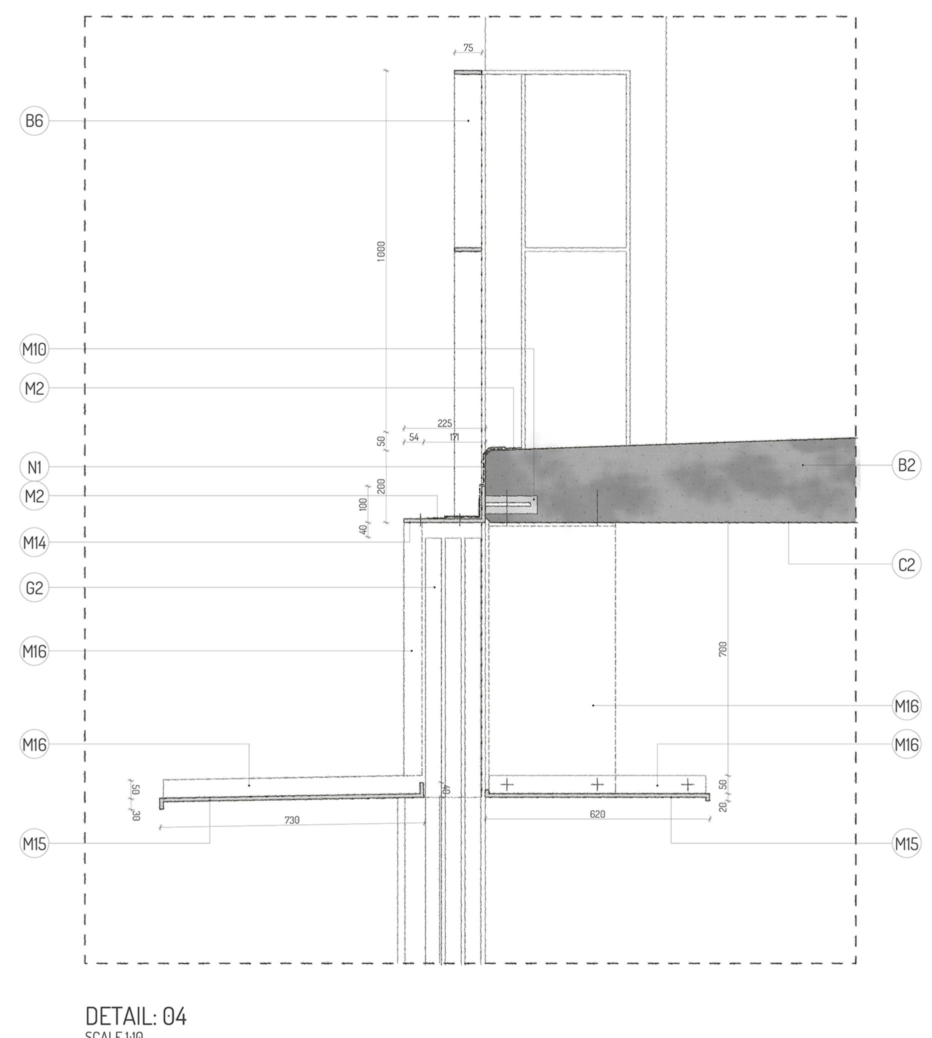


DETAIL: 04
SCALE 1:10

by MICHAEL BLUMRICK (215081636)


PAINTED BRICK

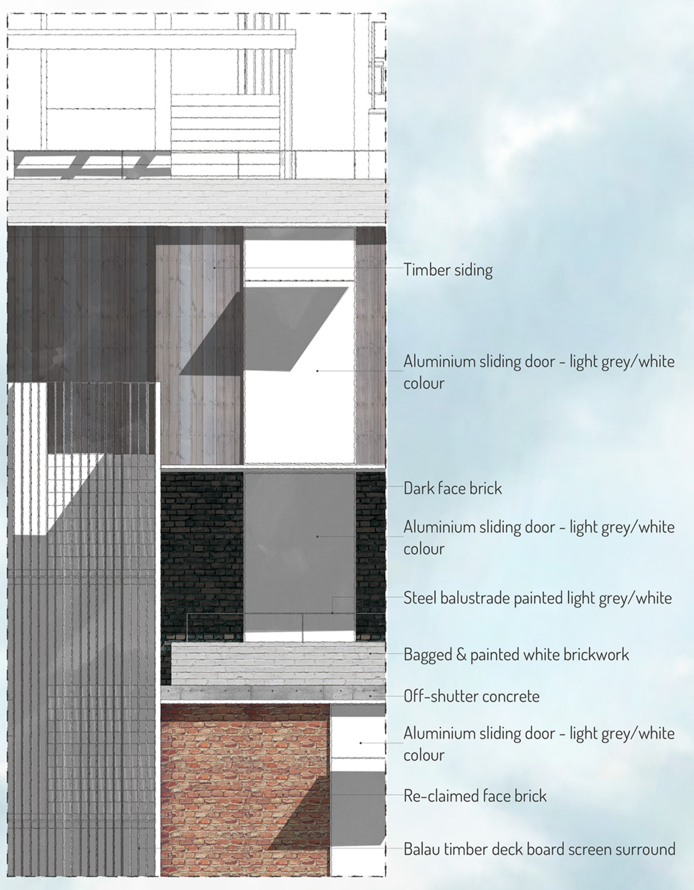

BAGGED & PAINTED BRICKWORK


ONYX PAVERS - HERRINGBONE


GRIND & POLISH CONCRETE FLOORING


SOUTH ELEVATION
SCALE 1:200


NORTH ELEVATION
SCALE 1:200



ELEVATION DETAIL: 01
SCALE 1:50


VIEW FROM UPPER TERRACE