

# CHAPTER 6

## Engagement by Architectural design

### 6.1

#### COMMUNITY FACILITY AND AFRICAN CONTEXT PRECEDENTS

This section is not intended to promote the highlighted projects or take away any credit from the Architects criticism. It is merely intended to express noticeable commonalities in architecture and context and in doing so is not copying architecture, but learning from successful intervention and tectonic approach aimed at uplifting a society, a community and a people.

Precedent intention:

- Contextual response
- Tectonic response
- Space programming response
- Social intervention
- Client, user approach
- Built form sustainability
- Materiality
- Theoretical approach

**Nelson Mandela Interpretation centre.**  
Alexandra, Gauteng, Peter Rich Architects

### 6.1.1

#### Contextual response

High density urban community, spatial and social history township settlement  
Scale response: Domestic & civic  
Resources in township effectively expressed in building

### 6.1.1.1

#### Tectonic response

Site constraint driven, Alexandra street space  
Disabled access  
Domestic scale + Civic scale by use of material and space manipulation  
“Dialogue” between: rural, handmade, material finishes and urban recycled, manufactured, waste material.  
Loose fit, open air building  
Cross views

### 6.1.1.2

### 6.1.1.3

#### Space programming response

Alexandra street structure, organic yard layout  
Lower ground: public plaza, shops, training facilities  
Food court, jazz café, internet café, workshops  
Night time cinema projection

### 6.1.1.4

#### Social intervention

Bridge serving as structure but also a story board of the people, changing exhibitions  
Expresses tactile and visually the culture of Alexandra.  
Dignified response to people in the architecture.

### 6.1.1.5

#### Client, user approach

Community owned facility.

### 6.1.1.6

#### Built form sustainability

urban recycled, manufactured, waste material.

### 6.1.1.7

#### Materiality

“Dialogue” between: rural, handmade, material finishes and urban recycled, manufactured, waste material.  
Polycarbonate sheeting, handmade battered seating.  
Use of rigid tough material

### 6.1.1.8

#### Theoretical approach

Tough, but dignified,  
Container of stories  
An armature for the stories of the people, a current day museum.

Figure. 46a  
N.M.I.C



Figure. 46b  
N.M.I.C



Figure. 46c  
N.M.I.C

Figure. 46d  
N.M.I.C



Figure. 47  
Detail sketch



6.1.2

### Khayelitsha Service centres and pay points

Cape Town, Western Cape, Piet Louw Architects

6.1.2.1

#### Contextual response

Close proximity to other community and public facilities.  
Fits to place and time  
On edge of city in contaminated landscape of built environment

6.1.2.2

#### Tectonic response

“Simple elegant and framed external space.  
Strong and direct  
Minimalist but tough in appearance  
Robust, resilient and ambiguous.  
Building response to street, adds to street tectonics.  
Raised ground floor  
Balance between unity, proportion and rhythm.

6.1.2.3

#### Space programming response

Space designed to reinforce and integrate places of civic significance  
Designed to be reached by foot in close convenience to community.  
Pay points for government tax and service.  
Built form realises rich possibilities for people engagement

6.1.2.4

#### Social intervention

Contact centres, for interaction with representatives.  
Close to users, the public the community

6.1.2.5

#### Client, user approach

Used as interface for public, civic and community, it becomes a part of the whole for amenities.

6.1.2.6

#### Built form sustainability

6.1.2.7

#### Materiality

Layered facade

6.1.2.8

#### Theoretical approach

Architecture as public responsibility, and role for architecture in a city/community.  
Aim that architecture can create meaningful city spaces.  
Buildings are instruments of public place making.  
Definition between public and private

**“The buildings are driven by realisation that where there is no significance informing context, it becomes necessary to create one, to plant seeds that can become the beginnings of public place, through the placement of architectural elements.”**

† T. Deckler; A. Graupner  
H Rasmuss.  
2008. pg 77



Figure 48a  
K.S.C. & PP.



Figure 48b  
K.S.C. & PP.



Figure 48c  
K.S.C. & PP.



Figure 49  
K.S.C. & PP.  
Floor plan



6.1.3

### Usasazo Secondary school

Cape Town, Western Cape, Noero Wolf Architects

6.1.3.1

#### Contextual response

Densely populated informal settlement:favela  
Fragmented articulation of street façade mimics scale of informal settlement.  
Central circulation space mimics the character of informal spaces.

6.1.3.2

#### Tectonic response

L\_shape protects form strong directional wind  
Double use street edge classrooms for business also.  
Rooflight used for ventilation , cause heat suction

6.1.3.3

#### Space programming response

37 classrooms, library, computer room, hall, administration section.  
Entrepreneurial education  
Small foot print, difference used for sport field and agriculture use

6.1.3.4

#### Social intervention

Education

6.1.3.5

#### Client, user approach

Provincial government public works project.  
Students, community

6.1.3.6

#### Built form sustainability

Passive ventilation and light wells.

6.1.3.7

#### Materiality

Concrete Block, tubular steel frame structure, and lightweight steel roof cladded with corrugated sheeting.

6.1.3.8

#### Theoretical approach

Architecture as urban acupuncture, to learn form the immediate environment, for educational reasons.

*“ a critical insertion into an area in need of improvement, healing and the reconciliation of competing demands and traditions”*

✦ T. Deckler; A. Graupner  
H Rasmuss.  
2008, pg 89

Figure.50  
U.Sz. school



Figure.51  
U.Sz. school  
Elevation & section

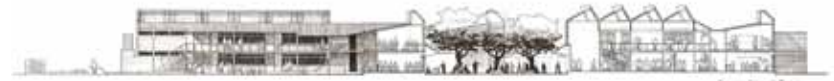


Figure.52  
U.Sz. school  
Elevation



Figure.53  
U.Sz. school  
sectional elevation



6.1.4

### Philippi Public Transport Interchange

Cape Town, Western Cape, Architects: Du Toit and Perrin in Association

6.1.4.1

#### Contextual response

Developing formal / informal settlement: Philippi outside Cape Town Central  
Creation of civic buildings and prominent space in an almost desolate place

6.1.4.1

#### Tectonic response

Linear \_shape accommodates busses, taxi and quick passing form commuters  
Buildings: "Urban blocks, neutral architecture"  
"Celebrate the passing of time and light."

6.1.4.3

#### Space programming response

Public space with verandah walkways,  
Varied scales of trading. FORMAL & INFORMAL  
Taxi bays. bus bays & vehicle drop and pick-up bays.

6.1.4.4

#### Social intervention

A integrated public environment that in future could stimulate further investment.  
Supporting existing hawkers and informal economies

6.1.4.5

#### Client, user approach

City of Cape Town Municipality, public spatial framework.  
Urban commuter of Phiippi and region +- 30 000 daily  
Informal economy

6.1.4.6

#### Built form sustainability

Low key architecture, recyclable material

6.1.4.7

#### Materiality

Concrete framed structures with lightweight corrugated sheet roofing.  
Use of colour to show proportion and tone.  
Panel modules to create human scale.

6.1.4.8

#### Theoretical approach

A creation of quite architecture, made on human scale with functional intention. A  
amenity for the user. Creating outdoor living rooms by public furniture and trees.

† T. Deckler; A. Graupner  
H Rasmuss.  
2008, pg 81

***"The buildings are driven by genuine 'usefulness' and yet have sufficient gravitas and delight to make the by default almost civic buildings"***

Figure. 54a  
Philippi PT.



Figure. 54b  
Philippi PT.



Figure. 54c  
Philippi PT.



Figure. 54d  
Philippi PT.



Figure. 54e  
Philippi PT.



Figure. 54f  
Philippi PT.

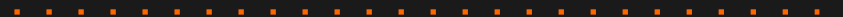


Figure. 55  
Philippi PT.  
Site plan





Figure. 56





### A tertiary African context

I cross a stream

I run the road

I find myself in the center of the bend,

Wrapped up in confusion over me and my ways

In confined thought I can't provoke any source of development.

Engaging does not lighten my load.

The community does not guide my flow.

On this island I find my hollow buried deep in reference and textbook.

Why am I separated if my people share my way

Why am I divided if knowledge guides my way

Is not an education to further my tomorrow day by day?

Please explain this image that killed my African way.

JAKO NICE\_2008

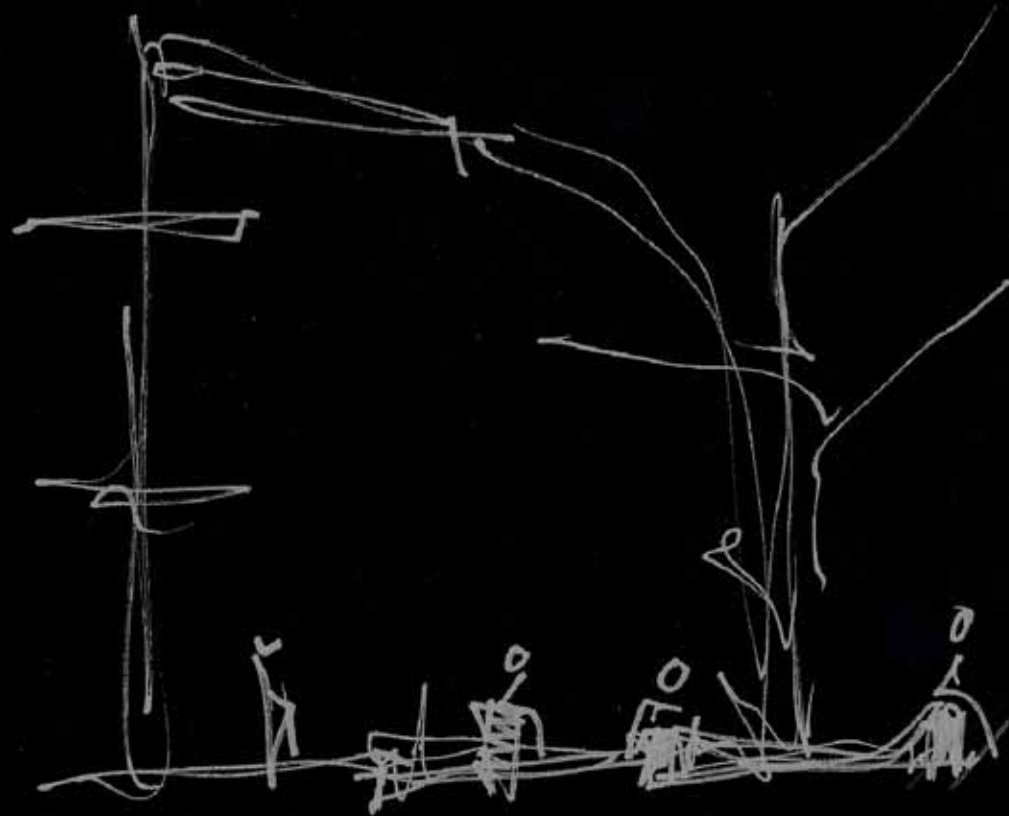
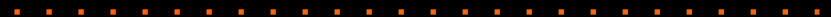


Figure. 57



# Tectonic morphology

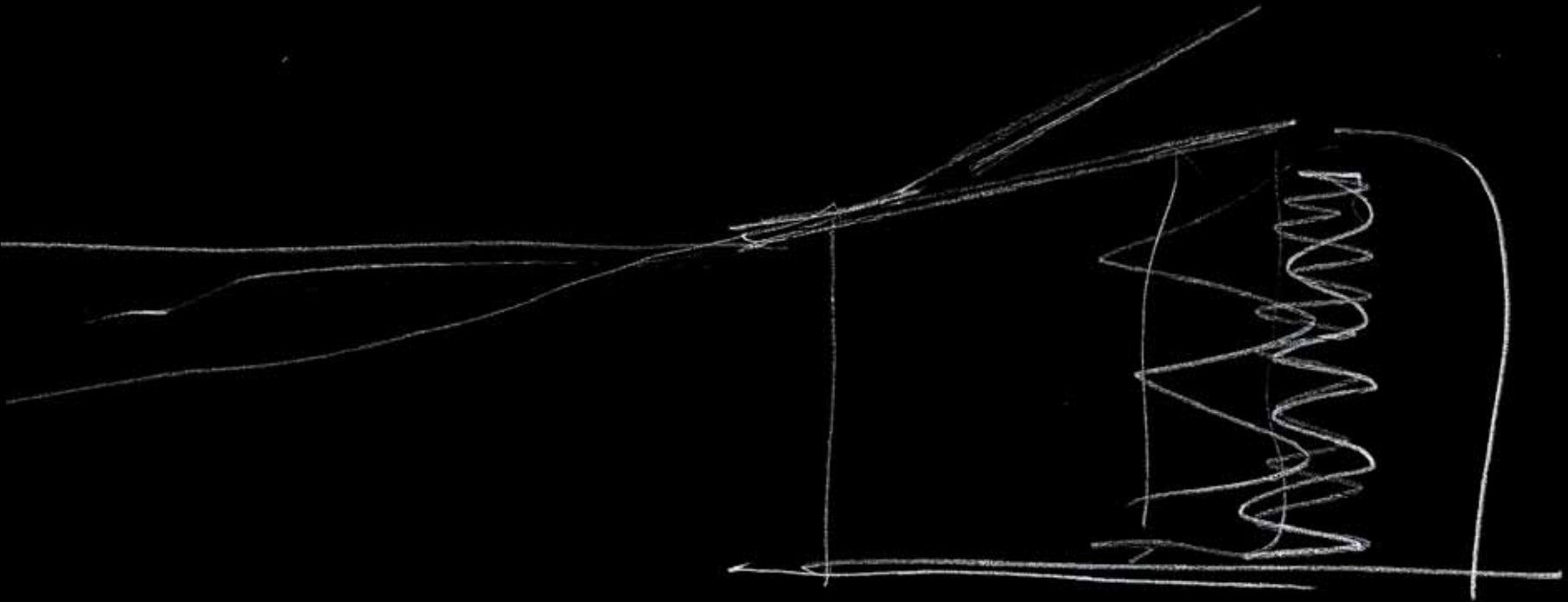


Figure. 58



## A THEORETICAL APPROACH OF BUILT FORM

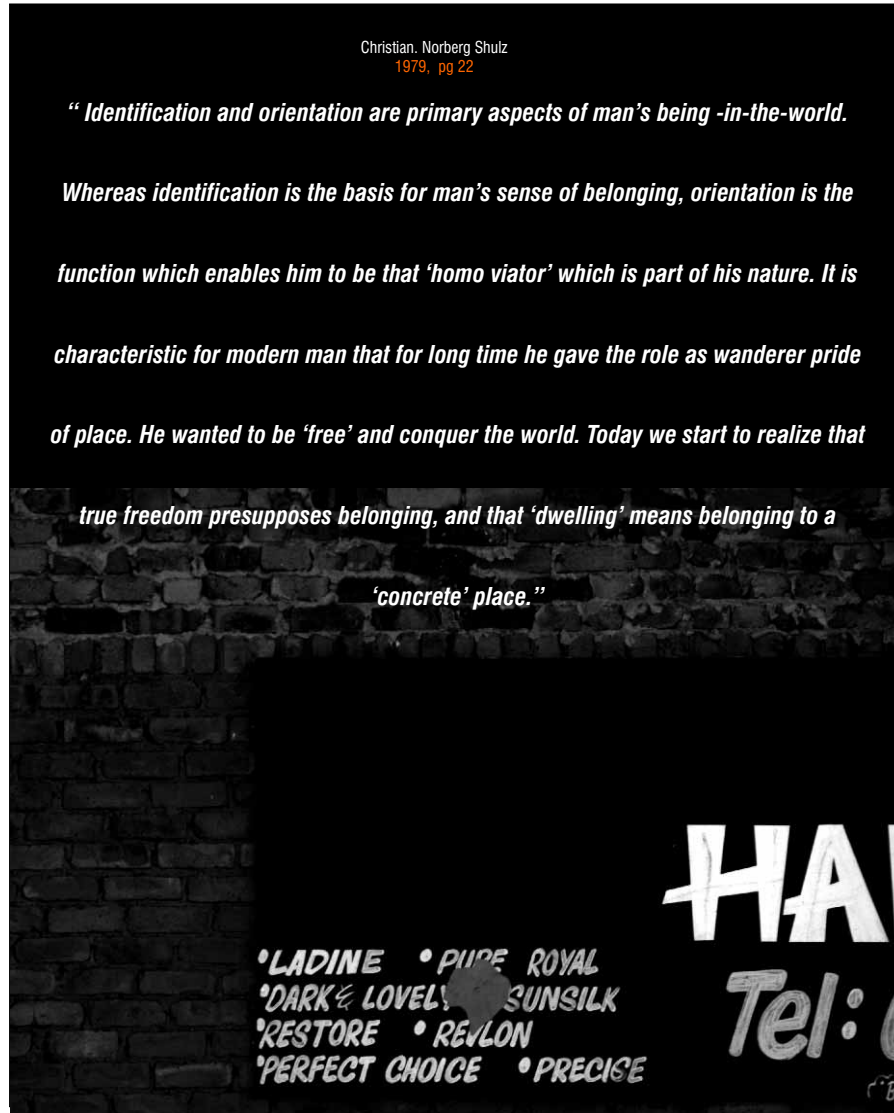


Figure. 59

Christian. Norberg Shulz  
1979, pg 22

*“ Identification and orientation are primary aspects of man’s being -in-the-world.*

*Whereas identification is the basis for man’s sense of belonging, orientation is the function which enables him to be that ‘homo viator’ which is part of his nature. It is characteristic for modern man that for long time he gave the role as wanderer pride*

*of place. He wanted to be ‘free’ and conquer the world. Today we start to realize that*

*true freedom presupposes belonging, and that ‘dwelling’ means belonging to a*

*‘concrete’ place.”*

C. Norberg Shultz  
1979, pg 18

*“The existential purpose of building (architecture) is therefor to make a site become a place that is, to uncover the meanings potentially present in the given environment”*

See figure 61: typology of place\_Mamelodi

The architectural response and outcome thereof are merely products of their Environment. To be responsive to both human and nature one needs to respond to the make-up of place and this relates to the local climate, weather and people doing.

Mamelodi East, University of Pretoria Mamelodi campus. Sited in an arid climate zone, that receives cold winters and warm summers, receives avg to high rain of a +- maximum of 1600mm per year and low 0 -10 knot wind, majority of the year is clear skies, allow an average of 7 hours of sunlit daylight hours of clear skies per day, every year. With an 500mm/per 20m site slope or virtually flat. Sited within the foothills of the Magalies-berg Mountains it posses a scenic and natural beauty as seen in Chapter 5 graphs.

A town of mixed development, some rural dwellers, some urban spaces. Tared roads and part gravel roads. Large potholes and broken sewer lines, poor storm water management and little infrastructure. A well developed and articulated urban housing sector and a rural shack development knitted together with the campus at its centre. Connected by main arterial roads and train tracks, with an exceptional well working taxi system.

But richly layered with people, people from all places across this country and other African countries. Well developed communities of groups of people but no one single community system that connects them all. Exciting and vibrant people space and living places, scattered all round.

This is the make-up of space, for future architecture to take place in. As Christian Norberg Shultz explains it: *“dwelling means belonging to a concrete place.”*

C. Norberg Shultz  
1979

*“ The basic property of man-made places is therefor concentration and enclosure.”*

This dissertation engages with the architecture of new space, derived from existing space. By this it is implied that a current existing structure is revitalized and required to be given a new identity as seen in the introduction chapter of this document. Not only the structure, but the entire University campus.

R. Venturi  
1967, pg 89

As Robert Venturi defines architecture with regards to facade and space :

*“ The wall between the inside and the outside”*

So does this “new space become the”wall between the inside of campus and the public outside. The outside architecture defines a new place. The new architecture,

the facility adds to this creation by itself becoming the wall between the public space and the built space, but the tectonic formation of the “wall” intends to blur the new and redefine it as a secondary transition space of built form and private civic function. Presenting a new character to lost architectural space.

The “new space” becomes the zone of transition between the past, the current and the future.

Not only in the sense of site and time, but also in the sense of function and new functional requirement. To be discussed in the typology chapter 7.

It is of most importance that the structure also displays this thought and becomes just as woven as the form. Only then does the theory become material and confirm the space. Hence the space is required, the architecture in context, the existing in time

And the theory becomes the potential space for interaction and experience.

. Envisioned as a tiered system, and programed in the same way.

A set of layers and phases one passes and develop into and finally become a role player and benefactor and not only a beneficiary to your community. Figure 60a&b

Figure. 62  
Typology.  
Roof and  
structure  
morphology.  
Layers.  
Dvp 2

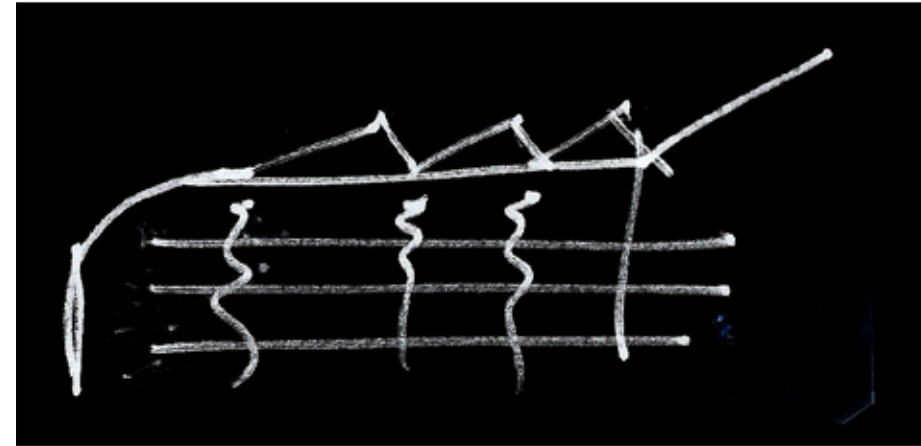


Figure. 60a  
Layers , tiered levels  
Of space and services  
Provided\_ vertical up and  
across facility\_

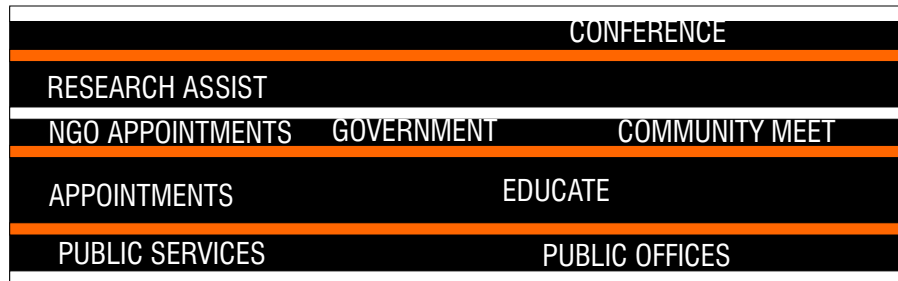


Figure. 60b  
Layers:  
tiered levels  
Of education  
and  
community  
engagement  
\_Horizontal  
across the  
site\_



Figure. 61  
Layers ,typology of place  
Mamelodi community



## ANALYTICAL PROCESS OF ARCHITECTURAL REASONING

The process of design is not single fold. For any plausible architectural response a series of tests and experiments needs to be taken and critically analysed. Only after this possible solution can be elected. The solution consisting of an amalgamation of various ideas and development, one influencing and developing the other. The ideas and developments are guided by site and contextual restrictions. Program and zoning restrictions, as well as spatial and cost restrictions.

***“The relationship between architecture, urban form and social purpose are direct Function and form are one and the same thing in sociological terms. “***

This section deals with development of the Community Engagement Facilitator.

- Planning of urban site, planning of building and existing site, section and tectonic development of architectural responses and current proposed Architectural solution.

The following is a series of planning developments.

- This project has developed from loose Hybrid elements of civic and community needs; in the form of loose buildings collectively forming a typology and built form, purpose designed for interactive spaces. As seen in figure 72e As this dissertation proposes that it is the shared space that allows the architecture to develop.
- The architecture or built form response is merely a functional response and hence a potential environment. It is the space between that sustains the project. It is the spaces that has memory and constant changing life, not only by nature but time. The “shacks” scattered around Mamelodi and South Africa are prime examples hereof. They are shelter, shelter built for function, the form merely a response of need and available material at hand. In the same way this project intends to reflect this concept where the form follow the function. The need is derived and required, the form is an attribute there-of in the words of louis Sullivan : ***“Form follows function.”*** In the development of this principle for costing and appropriateness to housing multiple functions, a rationalised development was required: The form of singular structure condensed multilayered spaces were chosen, as seen in design development stages 10 - 20
- The conclusion was made that, in limiting the spacial experience to main corridors of legibility, expressing the built form as part of the spatial experience, the effective experience becomes more memorial. It is this principle of strong lines and set paths leading to zones of change and thought, for decisions of now and future, the spaces in between becomes the potential social interactive spaces, allowing the architecture to become the potential environment.

- While being very functional in requirement, the public space needs to be very social. The pragmatics of joining two such varied concepts becomes problematic. The solution to this predicament was to create inside - outside spaces. This effectively allowed the design to become public and private simultaneously. This was achieved by large public corridors with penetrating slab openings allowing trees and vegetation growing through at upper levels, becoming the zones of transitions between the public space and the private space. This was both a functional decision in separating the space and legibility as well as a spatial decision on making the building a more interactive experience. Seen in development 18
- Within the layers and thresholds, the users, tenants and visitors are always aware of where they can go and were activity is occurring thus adding to legibility. The large mass of structure required to host all the required functions evolves into a very large building. This has the negative effect of being dehumanising, an attempt was made to resolve this possible tectonic problem.
- The concept of layers - figure 63.- of modules on facade planes breaking the mass into smaller units, not only in articulation but also in material use. The use of brick work for small units, fitted into large concrete and steel frames that collectively create a large module and in finality the composition of the whole in a single morphing typology; binds the units to modules to planes to layers to a tectonic mass. Figure 58, 61, 63 & 65. This resulting in a humanising volume opening up onto a large square with articulated green squares of trees.
- As a civic building with an estimated 500 users per day the requirement for public access and corridor space becomes a necessity. The challenge lies in making the large walkways architectural spaces and not “dead” when not used. By carving up the public square into smaller squares specifically responsive to their immediate amenity allows for a smaller module of experience. Similarly by opening the walkway corridors and varying the experience of inside-and-outside it becomes modules of experiences, spaces of memory and not only volumes of space. Each plane/floor responds to its elevational context. This provides identities to facades, and memory spaces to the potential environment. This has effect not only at a personally level but also at public level.

Figure 63.  
Layers



Each facade responding to its immediate context and spatial experience . For example,  
public facade: open corridors,  
university facade: polycarbonate sheeting  
Square facade: brick detailing.

It is the parts that complete the whole, that makes the whole work.

An important aspect to consider was that although the external space are used at a human level, they also serve as images to the community, thus the choice of typology and articulations of material becomes incredibly important with regards to scale. Serving both direct contact scale as well as long distance scale. Response was attempted by adding small unit articulation that reads as single mass from afar, but detail from close, simultaneously the larger elements serving as skins from close but being the large tectonic morphology from far. Eg. The roof structure and the polycarbonate sheeting.  
Figure 62

Figure. 65  
Roof flank C  
design  
development  
Layer  
tectonic  
Material



Figure. 64  
Typology.  
Roof and structure  
morphology.  
Layers.  
Dvp 3



Figure. 66a  
Existing structures  
Lecture halls  
On site.

## EXISTING CONTEXT

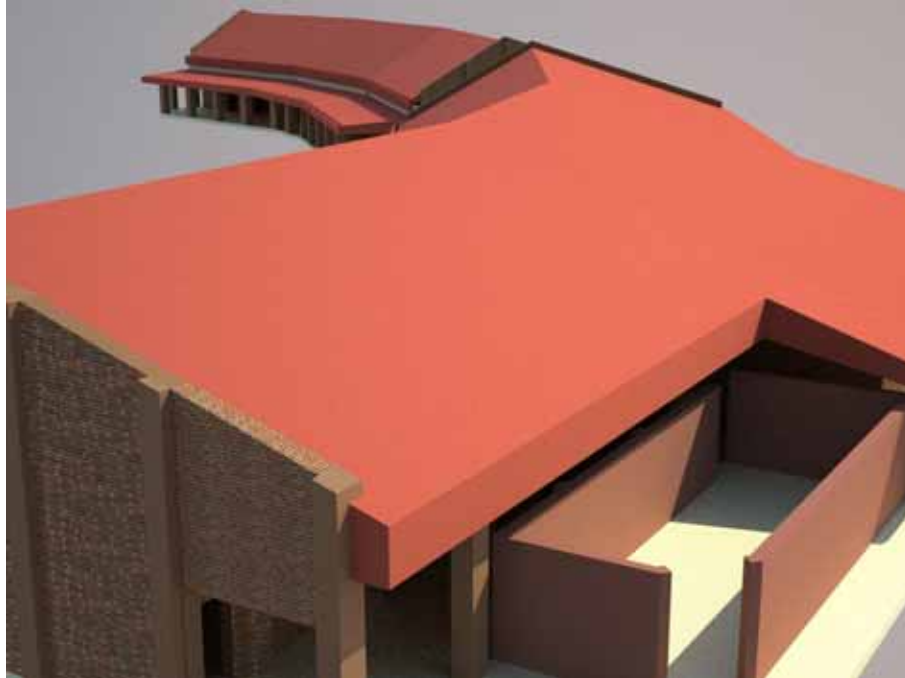


Figure. 66b  
Existing  
structures  
Lecture halls  
On site.

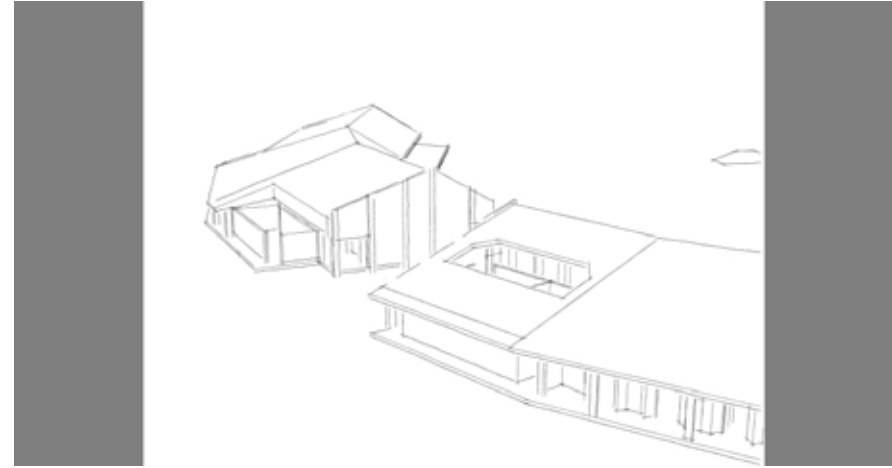
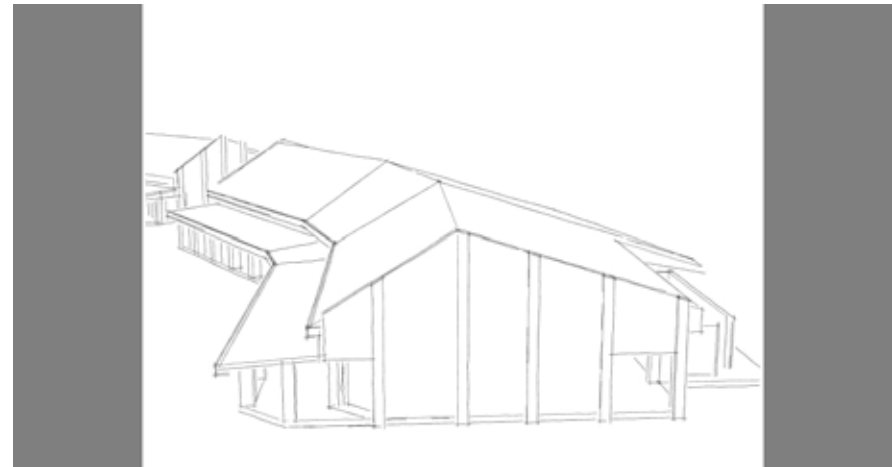


Figure. 67  
a, b, c, d  
Existing  
material  
type  
On site.



Figure. 66c  
Existing  
structures  
Lecture halls  
On site.



### 6.3.1

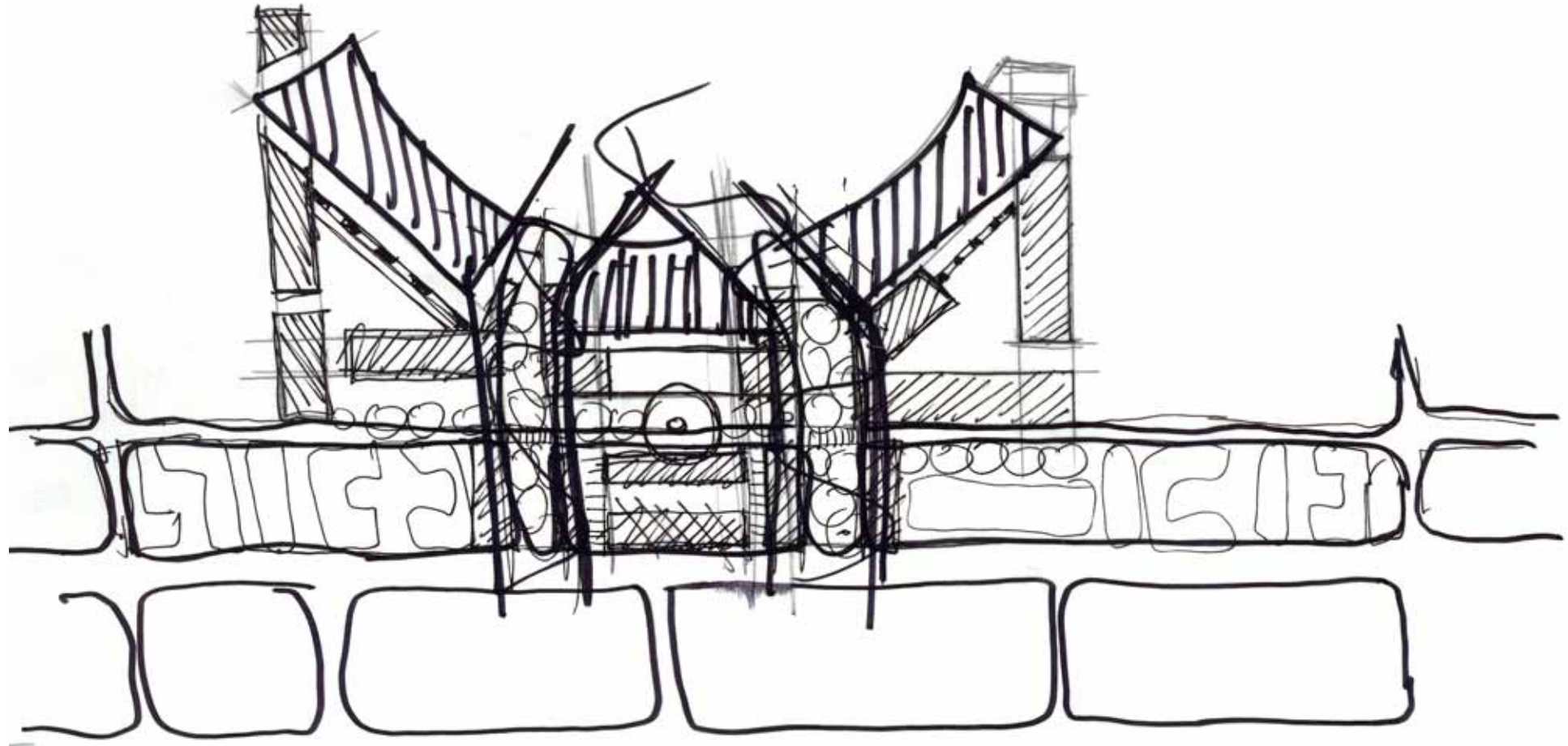
Figure 68  
Plan: site and program  
Development 1 of 20

#### DEVELOPMENT 1 OF 20

- Plan and site development. Urban and site scale.
- Creation of courtyards surrounding existing buildings.
- Attempting to change the grid to respond too the street edge.
- Creating access passages to the internal of the campus, thus opening up the two segregated zones.
- The design centralised around new entrance proposal for University of Pretoria Mamelodi Campus.
- Proposing densification of retail at street edge.

#### However:

- The courtyards enclosed the public space and internalised the design, limiting view legibility to 2 passages. This went against the principle of creating space that allows engagement between people and function.
- The densification of space could lead to crowding and limited access. Hence requiring a design change.



### 6.3.2

#### DEVELOPMENT 2 OF 20

Figure 69

Plan: site and program  
Development 2 of 20

- Plan and site development. Urban and site scale.
- Indicating movement across the site, as noted previously: Too restrictive.
- A change in layout for the new proposed University entrance design, proposing an arc of public space and reducing the overall density on the front face of the site.
- Introducing trees and green shrub to define the facility for the passer by.
- Creating mental images and reducing noise disturbance of private squares.  
First indication of varied building mass, intending to collectively create a single complex

However:

- The same restriction still evident, but form and change of grid is kept.

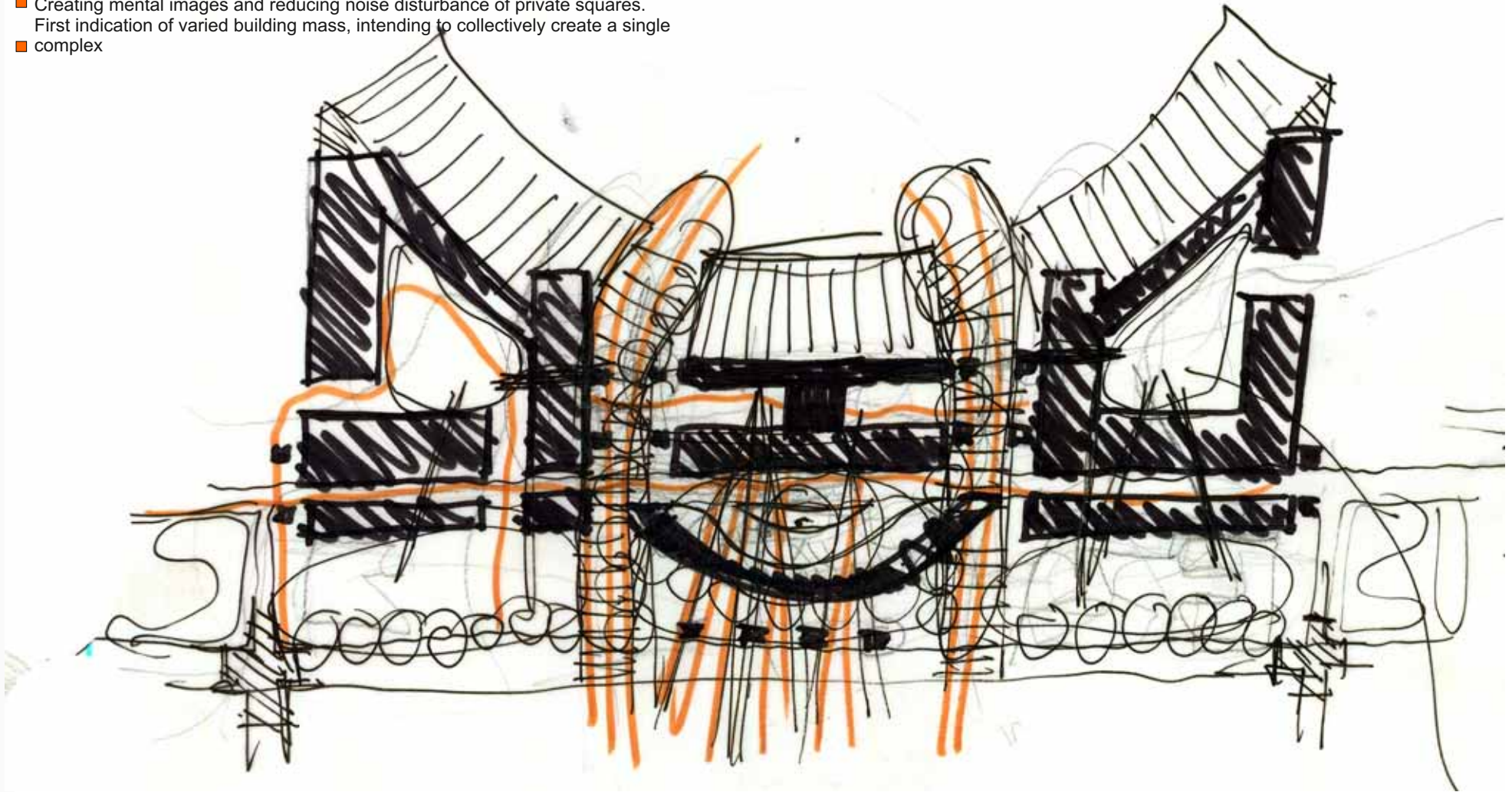
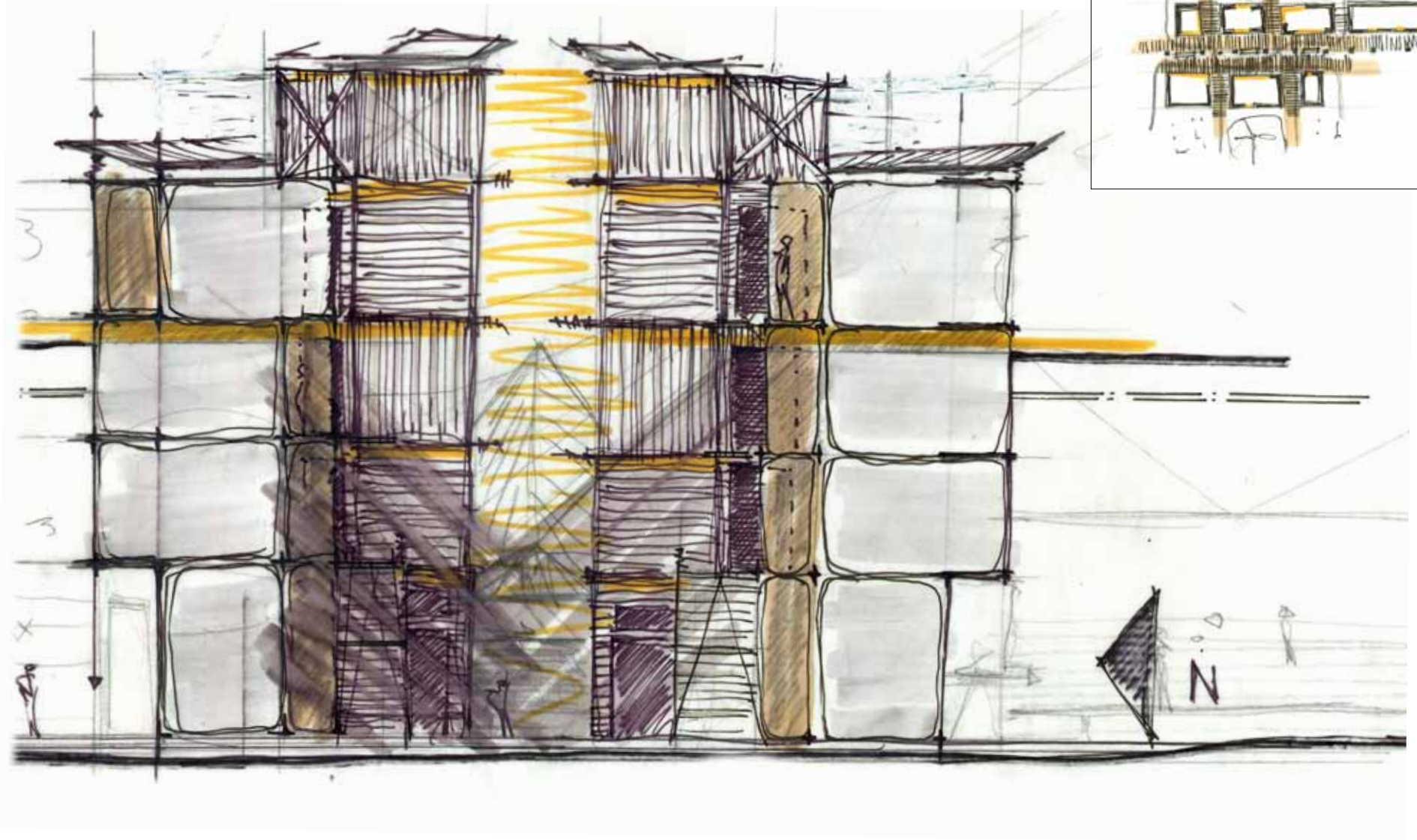


Figure. 70  
Proposed loose set  
spatial development of  
Student information  
booths.

Figure. 71  
New University  
administration design  
development\_note urban  
proposal only\_





**Figure. 65 a - d\_ CONCEPT DEVELOPMENT MODEL 1.**

- Exploration of site and contextual response.
- The initial attempt at contextual forming of site. The built form resulting from the layout of existing buildings. This explains the reason for the multiple bends in structure.
- The site required a formation of form that responds to its layout, as this serves as principle to the design philosophy of engagement; “and space between” tying the past and the future. Making use of existing material and structure, reinventing a new possibility of the same space use in the attempt of revitalization.
- An important principle was to include the existing context and new site, extending the campus to the street and opening up the mental image of the University Site was
- As can be seen in the model, the use of colourfull beads intends to illustrate the people and the functions of their needs, furthering the idea of varied built mass, but sinlge complex.
- The first few design stages hinged on the idea of a main structure as backbone grounding the development -where the work gets done- and a loose set of buildings articulated for movement and ease of access and experience along its edge, acting as the foreground they became the spaces of place making and were intended to be the people interactive civic amenities, ie: Home affairs, legal, aid etc.
- Also seen here is the first development of the taxi drop-off, pick-up area. Being a large civic building, a large influx of people are expected, requiring the facilities to provide and sustain it. This explains the decision for a taxi drop-off only and using the holding bays already existing, 150m down the street.
- This model also indicates the large site urban scheme of the new “face” of the university, its new administration entrance, further north off the taxi drop-off & pick-up. Also seen in figure 71
- The creation of a new service lane was introduced at this stage of the design, which intended to facilitate the service of the new “city-township” block that was created. It also served the precept of taking the people of the main busy street and making a more private safer zone at building edge.

See chapter 3 and urban design document for macro context decision.

Figure. 72a  
Concept  
model 1.  
May 2008.  
Site and built  
form  
development



Figure. 72b  
Concept model 1.  
May 2008\_  
Site and built form  
development



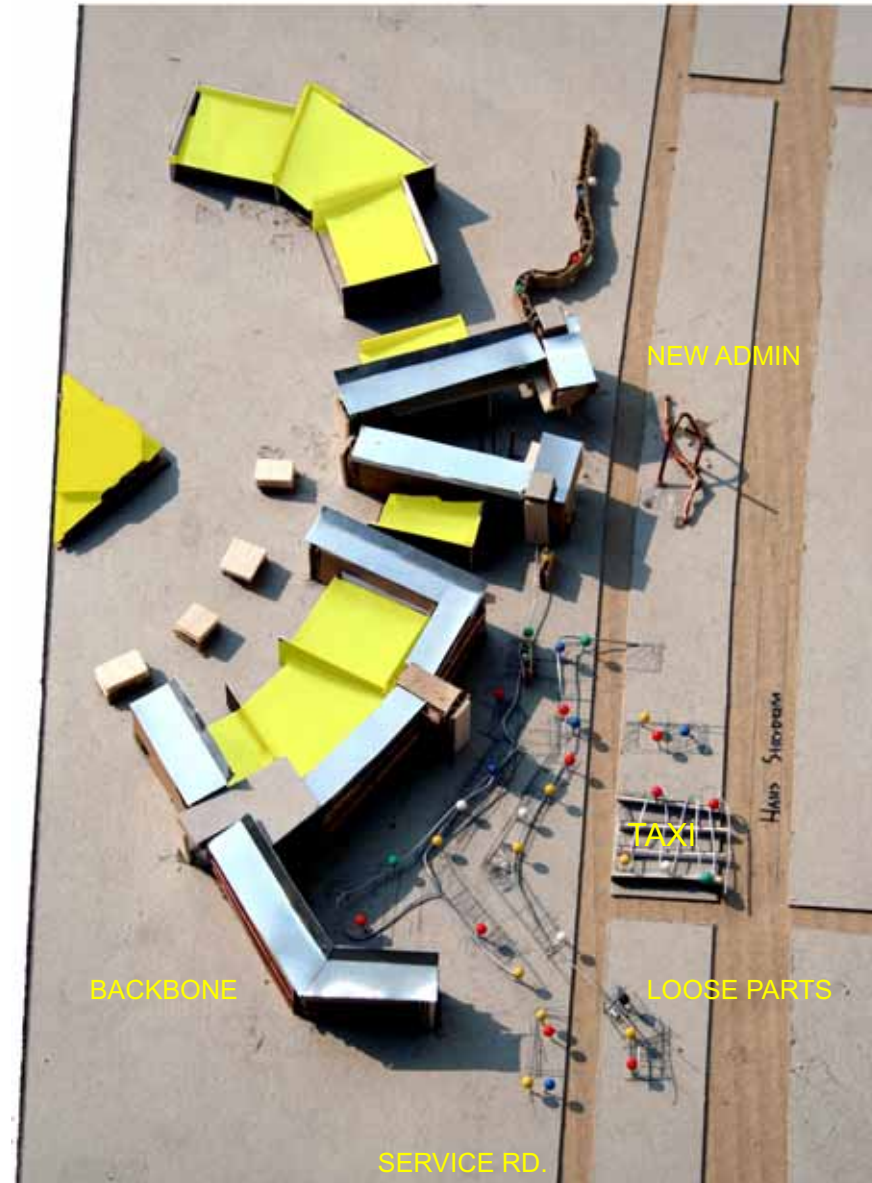
Figure. 72c  
Concept model 1.  
May 2008\_  
Site and built form  
development



Figure. 72d  
Concept model 1.  
May 2008\_  
Site and built form  
development



Figure. 72e  
Concept  
model 1.  
May 2008\_  
Site and  
Built form  
development



### 6.3.4

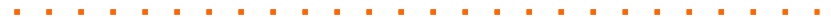
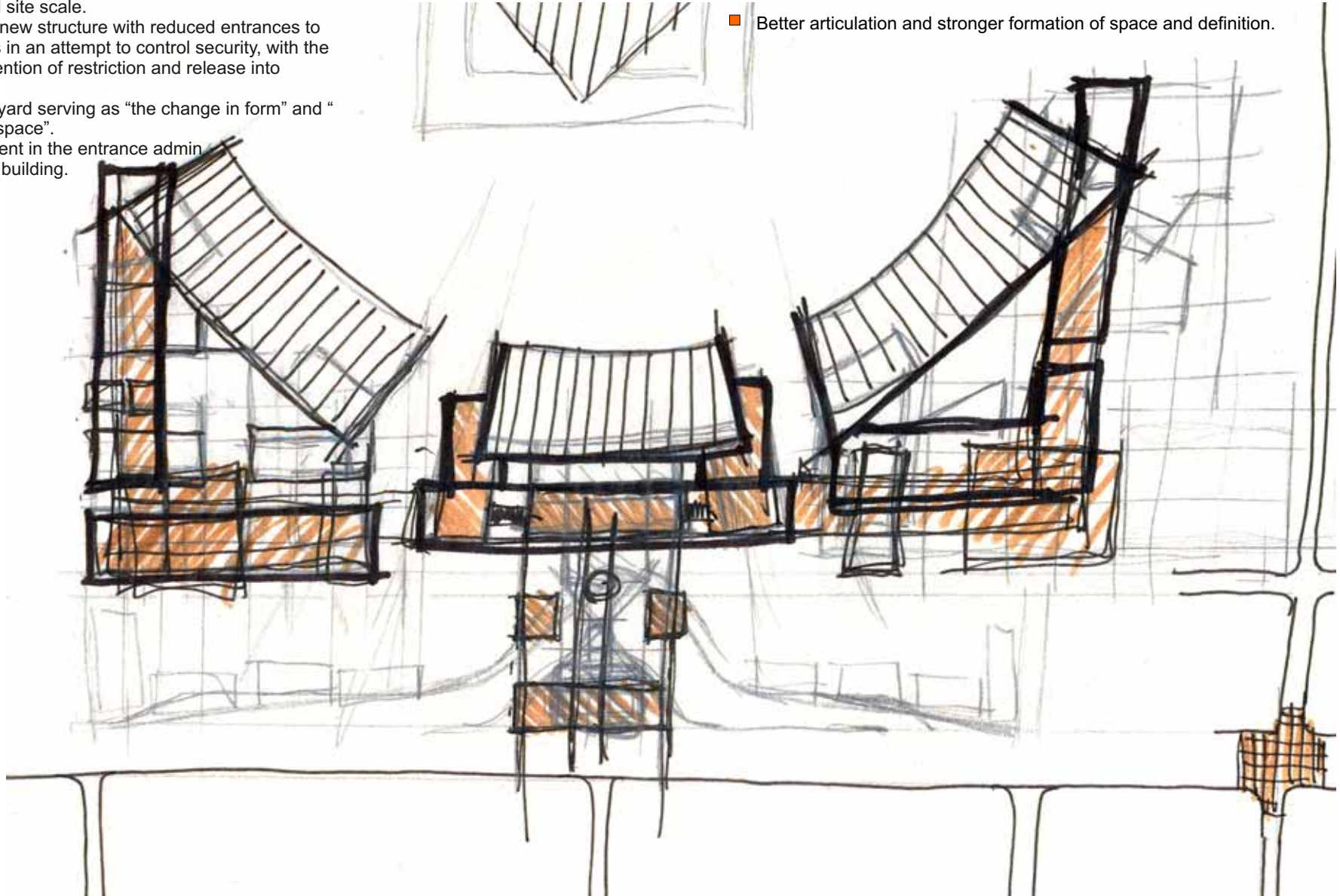
Figure 73  
Plan: site and program  
Development 3 of 20

#### DEVELOPMENT 3 OF 20

- Plan and site development.
- Urban and site scale.
- Indicating new structure with reduced entrances to courtyards in an attempt to control security, with the spatial intention of restriction and release into courtyard.
- The Courtyard serving as “the change in form” and “transition space”.
- Development in the entrance admin University building.

#### However:

- The same restriction still evident, but form and change of grid is kept.
- Better articulation and stronger formation of space and definition.



6.3.5

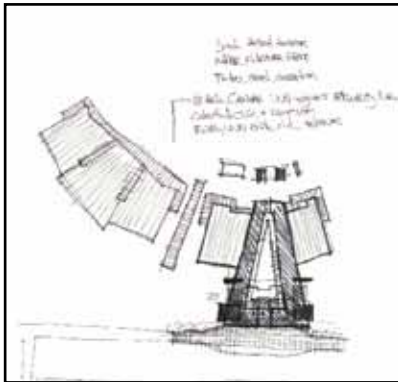
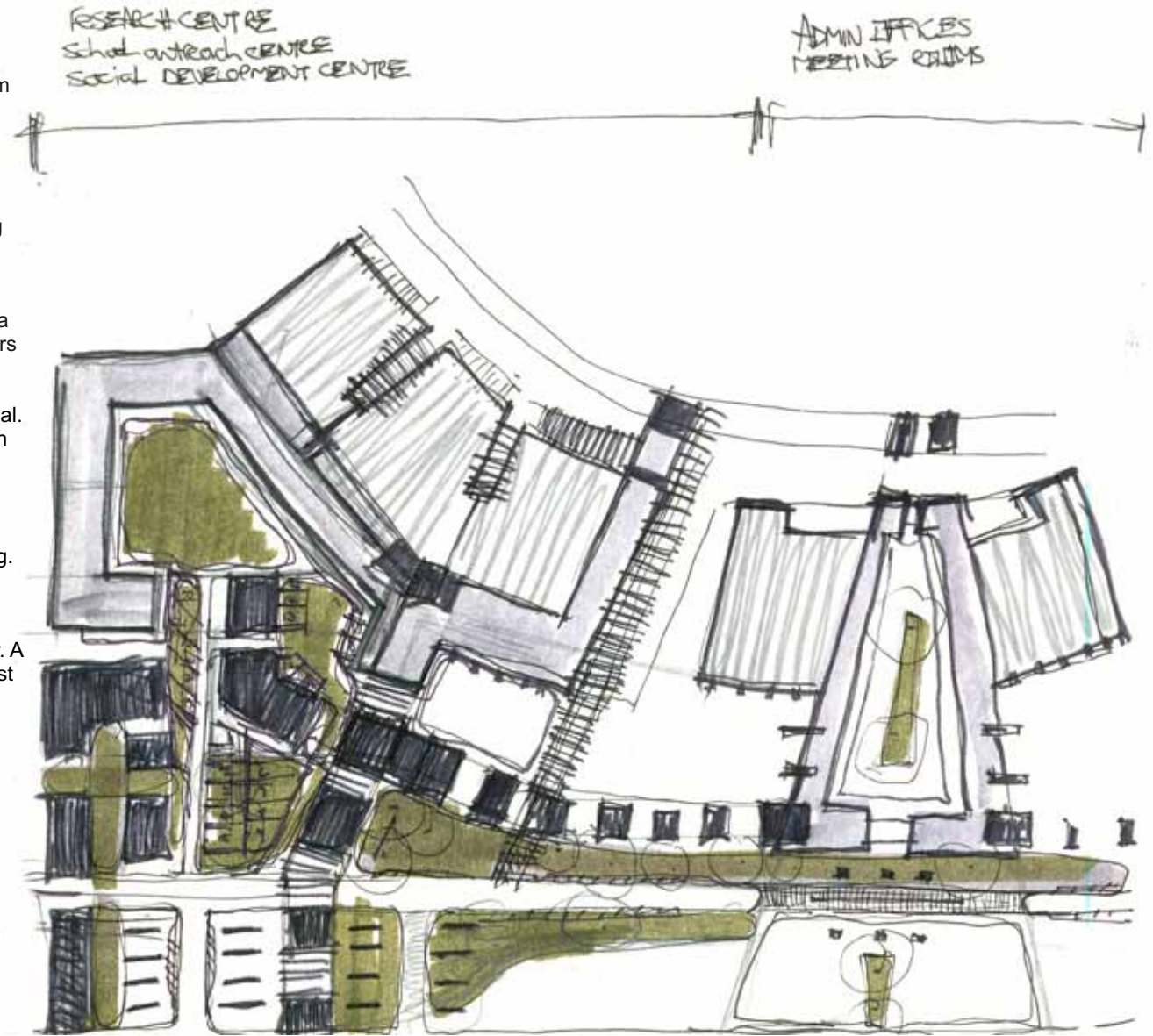
Figure 74  
Plan: site and program  
Development 5 of 20

DEVELOPMENT 5 OF 20

- Plan and site development.
- Indicating new buildings. Public space and scale.
- Opening the courtyard squares to become public realm by wrapping the existing structure, thus engaging with built form.
- This proposal addressed both the concept of public engagement and built form engagement.
- The development of the major and minor scale of architecture, experimenting with the attempt of making large mass human scale.
- Creating public squares and small spaces of experience.
- Linking the parts of site to each other, thus proposing a holistic development, in aim of total engagement of tiers of society. As noted under chapter 4 and the introduction.
- Creating vistas and visual links from key areas of arrival.
- First attempts at integrating the lecture halls in function and visual line.
- The development of the public square at the new University entrance attempts a modernist approach of creating a landscape of arrival signifying identity and presence to the new image of the campus and building.

However:

- In the creation of multiple space, the legibility and orientation of the design becomes blurred and unclear. A ordered articulation is evident, but not legible to the first time user



- Small scale buildings
- public space / green space
- large buildings
- existing lecture halls

Figure 75  
New University of Pretoria  
administration building  
and public space  
development



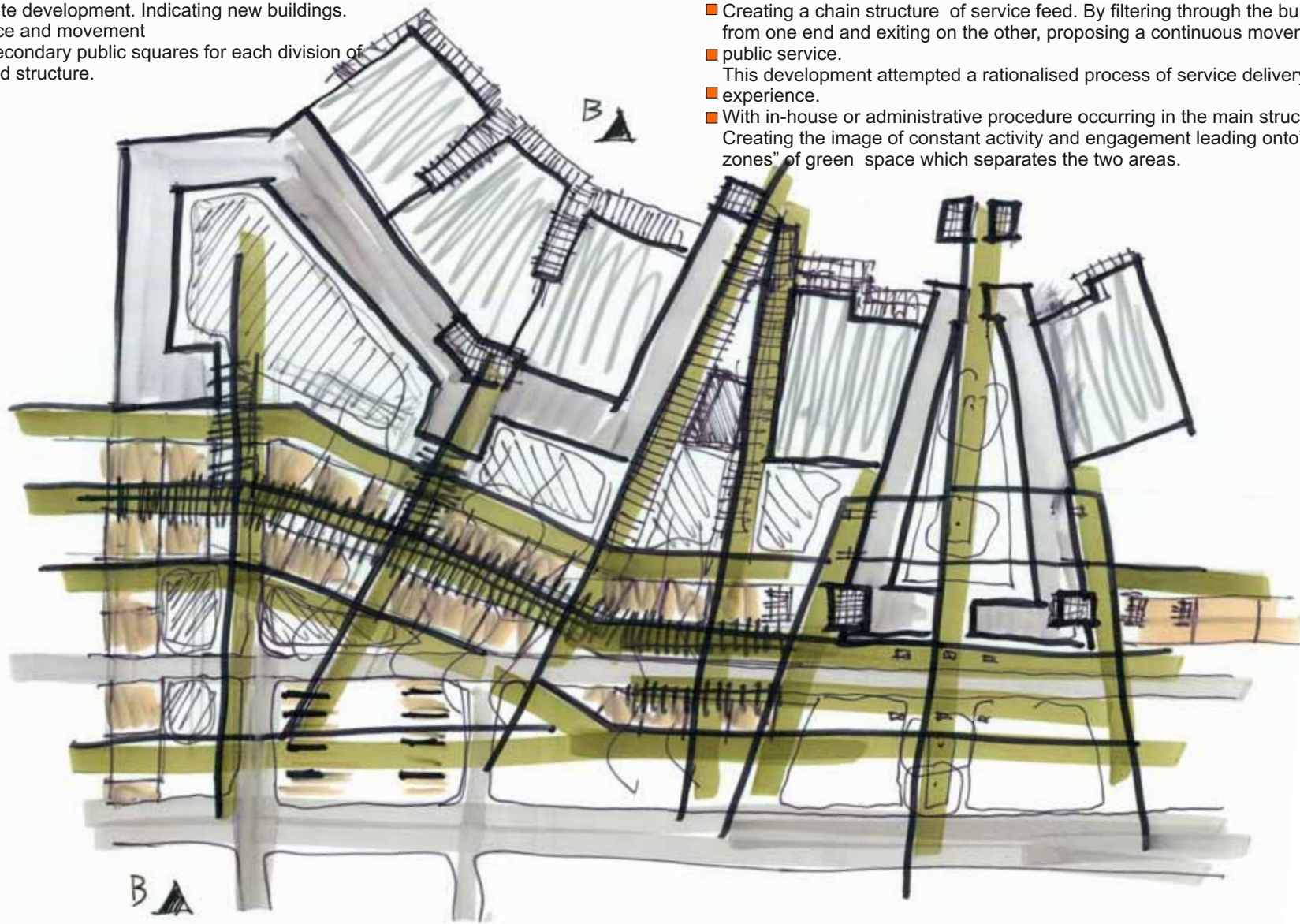
6.3.6

Figure 78  
Plan: site and program  
Development 6 of 20

DEVELOPMENT 6 OF 20

- Plan and site development. Indicating new buildings.
- Public space and movement
- Creating secondary public squares for each division of amenity and structure.

- Creating a chain structure of service feed. By filtering through the buildings from one end and exiting on the other, proposing a continuous movement of public service.
- experience.
- With in-house or administrative procedure occurring in the main structure. Creating the image of constant activity and engagement leading onto "rest zones" of green space which separates the two areas.



Small scale buildings    public movement / access    large buildings    existing lecture halls

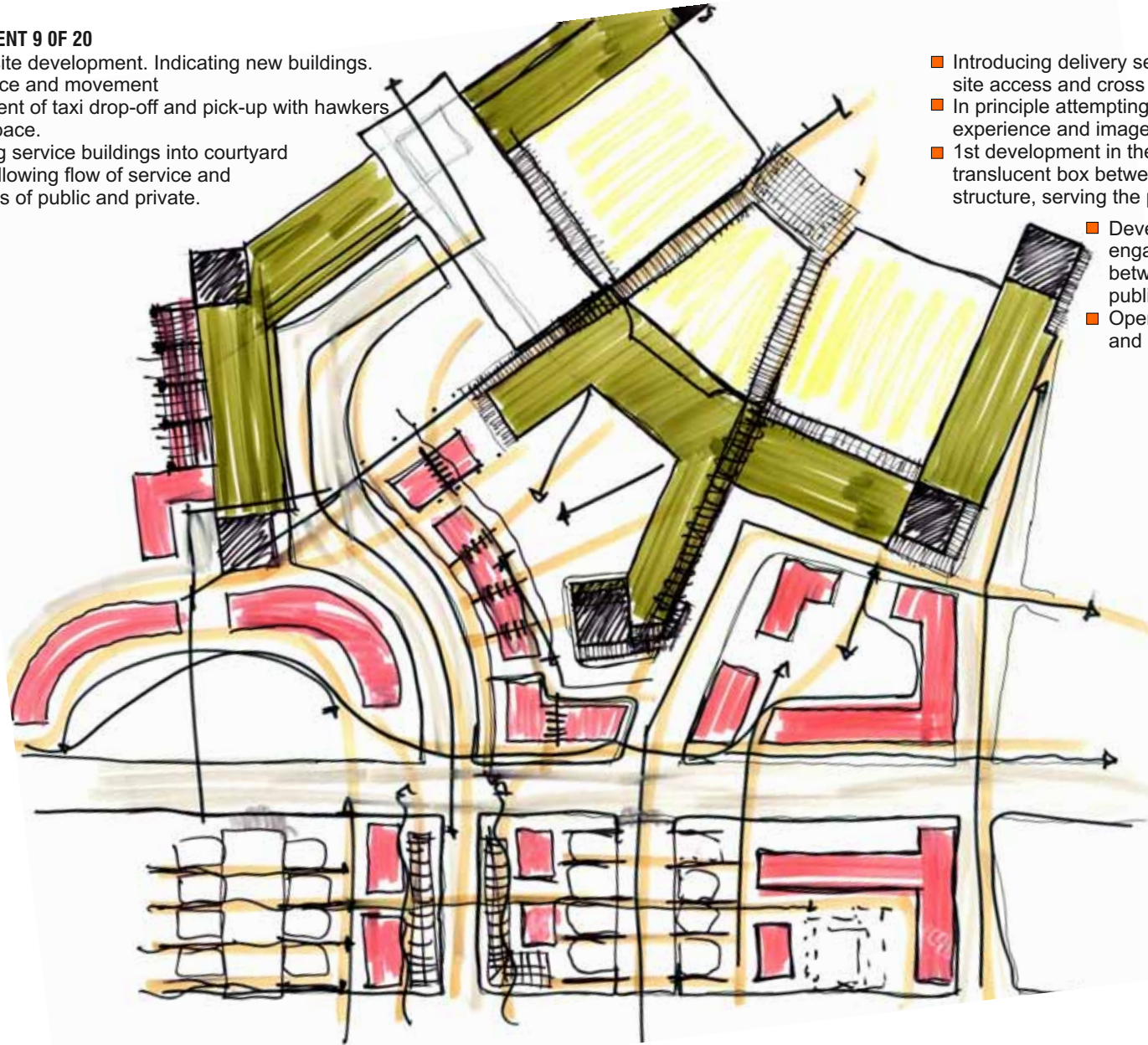
6.3.7

Figure. 79  
Plan: site and program  
Development 9 of 20

DEVELOPMENT 9 OF 20

- Plan and site development. Indicating new buildings.
- Public space and movement
- Development of taxi drop-off and pick-up with hawkers vending space.
- Developing service buildings into courtyard  
Squares allowing flow of service and separations of public and private.

- Introducing delivery service area within facility as part of site access and cross movement.
- In principle attempting the creation of individual space of experience and image.
- 1st development in the transition space concept, as a translucent box between the lecture halls and the new structure, serving the public and student.
- Developing the visual and virtual zone of engagement by extending the walkways between the renovated lecture halls to the public area of the new developed facility.
- Opening up the ground floor for access and legibility.

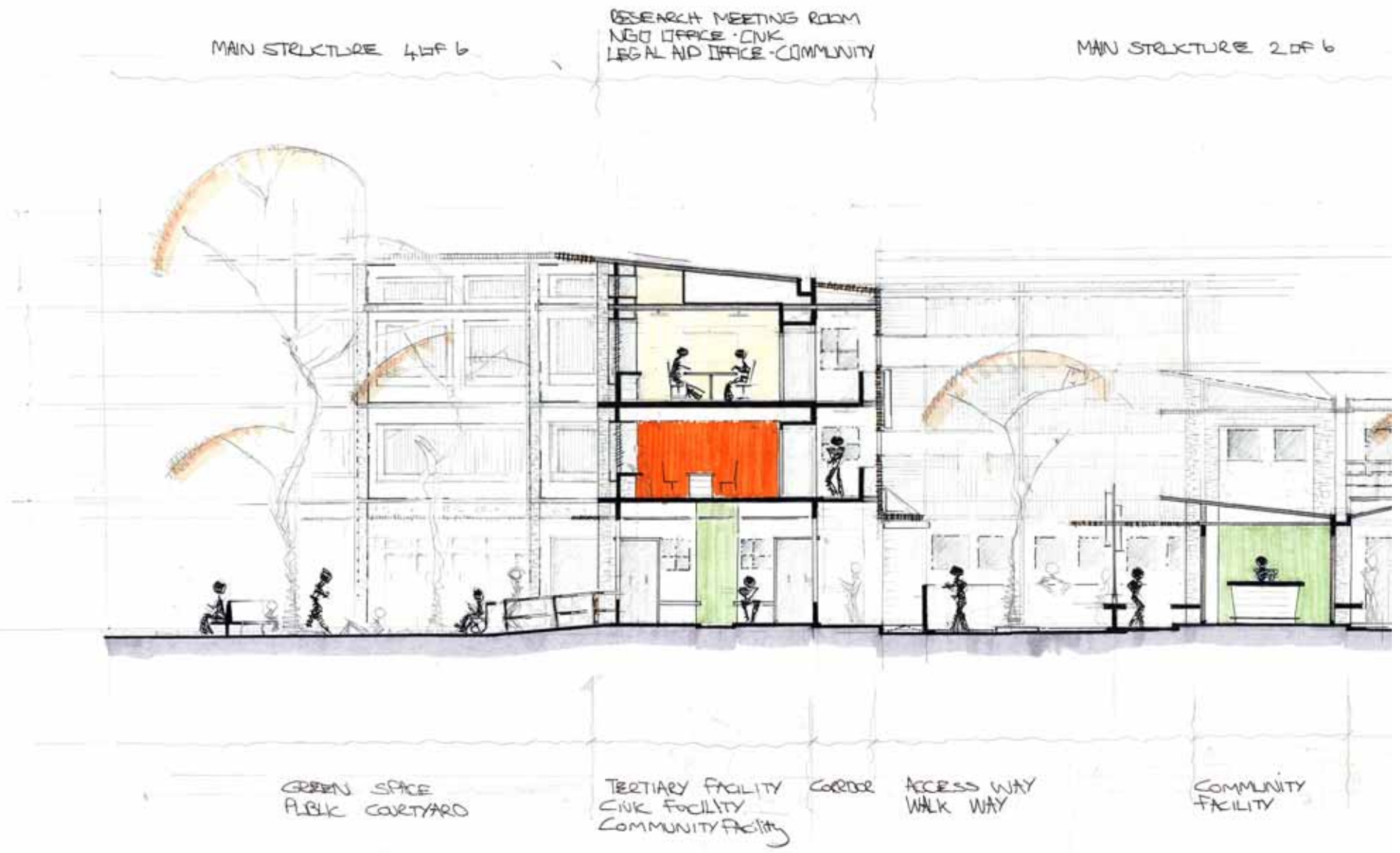


Service shafts    
  Movement diagram    
  large scale / administrative bld's    
  Small scale service structures    
  existing lecture halls



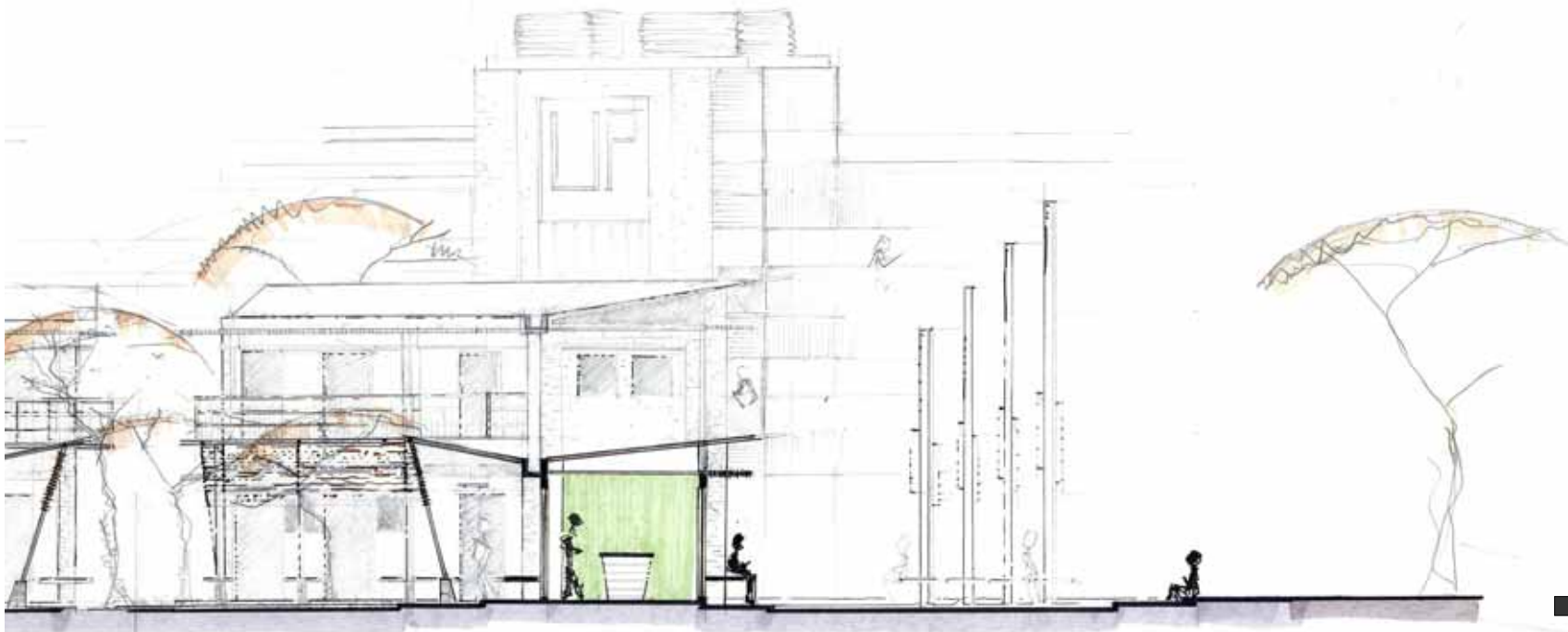
6.3.7.1

Figure 80  
Section of developm  
9 & 10



SERVICE CORE UP 2 OF 8

MAIN STRUCTURE 10F6



GREEN SPACE  
PUBLIC COURTYARD

COMMUNITY FACILITY

ACCESS WAY  
UNIV GATE WAY

UNIVERSITY ADMIN



**DEVELOPMENT 10 OF 20**

- Plan and site development.
- Development of taxi drop-off and pick-up with hawkers vending space. Note: separated for increased usage.
- Development of public ablutions and service.
- The development of student bus drop-off at main entrance.
- Inclusion of service cores and connections to existing services.
- Creation of a series of connected corridors and passages, aimed at creating a connected environment from University to public user.
- Inclusion of service road for maximum access to buildings

**However:**

- The multiple structures raises question to cost and functionality effectiveness.
- One finds a blurred sense of being as a result of legibility.
- The spaces do work autonomously by intent, but this ideas was in fact found to negate the principle of unity and complexity.
- The separation and layout of taxi area is questionable and needed reconsideration and precedent.
- The image of multiple nucleuses created a sense of confusion and thus a critical decision on purpose and rationality was required with regards to arrival and orientation.
- Integration with Lecture halls and campus needed to be more apparent and legible.
- In conclusion, complexity confused project intent and realisation. Simplicity and reduction was the principle requirement at this stage



6.3.7.4

Figure. 82a  
Concept model 2.  
July 2008\_  
Site and built form  
development 9&10



Figure. 82b  
Concept model 2.  
July 2008\_  
Site and built form  
development



Figure. 82c  
Concept model 2.  
July 2008\_  
Site and built form  
development



Figure. 82d  
Concept  
model 2.  
July 2008\_  
Site and  
Built form  
development



Figure.  
82 e,f,g



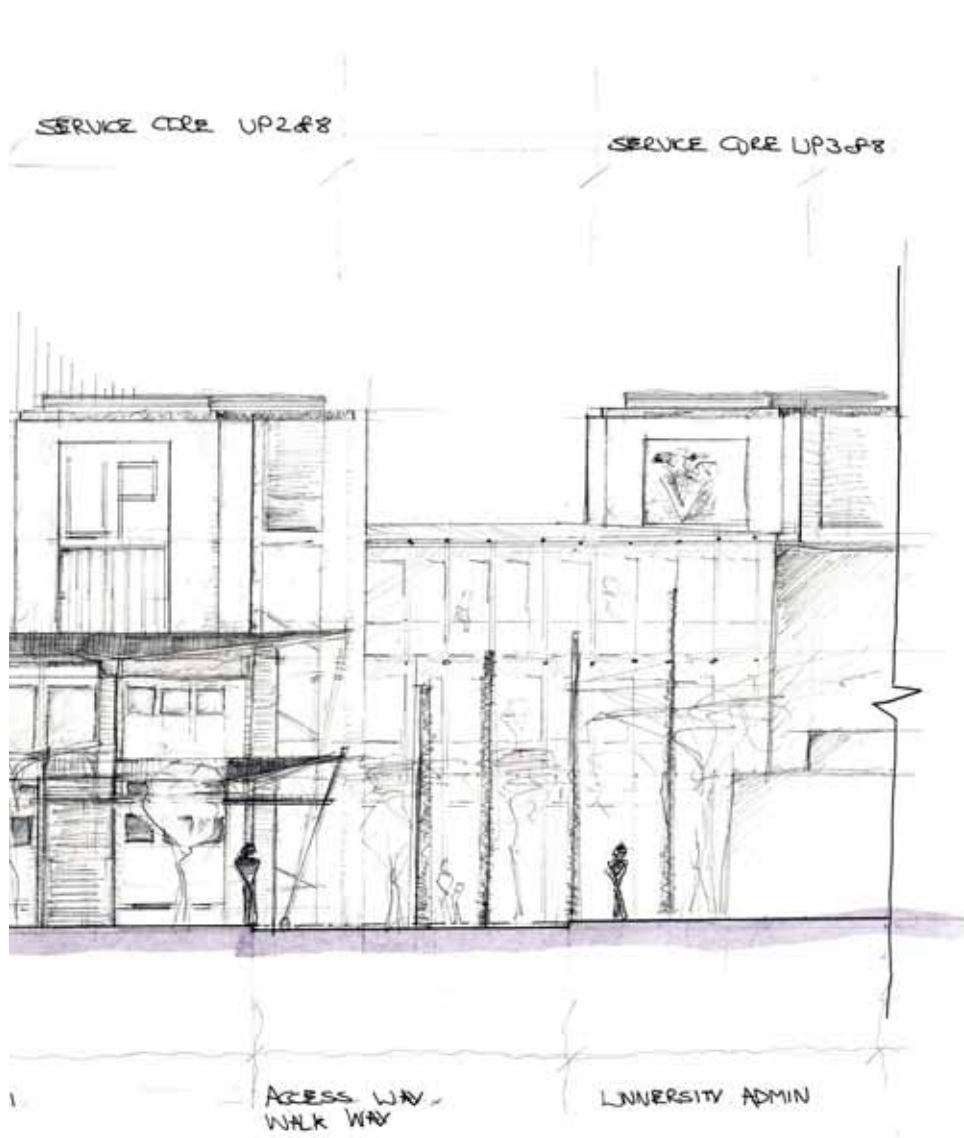
Figure. 82h  
Concept  
model 2.  
July 2008\_  
Site and  
Built form  
development



6.3.7.5

Figure 83  
Elevation of development  
9 & 10





Initial development of a typology of form aimed at a morphology of shape and unity of structure. In principle Differing scales of building receiving a set roof typology, concluding into the roof developing into a skin . As seen later this concept evolved into the final typology and morphology of the proposed Architectural solution.

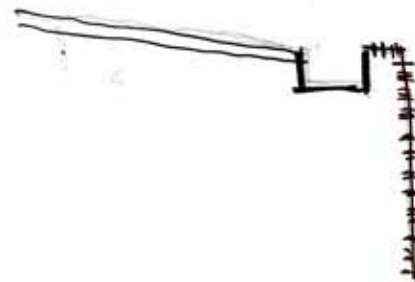
1-2 lvl structure



2-3 lvl structure



3-4 lvl structure



### 6.3.8

Figure. 84  
Plan: site and program  
Development 13 of 20

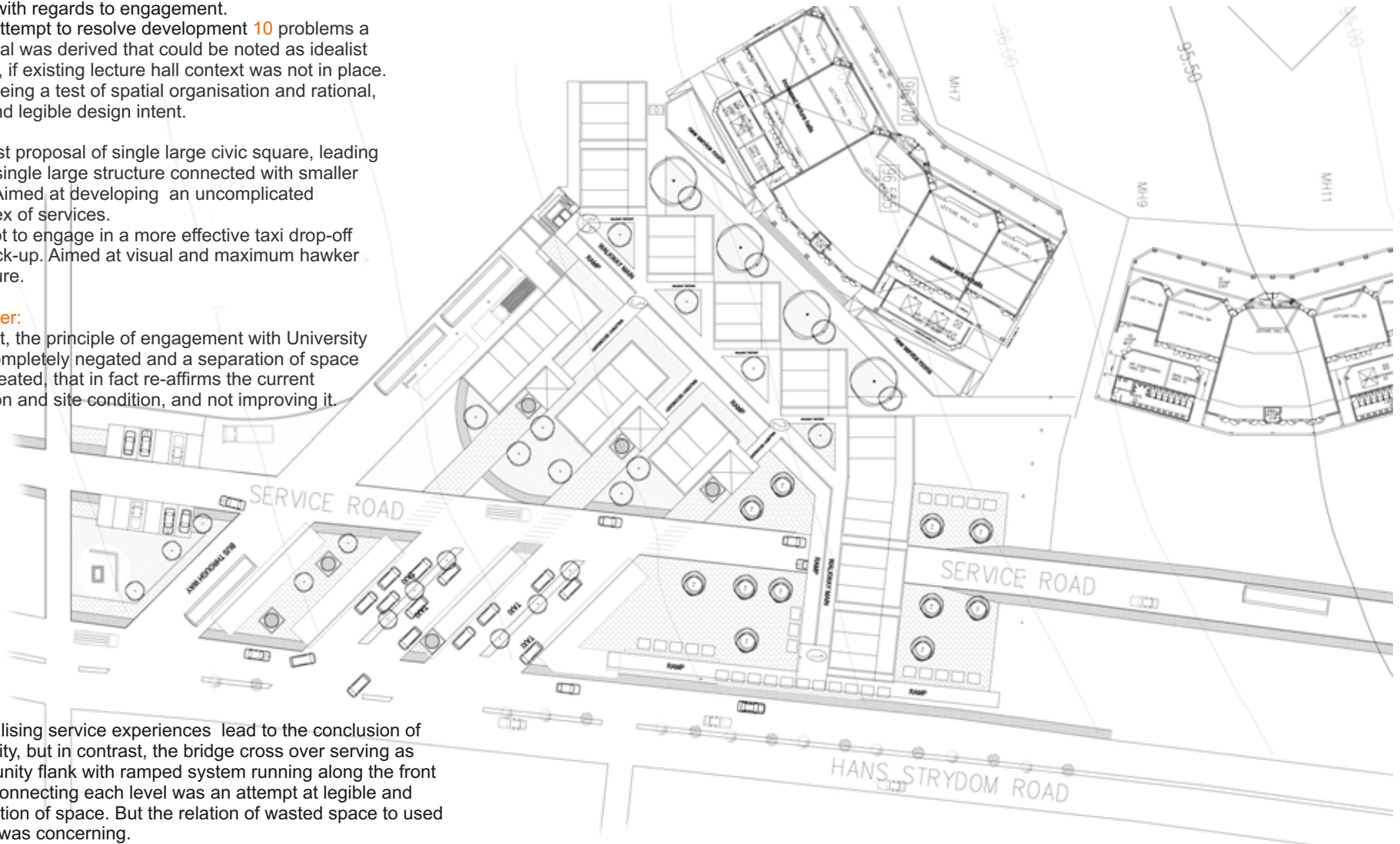
#### DEVELOPMENT 13 OF 20

A new concept experiment of space and relation to site.

- Proposed pragmatic response, with less theoretical intent with regards to engagement.
- In an attempt to resolve development 10 problems a proposal was derived that could be noted as idealist design, if existing lecture hall context was not in place. Thus being a test of spatial organisation and rational, cost and legible design intent.
- The first proposal of single large civic square, leading into a single large structure connected with smaller units. Aimed at developing an uncomplicated complex of services.
- Attempt to engage in a more effective taxi drop-off and pick-up. Aimed at visual and maximum hawker exposure.

#### However:

- In short, the principle of engagement with University was completely negated and a separation of space was created, that in fact re-affirms the current situation and site condition, and not improving it.
- Internalising service experiences lead to the conclusion of illegibility, but in contrast, the bridge cross over serving as community flank with ramped system running along the front edge connecting each level was an attempt at legible and integration of space. But the relation of wasted space to used space was concerning.

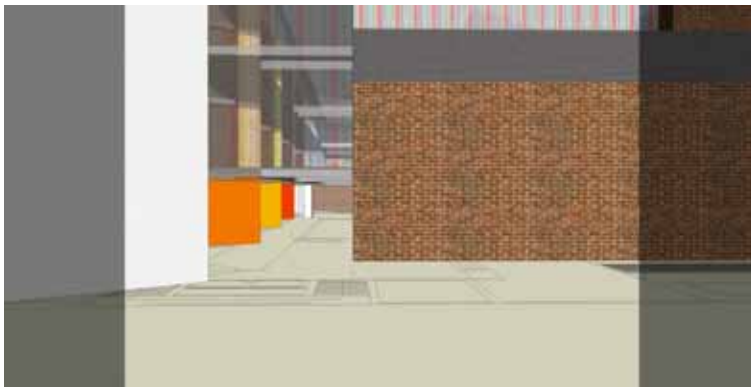


6.3.8.1

Figure. 85a,b,c  
Sub development  
Of concept 13



Figure. 85d,e,f  
Sub development  
Of concept 13



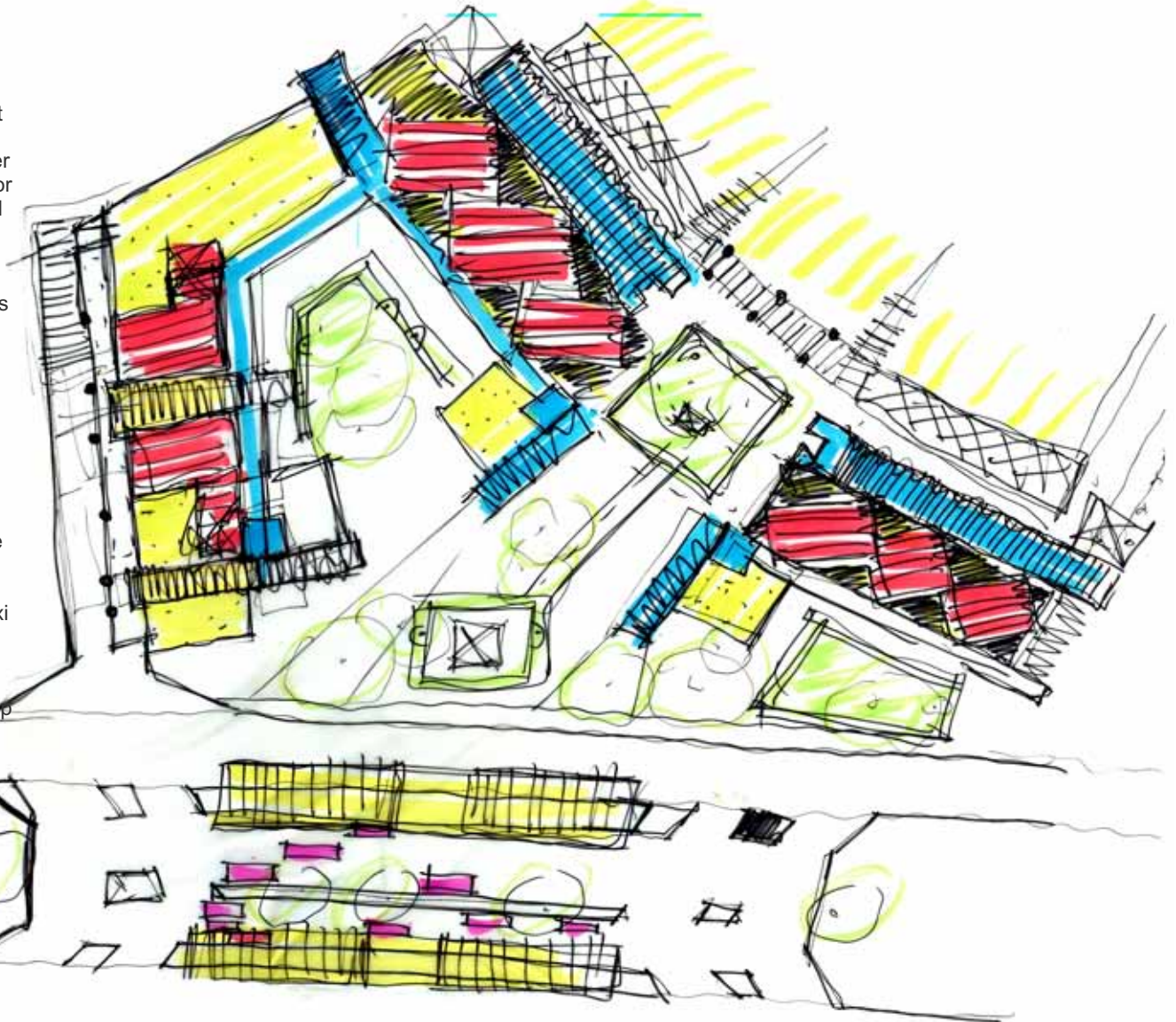
### 6.3.9

Figure 86  
Plan: site and program  
Development 14 of 20

#### DEVELOPMENT 14 OF 20

A design development formulated in response to design phase 10 -13

- At outset with intent a more simplistic design, the first signs of tectonic form in development.
  - Formulation of core structure, internalising the smaller collection of service structure, making the ground floor an interactive space, in doing so creating a functional public square for meeting, resting and hawking.
  - Allowing vegetation growth to define areas.
  - Creating visual connection and points of orientation. Intending to produce legible space-making that allows for easy and clear orienteering by a user.
  - First attempt at experimenting with the concept of ramping edges and defining spaces by passage tectonic.
  - The decision to attempt bridging the space between the campus buildings and the new structure by cantilever structure, creating a walkway.
  - Simultaneously proposing a design intervention with the existing lecture halls creating a new facade to the structure and responding at a planning level to incorporating it in the program.
  - Delving into a process of developing the transport taxi drop and go. Creating a two lane taxi stop, allowing two directional entrance.
  - Starting the process of environmental response at a tectonic level with a series of experiments, opening up the roofs, allowing light and air into the buildings.
- However:**
- Lack of consistency in tectonic form,
  - Ratio of walkway space to usable space was uneconomical, thus questioning the use of ramps.
  - Resolution of space between lecture halls and new structure not resolved but in the process.
  - Taxi stop, not efficient and too complex, a new resolution is required.
  - Effective connection of public space is required, creating points of arrival and visual links  
"Urban rooms"
  - Level of engagement and visual connection not Effective and evident enough.



Main building



Movement passages



Public squares and green space



Sunlight roof structure

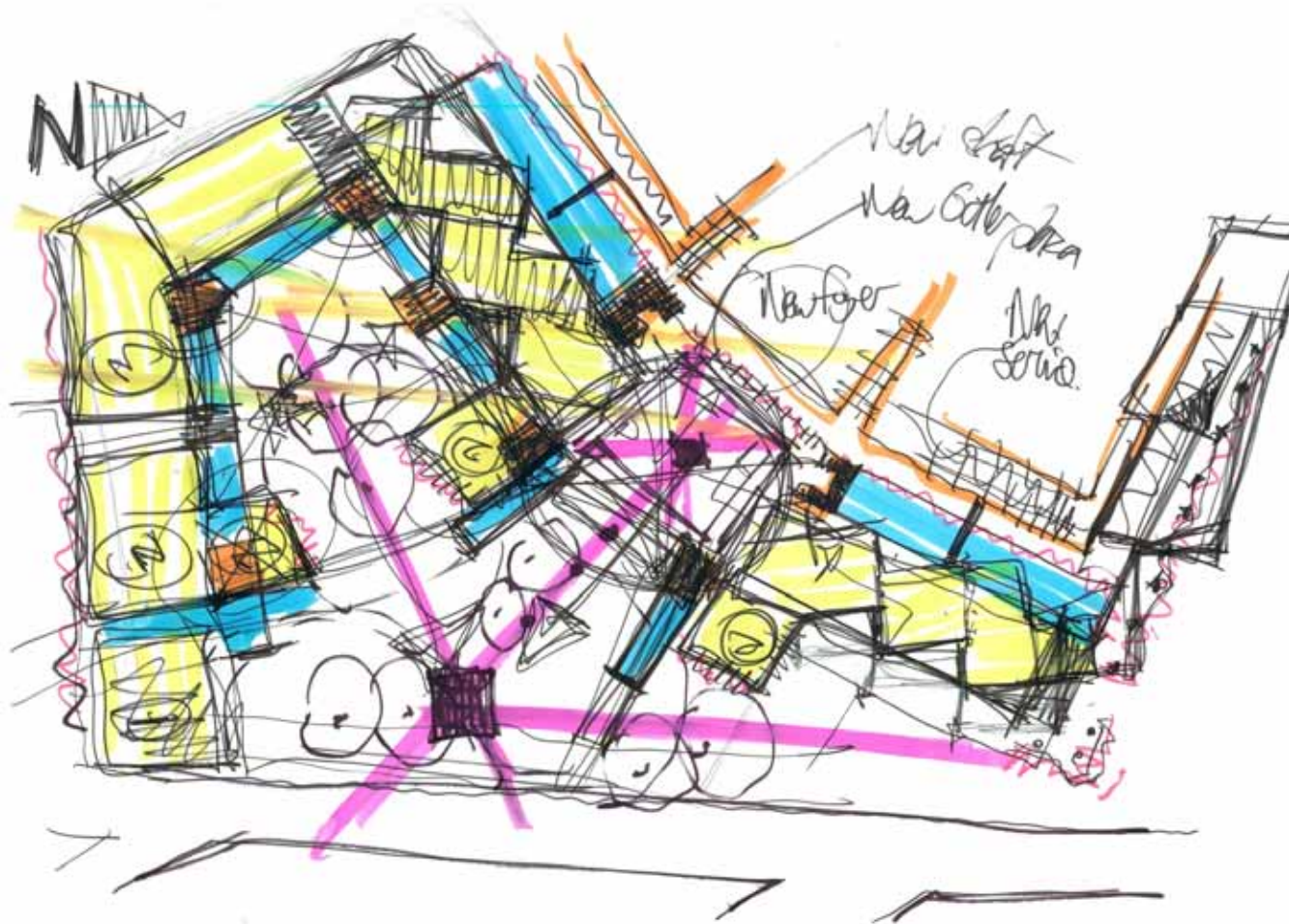


Taxi



6.3.10

Figure. 87a  
Sub development



**A design development formulated in response to design phase 10-13 of 20\_ spatial orientation.**

- This diagrammatic response of design phase 14. explains the attempted resolution with regards to public space and legibility.
- Outlining the center point of the public square with its' visual and programmatic connections. Its outlines points of travel and possible spaces of engagement and potential gathering spaces.
- The development of tectonic resolution in service cores and creation of square inside squares, by using architecture, a step back from the previous development by not using nature as the carving knife, for space making.
- The internal courtyard leading from the new lecture hall foyer as noted in image below, intends to redefine a new private public square as a center of importance
- Developing the concept of walkways and passages, defining spaces and functions within the building, reducing mass into modules for tectonic and scale purposes but also for legibility and efficient user travel.
- Introducing service cores on edge of central square and main entrance flanks, serving functional reasons but also architectural definition to the space it frames, viewed from both the university and the public edge, creating a portal of frame.

Figure. 87b  
Sub development & Sketch elevation



- Main building
- Movement passages walkways
- Service shafts
- Existing structures
- Orientation and connection

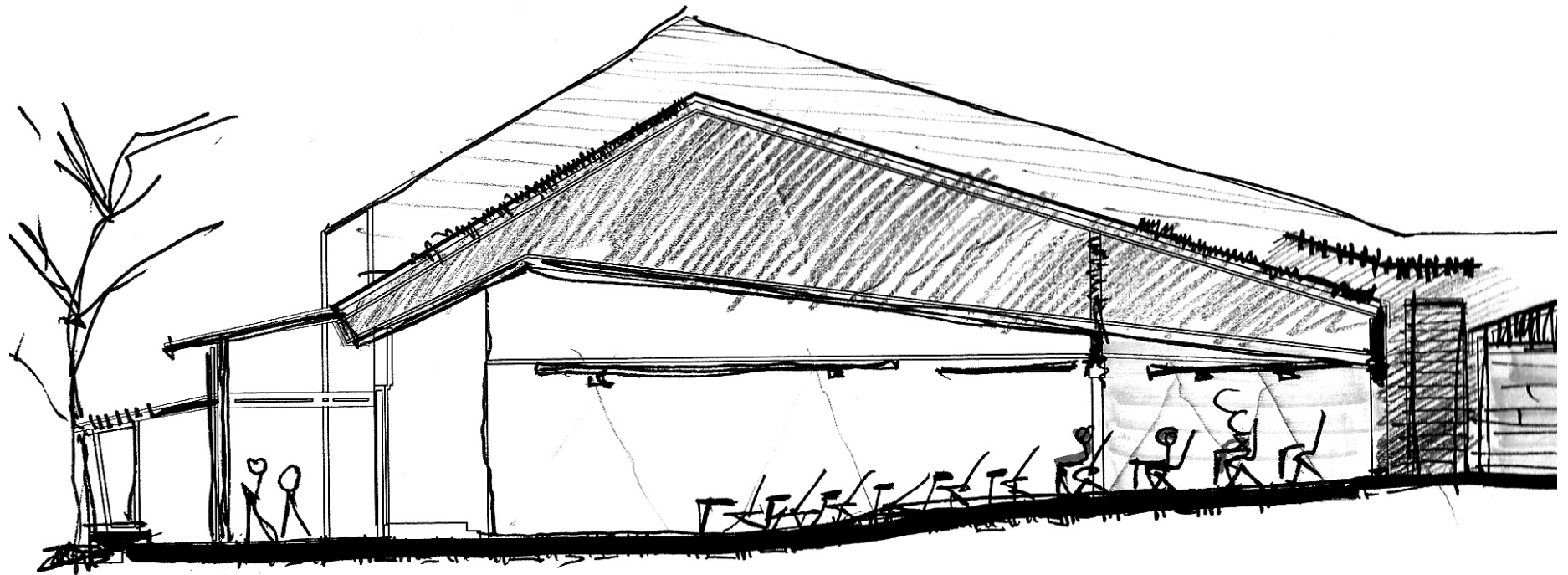


6.3.10.1

Figure 88  
Design development  
section for phase 14-15

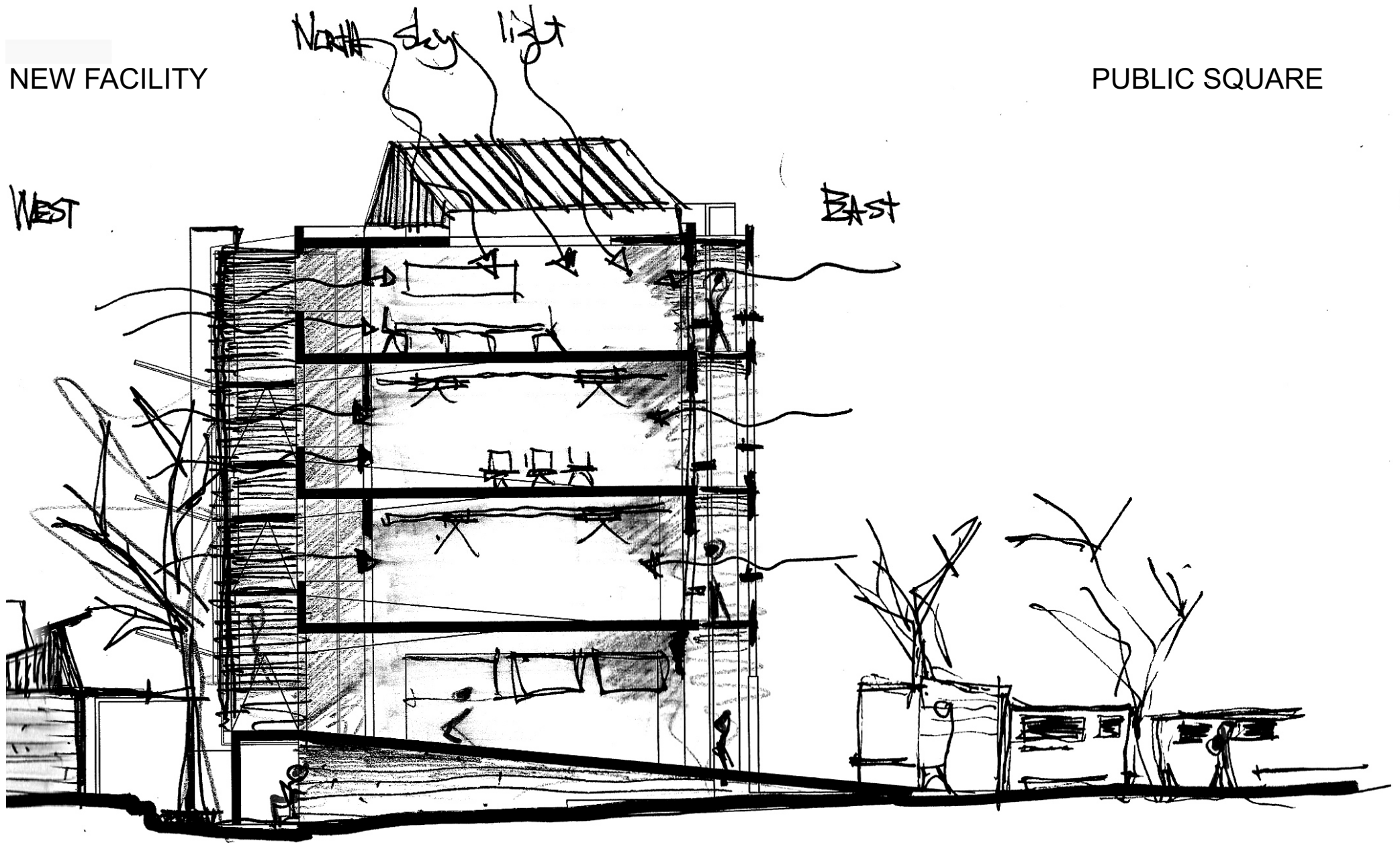
EXISTING

INTERVENTION



NEW FACILITY

PUBLIC SQUARE



### 6.3.11

Figure. 89  
Plan: site and program  
Development 16 of 20

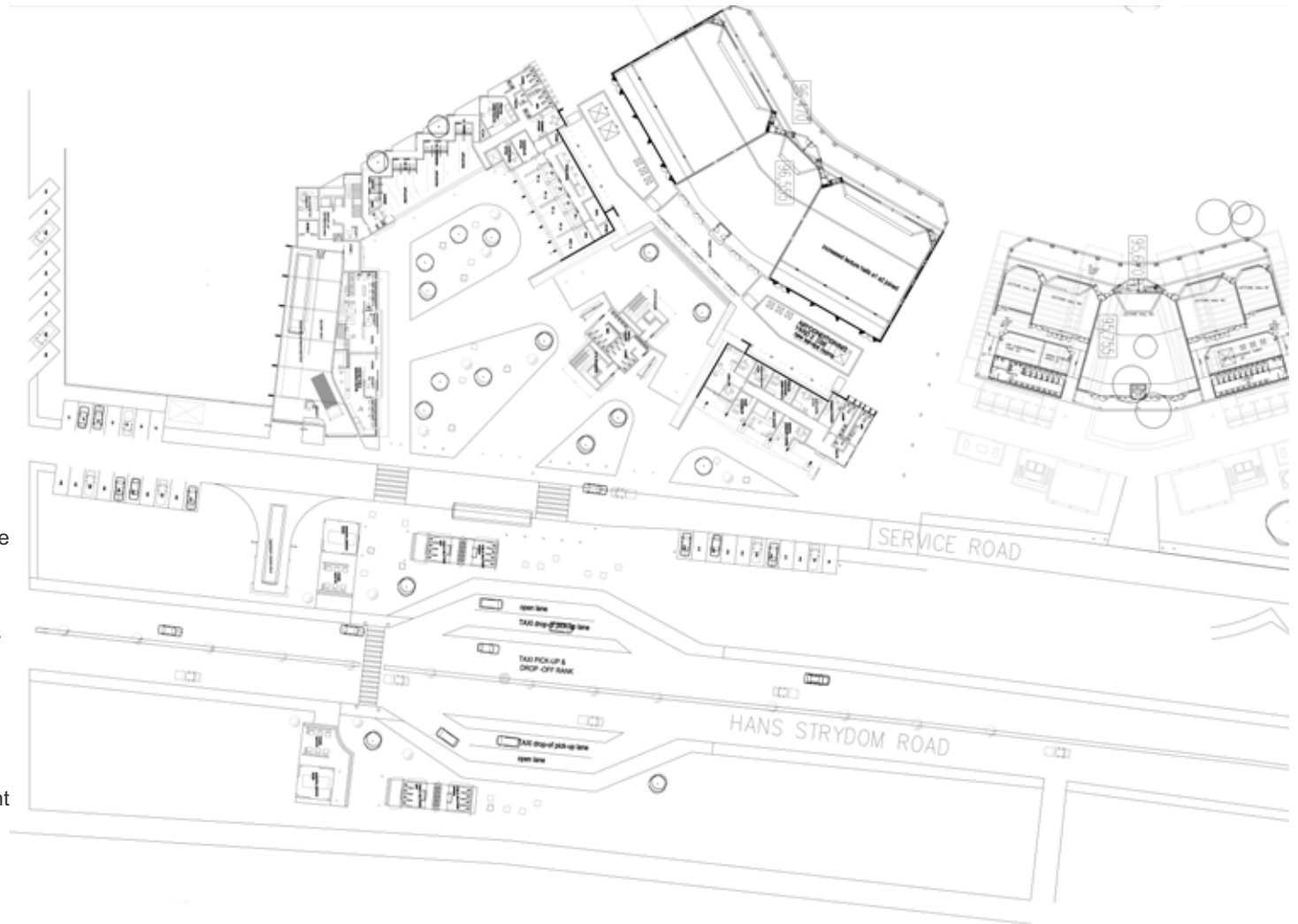
#### DEVELOPMENT 16 OF 20

Plan and site development,

- Development of the taxi drop-pick & go, realising that the site in fact requires to be extended to the other side of the carriageway, allowing maximum exposure and engagement.
- Introduction of public service and ablutions.
- Attempting to define the public square into smaller squares relating to the immediate function of the building.
- A change to service core, by adding a central core structure linked by skywalks, aiming to reduce service cores and linking the two building in a physical way.
- Layout of program, and first approach at creating shared internal communal service rooms. Defining public and private access.
- Attempting organising the spill-out space from the new created lecture hall foyer.

However:

- Taxi stop and public walk space requires detail design.
- Public service areas requires better planning and placement for visual link and legibility.
- New central service with skywalks, needs to be carefully considered as it does divide the new created engagement space and visual link to the campus buildings.
- Public square layout, does require more substantial formation responds more to function and pathways.
- Thought to be given to removing and replacing the existing service yards and lecture halls, as they limit the space and create boundaries and aesthetic unpleasantness.



5.3.12

Figure 90  
Plan: site and program  
Development 17 of 20

**DEVELOPMENT 17 OF 20**

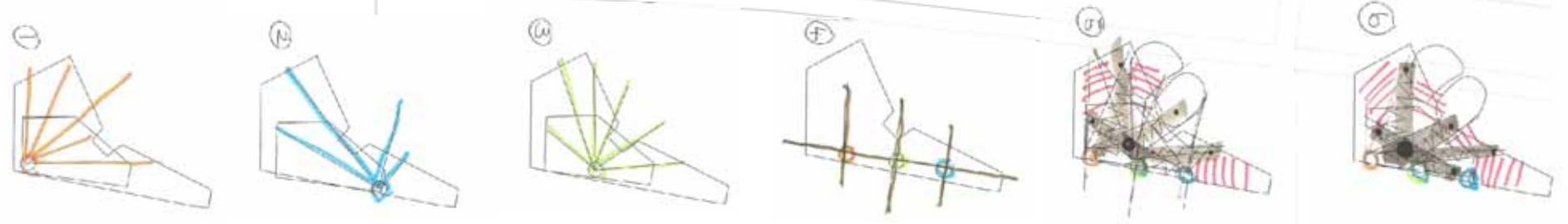
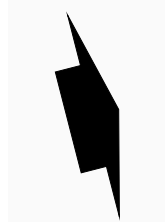
Plan and site development,

- Detail development of public walkways and taxi drop-pick and go area.
- Design intent at revitalising the storm water channel attempting to create a green belt at site edge, for resting and shade.
- Creating minor squares at public service areas for waiting zones and definition of taxi holding area.
- Attempting to formalise the large civic-public square with sight lines and passage lines, first development from a movement diagram study. Figure 91.
- The introduction of a ramp at flank C intended for lvl 1 access only.

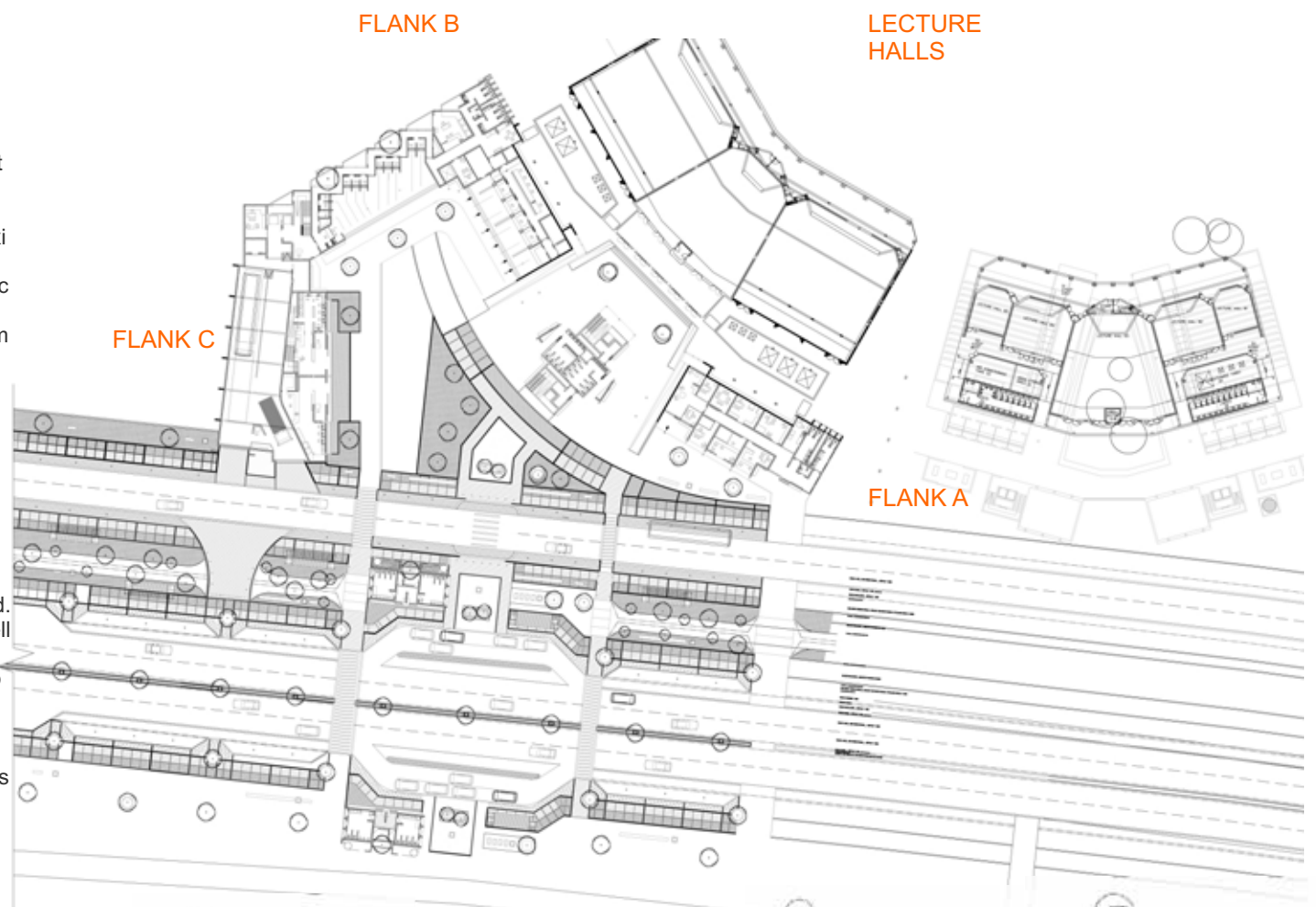
**However:**

- Position and placement of ablutions to be carefully designed, intend to be given to definition of space.
- Sight lines and walkways need to terminate or culminate into a space and not open land.
- Central service core still problematic, as well as service yards.
- Public square definition improved but still to be resolved.
- Attention to be given to planning of floors, specifically toilet facilities in flank A and B.
- Efficient and simple system of access needs to be introduced.

Figure 91  
Public square movement  
diagram study



► MOVEMENT DIAGRAMS  
ACROSS SITE . . . .



6.3.13

Figure 92  
Plan: site and program  
Development 18 of 20

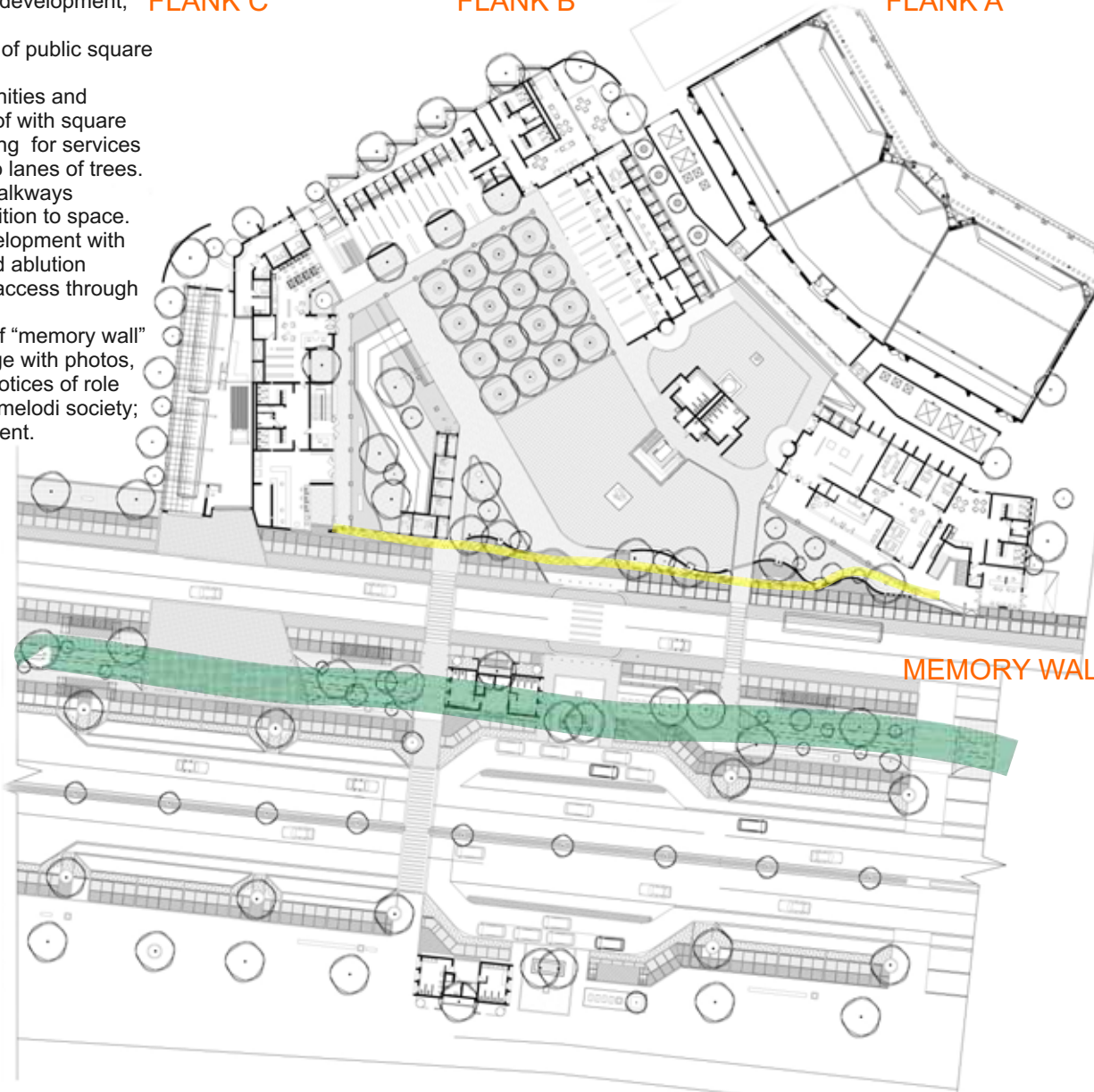
**DEVELOPMENT 18 OF 20**

Plan and site development, **FLANK C**

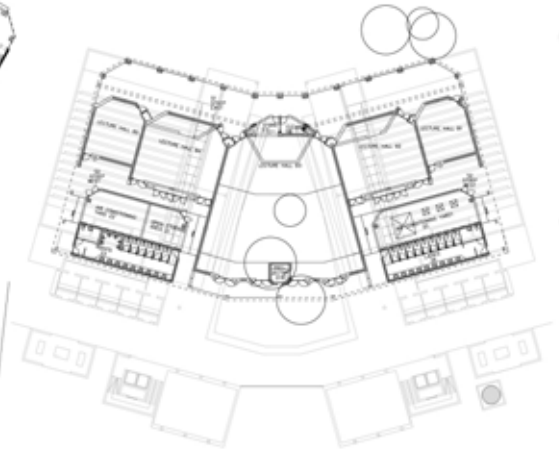
- Development of public square design.
- Defining amenities and planning thereof with square layout: Queuing for services extending into lanes of trees.
- Introducing walkways
- creating definition to space.
- Planning development with more resolved ablution facilities and access through building.
- Introduction of "memory wall" along site edge with photos, images and notices of role players in Mamelodi society; past and present.

**FLANK B**

**FLANK A**



- Memory wall creating a permeable edge for extension of green space onto the square but also defining edges with the centre of nucleuses. The wall acts as cultural emblem to the people and a peri rural / urban township.
- Introduction of additional programs and dedicated hawking area under ramp.
- The development of light and air shafts in flank A and B. Creating central void space allow air and light to travel.

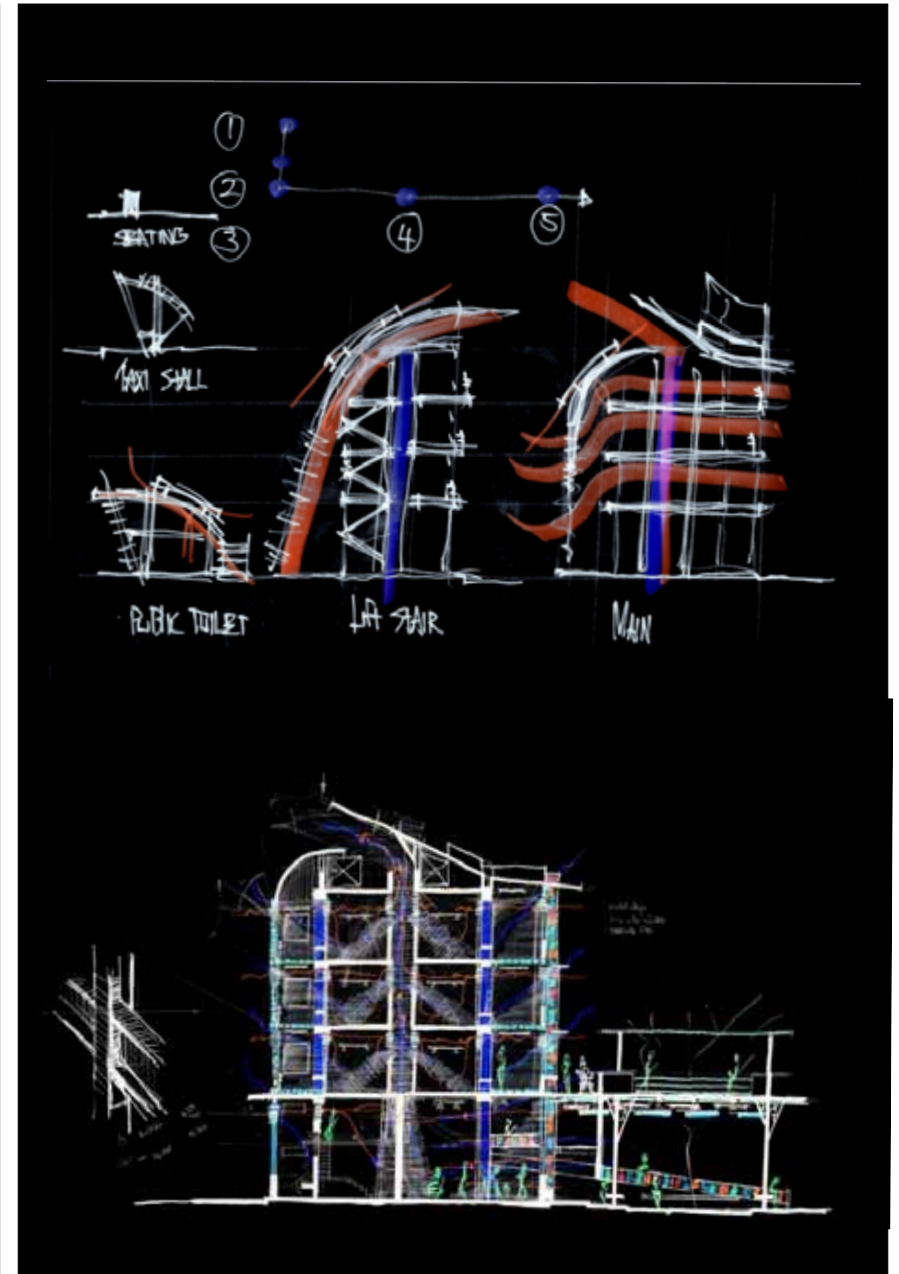
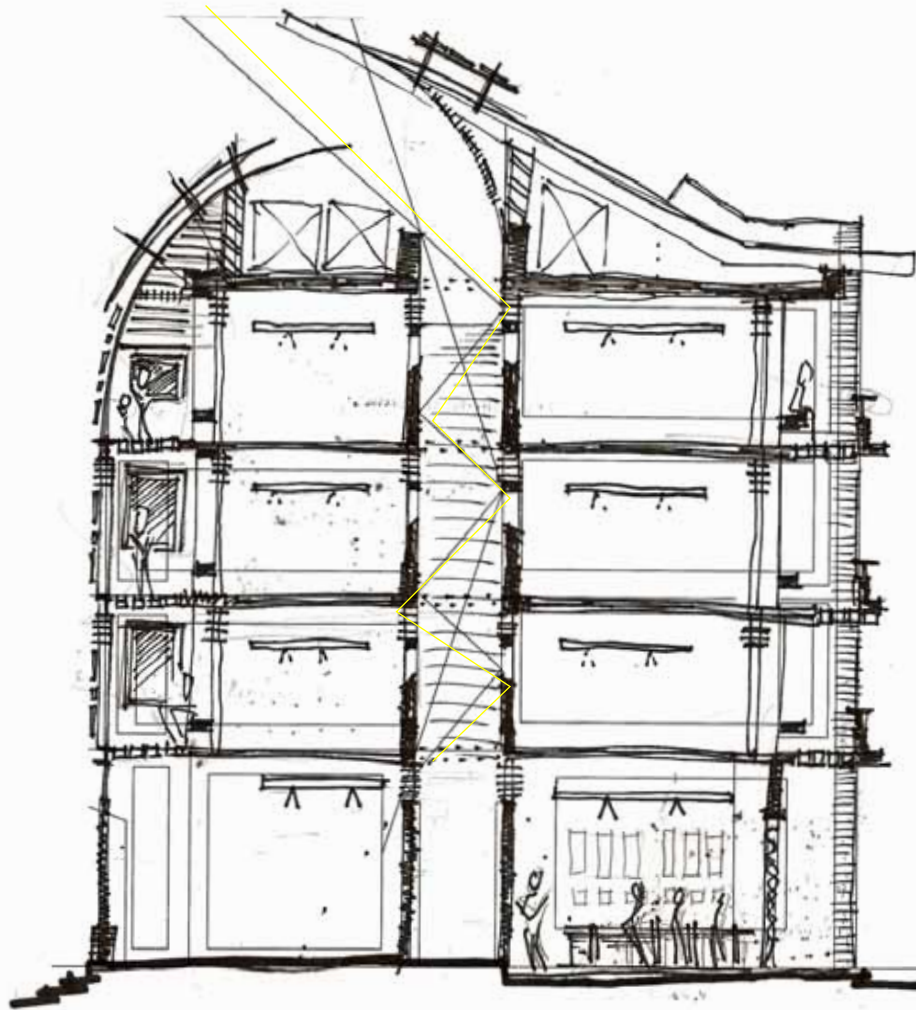


**However:**

- Central service core between flank A & B still problematic, in dividing space and hierarchy order of development.
- External ramp system flank C is questionable with regards to dividing space and obstructing views and legibility.
- Layout of program in planning much more rationalized and functional.
- The air shafts in flank A & B raises major concern to economic use of space, as two passages, and air shaft reduce functional space to a minimum.
- Serious attention was required in resolution of a passive ventilated natural lit building

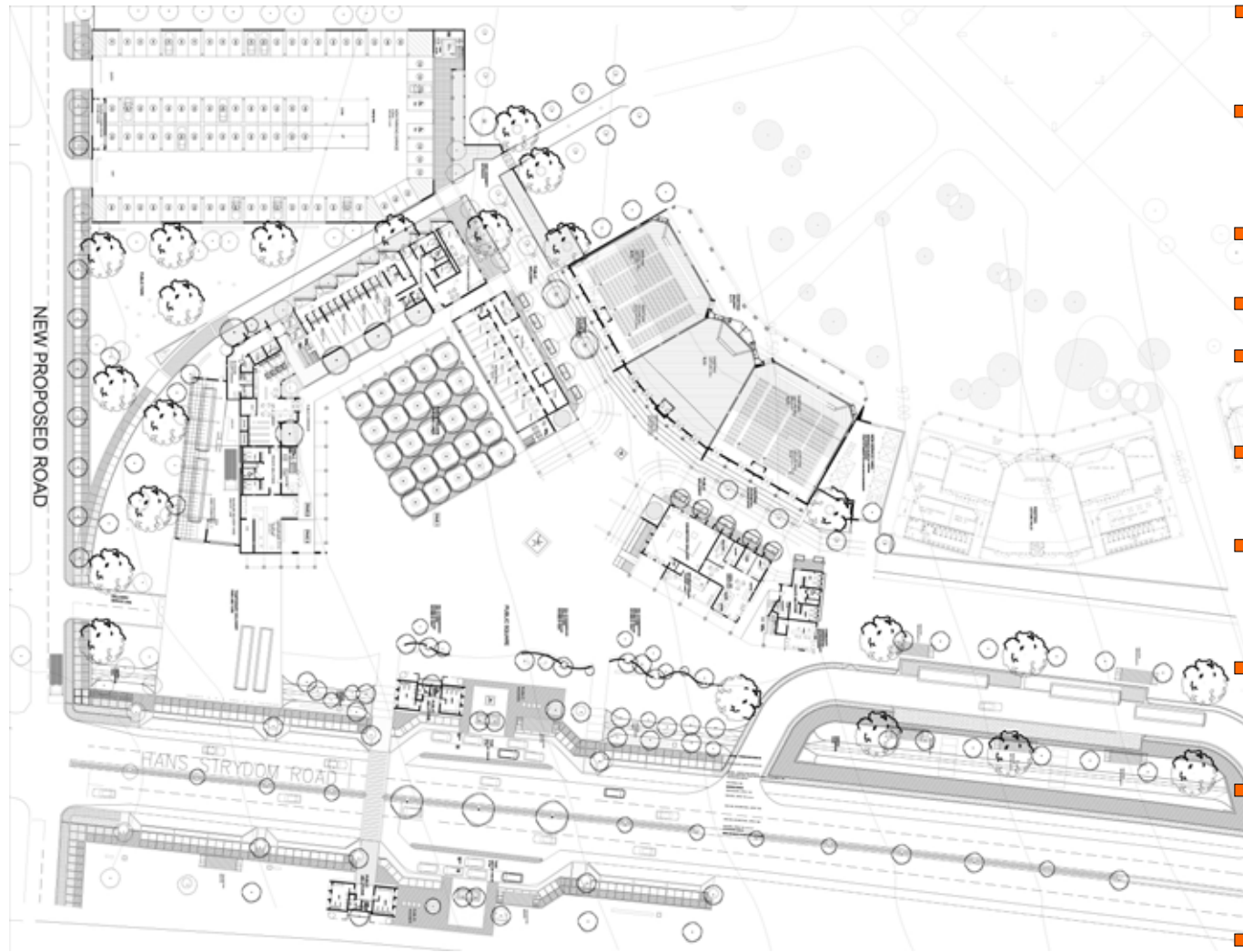


Figure. 93 a,b,c  
Design section:  
Exploration of tectonic  
context, structure,  
passive ventilation and  
corridor legibility



### 6.3.14

Figure. 94  
Plan: site and program  
Development 19 of 20



### DEVELOPMENT 19 OF 20 Plan and site development,

- Removing the central service core, opening up the square, thus adding and giving definition to each flank.
- Programming flank A for community function only, hence creating hierarchy of space and program, and creating set urban rooms within the square.
- Removing the service road. It was serving as separator of the space appose to linking areas, but allowing the delivery area to spill onto the square making it a more functionable square space.
- Opening up vistas across the site thus creating destination on pathways with visual links through buildings and public spaces.
- Removing the service yards and creating a large single serving yard.
- By opening the "transitions space and creating a dedicated public space, for all user. In doing this it created a area for interaction between students, public and service providers.
- Apply the principle intention of being a engagement facility, not only in service and function but in space and people. Bringing people together.
- Extending the passage out into square and creating an inside- outside space. Intentionally blurring the built form space and the public walk space, but clearly defined by slab openings the private zone space.
- On the urban proposal a parking garage was proposed, but not designed, it was felt that the garage needs to be integrated with the design, as it host various users from within this building.
- New design of the three level parking garage serving University , public and students, linked by walkways into the facility and elevator down to new University entrance.

#### However:

- Public square still to be completed
- Proposed link to new University Administration entrance indicated and resolved.

Figure. 95  
Design section:  
Exploration of tectonic  
context, structure,  
passive ventilation and  
light wells specifically for  
flank C.

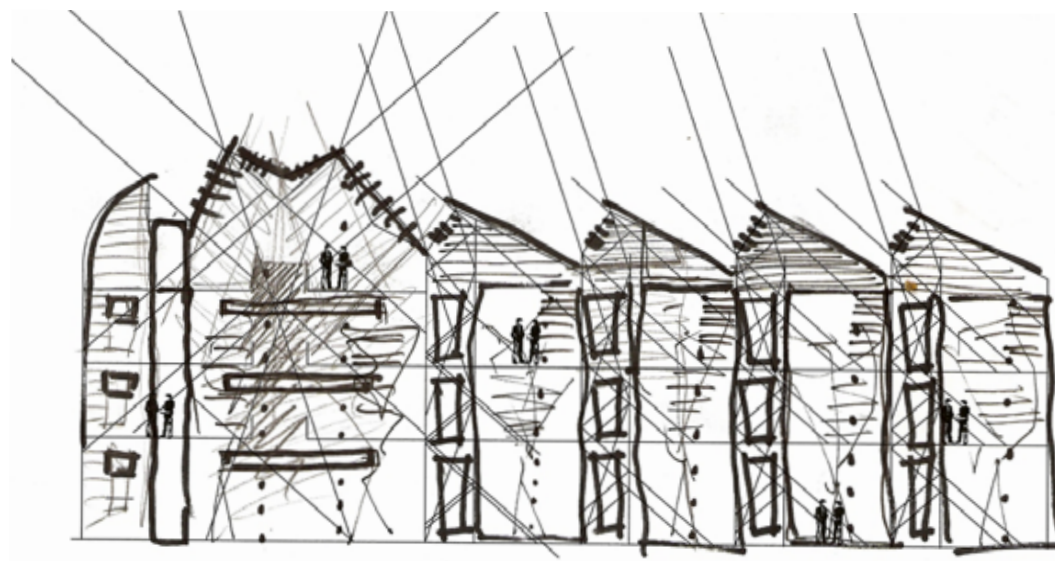


Figure. 96  
Design section:  
Exploration of tectonic  
morphing in context,  
across site

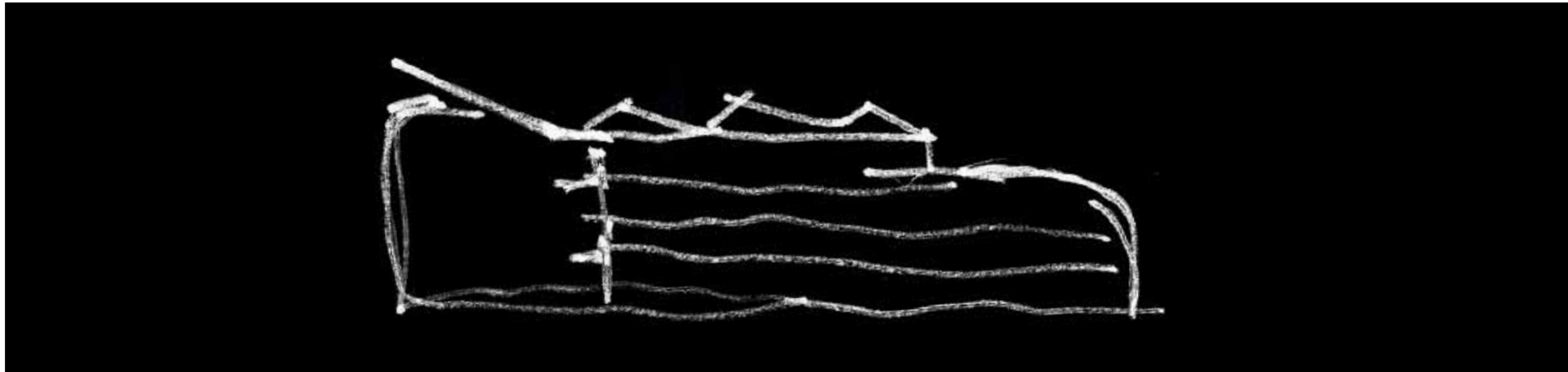
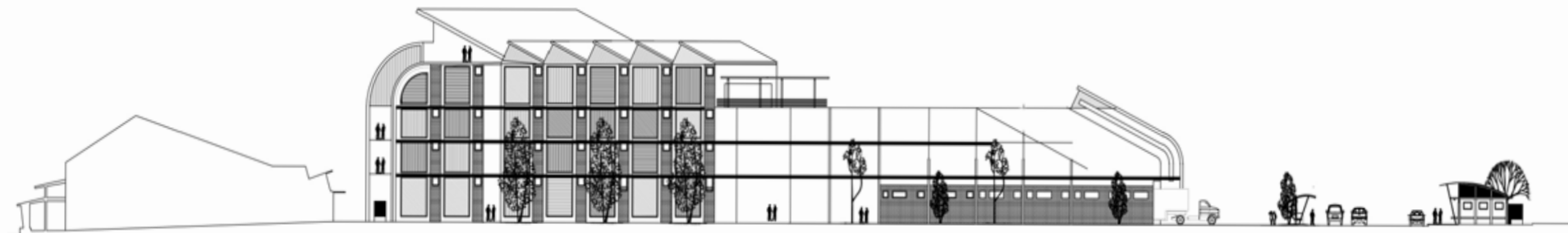


Figure. 97  
Design site elevation:  
Exploration of tectonic  
morphing, material,  
roofing and scale.





## 6.4\_

### 6.4.1

## SOCIAL DERIVATIVE SPACE PROGRAMMING

Planning and the programming there-off was derived from the user point of view. The lowest level being the most access and used, and the more developed services can be found on higher levels. See figure 99

The focal zone of the program will be the civic functions during the day, while at night it will be the community functions. The space around the buildings are programmed to allow public to meander through the site and create its own community of user. The presence of hawkers from the taxi drop and pick -up, to the university entrances was taken in account and is required, as they sustain the people: selling for income, and allow cheap food to the users queuing or meeting.

No restaurant are proposed, as across the Hans Strydom roadway existing food stalls are currently serving people see chapter 5 social space analysis\_ figure 43a, the principle methodology is to add to the community and not take away. Allowing the users to make use of the food stalls and hawkers has a communal benefit.

The programming methodology is intended for an open free access building with constant visual connections to other areas of site, facility and context.

Building zones: The building security access works on the basis of a 2 key system. As there is shared amenities for the people working in the facility, they share a key to their office and to the communal area.

The stairs and lifts are free access to all, excluding the stairs in the HP- i centre and the service lift.

There has been allowance made for in-house/back-of house activities with own delivery yard, service lift, ablution facilities, offices and storage compartment for deliveries.

It is proposed that maintenance, managing company will run the facility, both maintaining it as well as facilitating all organisation.

User arrival points have been carefully looked at, as there are multiple points of arrival to site, with even more possible venues to visit.

Primary source of arrival: Taxi, walking and bicycle, with the employees commuting by vehicle. A parking garage has been proposed for the University and the employees of the facility, leading out from each floor of the building excluding the 2nd floor.

### 6.4.2

Basic layout: \_figure. 98

Public square

Flank A\_ Community facilities

Flank B\_ University of Pretoria, Government and public

Flank C\_ Public, community and Facility.

Taxi drop-pick & go

Public service and ablution

Parking garage

Urban proposal of new University of Pretoria administration building

#### SCHEDULE OF AREAS:

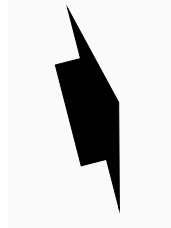
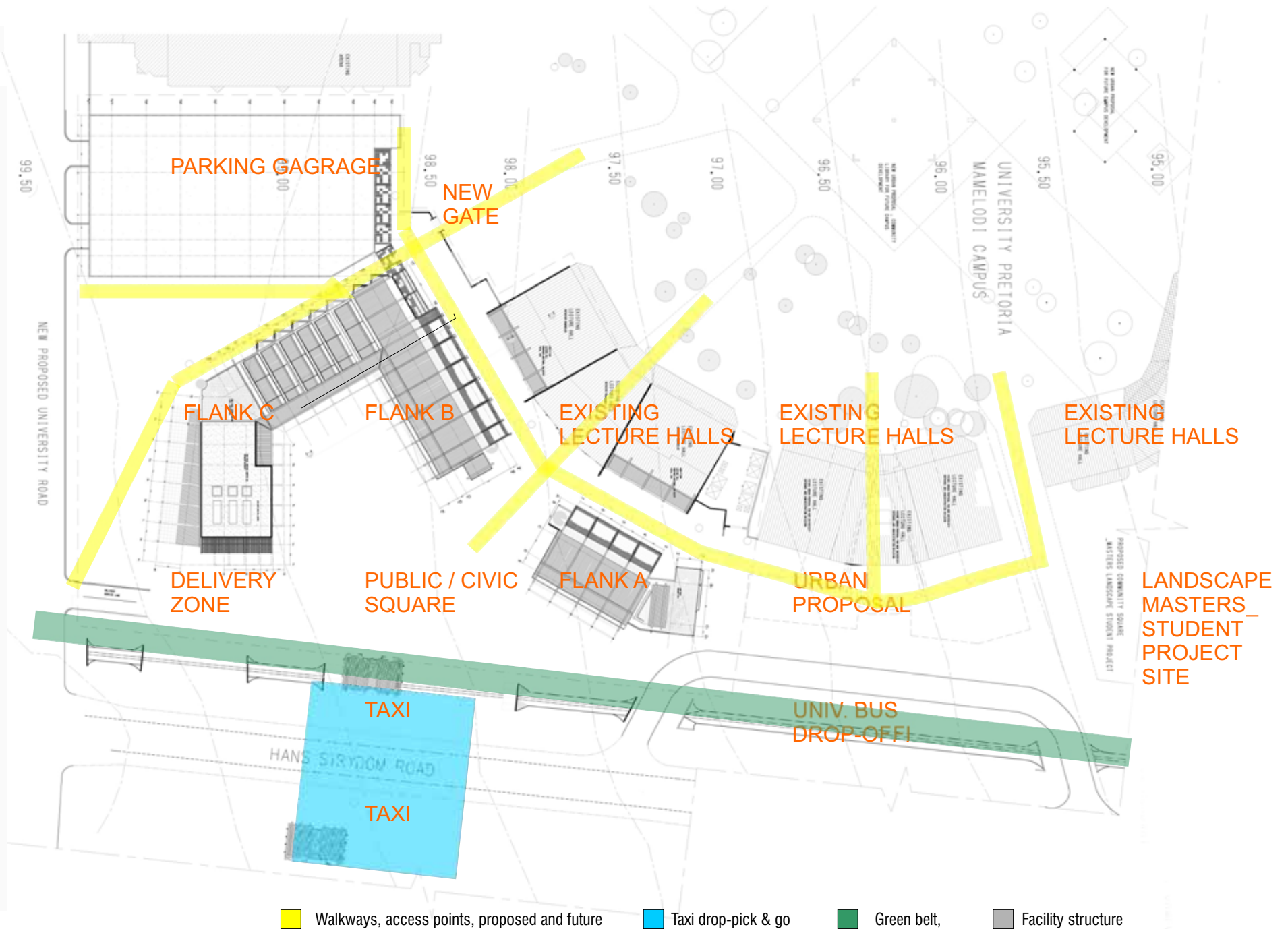
TOTAL HABITABLE FLOOR AREA_ Gfl	2084.00 msq
PARKING GARAGE AREA_ Gfl	2475.00 msq
ADDITION TO EXISTING_ Gfl	178.00 msq
TOTAL HABITABLE FLOOR AREA_ 1st fl	2333.00 msq
PARKING GARAGE AREA_ 1st fl	2681.00 msq
TOTAL HABITABLE FLOOR AREA_ 2nd fl	2111.00 msq
PARKING GARAGE AREA_ 2nd fl	2681.00 msq
TOTAL HABITABLE FLOOR AREA_ 3rd fl	1643.00 msq
TOTAL FLOOR AREA	8171.00 msq
TOTAL FLOOR AREA garage	7837.00 msq

UNIVERSITY SITE AREA	2001960.00 msq
PROJECT SITE AREA	154866.00 msq
PROJECT urban SITE AREA	201277.00 msq

ALLOWED FLOOR AREA RATIO	NA
PROPOSED FLOOR AREA RATIO	NA

ALLOWED COVERAGE	70 %
PROPOSED COVERAGE	10 %

Figure 98  
 Site roof plan, indicating  
 Layout and principle  
 function



6.4.3.  
6.4.3.1

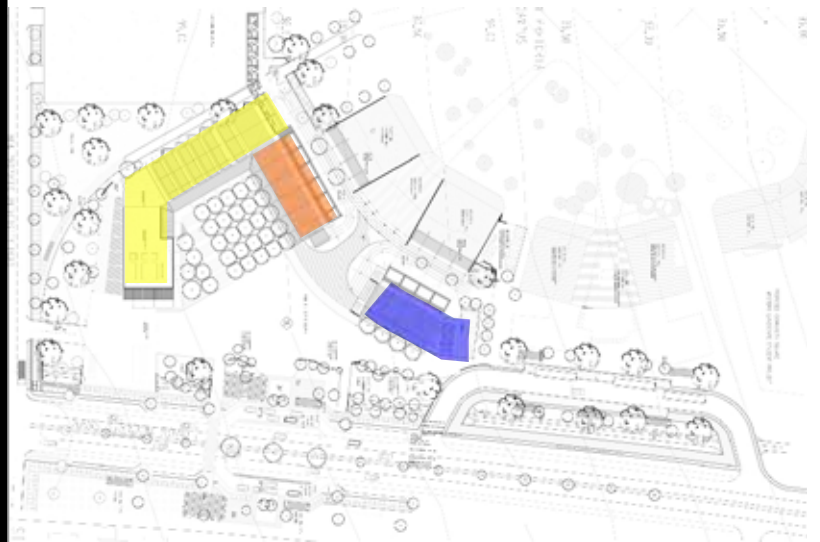
Figure 99  
General Program sheet  
Levels vs facility type

		FLOOR LEVEL			
		GROUND	FIRST	SECOND	THIRD
FACILITY TYPE	COMMUNITY	<p>information&amp; tourism office Exhibition gallery Legal aid office Community administration office Access card kitchenette and ablutions HPi-centre foyer Postnet retail outlet</p>	<p>Community meeting rooms Community Sector 1 , 2 , 3 &amp; 4 offices Community ward counselor office HP computer i-centre_ HP_ ablutions Access card kitchenette and ablutions</p>	<p>EBIT class rooms Teachers office Access card kitchenette and ablutions</p>	<p>Community business facilities, hot desking venture Break-out roof space</p>
	TERTIARY	<p>UP_ e-library Access card kitchenette and ablutions</p>			<p>University of Pretoria community engagement faculty offices Access card kitchenette and ablutions University of Pretoria Department of social work and criminology research laboratory University of Pretoria Department of sociology, community service and social transformation research laboratories</p>
	CIVIC	<p>Municipal pay points Home affairs booths Access card kitchenette and ablutions</p>	<p>Mamelodi East Municipal offices Home affairs satellite offices Access card kitchenette and ablutions</p>	<p>NGO offices Government department, Social development satellite office Government department, Public service and administrations Government department, Labour Access card kitchenette and ablutions</p>	
	FACILITY_IN-HOUSE	<p>Access card kitchenette and ablutions Delivery yard and temporary storage Delivery offices Public stairs Service lift, public lift and stairs Ablutions:_mens, ladies &amp; disable</p>	<p>In-house reception In-house managerial offices In-house printing facility In-house storage facilities In-house ablutions &amp; common room Public stairs Service lift, public lift and stairs Ablutions_mens, ladies &amp; disable</p>	<p>Public stairs Service lift, public lift and stairs Ablutions_mens, ladies &amp; disable</p>	<p><b>4th floor_ roof space</b> Conference venue Break-out terrace small roof space Break-out terrace large roof functions space Public stairs Service lift, public lift and stairs Ablutions_mens, ladies &amp; disable</p>

Figure 100 a,b,c  
Site, people context  
sketches



■ FLANK C    ■ FLANK B    ■ FLANK A



COMMUNITY ENGAGEMENT FACILITY ROOF PLAN\_ (C.E.F.)

6.4.3.1

Figure .101a  
Detail Program sheet per  
floor. Flank A

FLANK A

ROOM TYP

	GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	FOURTH FLOOR_ROOF
	<p>Exhibition gallery Gallery store room Information &amp; tourism office</p> <p>Legal aid reception Legal aid waiting lounge 2x Legal aid offices 2x Legal aid enquiry booths File room Meeting room</p> <p><b>Ablution:</b> 3x male toilets 1x male urinal trough 1x 3 faucet basin trough 3x female toilets 1x 3 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: 1x kitchenette</p> <p>Community facilities administration office, Adult education enrolment X2 booths Store room</p> <p><b>New entrance to existing Lecture hall</b> X4, re-use fire door entrance / exit</p> <p>public stairs</p>	<p>X2 Community meeting rooms: Room 1 _ 148 seats Room 2_ 145 seats</p> <p>Ward counselor office: 2x offices</p> <p><b>Community sector 1,2,3 &amp; 4 shared office:</b> 4x office</p> <p>public stairs</p>	<p>5x Adult education classrooms: Room 1 _ 23 seats Room 2_ 23 seats Room 3_ 30 seats Room 4_ 12 seats Room 5_16 seats</p> <p>Teaching staff communal office: 2x offices</p> <p><b>Ablution:</b> 3x male toilets 1x male urinal trough 1x 3 faucet basin trough 3x female toilets 1x 3 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>1x kitchenette</p> <p>public stairs</p>	<p>Hot desk business facilities: Reception Store room Printer room 6x single offices 4x double offices 2x triple offices</p> <p>Roof space break-out social area.</p> <p><b>public stairs</b></p>	<p>Conference room: Foyer Bar area Lounge area Multifunction room Sound room</p> <p>public stairs</p>

6.4.3.2

Figure. 101b  
Detail Program sheet per  
floor. Flank B

FLANK B

ROOM TYPE

	GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR	FOURTH FLOOR_ROOF
	<p>Municipal pay point: 1x Safe room 1x Store room Work counters_ 5 seats Manager office Security access foyer 6x paypoint booths 1x Applications booth 1x Enquiry booth</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs</p>	<p>Municipal offices: Reception Printing room 1x digital and plan file store 1x public counselor booth 2x service enquiries booths 4x building plan submission booths Building plan scrutiny officer office_ 3 x booths Public development officer office_ 2 x booths Traffic and road works officer office_ 2 x booths Public water officer office_ 2 x booths</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs</p>	<p>NGO. Offices: Reception General store room 6x NGO offices:</p> <p>Office 1: Project literacy Office 2: Community development resource association Office 3: The Mvula trust Office 4: POWA. Office 5: Urban service group Office 6: Ditsela</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs</p>	<p>Community engagement faculty offices Faculty reception 1x Store room 1x Head of faculty office 3x shared faculty offices: Office 1: x2 booths Office 2: x2 booths Office 3: x 3 booths Faculty &amp; SRC school outreach support centre: X3 booths UP. CE. faculty research department X4 stations/booths</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs</p>	<p>Conference room: Foyer Bar area Lounge area Multifunction room Sound room</p> <p>Public stairs</p>



6.4.3.3

Figure. 101c  
Detail Program sheet per  
floor. Flank C

GROUND FLOOR

FIRST FLOOR

FLANK C

ROOM TYPE

<p>Home affairs public service counters: Safe room 1x Cashier booth 1x finger print booth 1x enquiries booth 2x ID application booths 3x PP/Pt/RC/Imig. Application booths 3x DC/BC/MC/MA Application booths 2x Collection booths</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs, lift &amp; service lift</p> <p>University Pretoria E-Library: 1x Collection and return counter 13x computer stations Digital cd racks archive 1x store room 1x multiple printing counter.</p> <p>In-house facility delivery centre: 1x Wash-up counter 1x Delivery office 1x Municipal deliveries store 1x Government deliveries store</p>	<p>1x General delivery store 2x loading bays 1x double outreach bus laboratories park. 1x Security check desk.</p> <p>HP-I centre reception</p> <p>Private Ablutions: Share_ E-library, Hp i-centre &amp; Postnet 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Postnet retail outlet: 1x reception counter 3x computer stations 1x printing counter 1x photocopy centre 1x store room</p>		<p>Home affairs Government offices Satellite_ Mamelodi East Reception 2x Senior Manager offices 2x Manager offices 12x Administration booths 1x File store 1x Digital file store 1x Board room</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs, lift &amp; service lift</p> <p>In-house facility administration centre: Reception 1x Printing centre 1x Store room 1X Communication room 1x Manager office 1x Assistant office 6x General goods stores 2x Washrooms:</p>	<p>2x male toilets 1x male urinal 1x 2 faucet basin trough 2x Showers 2x female toilets 1x 2 faucet basin trough 2x Showers Common room 1x kitchenette Seated space</p> <p>HP-I centre : Foyer Information desk &amp; help desk X4 seats 7x Research computer terminals 1x Printing counter 1x Lounge 1x Computer Lan X22 seats</p> <p>Private Ablutions: Share_ E-library, Hp i-centre &amp; Postnet 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin</p>
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## SECOND FLOOR

<p>Government satellite office Social development department: Reception 2x Senior manager offices 2x Manager offices 1x Digital store 1x File store 12x Administration booths 2x Junior manager / enquiries offices</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Government satellite office Social development department: Reception 2x Senior manager offices 2x Manager offices 1x Digital store 1x File store 12x Administration booths 2x Junior manager / enquiries offices</p> <p>Public stairs, lift &amp; service lift</p> <p>Government satellite office Department of labour: Reception 1x Senior manager</p>	<p>2x Manager offices 3x Junior managers 1x Store room 1x Digital store room 12x Administration booths</p> <p>HP-I centre reception Administration offices: 3x Assistant lecturers offices 1x Manager office 1x Senior lecturer office 1x Computer Lan 22 seats</p>		<p>University of Pretoria social research centre; Various faculties.</p> <p>Department of social work and criminology research lab1. Department of sociology: Community service and social transformation research lab2.</p> <p>Research Reception 2x Senior lecturer offices 2x Research offices 2x Research laboratories 6x stations, 2x meeting spaces 1x Shared digital and file store</p> <p>Ablution: Share flank B &amp; C 2x male toilets 1x male urinal trough 1x 2 faucet basin trough 2x female toilets 1x 2 faucet basin trough 1x dressing and baby counter 1x disable toilet 1x disable basin 1x store room</p> <p>Common room: Share flank B &amp; C 1x kitchenette Seated space</p> <p>Public stairs, lift &amp; service lift</p> <p>Outdoor rooftop function venue</p>	
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## THIRD FLOOR



6.4.3.3

Figure 101d  
Detail Program sheet per  
facility. Miscellaneous  
facilities.

PARKING GARAGE, PUBLIC FACILITIES & LECTURE HALLS  
ROOM TYPE

PARKING GARAGE	UNIVERSITY GATES	PUBLIC TOILETS	SERVICE YARD	LECTURE HALLS
<p><b>GROUND FLOOR</b> 1X Guard and communication room 81 Bays Public stairs and service lift</p> <p><b>FIRST FLOOR</b> 72 Bays Public stairs and service lift</p> <p><b>SECOND FLOOR</b> 72 Bays Public stairs and service lift</p>	<p>1X New university entrance gate</p>	<p>Public ablutions x2:</p> <p>2x male toilets 3x male urinal trough 1x 4 faucet basin trough</p> <p>2x female toilets 1x 4 faucet basin trough 1x dressing and baby counter</p> <p>1x disable toilet 1x disable basin 1x store room 1x shower.</p> <p>1x caretaker office and store room</p>	<p>1x New service yard Hosting lecture hall 1,2 &amp; 3 as per existing, also hosting New Urban University entrance proposal as well as require electrical generators and transformers for new facility.</p>	<p>Lecture Hall 1: 1x Sound and electronic room 4x Reuse fire doors for new entrance doors New Seating: 164 new seats</p> <p>Lecture Hall 2: 4x Reuse fire doors for new entrance doors</p> <p>Lecture Hall 3: 1x Sound and electronic room 4x Reuse fire doors for new entrance doors New Seating: 164 new seats</p>





Figure. 102  
Busses , taxi , Mamelodi

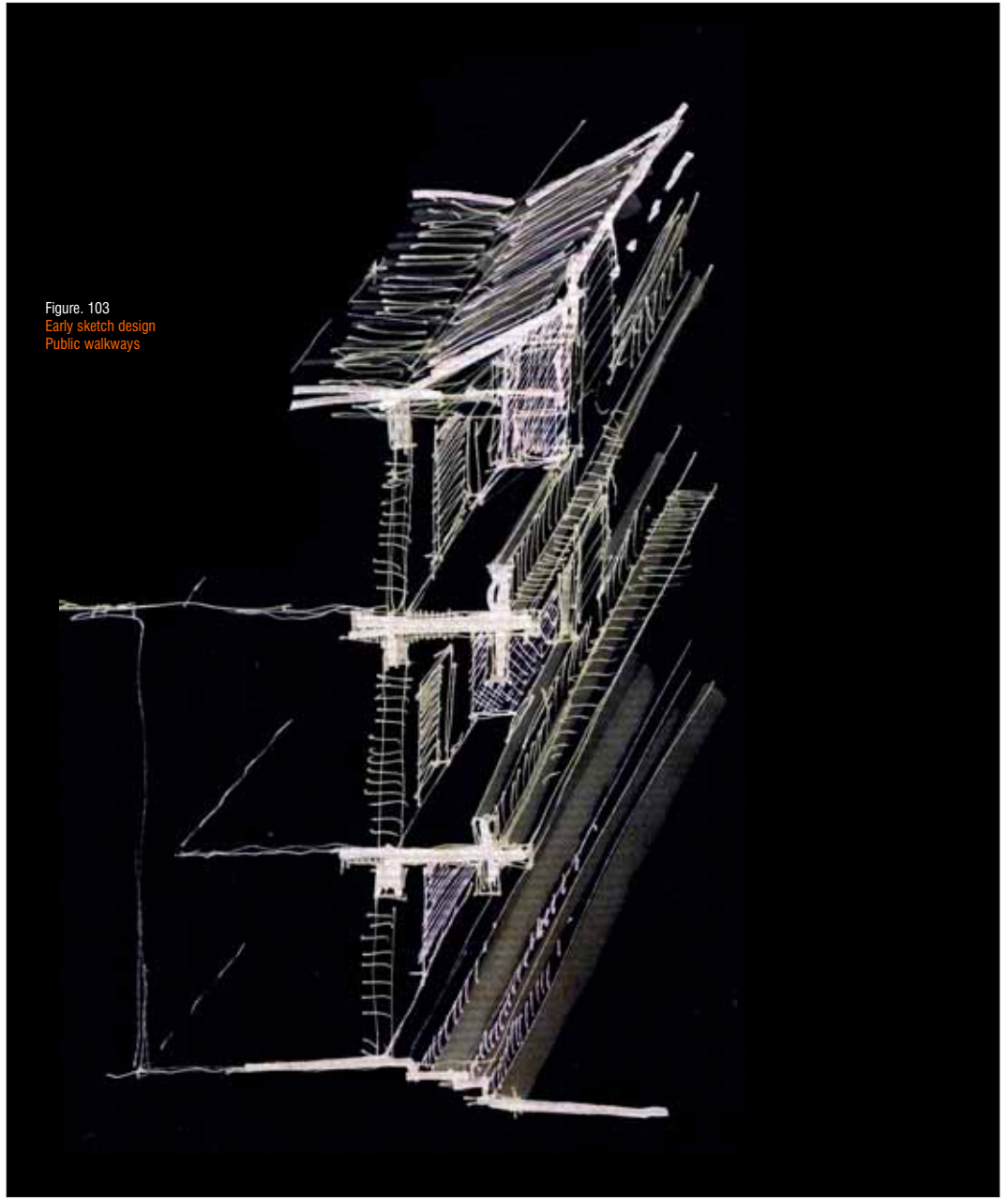
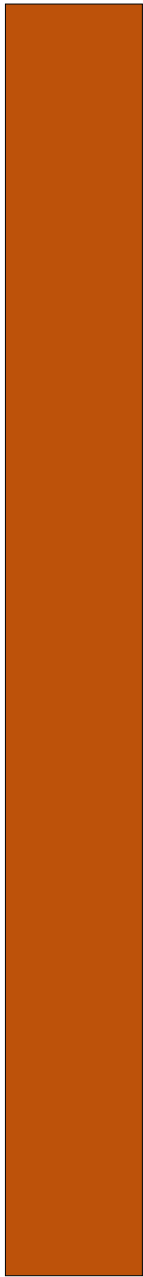


Figure. 103  
Early sketch design  
Public walkways

**Explaining the program by user experience diagrams and scenarios.**

See figures 105a - c for reference.

The following is a dialogue of possible experiences and engagements as a user visiting with purpose, working or merely passing by on the way to somewhere else other than the Community engagement facility.

**Defining the users:**

- \_The civic service user
- \_The community user
- \_The student
- \_The adult student
- \_The lecturer
- \_The Government official
- \_The hawker
- \_The tourist
- \_Service and delivery user.

**Defining the arrival:**

- \_By car
- \_By taxi
- \_By bus
- \_By tour bus
- \_By walking
- \_By cycling

**Ground floor** being the floor of interaction and experience, queeing for ID, passports Death certificates and paying your electrical bills etc, Booking a class at the adult education centre and receiving information on legal aid. Learning form the E-library and watching an exhibition by a local artist.

**First floor**, meeting for community meetings, and making an appointment to submit your building plans or complain about your leaking sewer line. Enquiring what is needed to become a citizen at the home affairs offices and learning Computer skill, obtaining you computer licence at the HP I-centre

**Second floor**, going to class being taught maths, english and literacy, finishing your matric. Meeting a non-government organizations to obtain a grant for your business venture, community sector, or school. Visiting the labour department and voice your opinion and request information for your working situation,

**Third floor**, meeting the community engagement faculty of Pretoria University, taking part in a research program for the faculty of social sciences.

**And** finally chairing a meeting or being a guest in the rooftop conference centre.

Figure 105a  
User experience diagram  
1. CIVIC SERVICE USER  
2. COMMUNITY USER

- LECTURE HALLS
- TERTIARY
- COMMUNITY FLANK
- CIVIC

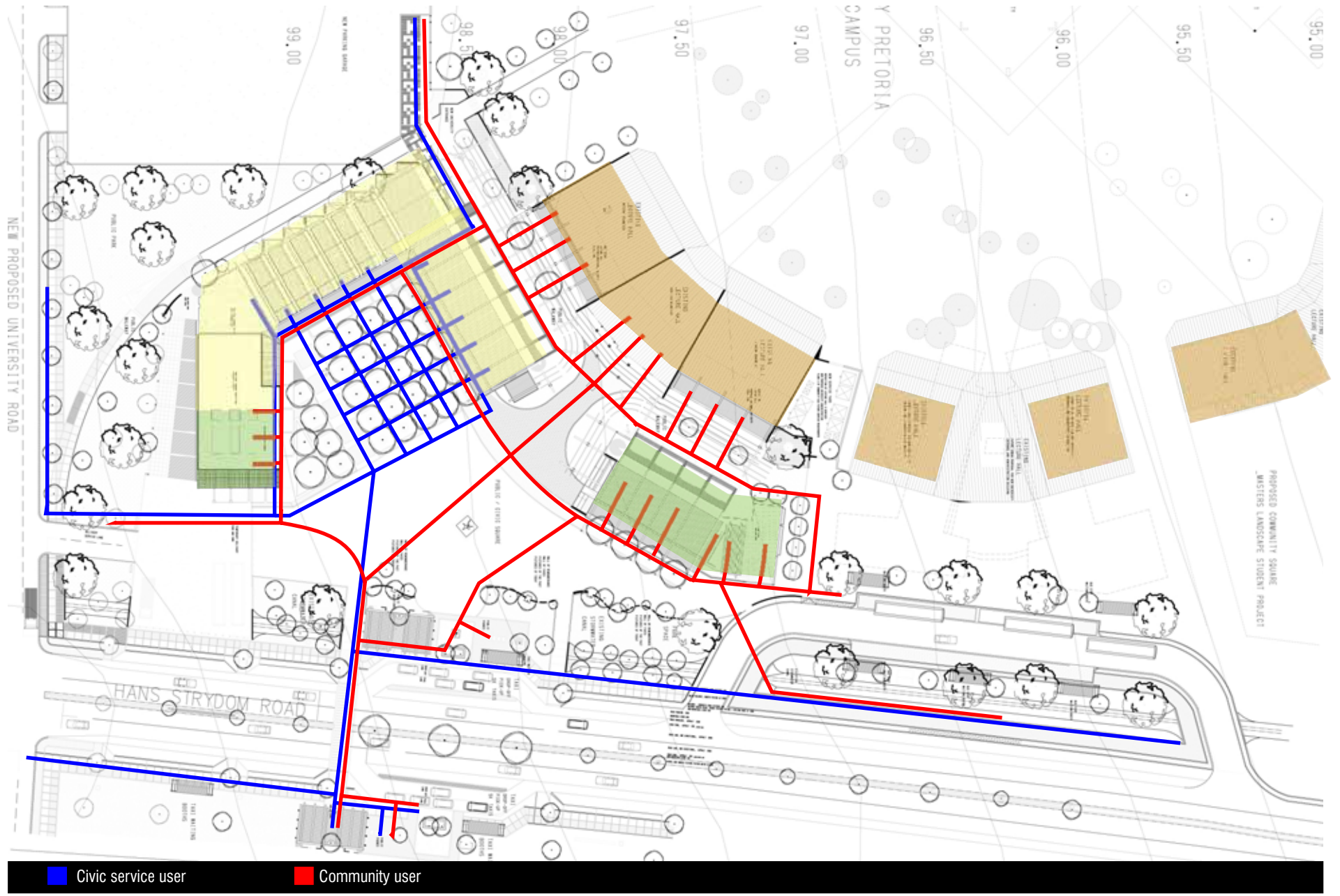
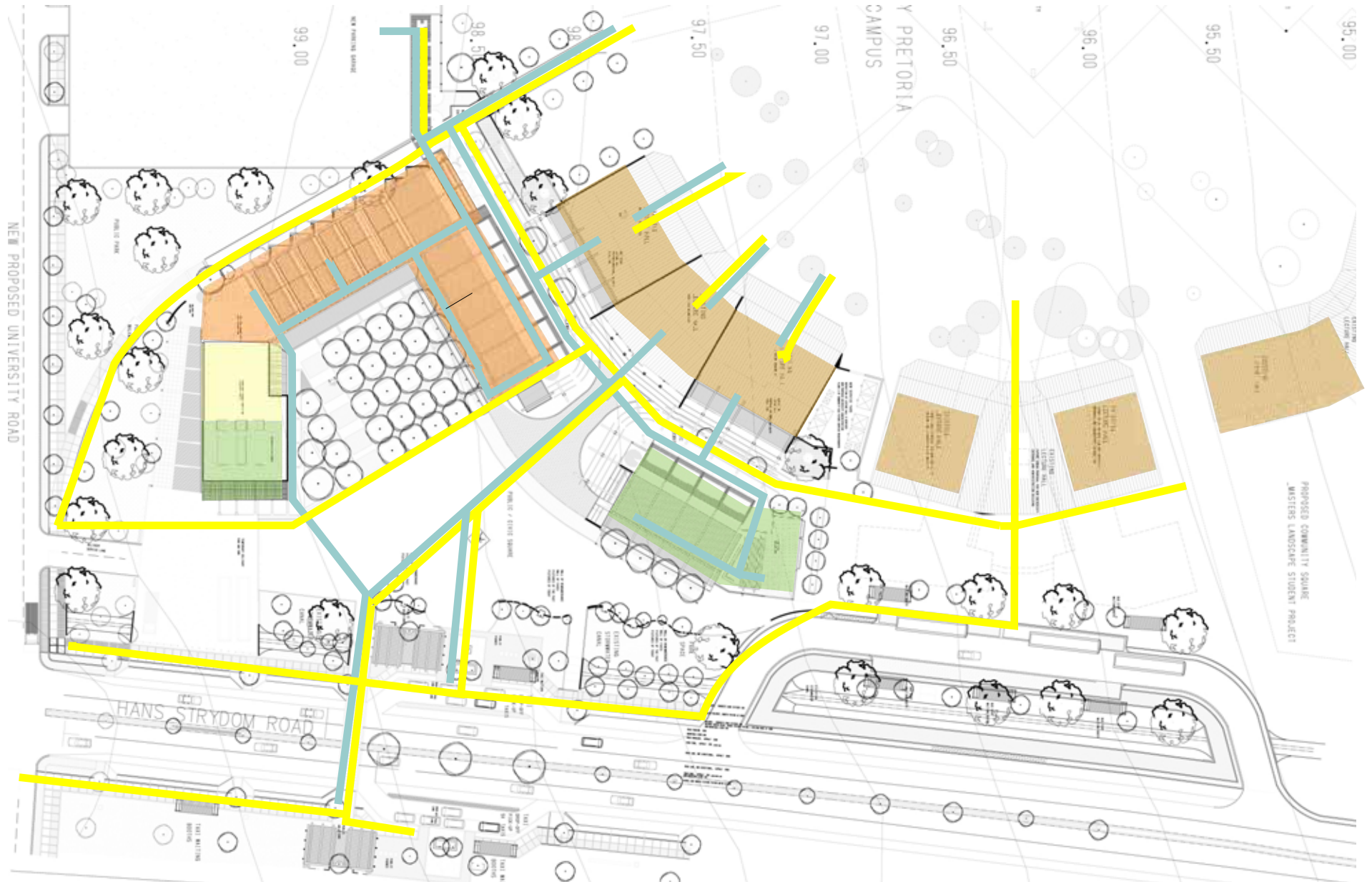


Figure 105b  
 User experience diagram  
 3. STUDENT USER  
 4. LECTURER USER

- LECTURE HALLS
- TERTIARY
- COMMUNITY FLANK
- CIVIC



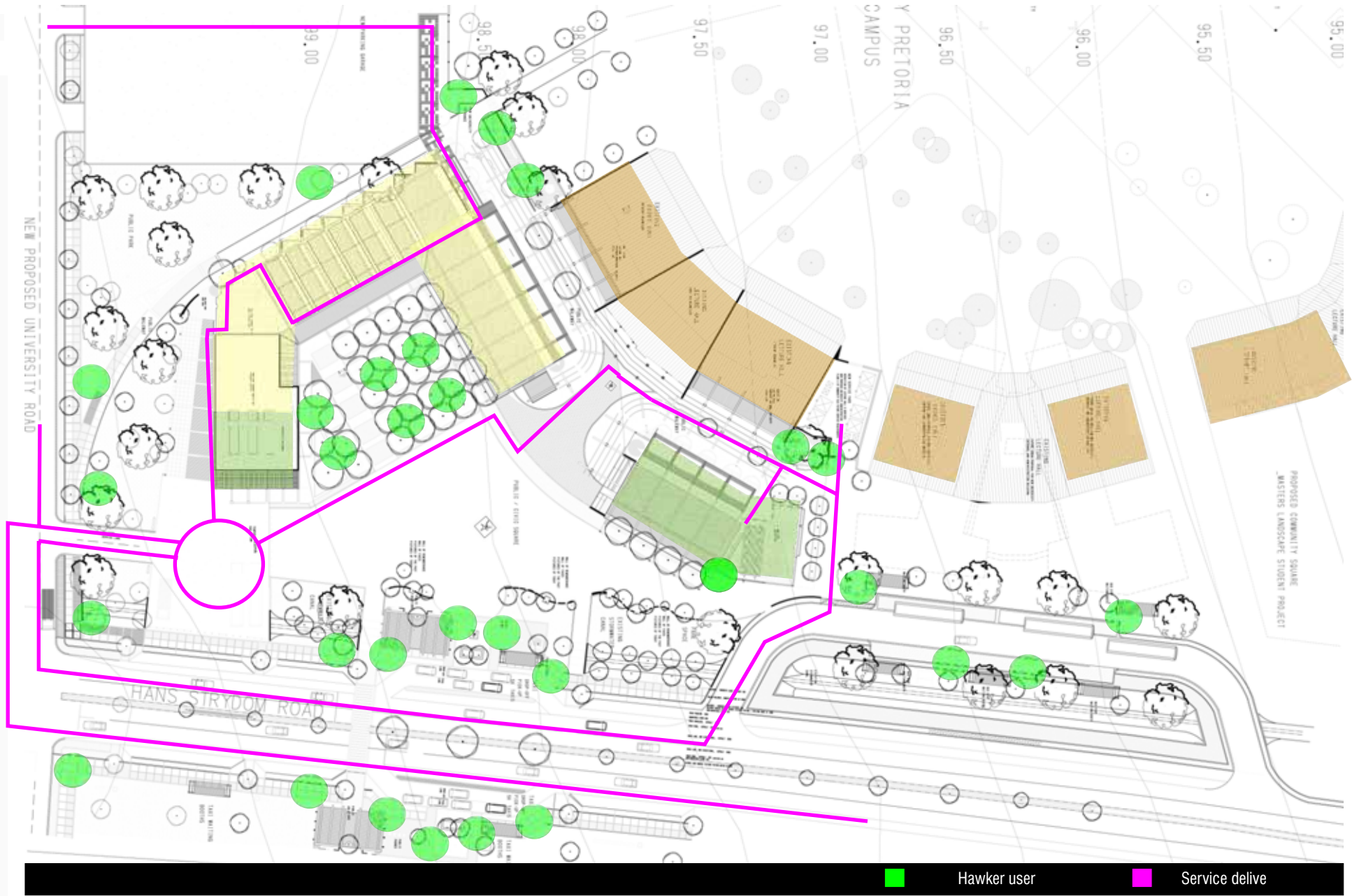
Student user

Lecturer user



Figure 105c  
 User experience diagram  
 5. HAWKER USER  
 6. SERVICE DELIVERY

- LECTURE HALLS
- TERTIARY
- COMMUNITY FLANK
- CIVIC



■ Hawker user      ■ Service delive

## 6.5

### PUBLIC ARCHITECTURE DESIGN PROCESS

#### 6.5.1

##### Introduction:

As noted in the early part of this chapter, the requirement of a taxi drop-pick & go was a necessity. With this service, other services are required.

As a commuter certain services are necessities. The introduction of two public ablution facility, one on either side of Hans Strydom road was a prerequisite. The additional requirement was public phone booths and waiting stalls.

However simplistic the design of these structures are, they simultaneously need to be hardy but elegant, they also need to be inviting but not a home. They need to be managed with surveillance.

Finally they need to read as part of the total design in typology, planning and materiality.

The design: sketches 106a - 110b

##### Ablutions:

The intent was to provide for male, female and disabled.

Utilising passive ventilation and water harvest, maximum long term efficient with low maintenance cost as any other public facility structure.

They require a storeroom that doubles as manager or cleaners room that provides surveillance over the facility.

They require baby changing facilities for mothers at ladies ablution, and outdoor seating for waiting commuters and hawkers.

A shower facility for the cleaner after work.

A typology of curved roof structure enhancing ventilation was employed and was a derivative of the main facility structure. Roof overhang covering for warm and rainy summer days.

##### Telephone booths: A2

Initial thoughts was to provide roof coverings, but after some discussion, this concept was not the most effective, because it provides unfortunate sleeping place for homeless people, and thus makes it an unsafe area for commuters waiting for taxis'.

The proposal was for the placement of concrete plinths, with the booths on top slightly elevated. The final textures and finishes of the concrete plinths are in pigmented concrete with artists design inlayed, similar to walls and floor slab of the ablution block. only allowing the tree coverage to act as covering. See figure 125a for texture examples

##### Waiting stalls: A3

Following the design typology of curved corrugated sheet roofs on lightweight steel structure assembled from standard members and concrete bolted into floor plinth with lightweight concrete beams placed for seating.

Back of curved structure to be a billboard for advertising.

Roof lifted of ground to allow through air movement, and to create a light weight image of structure.

Each waiting stall fitted with permanent bin holder.

Figure. 14.  
Community engagement  
facility site section,  
pedestrian  
Friendly proposal

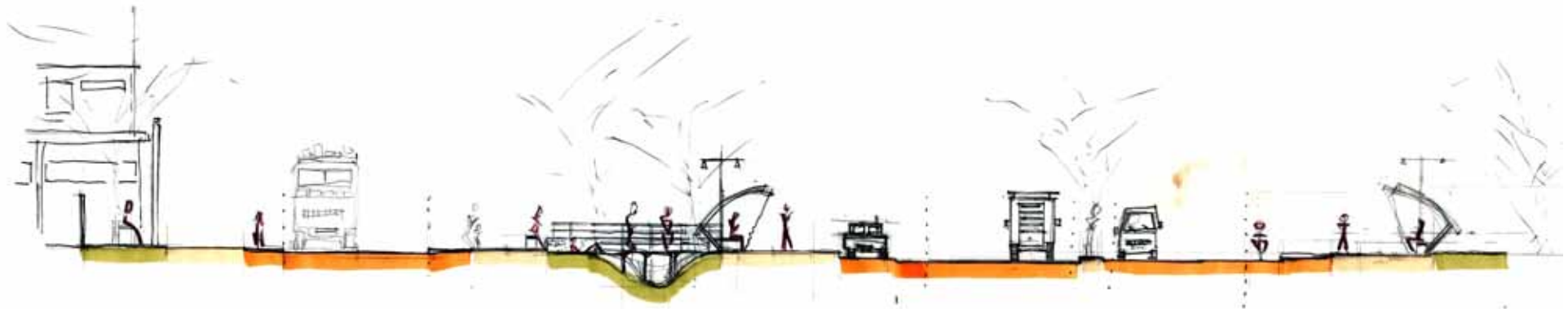
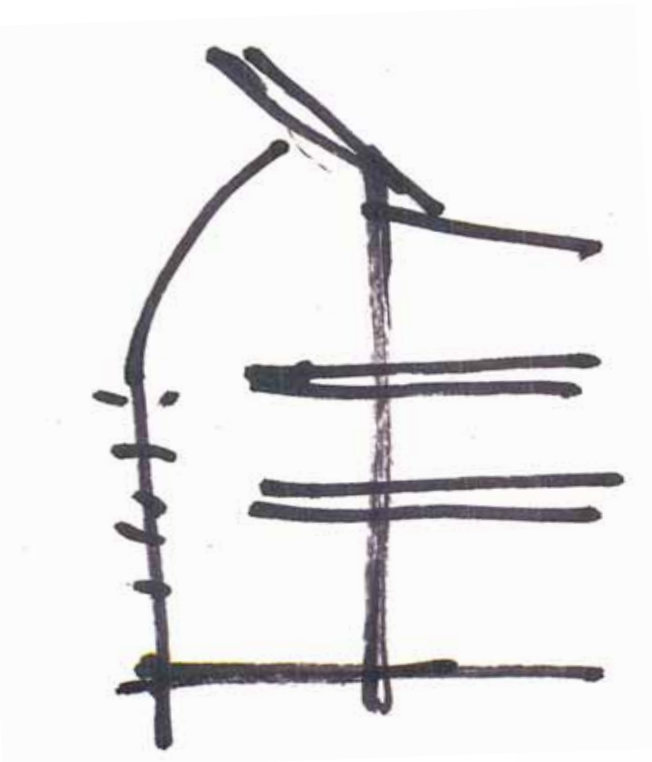


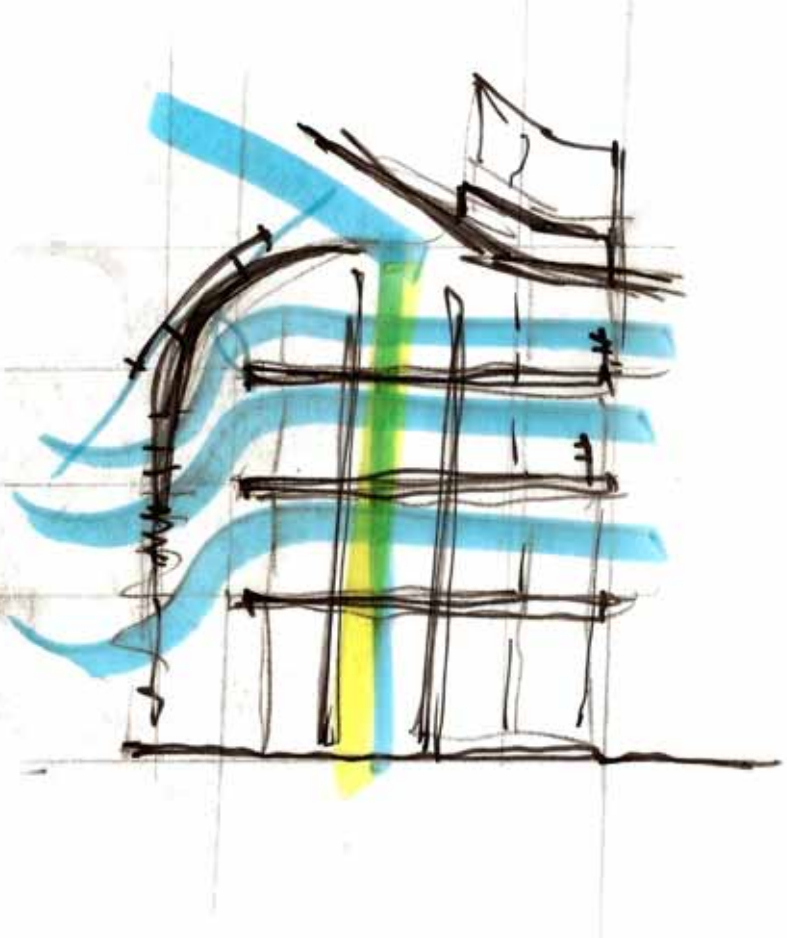
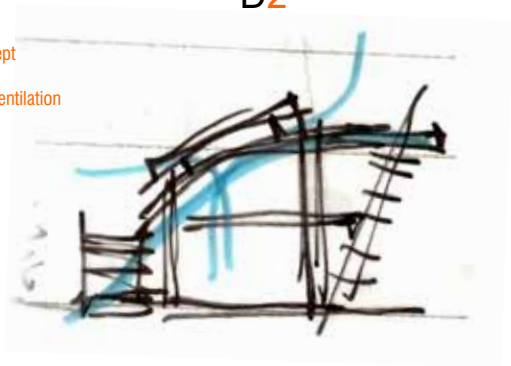
Figure. 106a  
Design concept  
development  
Typology

D1



D2

Figure. 106b  
Design concept  
development  
Typology & ventilation



D1-5

Figure. 107  
Design concept  
development  
Seating,  
Taxi stall,

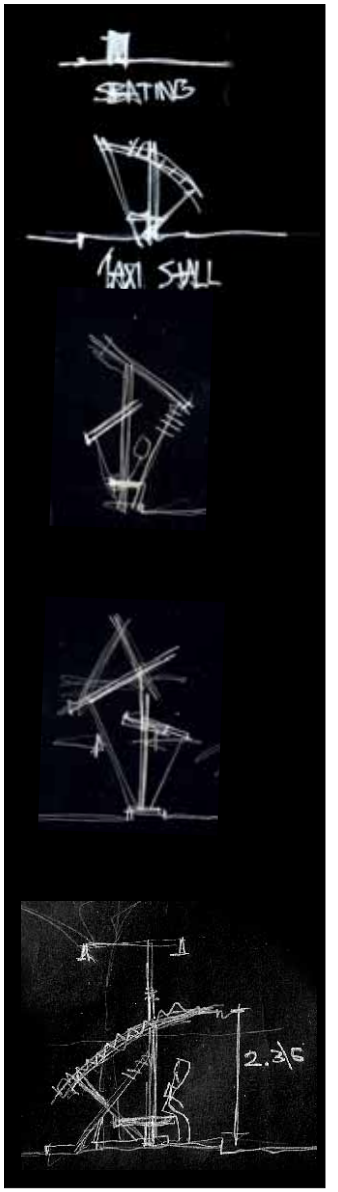




Figure. 108  
Design concept  
elevation  
Public ablutions



Sk.1

Sk.2

Sk.3

Figure. 109a,b,c  
Design concept  
development  
Public ablutions

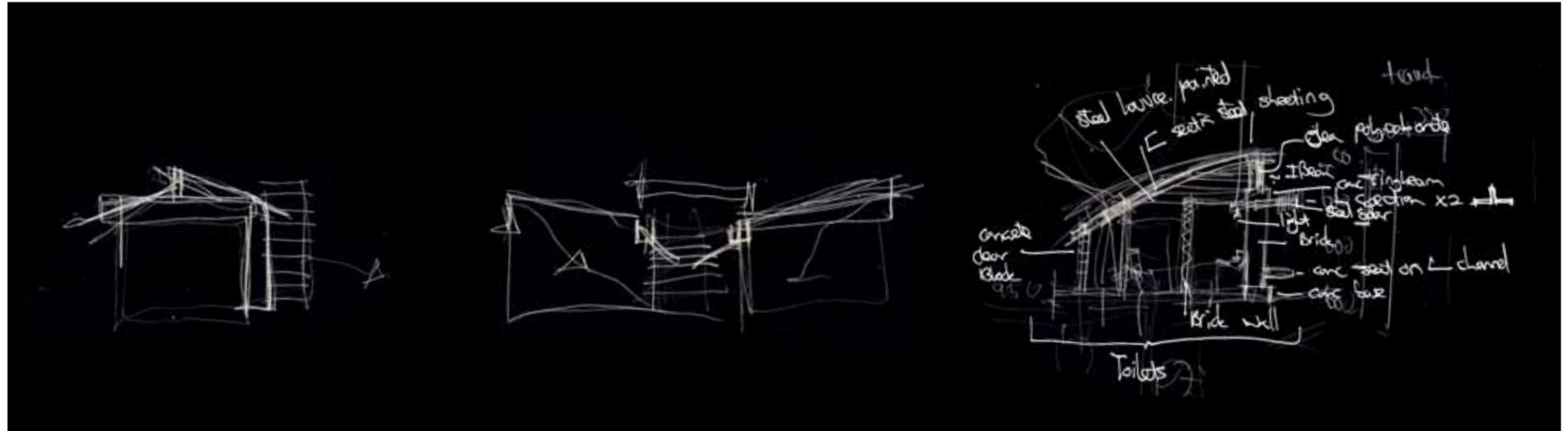


Figure. 110  
Design concept  
development  
Typology



Figure. 111a  
Design planning  
development

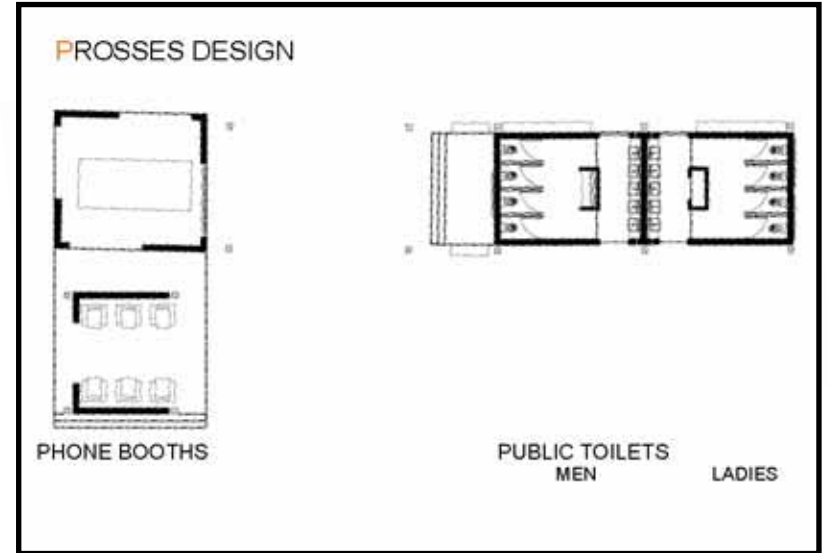


Figure. 111b  
Final planning  
development

