Fusing Space and Place

A MIXED USE ART FACILITY FOR T.U.T POST GRADUATE STUDENTS

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Fusing space and place : A mixed use art facility f or T.U.T post graduate students

Abstract

This dissertation will explore ways in which abandoned space, and spaces between buildings, can be reconnected with their surroundings to enrich and contribute to the everyday experience of the user.

The intervention takes place along the edges of the Pretoria CBD, adjacent to an abandoned canalized urban river (Walkerspruit). The site hosts elements of historic importance and memory which have become fragmented from the everyday experience of the user in the city.

The hypothesis investigates the understanding of space and place - whether the above mentioned spaces can be fused together as a series of experiences to enhance the character of the site and its important historic elements.

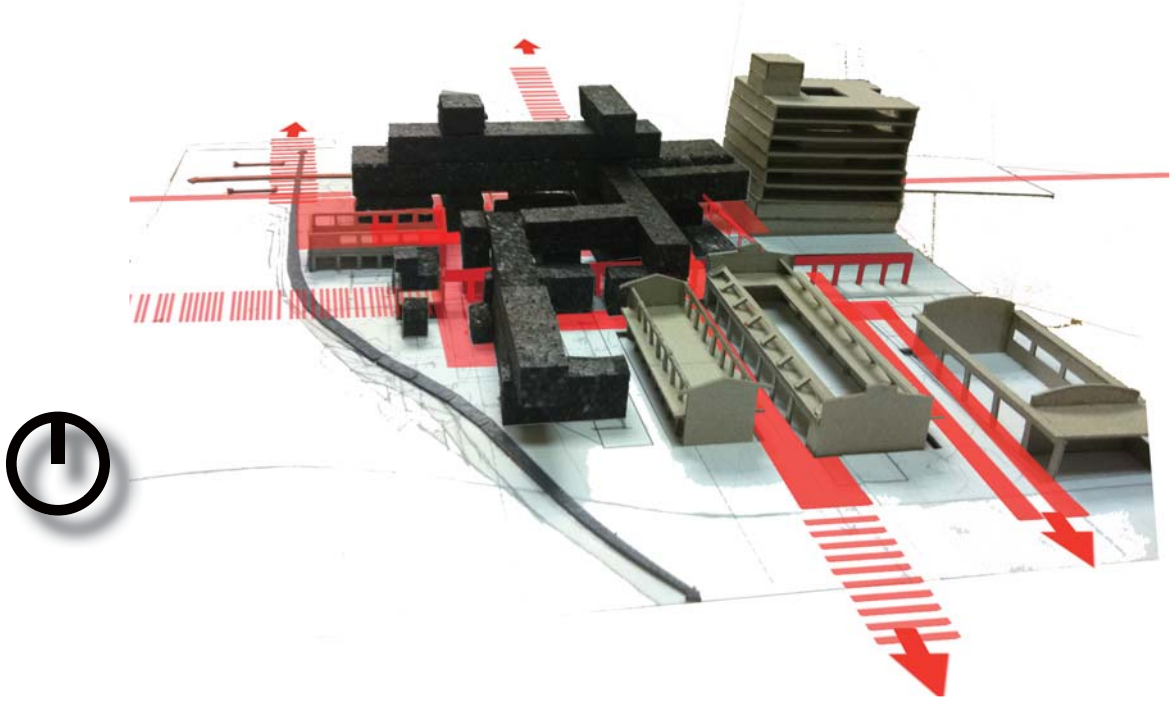
The proposed development is made up of layered, mixed use activities catered toward a facility for T.U.T post graduate art students and other visiting artists. The building should create an opportunity for the public to engage with the process of making art and at the same time give students the opportunity to exhibit their work whilst engaging with their community.

Die dissertasie ondersoek maniere waarop agtergelate ruimtes en ruimtes tussen geboue heraangesluit kan word met hul omgewing om die alledaagse ervaring van die gebruiker aan te vul en te verryk

Die ingryping vind plaas op die kant van die Pretoria sentrale besigheidsdistrik en langs ‘n agtergelate en gekanaliseerde stedelike rivier (Walkerspruit). Die terrein bevat elemente van geskiedkundige belang en herinnering wat verwyderd geraak het van die daaglikse ervaring van die stadsgebruiker.

Die hipotese ondersoek die begrip van ruimte en plek - of bogenoemde ruimtes saamgesmelt kan word deur ‘n reeks ervarings om die karakter van die terrein en sy belangrike geskiedkundige elemente te versterk

Die voorgestelde ontwikkeling bestaan uit gelaagde, gemengde-gebruik aktiwiteite vir die vestiging van fasiliteite vir die TUT na-graadse kunsstudente en ander besoekende kunstenaars. Die gebou moet ‘n geleentheid skep waar die publiek by die proses van kunsskepping betrokke kan raak en gelykertyd aan studente die geleentheid bied om hul werk uit te stal en by hul gemeenskap betrokke te raak.



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ADDENDA

Chapter 1 - Introduction

1. Introduction

People are drawn towards cities for the economic, social, cultural and recreational opportunities that they offer, (Dewar & Uitenboogaard, 1991:16). Within this context, the practice of architecture finds itself confronted with a new set of challenges.

As the density of a city increases, so do the demands for social and recreational opportunities. With the limited resources of space in urban environments there is a need to look elsewhere to create these opportunities.

The focus is therefore drawn towards areas or spaces within the city that have been fragmented and lost. Trancik (1986:1) defines these areas as lost space, unshaped "anti spaces" that do not form part of the larger fabric of streets, squares or viable open space. These are areas predominantly found along edges of freeways, abandoned industrial complexes, train yards, abandoned waterfronts, degraded urban rivers and parking lots; areas nobody cares about maintaining, much less using (Trancik, 1986:3).

The architectural intervention in this dissertation will focus on one of these areas within the city of Tshwane, within the CBD. It will address these challenges from both a physical and social perspective to create an attractive environment for learning, social recreation and economic growth.

It was these challenges and urban context analysis that attracted the attention of this study to the eastern edges of the historic CBD of Pretoria. The degraded and fragmented sites along the Apies River were identified as areas with the most potential (see Chapter 7.3: 50-52). These areas could have the most positive effects on the city's social and economic needs.

The ultimate goal of this dissertation is to attempt to fuse space and place. Towards these ends, several theories will be examined, i.e. urban theories, memory and phenomenology.

The brief will be founded on the need for a new mixed use precinct development and post graduate art facility for the Tshwane University of Technology (T.U.T).

1.1 PROBLEM STATEMENT

Public green spaces and public open spaces are spaces that make cities liveable and memorable. “If activity between buildings is missing, the lower end of the contact scale also disappears,”(Gehl, 1987: 17).

Several pockets of lost open space were identified in and around the Pretoria CBD and along its edges (see Chapter 7.3: 50-52). These fragments will be fused together to enrich and reactivate the experience of people living and visiting the area.

The objectives of this mixed use creative infill are threefold - firstly; to address the physical needs of the people living in the area. Secondly, it will look at the social requirements needed to activate these lost spaces. Lastly, to reconnect the cultural and historical fabric with the citizens of Pretoria.

1.2 NORMATIVE POSITION

Lost or fragmented spaces are areas within the built urban fabric that are under-used and deteriorating. They provide the opportunity to reshape an urban centre and attract people back to city centres.

By doing so, urban sprawl and suburbanization can be counteracted (Trancik, 1986: 2). More efficient use of urban land will create a more compact and integrated urban form offering the opportunity to recapture lost space (Trancik, 1986:i).

This dissertation will look at reconnecting spaces in Pretoria along the Apies River that have become isolated from their surroundings. As a result, these areas have become infertile environments for living and detract from cultural experience Pretoria has to offer.

Currently, existing enterprises and people living around the area can not interact physically or emotionally with the Apies River or Walkerspruit, thus results in negative undefined spaces that become abandoned and degraded.

These spaces were either originally by-products of modern urban planning or poor urban solutions and have therefore become fragmented or isolated entities.

However, by reconnecting them as a network of spaces, more vibrant mixed use functions and activities, could function more interactively. This network could create an attractive environment in which new economic, social and recreational activities could take place.

1.3 PROJECT AIMS

- The urban intervention will create opportunities and re-activate space for social interaction by linking the edges along Walkerspruit and the Apies river with the core of the CBD, transforming the river from a barrier into a threshold between the suburbs to the east and the historic core of Pretoria.

- Encourage interaction through the spill over of activities and functions from the program of the building onto the edges of the river, to assist activating the edges of the river.

- Create links between recreational activities and specific programs to inspire visitors to interact with the development.

- Stimulate positive development along the above mentioned areas, with the intention of attracting more economic investment and city densification.

- Improve the overall well-being and security for the river park and surroundings, which will stimulate positive attitudes towards city living.

- Design a mixed use creative infill for the Arts Department of Tshwane University of Technology with 'live, learn and work' facilities for their post graduate students. It should accommodate a variety of programs influenced by the need of its surroundings, toward a vibrant 24/7 lifestyle.

- Enhance awareness of, and make connections with, the surrounding heritage and culture of the site and city.

- The intervention should take into account the surrounding sites and context, and encourage the integration between neighbouring programs, allowing people to flow across and through adjacent sites between buildings as opposed to walking around city blocks (see figure 4.10: 37 and figure 4.12 :38), aimed towards creating a more traditional city experience.

- The buildings and site will form a precedent for other buildings and sites along the river that over time could reverse the negative attitudes developments have in the area. Living and working along the edges of the river could become a very positive and uplift the image of the city.

1.4 LIMITATIONS

The river raises many ecological challenges which need to be addressed in a sensitive manner so as to preserve / enhance the existing ecosystem. This dissertation does not aim to redevelop or return the Apies River to its natural state - it only deals with the edges of the river on the site and, most importantly, the re-integration into the urban fabric.

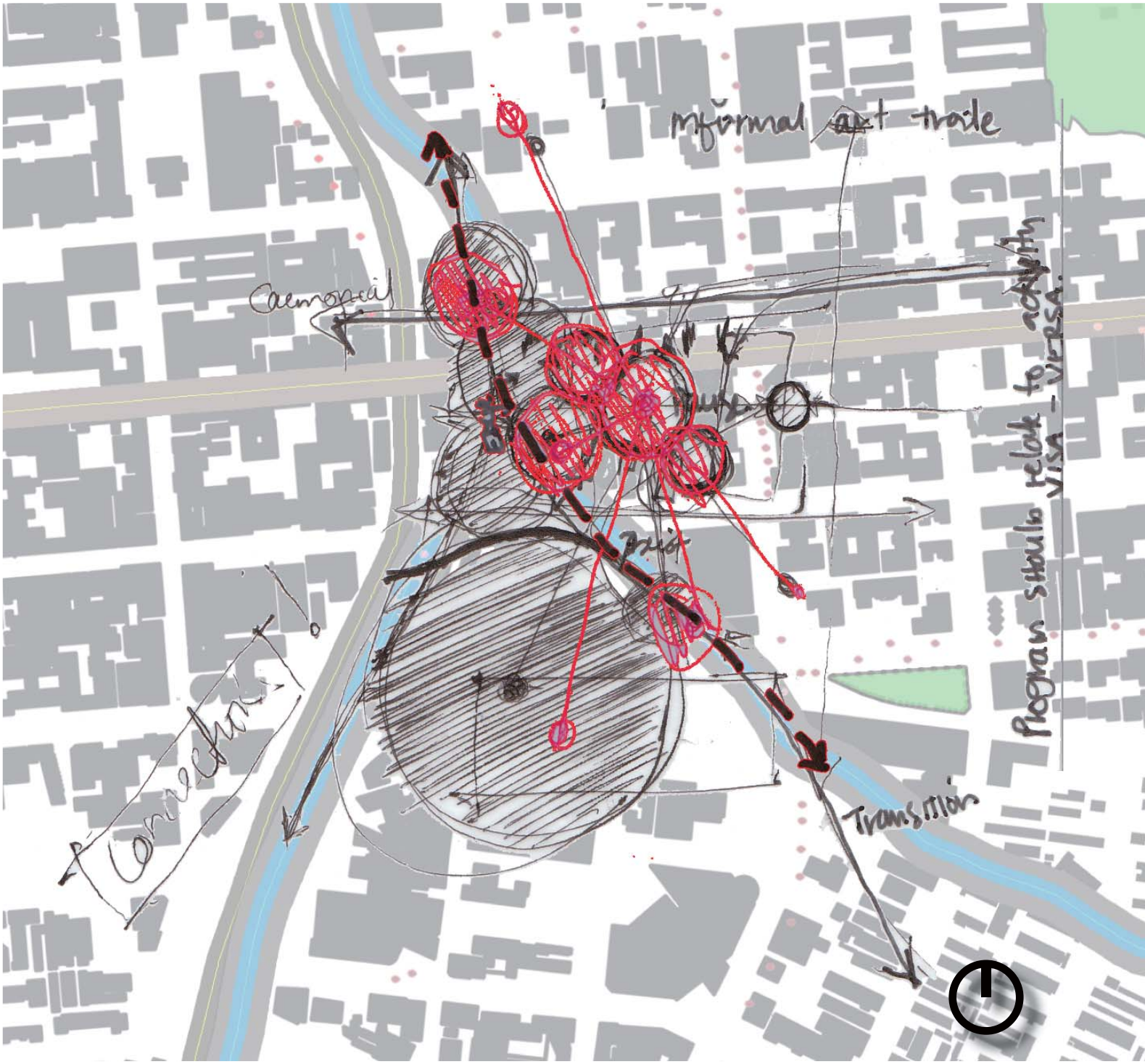


Figure 1.1. Concept of fusing the site with surrounding context and memory, creating series of different connections. (Author, 2011).

Chapter 2 - Background

The Apies and Walkerspruit rivers display a huge source of economic, social and recreational potential. They cut through the city diagonally, which could offer pedestrians an alternative route and shortcut into the city. This could potentially create economic zones along the river.

Nelson Mandela Drive is a major route from the south into the city and was part of a proposed ring road in the inner city (see figure 4.4:18), based on modernist planning schemes and colonial notions (Dewar, 1999: 368). This resulted in the fragmentation of the urban fabric along Skinner Street and along Nelson Mandela Drive. These two major inner city routes have created harsh edges and separate the city in both the north-south and east-west directions.

The river is currently a barrier between the CBD and the east of Pretoria could be converted into a new threshold and activity spine running from north to south.

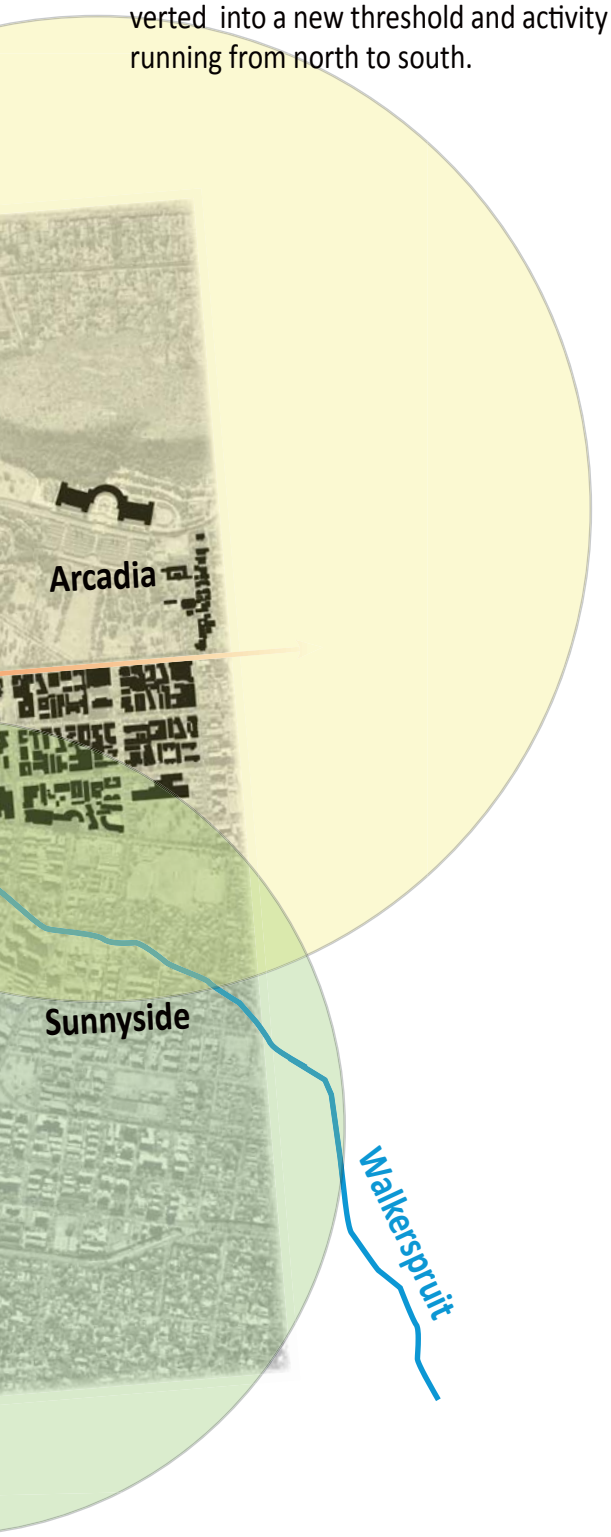


Figure 2.1. Diagrammatic figure ground study of Pretoria and the site highlighting important influences and design generators (Author, 2011).

The notion of a 'ceremonial route' is an important part of the city's historical past and development. The ceremonial routes identified and illustrated in figure 2.1 are Church Street (east to west) and Paul Kruger Street (north to south). Both streets are poorly identified and celebrated - fragmented from the memory and history of the city.

Since 1930, with the completion of the canalization of Walkerspruit and the Apies rivers (van der Waal Collection, 2006, University of Pretoria, archival collections, accessed on UPspace (2011), the surrounding urban fabric has been in decline and fragmented with the loss of cultural and social networks that once existed and made the edges of the CBD a vibrant attractive spine within the city.

The image of the river as an integral part of the city has long since been forgotten and any significant historical value has been stripped from the memories of the people living or working in the original CBD.

Pierre Nora (1966: 1) identifies this problem where progress tumbles forward at an increasing rapidity into an irretrievable past - further disrupting the equilibrium between our past and present; where there are no longer any *Lieux de memoire* (settings in which memory is a real part of everyday experience).

No interest has been created in attracting people back to live in the city. People still migrate to the edges of the city and surrounding suburbs. The CBD needs to forge a new identity and create areas of attraction in order to re-establish social networks that once existed. There is a need for a new mixed use typology with creative infill that could encourage people to make cities their home; where they could live, work and learn, create new memories built on their experiences of the city and history.

Chapter 3 - Research methodology

Research Methodology

The challenge raised in the introduction (Chapter 1: p. 1-2) focuses around principles of recovering lost space and finding an inclusive solution to this specific site that links with the proposed urban development strategy of the river and city.

The Apies River and adjacent sites were identified as areas with the most potential and largest influence for uplifting the image of the city. Lost spaces, under used and deteriorating spaces, provide opportunities to reshape an urban centre so that it attracts people back to the city core (Trancik, 1986: 2).

In 1909, due to heavy rains, the river burst its banks and as a result many lives and live stock were lost, since then, the river has been a controversial area of study, which saw the canalization of the river between 1909 and 1930 (see Context study, chapter 7.2: 43). As a result of the Apies and Walkerspruit being canalized a piece of the city's memory and experience has been lost, cultural and social networks stripped away leaving a scar in the landscape that leaves the city and spaces around the rivers (Apies and Walkerspruit) fragmented. The rivers have the potential to become part of the cities every day experience - a place people can visit with mixed recreational and economic potential.

"Lively and thriving cities are cities which are rich in experiences and have public spaces that allow people to interact with one another" (Gehl, 1987 :23), and since people are attracted toward cities for these opportunities, they should be accessible to all who use the city.

The theories used to substantiate the importance of open space are:

1. Recovering lost space - the literature on lost space focuses on principles and theories by authors like Trancik who attempt to achieve goals of integrated design. This is achieved by making use of the built form to recreate, reconnect and revive lost space. These principles include bridging, framing, fusion and interacting between the public outdoor and public indoor space. Other theories will delve into zoning, urban renewal, landscape and landscape urbanism.

2. Phenomenology - theories on memory, heritage and genius loci. In particular, Heidegger's theories (Nesbitt, 2005: 411-426), on the relationship between the built form and the landscape to achieve meaning were examined. One becomes meaningless without the other.

The urban investigation will assist in understanding the needs of the people and the needs of their surrounding. In doing so, the appropriate functions for the sites can be found.

The history of the site will be researched in order to understand the different layers that make up the urban fabric of the city. De-constructing these layers will allow for meaningful interpretation of the information into new design opportunities for the envisioned future of the city of Pretoria.

Chapter 4 - Space

Urban Theories

Several schools of thought in urban design agree that more efficient use of urban land will create a more compact and integrated urban form. As this is desirable, it is only logical to utilise more integrated design solutions as opposed to quick cosmetic ones.
As not enough emphasis is placed on the three dimensional relationships between buildings. (Trancik, 1986: 19, Gehl, 1987: 101), spaces are too often analysed from a two dimensional perspective without a real understanding of human needs.

Urban space is far too often thought of as on external volume rather than space with a connection to other spaces. This often results in unshaped “anti-space”.
“Anti-space” or lost space consequently become misappropriated or misused for programs that detract from the surrounding social context i.e: parking lots. The site in question (and other sites along the Apies River and Walkerspruit) have become testament to this reaction. Many inappropriate practices currently occupy the edge of the site, inappropriate due to there sensitive location - further detracting from the recreational potential of the rivers, as well as the heritage and cultural potential of Church Street and Lions Bridge.

The challenge thus arises how to reconnect space in an existing urban context to create place.

Every modern city has considerable amounts of vacant, unused land in its centre that could potentially be developed into recreational open space.
Over the years, radically changing economic, industrial, and employment patterns have further exacerbated the problem of lost space in urban centres. This is especially evident along many of our highways, railroad lines and urban rivers, disrupting the overall continuity of urban form.

While the above mentioned spaces are obvious examples of lost space, it is important to define lost space and how it differs from other positive urban space. Trancik defines these fragmented spaces as follows (1986: 3) :-

- Areas that are left over – unstructured land scape or abandoned areas, away from pedestrian movement and activity that represent the life of all cities.
- The surfaces that ring the urban core severing connections between the commercial centre and residential areas. These are the no-man’s land areas along edges of urban rivers, freeways, areas that nobody cares about maintaining; much less using.
- Residual areas between districts and loosely composed commercial areas.
- Deteriorated urban parks or old industrialised space that detract from the well-being of city living.
- Areas in need of redesign – antispaces that make no positive impact or contribution to the surrounding users.

Lost space offers opportunities for urban redevelopment, creative infill and for rediscovering new hidden resources within our cities.

Keeping the above mentioned in mind, Trancik argues that it's not only important to identify lost space, but to also understand the causes (1986:4).

The five major factors that contribute to lost space are:

- Increased dependency and emphasis placed on vehicles.
- Attitudes of architects of the modern movement towards open pace.
- Zoning and land use policies of the urban renewal that divided cities.
- Unwillingness of public and private institutions for assuming responsibility for public urban environments.
- Abandonment of industrial, military, or transportation sites within the inner core of the city.

Figure 4.1. Sketch illustrating the concept of existing networks and integrated pedestrian circulation patterns . (Author, 2011)

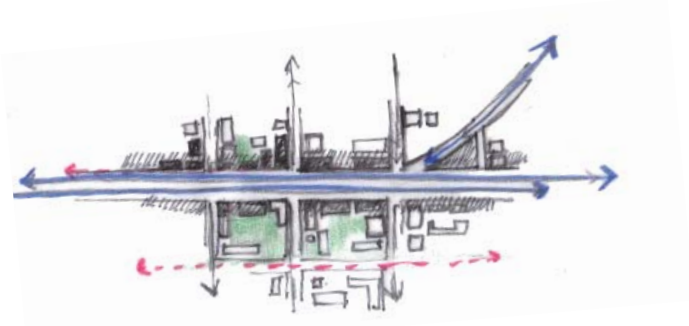


Figure 4.2. Sketch illustrating the contrast between pedestrian designed city planning and vehicular design city planning (Author, 2011).

The automobile

"Mobility and communication have increasingly dominated public space, which has consequently lost much of its cultural meaning and human purpose" (Trancik, 1986: 5). Streets no longer form essential urban space for pedestrian use, but only represent the function of the fastest mobile link, regardless of social cost. Streets become wider, further segregating open public spaces to form public transport networks and have thus developed into urban highways making pedestrian city environments more unsafe and fragmented. This results in previous open spaces that were part of pedestrian movement networks, becoming isolated that no longer form part of social networks - open islands of wasted space that become degraded and later converted into for parking spaces for vehicles.

Figure 4.3.(below) Photograph illustrating the construction of most modern cities with design focus on vehicular networks that result in large area's of residual spaces. (www.panoramio.com, 2010.)

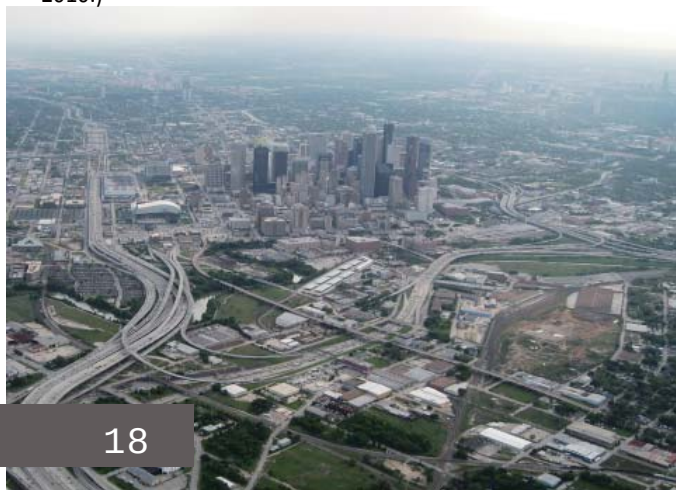
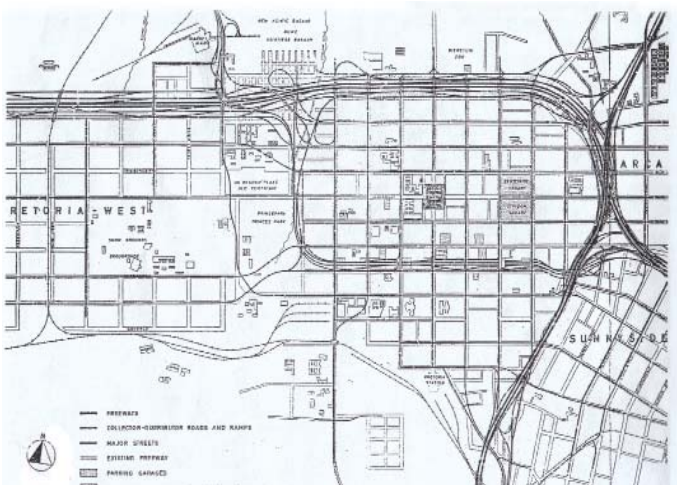


Figure 4.4 Proposed ring-road around the city of pretoria (Architectural archives, University of Pretoria, 2011).



The concept of walkable cities needs to be re-investigated in which green networks between open spaces are created so that the pedestrian becomes the catalyst for city developments, not vehicles.

Figure 4.1 illustrates the concept of walkable cities with networks of open spaces connected along pedestrian routes. These spaces create vibrant cities that attract people to visit creating vibrant mixed activity and create attractive environments for integrated city living.

Figure 4.2 illustrates the negative effects of the city development strategies, where pavements and public spaces are overtaken by the focus on vehicles through the construction of urban highways, creating fragmented relationships that result in the degradation and segregation of social networks.

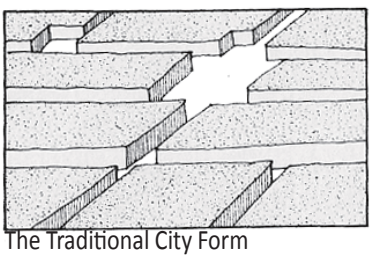
Figure 4.4 Illustrates the proposed ring-road around the City of Pretoria, which has resulted in the loss of integrated pedestrian movement and social networks between the east of the city and the Apies River.

The modern movement

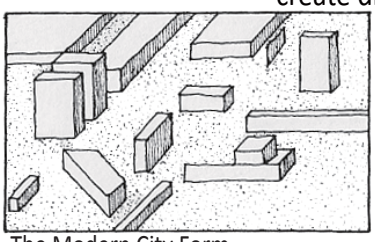
Buildings were designed and thought of as isolated entities, masterpieces in their own right – each building designed to change the city skyline with no regard to context or culture of the city. The functions of buildings gradually became more and more displaced from their external environments, fragmenting any relationships between external and internal space. Peterson therefore takes a stand and defines modern space as “anti-space”; the traditional architecture of streets, squares and rooms created by differentiated figures of volumetric void is by the presence of “anti-space “”…[which] leads to the erosion and eventual loss of space.” (Peterson in Trancik, 1986: 9). Unlike that of modernist planning, the traditional principles of planning on all scales needs to be attended to, from factors of hierarchy to well defined spaces; their edges; from where the street meets the pavement, the pavement the thresholds, and the thresholds the interior or exterior and so on. There needs to be defined and interactive relationships that cohesively flow together.

Figure 4.5 Illustrates the difference between the spatial structure of a traditional city and that of a modern city. In the traditional city, urban blocks direct movement and establish orientation; in the modern city the blocks are fragmented and confused structures that create disorientation (Trancik,1986:19).

Figure 4.5 (below) graphic of city forms (Trancik,1986)



The Traditional City Form



The Modern City Form

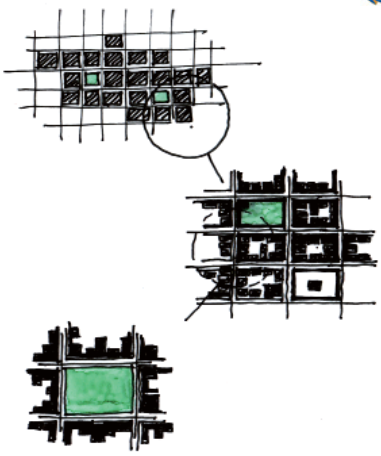


Figure 4.6 Modern use of urban form (Author, 2011).

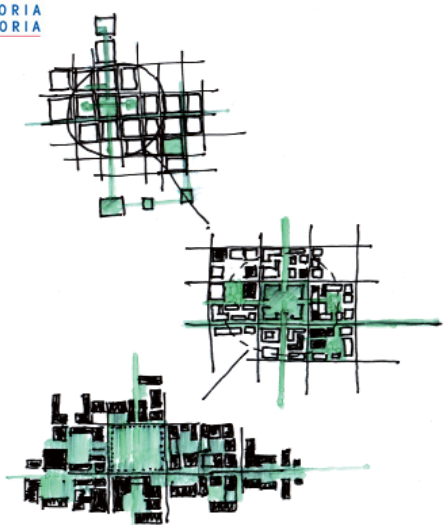


Figure 4.7 Traditional use of urban form (Author, 2011).

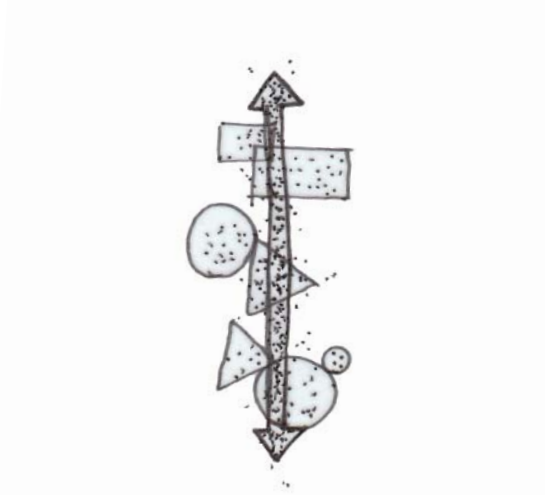


Figure 4.8 Illustrates difference between Integrated urban planning and segregated. (Gehl, 2006:101)

Zoning and urban renewal

The loss of traditional qualities of urban space is the result of zoning policies and urban renewal implementations. With impulses to promote human welfare through segregation of land uses, and substitution for high rise commercial towers, the policies and implementations rarely corresponded to the spacial structure of evolved community patterns and cultures, nor did developments respond to the social relationships that gave meaning to the community's existence.

Districts segregated living space from working space and created areas that could no longer accommodate physical or social diversity, thereby defying the laws of what was 'urban'. The result of modern urban planning is citizens subdivided into homogeneous districts, separated by traffic arteries and forbidden from living above where they work.
Figure 4.11 Illustrates the difference between integrated urban solutions that encourage vibrant mixed use and community culture and social relationships to develop, and segregated zoning policies that separate different uses, which result in less vibrant and dynamic and robust spaces.

Zoning laws have operated under assumptions about human welfare and happiness. The complexity of social and functional relationships in the urban setting was incompatible with Modern Movement planning, which required aesthetic completeness for visual and graphic effect (Trancik, 1986: 12).

Pretoria, like many modern cities, was once rich with

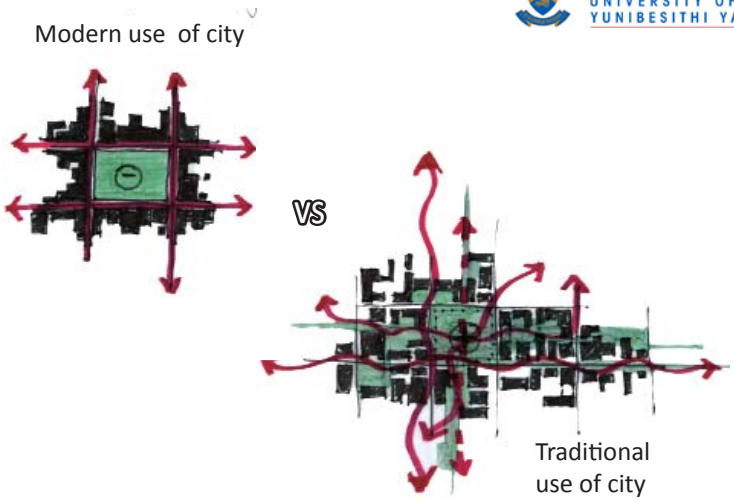


Figure 4.9 modern concept of using open spaces vs traditional use of space

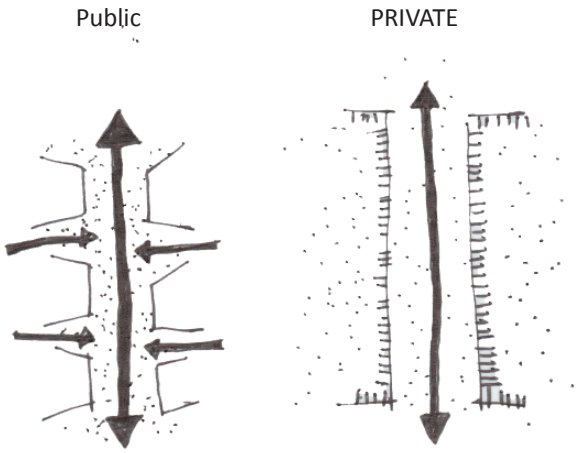


Figure 4.10 concept of public and private planning straegies

traditional qualities, and social networks that became known for its natural resources and beauty. However, it became consumed by the demands of city developments, which resulted forced reappropriation of space, forced removal and relocation which in turn resulted in the breaking down of natural social networks.

Figure 4.6 Illustration of how open recreational spaces are cut off from surrounding context becoming segregated and isolated left to be managed by city municipality. These spaces often become neglected and unsafe.

This, in turn, resulted in people losing touch with their surroundings and existing recreational spaces being abandoned, left to deteriorate and become unsafe, forcing areas to be closed off or privatised, which escalated the problem leading to further de-urbanization.

Figure 4.7 Illustrates the use of open spaces as more integrated spaces creating networks between other open spaces,becoming more mixed use and resulting in more traditional uses with vibrant spaces between buildings, allowing people to take ownership of spaces without space becoming privatized.
Figure 4.8 Conceptually illustrates how people can freely use integrated public spaces that could create a larger variety of recreational open spaces. These spaces also become better controlled and policed, resulting in longer periods of use.

Privatization of public space

Private enterprises have also contributed significantly to lost space in our urban centres. As cities grow and the demand for space increases, buildings tend to push toward vertical cities or take over open space, leading to the miss appropriation of public space for private expansion.

In the past, the designs of streets, squares, parks and other public space, were integrated with the design of individual buildings. However, in the modern city, each element is the responsibility of a different public or private organisation, and the unity of the total environment is lost.

Figure 4.10 illustrates the difference between more private use of space and the public, and how privatization results in less integrated use of public spaces. Public spaces can become more inviting and more accessible to the public making it easier - both physically and psychologically - for people and activities to move back and forth between public and private spaces, between in and out (Gehl, 2006: 113).

Figure 4.11 sketch conceptually illustrating inclusive and exclusive (Author, 2011).

Changing abandoned land use

This factor has probably been the most pervasive cause of lost space in our cities over the past few decades. The relocation of industry, obsolete transportation facilities, and vacated commercial or residential buildings have created vast areas of wasted or under used space within the downtown city centres." (Trancik, 1986: 17)

These areas offer potential for reclamation as mixed use areas, especially as the attitude toward living in the city is slowly changing and the cost of living outside of cities become more expensive.

Figure 4.11 shows how these spaces are redeveloped as inclusive elements (part of their surrounding context), they tend to encourage other inclusive adjacent developments to make spaces between buildings and street edges more dynamic, vibrant and robust.

Redesigning lost space

Peoples' impression of, and reaction to space is largely determined by the ways it is enclosed. "People like the feeling of a room (Trancik, 1986: 19)." People relate to outdoor open spaces the way they relate to spaces at home and in their workplaces.

This is probably why tourists and residents enjoy the structured urban rooms of Europe in cities such as Rome (fig 4.11 - 4.13), Venice, and Paris or the garden rooms of Ville Lante, Vaux-le-Vicomte, and Versailles. "In urban design the emphasis should be on the groups and sequences of outdoor rooms of the district as a whole, rather than on the individual space as an isolated entity" (Trancik, 1986: 19). Thus, special focus should be placed on residual space between districts and waste land at their edges. In this way, lost space can be reclaimed by transforming them into areas of opportunities for developments. By doing so, the space would improve and would subsequently attract people back to the centre.

Conclusion

The history of cities indicate that if we can reverse the perception of exterior spaces and produce designs and figure grounds that take into consideration the relationship between building and open spaces, a lesson that can be learned from traditional, preindustrial cities is "that exterior space should be the force that gives definition to the architecture and its borders, establishing the walls of the outdoor room" (Trancik, 1986: 18). Perhaps we have to understand that "history" and "environment" are two faces of architecture - that no building stands alone, and that 'architectural solutions', however brilliant, can not overcome the limitations of the urban fabric in which they are placed (Huxtable, in Trancik, 1986: 19).

Figure 4.12. Aerial photograph of the Piazza Novona, Rome, 2008 (www.italophiles.com,2011).

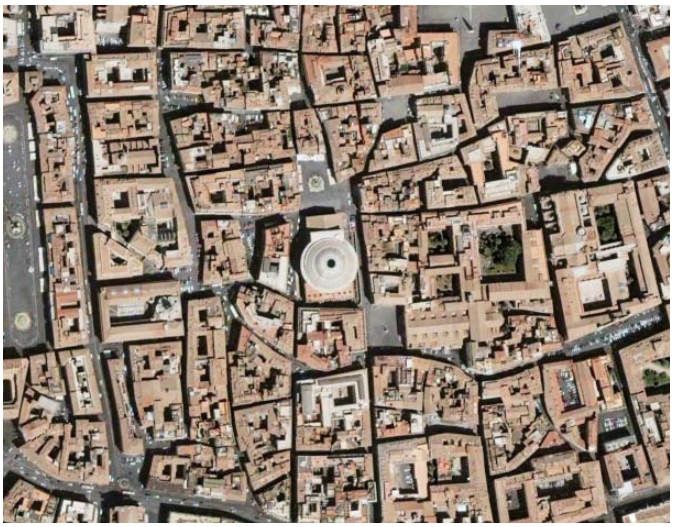
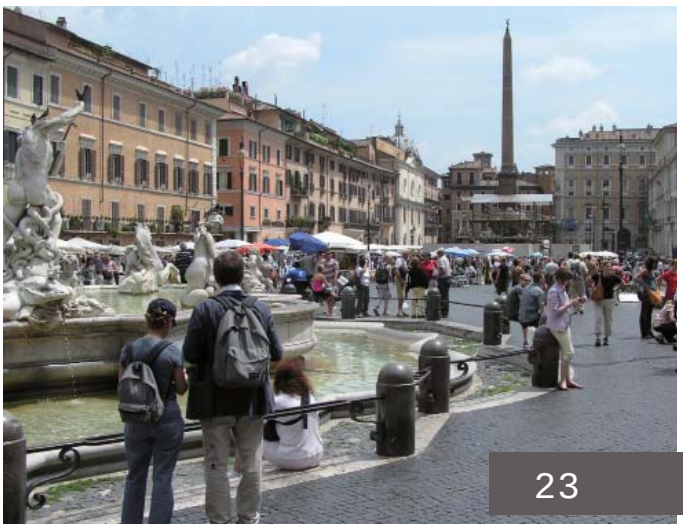


Figure 4.13. photograph of the Piazza Novona, Rome, 2008 (www.italophiles.com,2011).



Chapter 5 - Place

Phenomenology

Figure 5.1. Pretoria in 1872 by Thomas Baines shows the current day Lions Bridge towards the city centre.

Phenomenology of space

What we see and experience is very much influenced by our culture and memory, for this same reason, the way in which we interpret space is also influenced (Corner, 1999: 3). The way in which we interpret space is not only a result of culture and memory but is largely influenced by time, never passive but changing and active, always demanding extension and re-intervention toward developing some form of contemporary culture (Corner, 1999: 5). Therefore, the argument arises that if culture and memory change and adapt over time so does landscape and our surrounding context. Thus our landscapes are not 'given' but made and remade - an inheritance that demand to be recovered, cultivated, and projected toward new ends (Corner, 1999: 12).

If this is true, the cultivation and recovering of the past means that the past is part of the future and the future an interpretation of the past. Consequently, the landscape will take on different meanings over time and that time itself will play an important factor in our lives, changing our memory of the past.

It is for this reason that time should be acknowledged as a critical dimension when planning space (Corner, 1999: 13). Change is a direct by-product of time and that landscape must pass through stages from inception to maturity.
Consequently, the landscape and design play an important role in addressing social issues regarding community planning, housing, and recreation.

Corner (1999: 15) addresses the importance of time and place, and the concept that landscape is always changing. However, as it is always changing, the question of how we embrace change without losing the essence of a place arises and what is the essence of a place is if it's in a constant state of flux.

Considering the ever-changing environment and its endless possibilities, there is a phenomenological explanation for what the essence of a place is. Establishing the sense of place is creating meaning of a place i.e. the essence of a culture, of an image or a place cannot always be translated visually. It is that image people take away from a site and which draw people back to a space (Norberg-Schultz in Nesbitt, 2005: 414).

Heidegger, for instance, explains that 'place' is understood as quantitative, 'functional' sense, with many different properties in accordance with cultural traditions and different environmental conditions. The functional approach to place would be the concrete 'here' that gives it its particular identity or character (Norberg-Schultz in Nesbitt, 2005: 417).

However, the question architects and designers should be asking themselves is what can't be seen or is lost, that or what makes a space more qualitative and less analytical. This is where phenomenology offers designers an escape and different perspectives on what space should be. "Phenomenology was conceived as a "return to things", as opposed to abstractions and mental constructions (Norberg-Schultz in Nesbitt, 2005: 414)."
Thus, more attention needs to be placed on the phenomenology of the daily environment, and life experiences, where people can create intimate connections and meaning of their environments.

Heidegger explains that nature forms an extended comprehensive totality; a 'place', and within a context creates an identity. This identity, or 'spirit', may be described by means of the kind of concrete, 'qualitative' terms (Norberg-Schultz in Nesbitt, 2005: 417). Heidegger explains this concept using the Greek Temple on the hill (Norberg-Schultz in Nesbitt, 2005: 418) see (figure 4.18:28) and uses the analogy to characterize earth and sky. With this approach, one might arrive at an existentially relevant understanding of landscape, which according to Heidegger and contrary to Corner's view, ought to be preserved as the main designation of natural places. The buildings can furthermore relate to their environments by resting on the ground and rising towards the sky (in Nesbitt 2005: 418).

Fusing Place

Memory

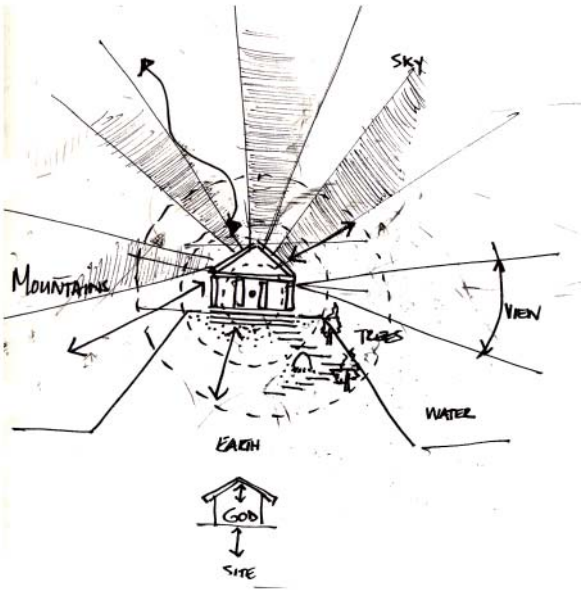


Figure 4.18. Interpretation of Heidegger theories on spirit of place and the manifestation of place. (Author, 2011)

The design of the archetypal Greek temple is concerned with bringing something into presence and revealing its truth through art. In order to reveal the truth about the work of art, the following questions must be asked: Firstly what is thus preserved? Secondly how is it done?

Indirectly, Heidegger answers both these questions (Norberg-Schultz, 2005: 418) . The 'what' is our question and consists of three components; firstly the temple makes God present, secondly it fits 'together' what shapes 'the destiny of human being', and finally, the temple makes all things of the earth 'visible' - the rock, the sea, the air, the plants, the animals, and even the light of day and the darkness of night.

This theory applies to the project from the perspective that the architecture can reveal the importance of the heritage and memory that has been lost or forgotten. Creating spaces people can interact with one another and experience the character of the site.

> Space denotes the three dimensional organization of the elements which make up a Place.
>
> (Norberg-Schultz in Nesbitt, 2005: 412)

The structure and character of Place

The structure of a place is not a fixed external state. Rather, as a rule, places change, sometimes rapidly (Norberg-Schultz in Nesbitt, 2005: 412). This does not mean, however, that the genius loci necessarily changes or gets lost.

'Landscape' and 'settlement' are analysed by means of space which denotes a three dimensional organisation of the elements which make up a place, while 'character' denotes the general atmosphere, which is the most comprehensive property of any place.

In order to distinguish between space and character, one needs to establish each space's individual defining elements i.e.: Space could comprise of boundaries, or a location a 'concrete space'. But place can mean different things: we can currently define place as a three dimensional geometry or as a perceptual field, the three-dimensional totality of everyday experience which we may call 'qualitative space'.

Many architects have made great efforts to define space in concrete, qualitative terms. Giedion (1998), uses the distinction between the 'outside' and 'inside' as a basis for a grand view of architectural history. Lynch (1960), delves deeper into the structure of concrete space with the introduction of concepts such as the 'node' or landmarks, 'paths', 'edges', and 'district'; all elements that form the basis for man's orientation in space (see urban context study, Chapter 7.3: 46), while Portoghesi defines space as a system of spaces (Norberg-Schultz in Nesbit 2005: 419).

Therefore spaces need to be made up of edges or elements that may lead from one place to another, across different boundaries. Or, as illustrated in Heidegger's writing, are not seen as that at which something stops but, as the Greeks recognized, the boundary is that, from which something begins its presencing (Heidegger in Nesbitt 2005: 419).

'Character' can therefore be defined by its presence and a more general and concrete concept than 'space'. A phenomenology of character, therefore, has to comprise a survey of manifest characters as well as an investigation of their concrete determinants. Different actions also demand places with a different character i.e.: a dwelling: protective, an office: practical, a ballroom: festive, and a church: solemn.

When we visit a foreign city, we usually experience a particular character, which becomes an important part of the experience. Landscape itself also possesses character, some of a natural kind, others of a more man-made character. In general, all places should have character, and that character is the basic mode in which the world is "given" or "experienced".

Character of a place is a function of time, changing with the time of day, weather or season, all factors which determine the different conditions of light. The character is determined by material and the formal constitution of place. (Venturi in Nesbitt 2005: 420).

Character can also be defined by boundaries, and are also dependent on formal articulation, which again is related to the way it is built. In other words, looking at how a building touches the ground and how it rises towards the sky. Particular attention has to be given to its lateral boundaries which determine the character of the urban environment. Architecture can therefore be defined as, "the wall between the inside and the outside" (Venturi in Nesbitt, 2005: 420).

Character, is therefore no longer an isolated concept between the inside or outside, and should therefore be taken through to the technology. So character is influenced by how things are made and put together, and therefore determined by the technical realisation of 'building'. "The Greek word techne meant a creative 'revealing' of truth, and belonged to poiesis, that is, 'making' therefore phenomenology of place, comprise of the basic modes of construction and their relationship to formal articulation" (Heidegger in Nesbitt, 2005: 420).

Conclusion

Man 'receives' the environment and makes it focus on buildings and things. Thereby the 'things' explain the environment and make its character manifest (Norberg-Schultz in Nesbitt, 2005: 421).

The external purpose of the building (architecture) is therefore to make a site a place that uncovers meaning in the given environment.

The structure of a place is not a permanent, eternal state and as a rule, places change. This does not mean that the spirit of a place needs to be lost. Therefore to conserve or unearth a spirit of a place means to concretise its essence in ever new historical contexts. "What was there as possibilities at the outset, is uncovered through human action, illuminated and 'kept' in works of architecture which are simultaneously old and new" (Venturi in Nesbitt, 2005: 422).

Using these principles, the design will encompass the character of the site, create a dialogue between the new and old aimed at revealing the memory of the past and create new memories.

Genius Loci

The Spirit of place

Genius Loci is the spirit that gives life to people and places, accompanies them from birth to death, and determines their character or essence (Norberg-Schultz in Nesbitt, 2005: 421).

Louis Kahn defines spirit of a place as the genius thus denotes what a thing is, or "what it wants to be" (Kahn in Nesbitt, 2005: 423).

Lynch defines it as the natural structure of a place, that the world may be organized around a set of focal points, or broken into regions, or be linked by remembered routes. "Often these systems of orientation are derived from a given natural structure, where this system is weak, the image making is difficult and man feels 'lost'" (Lynch in Nesbitt, 2005: 423), to be lost is evidently the opposite feeling of security, which distinguishes dwelling.

Man can 'dwell' in an environment when he is able to 'concretise' the world in buildings and thing, Things expressed as 'art' defined by words, as the "imago mundi": the work of art helps man to dwell" (Norberg-Schultz in Nesbitt, 2005: 425). "Once man can dwell amongst art man can dwell poetically" (Friedrich Holderlin in Nesbitt, 2005: 426), and "Poetry does not fly above and surmounts the earth in order to escape it and hover over it. Poetry is what first brings man onto the earth, making him belong to it, and thus brings him into dwelling" (Heidegger in Nesbitt, 2005: 426).

Only poetry, in all its forms (also as the art of living) makes human existence meaningful, and meaning is the fundamental human need (Heidegger in Nesbitt, 2005: 426).

Architecture belongs to poetry, and its purpose is to help man to dwell. But architecture is a difficult art. Constructing practical towns and buildings is not enough. Architecture comes into being when a "total environment is made visible, this means concretize the Genius Loci, gathering the properties of place and bringing them close to man (Suzan Langer in Nesbitt 2005: 426). Architecture is therefore to understand the 'vocation' of place, and in doing so, we protect the earth and become ourselves part of a 'comprehensive totality'.

Chapter 6 - Fusion

Theories on Fusing Space and Place

The concept of this dissertation focuses on fusing space and place. Fusing space aims at dealing with the physical aspects of space and urban planning, as highlighted in Chapter 4.

Fusing place touches on the phenomenology of space and is focused around the historic elements and memory of the site, the *Lieux de memoire* (Nora, 1966: 1). Elements like Lions Bridge, the Apies River and Church Street are important parts of the city's memory and are experiences that have been lost. Fusing place is also captured in the character of the place, as defined in a Chapter 5 by Heidegger as the "identity" of the place (Norberg-Schultz in Nesbitt, 2005:417).

Fusing space and place should form a dialogue aimed at enhancing the image and experience of the city for all.

The concept sketch (figure 6.3) highlights the different contextual issues identified, theoretical investigation and fuses them together to create a more integrated concept aimed to inform the design and design process.
The sketch will be explained in more detail, see Chapter 9.

Figure 6.2 conceptually illustrates the status quo of the relationship between public and surrounding urban fabric, as well as the relationship between river and memory of the site.

Figure 6.1 conceptually illustrates the intent in fusing space and place; creating a more integrated relationship between the built fabric and the memory and character existing on the site.

Figure 6.1. Sketch illustrating concept of fusing the river with its surrounding to stimulate an integrated relationship with the surrounding context . (Author, 2011)

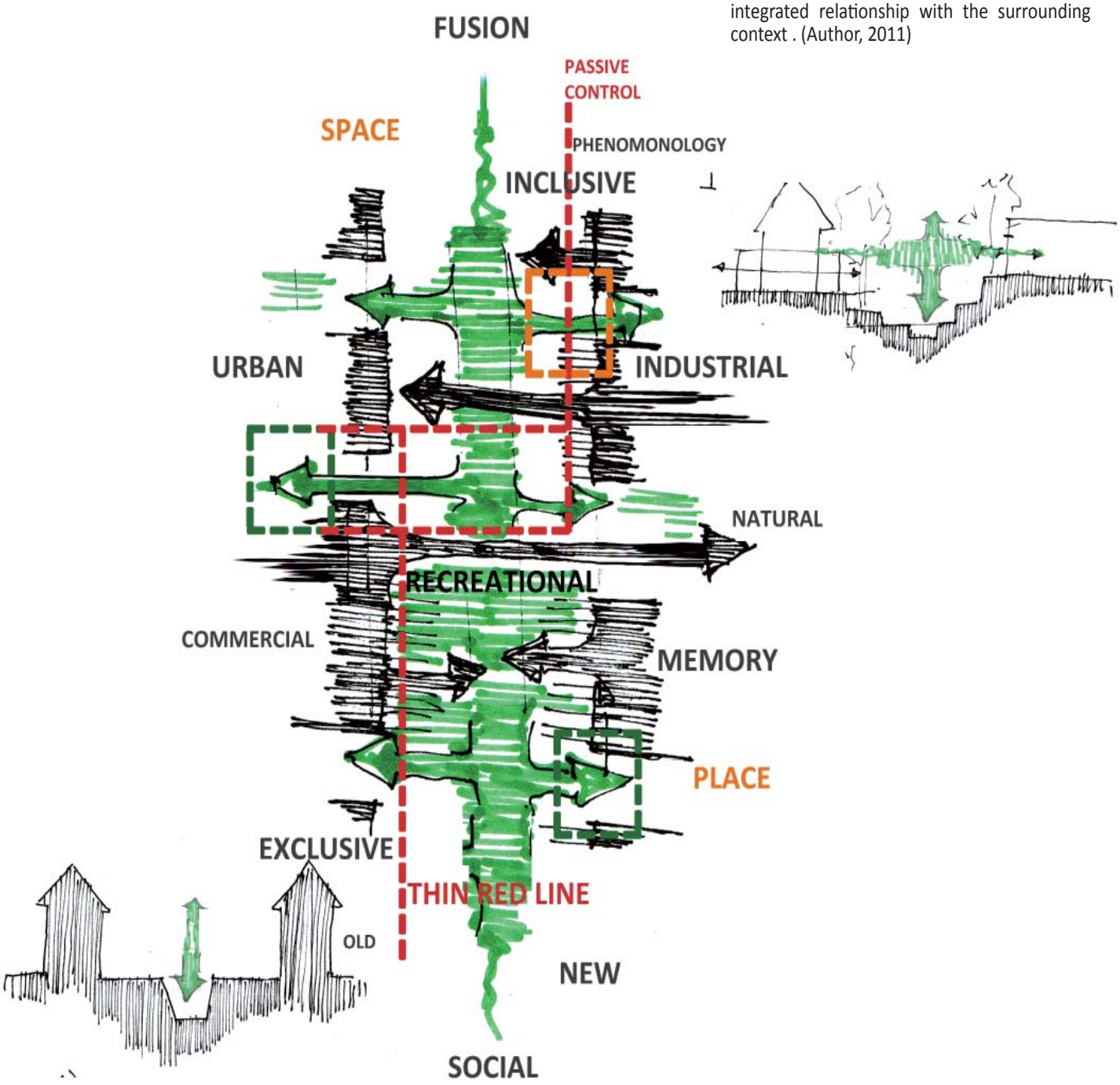


Figure 6.2. Sketch illustrating existing condition of the river and relationship with its context. (Author, 2011)

Figure 6.3. Sketch illustrating the concept of fusing space and place and blurring the boundaries between the two . (Author, 2011)

Chapter 7 - Context

7.1 Location

Figure 7.1.1 Map of Africa with the location of South Africa (Author, 2011).

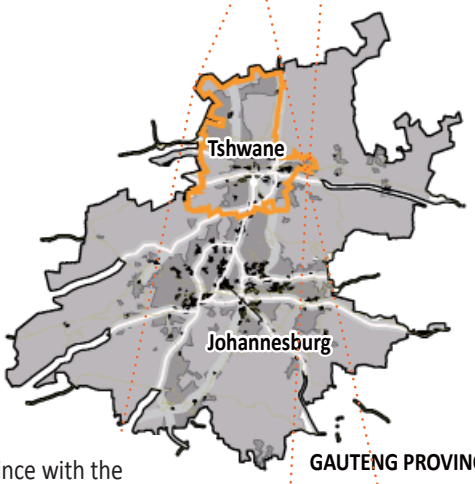


Figure 7.1.2 Map of Gauteng Province with the location of Tshwane. (Group Framework, 2011)

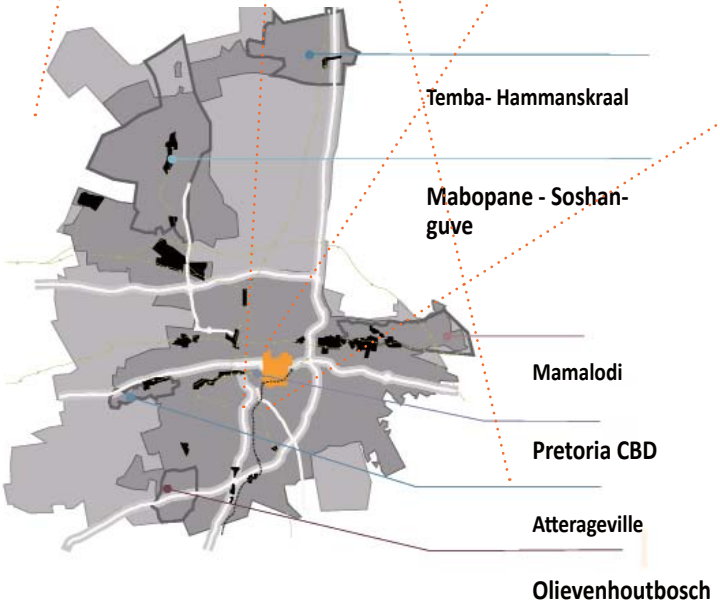


Figure 7.1.3 Outline of Tshwane with the location of the CBD of Pretoria

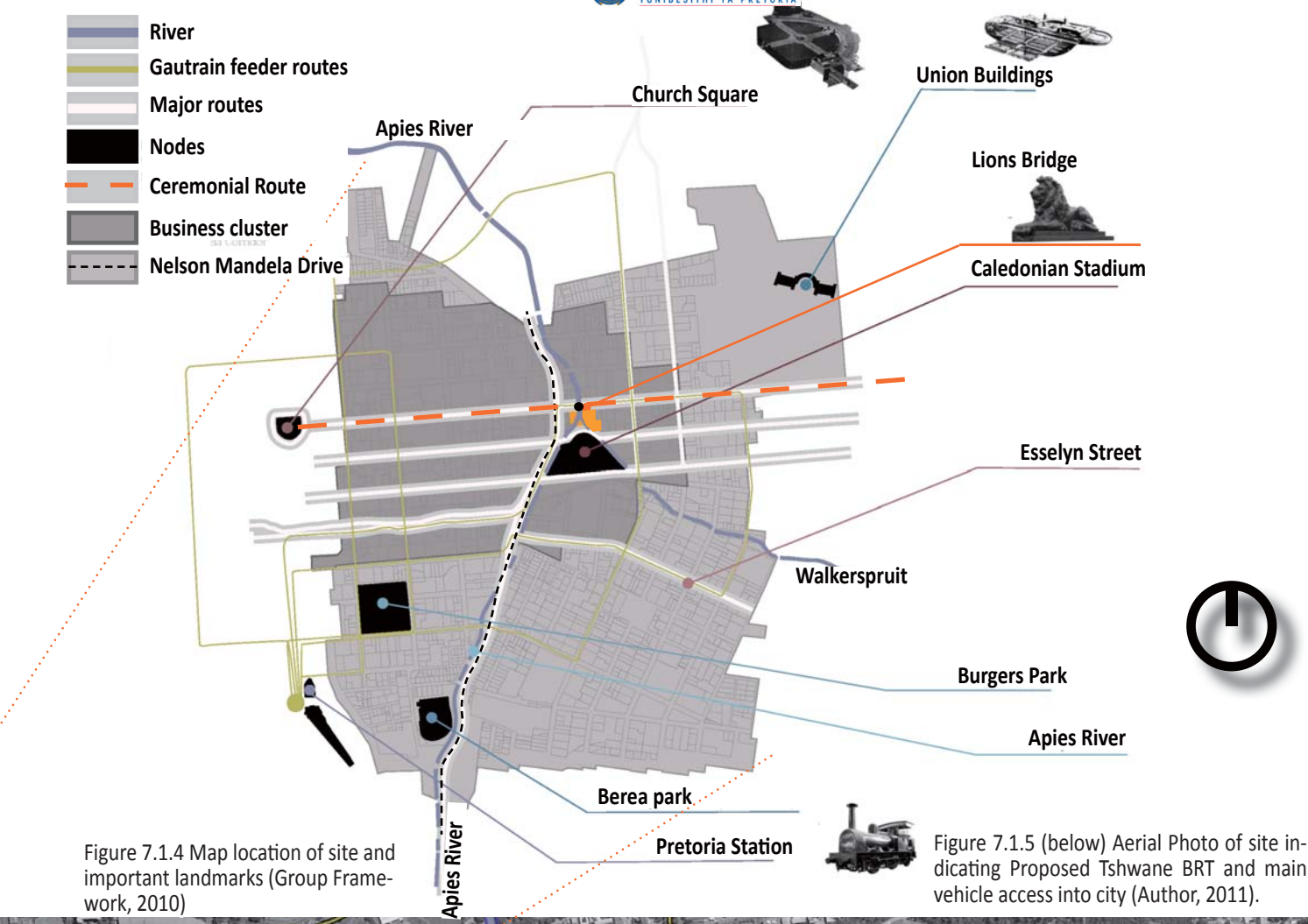
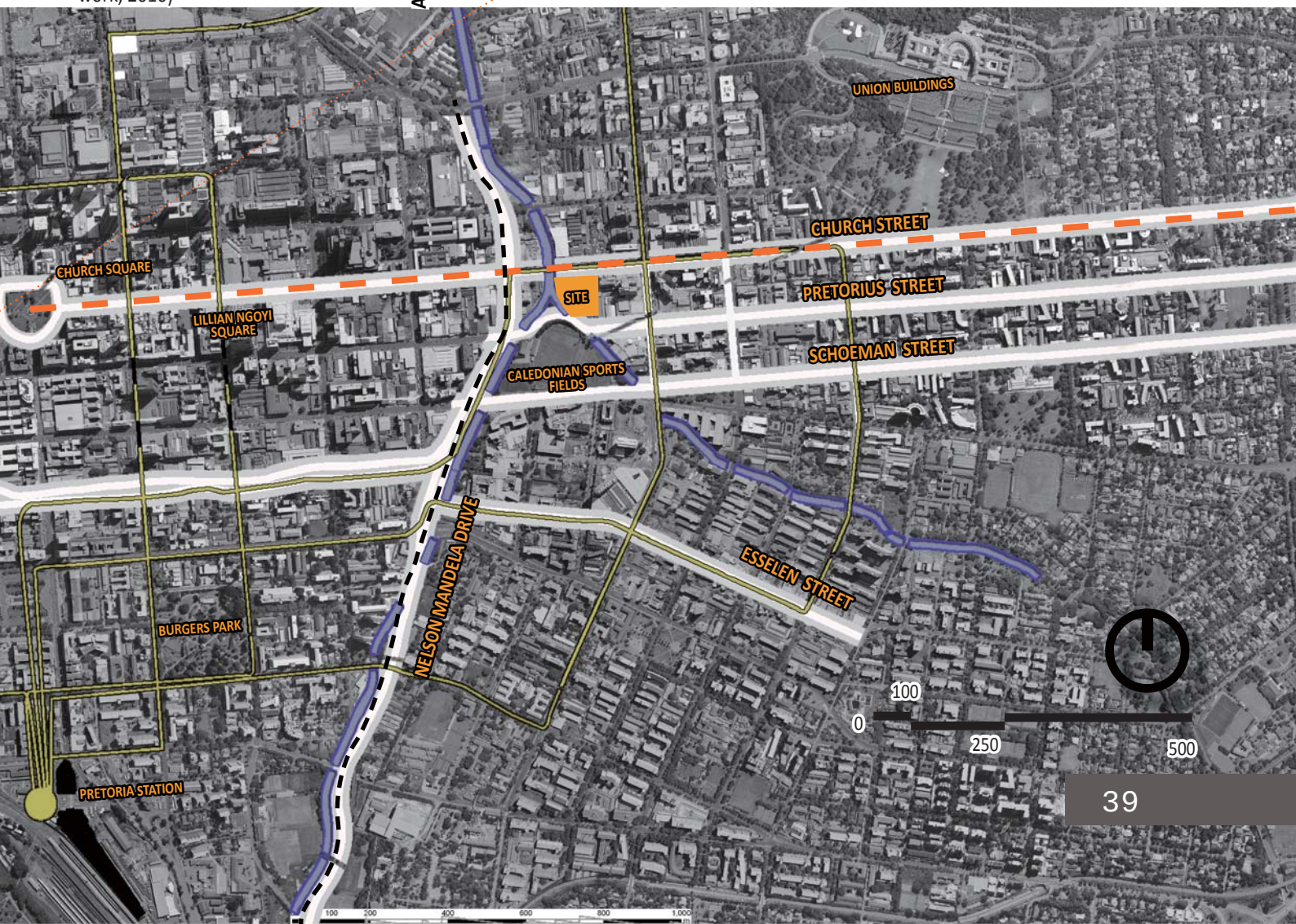


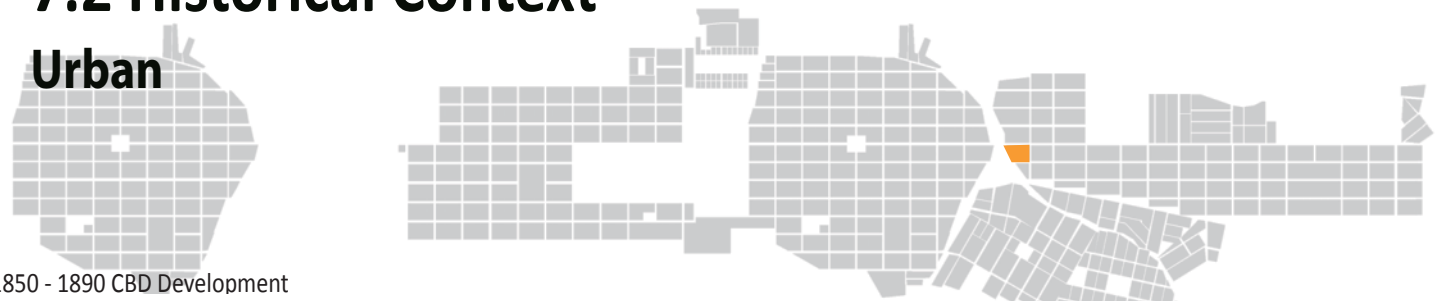
Figure 7.1.4 Map location of site and important landmarks (Group Framework, 2010)

Figure 7.1.5 (below) Aerial Photo of site indicating Proposed Tshwane BRT and main vehicle access into city (Author, 2011).



7.2 Historical Context

Urban



1850 - 1890 CBD Development

1890 - 1930 CBD Development and expansion to the west and the east

Figure 7.2.1 Cadastral of Pretoria's development between 1850 - 2007 (Author, 2011)

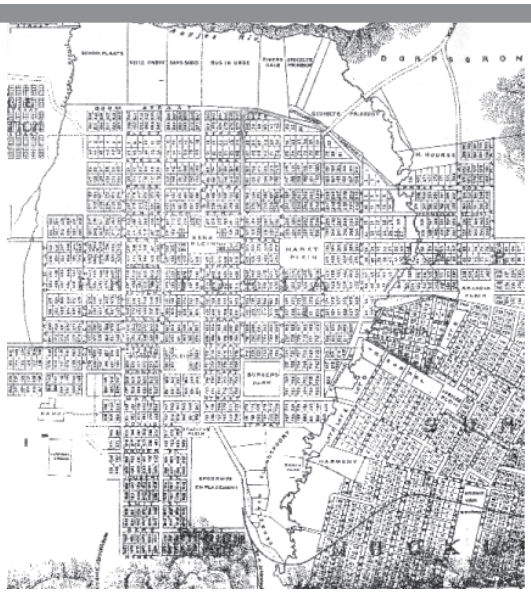


Figure 7.2.2 Map of Pretoria1889 (UPSpace Archives, University of Pretoria, 2011)

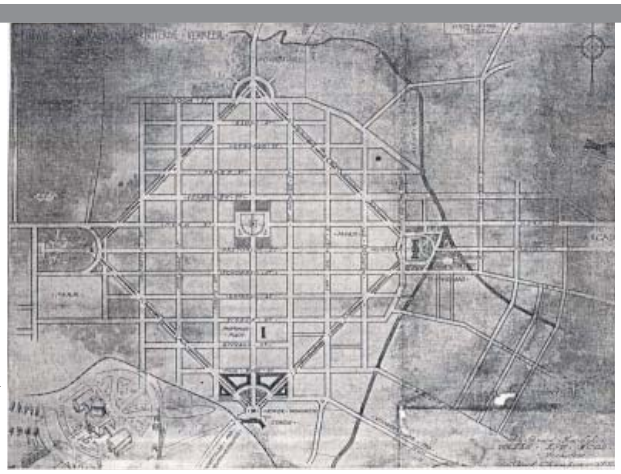


Figure 7.2.3 Moerdijk Proposed Urban scheme : 1930 (UPSpace Archives, University of Pretoria, 2011)

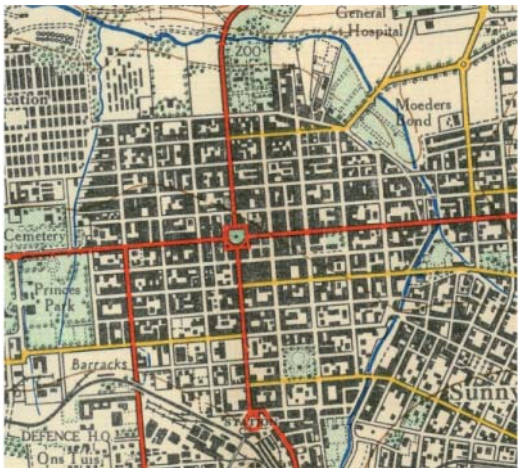


Figure 7.2.4 Map of Pretoria:1896 (Andrews, 1989).

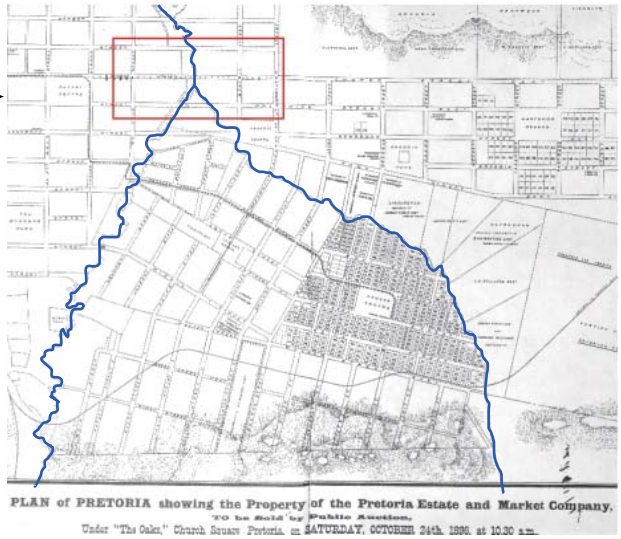
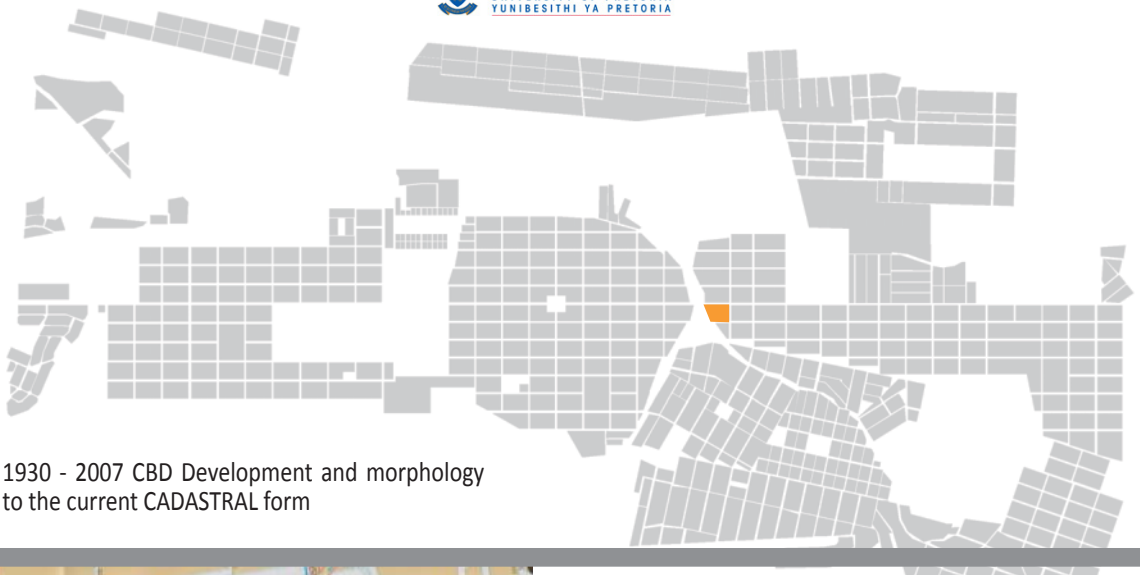


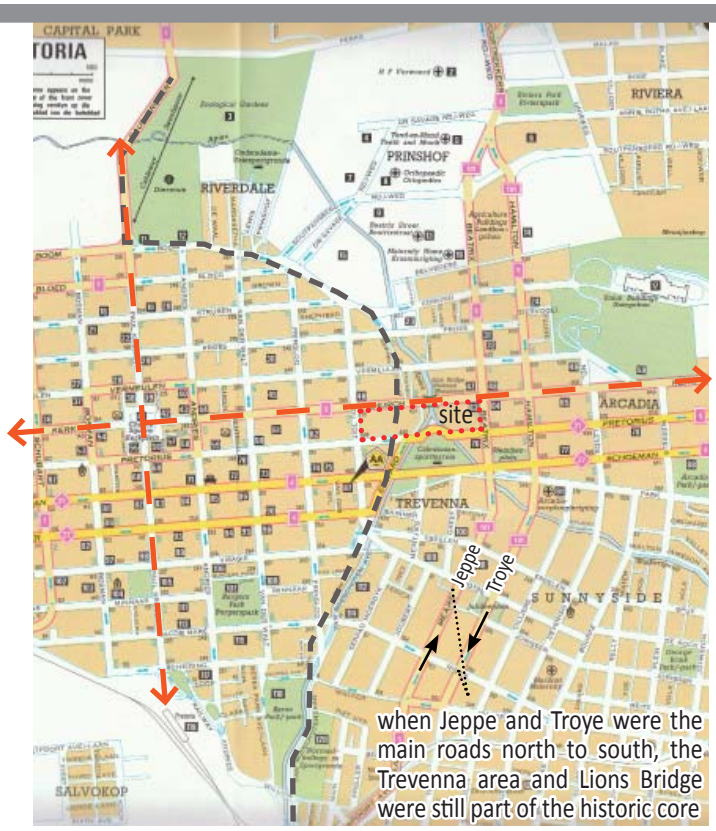
Figure 7.2.5 Figure Ground 1936 of ceremonial route (Pretoria colour fold up map, 1936)

Figure 7.2.6 Aerial Photo of Pretoria: 1949 (Voutsas and Findlay, 1949).

Figure 7.2.7 Figure Ground Study 2007 (Author, 2011)



1930 - 2007 CBD Development and morphology to the current CADASTRAL form



Position of Nelson Mandela Drive and part of a ring road system that gets built in 1994.

Figure 7.2.8 Pretoria guide map before the construction of the ring road and Nelson Mandela Drive (AA, 1966 - 1985 :85)

Pretoria - Situated on the banks of the Apies River and bounded by the north by the Magaliesberg Range, Pretoria was founded in 1855 by M W Pretorius, then President of the Transvaal Republic, and named after his father Andries, hero of the Battle of Blood River in 1838.

Figure 7.2.3 is the proposed urban scheme by Gerhard Moerdijk, 1930.
The proposal Identifies the Caledonian Sports ground and Lions Bridge as one of the 4 anchor sites of a new Pretoria master plan and the location for a new city hall. This scheme never materialized, but even then the Lions Bridge and the Caledonian sports grounds were identified as important nodes; part of the cultural memory and heritage of the Pretoria. However, today the opposite is true, and both the Caledonian and Lions Bridge seem fragmented from their surroundings, contributing very little to the experience of the city and the memory.
Figure 7.2.4 illustrates the natural organic form of the river before it was canalised.
Figure 7.2.5 highlights the 'cardo' along Paul Kruger street (the north-south axis) and orientation and the 'decumanus' along Church Street (the east-west orientation). This point was set out from where the Apies River and Walkerspruit merge. The 'cardo-decumanus' was originally developed by the Romans as a military strategy to protect their cities, and adopted by M W Pretorius. Today much of the significance of Church street and Lions bridge and the ceremonial importance of the axis between Church square to the Union Buildings along Church Street don't exist.
Figure 7.2.8 is a map drawn prior to the construction of Nelson Mandela Drive illustrates how the city grid and blocks were incorporated and were more integrated with the rivers. Today, with the construction of the ring road a lot of the social fabric and networks that once existed along the river have been fragmented.

Historical Context

Urban

Figure 7.2.9 painting of the old mill and water wheel by W.H Throne dated 19 August 1887 (Bolsman, 2001: 19).

Figure 7.2.10 Photo of Lions bridge and Apies River before it became canalised (Andrews, 1999: 64).

Figures 7.2.9 - 7.2.15 paint a very different image of what Pretoria was like then, especially the sites around Lions bridge. Much of the qualities and experiences experienced then are not present today.

Figure 7.2.12 is a photo of Edward street, no longer accessible or experienced the way it use to be. Since the construction of Nelson Mandela Drive, the street no longer exists and the only remnants of the street forms part of a private parking area that sits adjacent to the Apies river and Lions bridge. The parking area detracts from the memory and image of Lions Bridge proclaimed as a national monument in 1981.

Figure 7.2.12 is an aerial photograph of Pretoria in 1947 where the Pretoria Central public swimming pool existed (illustrated in dashed red lines and the site of study in orange). Later it was demolished and new Department of Trade and Industry (DTI) built in its place. The DTI today acts as a separate entity and cuts itself off from its surrounding context - another example of the negative influences of privatised exclusive space planning. (see earlier Chapter 4 : 21, on Trancik's urban theories about privatisation, the negative effects that result in the fragmentation of space).

7.2.11 Aerial photograph of the Caledonian sports grounds taken in 1947 (UPSpace Archive, University of Pretoria, 2011).

The Caledonian Sports Grounds was established on the grounds belonging to Eddie Meintjes, who, with Ewald Esselen used their influence with President Kruger to have the road (Pretorius Street) closed at the town boundary to accommodate the area required for the playing fields, thus causing the 'kink' in the street when the town extended eastwards, (Andrews, 1989: 116)

Sytze Wierda, a Government architect, (Figure 7.2.13) designed the lions statues on Lions Bridge, the Raadsaal and Palace of Justice on Church Square, also de-

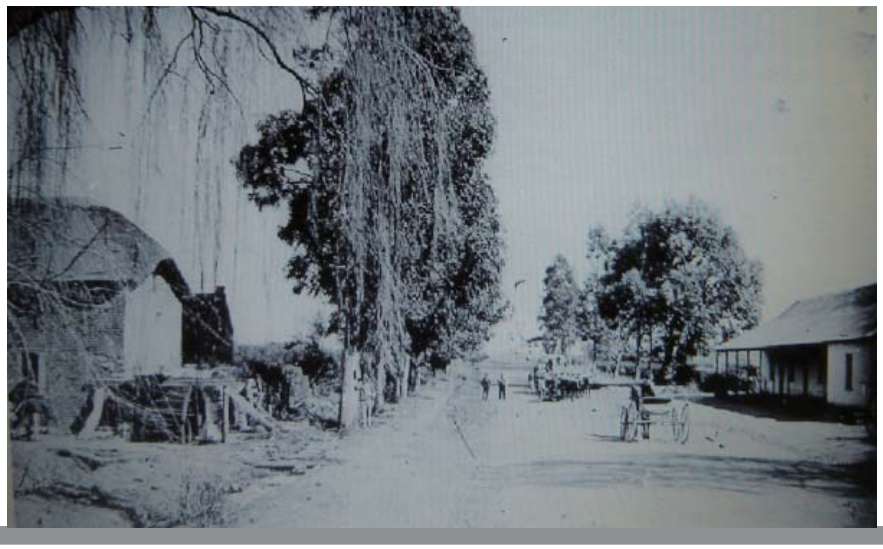


Figure 7.2.12 Photograph of Edward Street and the mill (Andrews, 1989: 64)

Figure 7.2.13 photo of one of the lion statues on Lions Bridge (Author, 2011).

signed Lion Bridge. The Lions were cast at the Sun Foundry in Scotland and placed in position when the bridge was completed in 1898 (Andrews, 1989: 104).
Figure 7.2.14 is a photograph of the local troops gathering in Church Square in preparation and departure for the ceremonial procession down Church Street (Andrews, 1999: 02).

THE SITE

In 1855 Church Square was set out on higher ground, in line with the elbow of the Apies River.

During 1875, a water wheel and mill (figure 7.2.9 and Figure 7.2.12) were built on the western river bank.

In 1894 saw the completion of Lions Bridge on Church Street (van der Waal collection).
In 1909 Pretoria experienced extensive loss to property and life as a result heavy rains turning the river into a torrent after heavy rainstorms, resulting in canalisation of the river which began from Proes Street southwards till the late 1930's (van der Waal collection).
In 1994 Nelson Mandela Drive was constructed along the Apies River, replacing many of the smaller streets to form a major connectivity spine from Pretoria southwards (Andrews, 1989).

Figure 7.2.14 Photograph of Church Square and troops getting ready for the annual ceremonial march (Andrews, 1989).

Figure 7.2.15 Photograph of Church Street at the time (Andrews, 1989).

Historical Context
River

Figure 7.2.16 Thomas Baines' 1872 painting of Pretoria and Lions Bridge (Bolsman, 2001: 20).

Figure 7.2.17 painting of the Apies canalized by Pieter Wenning (Bolsman, 2001: 135).

THE RIVER

Around 1835 the first Voortrekkers settled at Fountains Valley, migrated from the Cape Colonies, during the Great Trek, then settled in at Fountains Valley for its abundant supply of fresh water - approximately 25 million litres of water entered the Apies River on a daily basis (Bolsman, 2001:170).

In 1912 a row of date palms was planted along the Apies River (Bolsman, 2001: 170).

Between 1909 - 1930 began the straightening and canalization of the river were started (Bolsman, 2001: 170).

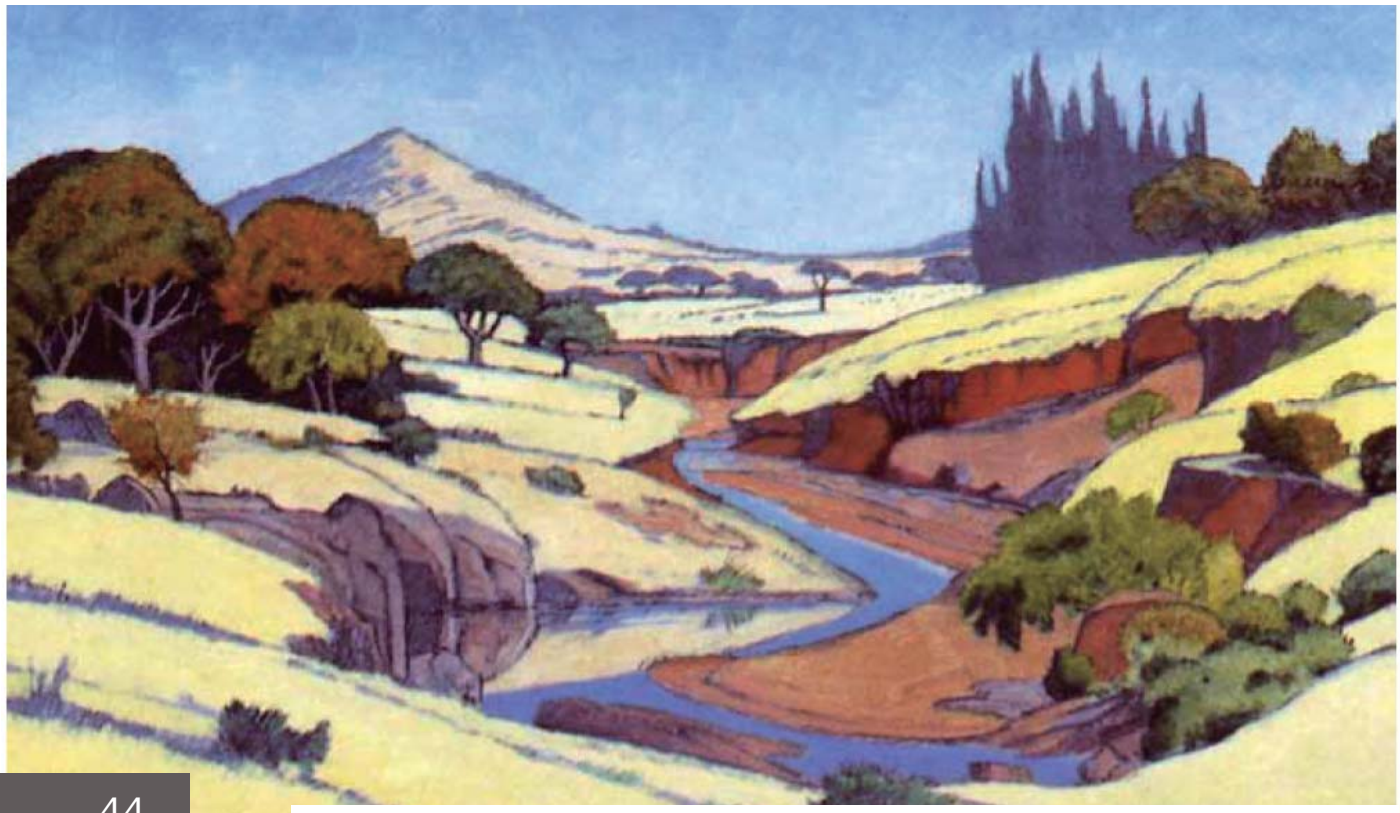


Figure 7.2.18 painting of the Apies Rivers natural erosive quality by Henk Pierneef (Bolsman, 2001: 134).

THE NAME

The Matabele tribe, who conquered the Bakwena tribe that had settled along the Magaliesberg, gave the river the name Enzwabuklunga (or Zwabuhlungu) which means 'painful', in reference to the sharp edged dolomite stones found in the river and at the fountains that hurt the women's feet when they fetched water or had to cross the river.
The Tswana people, who arrived later, called the river Tshwane, named after a prominent chief of the time (van der Waal collection).
After the first Voortrekker settlers arrived at the Fountains Valley, the rivers name was adopted with reference to the thousands of vervet monkeys that inhabited the banks of the river (Bolsman, 2001: 170).

THE ENVIRONMENT

The Apies River valley was home to a large population of lions that were hunted and exterminated. The existing heritage land mark, the Lions Bridge, still stands in memory of what once existed. The vervet monkeys habitat was destroyed, they were either killed or captured; and other animals such as the likes of hyenas and jackals were also chased off (Bolsman, 2001: 170).

As one of the settlers of the time wrote: "The trees along the Apies River made a beautiful pleasance, remarkable for its scenery, and the place was blessed with a fine climate and an abundance of the purest water. In those days the central portion of the central city was covered by what we called bontbos, that is clumps of trees with open space between, that gives the whole a parklike appearance, while mimosa [mimosa spp. are exotic invaders from South America] and the white flowered 'buffelpeer', in spring filled the air with a sublime perfume" (Bolsman, 2001: 170).
In 1912 two rows of date palm trees were planted along the River(van der Waal Collection), which still stand out very prominently and form part of the identity of the Nelson Mandela Drive.

Figure 7.2.16 is a painting of Pretoria in 1872 by Thomas Baines, showing the current day Lions Bridge towards the city centre, illustrating its importance even then.
Figure 7.2.17. is a painting by Pieter Wenning, showing the canalisation of the Apies River.
Figure 7.2.18. Is a painting of Apies River with Meintje's Kop, by Henk Pierneef. This picture paints a very different image and experience for the current day city dweller.

The canalization of the river was as a result of floods that caused loss of lives, animal stock and damages to buildings. In the painting one already can see that the existing eco system had a natural erosive character.

The historical and cultural importance of the river plays an important role in understanding Pretoria and its history.

7.3 Urban context and concept (Macro)

Theory investigation

The following chapter will form the basis for the urban investigation of Pretoria, and will influence future design decisions.

Figure 7.3.1 refers to the outline map of the Boston peninsula, described by Lynch, as the conventional map outline which forms the basis for any mapping (Lynch, 1960:18).
Figure 7.3.3 refers to the basic outline of Pretoria's CBD, which will form the basis of the city grid. Lynch, as illustrated in figure 7.3.2, uses the same basic map of Boston and layers the map with its major and minor concept elements. These concepts such as the 'node' or landmarks, 'paths', 'edges', and 'district'; (1960:84). Lynch defines these elements as the basis man uses to create his orientation in space.
The same technique and principles by Lynch will be applied to the basic figure ground of Pretoria, (figure 7.3.3). Lynch's theories will be used in formulate a mental image of Pretoria to assist the design requirements, so that the design holistically integrates into its surrounding and context (figure 7.3.4).

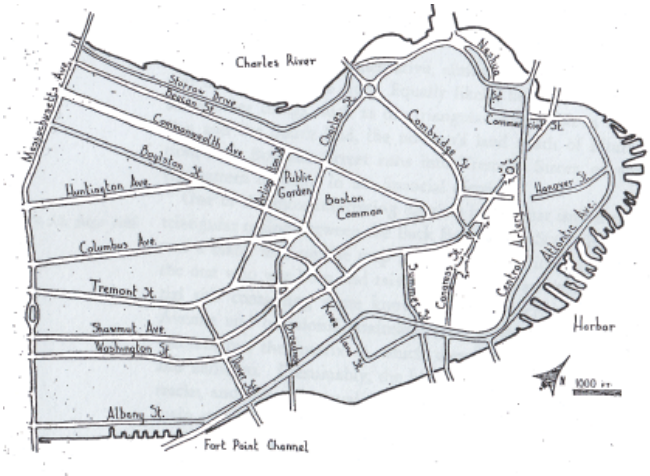


Figure 7.3.1 Basis of a map for Boston, USA (Lynch, 1960:18)

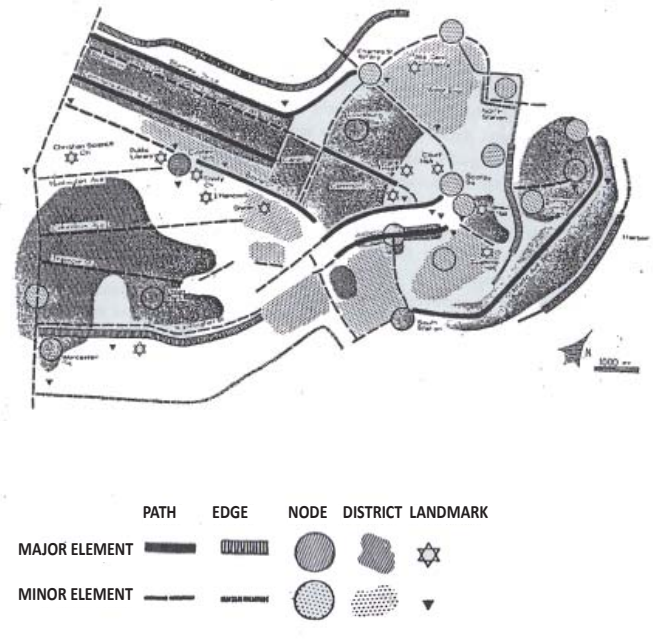


Figure 7.3.2 Map of Boston layered using using major and minor elements for man to orientate himself (Lynch, 1960:84).

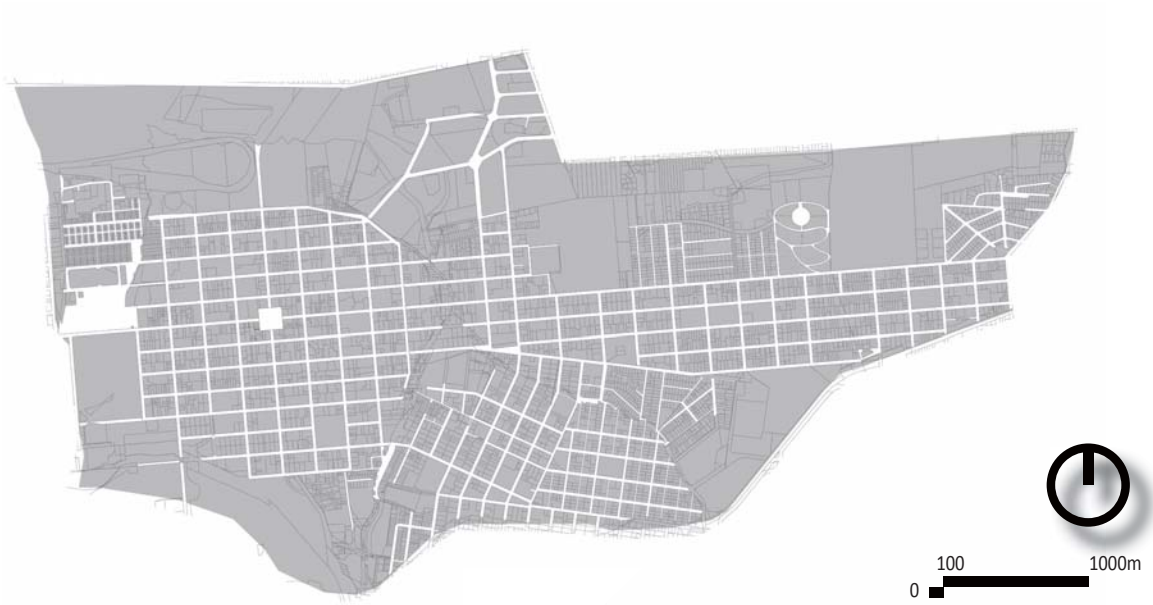


Figure 7.3.3 Basis of the map of Pretoria CBD (Author, 2011).

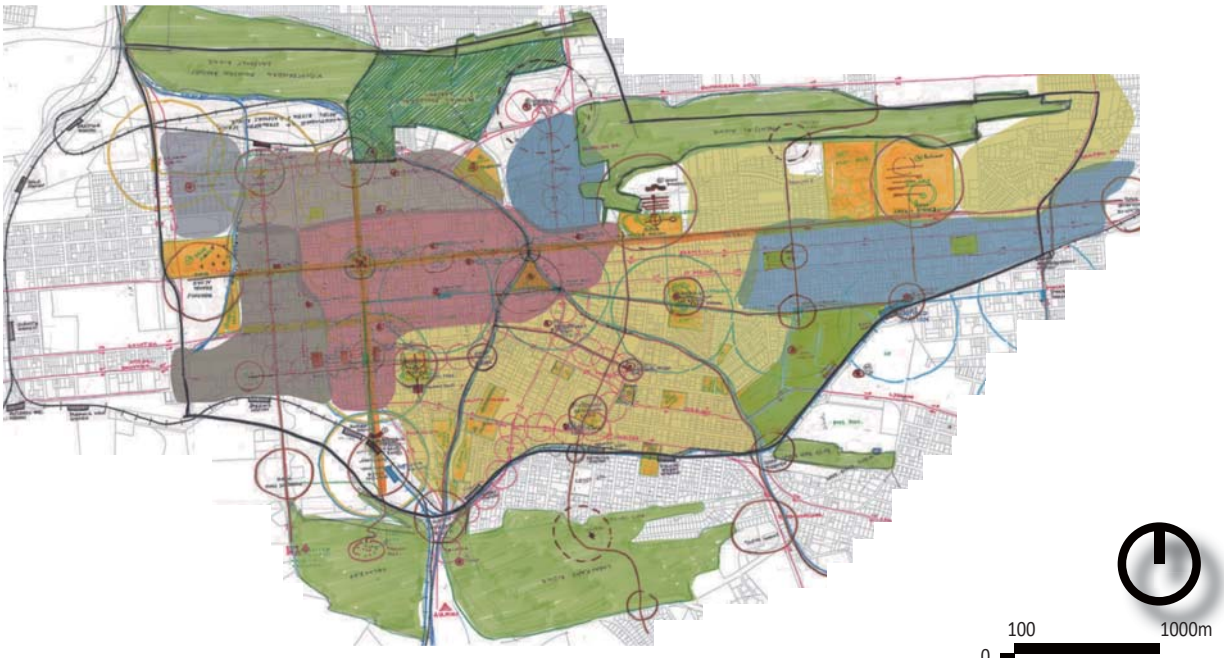


Figure 7.3.4 Map of Pretoria CBD layered with different nodes, routes, and paths described further and in more detail in this chapter (Group Framework, 2010)

Urban context and concept

Fusion of the different layers

(for breakdown of layers see ADDENDUM A)

Figure 7.3.5 Photo of the CBD taken from the Union Buildings (Author, 2011)

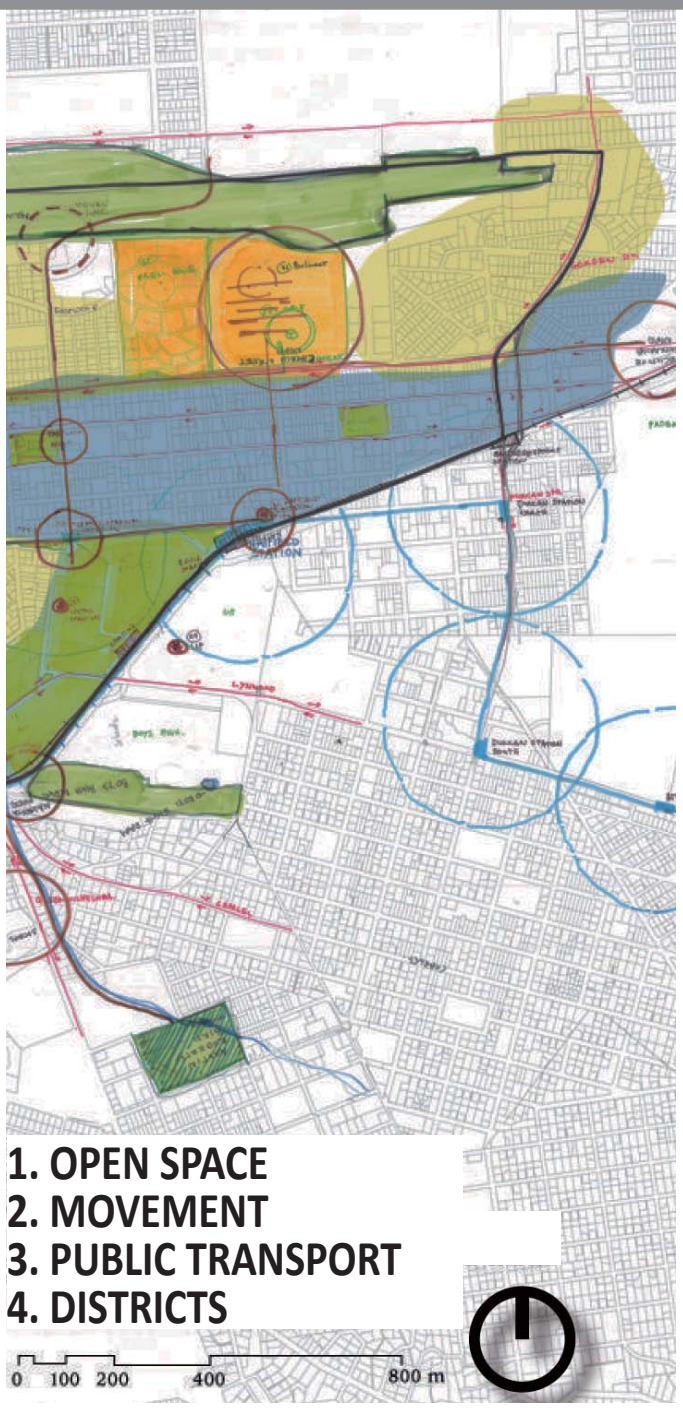


Figure 7.3.6 Map of the different layers overlayed ontop of each other (Group Frame, 2011).

Figure 7.3.6 is a map of the different layers fused together (Refer to appendix A:). The map creates interesting links and helps identify possible opportunities where there is most activity or areas that require most attention.
The map created an understanding of the context of the city and the context of the surrounding intervention, thus inform decisions that are related to the needs of the people in the surrounding area.

Urban context and concept

The potential of the river as a transitional route

Figure 7.3.7 Figure ground map of Pretoria (Author, 2011).

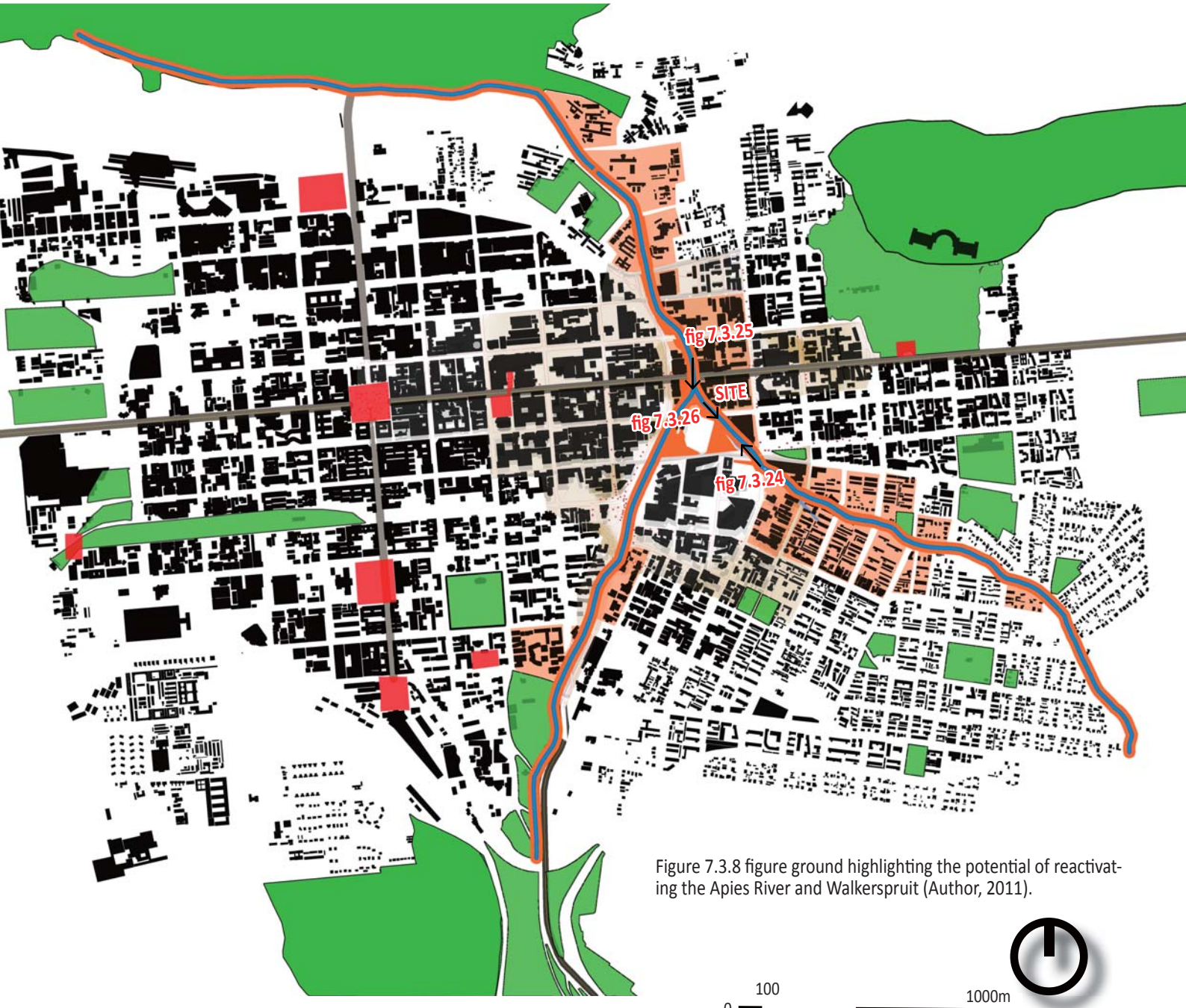


Figure 7.3.8 figure ground highlighting the potential of reactivating the Apies River and Walkerspruit (Author, 2011).

Figure 7.3.9 Photo of Walkerspruit (Author,2011).

Figure 7.3.10 Photograph where the two rivers merge (Author, 2011).

Figure 7.3.7 is a figure ground map of Pretoria, illustrating the Apies River and Walkerspruit as barriers with inactive edges that do not integrate with its surroundings.
Figure 7.3.8 is the figure ground highlighting the potential of the rivers as thresholds through the city. Highlighted in the red are the important and historic cultural open spaces of Pretoria.
The buildings surrounding the river currently don't interact with the river and have responded negatively to its edges, cutting themselves off from any form of interaction or connection physically or psychologically.
The aim of reconnecting the river with the city and reviving it into a transition route and river park, could activate the edges of the river creating new potential for the buildings to respond positively to the river and enhance the experience of the people living in the city or using the river walk. People using the river could thus enhance the memory and character, creating new opportunities for people to connect with the cities history and memory.
Figure 7.3.9 is a photo of Walkerspruit, the environment with the trees still offers the potential for a pleasant experience if people could move along its edges, experiencing the coolness of the shade provide by the trees. The route could be populated with urban furniture and pause areas, the buildings facing the river could become more commercially and retail orientated to enhance the experience and passively police the river.
Figure 7.3.10 is a photo taken from Lions Bridge where the two rivers merge, looking onto an open green park space, that is currently fenced off.

Figure 7.3.11 Photo of a building adjacent to Walkerspruit (Author,2011).

Figure 7.3.11 is a photograph of an adjacent building with an industrial character, currently used as a church and Christian book store. The photo also illustrates the edges of the river fenced and cut off from access to the public,

Urban context and concept

Walkerspruit and the Apies River edges become activated, creating other potential development

Figure 7.3.12 figure ground of Pretoria highlighting the ceremonial routes and adjacent buildings and sites to the rivers (Author, 2011).

Figure 7.3.13 Photo taken on site of the edge of the river (Author, 2011)

Figure 7.3.14 Photo of character of the existing building to be retained (Author, 2011).

Figure 7.3.15

Figure 7.3.16

Figure 7.3.15 and Figure 7.3.16 Photo of influential character of industrial building along Walkerspruit (Author, 2011).

Figure 7.3.12 is a figure ground map of Pretoria, highlighting the ceremonial route along Church Street and Paul Kruger Street. The ceremonial route along Church Street will connect the Union Buildings, Lions Bridge, Lillian Ngoya Square and Church Square. The buildings and street should contribute and reflect the character of Church Street as a ceremonial route. Greater focus should be emphasized on pedestrian circulation with urban furniture, cycling lanes and landscaping for shade.
With the reactivation of Walkerspruit and the Apies river, economic interest in the area will increase therefore resulting in the buildings around it becoming more valuable and stimulate further development around the river. Guidelines should be put in place for developments to integrate with their surroundings. Upliftment of the area with new recreational activities will attract people back to the CBD. with the city becoming more attractive to live in, mixed used developments could create a environment for the city to function 24/7.
Figure 7.3.13 is a photograph of the rivers edge currently used to store vehicle spare parts, detracting from the potential and experience of the river.
Figure 7.3.14 is a photo of the industrial character of the buildings found on site that will be incorporated with different program.

Figure 7.3.15 and 7.3.16 are photos of the building opposite the southern end of the site that echo the industrial character of the area, elements of the surrounding tectonics and materials will influence the design to enhance the character of the site and context. The building is currently used as a church fronting Pretorius Street that is currently a major route into the city. This road is also very hazardous with narrow pavements that are difficult for pedestrians to cross. At this point along the river walk, a robot intersection is proposed to make it easier for pedestrians to cross the road safely.

Urban context and concept

The river park phased into different character sections influenced by its surrounding context

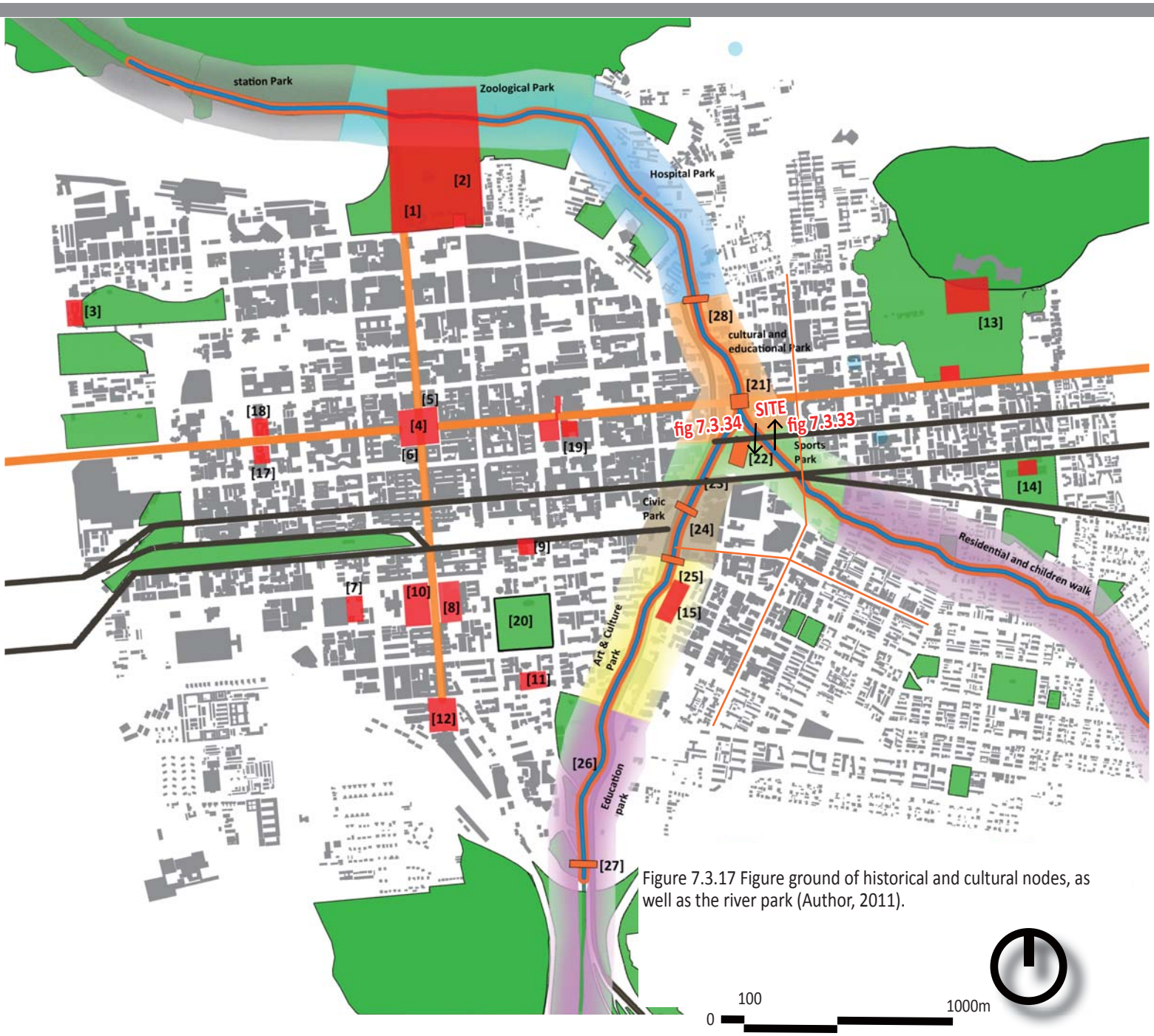


Figure 7.3.17 Figure ground of historical and cultural nodes, as well as the river park (Author, 2011).

Figure 7.3.18 Existing industrial buildings on site to be retained (Author, 2011).

Figure 7.3.19 Photo of the Caledonian Sports Ground (Author, 2011).

CULTURAL NODES

1. Pretorian Zoological Gardens
2. Aquafurn and Snake park
3. State Model School Museum
4. Church Square
5. Palace of Justice
6. Old Raadsaal
7. African Window Museum
8. Transvaal Museum
9. Museum of Science and Technology
10. City Hall and Pretorius Square
11. Melrose House
12. Pretoria Station
13. Union Buildings
14. Pretoria Art Museum
15. Oeverzicht Art Village
16. NZASM Houses
17. Paul Kruger's Church
18. Kruger House
19. State Theatre
20. Burgers Park

HISTORICAL NODES

15. Oeverzicht Art Village
21. Lions Bridge
22. Caledonian Sports Field
23. Palm Trees
24. Skinner Street foot bridge
25. Victoria Bridge
26. Apies River - Capital Park
27. NZASM Bridge
28. Hove's Drift

Figure 7.3.17 is a figure ground study highlighting all the cultural and historical nodes in the CBD. There are many historical nodes located along the Apies river, and very little potential to really experience them or celebrating their historic value as a result of the river being canalized.

It is proposed that the river walk be split up into different experiences and character based on its surrounding context and cultural value.

The area surrounding the site along Walkerspruit, will have a cultural and educational character, this is influenced by the string of T.U.T satellite buildings along the Apies river. The cultural influences are a result of Lions Bridge and Church Street that are import heritage and cultural nodes. The aim of the river park and surrounding developments will enhance the memory and experience of the history of the site and its cultural significance.

The T.U.T satellite buildings also form a important part of the cities culture and should be enhanced and made more legible by creating a link along the river.

Figure 7.3.18 is a photograph of the abandoned historic industrial building on site.

7.4 Site Context (Micro)

Pedestrian movement and activity

Figure 7.4.1 photograph of pedestrian movement along Church Street (Author, 2011).

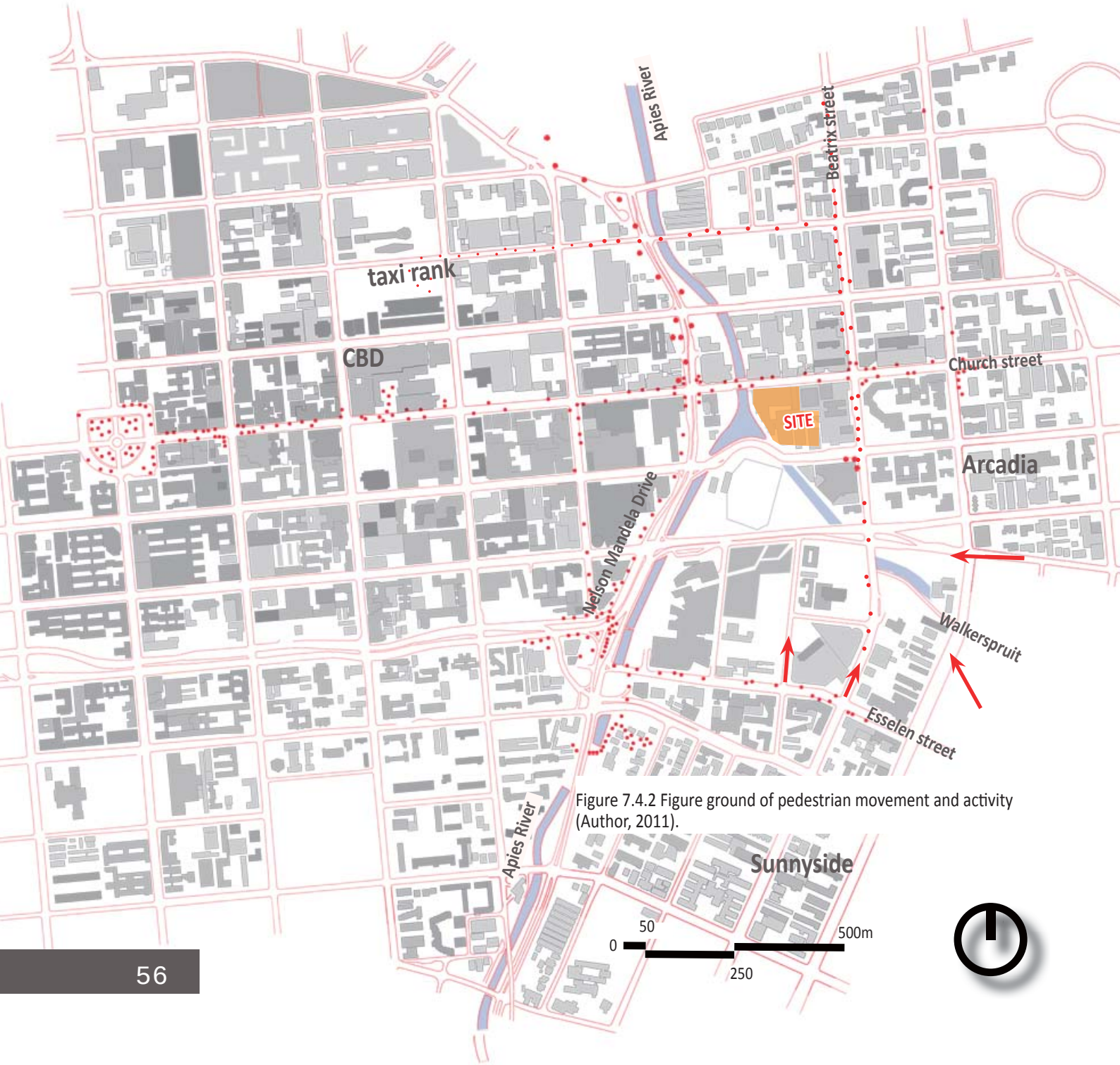


Figure 7.4.2 Figure ground of pedestrian movement and activity (Author, 2011).

Figure 7.4.3 photograph of the position along the river the river walk will cross Church Street (Author, 2011).

Figure 7.4.4 Photograph of pedestrian movement along Nelson Mandela coming off Esselen out of the suburbs (Author, 2011).

Figure 7.4.5 picture of formalized informal trade along Beatrix Street (Author, 2011).

Figure 7.4.6 Photograph of high pedestrian activity during peak hours along Beatrix Street (Author, 2011).

Pedestrian Movement

Pedestrian movement are generally in the early mornings and evenings when commuters migrate from the suburbs of Sunnyside and Arcadia these times are when pedestrian movements are at their busiest. During the day most of the pedestrians are made up of students and scholars. People that don't live within the city make use of public transport (mostly informal) to get to work this also takes place in the morning and late evening and the majority of these commuters travel from Atteridgeville, Mabopane, Garankuwe, or Soshanguve; and get dropped off at the taxi rank and make their way to their respective places of employment.

Many of the pedestrians travelling to and fro from the south or north have to walk long city blocks if the river walk was to be made accessible a lot of pedestrians would use the walk as it would cut there distance to walk down quiet considerably.

Movement Networks along the River and Church Street, form main generators for the design

New pedestrian promenade along the Apies River and Walkerspruit forming a new transition route between the University of Technology (TUT) and suburbs to the south and east of the city.

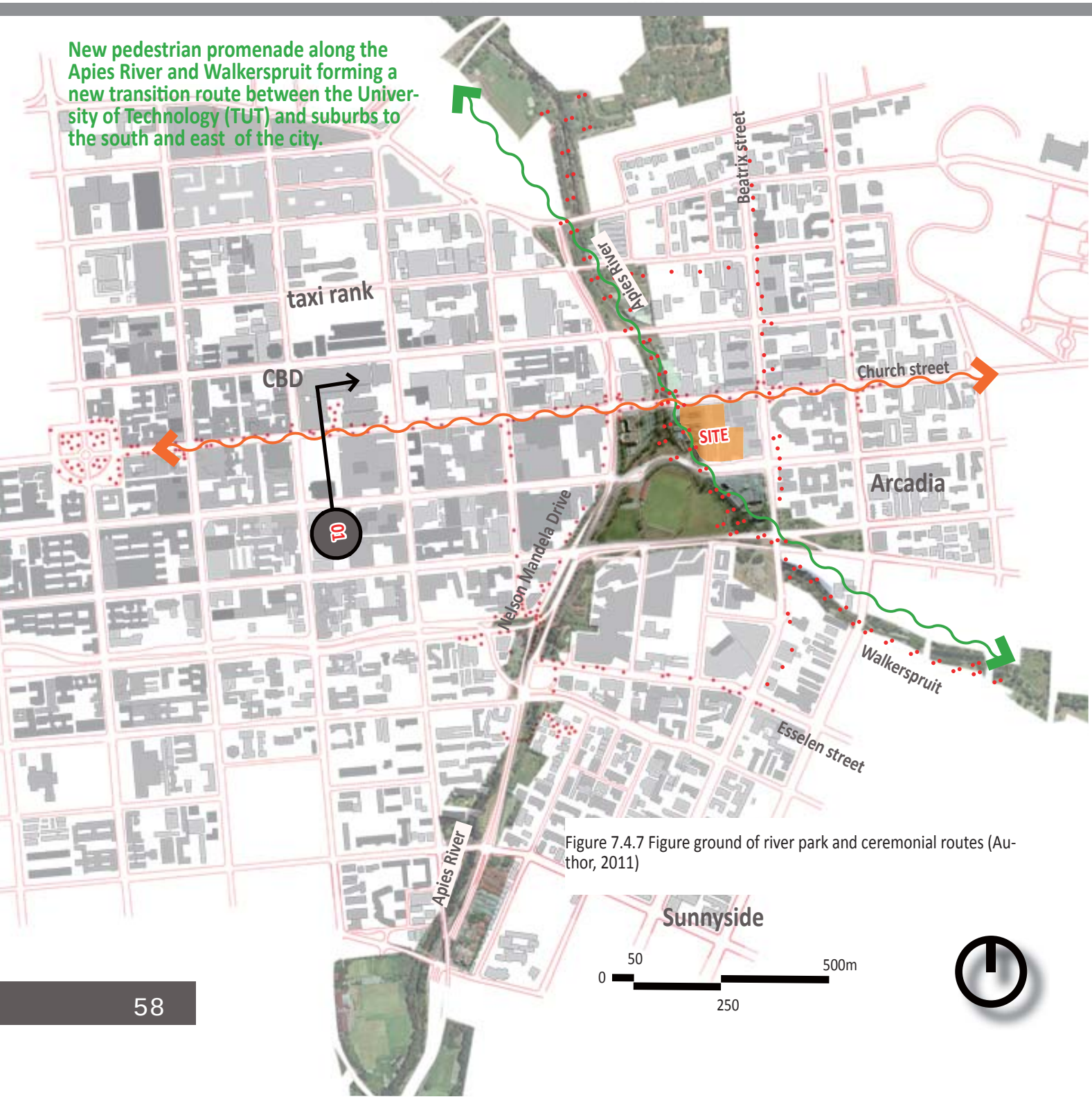


Figure 7.4.7 Figure ground of river park and ceremonial routes (Author, 2011)

Figure 7.4.8 Photograph of Church Street looking toward Pretoria CBD (Author, 2011).

Figure 7.4.9 Photograph on Pretorius Street, with poorly demarcated public transport waiting facilities (Author, 2011).

Figure 7.4.10 Section 01 through Church Street and lillian Ngoya Square (Author, 2011)

Figure 7.4.7 is a figure ground study highlighting the river and Church Street as two important design generators. Walkerspruit and the Apies River could function as a green recreational route, that could enhance the experience of citizens or commuters who travel into the city from Sunnyside and Arcadia. The river would also create areas for potential social interaction and recreation making the city more attractive and vibrant. This would stimulate more people wanting to live closer to the city.
Church Street becoming more pedestrian focused could become an annual event where ceremonial events can take place, the likes of marches, parades and or other political events, marching between the Union Buildings and Church Square.
Figure 7.4.10 is conceptual section through Church Street and Lillian Ngoya Square (see figure 7.4.7), illustrating how the street activities could flow into open public squares, where the threshold between the street and open space become fused to allow for recreational activities to take place.

Ceremonial routes conceptual character (Church Street)

Figure 7.4.11 Figure ground highlighting ceremonial route (Author, 2011)

Figure 7.4.12 Section through Church street illustrating new character (Author, 2011).

Figure 7.4.12 is section 02 (see figure 7.4.11) through church street, illustrating the reduction of vehicle lanes for wider pavements for pedestrian circulation. The urban proposal is to create more urban seating, planting and cycling routes, aimed at creating a friendlier pedestrian environment, and enhancing the character of the ceremonial route between the Union Buildings and Church Square.

River walk conceptual Character

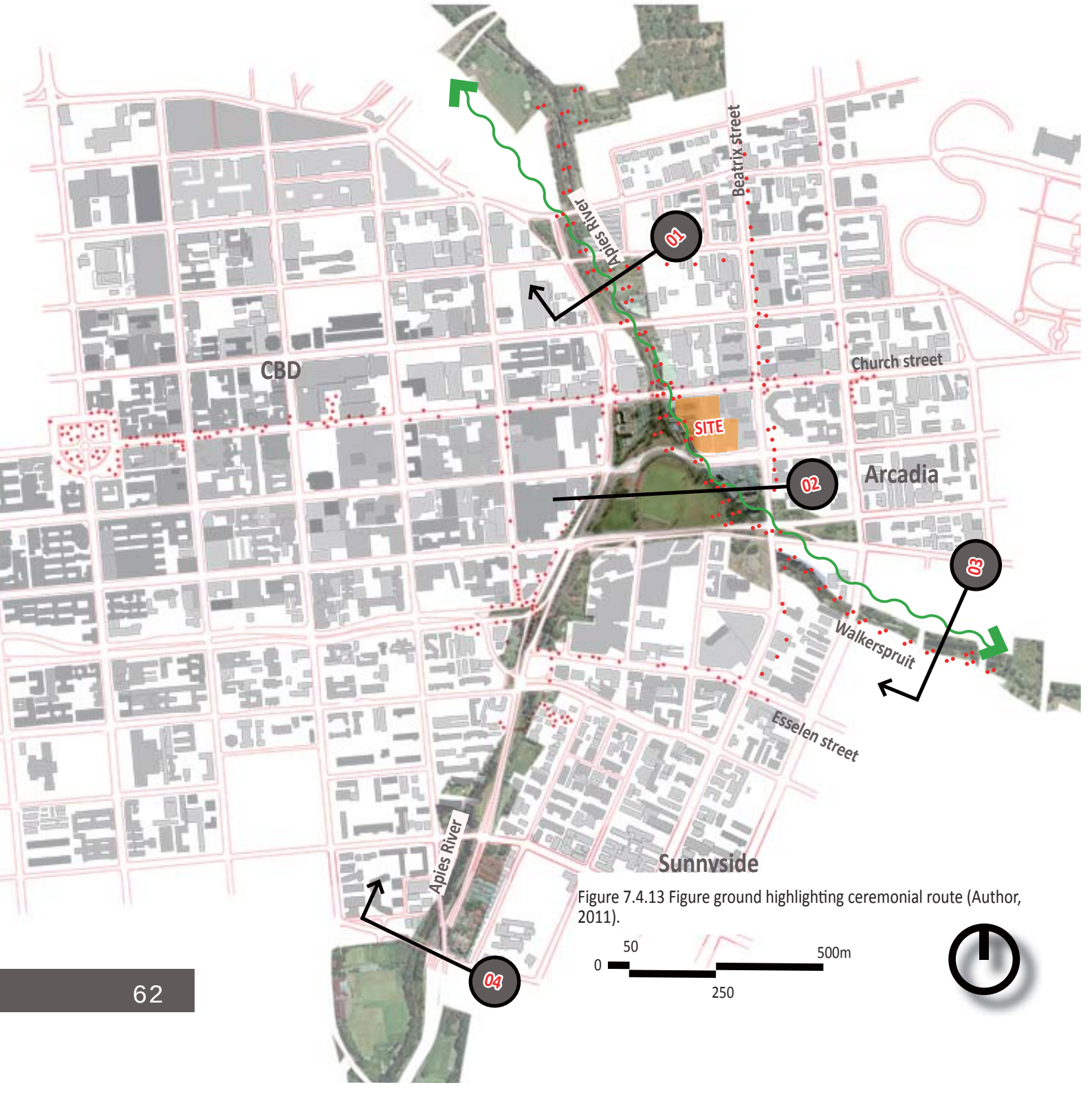
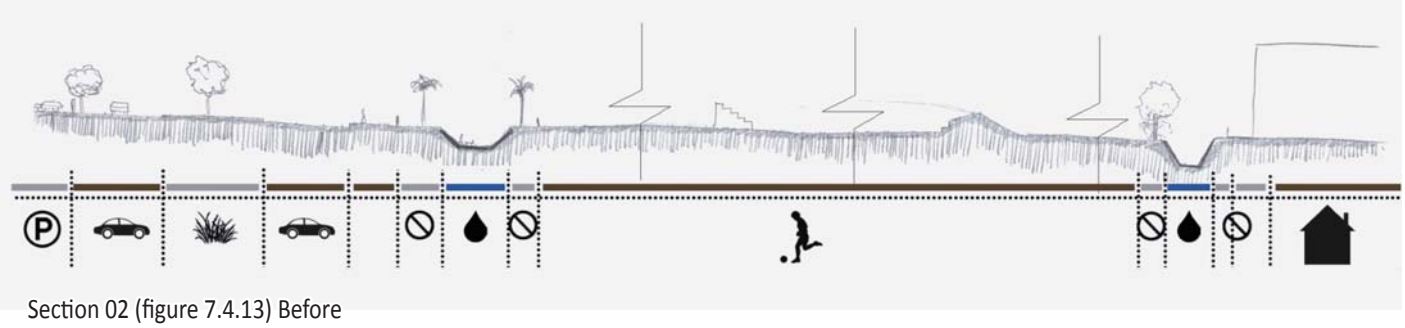
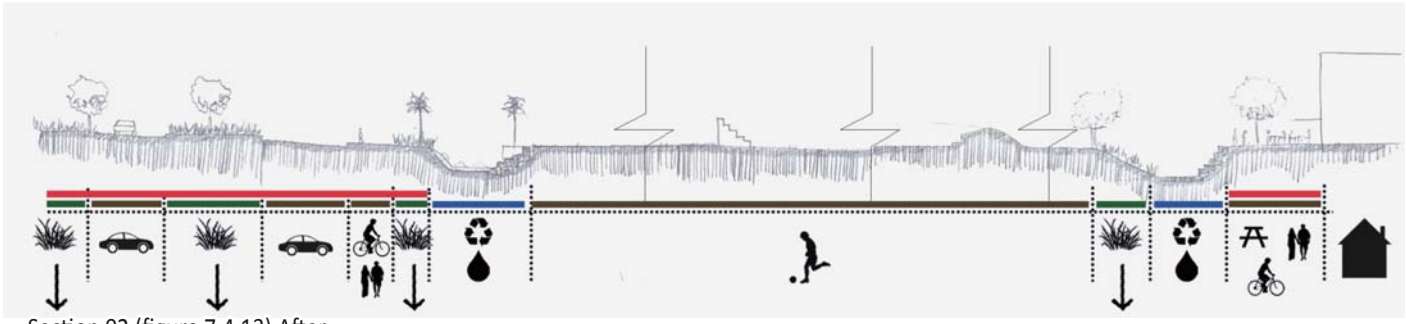


Figure 7.4.13 Figure ground highlighting ceremonial route (Author, 2011).

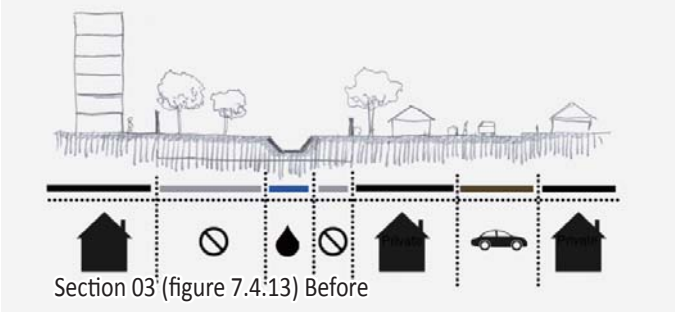


Section 02 (figure 7.4.13) Before

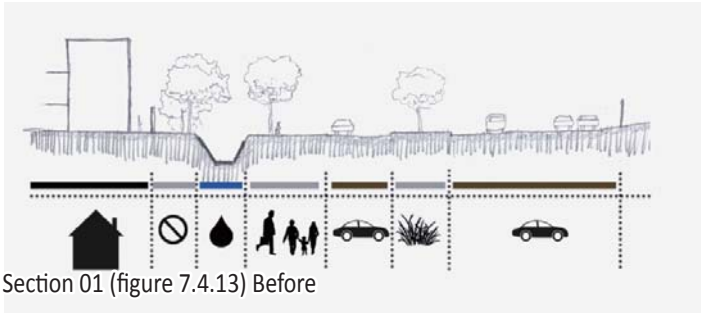


Section 02 (figure 7.4.13) After

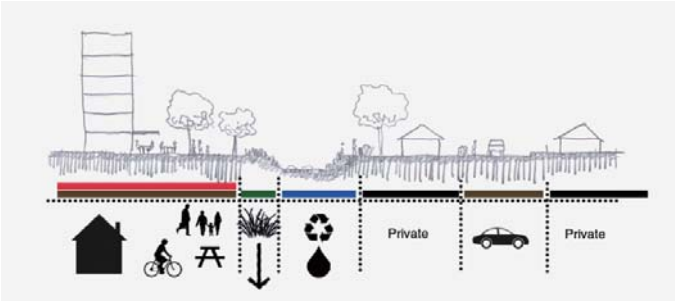
Figure 7.4.14 Concept before and after section 02 (figure 7.4.13) through the Caledonian Sports grounds, including the Apies River and Walkerspruit (Author, 2011).



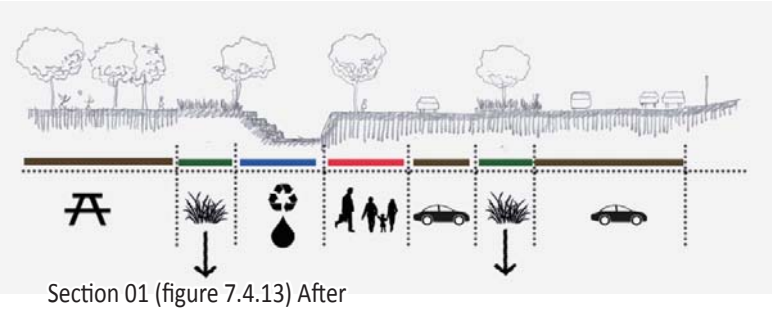
Section 03 (figure 7.4.13) Before



Section 01 (figure 7.4.13) Before



Section 03 (figure 7.4.13) After



Section 01 (figure 7.4.13) After

Figure 7.4.15 Concept before and after section 01 & 03 (figure 7.4.13) through the Apies river and Walkerspruit (Author, 2011).

Figure 7.4.14 of section 02 (see figure 7.4.13) through the Caledonian sports grounds, illustrating the existing character of the two rivers and the proposed character of a proposed river walk with activated edges. Animating the edges of the rivers to encourage pedestrian movement could activate the Caledonian sports ground, and visual policing making the park a safe accessible place for social interaction and recreation.

Figure 7.4.15 are sketch sections 01 and 03 taken through the Apies river and Walkerspruit (see figure 7.4.13), illustrating the potential recreational value of the river, by making the river more accessible as a river park transitional route through the city.

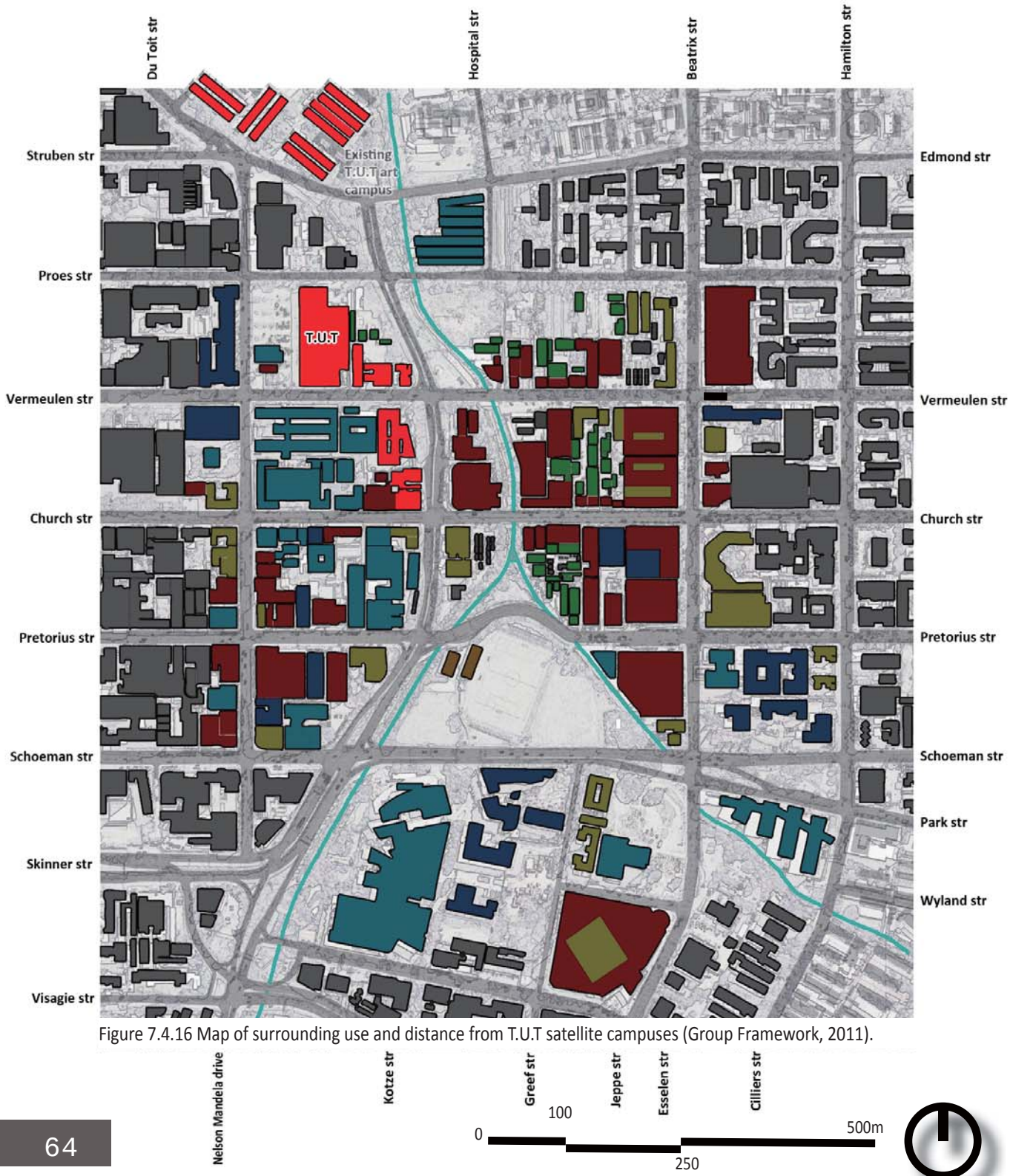


Figure 7.4.16 Map of surrounding use and distance from T.U.T satellite campuses (Group Framework, 2011).

Figure 7.4.16 is a map of the surrounding context, illustrating the variety of mixed use surrounding the site.
The map also illustrates the clusters of industrial building on the site and adjacent sites. Many of the industrial buildings on the site have a unique construction character that have been placed in a unique environment, the design should enhance the experience and character of the site and its surroundings.
The close proximity of the different T.U.T satellite buildings enhance the proposed character of an educational cultural river park - that string the different T.U.T buildings together.
Its also for that purpose the proposed location for the T.U.T post grad art facility will be ideally located- next to the river along the river park walk.
The intergrated mixed use post grad art facility will enhance the experience of the river creating recreational areas for students to socialise.
The open nature of the development will give the public the opportunity to interact with the artists and the artwork that gets created.

7.5 Site Context

Pedestrian movement and activity

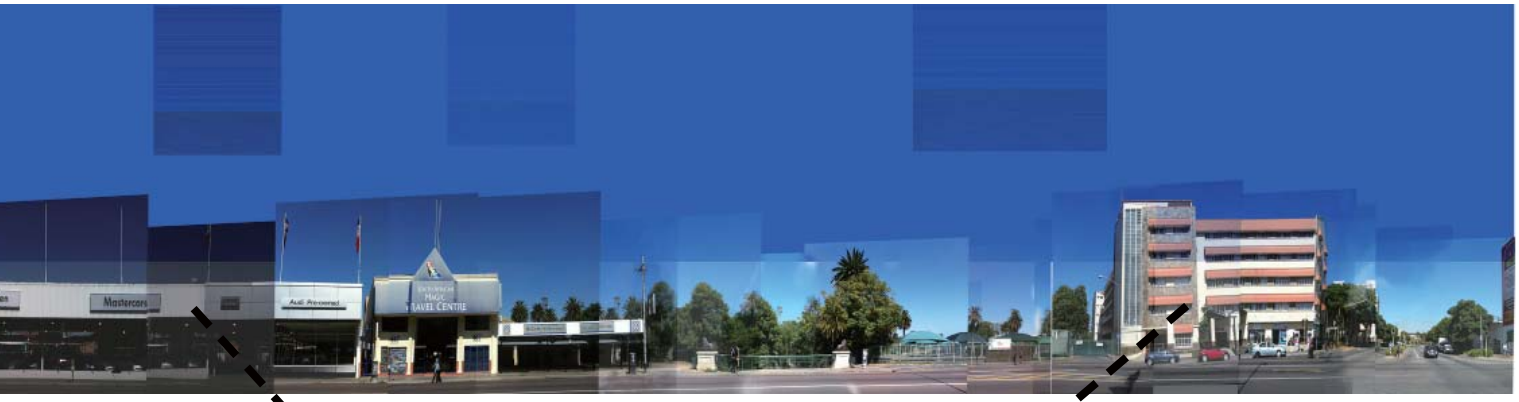


Figure 7.5.1 Panoramic of Church Street elevation (Author, 2012).

Figure 7.5.2 Aerial panoramic of site (Author, 2011).

Figure 7.5.3 Aerial photo of site plan (Geography Department, University of Pretoria, 2011).

Figure 7.5.4. View down Church Street towards the Union Buildings (Author,2011). Sancardia and Polmed buildings opposite the Kingsley Centre have an imposing height and mass. Buildings have high residential densities that could support the recreational programs of the intervention

Figure 7.5.5 Linear, complex and odd buildings on northern side of Church Street (Author,2011). Site has retail activities at present, similar problems to project site: under utilized within the CBD. Has opportunity to create possible links from project site to Vermeulen street

Figure 7.5.6. Buchels building to the north of Church Street (Author,2011). Has a strong street presence which is enforced by its long linear form and canopy over the pavement. Its bright yellow facade also makes it stand out on the street edge.

SITE Context
micro context study

Figure 7.5.7. McCarthy Volkswagen showroom complex fronting Church Street and the Apies river (Author,2011). Poor integration with the proposed urban river promenade. Also sits diagonally opposite Lions Bridge also contributes little to the edges of Lions Bridge to enhance its significance.

Figure 7.5.8. Lions Bridge crossing the Apies River along Church Street (Author,2011). The bridge marks the important crossing point between Sunnyside and The CBD as well it sits on the major east west axis of Pretoria.

Figure 7.5.9. Elbow of where the Apies River and Walkerspruit merge (Author,2011). The trees to the left create a pleasant edge between the River and the site. The palm trees can also be seen in the background and are of heritage significance.

Figure 7.5.10. View from north of Church Street looking towards Church Square (Author,2011). The Image illustrates the relationship between Benstra and the Precinct. The Benstra steps back and its scale compared to the adjacent buildings gives it a strong presence.

Figure 7.5.11. Fenced lost space has potential to be developed into green open space (Author,2011).

Figure 7.5.12. Apies River channel which becomes much wider and less steeper, the river travels north toward TUT (Author,2011).

Figure 7.5.13. View of Walkerspruit running northwards along the western edge of the site (Author,2011). To the left is a wedge of closed off green space between the Apies river and Walkerspruit, could become a possible open space link to the site.

Figure 7.5.14. View over Pretorius Street and the Apies river towards open parking area (Author,2011). In the background is the Lions Bridge hotel which is currently student accommodation.

Figure 7.5.15 Aerial photo of site plan (Geography Department, University of Pretoria, 2011).

Figure 7.5.16. Elevated view of the northern edge of the Caledonian sports-fields (Author,2011). The heritage stone retaining wall separates the fields from busy Pretorius Street providing access from the eastern suburbs of Sunnyside. In the background is the Caledonian's pavilion and administration building, typical of the Edwardian style. Both structures and the sports grounds are of heritage value to the city and area.

Figure 7.5.17. The historic retaining wall and row of Jacaranda trees create a unique street edge to the north of the Caledonian soccer grounds (Author,2011). The lighting structures in the background serve as landmarks in the immediate area.

Figure 7.5.18. Elevated view looking at the existing structures framing the west of the site adjacent to Walkerspruit (Author,2011).

SITE Context
micro context study

Figure 7.5.19. Walkerspruit leading southward between the eastern edge of the Caledonian sports grounds (Author,2011). Sterland shopping centre complex borders the opposite side of the channel. Walkerspruit leads further south into Sunnyside residential area.

Figure 7.5.20. Southern edge of Pretorius Street (Author,2011). Emannual Christian Church building in the fore-ground and the Caledonian sports field in the background marked by its proponent vertical light structures. The fields are extremely under used and could offer the precinct huge recreation potential.

Figure 7.5.21. Building adjacent to Walkerspruit (Author,2011). The building in the background fronts Pretorius street and the western facade fronts onto Walkerspruit and Caledonian. The building is currently occupied by a church and Christian book store.

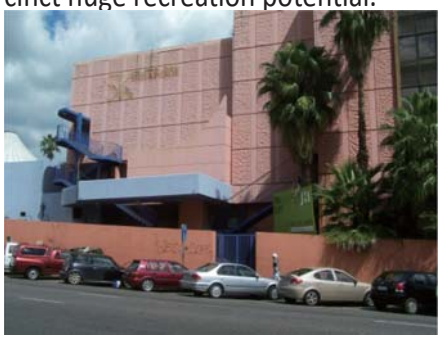


Figure 7.5.22. Sterland cinema and shopping complex (Author,2011). Located on the south-west corner of Pretorius/Beatrix street crossing. The building has a strong presence and provides some recreation for the area but its solid perimeter creates a hard street edge making the area an unsafe urban edge.

Figure 7.5.23. Ramped entrance into the parking of the Benstra building with the Kingsley Centre in the background (Author,2011).

Figure 7.5.24. The Southern end of Pretorius is framed by the Emannual Christian Church (Author,2011). In the background is the Sterland complex which creates a hard edge onto the street making it very sterile during the day and very unsafe at night.

Figure 7.5.25. Kingsley Centre viewed from the south east on Pretorius Street (Author,2011). The building is the tallest building in the block. Is also offices for the department of Arts and Culture for Pretoria.

Figure 7.5.26. Benstra building (Author,2011). The south and western facades of this multi storey building defines the project site. The buildings northern facade create a strong urban edge onto church street but offers no pedestrian interface with the street.

Site context study

(For further site context study of the block and buildings - see ADDENDUM B.)

Figure 7.5.27 is a figure ground study of the existing building stock on site. The study looks at structures on site that are permanent or temporary. Through the analysis, it is revealed that there is a lot of potential open recreational space between the buildings and potential access across the site.

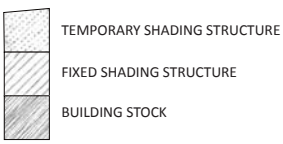
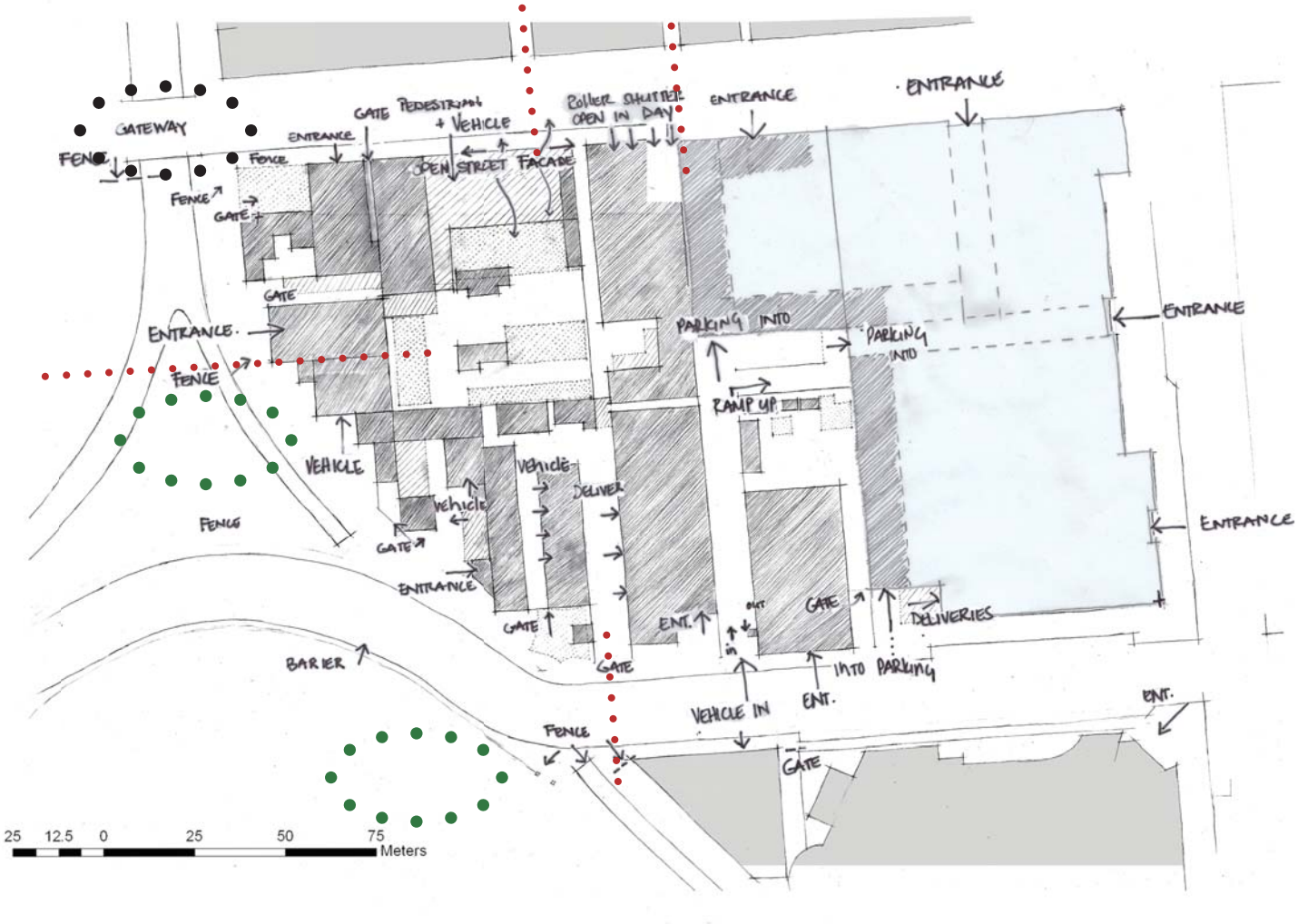


Figure 7.5.27 Figure ground analysis of solid building stock and lightweight temporary structures (Author, 2011).

Figure 7.5.28 is study of existing edge and entrance conditions of the site. The annotations highlight the current edge treatment conditions of the different buildings and access. The purpose of the study is to identify the existing permutations to the site and buildings to formulate an understanding of the different relationships between the building and street edges - an understanding of the various thresholds that exist and potential future connections.



TEMPORARY SHADING STRUCTURE

FIXED SHADING STRUCTURE

BUILDING STOCK

Figure 7.5.28 Figure ground analysis of existing entrances and edges (Author,2011).

Figure 7.5.29 is a figure ground study of available open spaces between the existing buildings. Annotated are the potential reuses of the existing abandoned structures. The figure ground also high lights the possible relationships between the new programs and open spaces, allowing activities to spill out into the open spaces - activating the open spaces between the buildings.

POTENTIAL OPEN SPACE
HARD AND SOFT SURFACES

Figure 7.5.29 Figure ground analysis of existing open spaces between the buildings and potential axis links (Author, 2011)

Figure 7.5.30 is study of major design generators and possible open space networks. The major design generator are Firstly the potential new axis through the site connecting the open spaces between the buildings, Secondly Church Street identified as a ceremonial rout between the Union Building and Church Square, Thirdly the urban framework identifying the Apies River and Walkerspruit as a new transitional threshold through the city and recreational river park.

Figure 7.5.30 Figure ground analysis of the potential opportunities and design generators (Author, 2011).

Figure 7.5.31 is a figure ground study of valuable building stock on site that are worth retaining that make up the character and experience of the site.
The existing building character are industrial by nature and will be the guide for much of the new aesthetic of the development.
The existing buildings and structures will be integrated into the design for the new program of the new mixed use development.
The existing buildings for the framework and structure for the new intervention and frame the open spaces.
the new structure between the existing should enhance the experience of the existing structures and frame the open spaces, forming couryards for private activities to spill over into, for the public to experience.

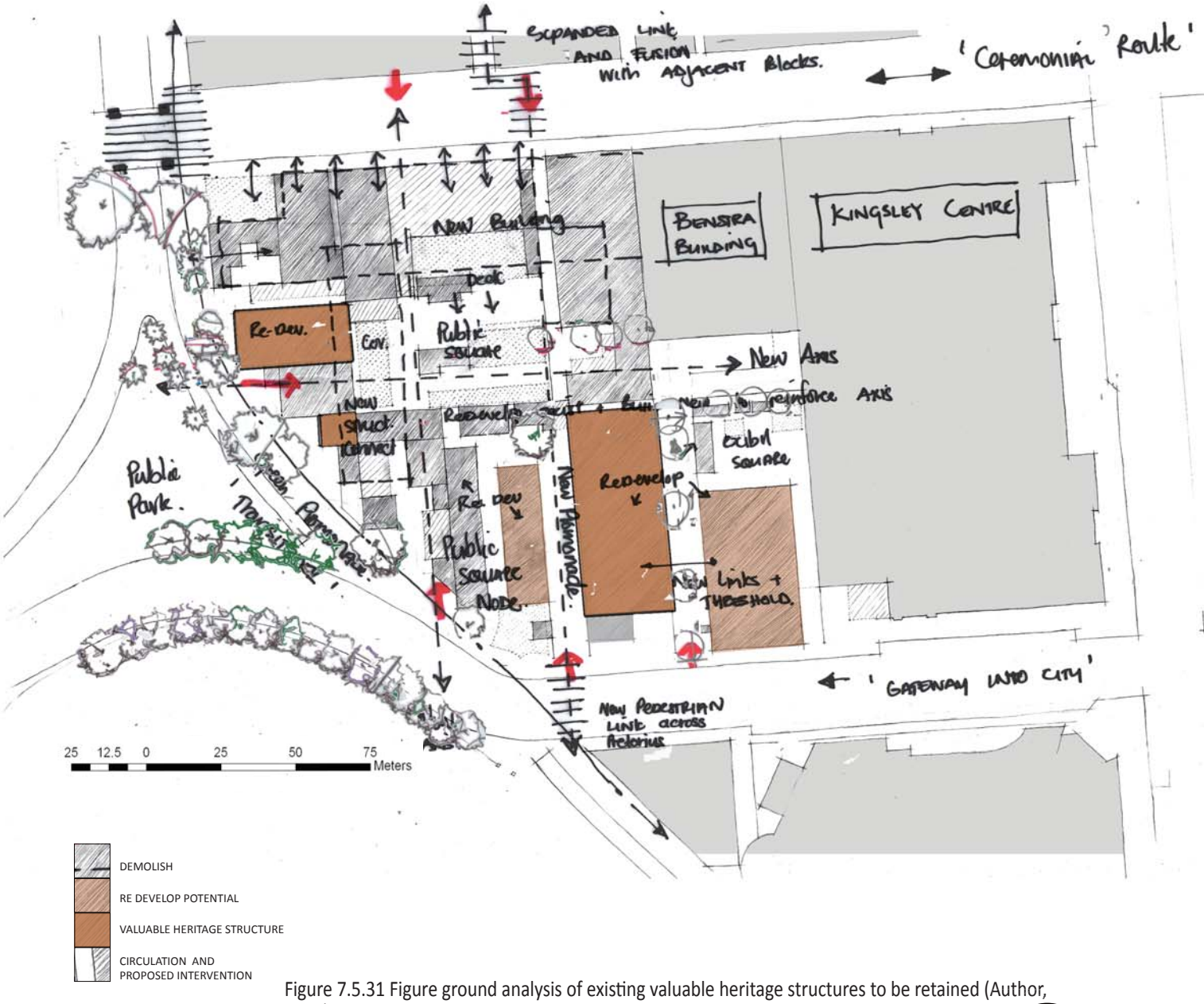


Figure 7.5.31 Figure ground analysis of existing valuable heritage structures to be retained (Author, 2011)

08 - Precedents

FRIENDS OF THE HIGH LINE

Abandoned air rail strip, Manhattan,New York, United States.

Local District and Inner city development (1999-2012)

Architects: Diller Scofidio + Renfro

Landscape Architects: James Corner Field Operations

"Friends of the High Line" was based on the model of the Promenade Plantee in Paris. It transformed a scar in the landscape into a social spine, filled with different networks. It utilises principles that could be used as examples and as a case study to develop areas like the Apies River.

The High Line runs through three of Manhattan's most dynamic neighbourhoods: the meat packing district, West Chelsea, and Hell's Kitchen/Clinton. When the High Line was constructed in the 1930s, these neighbourhoods were dominated by industrial functions, built to make the transportation-fuelled urban economy perform more efficiently.

The one-time symbol of modernity became redundant as no trains have travelled on the High Line since the 1980's. Thus a scar in the landscape was created, which was then reclaimed for the public: for social recreation, psychological upliftment and economical gain for the city of New York.

Areas within the city were redeveloped following this new economic model. One of the discoveries was that preserving open land and creating new public spaces boosts property values and generates higher property tax revenues. This consequently attracted new business investors. These open spaces also created a needed relief for people working and living within these industrial districts.

This transition opened up new possibilities, seeing the urban landscape and old buildings and warehouses being transformed into art galleries, design studios, retailers, restaurants, museums and residences.

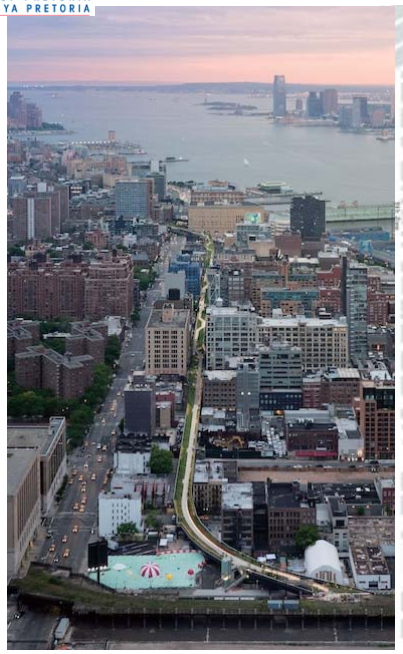


Figure 8.1

Figure 8.2

Adopted principles:

- Provide opportunities for artists to showcase their work in a public venue, allowing artists to expose their art to a larger spectrum of people that pass by / pass through the workshop village.

- New interventions along this threshold should adopt and be influenced by the history and surrounding character of the site. This will create a link and spine through time, reflecting on how the city has developed and changed over time.

- Retain some of the old warehouses and readapting their uses as flexible workshop studios or gallery spaces.

Figure 8.1 Photo of the High Line spine cutting through Manhattan and different Districts (Friends of the High Line 2011)

Figure 8.2 Spinal map (Friends of the High Line 2011)

Figure 8.3 (bottom) Image taken in 2004 of previously abandoned High Line (Photo by Jonathan Flaum, Friends of the High Line, 2011)
Figure 8.4 conceptual image of relationship between existing structure and intervention (Friends of the High Line 2011)

Figure 8.3

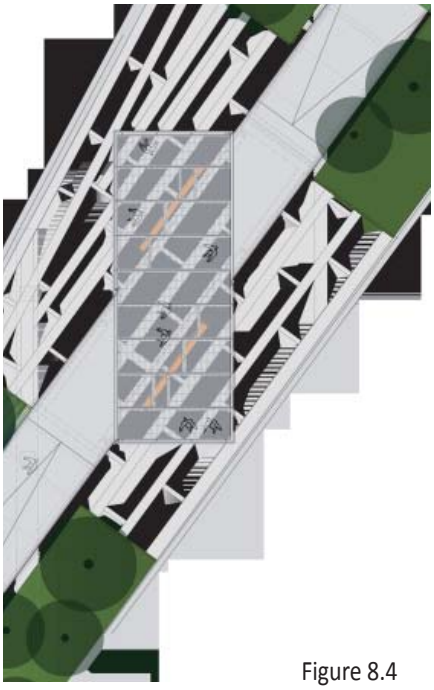


Figure 8.4

Figure 8.5

Figure 8.5 Perspective concept and relationship to adjacent buildings (Friends of the High Line 2011).

Figure 8.6 Photograph illustrating the contrast between the city skyline and the High Line (photo by Diane Cook and Len Jenshel (National Geographic 2011).

Figure 8.7 Photograph illustrating the new apartment housing constructed along the High Line (photo by Diane Cook and Len Jenshel (National Geographic, 2011).

Figure 8.8 Photograph illustrating how artwork is exhibited and used as a backdrop for a photo shoot (photo by Diane Cook and Len Jenshel (National Geographic, 2011).

Figure 8.9 Photograph illustrating capturing the view form the amphitheatre overlooking tenth avenue (photo by Diane Cook and Len Jenshel (National Geographic, 2011).

Figure 8.10 Perspective image of recreational spaces (Friends of the High Line, 2011).

Figure 8.6

Figure 8.7

Figure 8.8

Figure 8.9

Figure 8.10

Renovation & expansion of the Isabella Steward Gardner Museum

New extension and renovation onto Heritage museum and new music performance interactive centre in Boston, USA (2005)

Architects: Renzo Piano Workshop

Figure 8.11

The Isabella Steward Gardner Museum opened to the public in 1903. The museum has expanded to include contemporary exhibitions and special event programs. The building is conceived as a means to preserve the existing museum gallery and collection.

The extension includes the design of a concert hall, an exhibition gallery, conservation galleries and class room, artist-in-residence apartments, working green houses and an entrance pavilion.

The design originates from the response to the monolithic character of the museum gallery, by fracturing the overall volumetric form of the new building and opens it up to the site. Composed of four smaller volumes clad in oxidised panels, each accommodates a programmatic element of the museum. The volumes float above transparent ground floor activities by class rooms, cafe and orientation areas. The openness between the programs, the museum gardens and the larger site, encourage interaction and recalls a sense of the museum at work.

Adopted principles:

- The poetic use of light.
- The flexibility and different use of space will be incorporated in the design of the seminar spaces as spaces that can be divided and service different scales or types of events.
- Piano's subtle emphasis on access from the Evans Way Park, access from the natural to environment, will give strong clues assisting the design of access to the site and sculptural courtyards.
- The focus on creating intimate spaces relating to nature and the surrounding buildings.
- The central axis and circulation spine connects the formal and informal activities to create a level of social and intellectual interaction within the gallery and exhibit spaces.
- Use of materials and tectonics.
- The circulation from spaces and activities places emphasis onto the existing museum with strategic views.

Figure 8.11 Presentation Plan (www.rpbw.com, 2011)

Figure 8.12 Concept and circulation diagram (www.rpbw.com, 2011)

Figure 8.13 Concept of inside relationship to outside (www.rpbw.com, 2011)

Figure 8.14 Perspective from main approach (www.rpbw.com, 2011)

Figure 8.15 Section illustrating natural and controlled lighting (www.rpbw.com, 2011)

Figure 8.16 Model of form and articulation (www.rpbw.com, 2011)

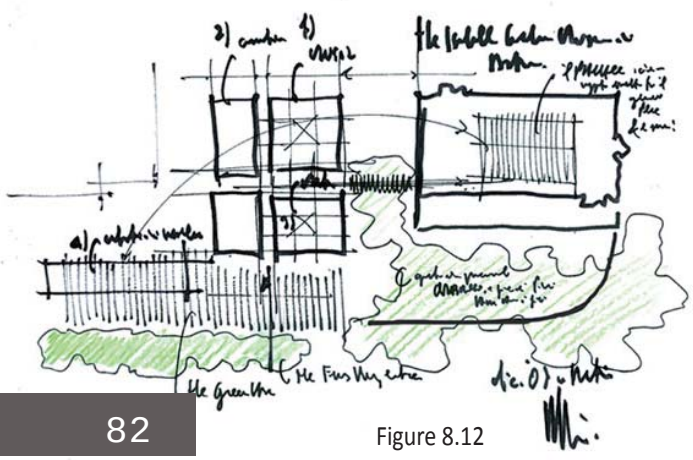


Figure 8.12

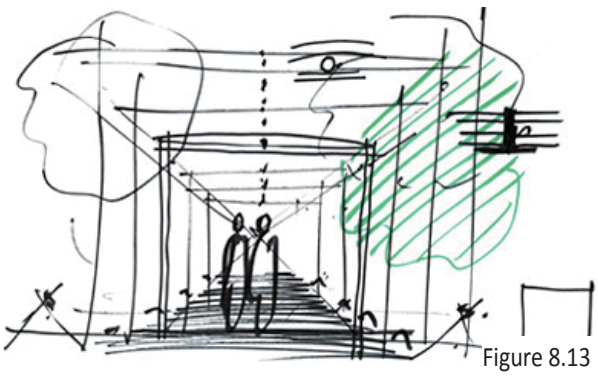


Figure 8.13

Figure 8.14

Figure 8.15

Figure 8.16

CHICAGO ART INSTITUTE

Renovation of the new modern wing for the Chicago Art Instutute

Chicago, USA, 1999-2009

Architects: Renzo Piano Workshop

The new wing was designed with carefully considered connections between the old and the new, this was achieved making use of glass, steel and lime stone. The limestone is used to make reference to the limestone used extensively in the original 19th century beaux-arts museum building.

The glass and steel used extensively on the facades was done so in the tradition of the Chicago Buildings:"the new extension was designed in solid and robust forms, yet at the same time the choice of the materials create a light and crisp architecture. The most distinctive feature of the addition is the long floating canopies, "flying carpet" (Jodidio, 2008:483), intentionally elevated to complement the concept of open airy interiors and connection to the exterior courtyards.

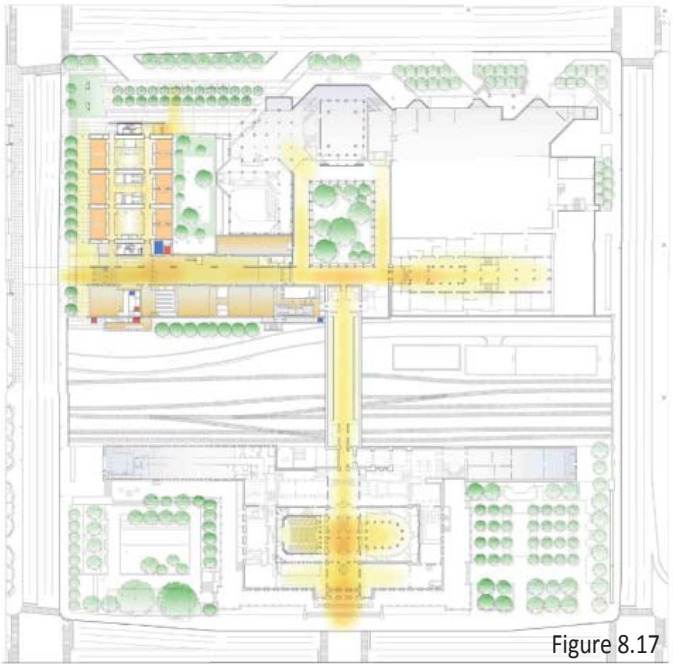


Figure 8.17

Adopted principles:

- The lofty treatment of roofs will aid in connecting the gallery with the sculptural and exhibit courtyards. Enhancing the experiences moving between interior and exterior thresholds.
- Large overhangs will assist in creating a legible and functional interface between the different outdoor spaces connecting the activities internally and externally.
- The use of light materials to reflect existing style and character of site and enhance character and relationships between the new and existing.
- The enlarged overhangs and roof support columns become supports and backdrops to which art can be used as a solar control device and building canvas to express art. The flexibility of the solar screens can allow change over time, and create an expressive architecture.

Figure 8.17 Illustration of circulation and relationship to adjacent buildings, as well as circulation and courtyards between different building functions (RPBW, 2011)

Figure 8.18 Illustration Section of connection between new and existing captivating views along transition routes, additionally solar response. (RPBW, 2011)

Figure 8.19 Photograph illustrating the roof concept of a "Flying Carpet" and the attention to light control into double volume exhibits below. (RPBW, 2011)

Figure 8.20 photograph illustrating the different threshold between the street and Institute, as well as the subtle change in architectural language of roof creates such a huge contrast and legibility.

Figure 8.21 photograph illustrating the lightness and tectonic of structure taken internally and language of floating bridge and stair echo's that of the pedestrian bridge and flying roof. (RPBW, 2011)

Figure 8.22 Photo of the building at night illustrates transparency and lightness of structure and how the floors and roof are elevated to compliment the airy interiors that connect to the external courtyards. (RPBW, 2011)

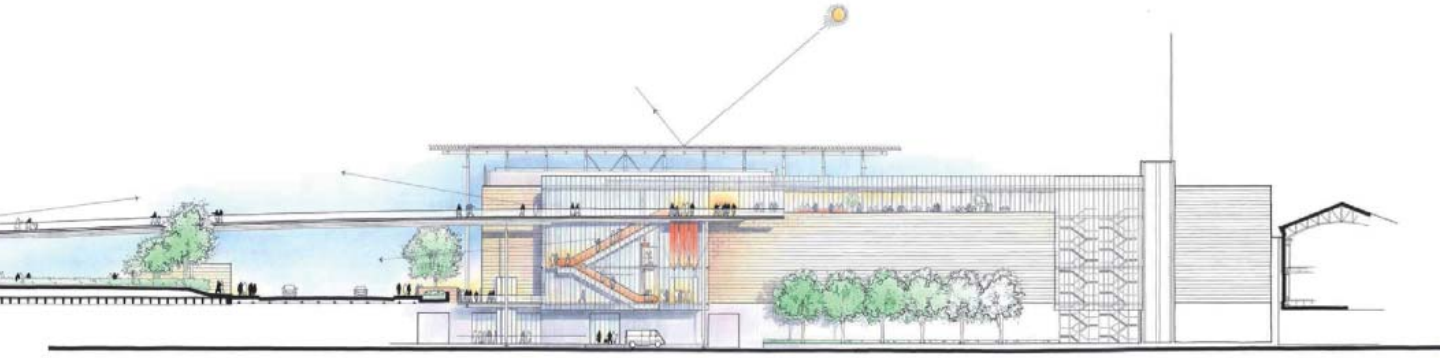


Figure 8.18

Figure 8.19

Figure 8.20

Figure 8.21

Figure 8.22

MAIN STREET LIFE

Johannesburg CBD, SA, 2009

Architects: Daffonchio & Associates

Main Street Life

Main Street Life is a transformation of a 1970's light industrial building into a contemporary mixed-use complex, catered towards like-minded artistic individuals. Each floor is tied to a specific creative discipline – design, film fashion, visual arts and architecture. Each floor was designed with common exhibition spaces for artists of similar fields of study to collaborate, workshop and exhibit work.
The internal spaces were therefore designed to be challenged and changed and not remain stagnant, encouraging dialogue between residents and the public who enter the building.

Both this precedent and the one to follow are works by the same architect within the same city block, a mere 500 m from each other. Although both buildings are successful in their own right, it is their proximity to each other that plays a notable role in uplifting the area.

Their function and location to each other make Fox Street dynamic and exciting. This once barren and desolate strip of urban fabric is now animated by new faces, children playing in the street and musicians expressing their arts on the street. This creates a new fusion between architectural space and urban space, blurring the edges between street and building.

Figure 8.23

Figure 8.24

Adopted principles:

- Circulation cores, lobbies, atriums, and passages become more than transitional spaces but spaces that encourage discussion and interaction, spaces that inspire and create a dialog between building, public and art.
- Buildings can create spaces on street edge to stimulate activity and recreation.
- Creating possible connections and links between adjacent sites and buildings, allowing for people to flow through or across the site .
- Allowing building and program to fuse creating new street threshold and platforms for recreational activity.
- How this art and creative culture development, like in New town, Johannesburg can stimulate urban renewal and revival, promoting walk able cities.
- Roof becomes multi- use-use recreational and event spaces. This allows for public social and recretional activites to take place, promoting art thats exibited and intergrating the building with the recreational needs of surrounding community.

Figure 8.23 Photograph of street while kids play in the street, and illustration of close proximity of Arts on Main to Main Street Life(Author, 2011)

Figure 8.24 Photograph of Building at night with secure on street parking. (www.daffonchio.co.za, 2011)

Figure 8.25 Floor Plans illustrating variety of mixed uses in a single building. (Digest of South African Architecture, 2010: 59)

Figure 8.26 Photograph illustrating the different threshold between the street restaurant, achieved with simple street scape furniture and planting. (Author, 2011)

Figure 8.27 Photograph of roof top event taken place at night overlooking Jhb skyline. (www.mainstreetlife.co.za)

Figure 8.28 Photograph of open plan interior studio apartments. (www.daffonchio.co.za, 2011)

Figure 8.29 Photograph of open plan interior studio apartments. (www.daffonchio.co.za, 2011)

Figure 8.30 Photograph of geodesic dome guard house by Mikhael Subotsky: in progress, illustrating how artists take over the street enriching the street dynamic and dialog. (www.daffonchio.co.za, 2011)

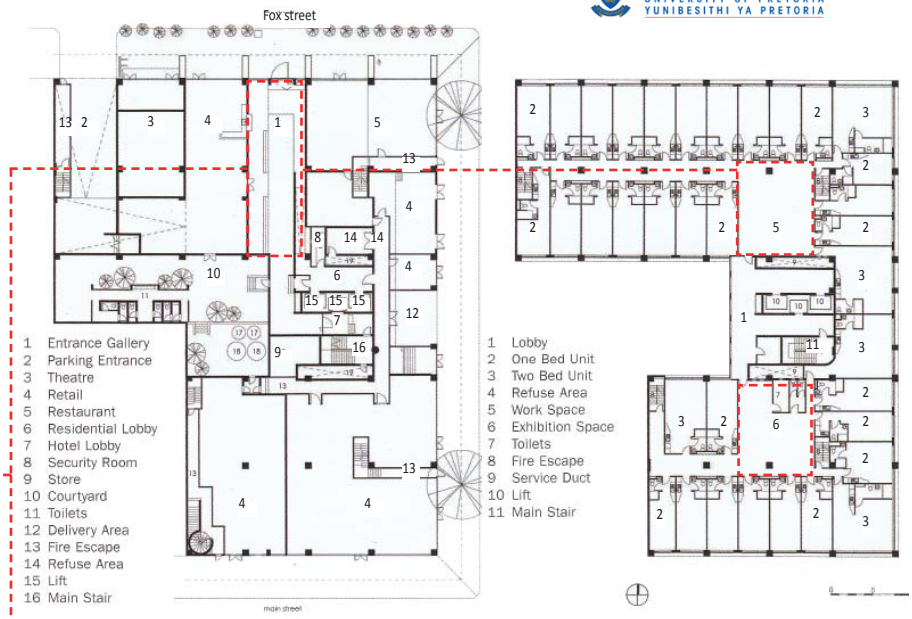


Figure 8.25

Figure 8.26

Figure 8.27

Figure 8.28

Figure 8.29

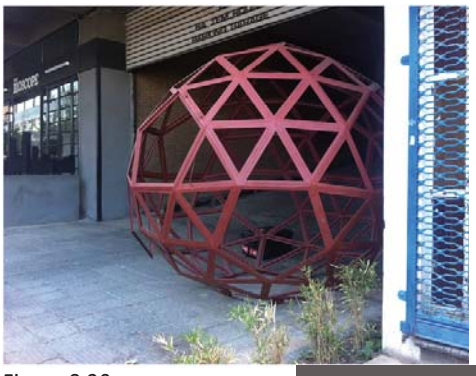


Figure 8.30

ARTS ON MAIN

Revival of a group of derelict warehouses in Johannesburg's eastern CBD into mixed use arts centre.

Johannesburg CBD, SA, 2009

Architects: Daffonchio & Associates

Arts on Main

Arts On Main is a mixed use development which is targeted at the Johannesburg's creative community, looking at the role of architecture and building as a catalyst for inner city rejuvenation.

Arts on main consists of various old, previously dilapidated buildings which have been connected, restored and converted from light industrial to a variety of work, exhibition and recreational spaces. The intervention of the architecture was to honour the history and heritage of the original buildings as much as possible by preserving their original architectural character and features, as well as retaining old machinery bearing testament to the buildings industrial origins. The additions draw on the industrial language and materiality, while maintaining a lightness which sets them apart from the original structures.

The main entrance off Fox Street draws the public into a garden, the first of a series of gardens around which individual spaces are centred. Catering takes place formally and informally within the courtyard space, thereby complimenting formal and informal activities that give the courtyard an intimate quality.

Adopted principles:

- Circulation cores and atrium spaces could be designed to act as platforms for art exhibitions and events, transferring and connecting the horizontal activities on a vertical plane as well.
- Light roofs to the south that allow for natural light and ventilation, while at the same time act as reflective surfaces for up lighting, complementing the lightness of the roofs.
- The celebration of vertical circulation elements to play on the character of existing -
- Roof spaces can be adapted for recreation overlooking the more informal activities taking place in the courtyards.

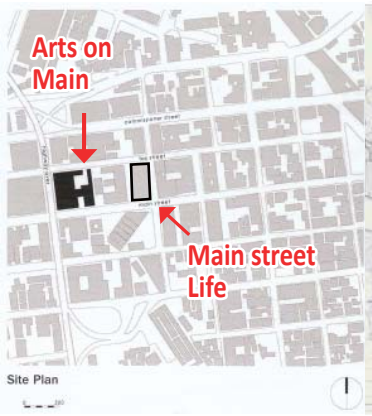


Figure 8.31

Figure 8.32

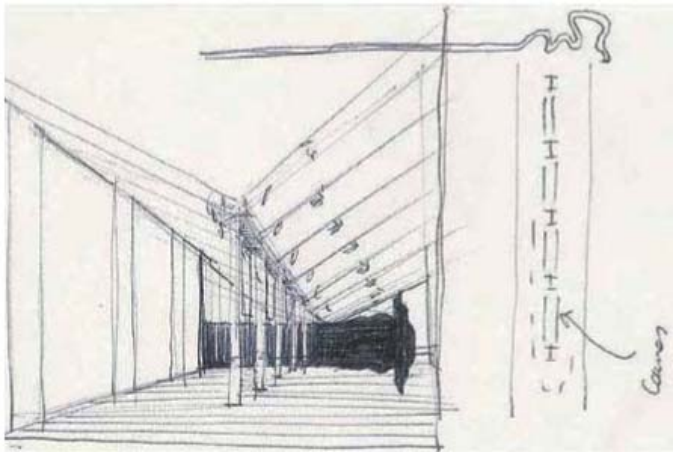


Figure 8.33

Figure 8.34

Figure 8.31 Site locality map (Digest of South African Architecture, 2010:213)
Figure 8.32 Sketch illustrating connection between inside and outside. (Shirley. 2009:18)

Figure 8.33 Sketch illustrating how passages are used as exhibit spaces connecting the studios. (Shirley, 2009:17)

Figure 8.34 Section. (Digest of South African Architecture, 2010:213)

Figure 8.35 Plans. (Digest of South African Architecture, 2010:213)

Figure 8.36 street photo. (Digest of South African Architecture, 2010:213)

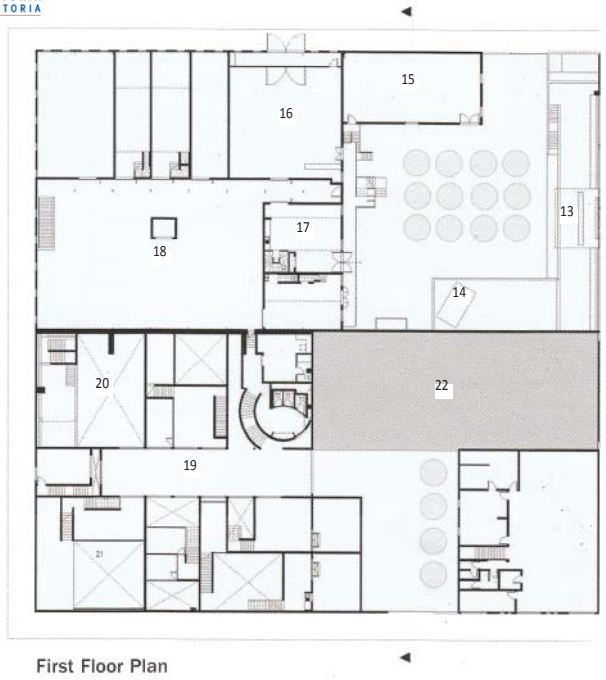
Figure 8.37 photograph of studios.(www.daffonchio.co.za, 2011)

Figure 8.38 photograph of roof spaces used as recreational bar and drinking area. (Author, 2011)

Figure 8.39 photograph of courtyard with overlapping activities. (www.daffonchio.co.za, 2011)
Figure 8.40 photo of Exhibit space (www.daffonchio.co.za, 2011)

Figure 8.41 photo of Exhibit space (Digest of South African Architecture, 2010:213)

Ground Floor Plan



First Floor Plan

Legend

1 Entrance on Fox St
2 Garden
3 Restaurant
4 Bailey Seippel Gallery
5 David Krut
6 Black Coffee & Love Jozi
7 Parking
8 Atrium
9 Seippel Gallery
10 Nirox Projects
11 William Kentridge Studio
12 Goethe Institute
13 Rooftop Bar
14 Car on Roof
15 *Drum* Magazine Archives
16 Goodman Gallery Projects Space
17 Daffonchio Projects Space
18 Events Space
19 Atrium
20 Seippel Gallery
21 Nirox Projects Space
22 William Kentridge Studio

Figure 8.35

Figure 8.37 (below)

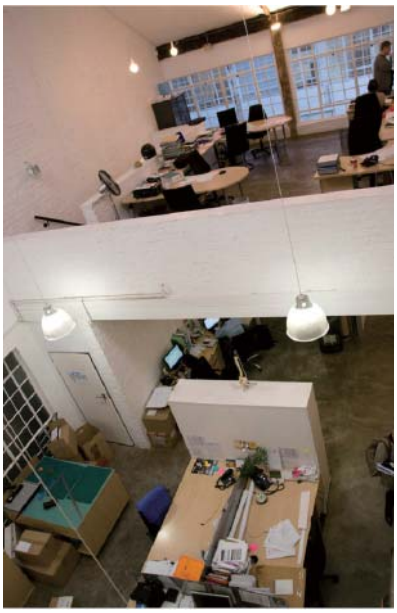


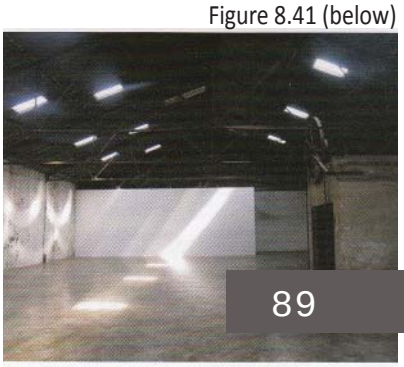
Figure 8.40 (below)

Figure 8.36

Figure 8.38

Figure 8.39 (below)

Figure 8.41 (below)



09 - Design Development

Design

Brief, concept

BRIEF

The proposed mixed use art facility is not only to fulfil the needs of the T.U.T post graduate student, but also addresses the social and recreational needs of the people or students living in the area.
Creating spaces that allowing people to interact not only with each other but there surroundings. This is aimed at uplifting the history and character of the site and the river.

The development should enrich the everyday experience of people living in or visiting the city and at the same time enrich the learning experience of the student through interaction and exposure to art and other artists.
Exhibition spaces and the gallery can be used for private exhibits that engage artists, public and students.

T.U.T possesses a vast and valuable art collection that could be exhibited on a rotational basis. The purpose is to enlighten students and the public through art that is of a different style and era - work that tells a story of a culture that has evolved through different experiences and keeps evolving.
Exhibit and gallery spaces should also provide a platform for students to exhibit their work, and engage with their community.
Exhibitions of their work will give them the opportunity to market themselves and their artwork.

The mixed use development will facilitate a variety of different programs aimed at servicing the post graduate art facility and the general public. The program will facilitate workshop studios, restaurants, lecture facilities and accommodation. This mix is aimed at integrating the development into its surroundings, allowing a more robust and flexible space for spill over activities.

PROGRAMME SUMMARY

As a result of the scale of the development and different edge conditions, it was preferred to formulate different responses for each buildings based on the buildings location on the site and location to its edge requirements.

The intervention is made up of three main components.

1. Workshop art and sculpture studio spaces.
2. Restaurant and studio apartments located to north of site facing Church Street.
3. T.U.T seminar and student studios, linked to exhibition spaces and the gallery.

The workshop spaces make up most of the existing structures, while the restaurant, accommodation and T.U.T facilities make up the new structures.

It was important to integrate the different programs, thus connecting the different functions through a series of different courtyards, linked through the main circulation axis.

(A breakdown of the accommodation will be provided later in the design process to better understand how the different programs are integrated and relate to each other).

CONCEPTUAL APPROACH

The essence of what this intervention of (fusing space) can be best described architecturally as FORGING/HYBRIDIZATION - Thus a cross-fertilization/fusing of a multiple of complex issues. It is the concept of 'mixed use', where different activities are fused together to create a new idea or function in order to fit into its surroundings ; or meet more than one need in an area, bringing those needs together. (Archispeak, 2004 :89, 145)

The idea of fusion is also defined in Steven Holl's writing on 'intertwining of idea and phenomena'.
Fusing has been interpreted as bringing together different elements to create a space that is vibrant and memorable for people. i.e.: where a new building is required to embody historicity or historic characteristics to fit into its surroundings.
The focus of the design is aimed at addressing these issues, reconnecting the old and new, bringing different elements on the site and surroundings together to create a memorable place that is integrated as part of the history and character of the site and city. Where history art and nature can be experienced as a simple part of everyday life.

Figure 9.1 is concept model of based on the idea of fusing space and reactivating space between buildings. How the concept developed can be better understood in Figure 9.2, where the concept evolved through the urban theories of connecting space and the analysis of the site (see figure 9.2: 95).

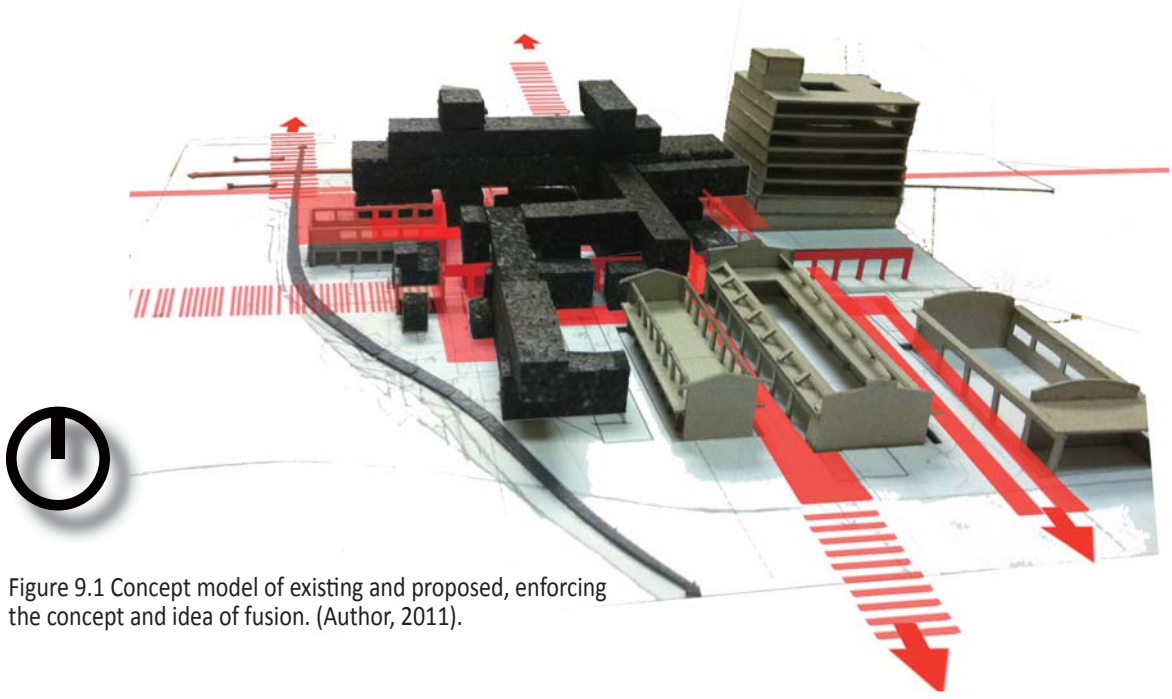
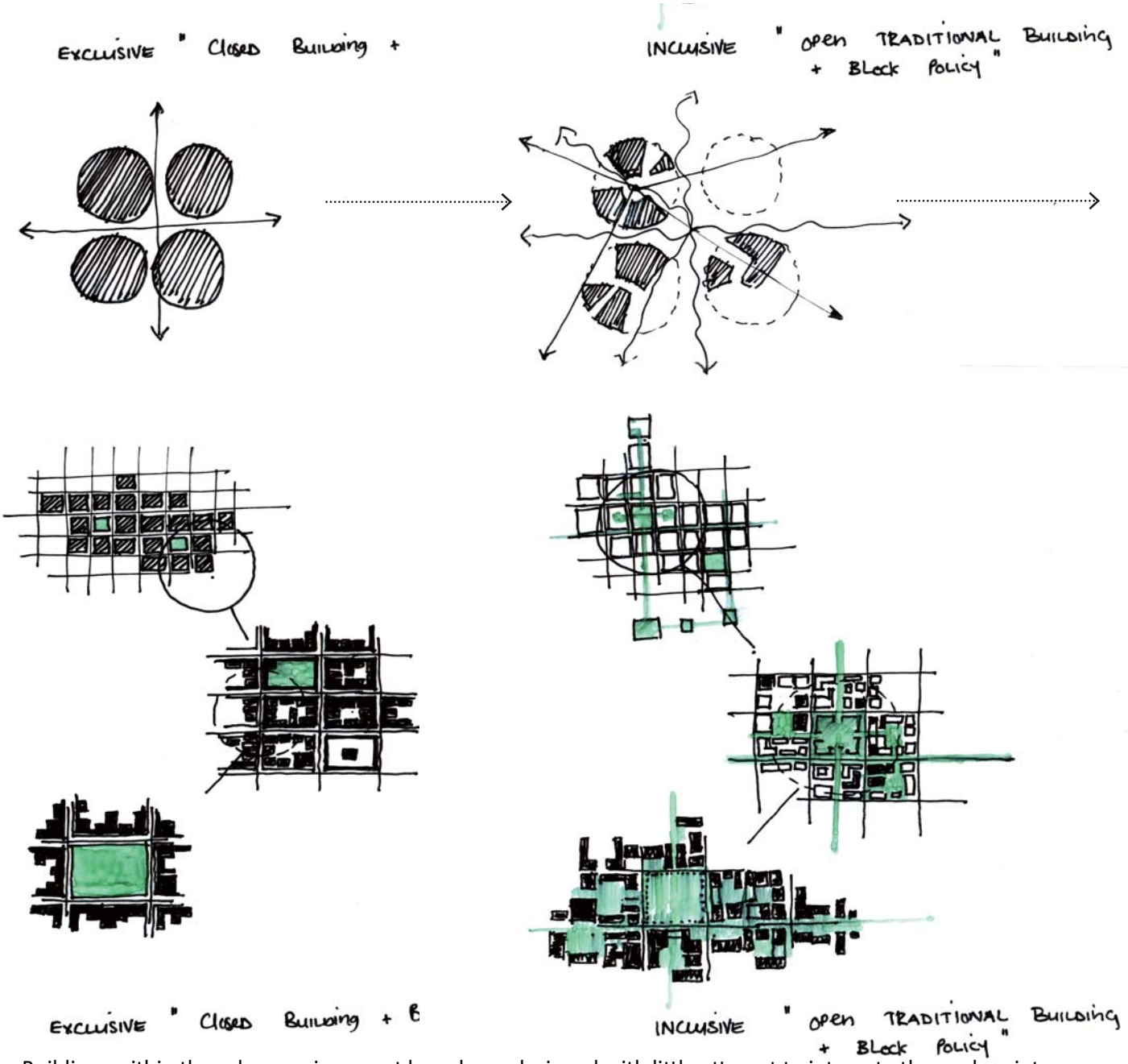
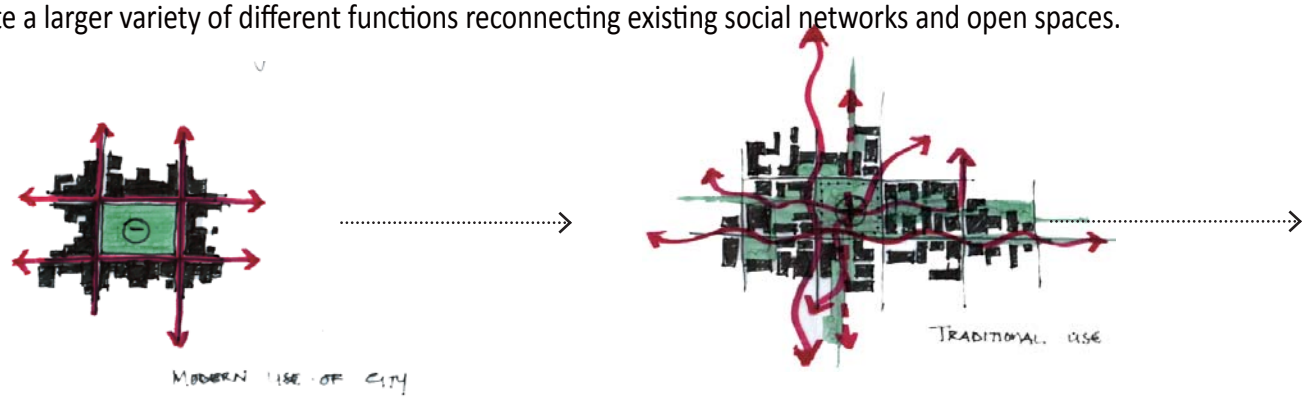


Figure 9.1 Concept model of existing and proposed, enforcing the concept and idea of fusion. (Author, 2011).

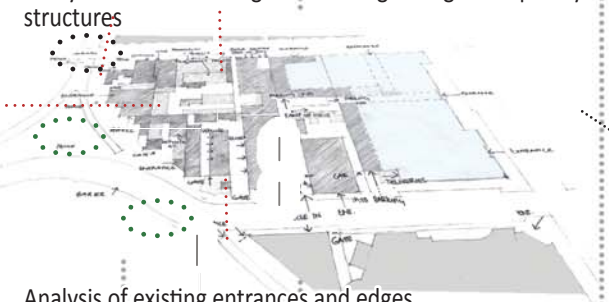


Buildings within the urban environment have been designed with little attempt to integrate themselves into existing social or recreational networks, resulting in the depopulation of areas around open spaces, that sustained them. These space as a result have become fragmented abandoned areas that contribute little to integrate social well being of cities. By creating more inclusive integrated responses, spaces could accommodate a larger variety of different functions reconnecting existing social networks and open spaces.



An analysis of different elements of the site is needed to identify the potential recreational courtyards between the existing buildings. Looking at how a network of courtyards can connect the historic elements of the site, enhancing the character and experience and looking at how the movement between the different spaces can fuse the development together. These courtyard spaces and circulation routes should extent beyond the site, in order to foster new links with its surrounding context.

Analysis of solid building stock and lightweight temporary structures



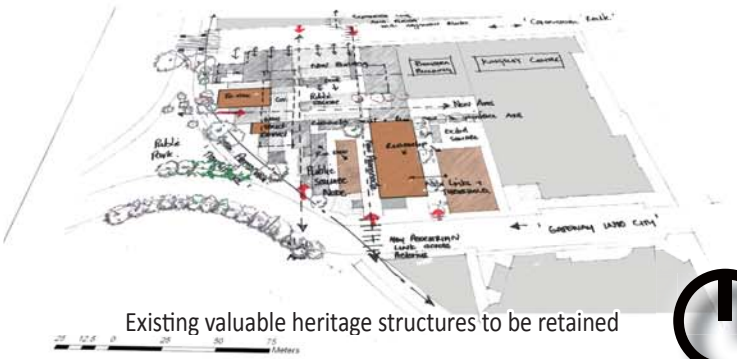
Analysis of existing entrances and edges

existing open spaces between the buildings and potential axis links

Proposed circulation between buildings and connections

Potential opportunities and design generators

The proposed new circulation networks and courtyard will form the basis of the structure for the new building footprint, framing the courtyards and allowing activities to spill out into them creating opportunities for people to interact with each other and experience the art process.



Existing valuable heritage structures to be retained

Figure 9.2 Concept collage, taking the theories with site analysis and fusing them together to form the concept (Author, 2011).

Figure 9.3 Proposed circulation arteries between the existing buildings and courtyard spaces (Author, 2011).

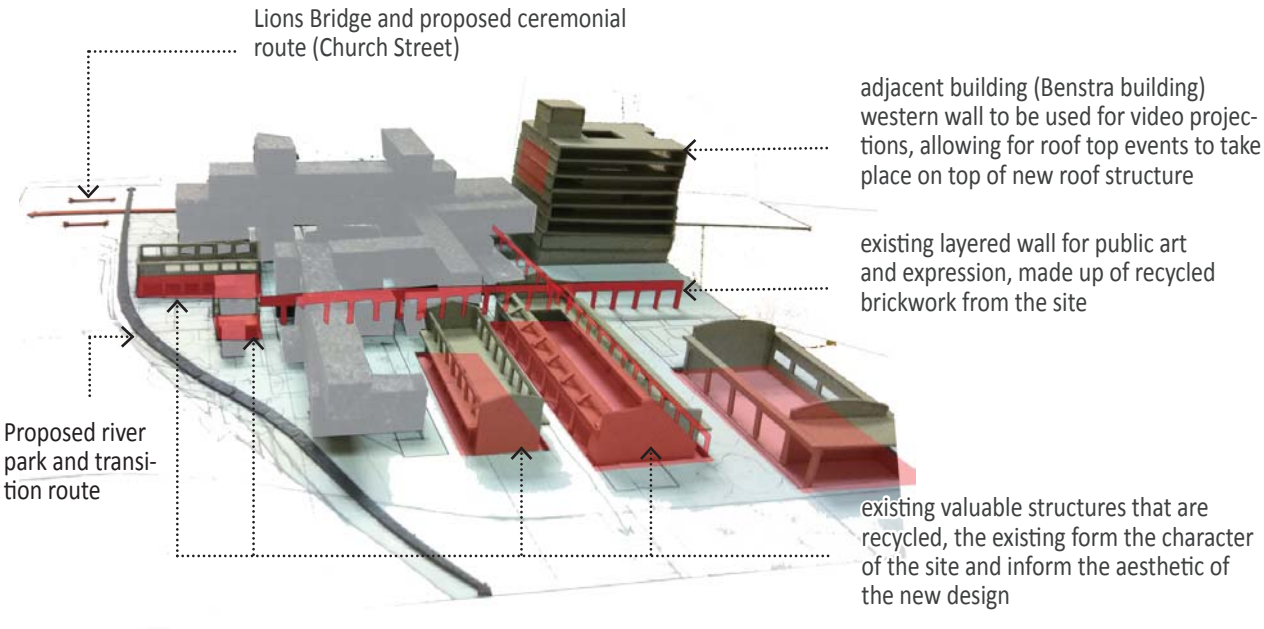
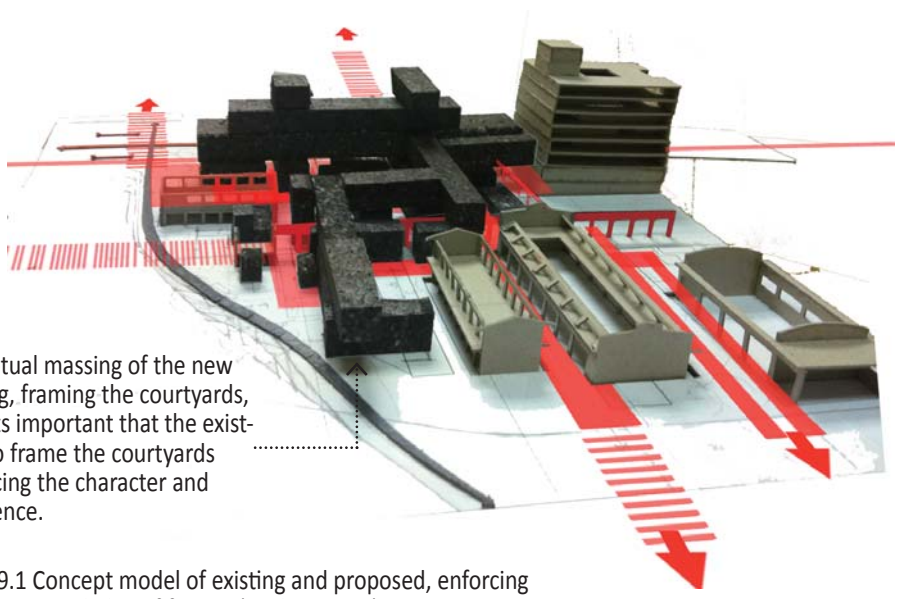


Figure 9.4 Analysis of the valuable structures to inform and be incorporated into the new design (Author, 2011).



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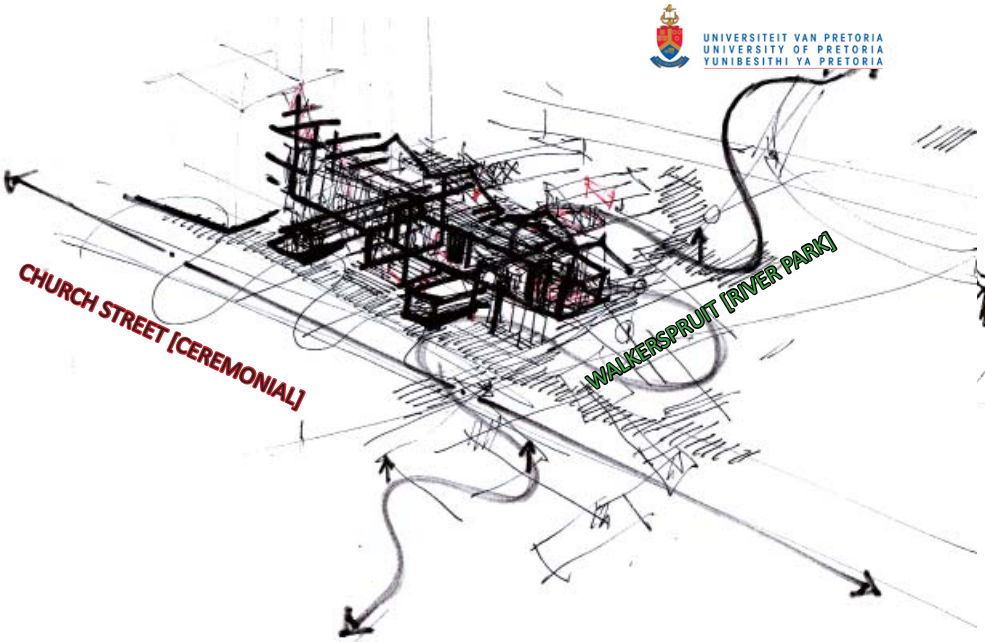


Figure 9.5. Concept building response to Church Street (Author, 2011).

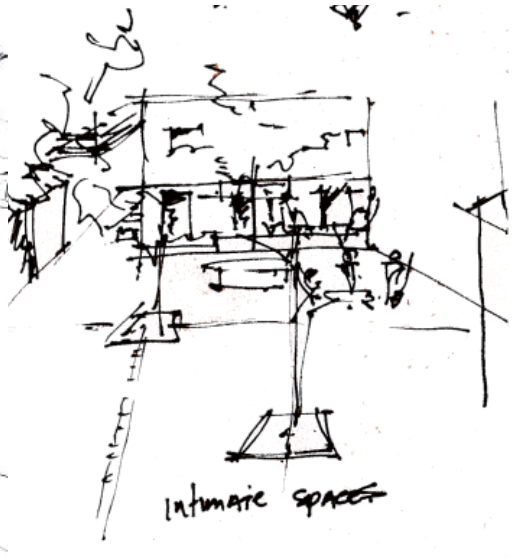


Figure 9.10. Concept for courtyard space (Author, 2011).

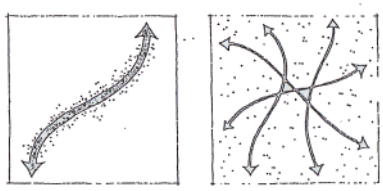


Figure 9.6. To assemble or disperse (Gehl, 2006).

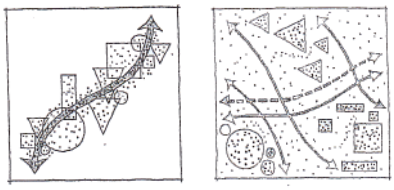


Figure 9.7. To integrate or segregate (Gehl, 2006).

To invite or repel

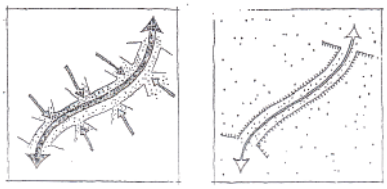


Figure 9.8 To invite or repel (Gehl, 2006).

To open up or close

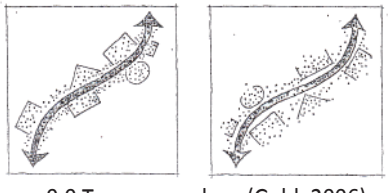


Figure 9.9 To open or close (Gehl, 2006).

Figures 9.6 - 9.9 are sketches of the different possible forms of responses in the treatment of spaces around pedestrian circulation. They illustrate the desired form of interaction between different public and private activities. The design and different programs will respond differently depending on the level of privacy or interaction with the public. Therefore the threshold between these different spaces are crucial to avoid any conflicts between program, security and circulation.

The dialogue between the public and artist should be such that the pedestrian can experience the art process without interrupting the creative process. The artist should also have the option of complete privacy if required. When required, internal processes or exhibits can flow out into courtyard spaces to actively engage the community.

Interaction between the process and projects – "Interaction between social activities in the public spaces and the social process must, therefore, in all circumstances be viewed on several levels- taking into account the prerequisites that exist an individual areas and the varied interests and needs of different kinds of residents or users within areas" (Gehl, 1987: 15).

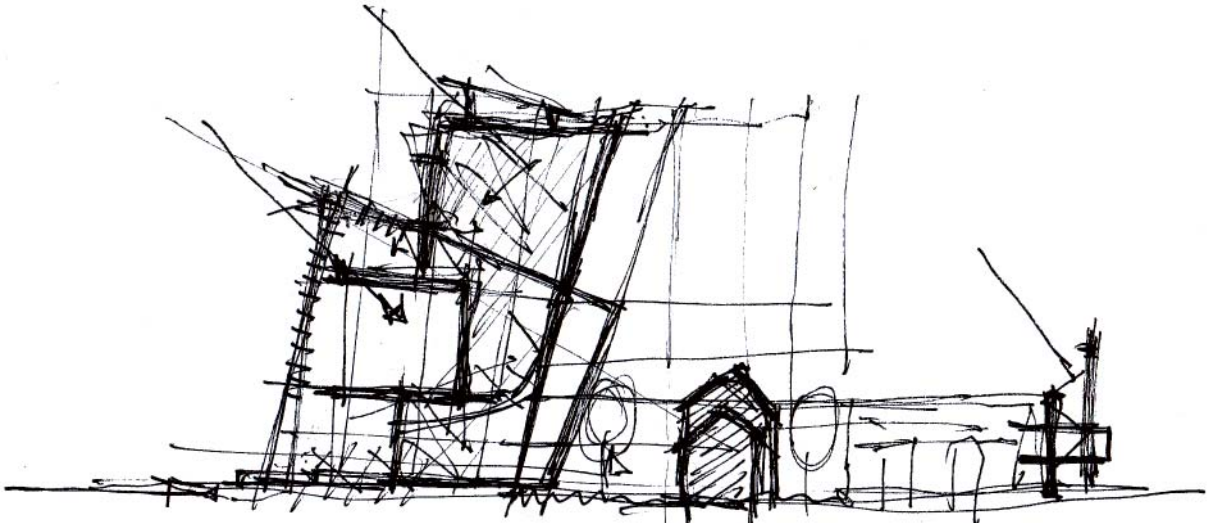


Figure 9.11 Concept section sketch (Author, 2011).

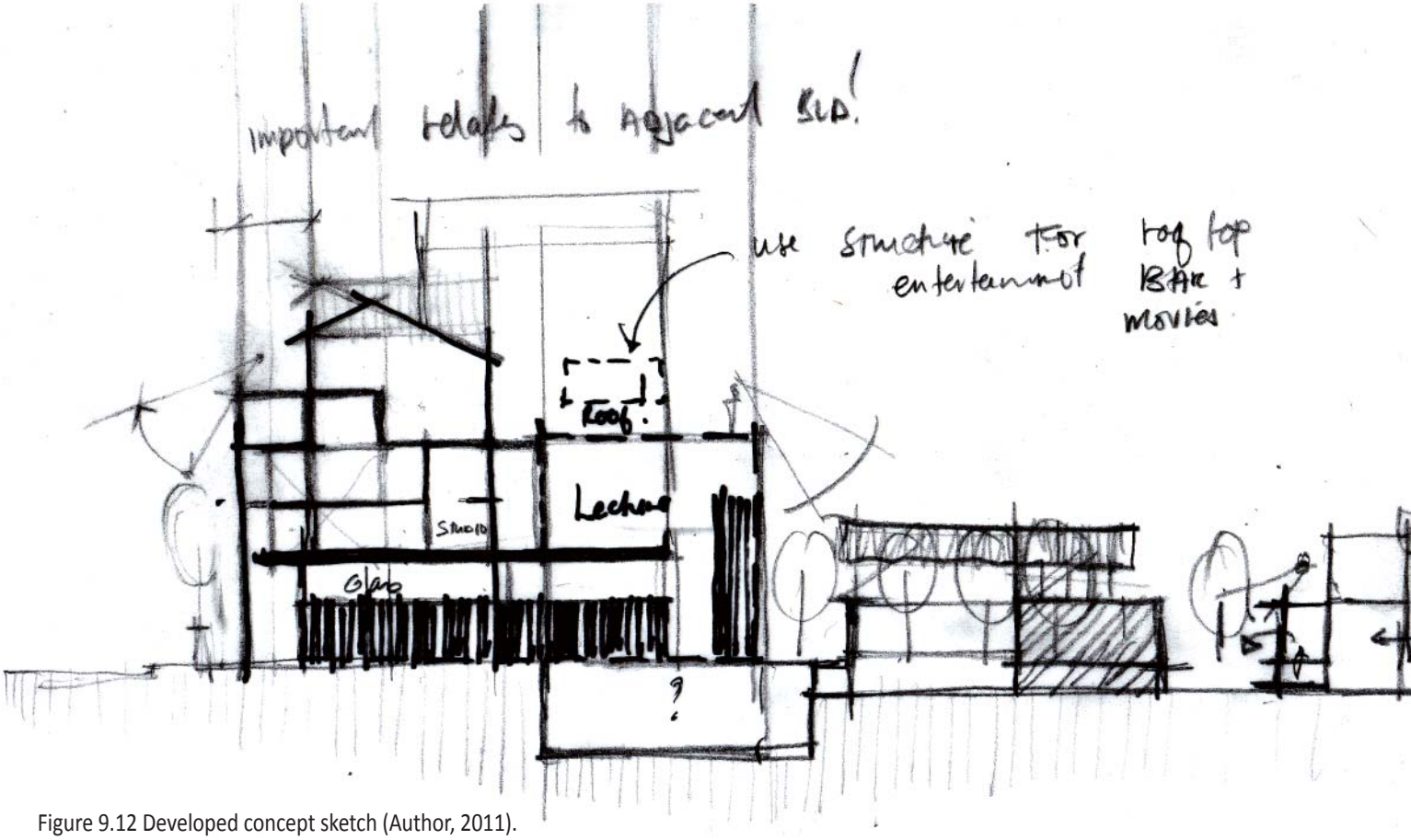


Figure 9.12 Developed concept sketch (Author, 2011).

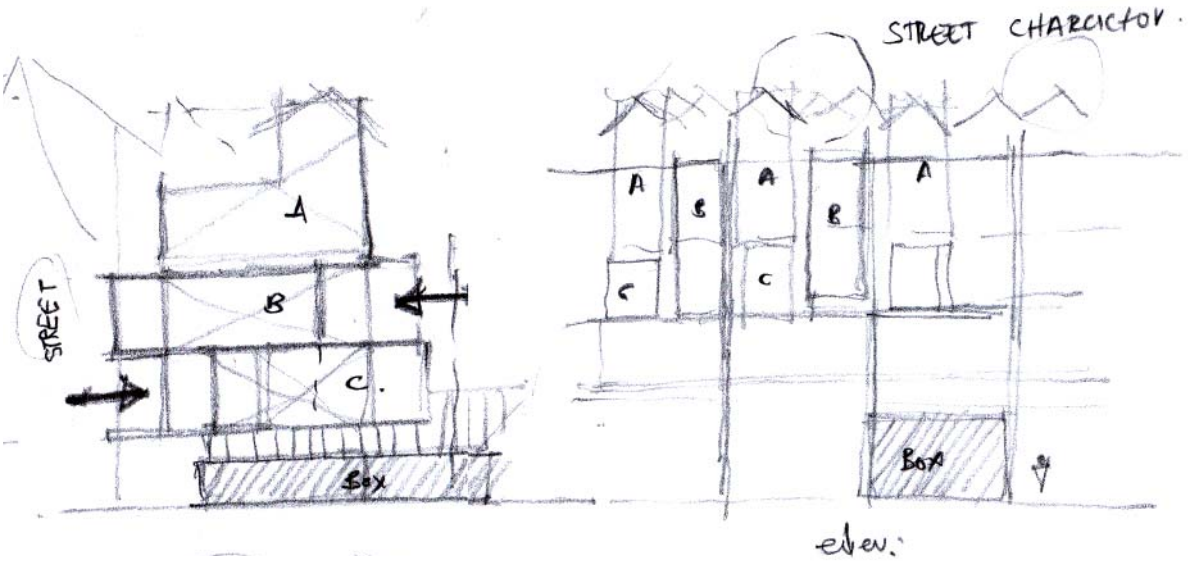


Figure 9.13 Conceptual vertical planning section and elevation (Author, 2011).

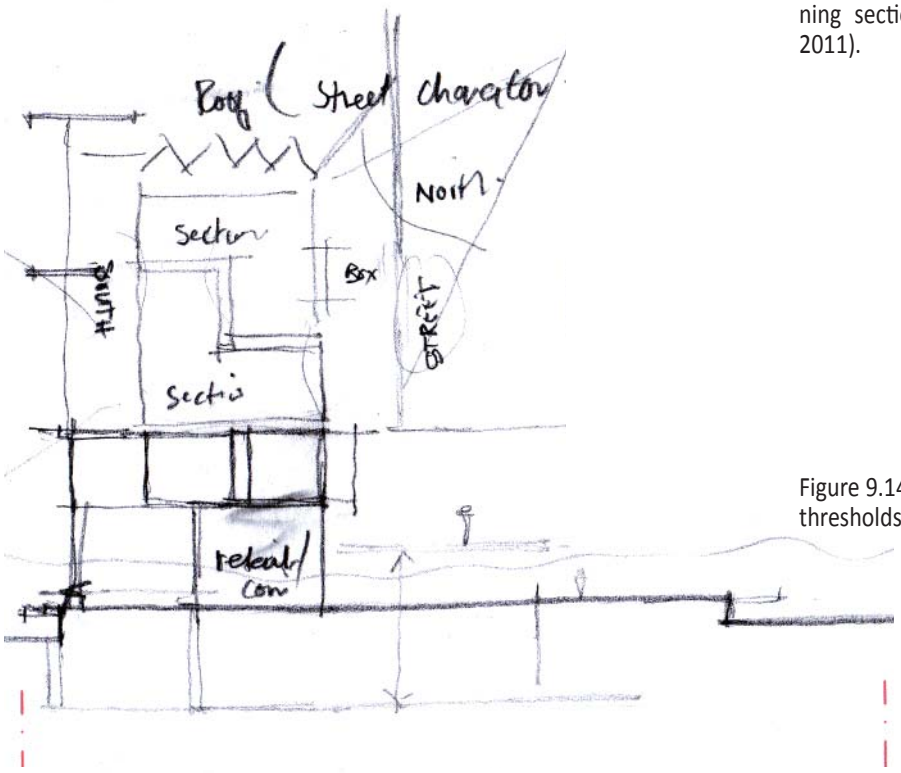
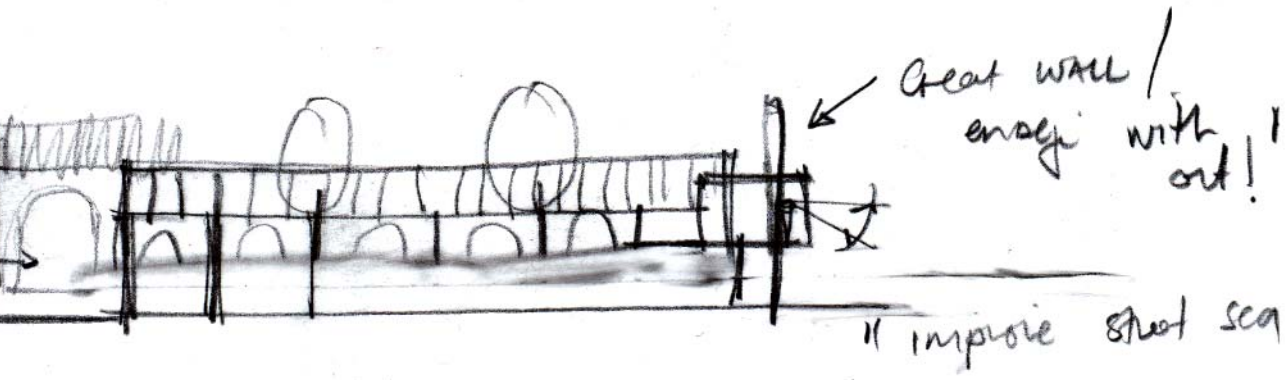


Figure 9.14 Concept circulation across thresholds (Author, 2011).



6. Circulation core lobby

3. Circulation core
4. Gallery art store + cages + strong room
5. Painting + sculpture store
6. Photography class room
7. Photo shoot studio

2. Residential circulation core + control

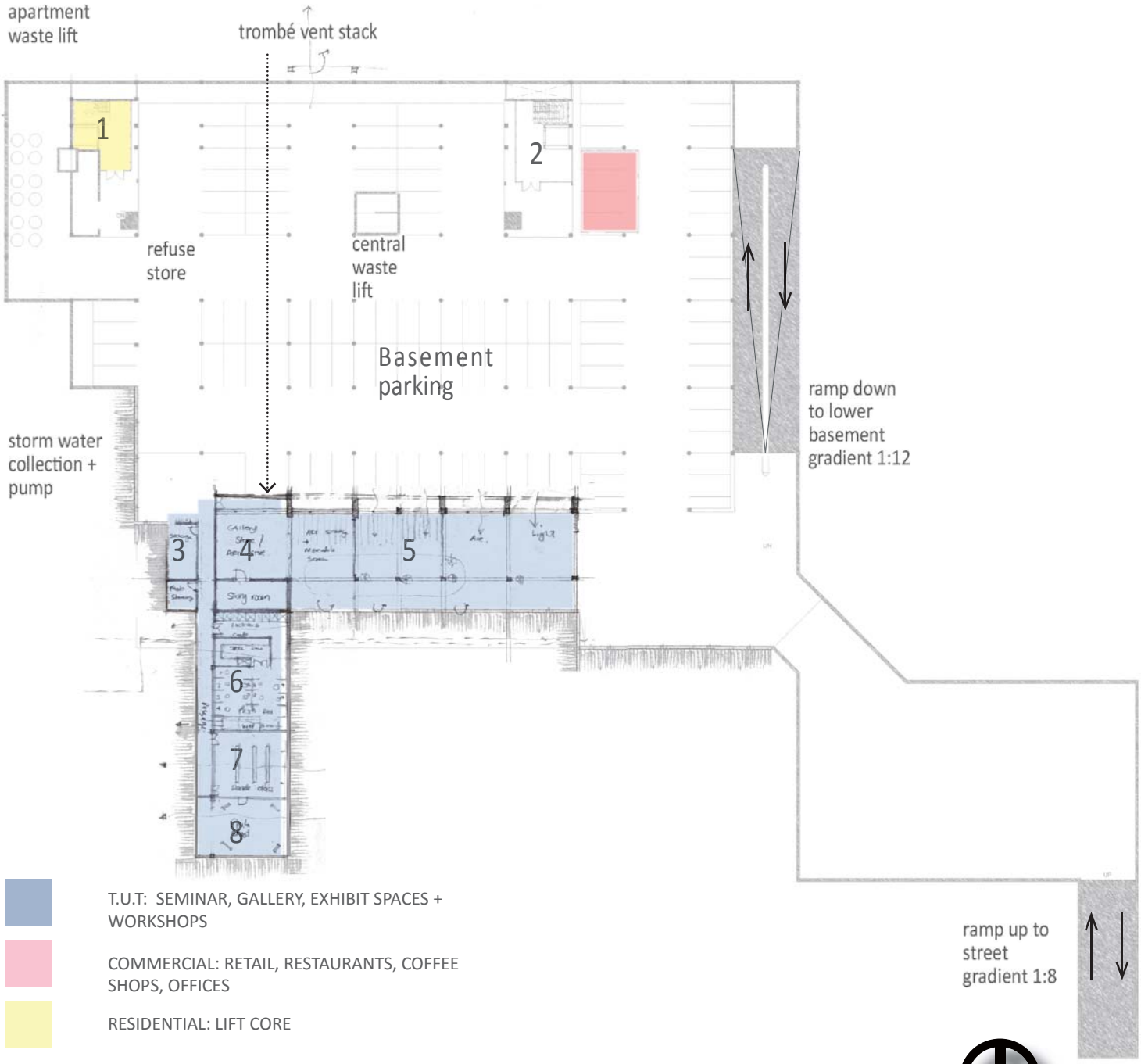


Figure 9.15 Basement floor plan and programme (Author, 2011).

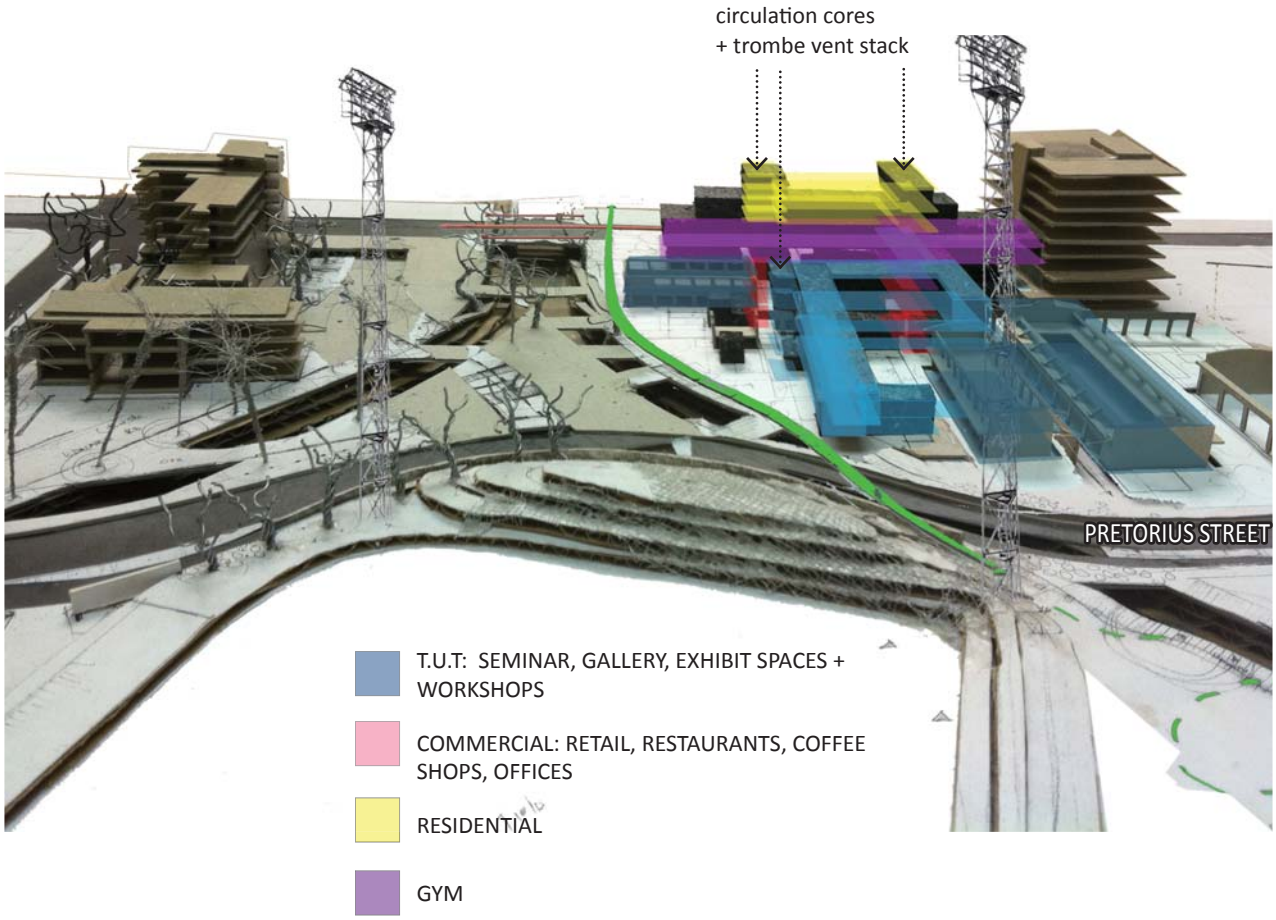


Figure 9.16 Concept Model showing program (Author, 2011).

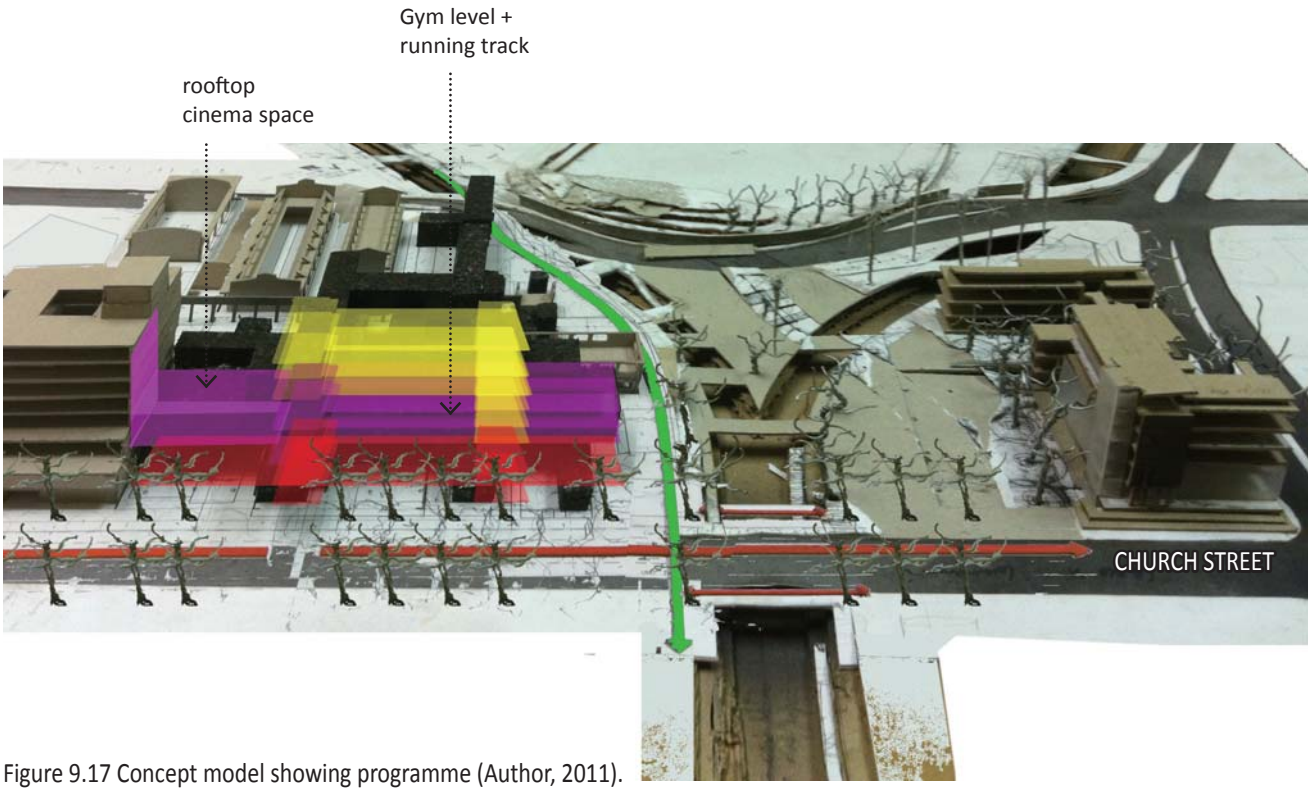


Figure 9.17 Concept model showing programme (Author, 2011).

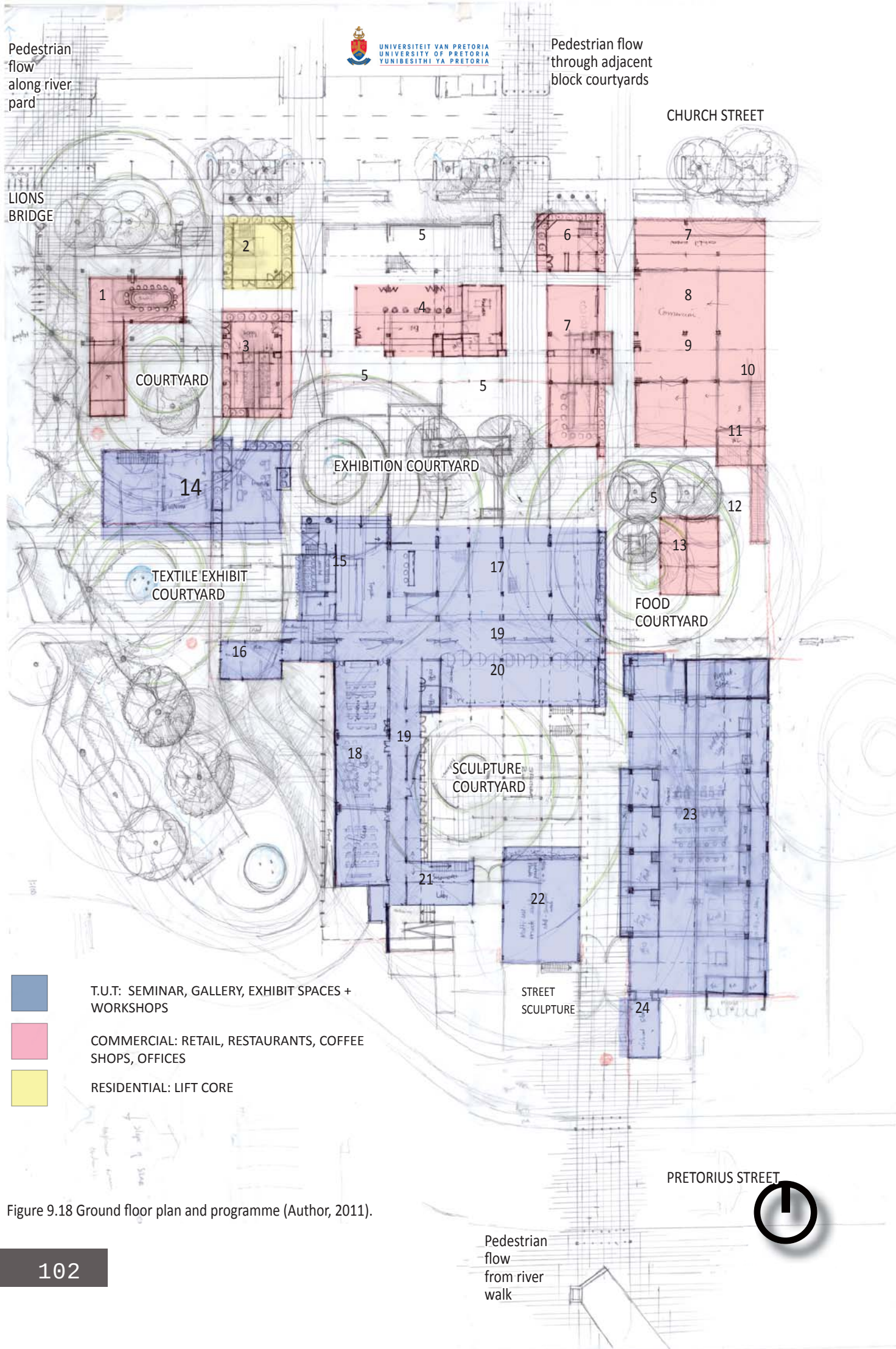


Figure 9.18 Ground floor plan and programme (Author, 2011).

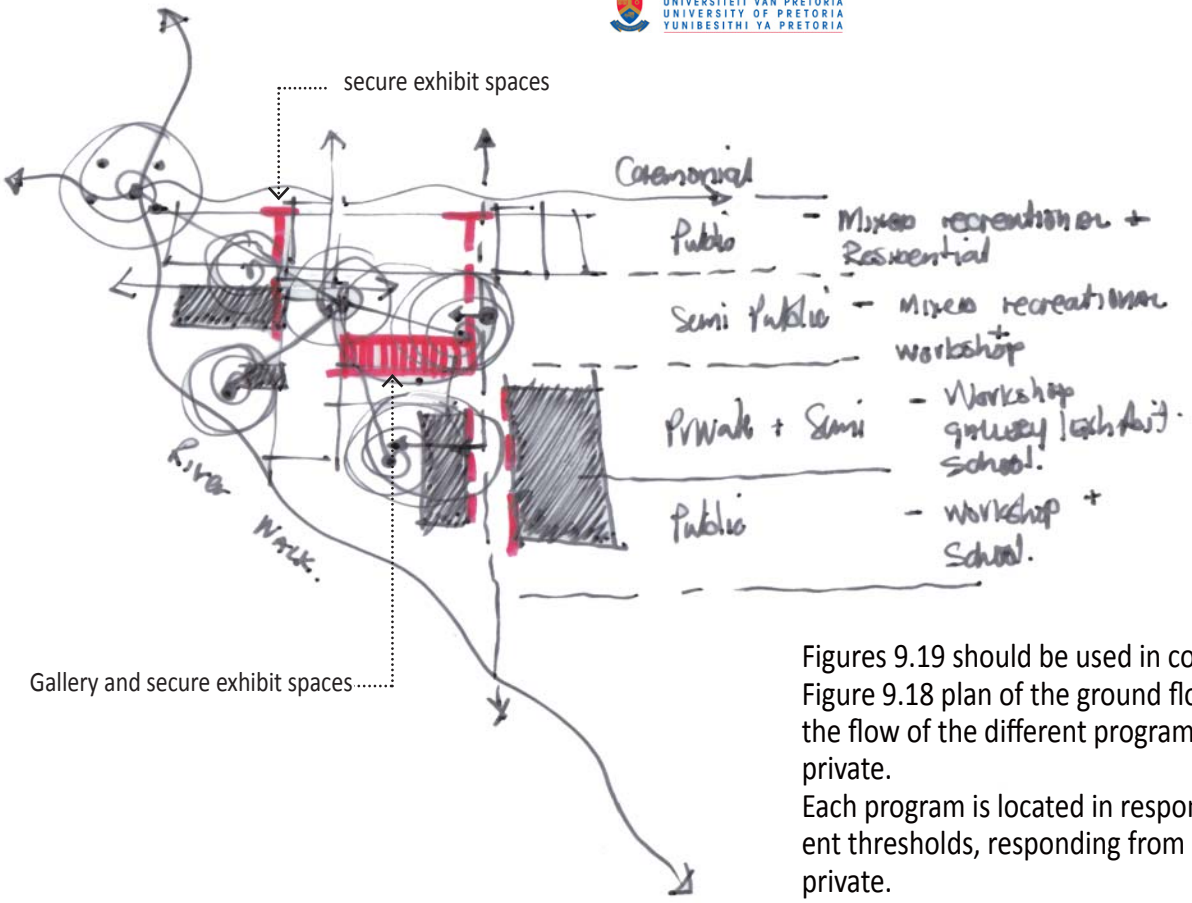


Figure 9.19 Hierarchy of space from public to private (Author, 2011).

Figures 9.19 should be used in conjunction with Figure 9.18 plan of the ground floor to understand the flow of the different programs from public to private.
Each program is located in response to different thresholds, responding from most public to private.
Church Street being most public with most pedestrian activity and Pretorius Street - less public with less pedestrian activity and more vehicle movement.

1. Sushi restaurant
3. Ablutions
4. Restaurant/ cocktail bar
5. Outside seating area
6. Circulation core lobby
7. Boutique clothing store
8. Salon/ hairdresser
9. Office/ artist studio space
10. Service passage
11. Ablutions
12. Fire escape
13. Snack shop

14. Textile + Fashion workshop
15. Lobby + Reception + Kitchen + Ablutions
16. Red exhibit
17. Rotational gallery
18. Seminar/ class rooms
19. exhibit passages
20. student exhibit/ overflow space
21. exhibit lobby + circulation space
22. Photograph / green room
23. Ceramics and Sculpture workshop
24. Info and security

2. Residential circulation core + control

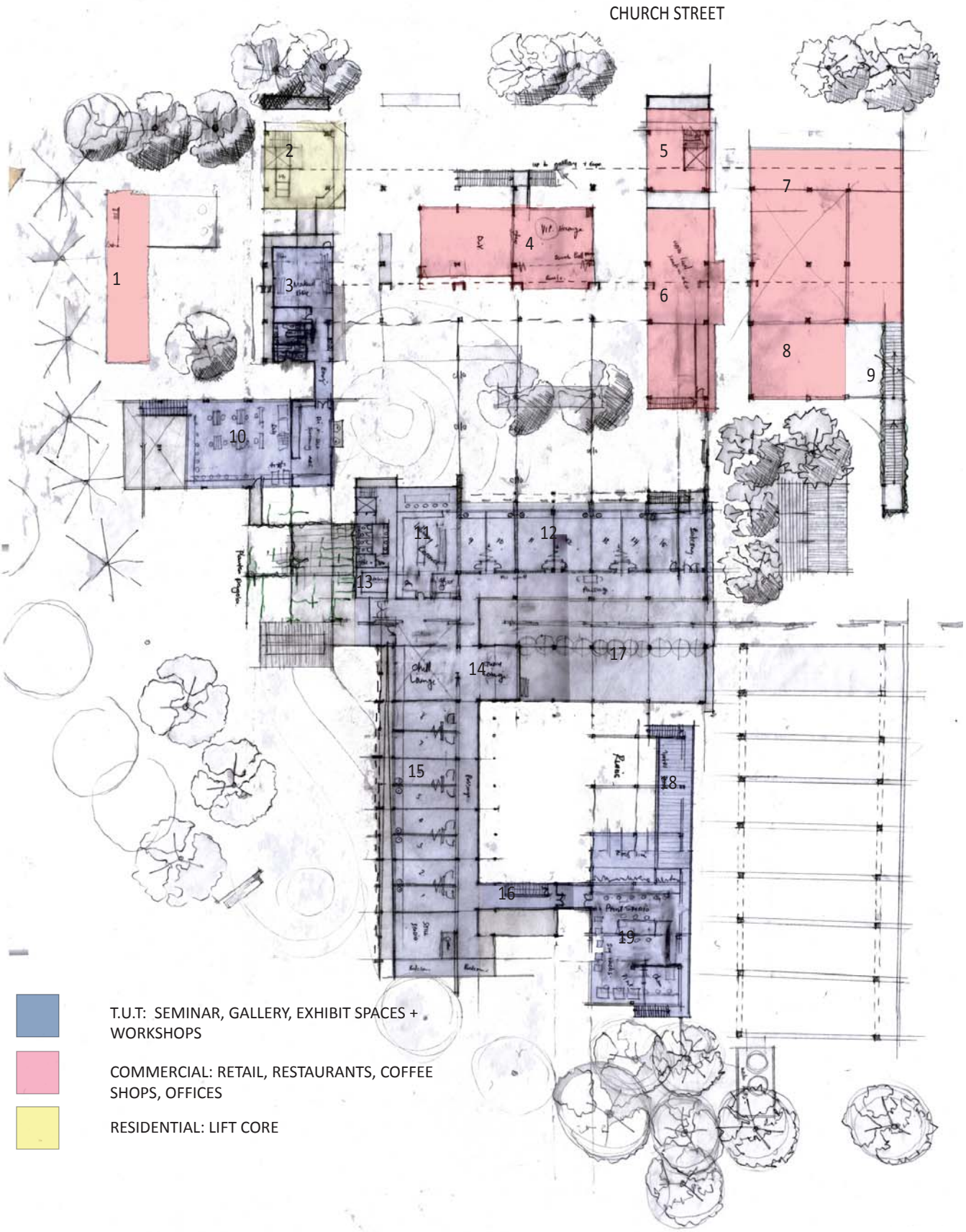


Figure 9.20 First floor plan and programme (Author, 2011).

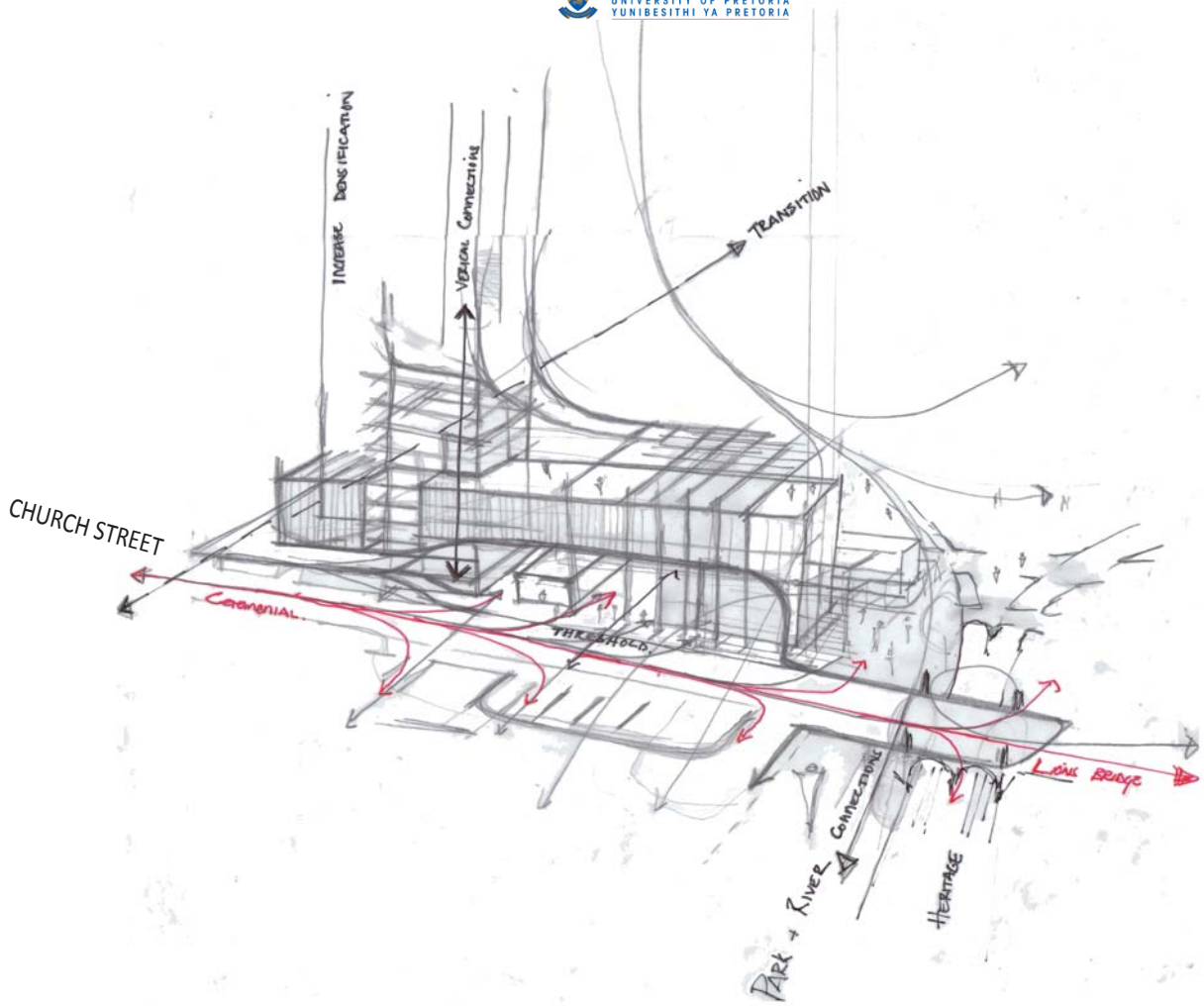


Figure 9.21 Concept image of pedestrian movements along Church Street across the threshold under the building onto the site (Author, 2011).

1. Sushi restaurant mezzanine overlooking double volume + river
4. restaurant private area over-looking double volume space
5. Circulation core
6. restaurant private area over-looking double volume space
7. boutique double volume with mezzanine
8. Double volume and mezzanine office space
9. Fire escape

3. Fashion ablution + material store
10. silk screening with wet area overlooking double volume
11. Research library
12. Studios
13. Ablutions + Kitchen area
14. Internet lounge and communal lounge area
15. Studios
16. Bridge overlooking exhibit lobby
17. Double volume
18. Outside deck
19. silk screening studio + acid bath area

2. Residential circulation core + control

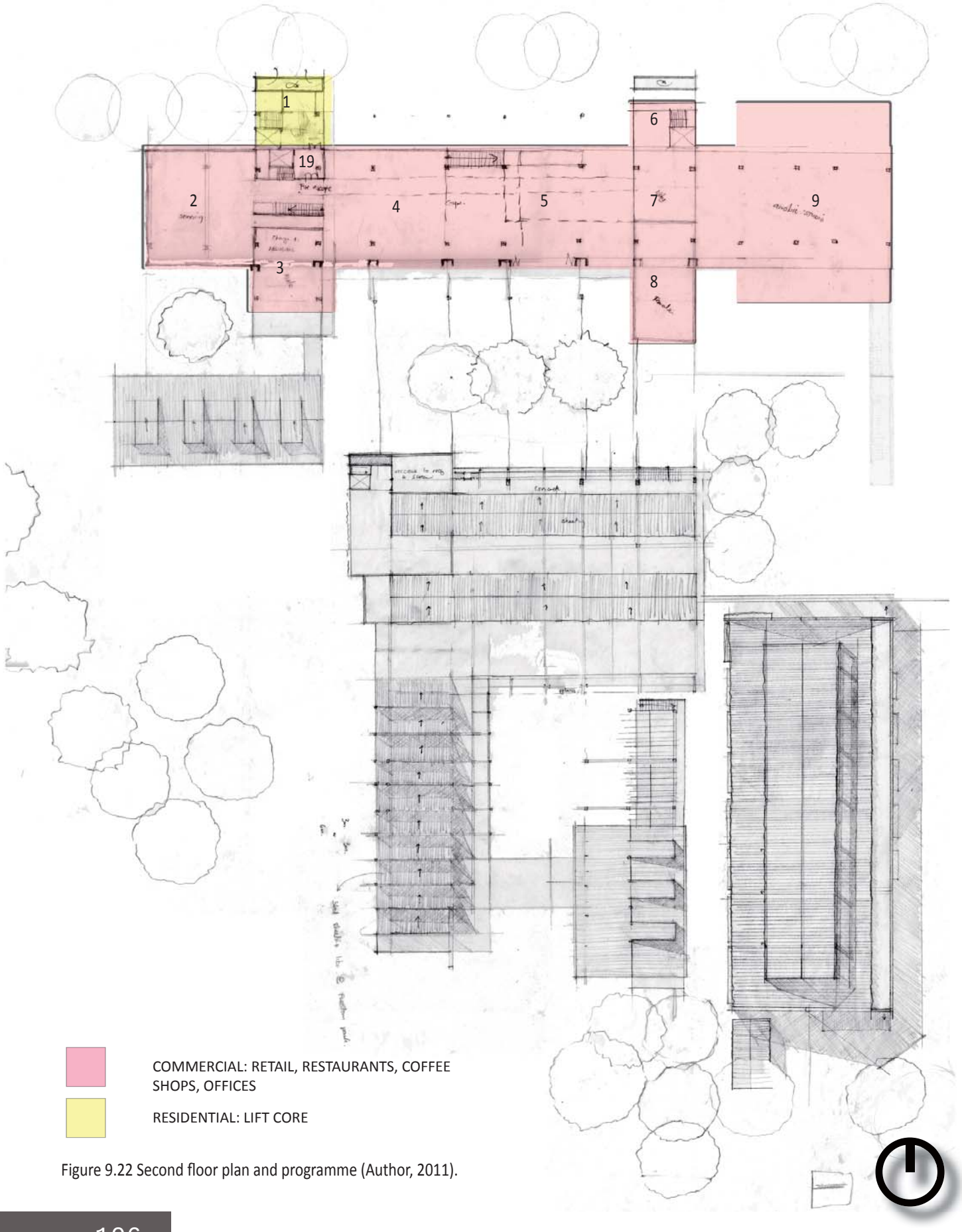


Figure 9.22 Second floor plan and programme (Author, 2011).

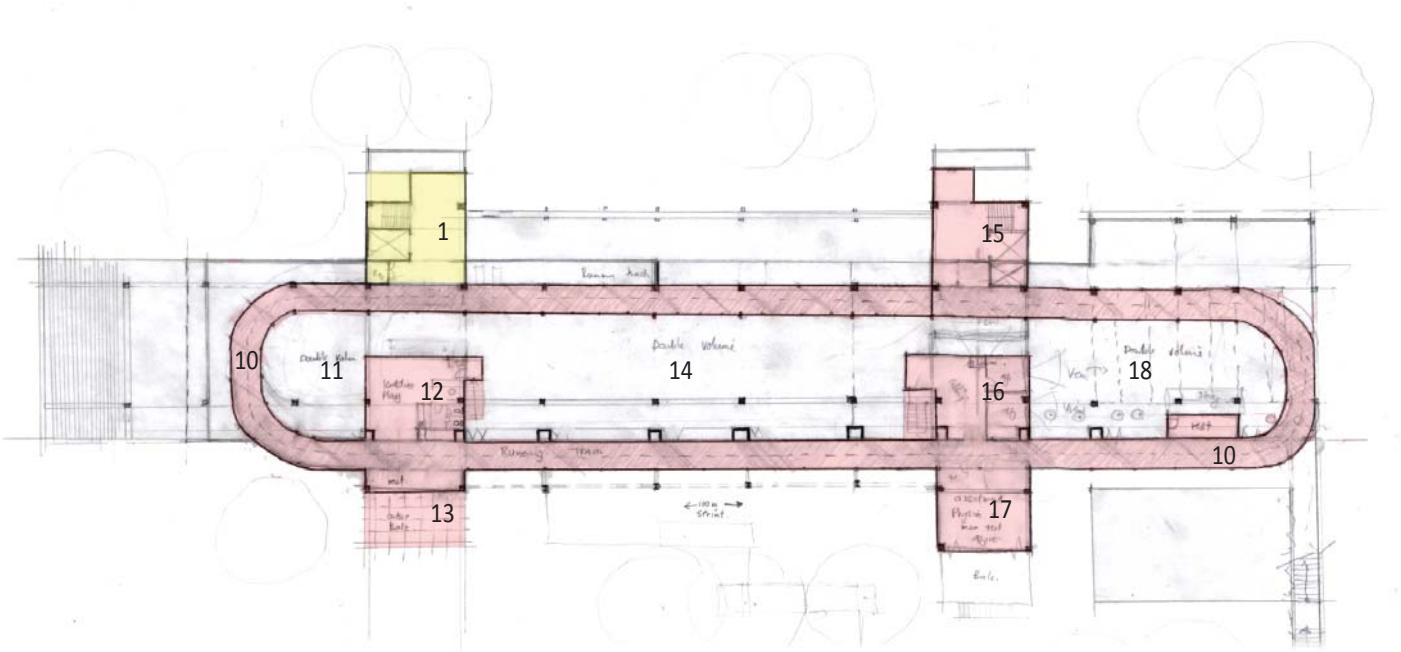
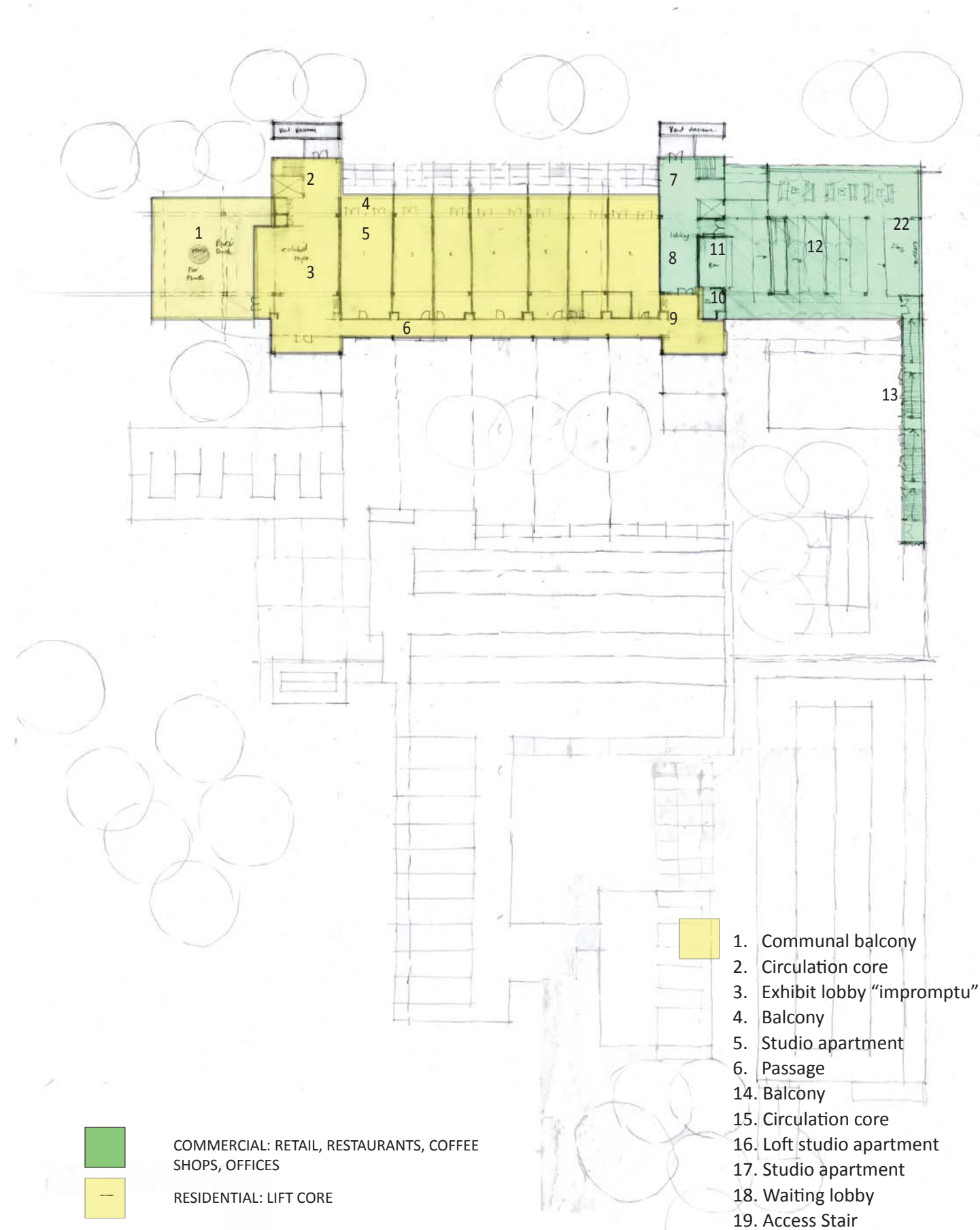


Figure 9.23 Third floor plan and programme (Author, 2011).

2. Spinning
3. Male ablutions + change rooms
4. weight section
5. circuit section
6. Circulation core lobby
7. security and reception
8. Female ablutions and change rooms
9. Aerobic studio
10. Suspended running track
11. Double volume over spinning studio
12. Mother room
13. Inclosed outside balcony
14. double volume over weight training area
15. Double volume lobby
16. Sales Offices
17. Fitness assessment room
18. Double volume over aerobic studio.
19. Fire escape

1. Residential circulation core + control



1. Communal balcony
2. Circulation core
3. Exhibit lobby “impromptu”
4. Balcony
5. Studio apartment
6. Passage
14. Balcony
15. Circulation core
16. Loft studio apartment
17. Studio apartment
18. Waiting lobby
19. Access Stair
23. Loft Bedroom
24. Balcony
25. Double volume

COMMERCIAL: RETAIL, RESTAURANTS, COFFEE SHOPS, OFFICES

RESIDENTIAL: LIFT CORE

Figure 9.24 Fourth floor plan and programme (Author, 2011).

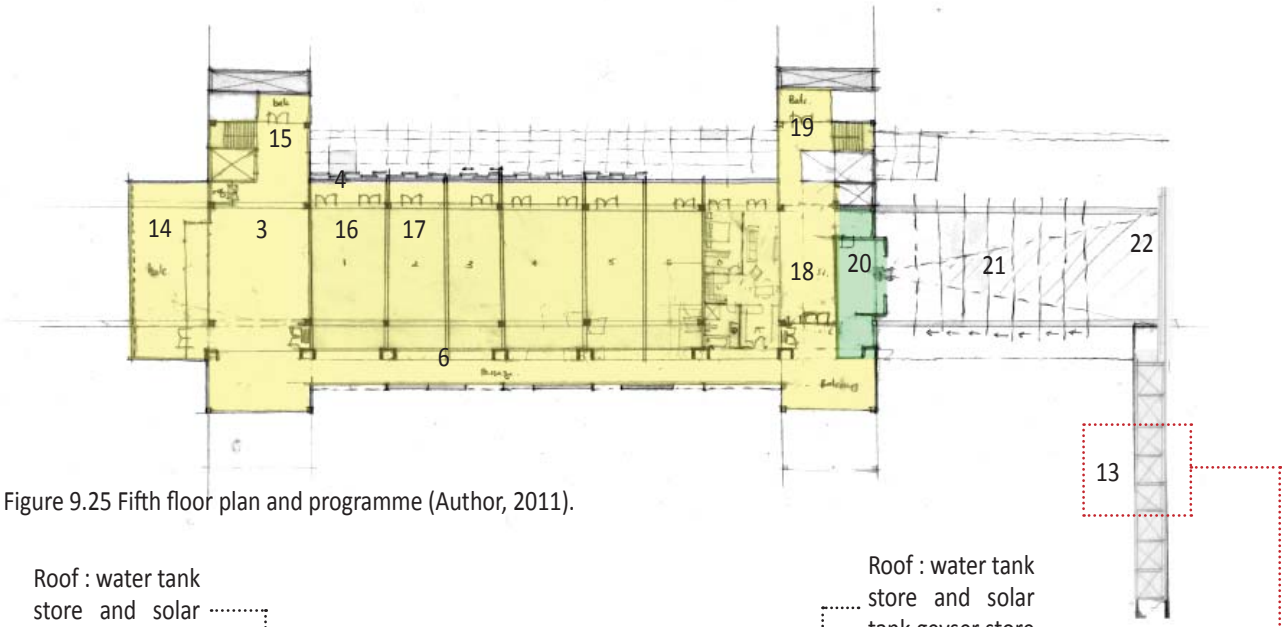


Figure 9.25 Fifth floor plan and programme (Author, 2011).

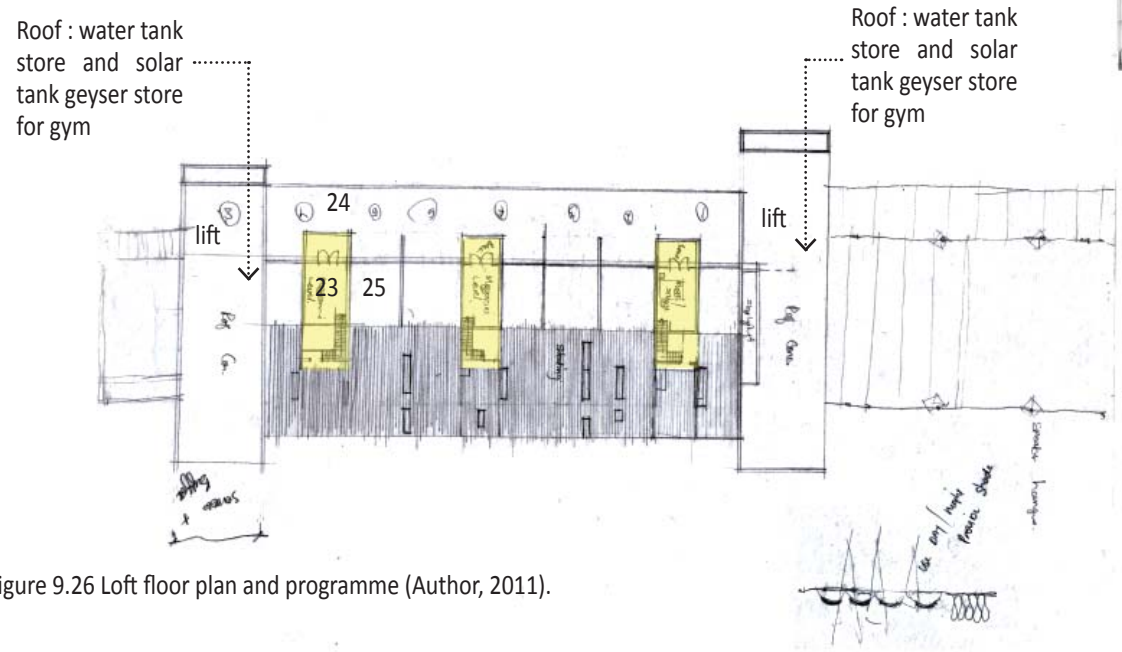


Figure 9.26 Loft floor plan and programme (Author, 2011).

7. Circulation lobby
8. Exhibit lobby "impromptu"
9. Balcony
10. Store room
11. Cocktail bar
12. Roof lounge seating
13. Fire escape stair + access to ablutions
20. Projector room and store
21. Retractable canopy
22. Screen

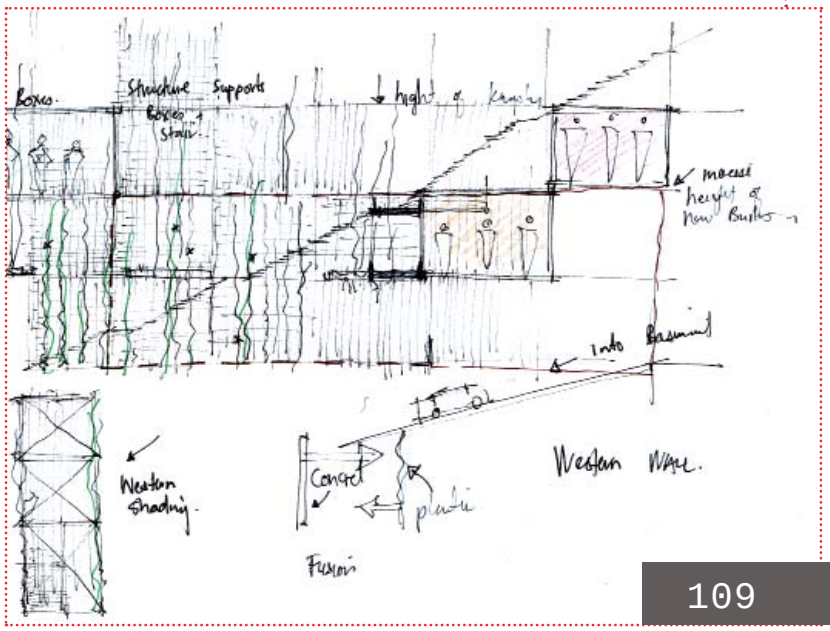


Figure 9.27 Fire escape sketch with vertical creeper (Author, 2011).

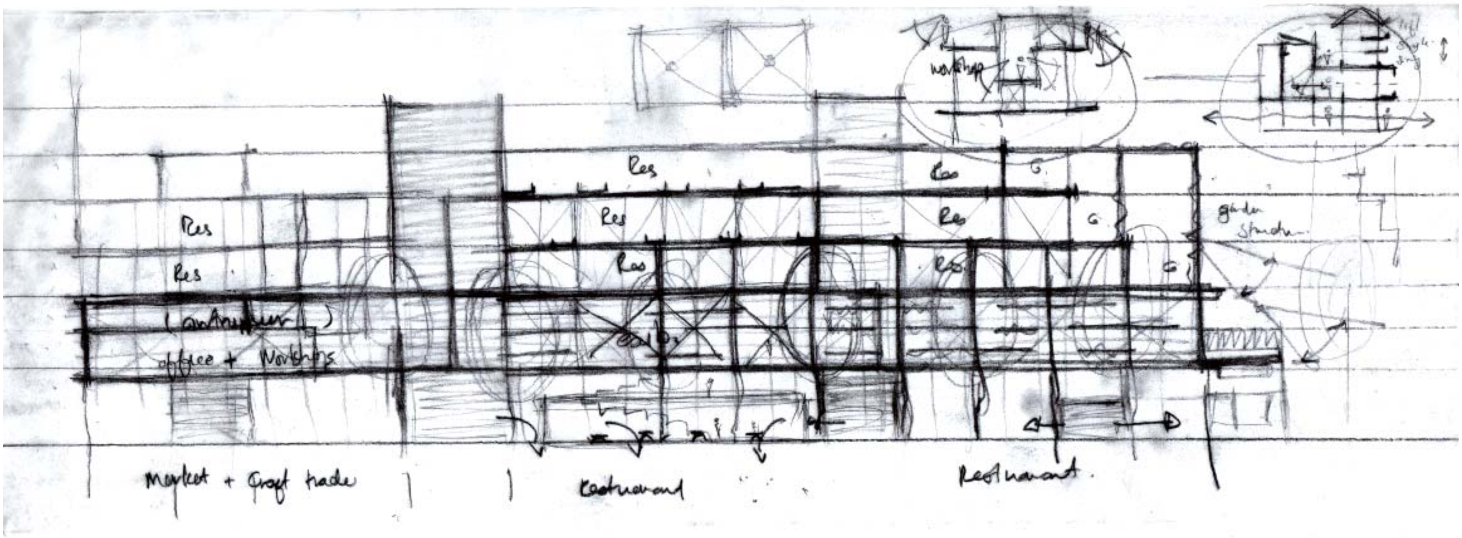


Figure 9.28 Concept sketch of norther elevation (Author, 2011).

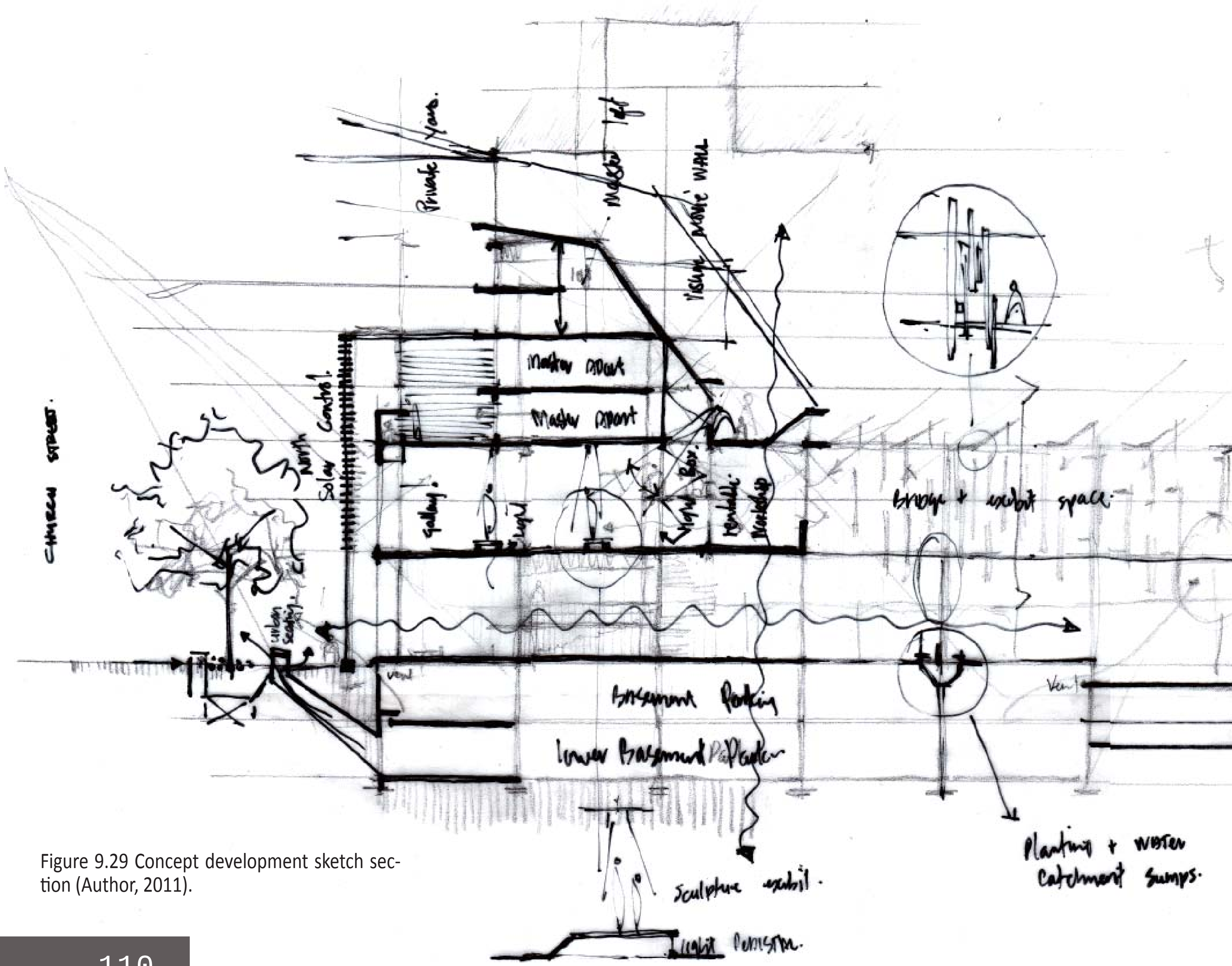
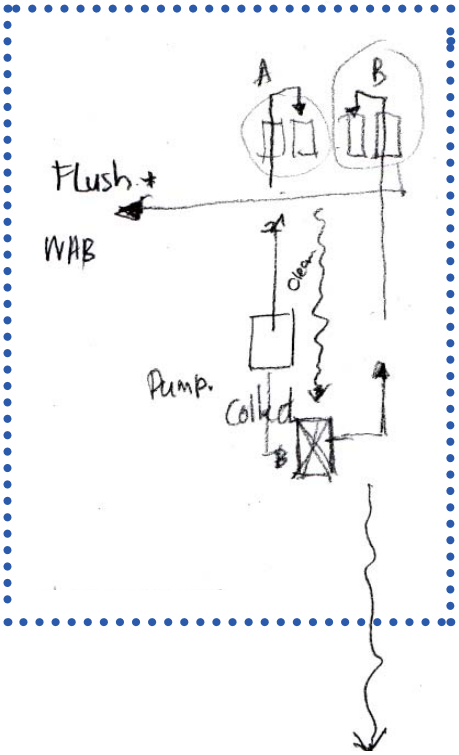


Figure 9.29 Concept development sketch section (Author, 2011).



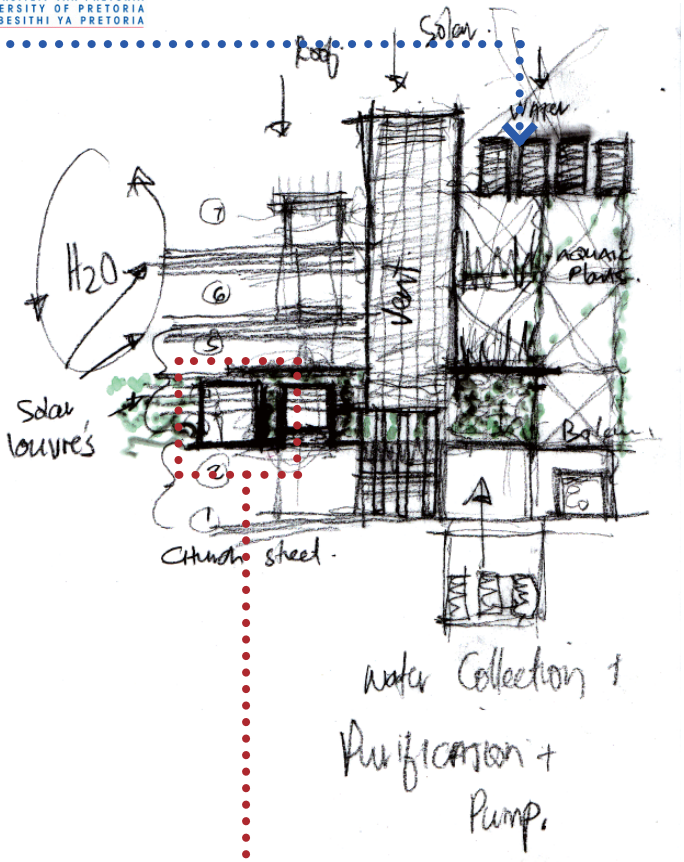
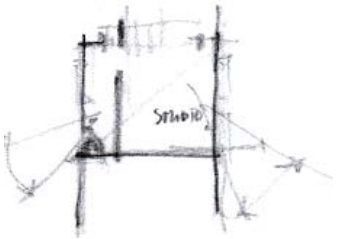
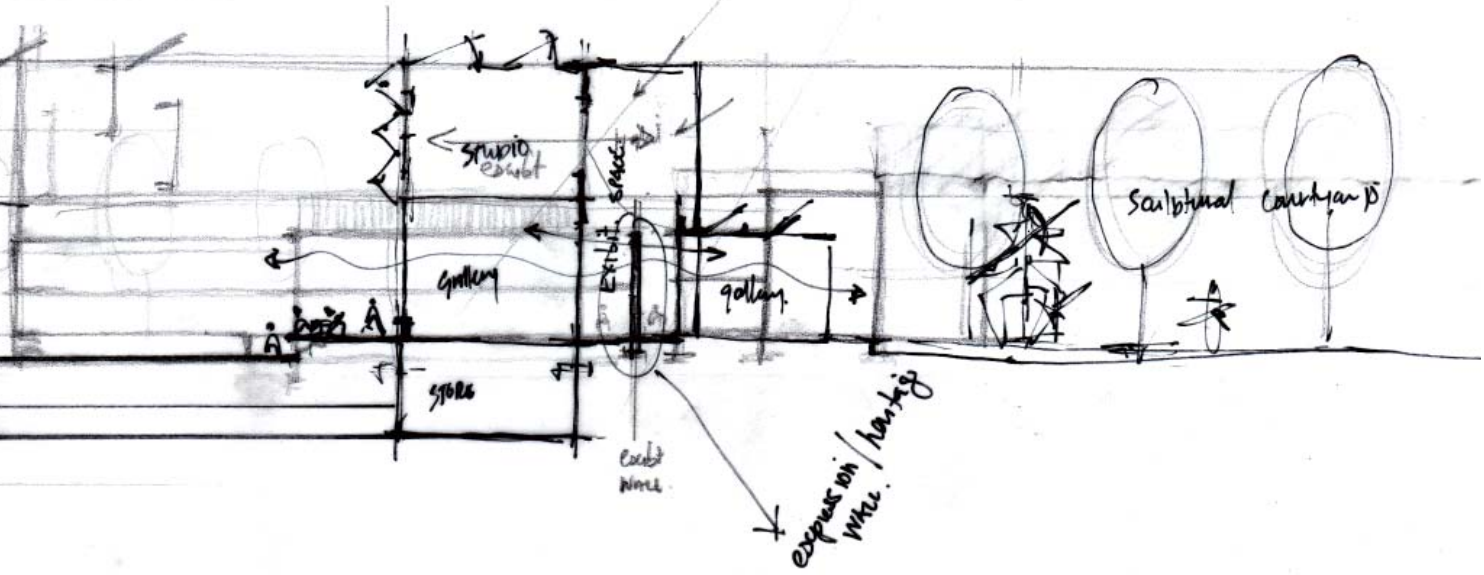


Figure 9.30 Planted fire escape sketch (Author, 2011).





Technical

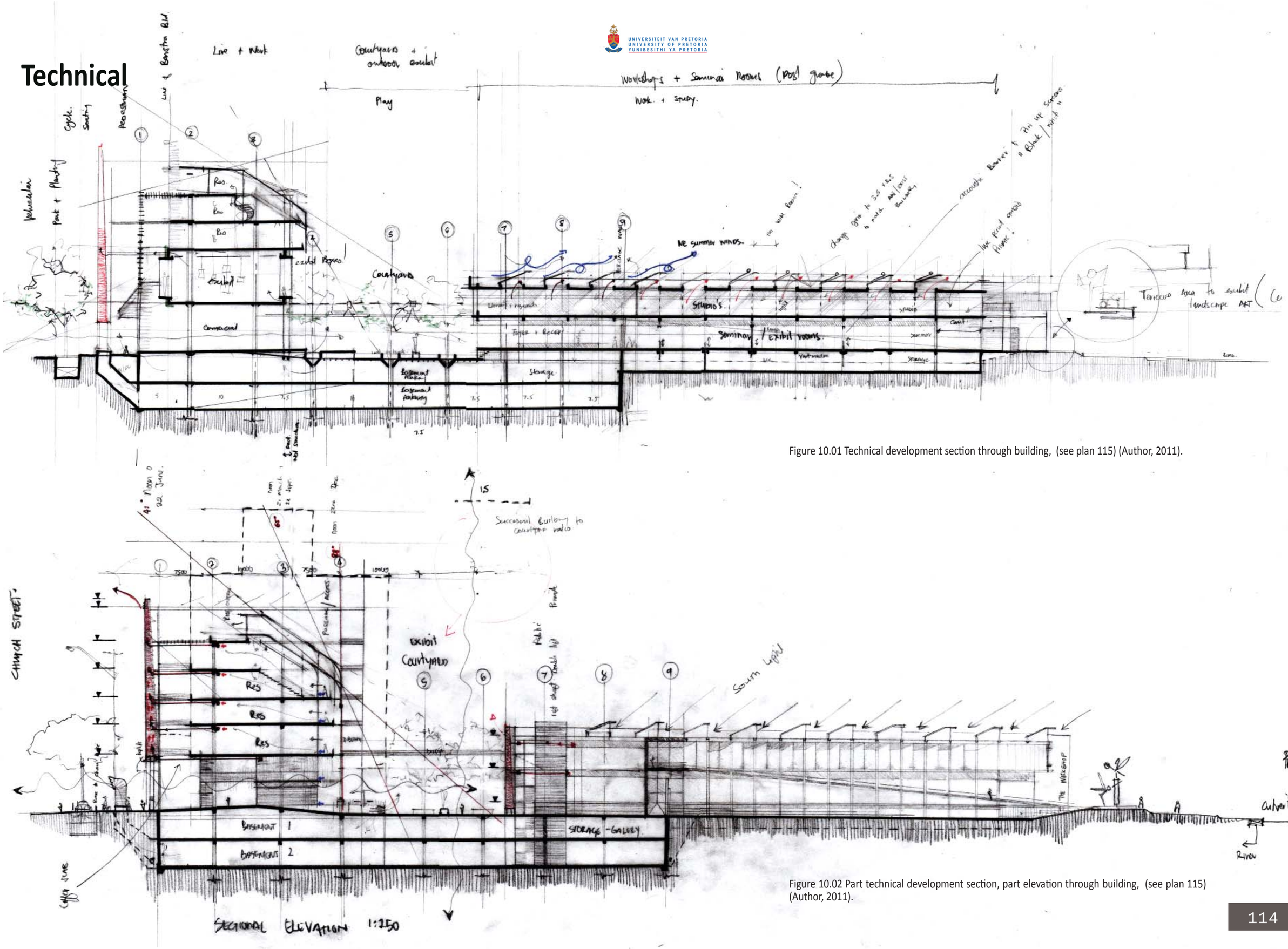
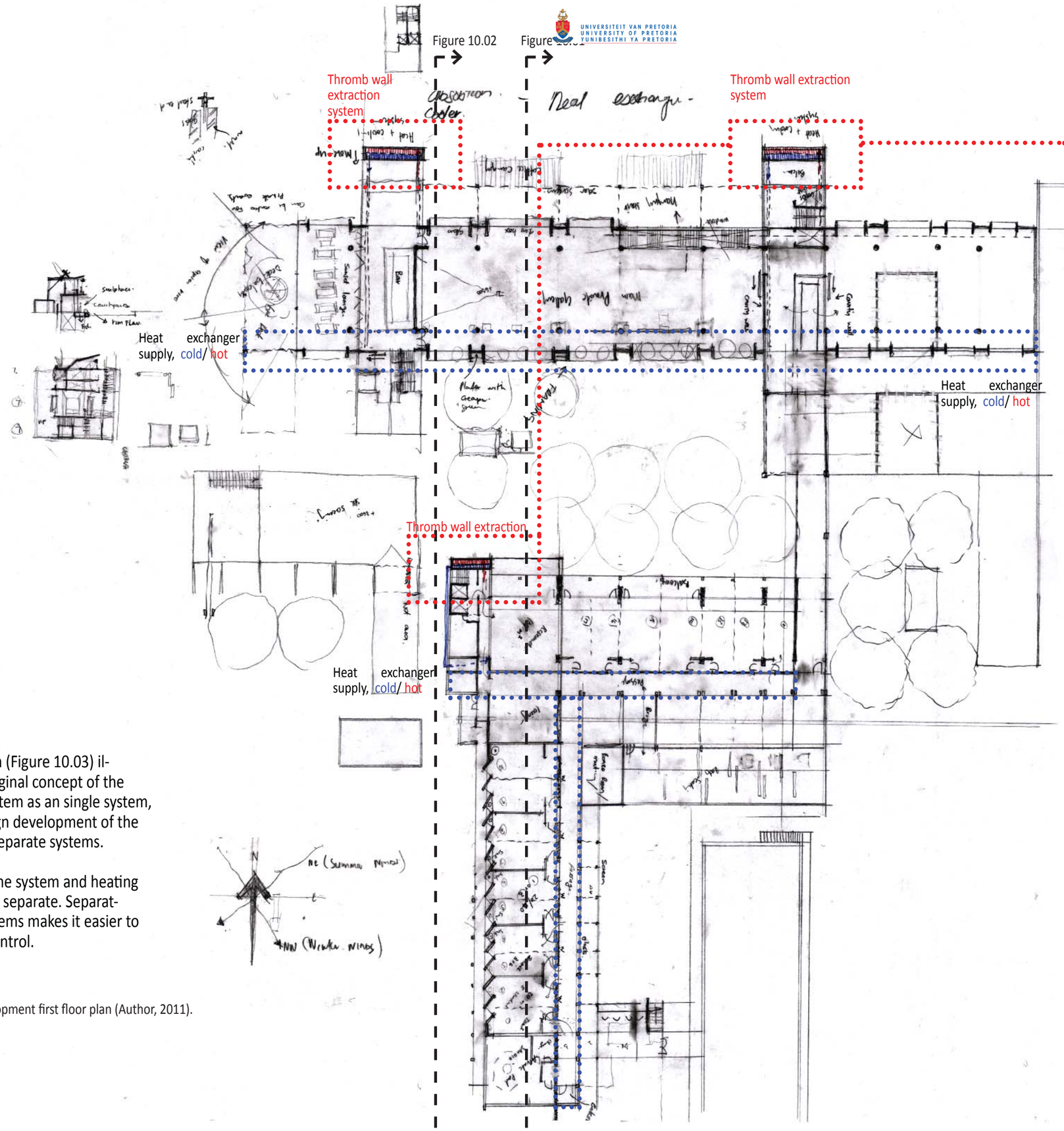


Figure 10.01 Technical development section through building, (see plan 115) (Author, 2011).

Figure 10.02 Part technical development section, part elevation through building, (see plan 115) (Author, 2011).



Note: the sketch (Figure 10.03) illustrates the original concept of the passive vent system as an single system, before the design development of the system as two separate systems.

Ventilation as one system and heating and cooling as a separate. Separating the two systems makes it easier to maintain and control.

Figure 10.03 Development first floor plan (Author, 2011).

The trombé air stack vents are passive hot air extraction devices fitted to the north facades of the building. Positioned on the norther facade to take advantage of Pretoria high solar radiation conditions. The system will be used to stimulate passive cross ventilation, drawing fresh air through the building and programs below ground level, where passive cross ventilation is difficult to achieve.

The fresh air (heated or cooled) is supplied seperately. Supplied air to the building will be heated or cooled through an indirect heat exchanger built onto the roof.

In summer, the air will be cooled before it is supplied to the internal space, and heated in winter. The system works by heating or cooling an anti freeze liquid (Glycerol) that circulates through a thermal exchanger. The exchanger will either heat or cool the air that moves through it, depending on the users requirements.

Heating the liquid will take place using a active parabolic trough. Cooling the air will occur passively by pulling ambient air through the exchanger internally extracting the heat out of the air, cooling the air down.

The air pulled over the exchanger into the supply ducts will be assisted mechanically, with the aid of a extractor fans built into the ducts. Fans will be used to circulate the air through the thermal exchangers, either heating or cooling the supply air.

The fans will be fed off photo voltaic panels that will power the fans during the day. The reason for this is that the prevailing winds in Pretoria are not suitable enough to supply enough velocity move the air over the exchanger to cool or heat the air sufficiently.

Summary: fresh air will be heated or cooled depending on the season, and supplied (controlled) from the southern facades of the building close to floor level. The stale air will be extracted (controlled) from the north facade via a trombé wall extractor.
The trombé wall extractor is compartmentalised to extract air separately from the basement and the apartments or studios.

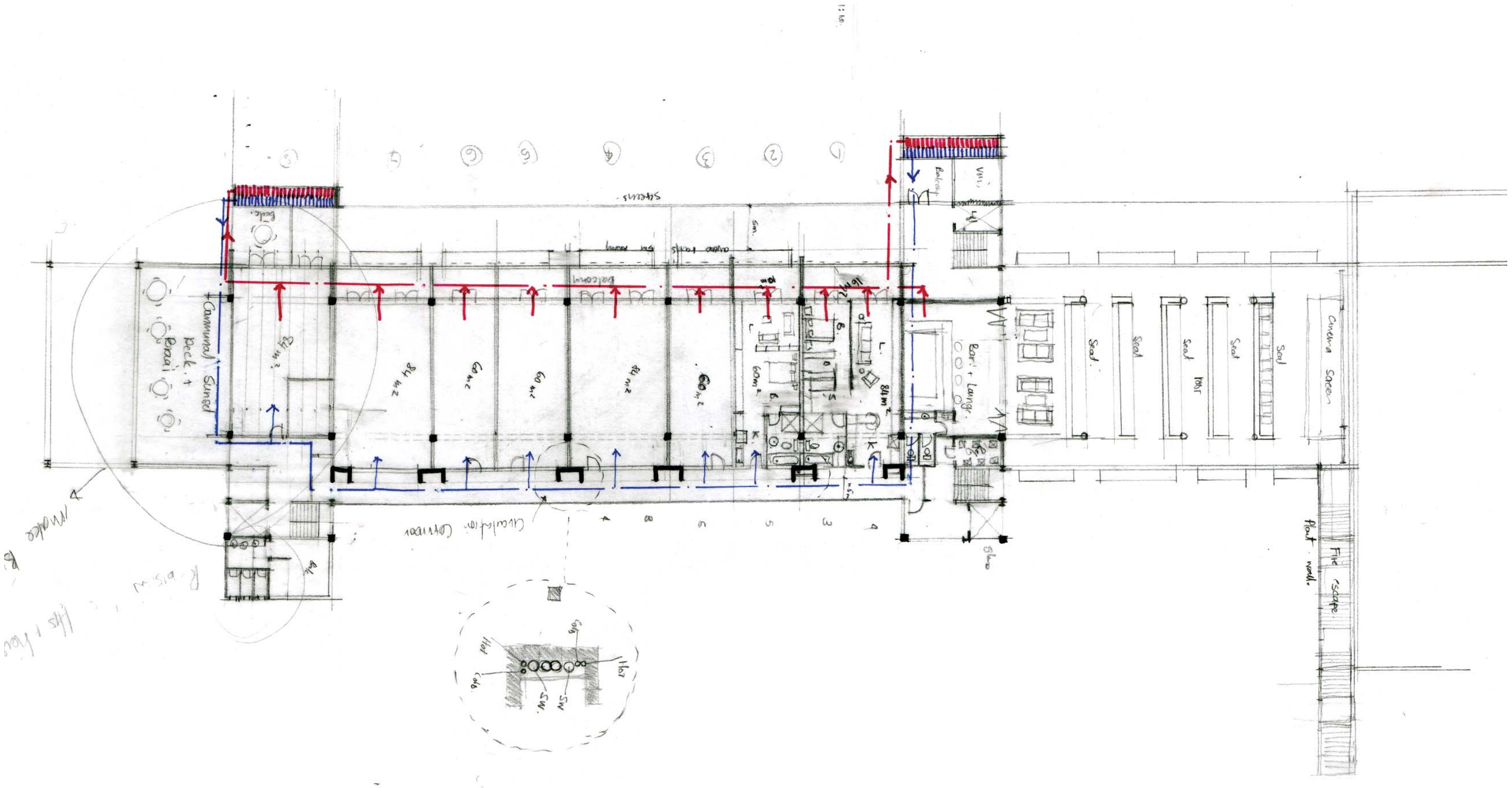


Figure 10.04 Development fifth floor plan (Author, 2011).

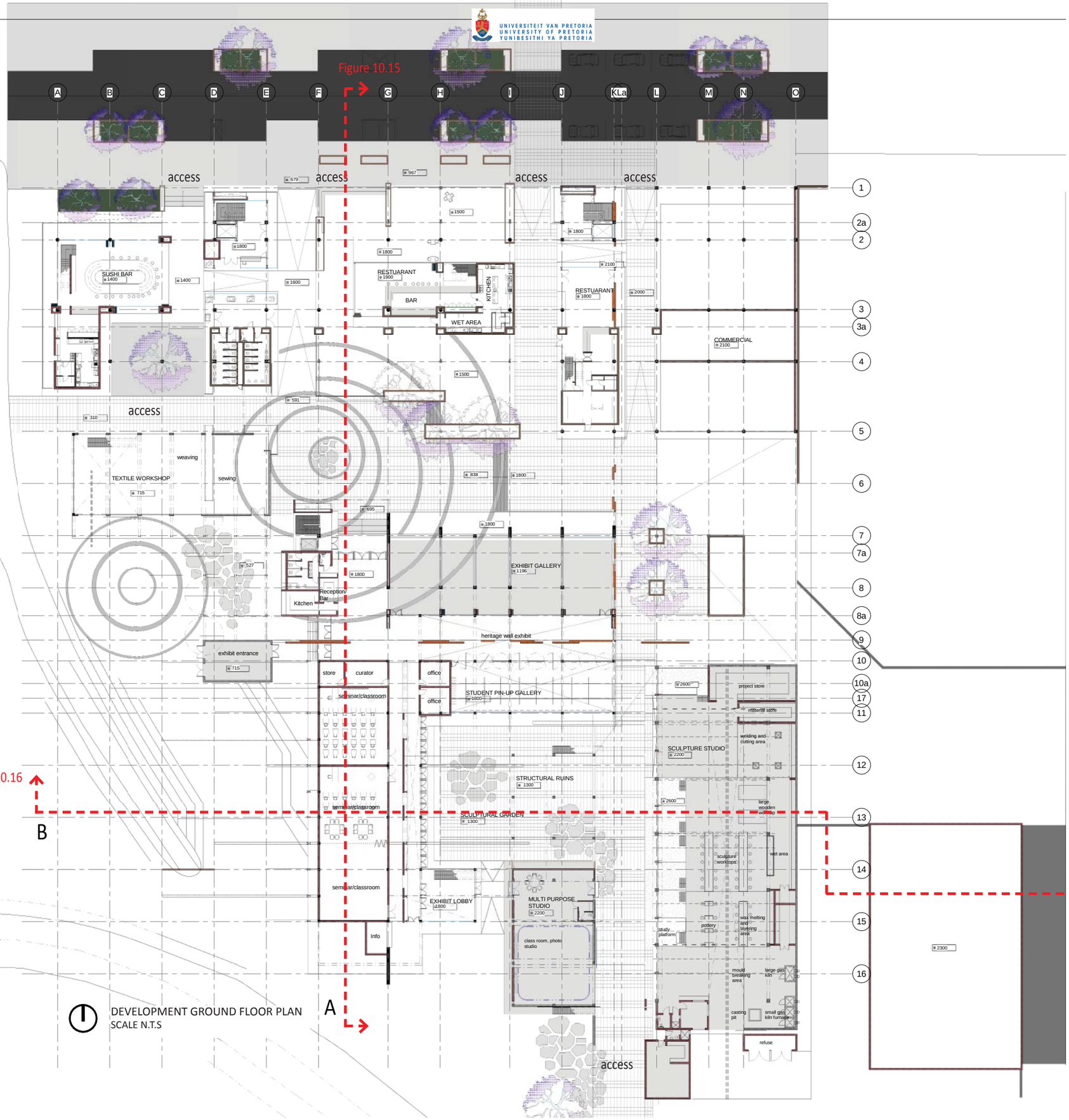


Figure 10.16

Figure 10.05 Development ground floor plan (Author, 2011).

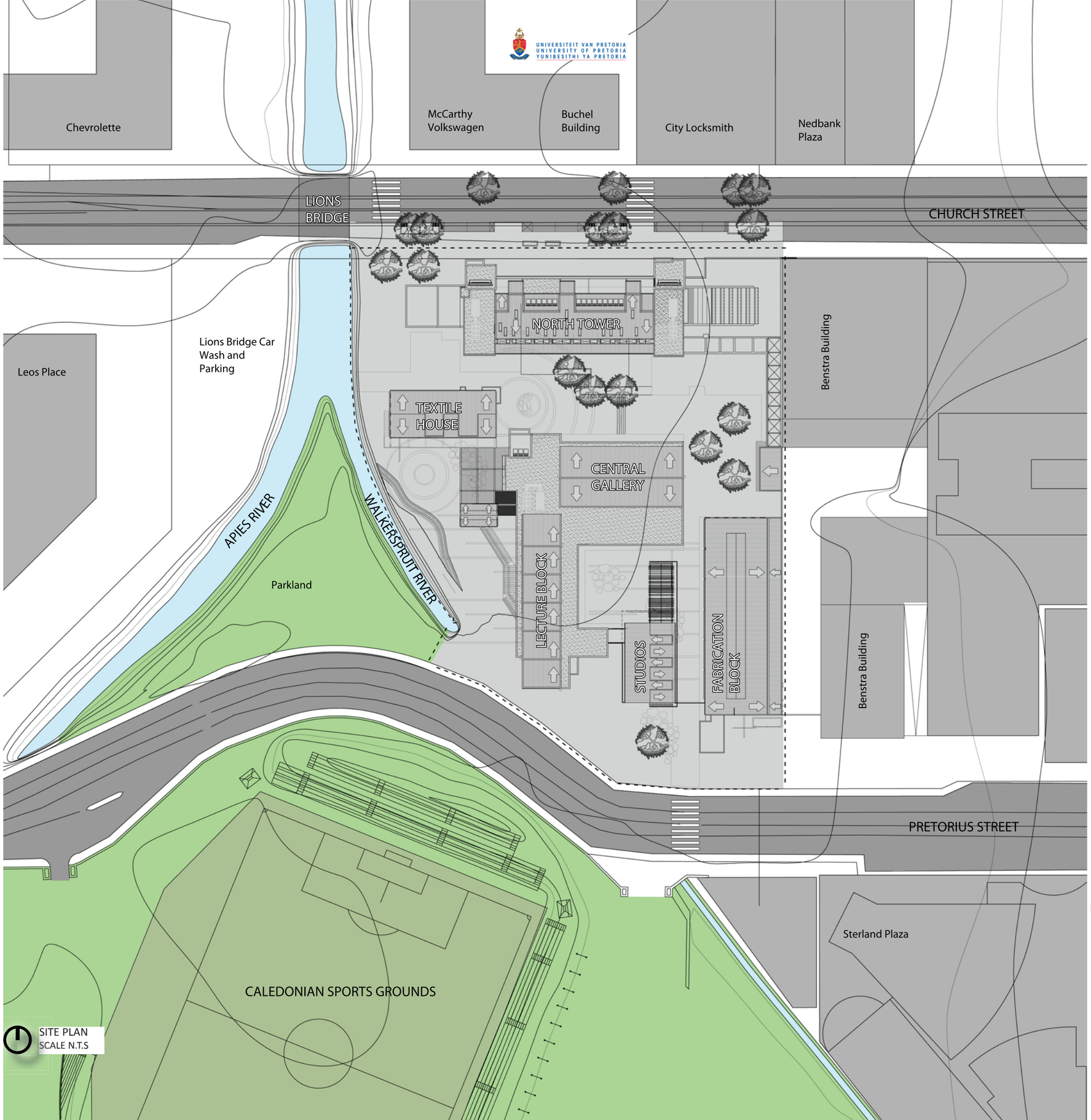
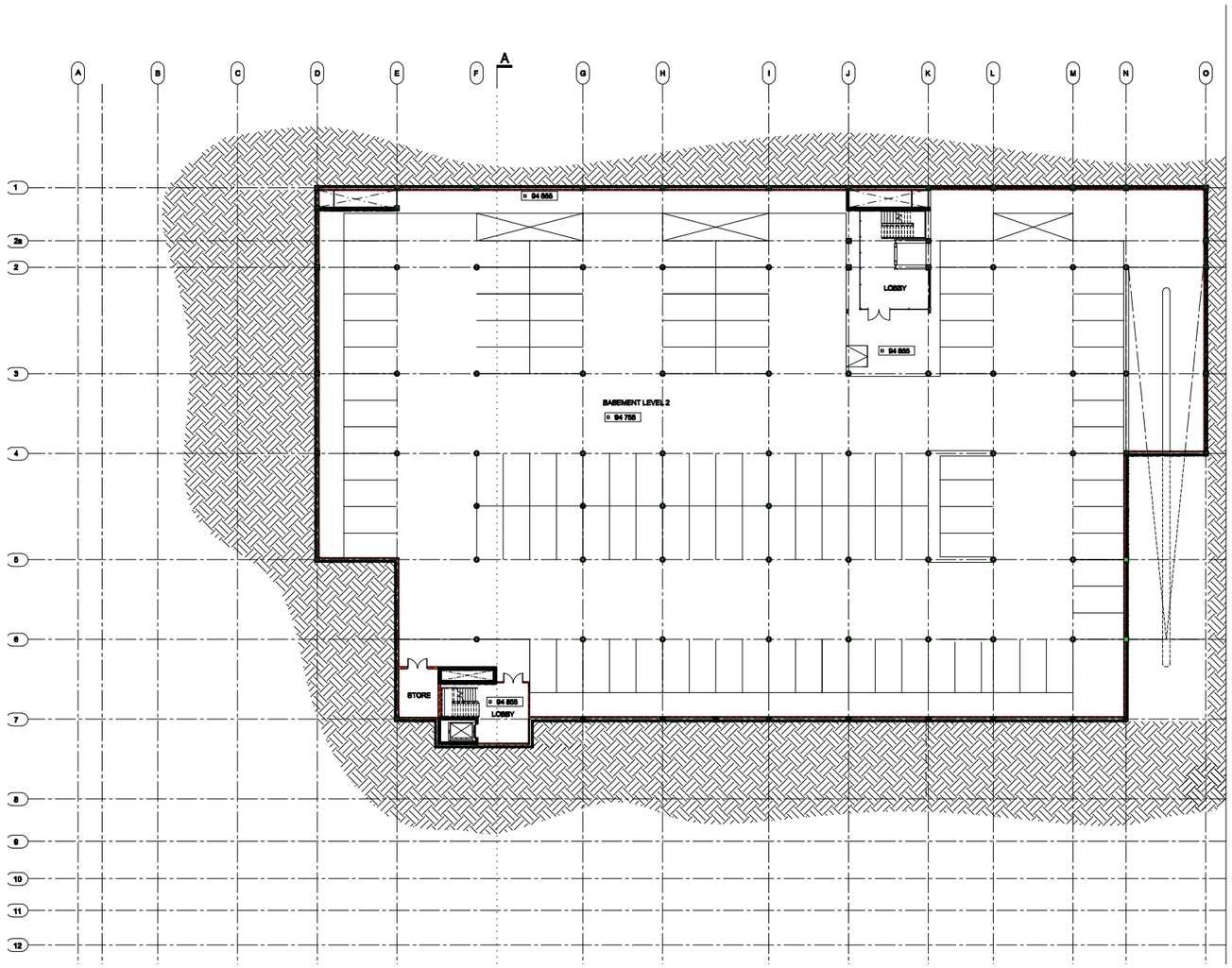
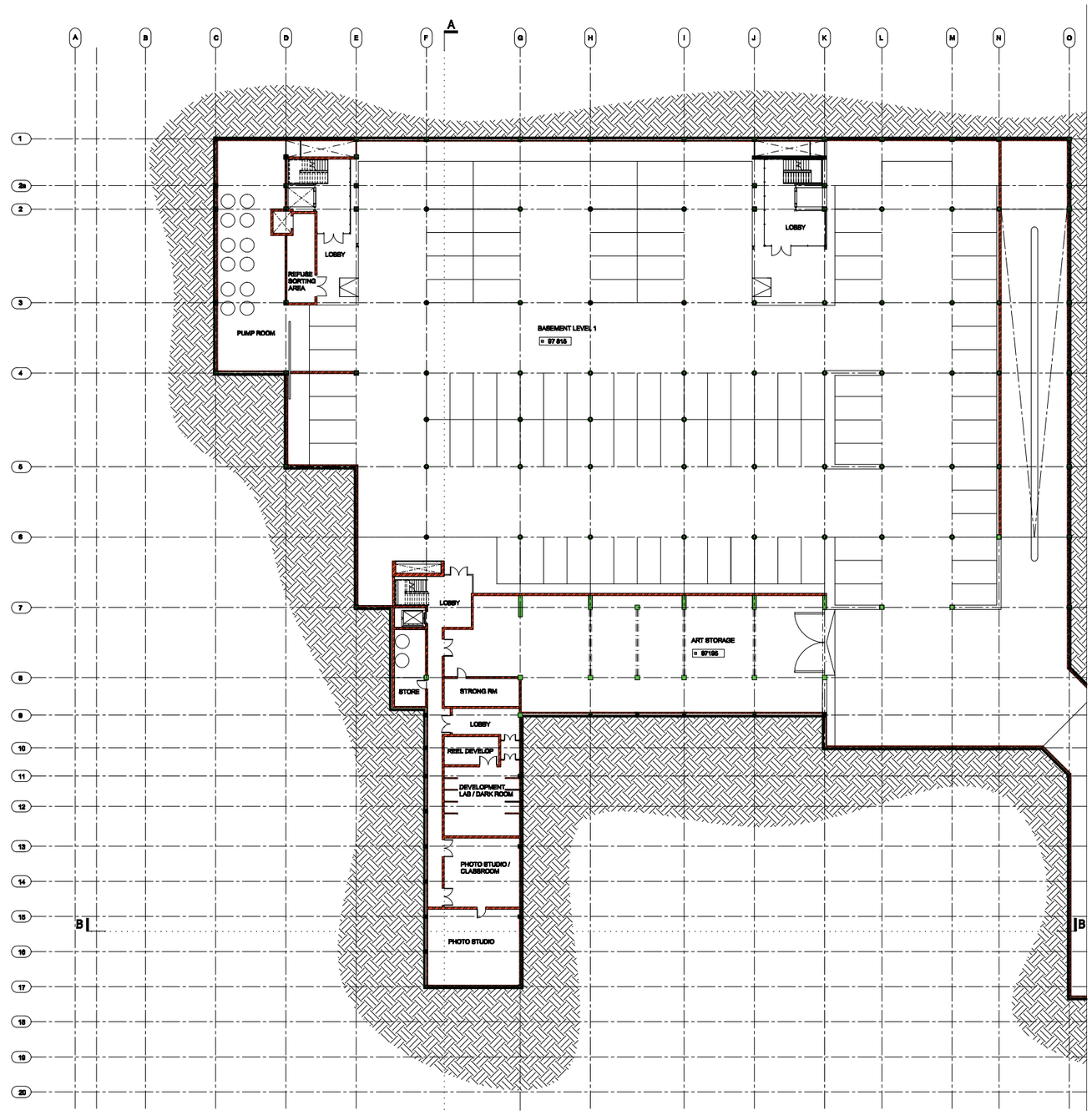


Figure 10.06 Site plan (Author, 2011).



BASEMENT LEVEL 2
SCALE N.T.S

Figure 10.07 Basement level 02 plan (Author, 2011).



BASEMENT LEVEL 1
SCALE N.T.S

Figure 10.08 Basement level 01 plan (Author, 2011).

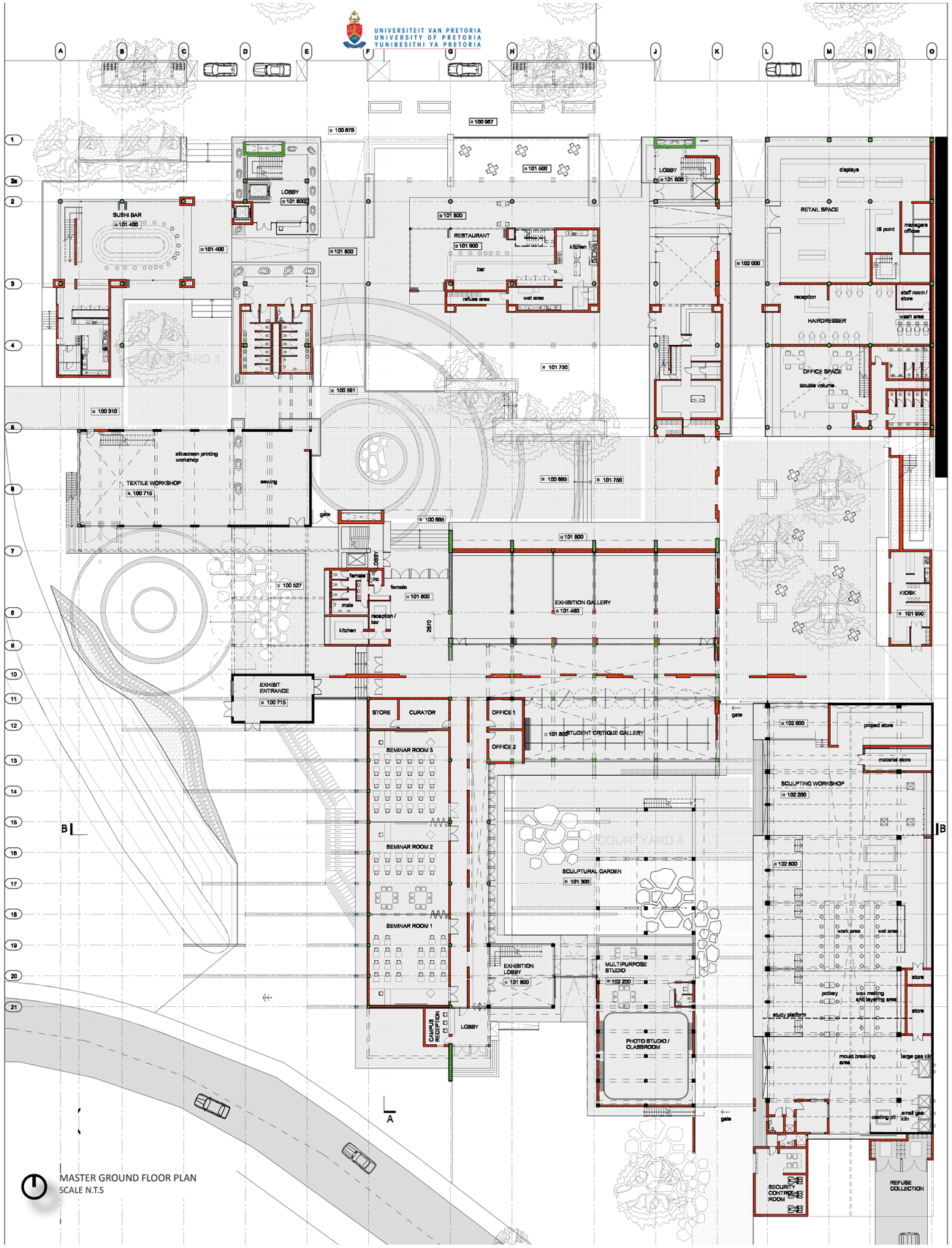


Figure 10.09 Master ground floor plan (Author, 2011).

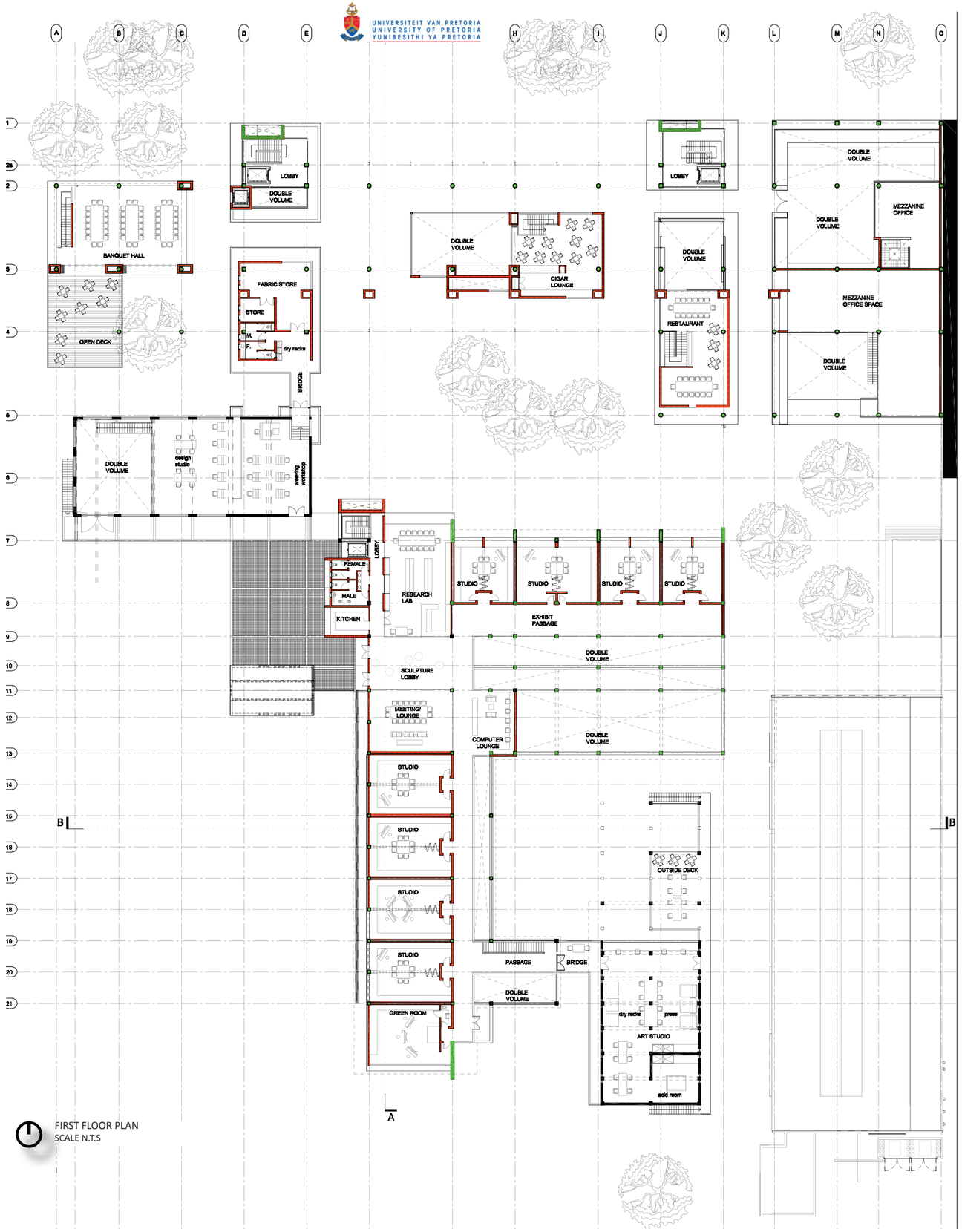


Figure 10.10 First floor plan (Author, 2011).

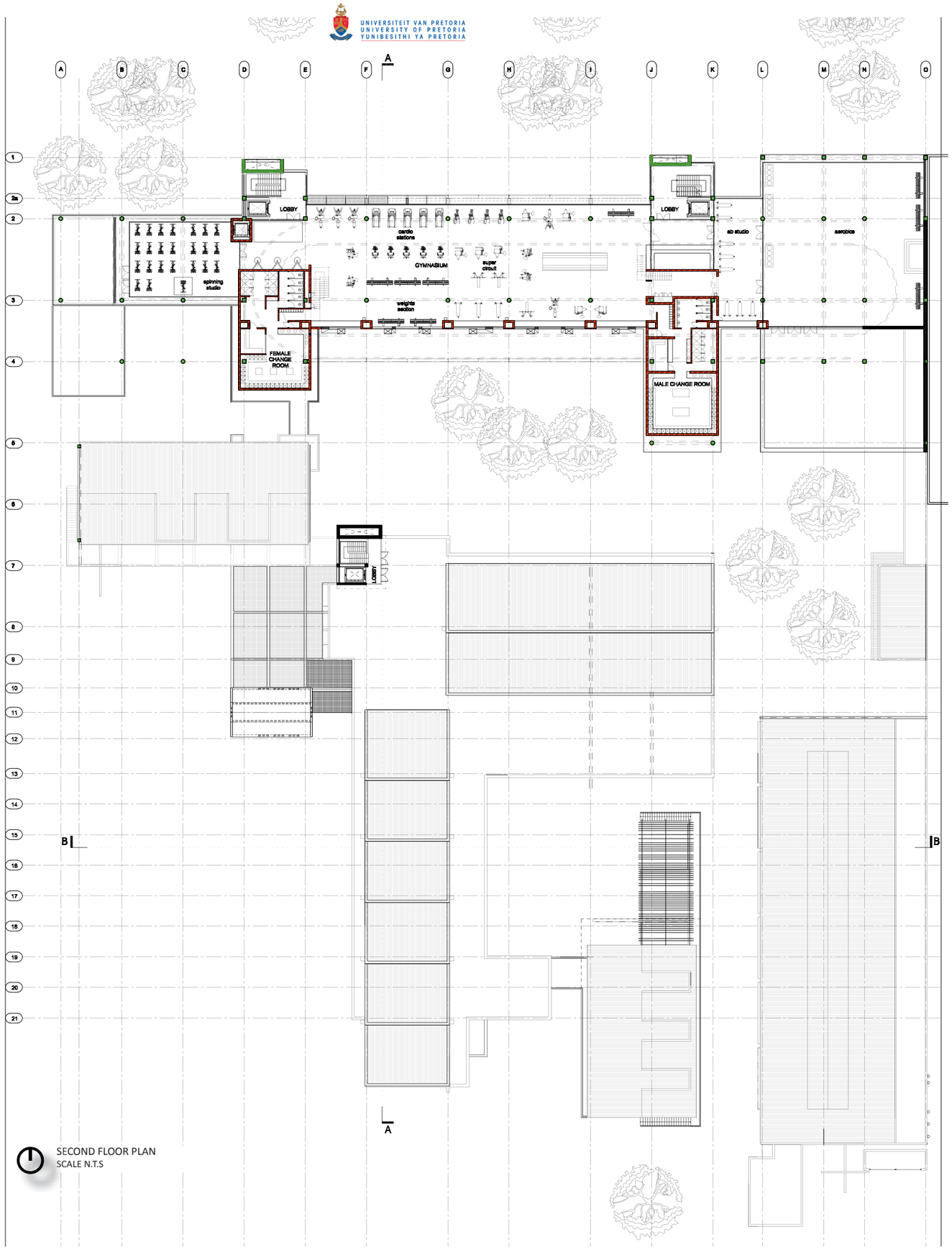
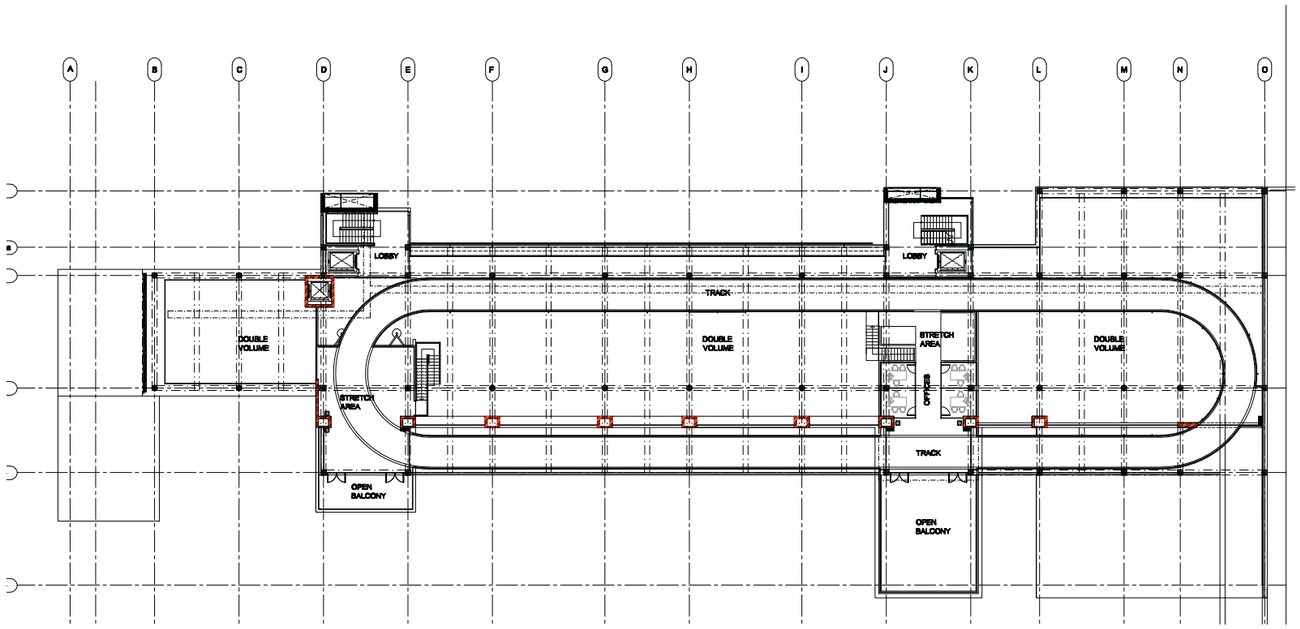
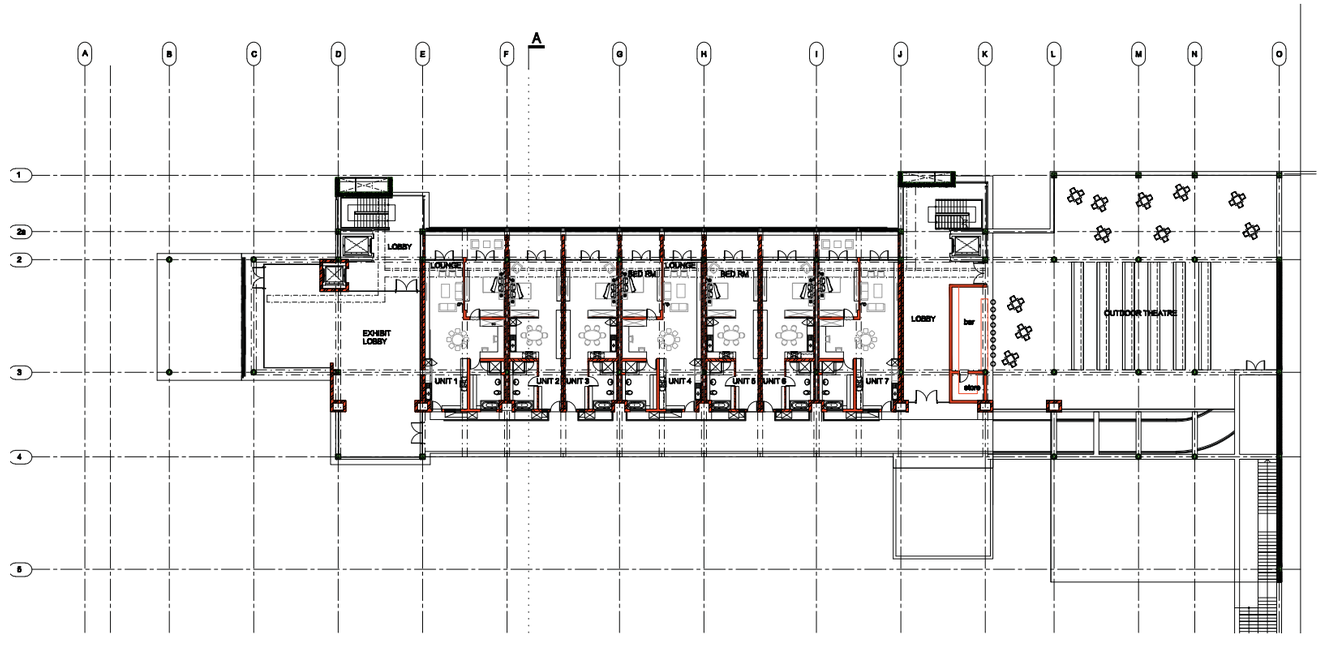


Figure 10.11 Second floor plan (Author, 2011).



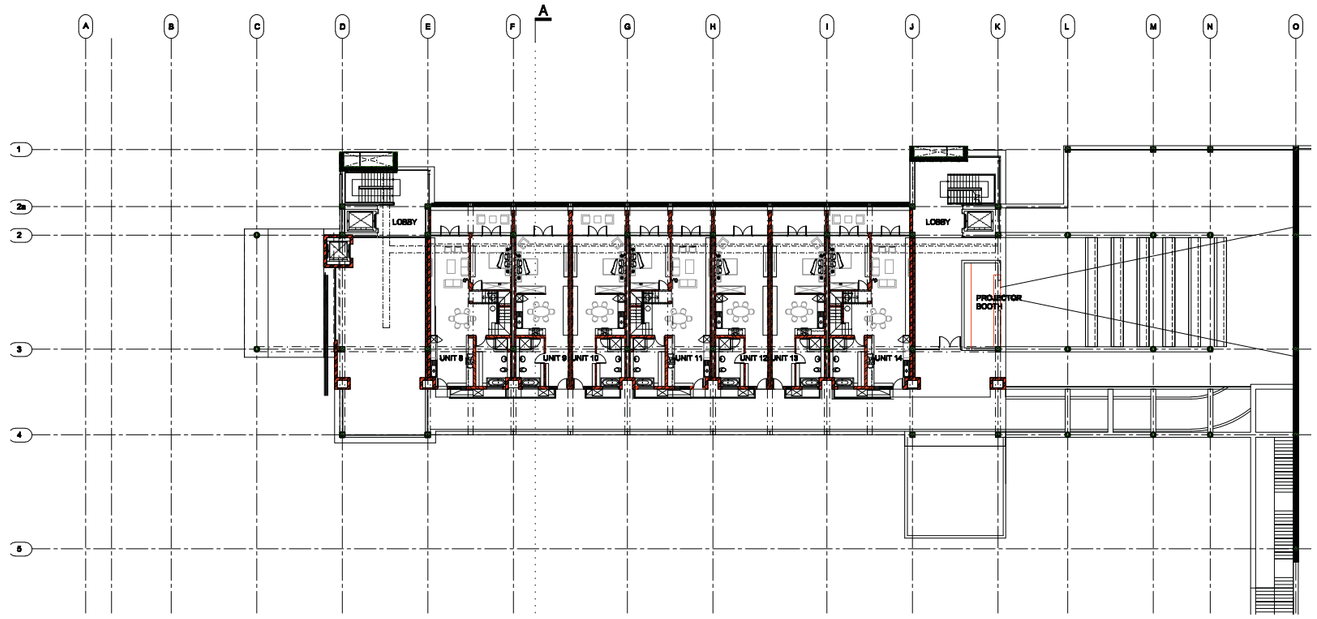
THIRD FLOOR PLAN
SCALE N.T.S

Figure 10.12 Third floor plan (Author, 2011).



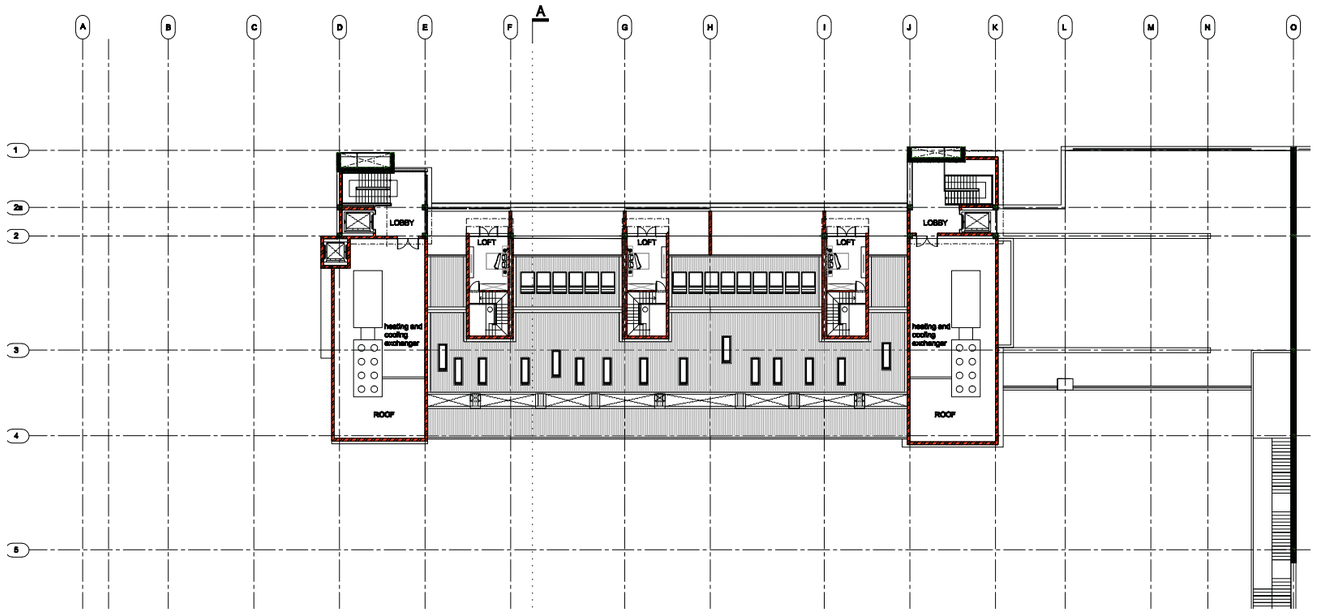
FOURTH FLOOR PLAN
SCALE N.T.S

Figure 10.13 Fourth floor plan (Author, 2011).



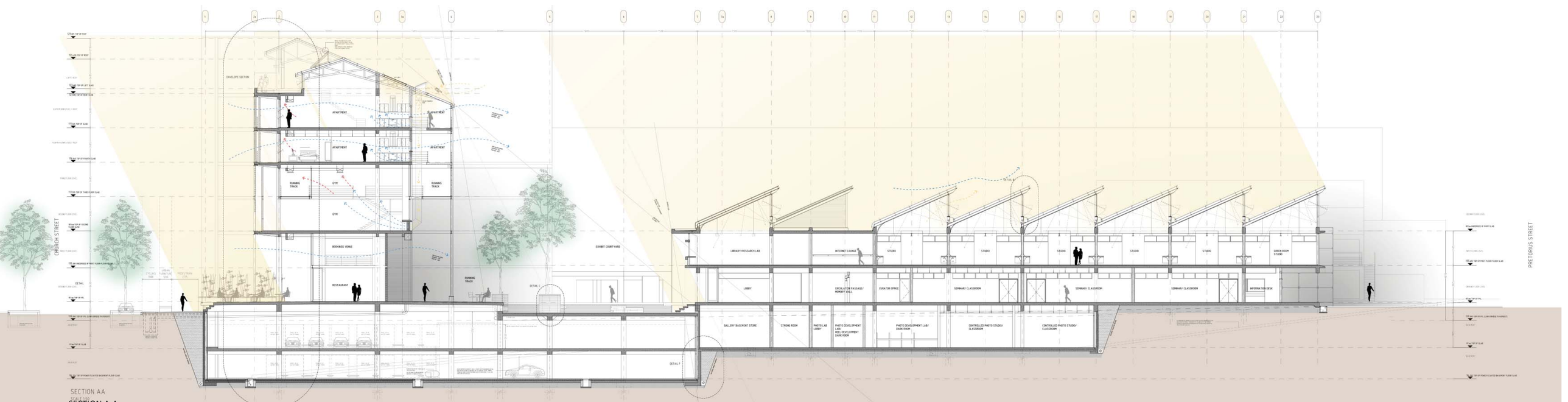
FIFTH FLOOR PLAN
SCALE N.T.S

Figure 10.14 Fifth floor plan (Author, 2011).



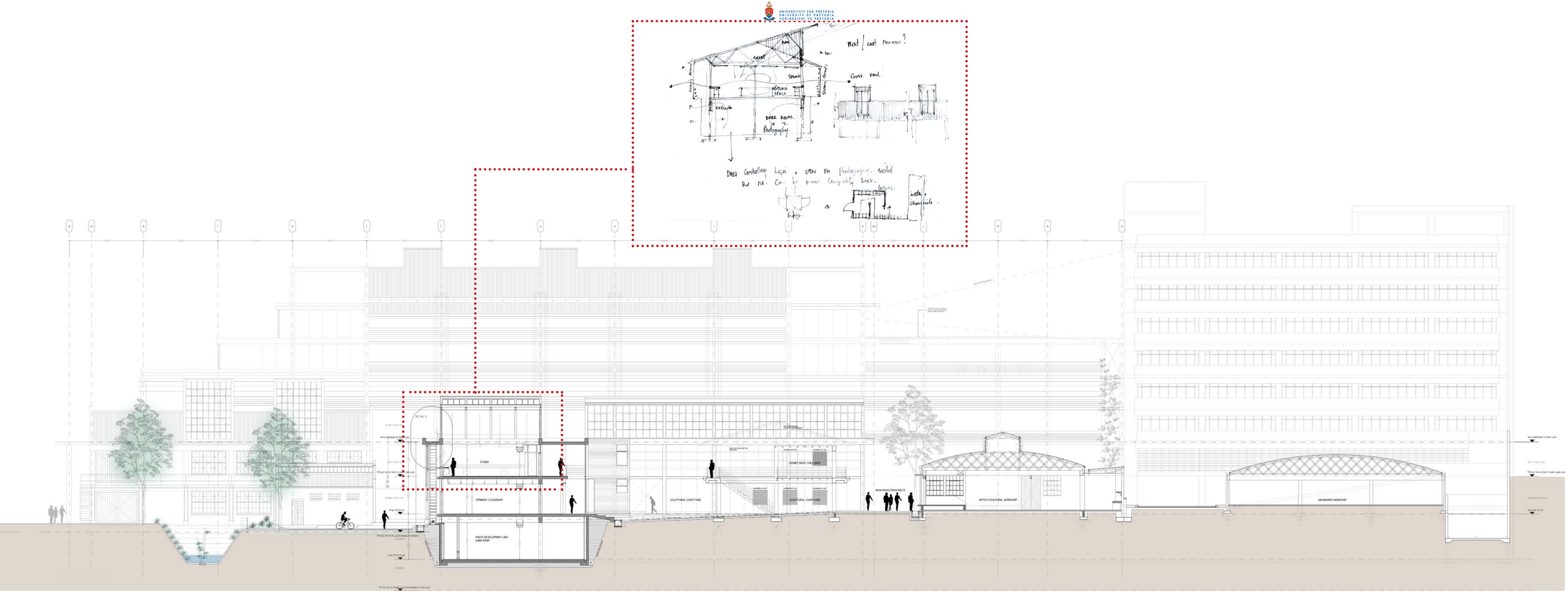
SIXTH FLOOR PLAN
SCALE N.T.S

Figure 10.15 Sixth floor plan (Author, 2011).



SECTION A A
SCALE 1:50
SECTION A-A
N.T.S

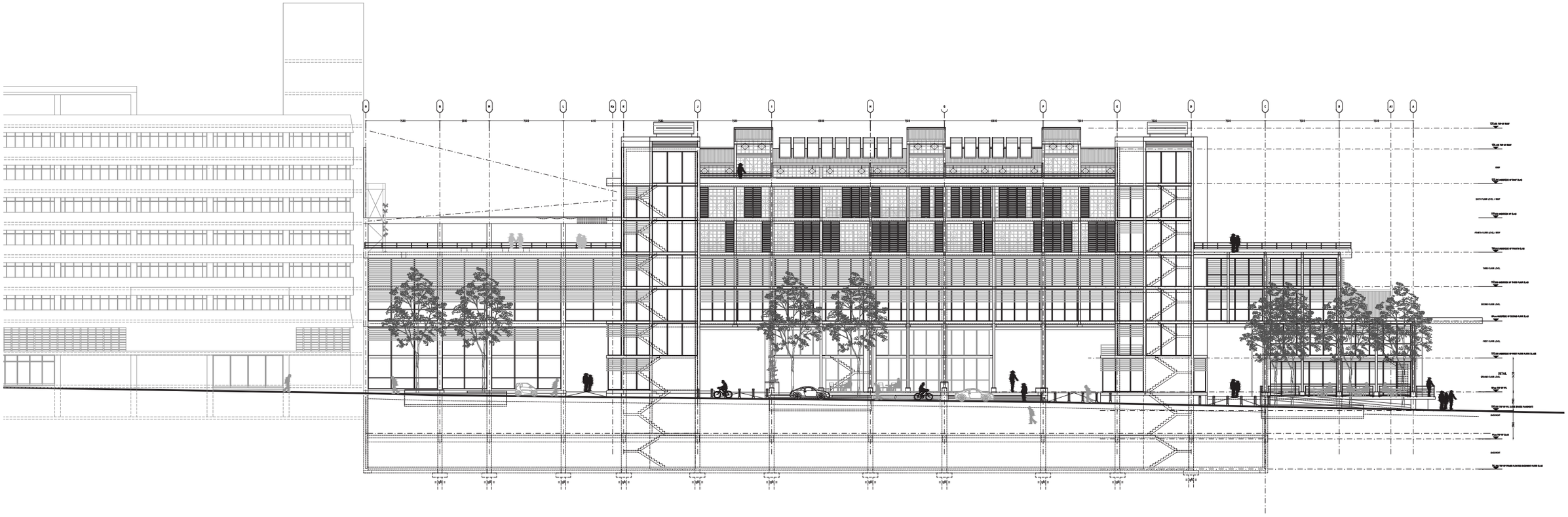
Figure 10.16 Section A-A (reference figure 10.5) (Author, 2011).



SECTION B-B
N.T.S

Figure 10.17 Section B-B (reference figure 10.5) (Author, 2011).

Figure 10.08 Concept section through existing and modification of existing roof (Author, 2011).



NORTHERN (CHURCH STREET) ELEVATION
N.T.S

Figure 10.18 Northern (Church Street) Elevation (Author, 2011).

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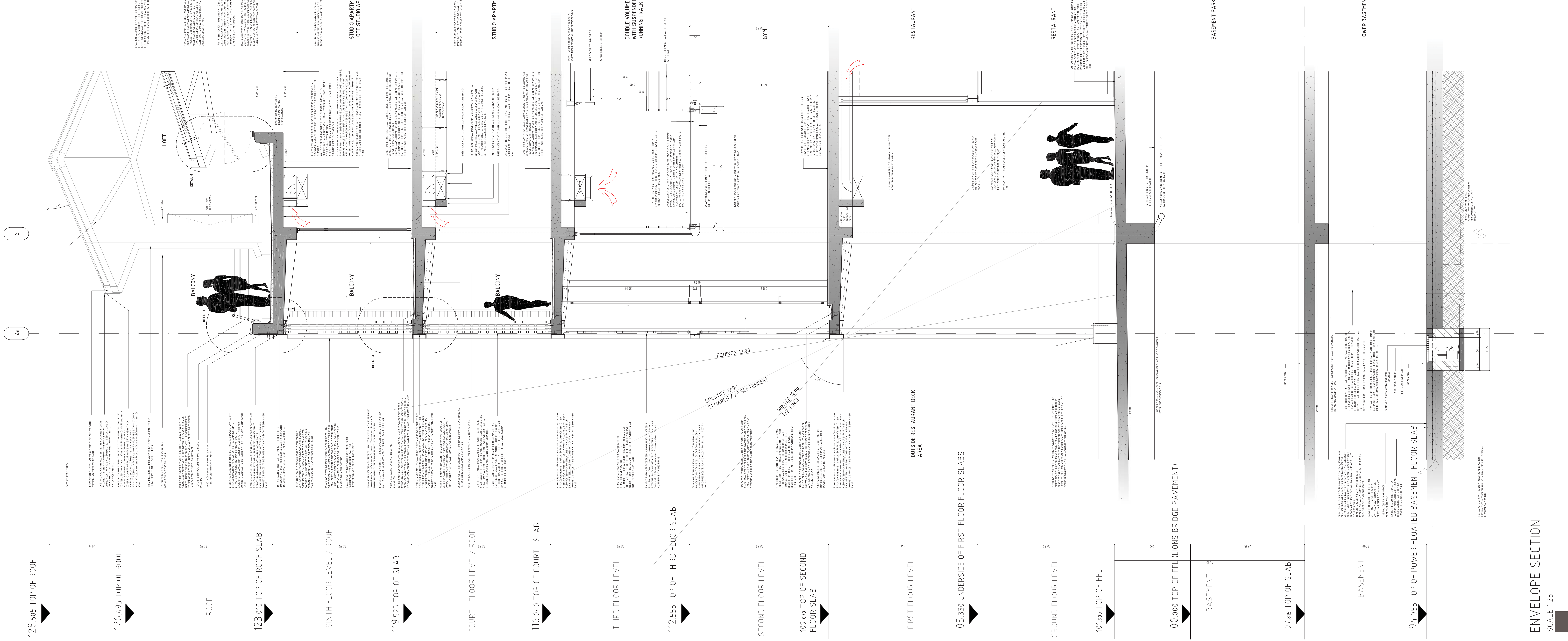
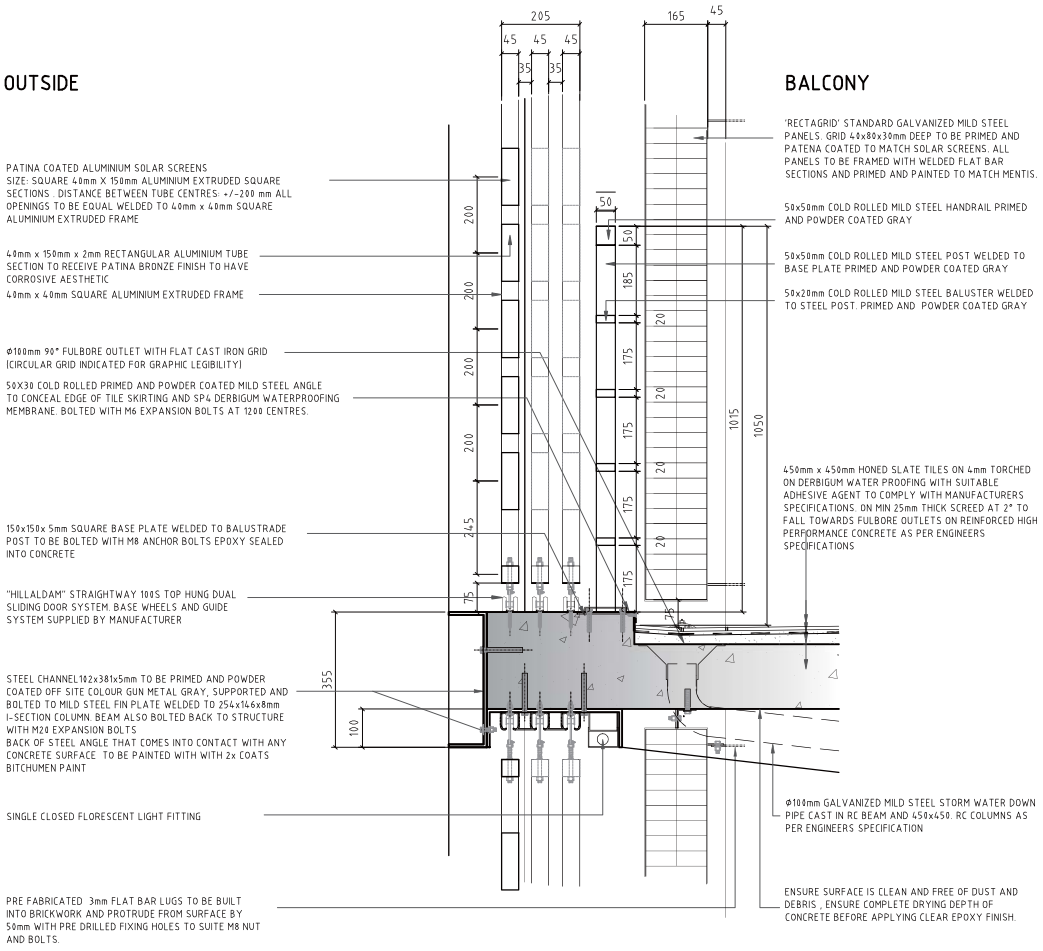
YUNIBESITHI YA PRETORIA

Figure 10.19 Envelope Section
(Author, 2011).



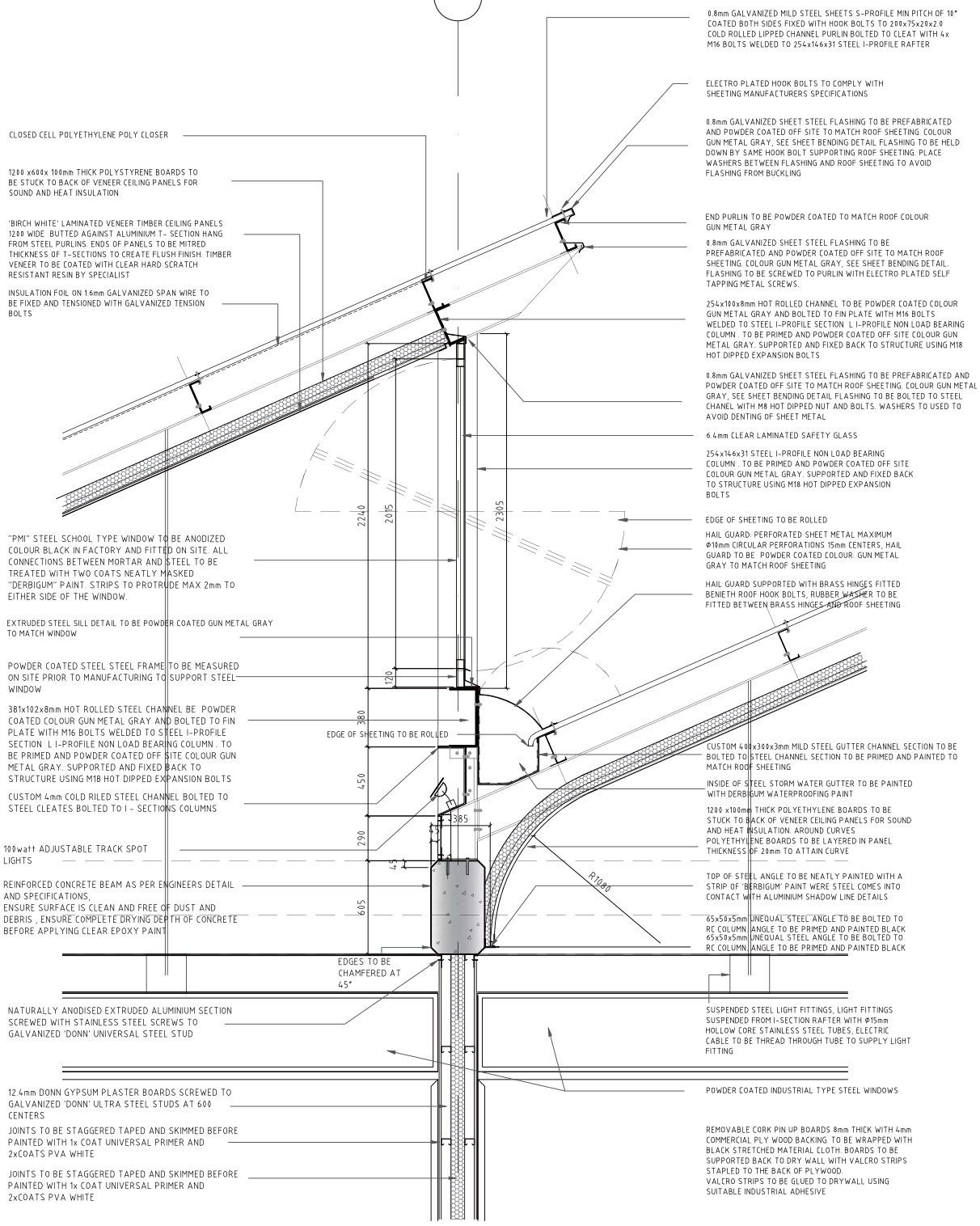
STUDIO APARTMENT / LOFT STUDIO APARTMENT
STUDIO APARTMENT
DOUBLE VOLUME WITH SUSPENDED RUNNING TRACK
GYM
RESTAURANT
RESTAURANT
BASEMENT PARKING
LOWER BASEMENT PARKING
LOFT
BALCONY
BALCONY
BALCONY
OUTSIDE RESTAURANT DECK AREA
EQUINOX 12:00
SOLSTICE 12:00
21 MARCH / 23 SEPTEMBER)
WINTER 12:00
(22 JUNE)
128.605 TOP OF ROOF
126.495 TOP OF ROOF
ROOF
123.010 TOP OF ROOF SLAB
SIXTH FLOOR LEVEL / ROOF
119.525 TOP OF SLAB
FOURTH FLOOR LEVEL/ ROOF
116.040 TOP OF FOURTH SLAB
THIRD FLOOR LEVEL
112.555 TOP OF THIRD FLOOR SLAB
SECOND FLOOR LEVEL
109.070 TOP OF SECOND FLOOR SLAB
FIRST FLOOR LEVEL
105.330 UNDERSIDE OF FIRST FLOOR SLABS
GROUND FLOOR LEVEL
101.900 TOP OF FFL
100.000 TOP OF FFL (LIONS BRIDGE PAVEMENT)
BASEMENT
97.815 TOP OF SLAB
BASEMENT
94.755 TOP OF POWER FLOATED BASEMENT FLOOR SLAB
ENVELOPE SECTION
SCALE 1:25



DETAIL A – SOLAR SCREEN AND BALUSTRADE DETAIL

SCALE 1:20

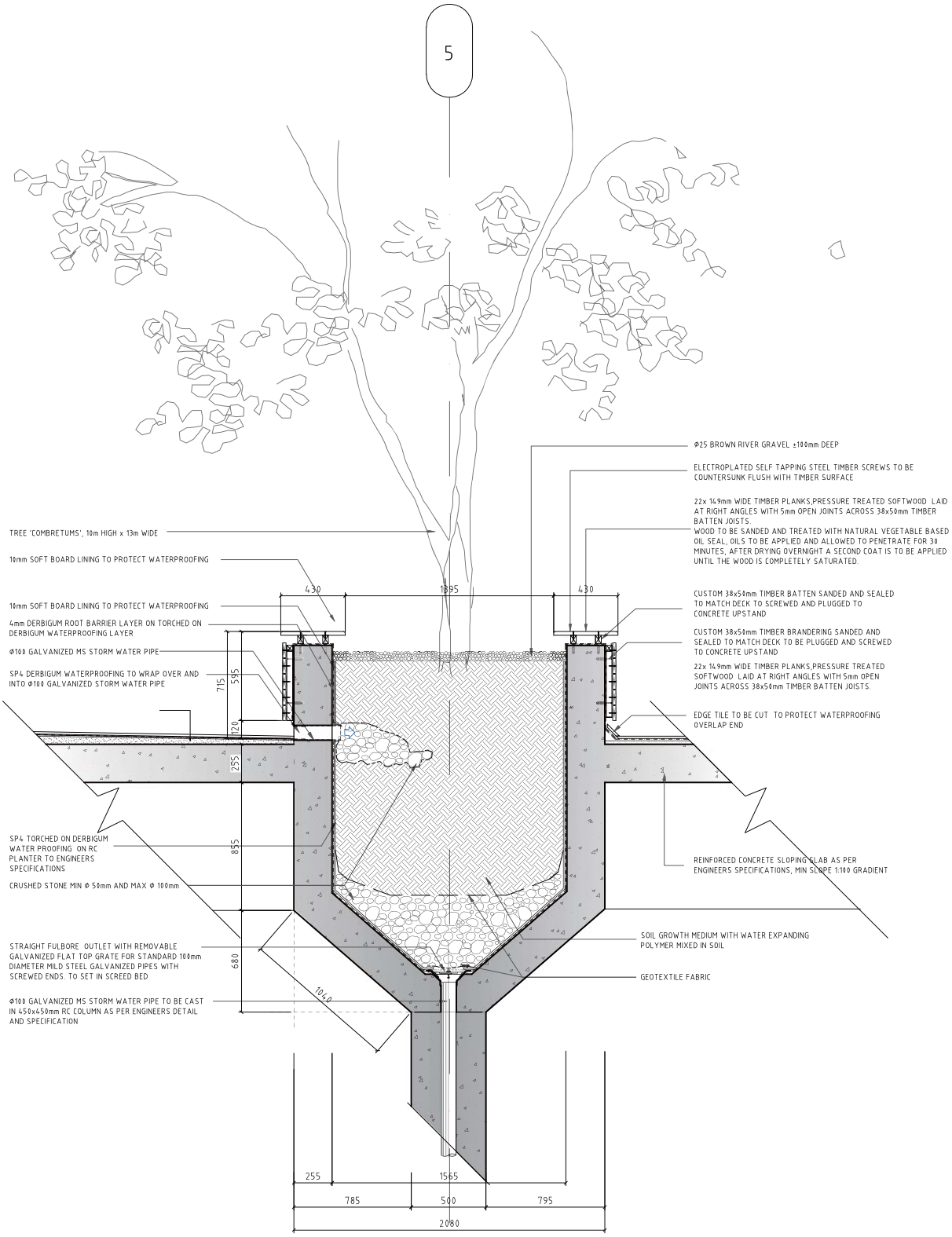
Figure 10.20 Detail (Author, 2011).



DETAIL B - GUTTER AND OPENING DETAIL

SCALE N.T.S

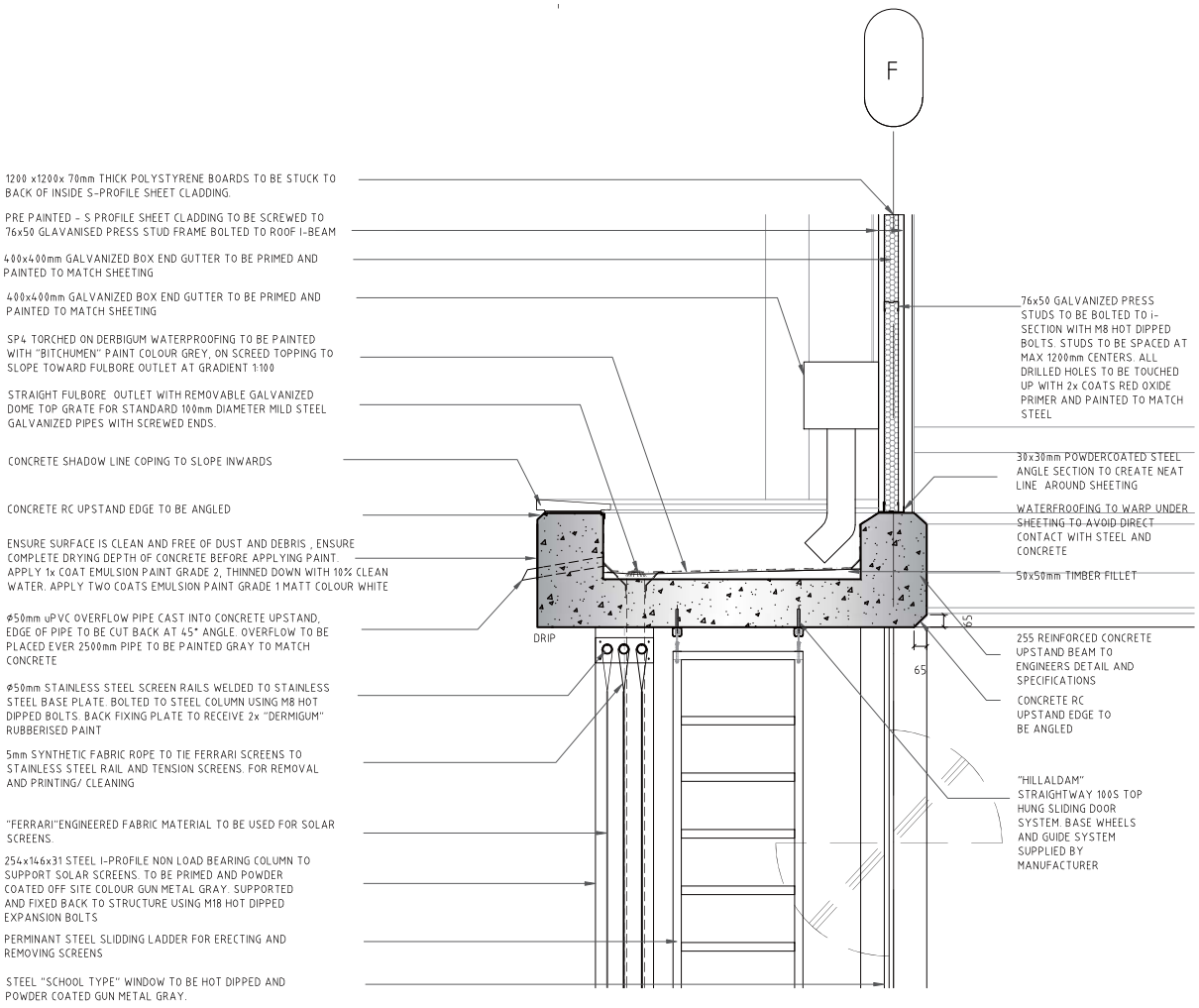
Figure 10.21 Detail (Author, 2011).



DETAIL C - PLANTER BOX DETAIL

SCALE N.T.S

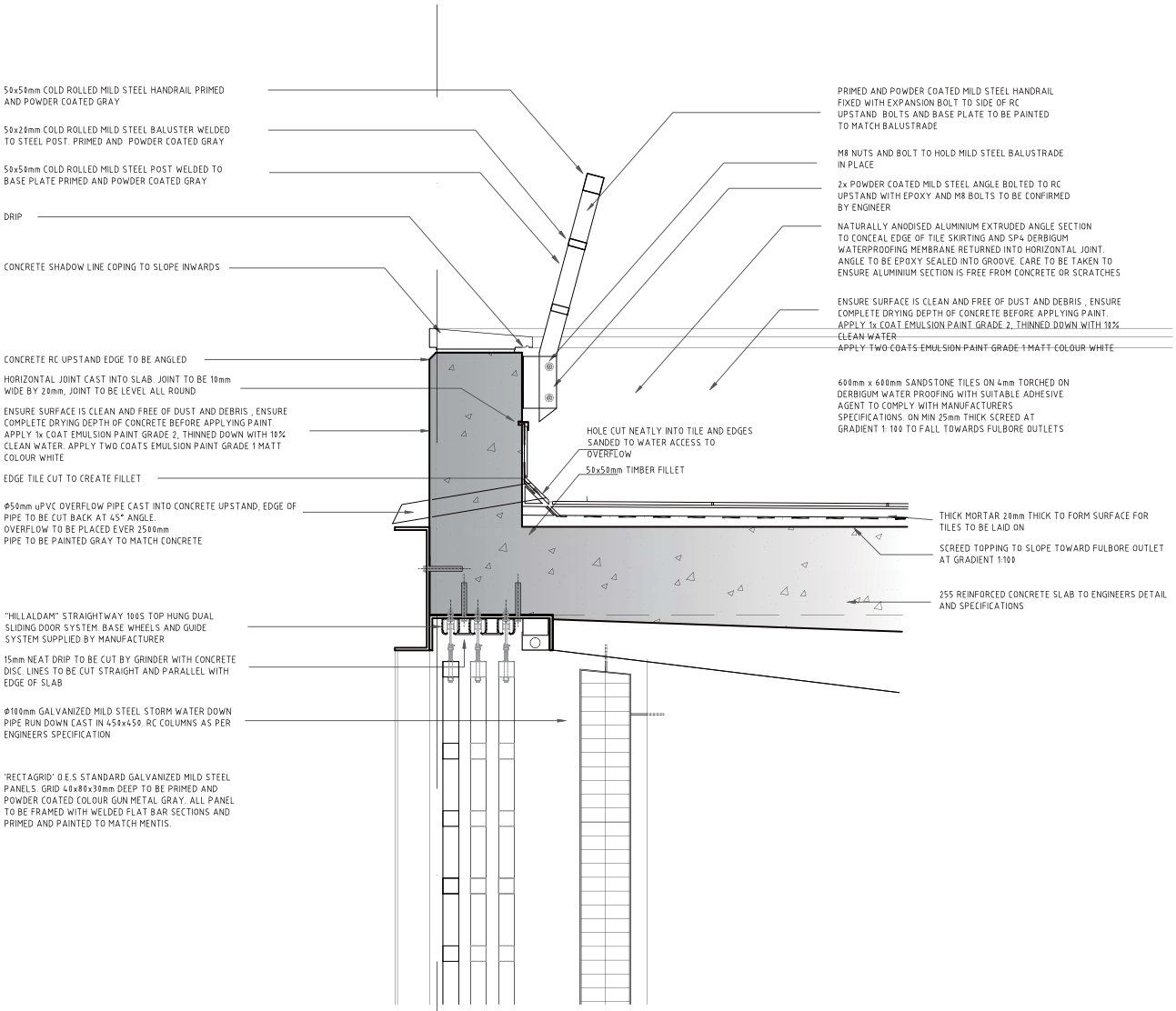
Figure 10.22 Detail (Author, 2011).



DETAIL D - SOLAR SCREEN DETAIL

SCALE N.T.S

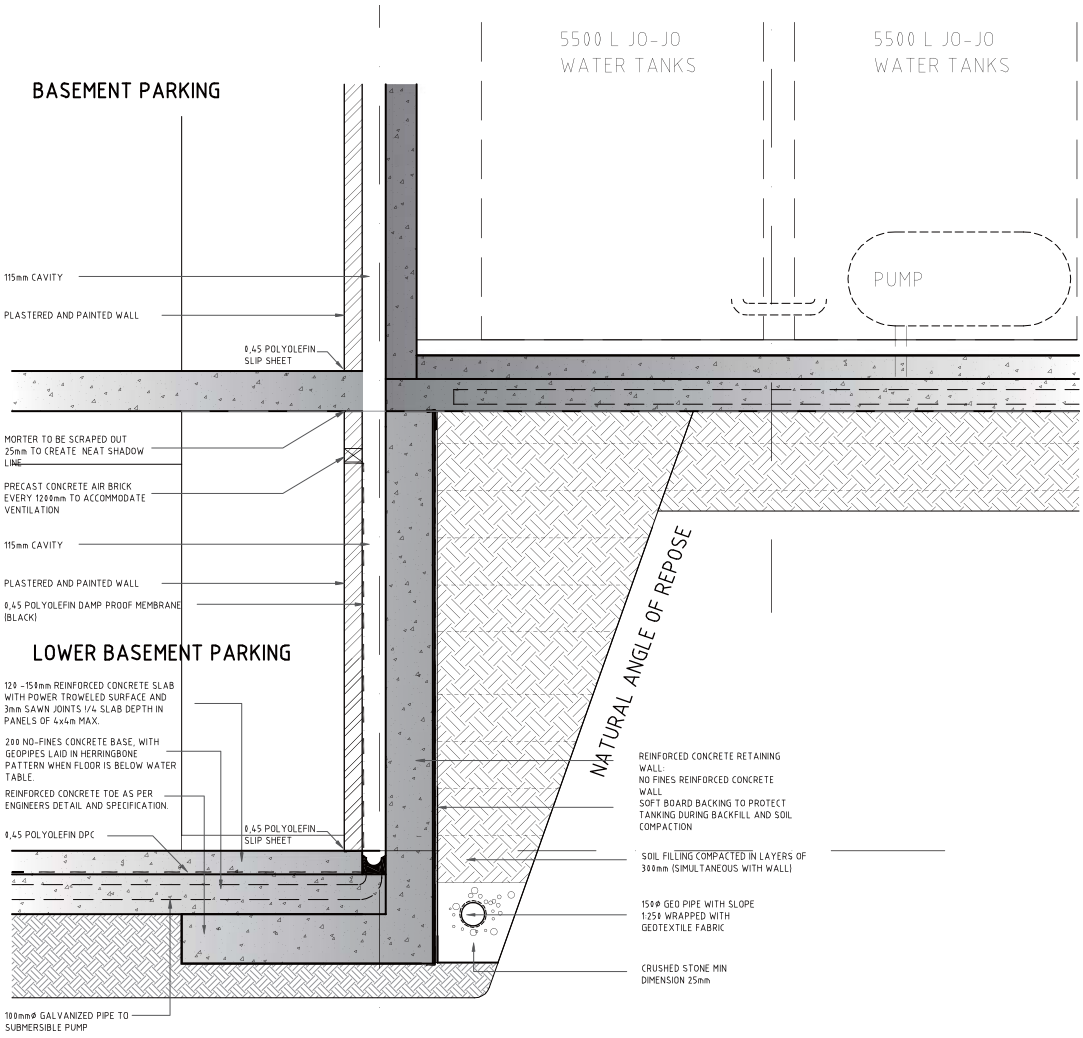
Figure 10.23 Detail (Author, 2011).



DETAIL E – CONCRETE ROOF DETAIL

SCALE N.T.S

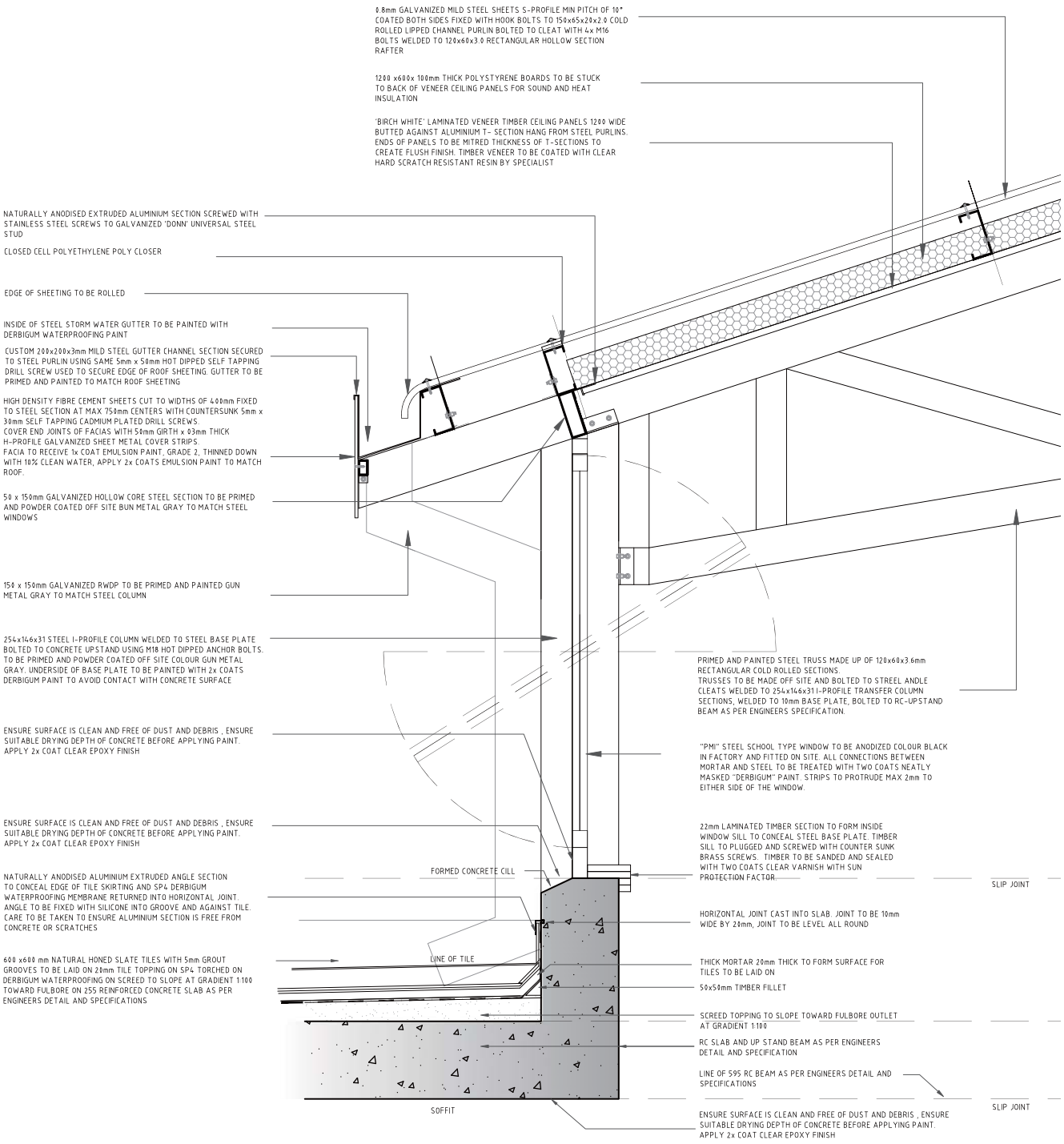
Figure 10.24 Detail (Author, 2011).



DETAIL F - RETAINING WALL DETAIL

SCALE N.T.S

Figure 10.25 Detail (Author, 2011).



DETAIL G - STEEL ROOF DETAIL

SCALE 1:20

Figure 10.26 Detail (Author, 2011).

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ADDENDA

ADDENDUM A:

Urban context and concept

Urban green and open space network with proposed links

Figure A. 1. Photograph of one of the identified future brown ways (Author, 2011)

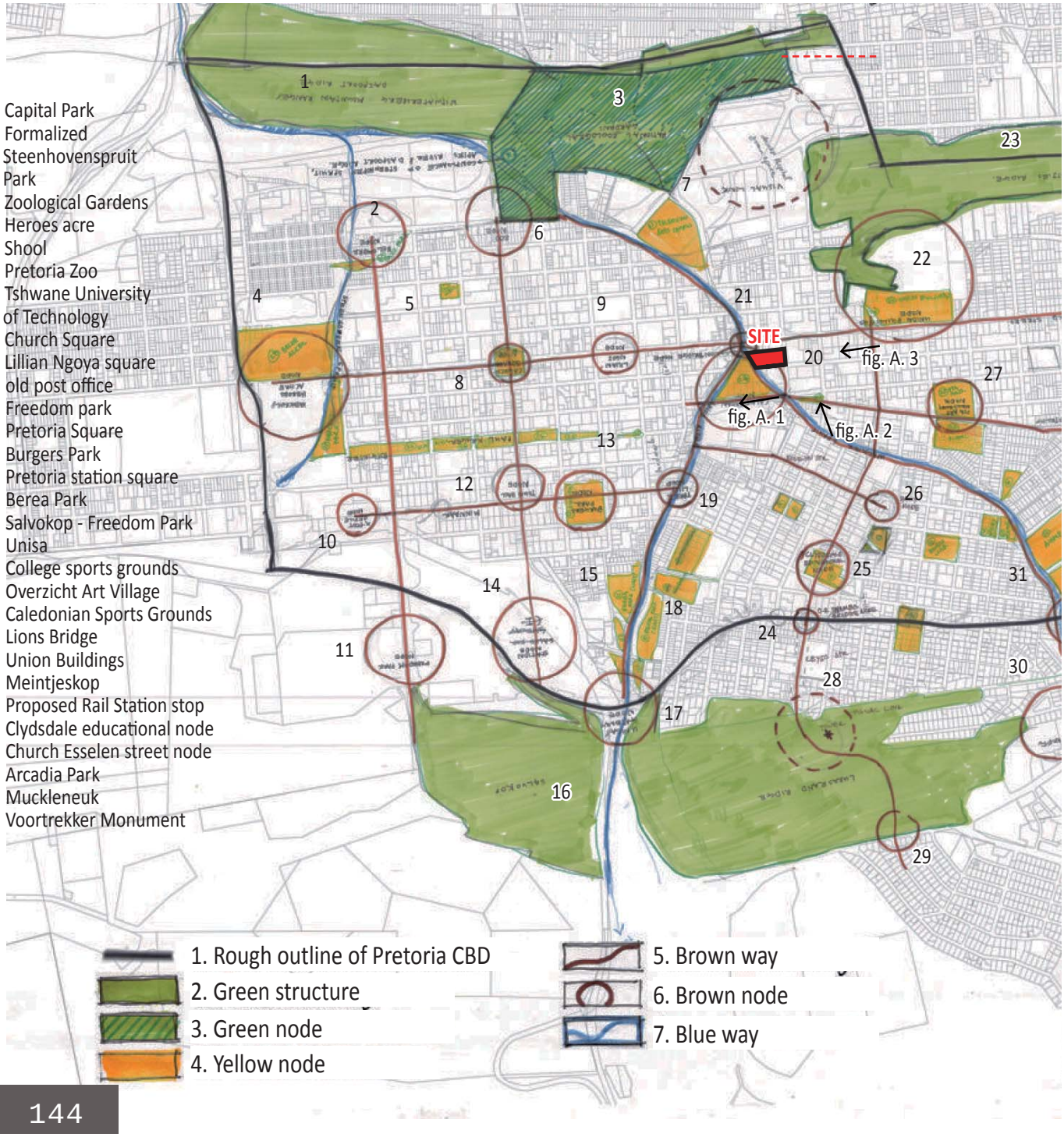

Figure A. 2. Photo of disconnected open space (Author, 2011).

Figure A. 3. Photograph of Schoeman Street identified as possible brown way (Author, 2011).

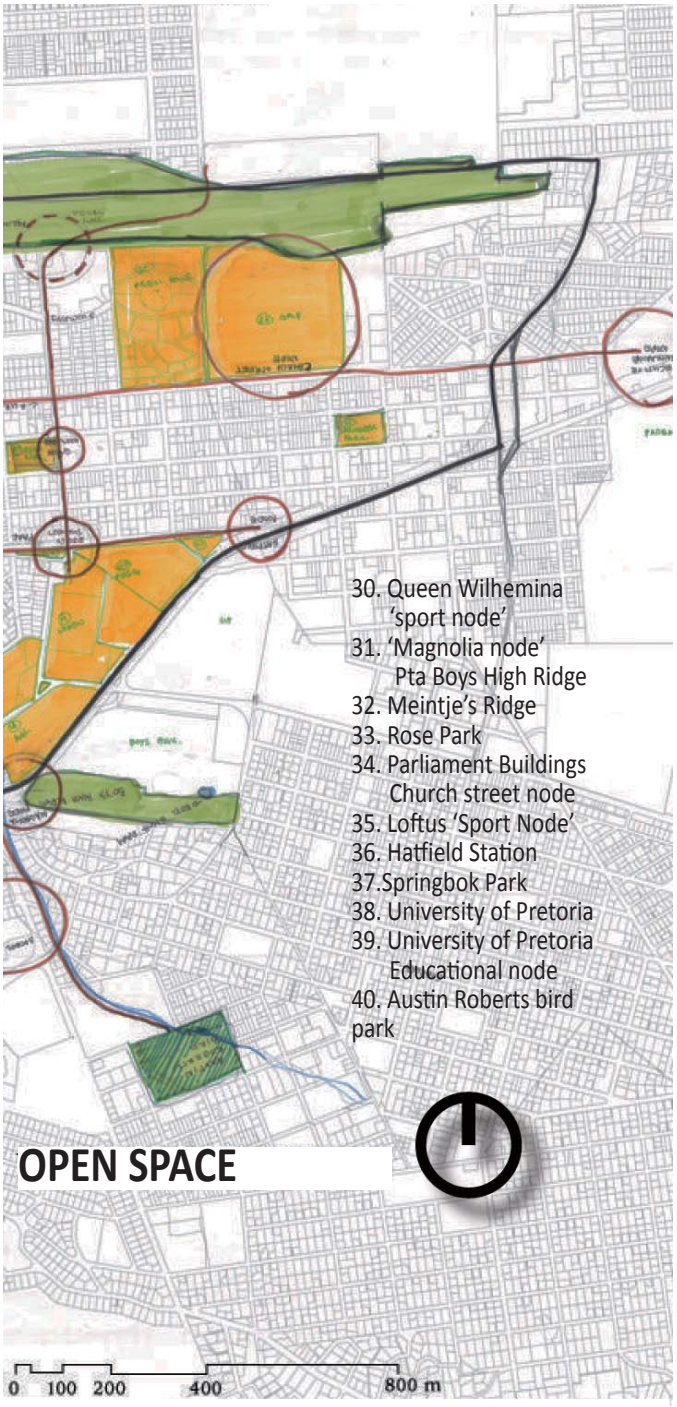

Figure A. 4. Map of green and open space network (Group Framework, 2010).

Open Space

Figure A. 4. Illustrates the existing open spaces with future brown way networks connecting the existing open and green spaces in Pretoria and surrounding the site.

The 'Brown Nodes' are space of interest within the city, that add value to the city experience and character.

The 'Brown Ways' are proposed routes from the group framework 2010, which identified network spines that could be landscaped and enhanced to visually improve the image of the city and help citizens and visitors orientate themselves.

The 'Yellow Nodes' were identified as open spaces, parks, areas of cultural or heritage value that link up along the 'Brown Nodes'.

The 'Green Structure' were identified as the natural green open space in the city,

The 'Green nodes' are green areas that are preserved but are not natural. Indicated in figure A. 4, are the zoological and botanical gardens which were identified as areas that could possibly be linked along Walkerspruit, identified as a 'Blue Way'.

There are two 'Blue Ways'- the Apies River and Walkerspruit which form a divide/edge between east and west, linking the north and south of Pretoria.

Urban context and concept

Movement networks with proposed ceremonial routes

Figure A. 5. Photo of Church Street travelling east (Author, 2011).

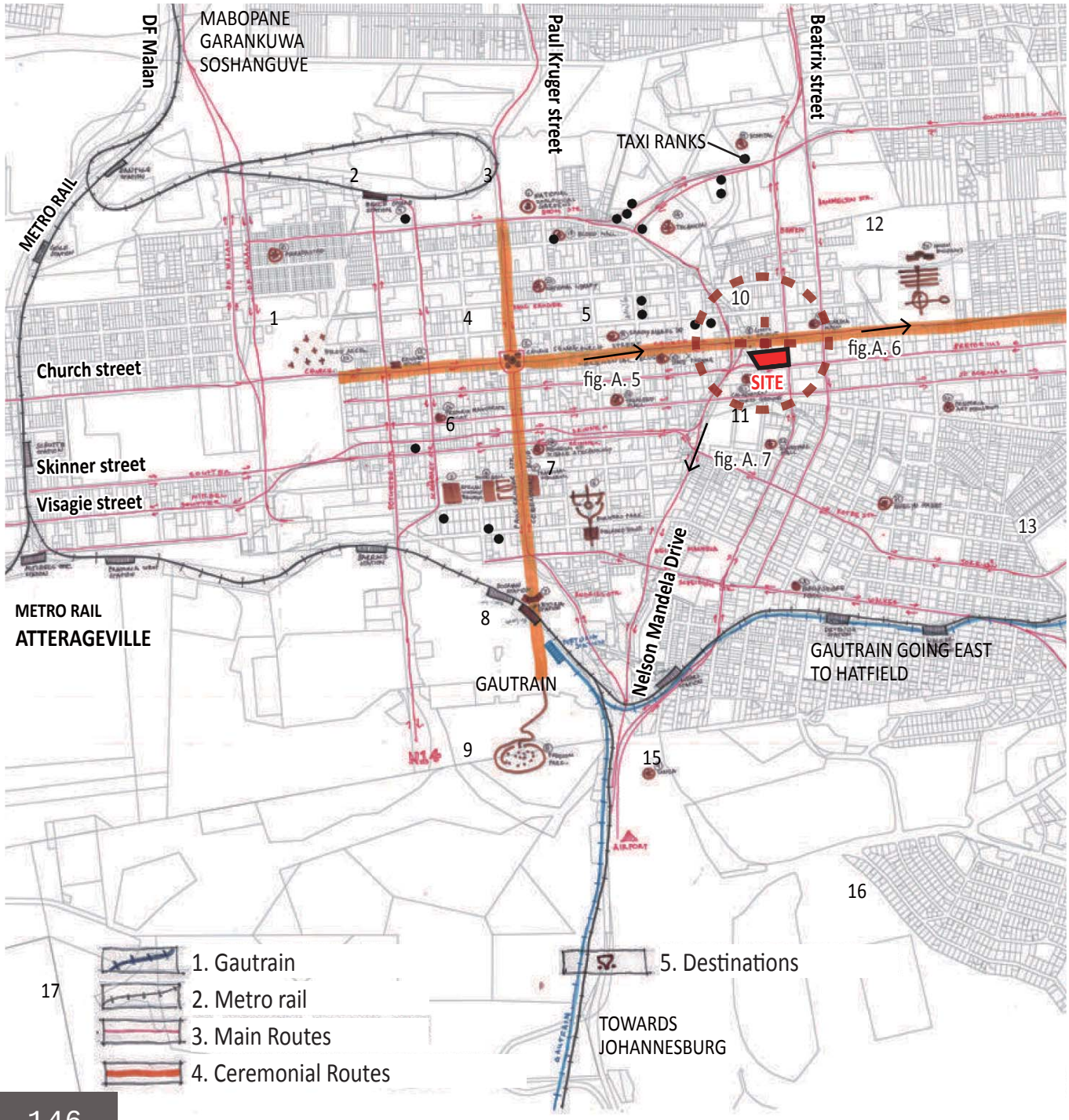

Figure A. 6. Photo of Church Street towards the union buildings (Author, 2011).

Figure A. 7. Photo of intersection between Nelson Mandela Drive and Esselen and direction out of the city (Author, 2011).

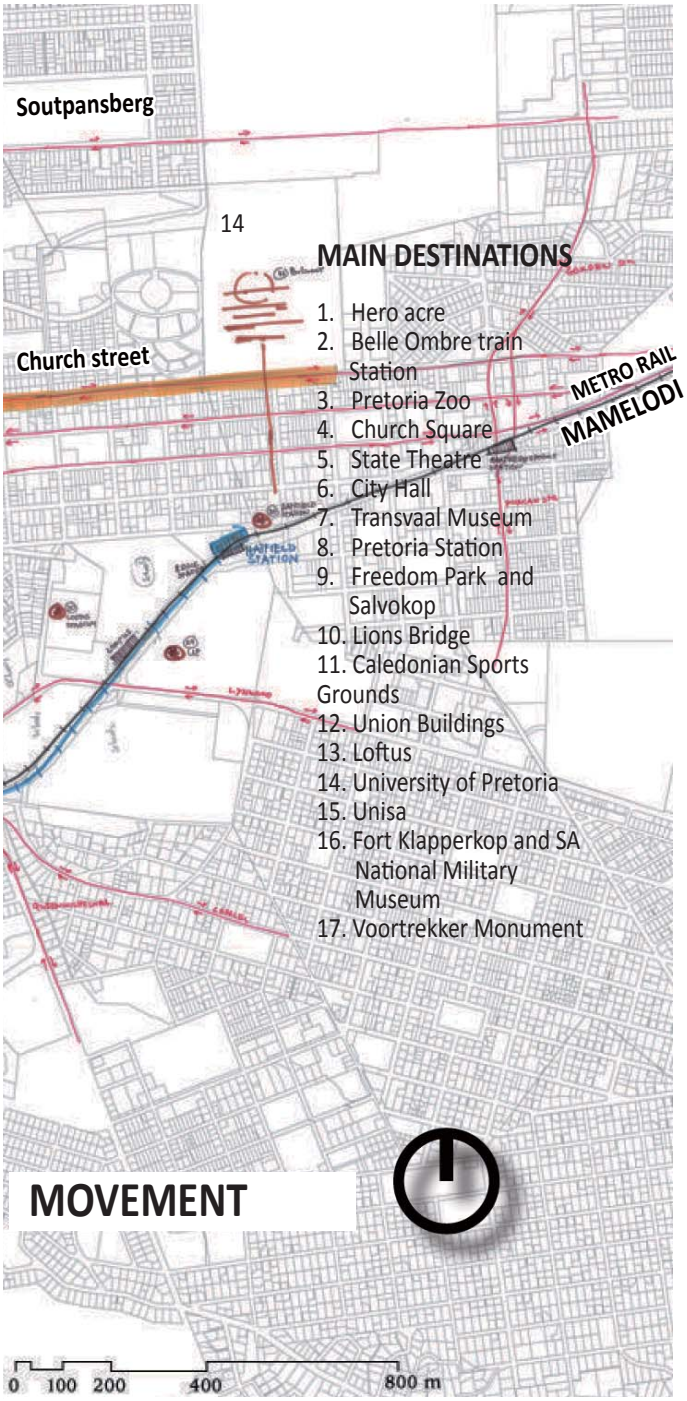

Figure A. 8. Map of movement networks (Group Framework, 2010)

The 'main routes' identified are predominantly major vehicle routes into the CBD.
The major network routes from the east are Soutpansberg. Church, Pretorius, Schoeman, Lynwood and Charles.
From the north; Beatrix, Paul Kruger and DF Malan.
From the south; Nelson Mandela Drive.
From the west; Church, Skinner and Visagie.

Highlighted in red are the main vehicle circulation routes.

Church Street and Kruger Street are both Identified as major ceremonial routes both with tourist sites and sites of cultural significance. They are still very vehicular and it is proposed in the framework that Church Street become more pedestrian orientated with; more urban street furniture and planting linking the Union Buildings, Lions Bridge, the Pretoria State Theatre, Lillian Ngoya square, Church Square and Heroes Acre. Church Street needs to be addressed and integrated into the character and image of the city, and could therefore host annual street parades and festivals.

The street and building fronts need to be designed with an intimate pedestrian focus to enhance the character and memory of Church Street.

Urban context and concept

New public transport networks

Figure A. 9. Map of the BRT bus service running from Pretoria Station (GAJV, 2010).

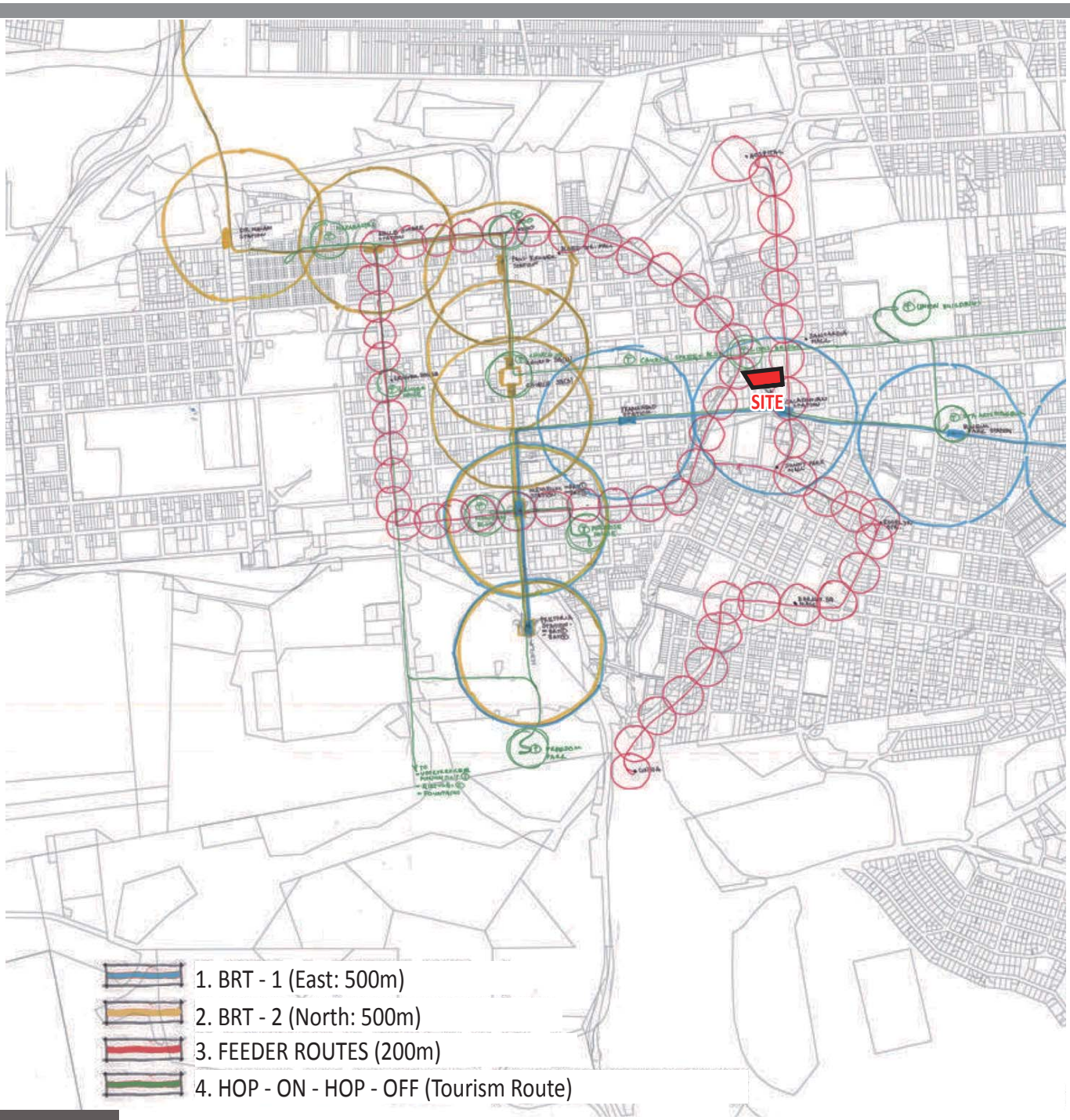

Figure A. 10. Perspective image of the Gautrain Pretoria station (GAJV, 2010).

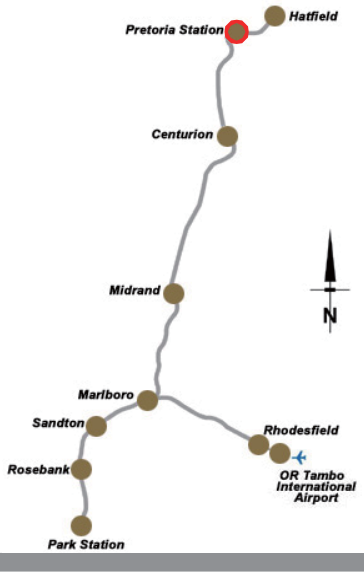

Figure A.11. Map of the Gautrain route and destinations (GAJV, 2010).

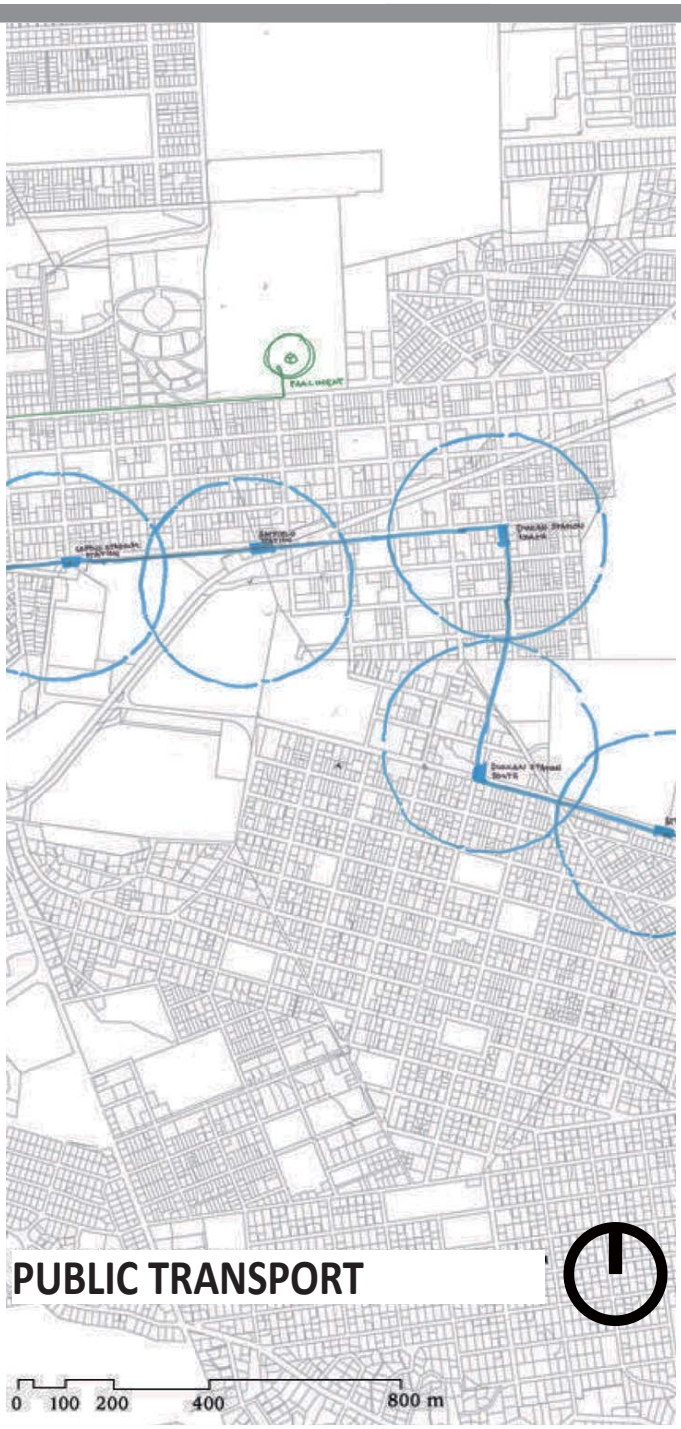

Figure A. 9. Indicates the existing BRT ring road system proposed by The Gautrain Rapid Rail Transport company. The ring roads proposal had been planned along the busiest routes as opposed to routes of interest within the city that would attract tourists or visitors. These new routes could activate new commercial spines that would uplift areas along them. Their framework additionally only proposes an extended BRT route to the west of Pretoria and none that extends further east into Arcadia. If it did, it could double up as commuter and non-commuter trips (i.e. to hotels, the Union Buildings, and various embassies).

In the Framework, (Figure A. 12) the group proposes a major ring road in the middle that could serve as a link to the east and west. With major routes cutting through the ring roads, this would serve commuters more efficiently, with less stops. The framework also proposes a major link to the east that would connect the eastern suburbs to the CBD, aimed at creating more economic opportunities along this spine.

The framework proposes a 'hop-on, hop-off' tourist link that will link to major routes that travel east and west. The route will also stop off at major tourist attractions and information points.

Figure A. 12. Map of proposed BRT and public transport links (Group Framework, 2010).

Urban context and concept

Current district network pattern

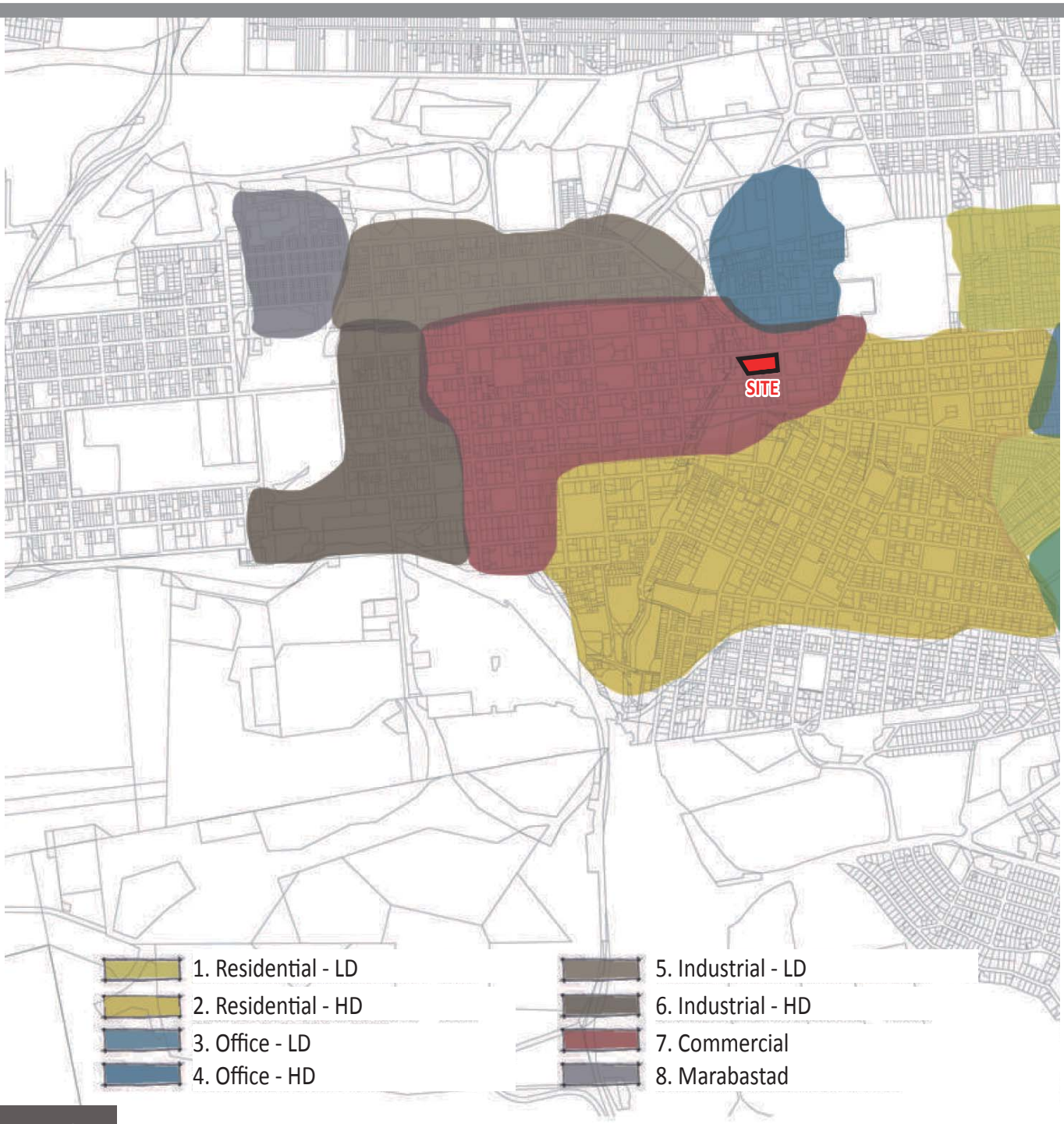

Figure A. 13. Photo of the character of commercial buildings opposite the site (Author, 2011).

Figure A. 14 Photo of the character of the student accommodation on the corner of Church street and Nelson Mandela drive (Author, 2011).

Figure A .15. Map of the district character relative to the site and Pretoria (Author, 2011).

Figure A. 13. Is a photograph of the general character of the commercial buildings in the area. Most of the commercial buildings along Church Street offer very little opportunity for interaction along the street front, contrary to the significance of Church Street (identified as a ceremonial route).

Figure A. 14. is a photograph of Lions Place a building designed for student accommodation. There is very little opportunity for student activity in the area and very little recreational and social activities for public in general. There is a huge short fall of spaces for recreational activities to take place in the area, The proposed intervention provided courtyard spaces with restaurants and exhibit spaces for the public to engage and interact.

Figure A. 15. Illustrates the general character or function of a particular area, defined as 'districts'. The map highlights the general district character that currently exist, though there is mix of activities that are spread across the different districts.

The specific site where the intervention is proposed conceptually to take place will be a mixture of Residential and Commercial components onto Church street, that will draw people off the street level into the courtyard areas where other interactive educational activities will take place.

ADDENDUM B:

Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

Figure B. 2 & Figure B. 3
A - stand 2/60 (Author,2011).
Description : Vehicle show rooms and offices
User: Auto pedigree
Analysis: Contributes little to street, side alley potential access to precinct.
Intervention: Adaptive re-use potential.

Figure B. 4 & Figure B. 5
A - stand R/1029 (Author,2011).
Description : Semi enclosed vehicle showroom and offices
User: Audi pre-owned vehicles
Analysis: Steel roof structure part of street definition. Valuable open area created below, level difference
Intervention: Adaptive re-use potential.

Figure B. 6
B - stand R/1029 (Author,2011).
Description : Out building
User: Audi pre-owned vehicles
Analysis: Alienated from its surrounding context, and negative positioning toward proposed open space structure for precinct.
Intervention: demolish retain parts of structure for potential urban furniture

SITE Context
block study

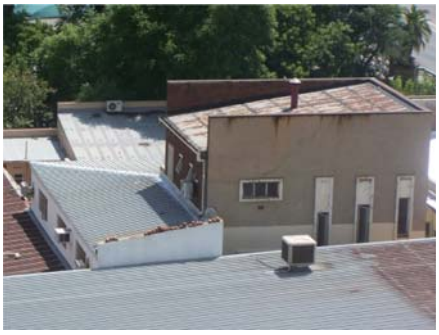

Figure B. 7 & Figure B. 8
A - stand 4/56 (Author, 2011).
Description : Double story, Travel booking agency
User: South African magic travel centre
Analysis: building detracts from street language, no relationship with surrounding buildings or structures.
Intervention: remove external structure, possible reuse of internal structure and level difference, relocate use

Figure B. 9 & Figure B. 10
D - 1053 (Author, 2011).
Description : Covered parking.
User: Automotive
Analysis: Footprint important within structures. Structure is Neutral towards proposed development.
Intervention: removal to increase access to proposed precinct open square.

Figure B. 11 & Figure B. 12
A - stand 1053 (Author, 2011).
Description : Double storey workshop
User: Automotive
Analysis: Heritage building, contributes to character of the precinct. Building defines and lends scale to proposed open spaces.
Intervention: re-use arts and craft workshops/Restaurant/ exhibition, arts performance space and photography.

Figure B. 13
A - stand 5/56 (Author, 2011).
Description : Outbuildings
User: McCarthy Volkswagen
Analysis: buildings turn there backs on river, valuable adjacent space between buildings and Walkerspruit.
Intervention: possible re-use to frame open space onto Lions bridge.

Figure B. 14
B - stand 5/56 (Author, 2011).
Description : Covered outdoor vehicle display
User: McCarthy Volkswagen
Analysis: Negative towards definition of important corner, diagonally opposite Lions bridge
Intervention: remove create open space to celebrate Lions bridge, which is of heritage to the city.

Figure B. 15 & Figure B. 16
B - stand 1053 (Author, 2011).
Description : Workshop
User: Automotive
Analysis: connection between two buildings, detracts from impact two buildings have on the precinct character.
Intervention: to be broken open to create entrance into the precinct.

Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

Figure B. 17 & Figure B. 18
C - stand 1053 (Author, 2011).
Description : Double storey workshop staff living
User: Residential
Analysis: Building contributes to character of precinct and critical mass. Building faces onto proposed urban river arcade.
Intervention: to be restored, possible art studio workshop/ music and book store.

25 12.5 0 25 50 75 Meters

Figure B. 19 & Figure B. 20
E + F - stand 1053 (Author, 2011).
Description : Single fragmented structures.
User: ablutions and car scrap part shed for storage
Analysis: part of smaller detached sheds. structures within valuable part of precinct and onto urban river park
Intervention: demolish

Figure B. 21
E - stand 5/58 (Author, 2011).
Description : Covered parking structure
User: Tshwane central (Automotive)
Analysis: part of series of incoherent within valuable part of precinct and part of smaller network of open spaces
Intervention: remove part and redevelop. Restaurant/ small trading stalls

Figure B. 22 & Figure B. 23
B - stand 5/58 (Author, 2011).
Description : abandoned double storey building
User: Tshwane central (Automotive)
Analysis: building doesn't relate to street, badly positioned within precinct and proposed open space structure
Intervention: to be demolished

Figure B. 24 & Figure B. 25
C - stand 5/58 (Author, 2011).
Description : Workshop (double storey)
User: Tshwane central (Automotive)
Analysis: Important open space structuring element to courtyard front and back, connecting open space.
Intervention: Redevelop potential, office/ art live work studio.

Figure B. 26 & Figure B. 27
A - stand 5/58 (Author, 2011).
Description : Reception
User: Tshwane central (Automotive)
Analysis: add on, negative to open space framework behind and not street
Intervention: demolish

Figure B. 28
F - stand 5/58 (Author, 2011).
Description : Covered parking canopy structure
User: Tshwane central (Automotive)
Analysis: add on, obscures building in background and negative towards open space network links for precinct
Intervention: remove

Figure B. 29
D - stand 5/58 (Author, 2011).
Description : Workshop
User: Tshwane central (Automotive)
Analysis: roof form adds to character of precinct
Intervention: could form part of entrance into precinct and accommodate small shops/studios

Figure B. 30
F - stand 1183 (Author, 2011).
Description : single storey with flat concrete roof
User: Arcadia glass and frame worx (automotive)
Analysis: potential open top roof space, structural integrity to be confirmed
Intervention: possible redevelop or adjacent building 'D' to be extended outward over structure.

Figure B. 1 Aerial photograph of site plan (Geography Department, University of Pretoria 2011).

Figure B. 31 & Figure B. 32
A - stand 1083 (Author, 2011).
Description : Warehouse
User: Unknown occupant
Significance: Heritage -1948 Warehouse, Valuable internal spacial qualities.
Intervention: Adaptive re-use potential. Exhibition/workshop space/ workshop studio space

Figure B. 33 & Figure B. 34
D - stand 1083 (Author, 2011).
Description : Secondary building, double story face brick
User: Arcadia glass and frame worx (automotive)
Significance: formal facade defines open space structure
Intervention: Adaptive re-use potential. exhibition/workshop space/ art workshop office space.

Figure B. 35 & Figure B. 36
C - stand 1083 (Author, 2011).
Description : Secondary workshop
User: Arcadia glass and frame worx (automotive)
Significance: building contributes to character of precinct , important relationship to adjacent small space and adjacent buildings
Intervention: can be redeveloped as workshop space and form part of workshop exhibition cluster with adjacent buildings.

Figure B. 37 & Figure B. 38
B - stand 1083 (Author, 2011).
Description : Double storey main workshop and reception
User: Arcadia glass and frame worx (automotive)
Analysis: Valuable concrete frame building, part of series of longitudinal warehouse structures
Intervention: activate buildings along street facade, possible mixed use work live units/ double volume retail spaces

Figure B. 39 & Figure B. 40
G - stand 1183 (Author, 2011).
Description : Covered parking and outbuildings
User: Arcadia glass and frame workw (automotive)
Analysis: no interface between street and pedestrians
Intervention: removal of canopy structure, space between building to form part of access into precinct

Figure B. 41
E - stand 1183 (Author, 2011).
Description : outbuilding/store
User: Arcadia glass and frame worx (automotive)
Analysis: out of scale with the surrounding building scale. building blocks new access of street though the precinct
Intervention: could form threshold between open spaces and into main open space

Figure B. 42 & Figure B. 43
A - stand 2/62 (Author, 2011).
Description : Workshop
User: Vacant (previously RMP Fitment Centre)
Analysis: Warehouse building with attached sub structure onto street
Intervention: potential multi purpose open internal retail space.

Figure B. 44 & Figure B. 45
B - stand 2/62 (Author, 2011).
Description : Various Outbuildings
User: Vacant (previously RMP Fitment Centre)
Analysis: Buildings currently used as informal automotive workshop space (illegally)
Intervention: part of network of open spaces with spill over functions into space. Propose restaurants and smaller service stalls.

ADDENDUM C:

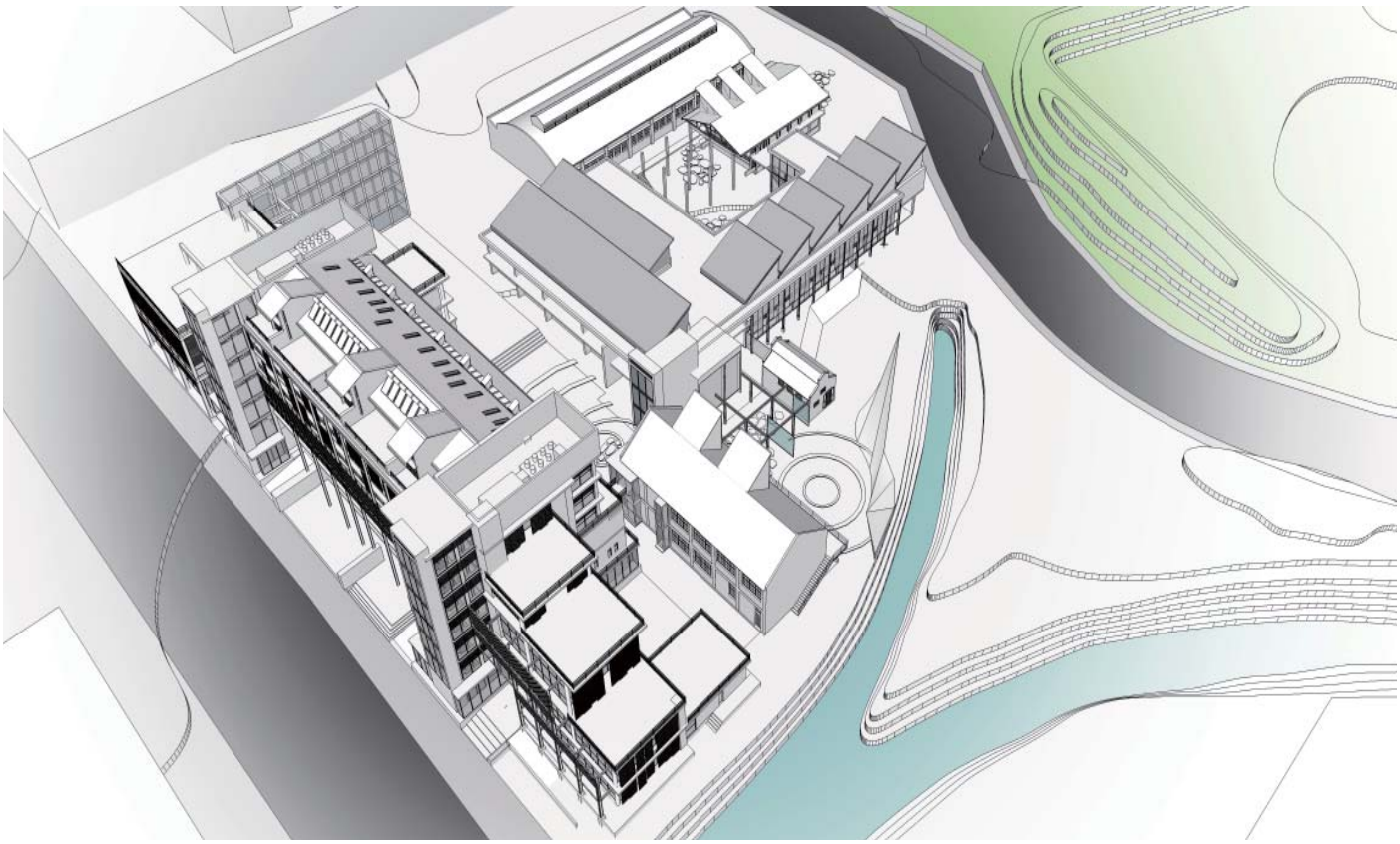

Figure C. 1 Birds eye view perspective (Author, 2011).

Figure C. 2 Perspective taken from the island between the two rivers (Author, 2011).

Presentation
Final presentation images

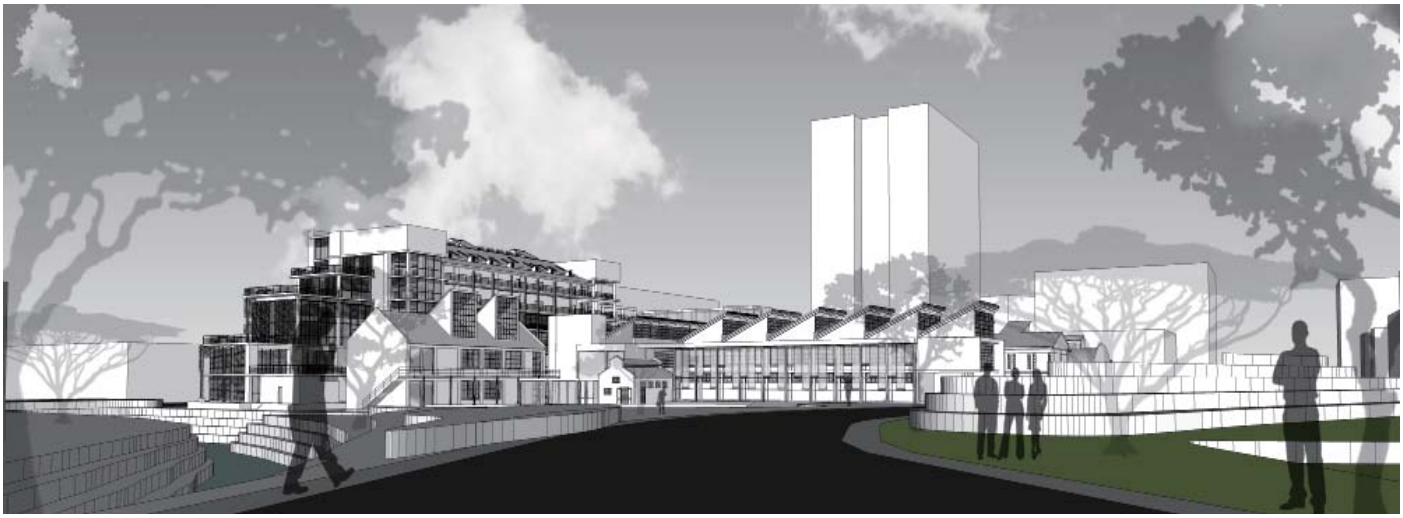

Figure C. 3 Perspective taken from Nelson Mandela Drive looking up to Pretorius Street (Author, 2011).

Figure C. 4 Perspective taken from Lions Bridge (Author, 2011).

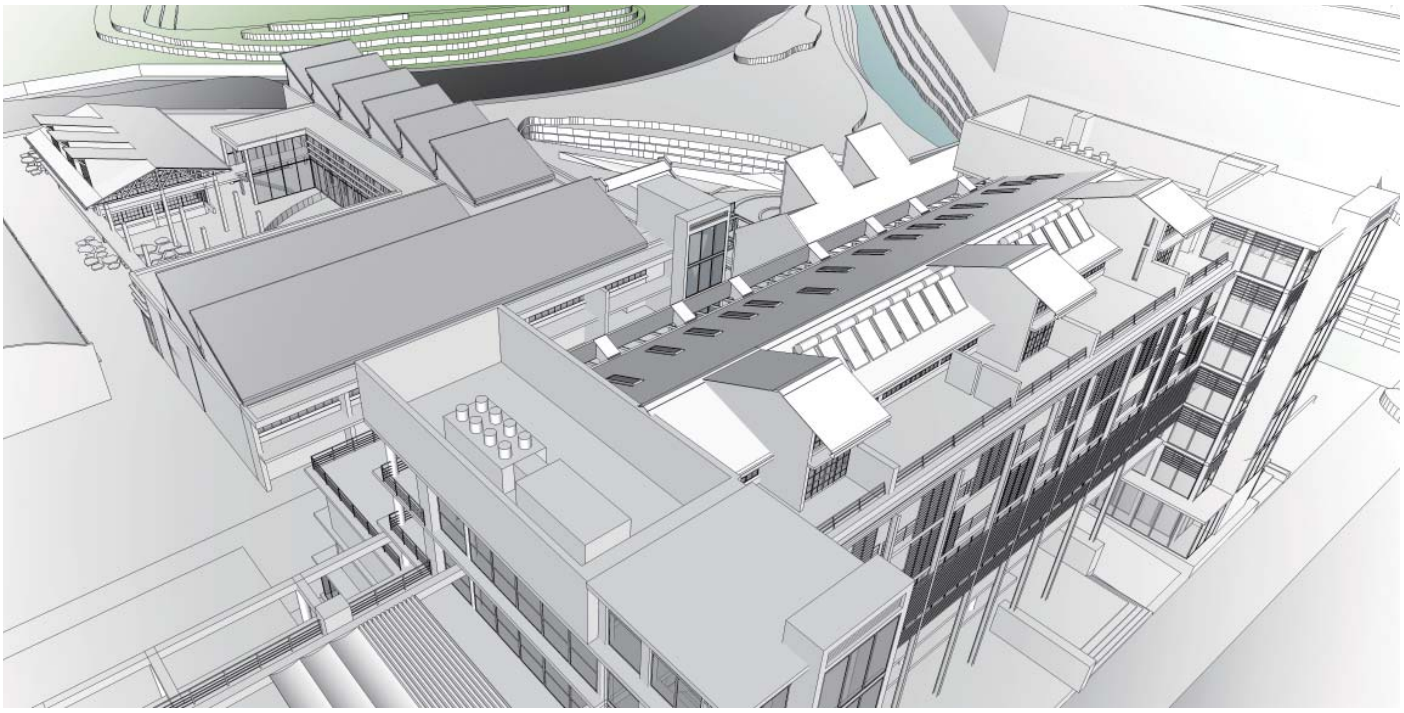

Figure C. 5 Aerial Perspective (Author, 2011).

Figure C. 6 View of courtyard 2 (Author, 2011).

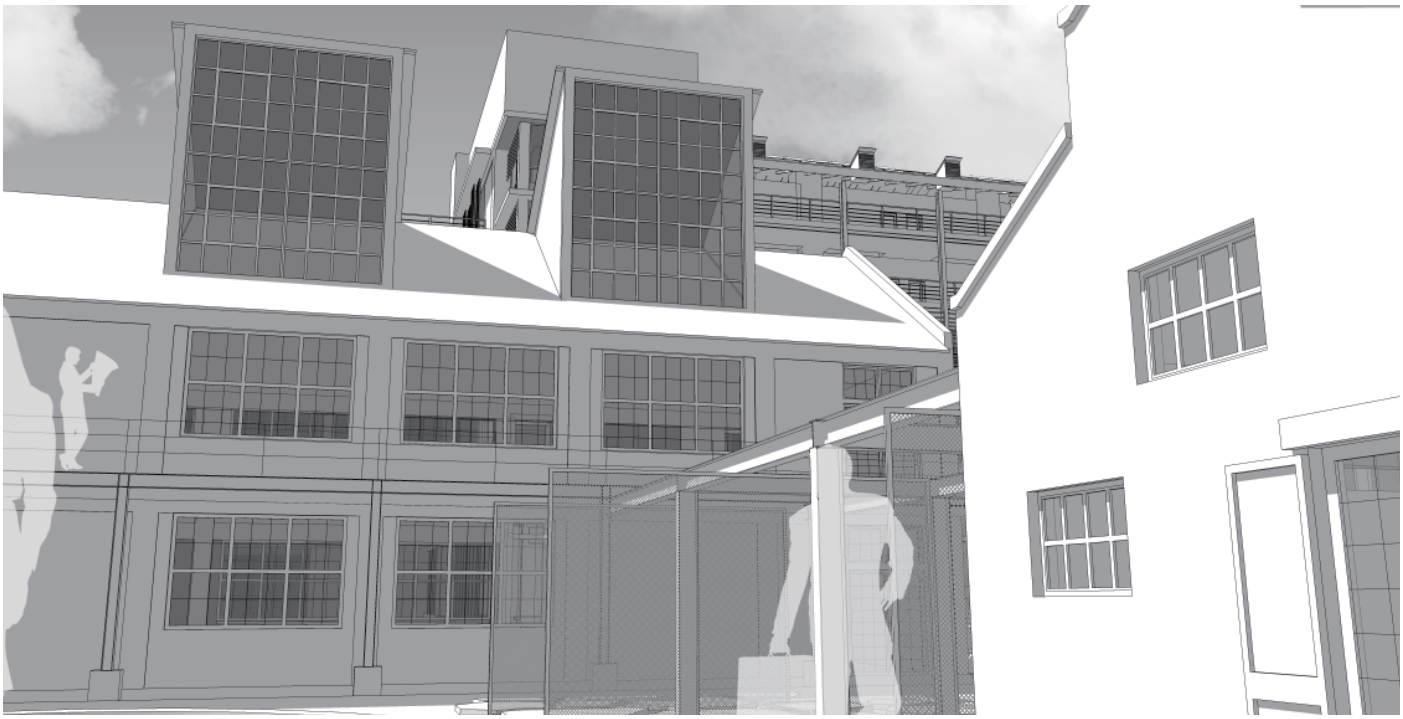

Figure C. 7 View of Textile Workshop taken from river (Author, 2011).

Figure C 8. View of access across site looking the photography and art workshop (Author, 2011).

ADDENDUM D:

Figure D 1. Photograph of urban concept model looking east (Author, 2011).

Models
Urban concept model

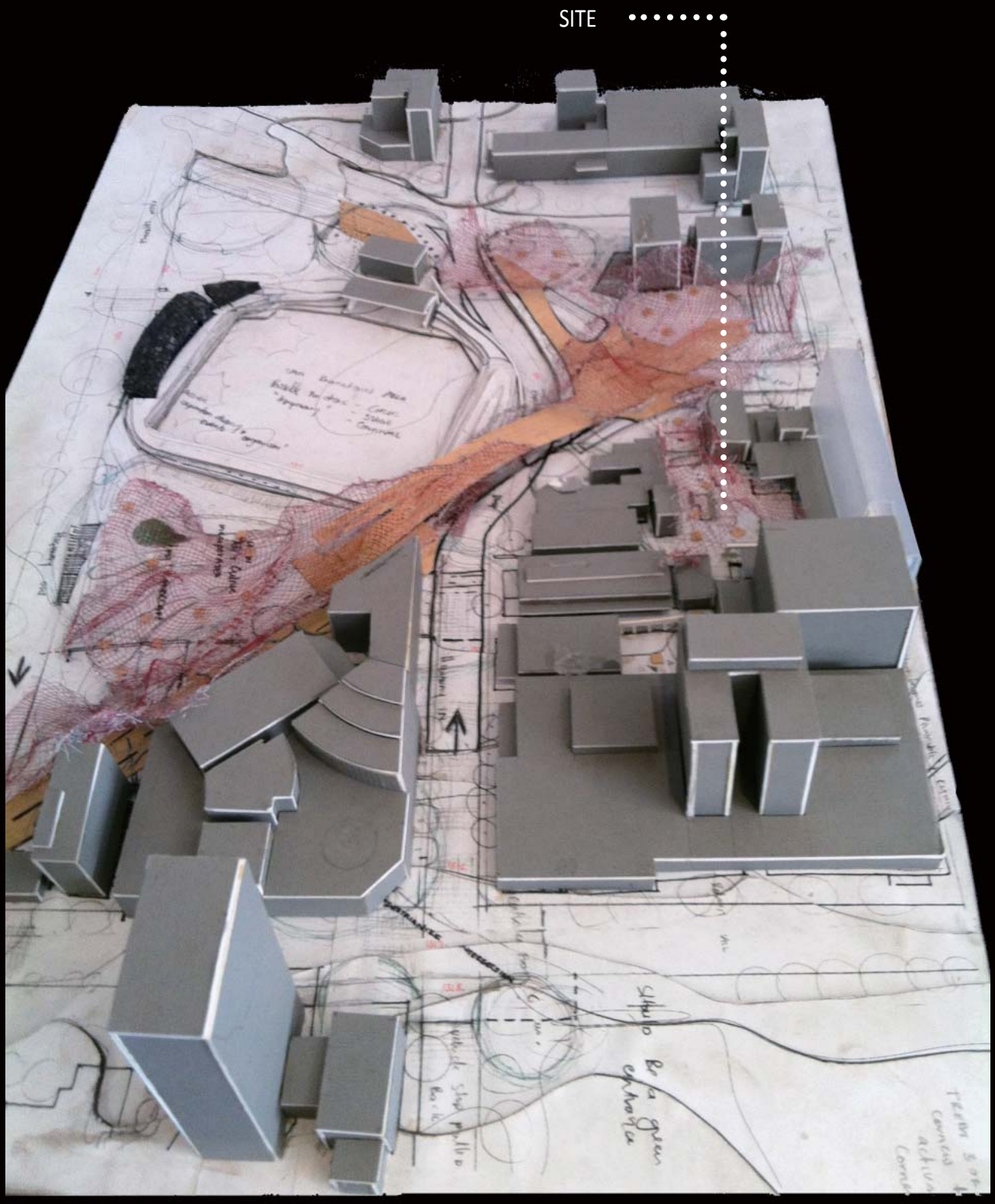

Figure D 2. Photograph of urban concept model looking west (Author, 2011).

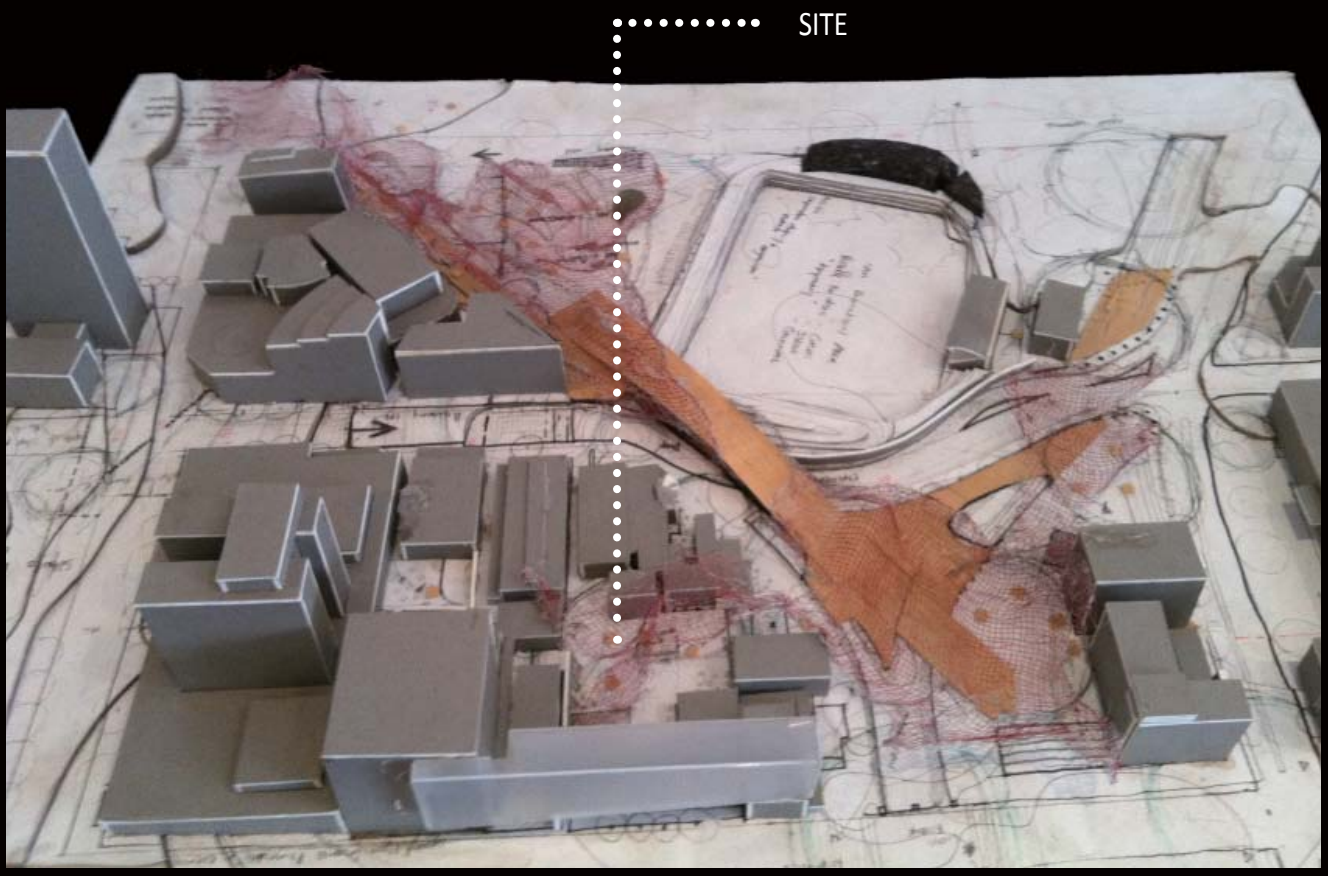

Figure D 3. Photograph of urban concept model looking south (Author, 2011).

Figure D 4. Photograph of urban concept model looking north (Author, 2011).

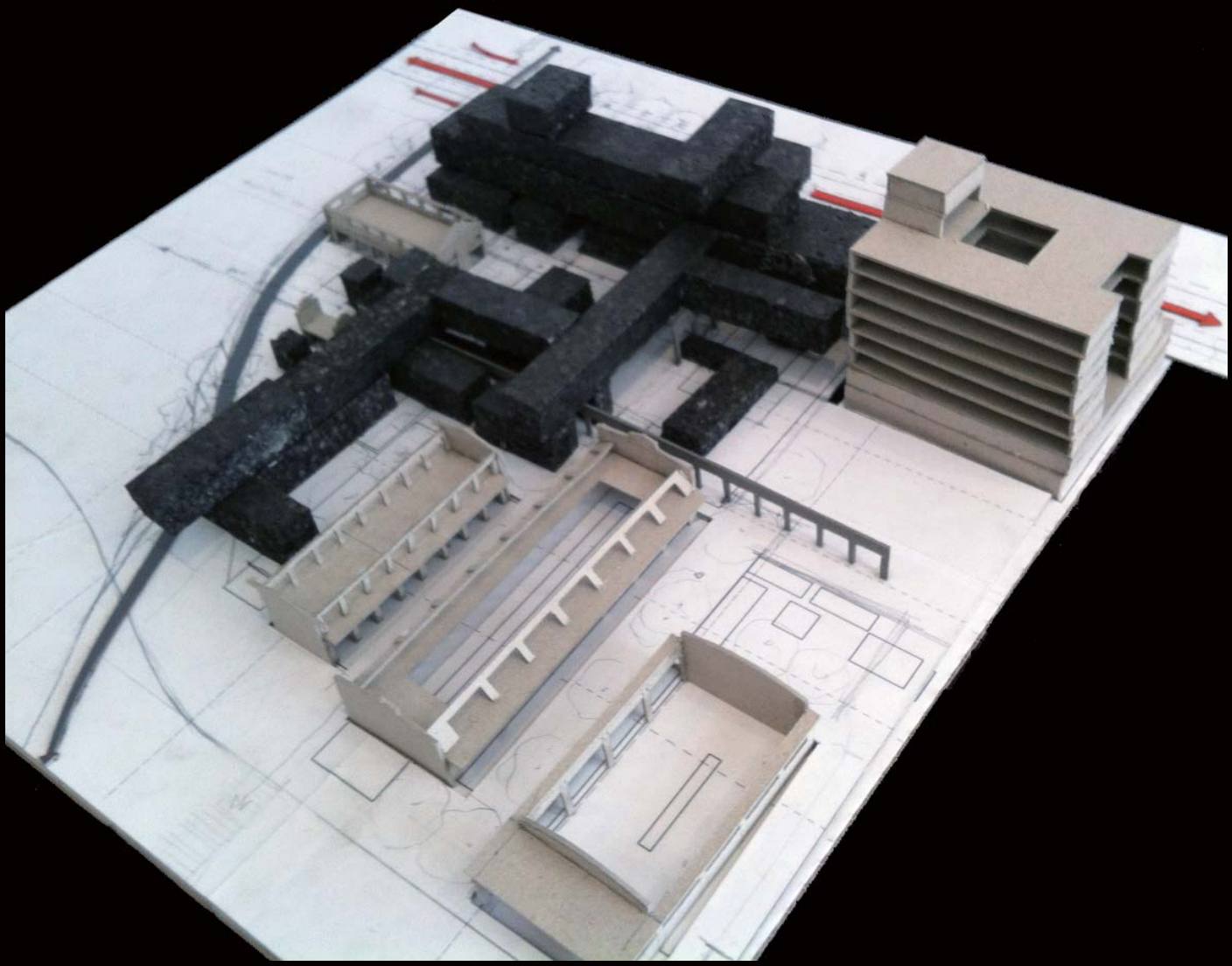

Figure D. 5 Aerial photograph of concept model looking north west (Author, 2011).

Models
Concept model

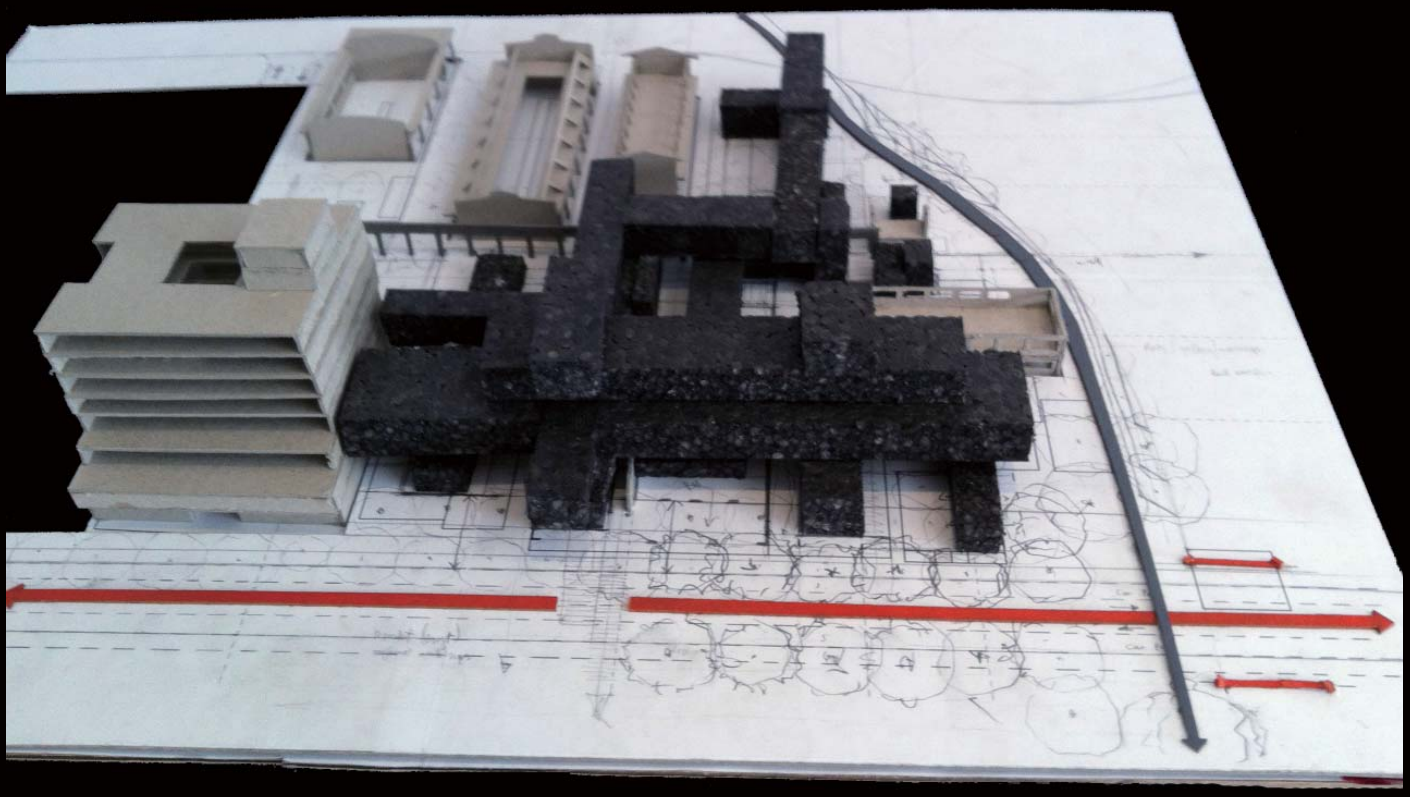

Figure D. 6 Aerial photograph of concept model looking south (Author, 2011).

Figure D 7. Aerial photograph of structural model looking north (Author, 2011).

Models
Structural model

Figure D 8. Aerial photograph of concept model looking east (Author, 2011).

Figure D 9. Aerial photograph of structural model looking south (Author, 2011).

Structural model

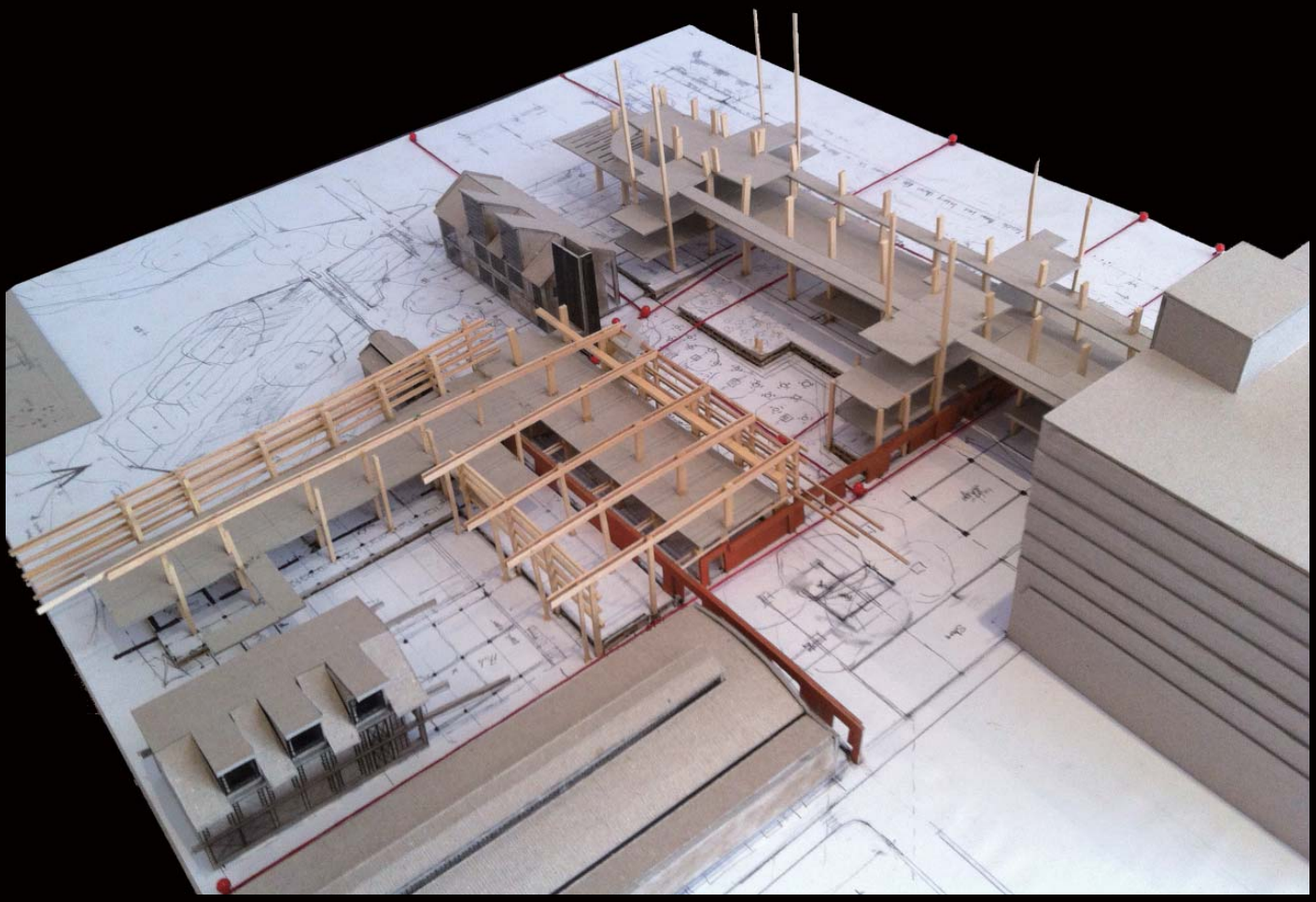

Figure D 10. Aerial photograph of structural model looking north -west (Author, 2011).