

GREEN SPACE

HENRY STREET  
-29.112837  
26.208455



SECOND AVENUE



KING

SPARK


## HOW WE MEET AND GREET [+ EAT]

ARCHITECTURE THAT REACTIVATES THE LATENT  
POTENTIAL OF GREEN SPACE IN THE CITY BY  
INTERVENING ON THE EDGE:

A BUILDING DESIGNED FOR MEANINGFUL ESCAPE  
AND CONNECTING WITH YOUR FELLOW MAN



BLOEMFONTEIN



**"WE WANT ARCHITECTURE THAT HAS MORE.  
ARCHITECTURE THAT BLEEDS, THAT  
EXHAUSTS, THAT WHIRLS  
AND EVEN BREAKS.**

**(...)**

**ARCHITECTURE HAS TO BE CAVERNOUS,  
FIERY, SMOOTH, HARD, ANGULAR, ROUND,  
DELICATE, COLOURFUL, OBSCENE, LUSTFUL,  
DREAMY, ATTRACTING, REPELLING**

**(...)**

**ALIVE OR DEAD.**

**IF COLD , THEN COLD AS A BLOCK OF ICE.**

**IF HOT, THEN HOT AS A BLAZING WING.**

**ARCHITECTURE MUST BLAZE."**

**- COOP HIMME(L)BLAU**



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The work contained in this thesis was submitted for proof-reading and /or editing by  
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This dissertation is submitted in partial fulfilment of the requirements for the degree  
MArchProf (Masters in Architecture).

2019



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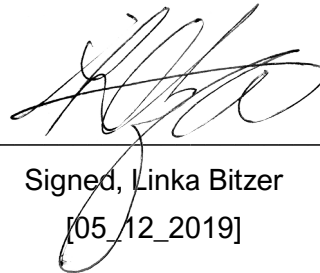
# DECLARATION

*[ of original authorship ]*

I know that plagiarism is wrong.

Plagiarism is the action of taking someone else's work and claiming it as your own.  
The work in this dissertation has not been previously submitted to meet the requirements  
for a qualification at this, or any other, institution of higher education.  
To the best of my knowledge, this dissertation contains no material previously published  
or written by any other person -  
except where due reference is made.

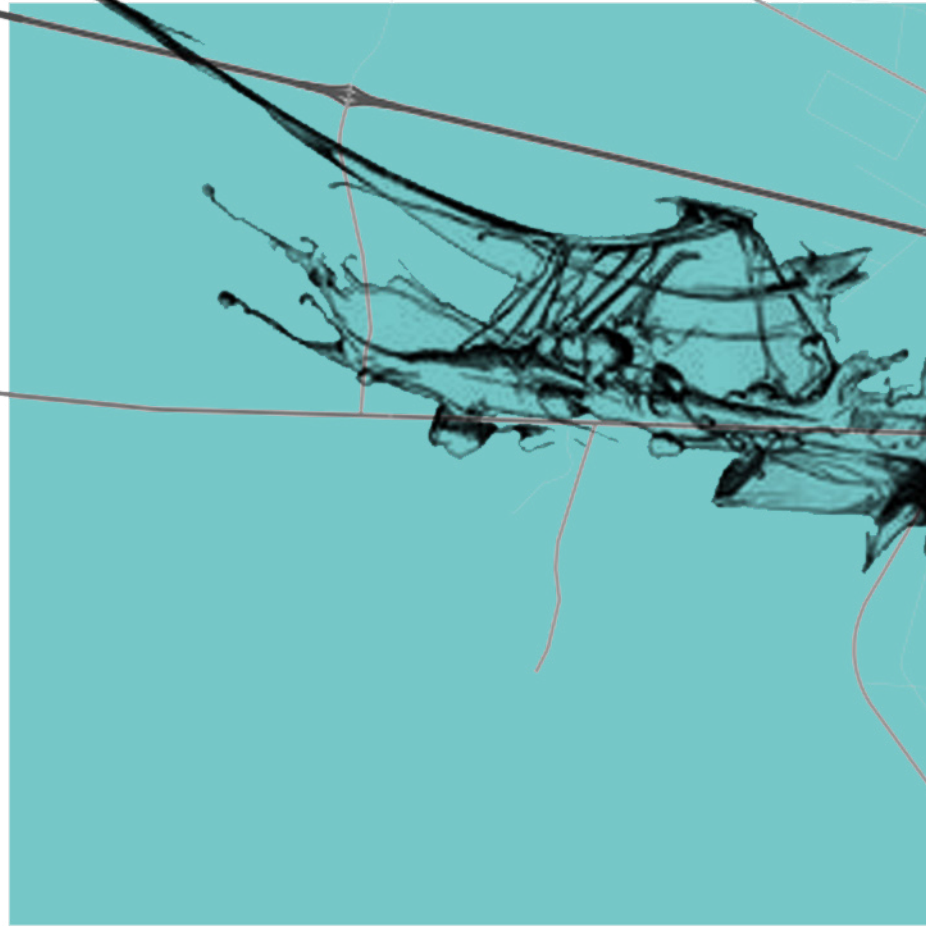
Unless stated or referenced as otherwise, all sketches and collages in this dissertation  
were drawn / assembled by the author.



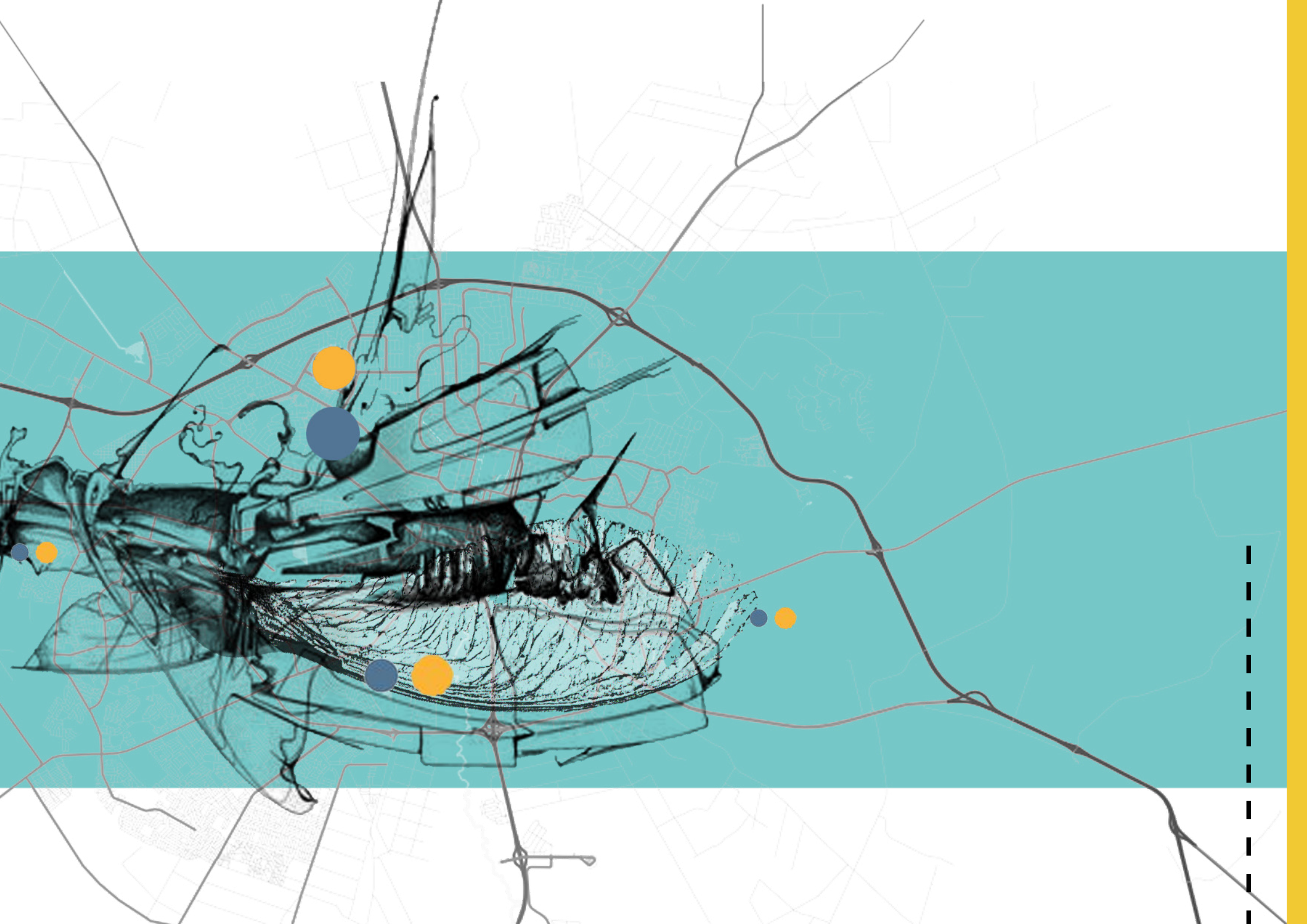
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Signed, Linka Bitzer

[05\_12\_2019]



dedicated to all members of the urban machine



Utilizing architecture as a porous threshold in order to reactivate the urban green-space of Kings Park

## TITLE

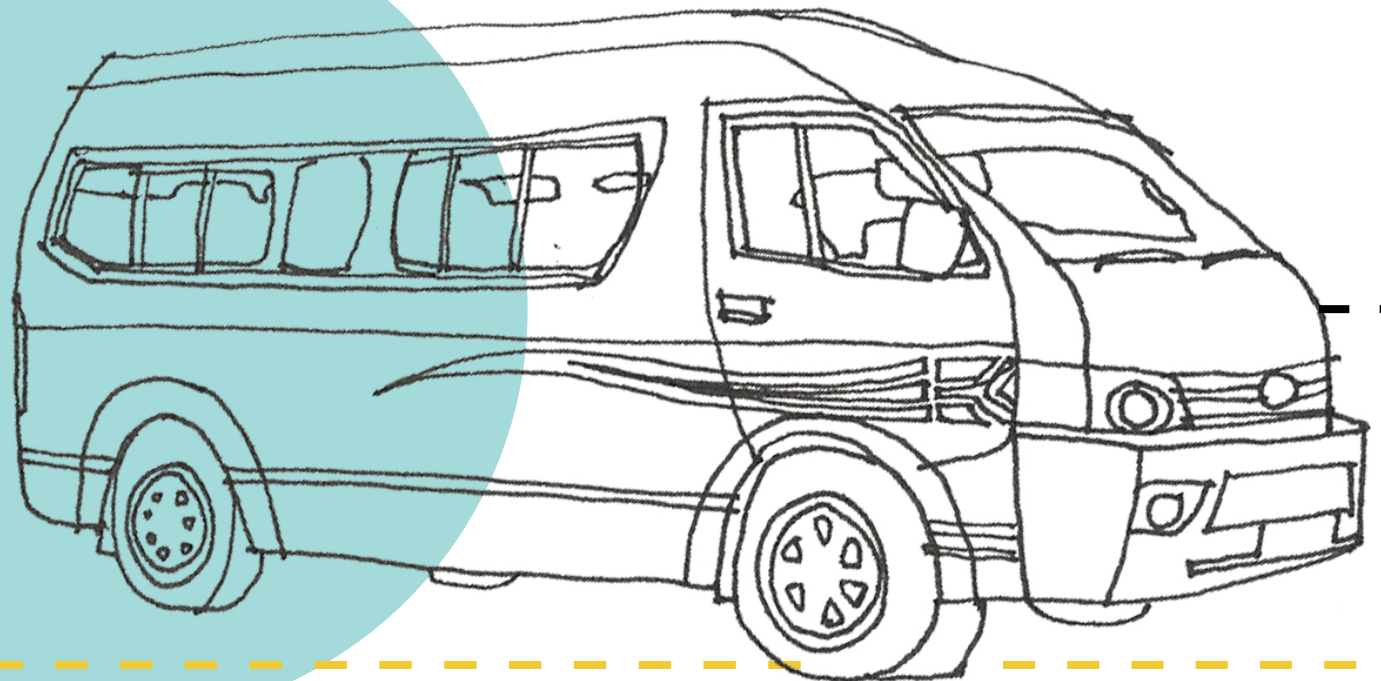
Three under-utilized parking lots that are nestled **between the city** and the edge of a large **green node** within Bloemfontein are fused together to create a new site.

## SITE DESCRIPTION

## CLIENT

Mangaung municipality

The development, once built, will be offered as a space for training and interaction with a wider public to financial institutions or a corporate client to rent in order to gain a stronger foothold in city life as educator to a community.



# PROJECT SUMMARY



## LOCATION

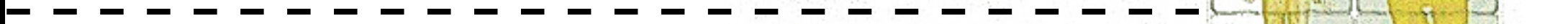
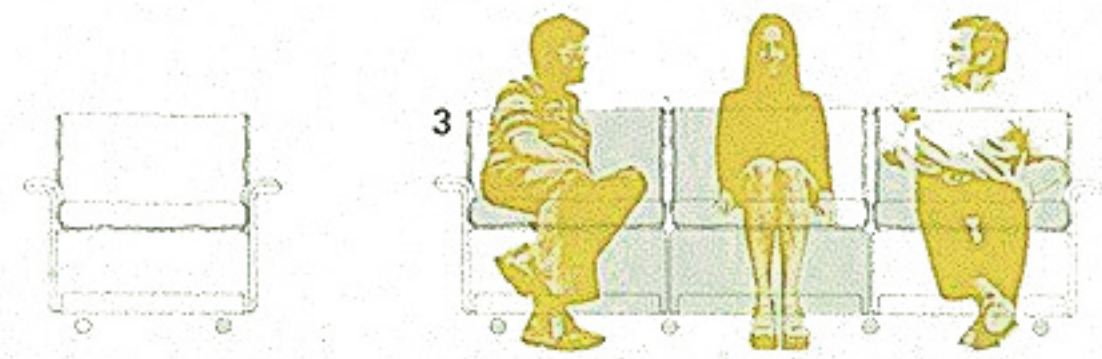
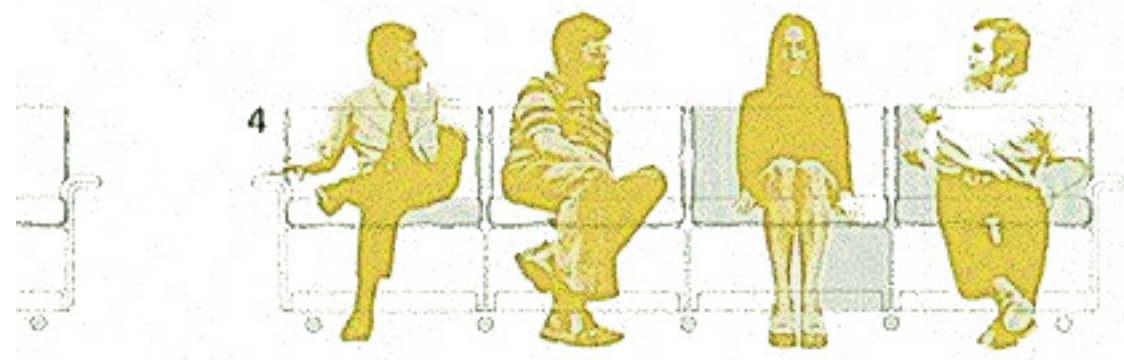
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26°20'77.26"E

## KEY WORDS

fixed, **edge**,  
**routine**, sameness, **escape**,  
event, **amalgamate**, patina,  
palimpsest, gather, exurban, green,  
access, **porous**, meander,  
lost space, human and **social**  
sustainability.

Urban public space development  
and specific function intervention

## RESEARCH FIELD



Within urban machines people dwell and seek out various means of correspondence and understanding their place in the world. They are forever balancing between contrasting aspects of an urban lifestyle: the presence of order, which is manifested in the obedient essence of a city and an awareness of disarray, which is personified by the carnal need for thrill.

A balance must be maintained. Too much city and the smoke of cars' exhausts cling to your clothing in a way that becomes more suffocating than nostalgic and, even though naturalists may disagree, isolating one-self beyond the city for too long could potentially become self-inflicted exile.

The danger is getting caught up in a mundane routine or losing all sense of order and purpose. A balance must be maintained.

It should, however, be kept in mind that before a balance can be maintained, resources to achieve and access this balance must be available.

The proposed project is a new cluster of hubs where various meet and greet events take place daily, weekly and monthly. These events introduce opportunities for meaningful meetings between business-oriented citizens as well as nomads and seekers that pass through the urban fabric. The aim of this project is to create opportunities for the city dwellers to gather on the edge of the concrete jungle, escaping the routine of conforming to the nine-to-five race, to the green King's Park. This also allows city dwellers of Westdene and the CBD to reconnect with their fellow man. The proposed program will function as a meeting arena, creating opportunities to gather in formal- or informal settings.

This project is specifically focused on blurring and blending the boundary between ritual and deviation from the expected on a daily basis. The architectural intervention will serve as the mediator between these outlines on a theoretical - as well as a physical basis; the building itself is nestled in the midst of city-scape and green-scape, between order and chaos. The character is hence intrinsically porous; allowing dwellers to roam freely through a permeable threshold.

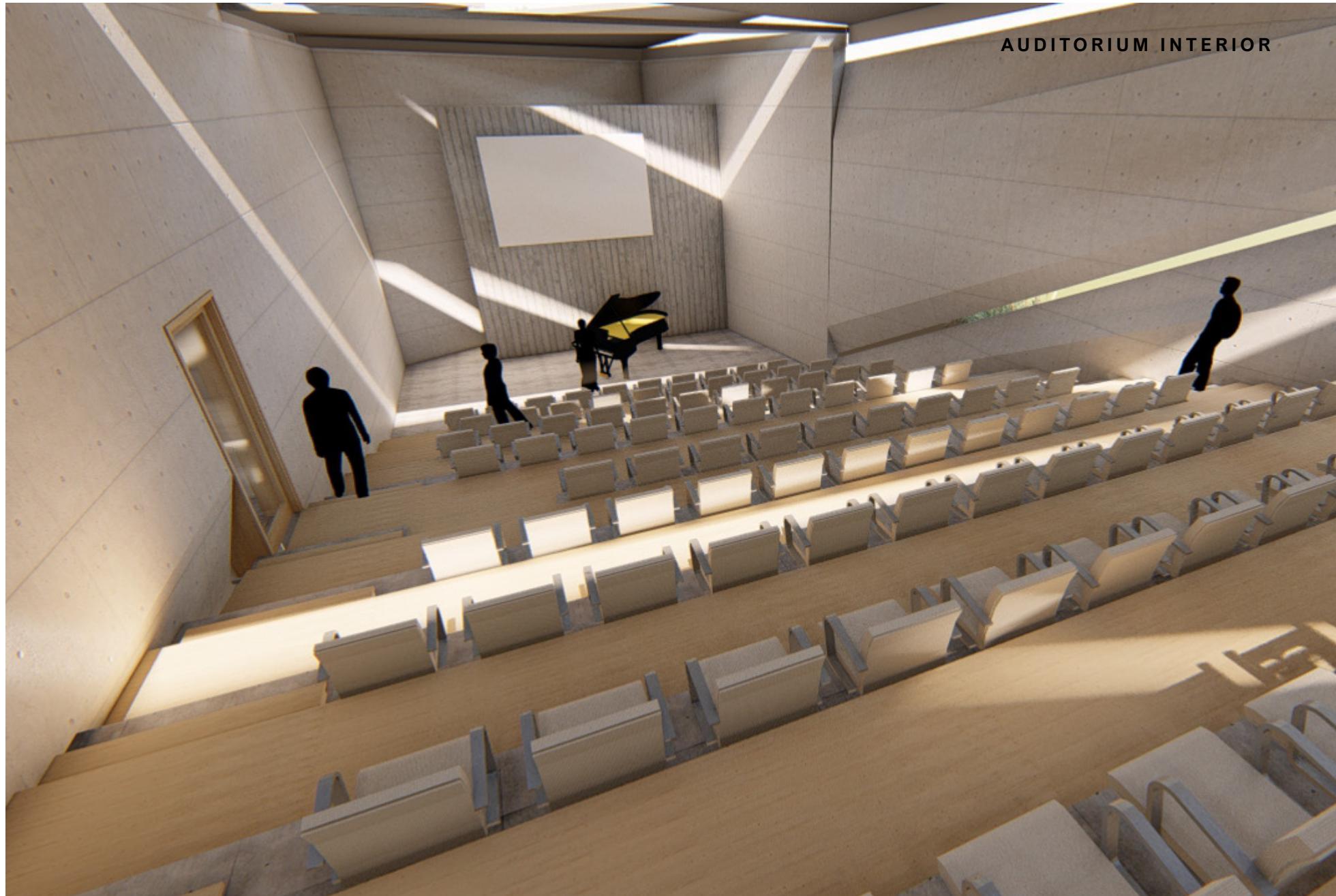
The interest in this project is manifested in the celebration of how people interact with one another. The conversations people have leave a patina behind on one another, and on the spaces they inhabit. This palimpsest of interactions inhabit the potential of changing how the urban fabric feels through the mark that it leaves, how it envelopes the people of the city scape. Understanding that people need to interact with one another and will seek each other out to fulfil this need is the key to unlocking the green-space of Kings Park. People need to escape the mundane routine of career-centred lives. Meeting, greeting and eating fulfils these needs.

This research further investigates the celebration of the curiosity of the exceptional within each person and how architecture as an intervention between the routine and the subliminal can appease the need for urban adventures.

*“To create,  
one must  
first question  
everything.”*

*– Eileen Gray*

AUDITORIUM INTERIOR



## Important Notice for The Reader



The everyday process of meeting, greeting and eating is not structured; therefore the narrative and theoretical discourse of this project is woven throughout the discussion of precedents, design process and lessons learnt.

Consequentially the theory does not have its own chapter.

Ok

Cancel

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*city dwellers, career focused men and woman of  
all ages, escape seekers and nomads  
- welcome to the edge.*

Parks hold the dormant potential for urban escapism.

To fortify this potential through architectural intervention, the needs of the client will be investigated in terms of 'the edge', and the needs of the user through the need for escapism and human connection. The presence of nature and historical landmarks are also utilized to inform the users' awareness of one another.

The project investigates the activation of latent potential of green spaces in the urban context through architecture. The understanding of how an architectural intervention can instigate / reactivate recreational activities within the green cityscape is vital. The backdrop of occupational buildings in the area lacks spaces that breathe, that allows a momentary escape from the city's confined hustle and bustle; therefore, by providing the need for improved access and designed accommodation for activities, the city-dweller is allowed to selectively pause and release.

The intervention hopes to allow city-dwellers to embrace a credo:

**“Let me out, let me run freely”**

# DOCUMENT FRAMEWORK



**design generator 01**  
[THE SITE]

project rationale

problem statement and aims

research question and accommodation list

**PART 0.1**

touchstones and conceptual investigation

**design generator 02**  
[ TYPE ]

the great escape: the clients and the edge

dissolving thresholds: the user and porosity

roots [history]

theoretical investigation and application through precedent analysis

**PART 0.2**

**DESIGN DEVELOPMENT**

design exploration 01

design exploration 02

design exploration 03

design exploration 04

**PART 0.3**

**design generator 03**

[ THE TECTONICS ]

a report

**PART 0.4**

reflection and self-evaluation

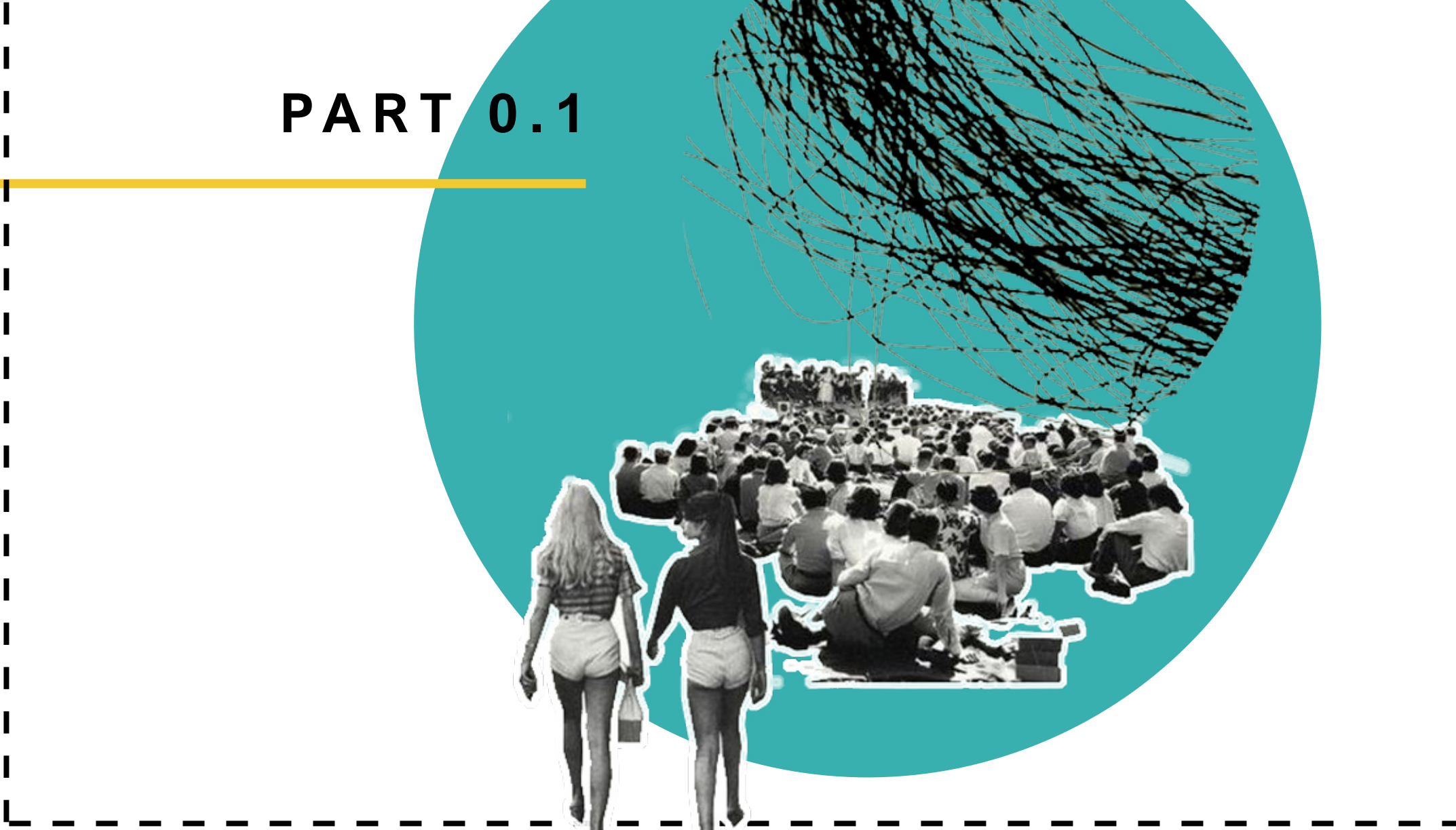
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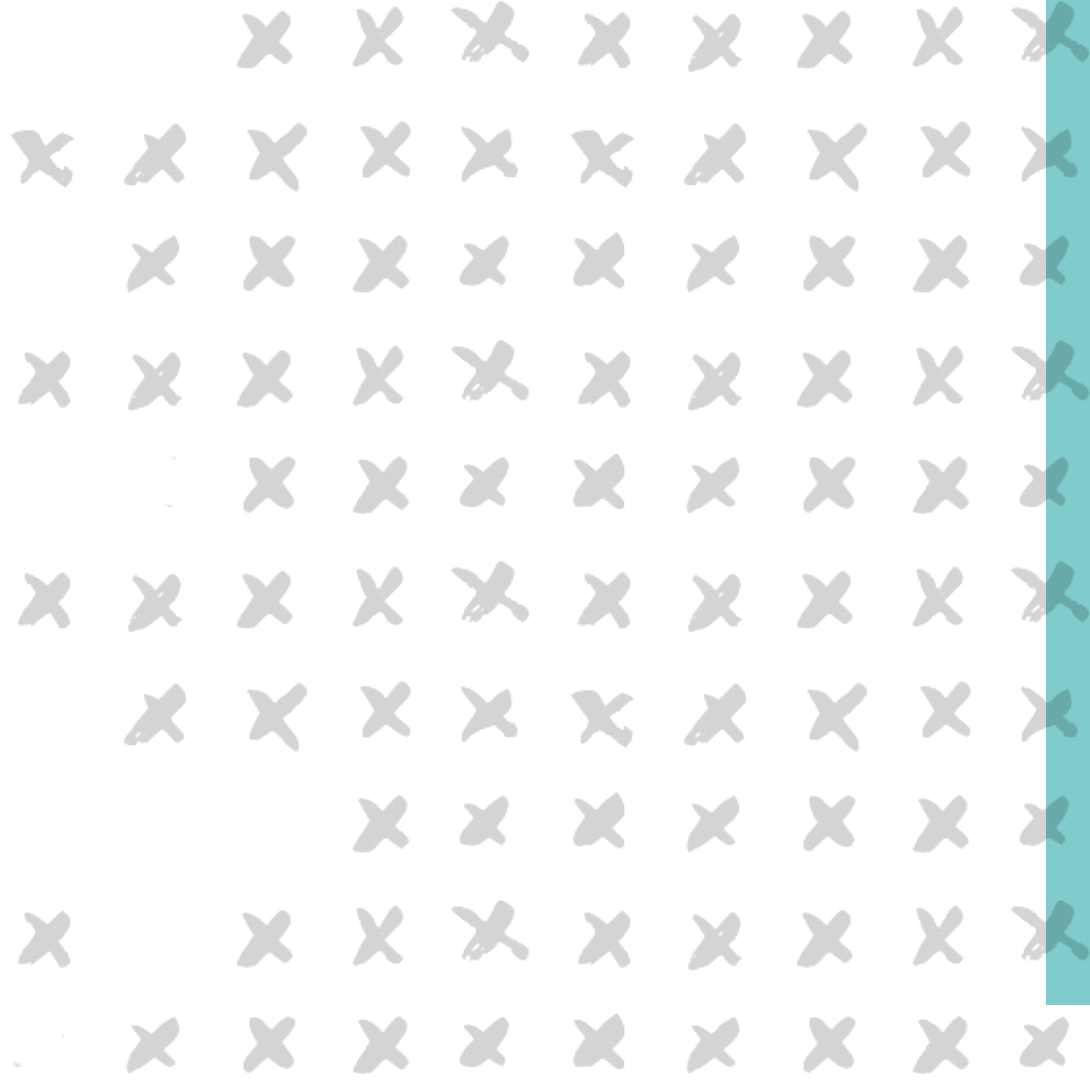
dedication

appendixes and addendum's

**PART 0.5**

# PART 0.1





**design  
generator  
01**  
[THE SITE]

project rationale  
 problem statement  
 and aims  
 research  
 question and  
 accommodation list



DESIGN  
GENERATOR

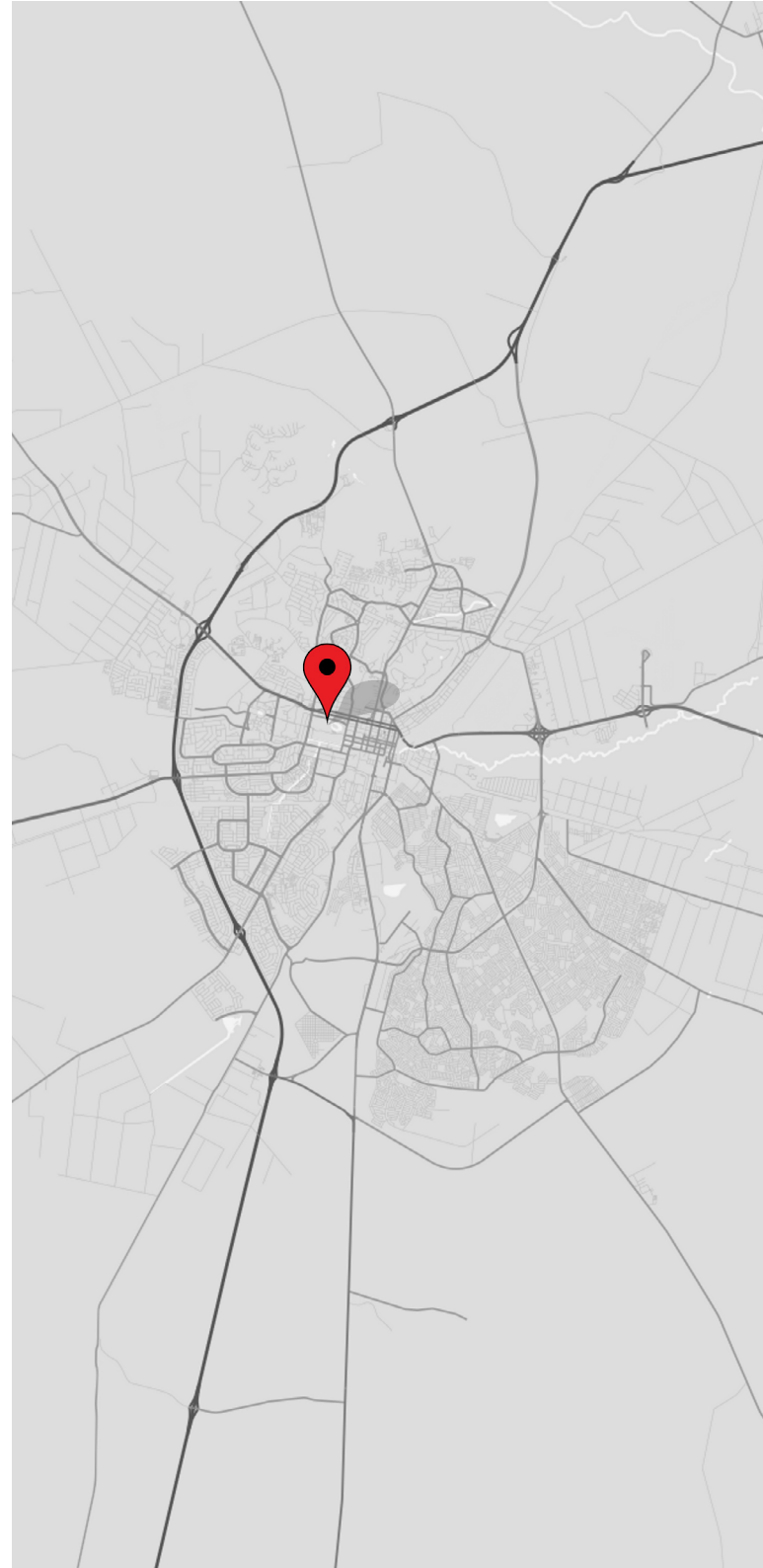
## 1.1

[the site]

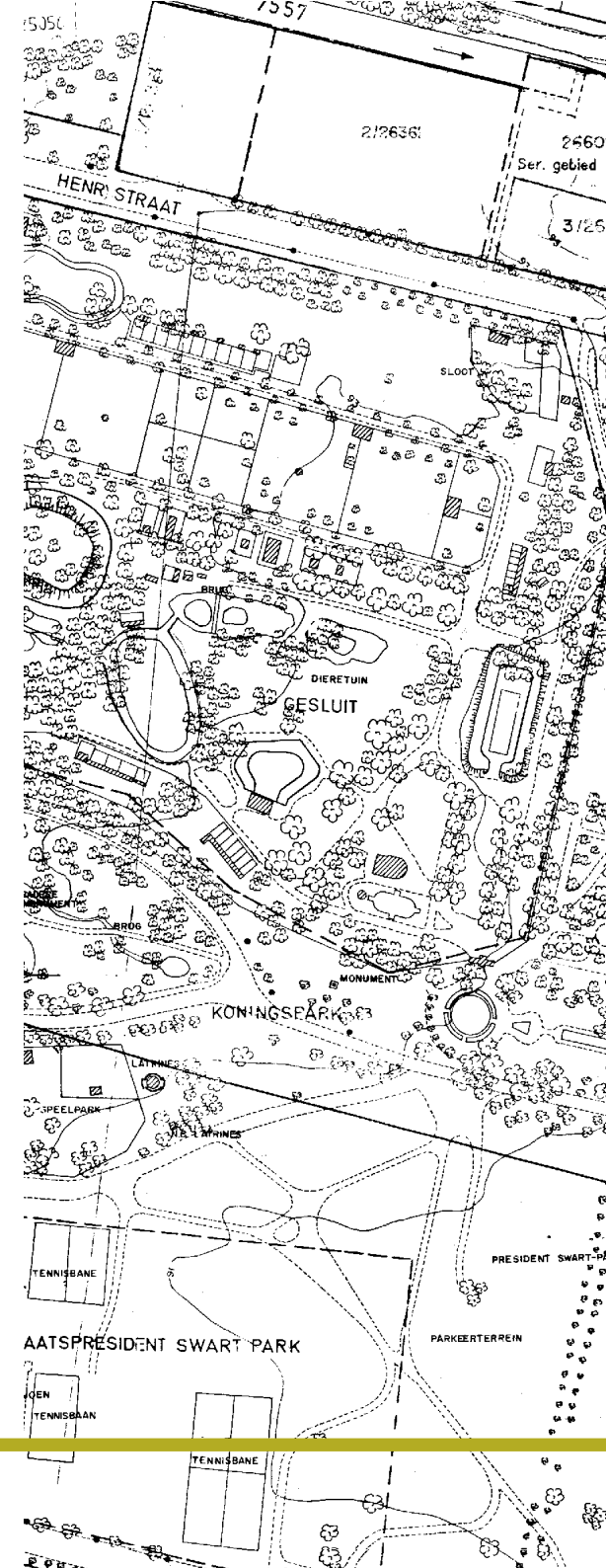
The project investigates the activation of latent potential of green spaces in the urban context through architecture; more specifically, how an architectural intervention can instigate / reactivate fervent participation in recreational activities within the green cityscape.

The backdrop of commercial and office buildings in the area lack spaces that breathe, that allow momentary escape from the city's hustle and bustle. While the green space of Kings Park is within close proximity of these buildings, the need for access to this green lung within the urban fabric remains. Due to ill-designed borders and the dilapidated state of the edges of this green-scape, city dwellers are deprived from the choice of immersing themselves in momentary escapism. Citizens and nomads alike are robbed of experiencing the opportunity to roam freely into the green lung of Kings Park, finding themselves without the need to cross the threshold to the park.

By developing a well-constructed serviced edge that can act as gateway to the park, it gains meaning and value, providing value to the city dweller.



(Figure: Original map generated from Google.co.za/maps by Author)



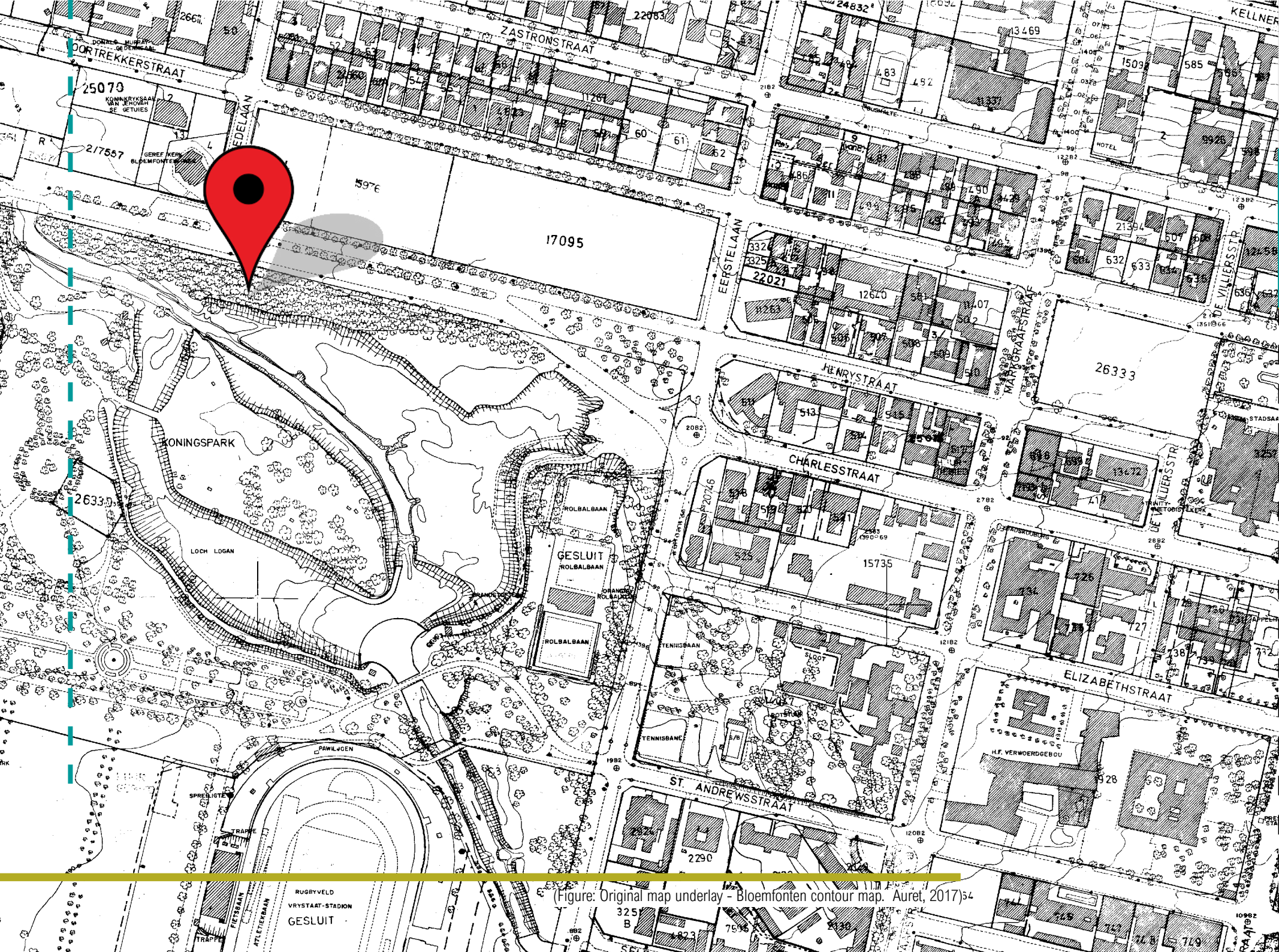
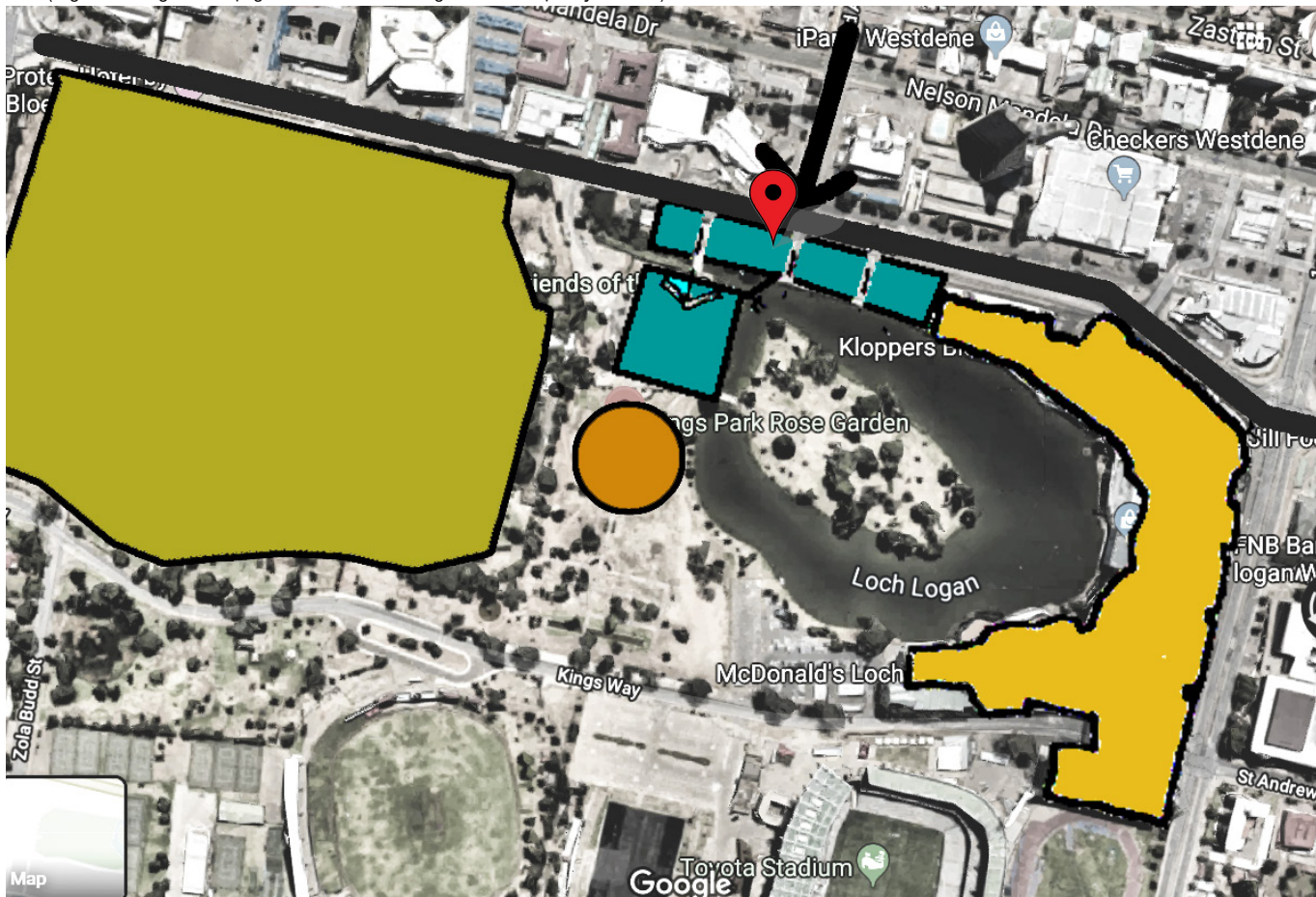


Figure: Original map underlay - Bloemfontein contour map. Auret, 2017)<sup>54</sup>



- Old Bloemfontein Zoo
- Kings Park Rose Garden
- Loch Logan Waterfront Mall
- Site [two parking areas]



The edge of the park is currently formed by two parking lots: one serving the Loch Logan Shopping centre and a more dilapidated parking area that once served the old zoo. Both spaces lost their value to the city for different reasons. The Loch Logan mall parking lot in question is mostly unused due to a new parking garage that was added a few years after the mall's construction. The position of the mall's new parking lot proves to be more convenient to customers, which renders the old parking lot obsolete. In addition to this, the old Loch Logan mall parking lot has to meet specific regulations. The added parking made the strip parking next to the park obsolete. The parking area that served the old zoo became redundant after most of the animals from the zoo was moved out of the city in order to make way for possible future commercial development of the zoo.

Spaces that often become breeding pots for the loss of meaning within the larger context are parking lots, public spaces, unmaintained gardens and abandoned buildings. The largest cluster of these markers are found in the central, most northern edge of Kings Park. Two parking lots sit in the middle of this elevation, right next to the water basin and a forlorn pavilion at the centre of The King's Rose garden. These parking lots are taking up valuable space, blocking access to the park, the water and the island. This extends the crust that has formed on the eastern edge of the park, making the green space intangible; city-dwellers do not associate with this space in the city. The parking area to the west as one enters from Second Avenue to the parking area is mostly abandoned, even so it provides shaded parking to potential

visitors to the mall. Simply because of the distance from the mall it is considered “too far” and the parking functions as a lost space within the city fabric.

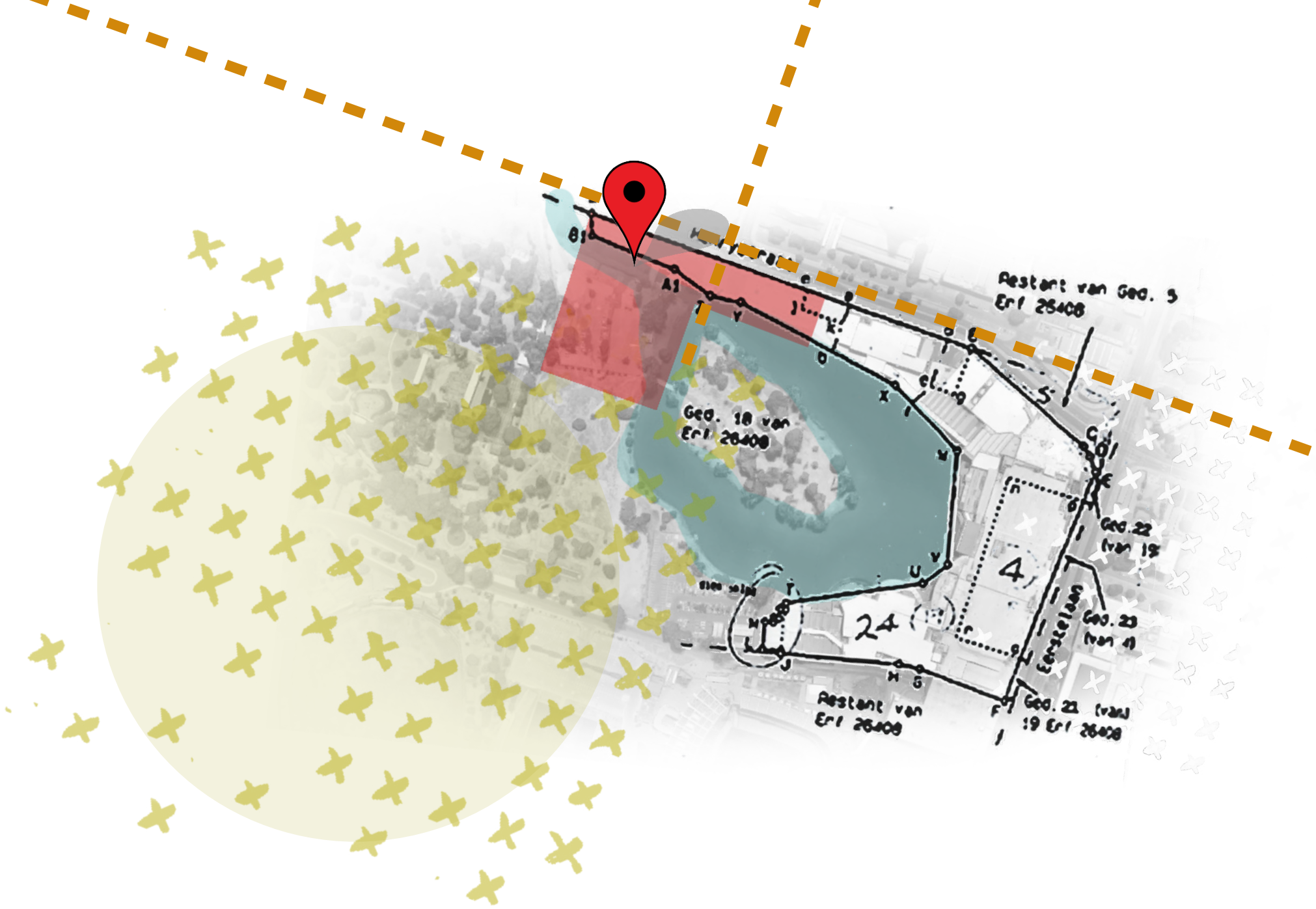
When spaces are not used, they become neglected. Neglected spaces fall into a state of deterioration and this void of activity sets forth a loss of meaning associated with the space. A major challenge for cities is the degeneration of meaning and value within existing spaces of the urban landscape. Loch Logan Island is such a place. Considering the current state of the island and the park it is clear that attempts have failed to increase activity by adding recreational public facilities, such as park benches and barbecue areas. Public ablutions and a gateway were also added in an attempt to make Loch Logan Island more accessible and safe, without influencing people to visit the park more. The gateway to the island consists of a guardhouse and dispassionate, dilapidated gates that reek of neglect, articulating the lack of value that the city as a whole attach to the site.

Kings Park in Bloemfontein gained historical significance through the involvement of the royal family from Great Britain. The rose garden, which originally hosted more than 4000 rose bushes, was opened in 1925 by the Prince of Wales, Eduard VIII (Places.co.za, 2018). This park with its many roses may be a contributing factor to Bloemfontein fondly being called “the City of Roses” (Places.co.za, 2018).

With The Kings Rose Garden, Loch Logan Island and the old Bloemfontein Zoo as neighbours the site provides ample space for relaxation within a busy working life in the city. But because of the state of neglect it fails to attract visitors.



(Figure: Original map generated from Google.co.za/maps by Author)



(Figures: Original map generated from (Chief Surveyor General, 2019)

It is therefore surmised that the site will be assembled out of this cluster of parking lots, neighbouring the latent green space, and the busy city. The site is located in Henry Road, which has an intercepting connection with 2nd Avenue from the North, Westdene.

The site contains a large variety of elements. Neighbouring the man-made earth as found in the two existing parking areas, a body of water is found. This plain created by water mass and parking areas present a flat surface area due to the current function. Besides these large expanses of flat ground, covered by a layer of pave blocks, only dramatic change of topography is where the ground slopes towards the water. The parking area is not virgin ground, since there have been some developmental attempts on it. The parking area, as well as Loch Logan Island is built-up terrain with no natural biodiversity on it. Living organisms is mostly limited to the water of Loch Logan and the proposed development aims at a minimal impact on the water's edge.

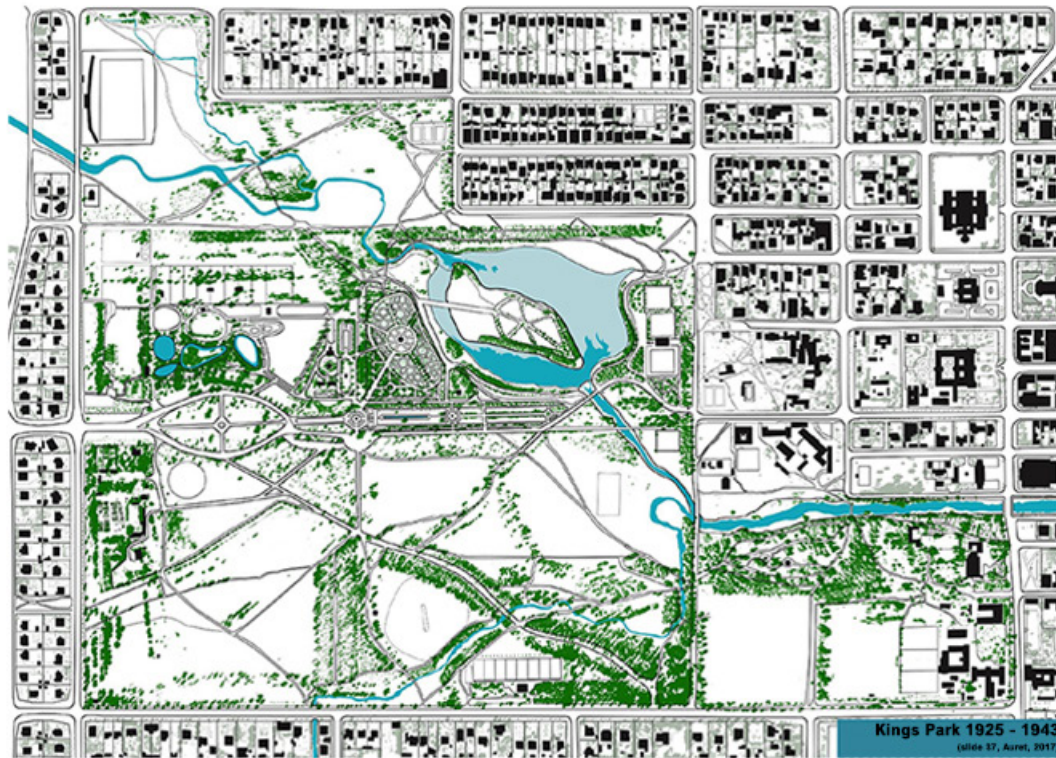
To the west, the old zoo is still functioning as a scaled-down zoo with an intact fence, which provides an edge to the area that will fall within the proposed design.

On the eastern side of the park the Loch Logan Waterfront Mall creates a harsh boundary to the site, cutting off movement from the CBD into this area.

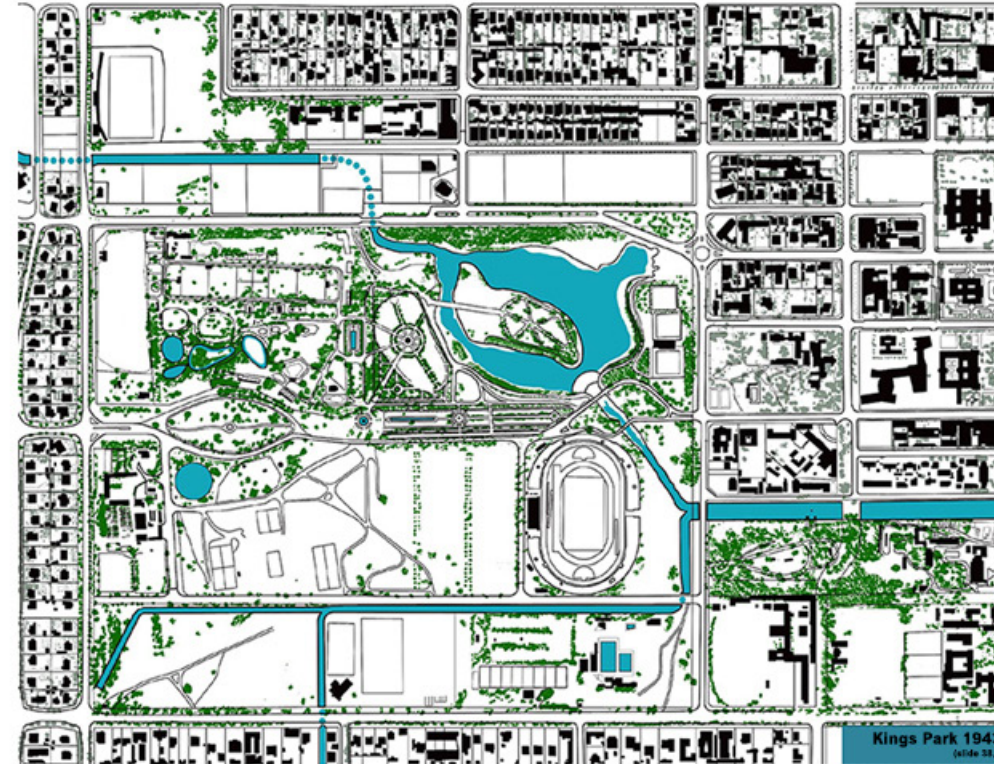
To further understand the contrast between city-space and garden-scape, this aerial view indicates the potential of the site. The cluster of parking lots create an arm's length of distance between the traveller and the greenery, which could be designed to become an enveloping, welcoming embrace instead. The site will become a breathing access point that orientates the dweller within the intimidating mass of the park.



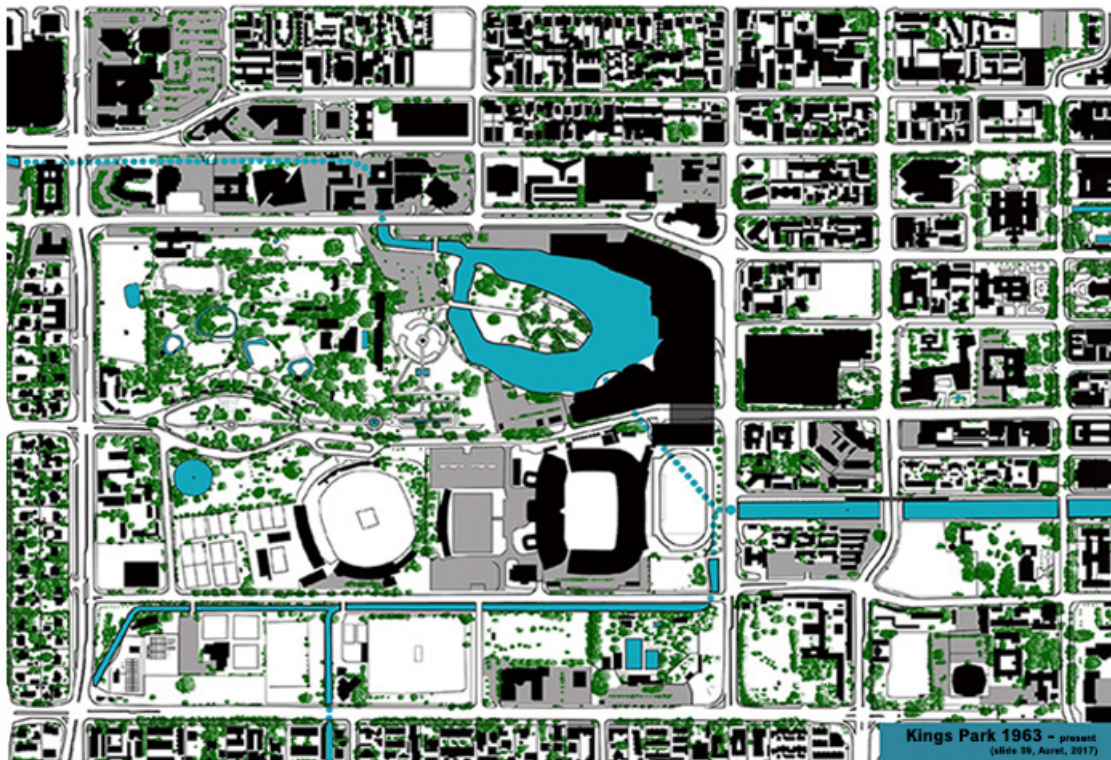
(Figure: Original map generated from Google.co.za/maps, by Author)



*Kings Park, 1925 -1943 (Auret, 2017)  
Eassy access- more open, less edge*



*Kings Park, 1945 -1963 (Auret, 2017)  
Less accessable- stil open, semi-edge*



Over the years  
the surrounding  
area has become  
more urbanized  
and the green  
space, at the core  
of King's Park  
has become more  
isolated at its core

*Kings Park, 1963 - present (Auret, 2017)*  
*Difficult to access- not open, hard  
edges*

# WHAT HAPPENS WHERE?

KING'S ROSE GARDEN

SAND DU PLESSIS THEATRE

WATER FOUNTAIN

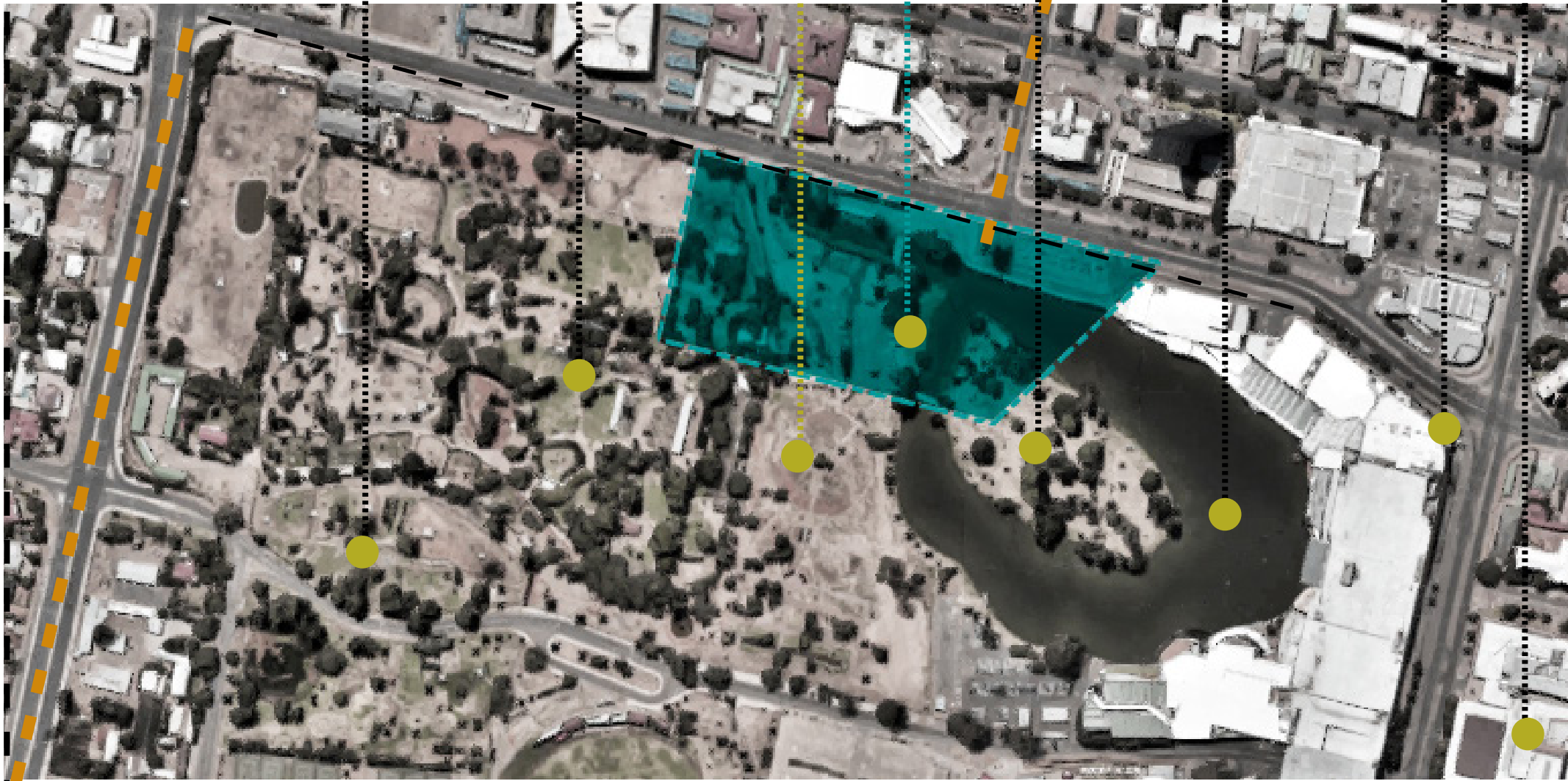
OLD BLOEM ZOO

SITE ZONE

LOCH LOGAN ISLAND

LOCH LOGAN WATER

PEDESTRIAN ACCESS





FOURTH  
RAADSAAL

BLOEMFONTEIN  
CITY HALL

NATIONAL  
MUSEUM  
BLOEMFONTEIN

BLOEMFONTEIN  
CBD

# KINGS PARK THEN



The Lions' release, 14 March 1931 [p.32 Auret, 2017]



The King's Rose Garden, 1930 [p.20 Auret, 2017]



The King's Rose Garden 1925-1934 [p.19 Auret, 2017]



125 254 trees planted between 1904 and 1910 [p.16 Auret, 2017]

# KINGS PARK NOW



**STAD BLOEMFONTEIN CITY  
LOCH LOGAN  
WARNING**

- THIS WATER IS NOT RECOMMENDED FOR PUBLIC USE
- SWIMMING AND POWERBOATS PROHIBITED
- ANY WATERSPORT UNDERTAKEN AT OWN RISK
- FISHING PROHIBITED

BY ORDER

**WAARSKUWING**

- HIERDIE WATER IS NIE GESKIK VIR MENSELIE GEBRUIK NIE
- SWEM EN MOTORBOOTE VERBODE
- ENIGE WATERSPORT WORD OP EIE RISKO ONDERNEEM
- I VANG VERBODE

OP LAS





et, 2017]  
3000



Spectators awaiting the Lions' release, 14 March 1931



The King's Rose Garden, February 1953 [p.21 Auret, 2017]



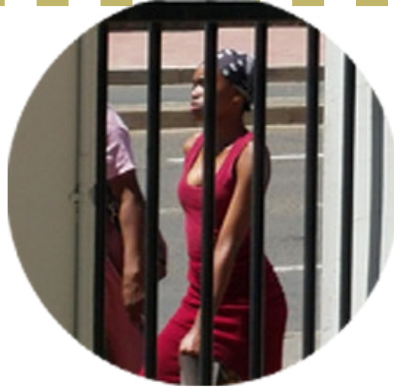
The King's Rose Garden [p.30 Auret, 2017]

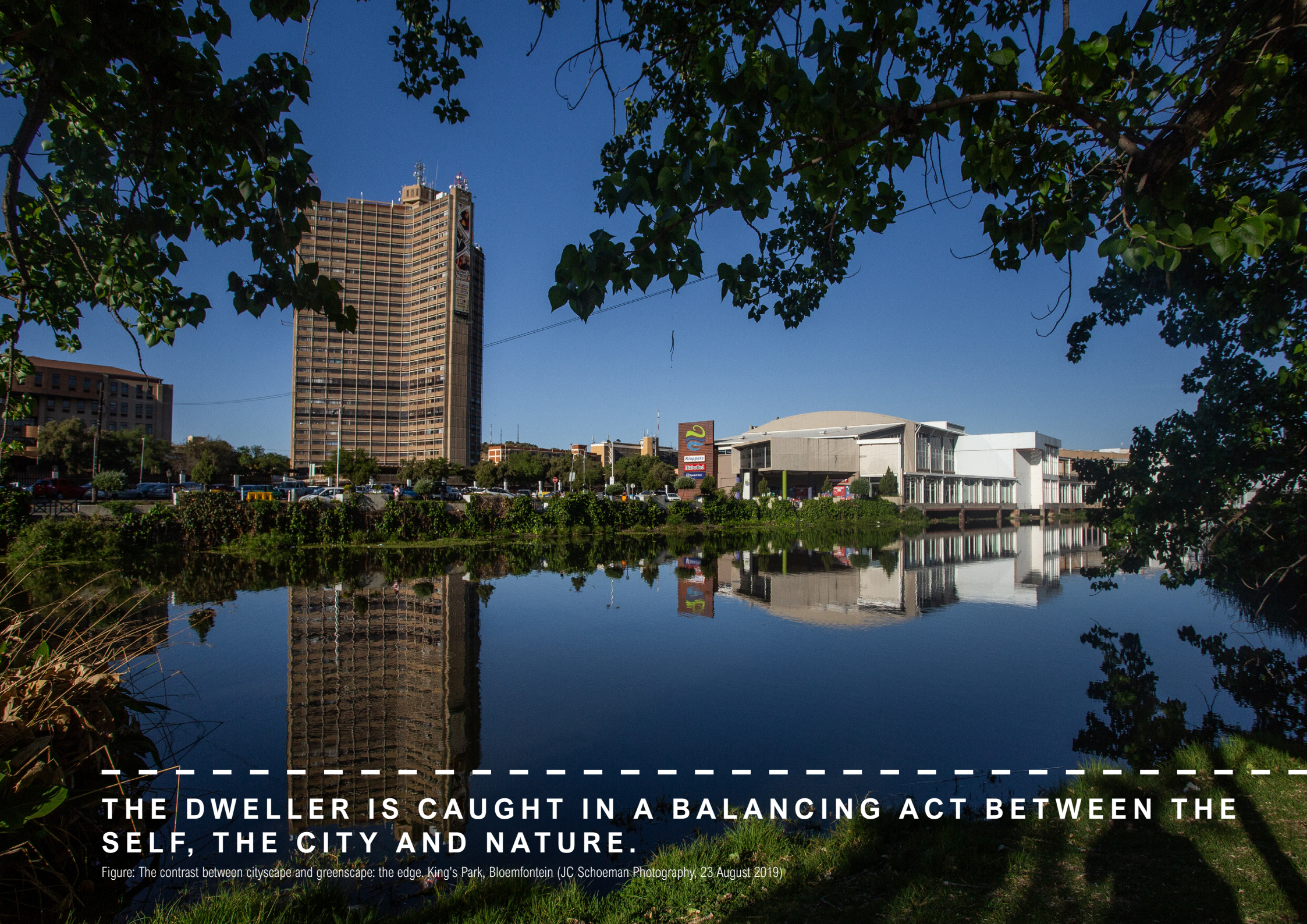


Water trench of the Chimpanzee enclosure, Bloemfontein Zoo, 27 January



The King's Rose Garden - 1934 [p.18 Auret, 2017]



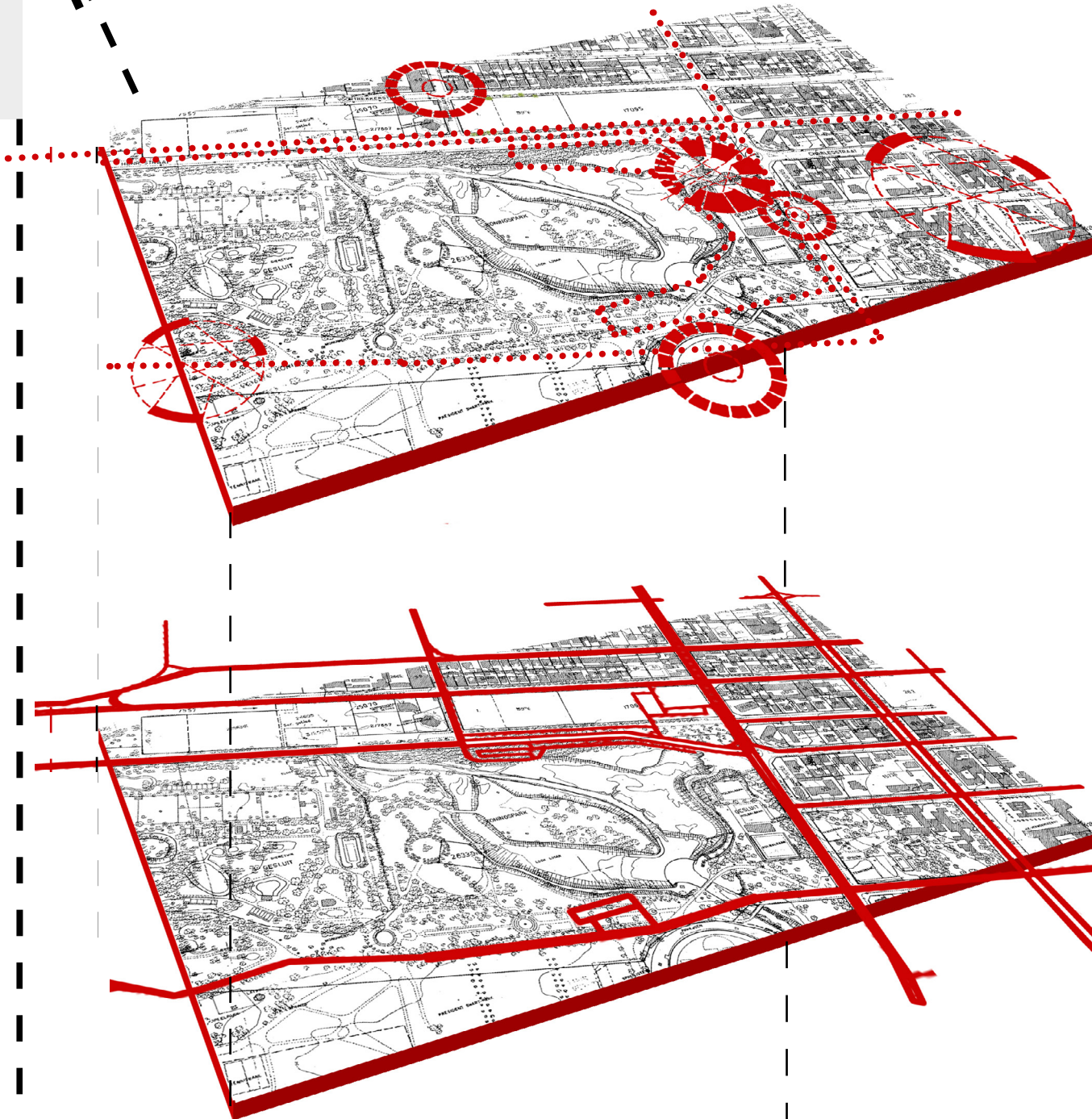


— — — — —  
**THE DWELLER IS CAUGHT IN A BALANCING ACT BETWEEN THE  
SELF, THE CITY AND NATURE.**

Figure: The contrast between cityscape and greenscape: the edge. King's Park, Bloemfontein (JC Schoeman Photography, 23 August 2019)



All figures: The characters of Kings Park, Bloemfontein (JC Schoeman Photography, 23 August 2019)



## Noise

It is important for the programme of the project to take the noise that the city generates into account; especially since a vital compartment of the project aims to create a momentary escape from the city's chaos. For the most part, the noise that dwellers are aware of on the site is the noise created by the traffic that rushes past the site in close proximity on Henry Road. The large wall that is created by the Waterfront development on the East both acts as a safeguard against noise pollution from the equally busy road opposing the site on the East, as well as a wall that bounces and reflects any potential noise coming from The Loch Logan Island.

## Vehicles

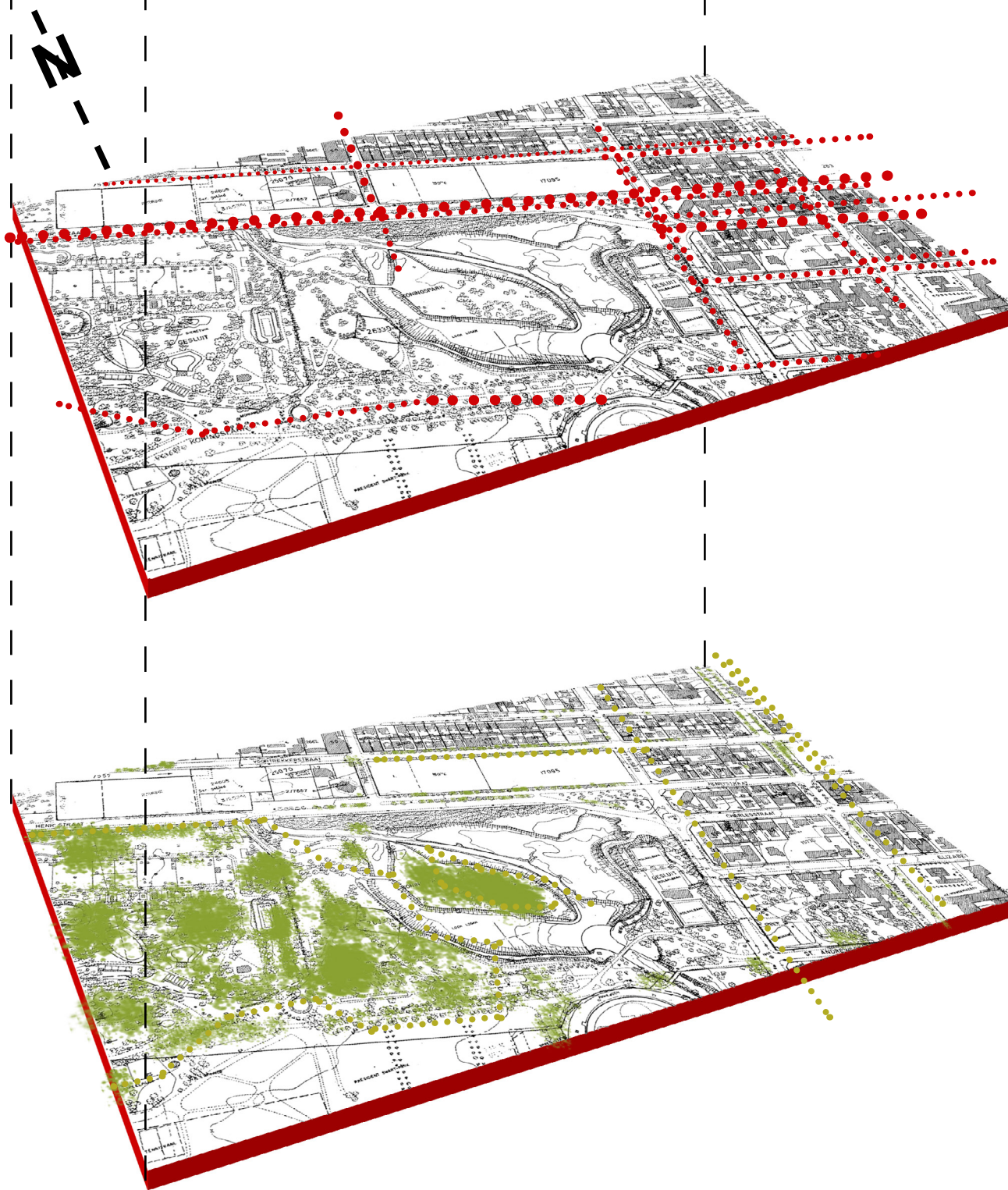
Towards the North of the site Henry Road is a busy vehicle-hub. Due to Second Avenue's termination with Henry Road, the site becomes the face of King's Park. To ensure that all citizens that approach the site via vehicular access, are immediately made aware of the green-scape of the park, sight-lines directly into the park become very important.

## Pedestrians

A steady stream of pedestrians is present throughout the day on Henry Street, starting early in the morning and continuing well into the late afternoon as people commute to and from work. The majority of these dwellers stream past the site from Bloemfontein's central business district on the East into the corporate buildings that surround Kings Park on its northern, western and southern borders. This presence of these hard-working civilians intensifies over lunchtime as they hover around the edges of Kings Park, seeking a change of scenery during their hour away from work.

## Green Spaces

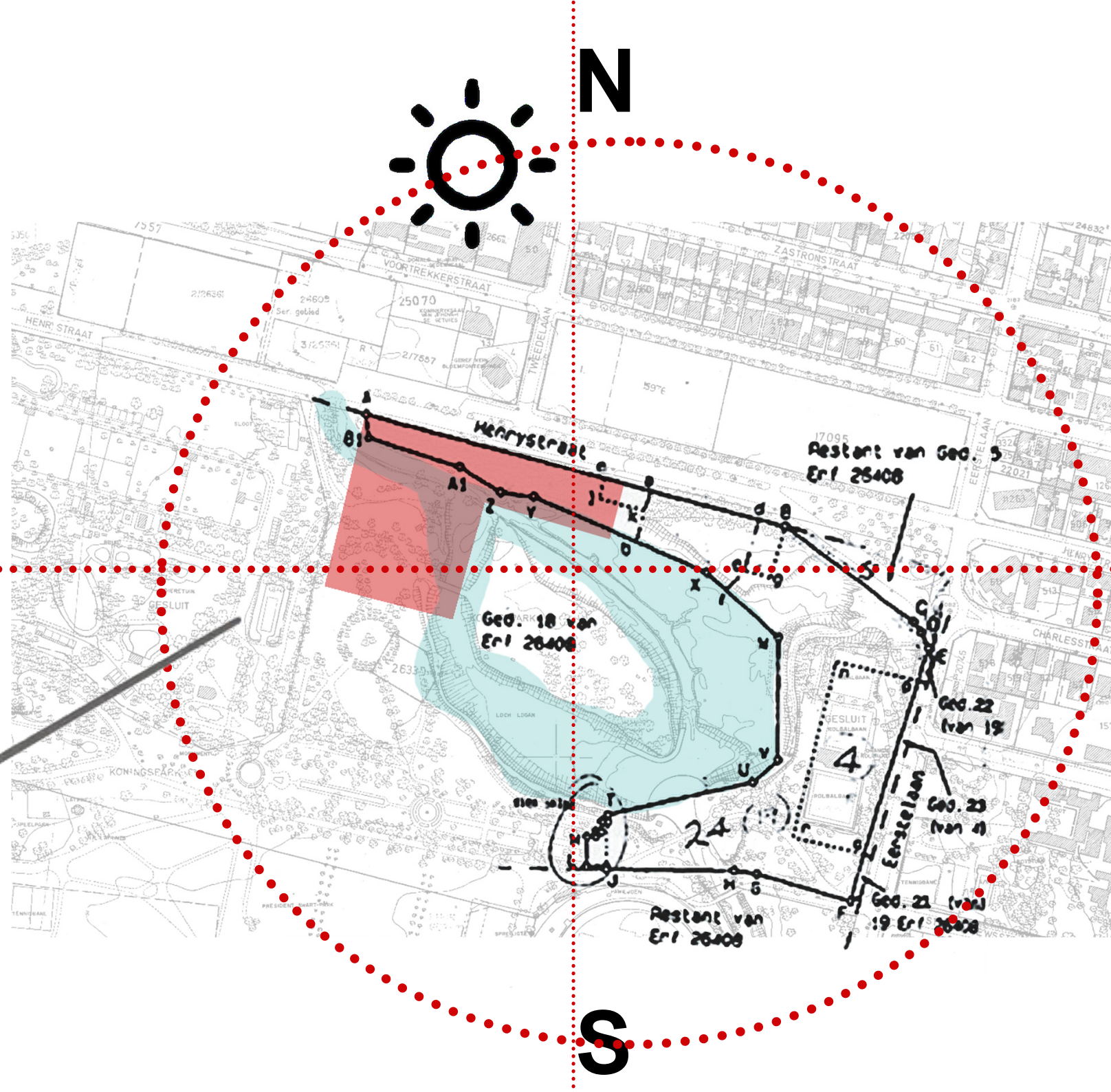
Even though an estimated 125 254 trees were planted between 1904 and 1910 throughout Bloemfontein's urban fabric (Auret, 2017) with the intention of turning Bloemfontein into a garden city (Places.co.za, 2018), the presence of trees and general greenery within the city today is underwhelming. This is mostly due to the fact that the majority of these trees were foreign to South African soil (Auret, 2017) and therefore had a higher water demand. The majority of these alien trees that remain have grown over the 100+ years since being planted and stand as giant monuments of time gone by in clusters throughout Kings Park. Keeping in mind that alien-trees are not considered to hold historical merit or value - regardless of their age - the four large trees located on the site can be conserved or removed from the site.



ENVIRONMENT AND MICRO-CLIMATE

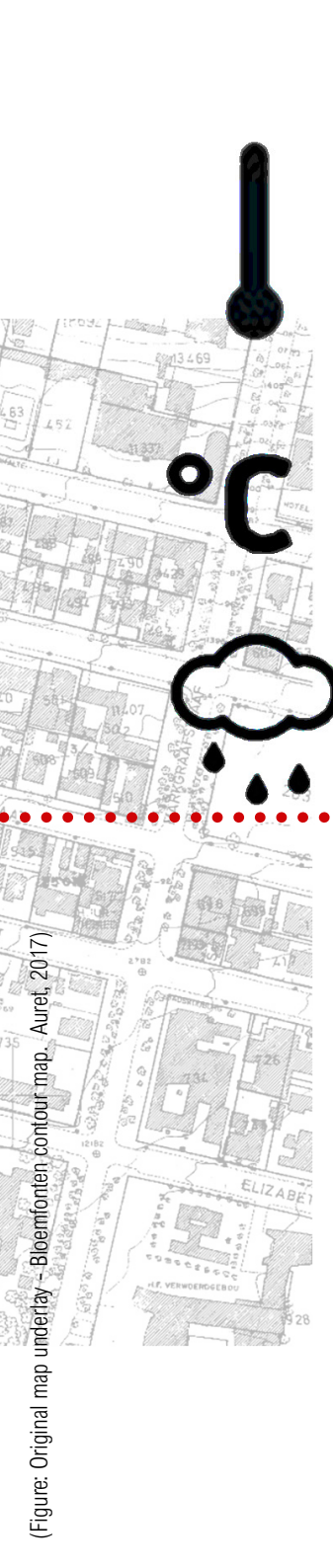


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S



The average midday temperatures for Bloemfontein range from 17°C in June to 30°C in January. (Jacobs, et al., 2013)

The region is coldest during July when the mercury drops to 0°C on average during the night. (Jacobs, et al., 2013)

Bloemfontein normally receives about 369mm of rain per year, with most rainfall occurring during mid-summer. It receives the lowest rainfall (1mm) in July and the highest (65mm) in January. (Jacobs, et al., 2013)

## E

The Free State is known to have a large spectrum of temperatures during its various seasons, therefore the climate requires a deliberately devised building.

Orientation is important.

Insulation is important.

Screens, louvres and other passive means of temperature control to be investigated in the technical report (Part 0.5), will be facilitated to create a pleasant environment within and around a building, even though the site is characterised by extremely cold- and very hot temperatures.

Due to the size and location of the site (considering the neighbouring urban context) the project has the opportunity to use shading of various densities and origins to create a dynamic experiences for the dweller. There are already so many large trees in the area, creating more than enough nooks and crannies to be included in the design. Every tree is a powerful resource to combat excessive temperatures in urban settings. Apart from being an excellent source of shade in the summer months, trees also improve the climate in a city by emitting moisture from their leaves (Trimarchi, 2008).

# PROJECT RATIONALE

The site is ideally situated between the vast green space that is the Kings Park rose garden, and the commercial corporate edge of Westdene, Park West and Willows.

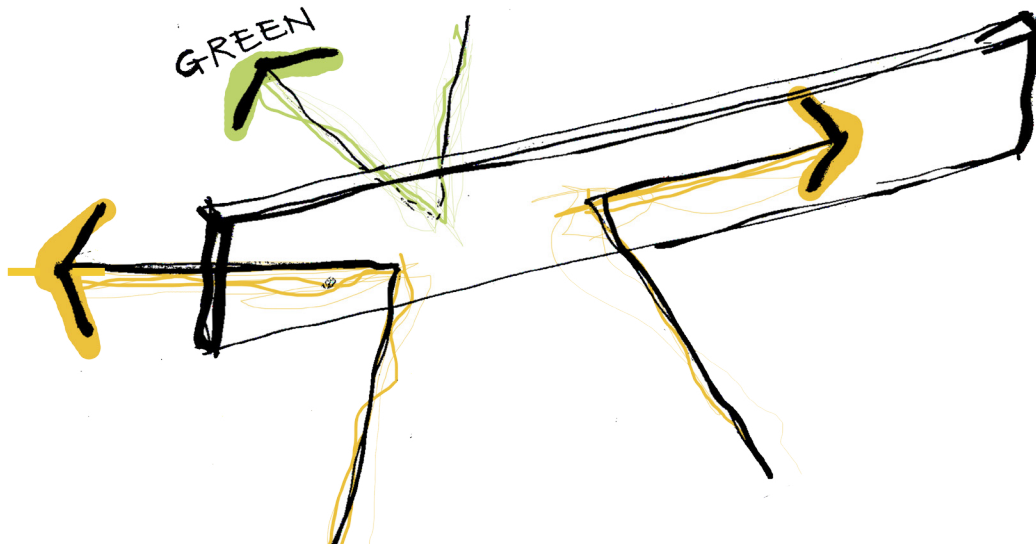
The problem identified with Kings Park is that the site is mostly inaccessible, which diverts the opportunity for gathering and partaking in recreational activities within the centre of Kings Park. Due to the fact that the site is currently an open parking area for the Loch Logan Waterfront mall, which already has many of its own parking garages, the site becomes a barrier between the individuals that work in the surrounding area and the green space of Kings Park. This access barrier prevents the area's daily inhabitants from spending time in the park over lunch breaks or winding down after work.

As stated before, the site's main problem is the collection of spaces that lose meaning within the urban fabric as a result of neglect, but physically the site creates a harsh and impenetrable boundary between the dwelling pedestrians and other citizens of Bloemfontein and the green centre of Kings Park. This problem creates an opportunity for poetic architectural intervention. Another opportunity for architectural intervention is created by a problem that sprouts from the monolithic presence of the Loch Logan Waterfront, its lack of access to the park from Bloemfontein's CBD.

Therefore the theory of the project relies to a great degree on the resolution of 'architecture of the edge'.

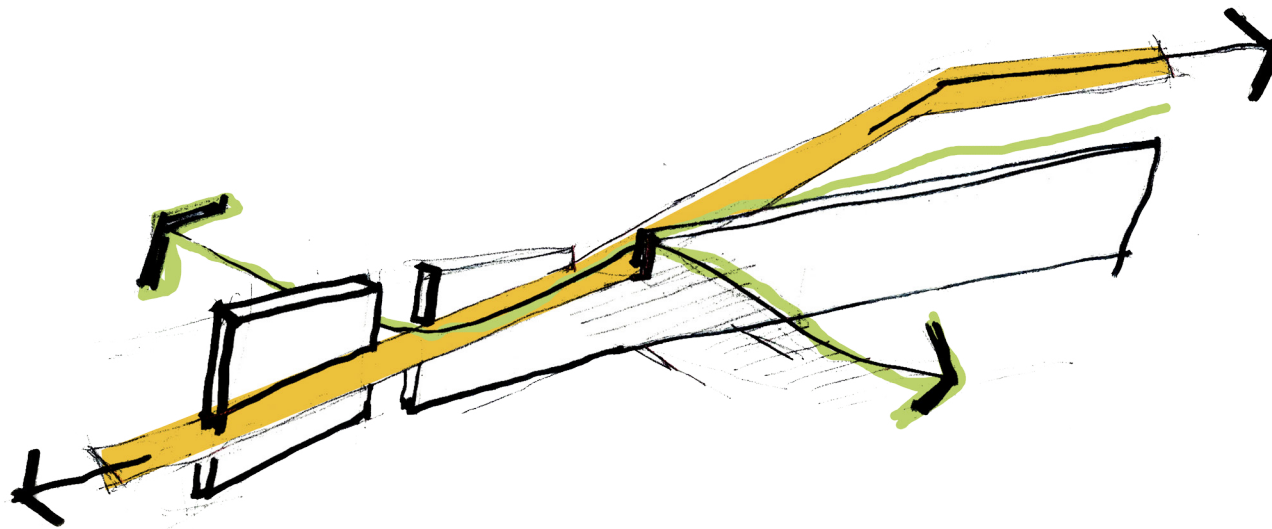


Due to the harsh boundary that has been created by the underutilized space, the generation of a porous threshold for civilians to filter into Kings Park is vital. Theoretically, the concept of 'breathing walls', or walls that create the opportunity for dwellers to inhale and exhale into and out of King's Park through the architectural resolution comes into play: the site has to become breathable and porous. This will turn the lost space into found space: a porous, extended edge to become immersed in.



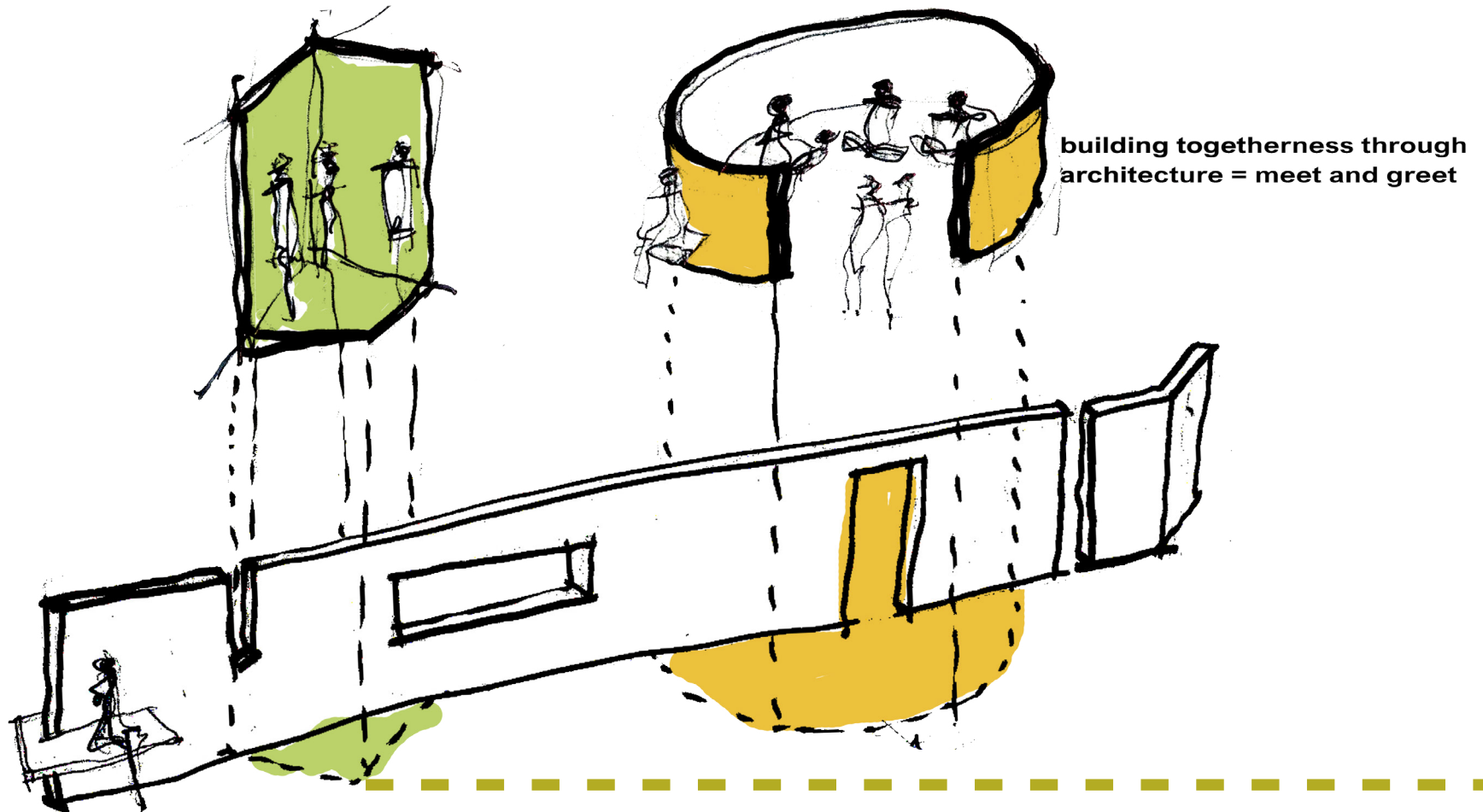
Where breathing walls create a penetrable, welcoming space, dwellers will gather. These are the places within the cityscape that welcome us: building togetherness through architecture. The sum of these elements will lead to a liberation of urban green spaces through architecture. The water at Loch Logan Waterfront is no longer fit for swimming in, but this does not mean that the water has an unpleasant odour or appeal.

The water still creates an opportunity for enjoyment: the oasis in the desert. This also implies that the building could be perceived as a mirage on the water's edge.





In order to improve access from the city-scape towards the greenscape and transform the site from a boundary into a porous threshold, the building will have to be a permeable intervention, allowing dwellers to pass over the site and through the building seamlessly. Between the wander-lines created for dwellers with the greenscape, nodes for gathering will create opportunity for strangers and companions alike to amalgamate in a meaningful way. These nodes will be designed to allow people to gather in various ways according to their current needs: formally, informally, in groups or in intimate clusters. The use of pods, public seating and walls that divide open spaces into contained and manageable experiences will create spaces of inclusion, as opposed to large expanses of exclusion.



These pods and wander lines will function together to create a building that opens up to the greenscape, creating sight lines through the structure that allow pedestrians and passers-by the opportunity of continuous awareness of the green lung in the city centre. A cluster of parking lots that mutated into a graveyard of amalgamation, will now metamorphose into a breathing lung. The project will inhabit the site as a passageway into new experiences that re-activate the opportunities that lay dormant within King's Park, ultimately introducing new life into a site that has deteriorated in meaning.

# STATEMENT AND AIMS

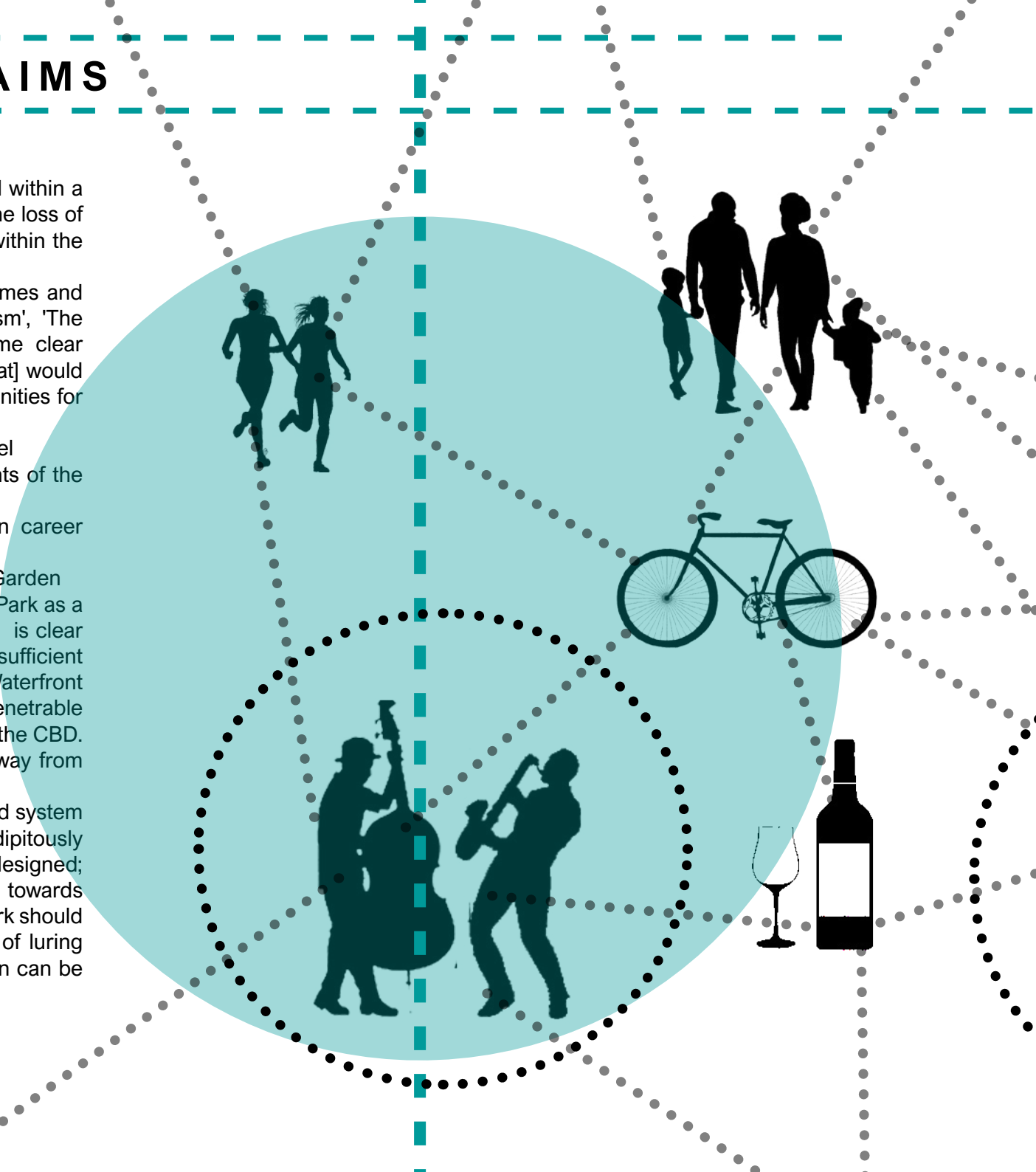
This thesis aims to understand the latent potential within a desolate space in the city. It aims to understand the loss of meaning on a site that neighbours a green lung within the city fabric.

With social capital and natural capital as sub-themes and a theoretical underpinning focussed on 'Escapism', 'The Edge' as the theoretical underpinning, it became clear that a centre addressing How we Meet, greet [+eat] would address these issues in terms of creating opportunities for people to:

- reconnect with one another on a social level
- to actively shift between exploring elements of the self, the city and nature
- momentarily escape the routine of urban career environments
- experience the history of the King's Rose Garden

Keeping these aims in mind and regarding King's Park as a whole within the larger context of Bloemfontein, it is clear that access from the central business district is insufficient and should also be addressed. The Loch Logan Waterfront creates a blunt, stereotomic wall that acts as an impenetrable barrier between the green lung of Kings Park and the CBD. This intimidating stockade diverts city dwellers away from King's Park.

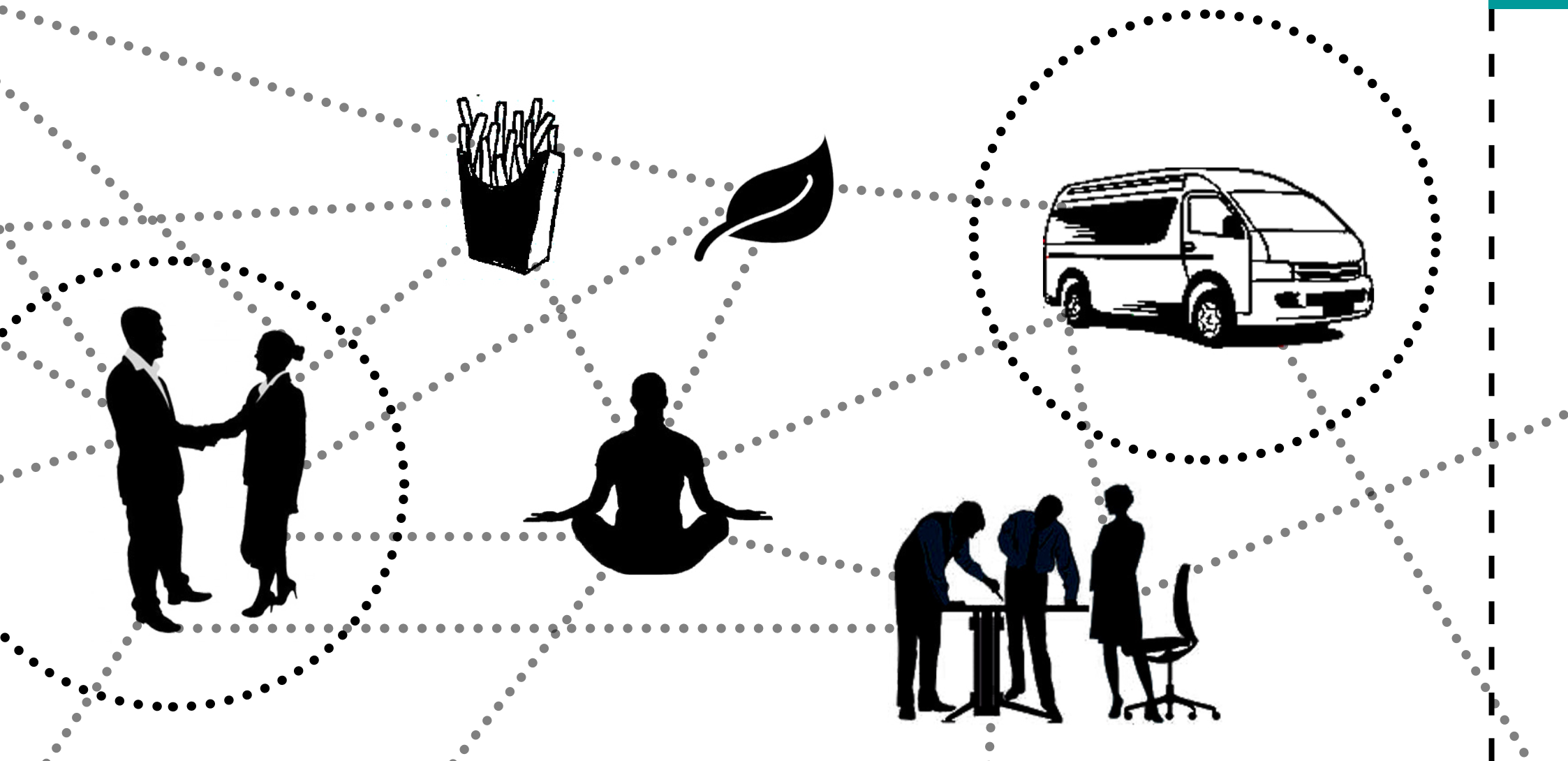
Once the intervention has implemented a designed system that opens the park up to the city, a means of serendipitously wandering into and around the park has to be designed; wandering into the park and making one's way towards recreational activities beyond the edge of Kings Park should feel accidental - a happy coincidence. A means of luring dwellers deeper into the park in an orderly fashion can be achieved by the introduction of a promenade.



This route creates a narrative, enabling seekers to identify with their environment and the activities that they engage with along the way. Due to the shortage of places to flaneur in the city, as well as the morphological and social features of the promenade, the promenade becomes a place to see and be seen (Cachinho, 2015). The park, together with the recreational activities available and typically take place on hot summer nights when enclosed spaces in Bloemfontein tend to feel constricting and limiting, anything can happen along the promenade. Everything from firework displays, plays, jazz shows, and acrobatic performances can be put on along the route of the promenade. These features bind well into the potential of green exurban nodes within a city. These features will regularly attract the citizens of Bloemfontein to the vicinity and will help seekers to understand the value of a promenade to the park as a place along which Bloemfontein society can amalgamate and socialise.

The meandering promenade will connect the architectural intervention to the Loch Logan Island within King's Park's centre.

The last event that takes place along the promenade's edge, before swerving towards the island, is the historical King's Rose Garden. To stitch this landmark into the new identity of the park's greenscape, an abstract interpretation of a garden will rekindle the traditional concept of landmarks that hold aesthetic stature with a new interpretation of what these landmarks could be: a sculpture garden. This new patch will run alongside the Rose Garden's pavilion and quilt its way towards a stage for recreational events that take place along the promenade's edge.



# BRIEF

Design a building that will activate the edge of King's Park and the Loch Logan island in such a way that it will activate the threshold between the concrete, commercial city and the green recreational lung of the city. The intervention should contribute towards meaningful interaction between citizens and create an environment where everyone feel unrestricted to go to aim to establish a place where city dwellers will feel comfortable to be in and that they identify with.

The implications of this site are that, due to the site being between greenery and city, the building will not have one front. The building will be approachable and accessible from the southern side as well as the northern side. The only time one façade of the building will ever be more important than the other will depend on the following factors:

- What activities will best suit the building that will be designed? IT needs to optimise interaction between users and should be accessible to everyone passing by.
- What time of the day it is: busy morning commute/ pause before lunch/ busy evening commute.
- Which recreational activities are happening within the park: how can the building support these events?

Other questions asked to refine the brief of the architectural intervention were the following:

- How often do these public events take place? This will influence which functions are refined more/ less throughout the design process.
- How can access to the park be improved?
- Can the building contribute to improve citizens to be more attracted to the park area?
- Which functions within the cityscape will be more/ less important?





The design outline must thus achieve the following:

- to blur the line between meeting formally and gathering socially
- to bridge the intangible gap between the urban chaos and the urban ease
- The space that needs to be created should aim to put city dwellers at ease to such an extent that they can effortlessly wander to and from the park.
- The edge needs to be meaningful as a usable space where citizens gather for meaningful interaction.

The isolation of the green lung becomes the ultimate problem, since it is currently an unused space in the city. By activation the edge the isolation of the park will also be minimized, since it will attract city dwellers to this area and will bring with them the sounds of togetherness and being part of something.

Strategies that will be investigated to resolve this issue are: densifying the edge in order to create meaning spaces, whilst evaporating an impenetrable boundary by blending nature into the areas where people will move.

The project hopes to engage with human cultural produce, energizing the edge, developing a platform for more activity by easing access and securing/ establishing identity.

The contrast between the intimidating mass of the concrete jungle to the north and east of the site in comparison to the vast openness of the park on the south of the site are currently problematic. The building will have to serve as a mediator between these two extremes.

# RESEARCH QUESTION AND ACCOMMODATION LIST

- Green space in the city are seen as an essential part of the fabric of a city in order for its inhabitants to have a well-balanced life. Examples of successful green spaces in a city is Central Park in New York, Ibirapuera Park in São Paulo, Luxembourg Garden in Paris, Park Güell in Barcelona and Hyde Park, London. The more recent development of the high line in New York also stands witness of the influence that green space can have on property values within a city.

- In Bloemfontein Loch Logan Island is such a space. It differs from the aforementioned examples in that it is surrounded by sports stadiums, a shopping mall, an unused parking area that was constructed to serve the mall and the left-overs of the Bloemfontein zoo.

- There is only one bridge connecting the island to the activities around it and recent efforts to increase control of access to the island only isolated it more from its surroundings by adding barbed wire and jail-like gates to the bridge.

In order to bring more activity to the edges of the site the author is hoping to increase access to the island and to blend the edge of the city to the park by creating transitional spaces that can lure individuals and groups to the edge

- The site that held the most promise to achieve this goal was the parking area that is currently not used.

- As a space that is devoid of meaning, a development can assist in developing a space where the population of Bloemfontein will find meaning and value and where the experience of the edge will be enhanced with supporting activity.

- By activating the edge, the overflow of activities can help to activate the Loch Logan Island.

**The research problem became the following:**

**How can the edge of a green space in the city be developed in such a way that it improves experience of the inhabitants of a city?**

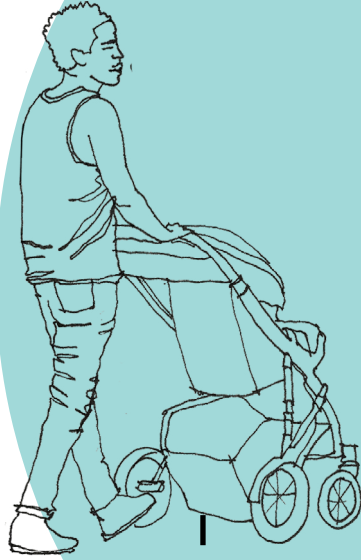
**How can current activities around the site be used to lure people onto the site for meaningful interaction with each other?**

**How can the city help to inform activities on the island on the one hand, and how can the close proximity of the island enhance and inform activity on the city side of the edge of the green space?**

HOW CAN THE LATENT  
POTENTIAL OF GREEN  
SPACE IN THE CITY BE  
ACTIVATED BY FORMAL  
INTERVENTION?



ACCOMMODATION LIST



Access to the escape:  
access to the park

THE PROMENADE



A place for friends to  
meet up for food and  
drinks

RESTAURANTS & A  
GIN BAR



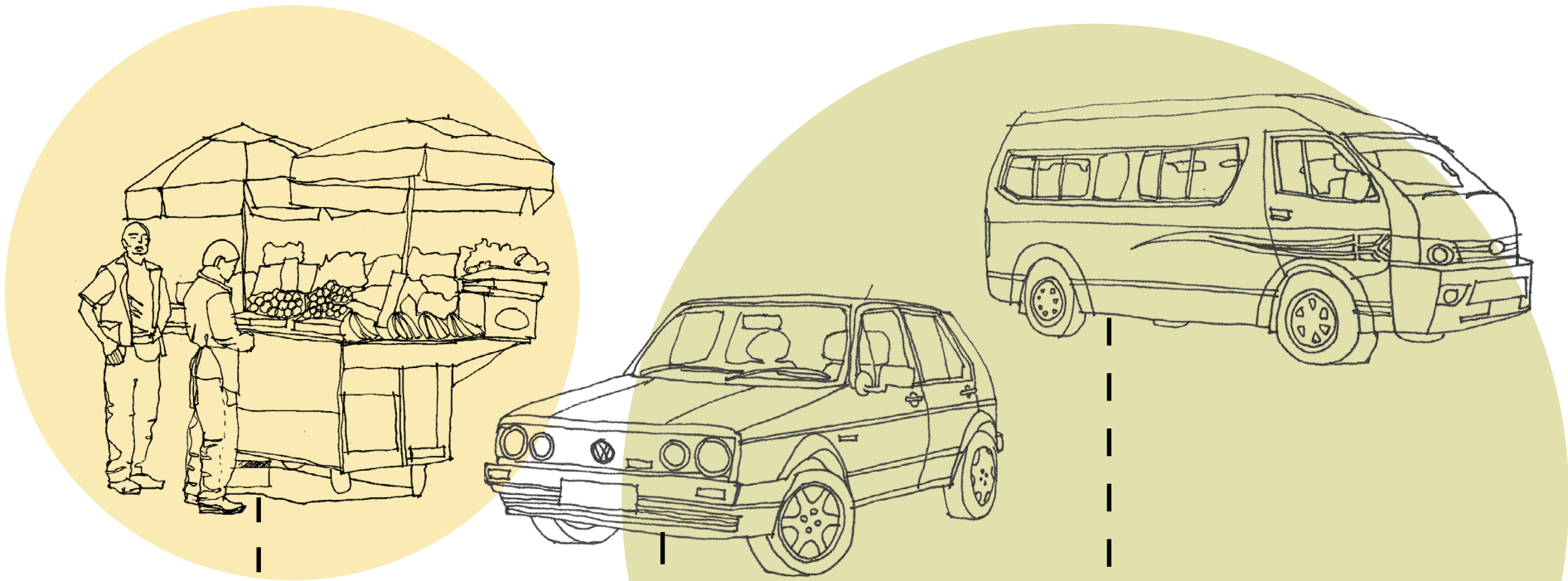
Easy access for  
pedestrians and cyclists

DESIGNED URBAN  
FURNITURE



A way for businessmen  
and woman to gather  
formally / informally

JAZZ LAWN, AUDITORIUM  
& OFFICES



An opportunity for informal tradesmen to become part of the urban fabric

Access and parking for Bloemfonteiners and visitors from far away to park

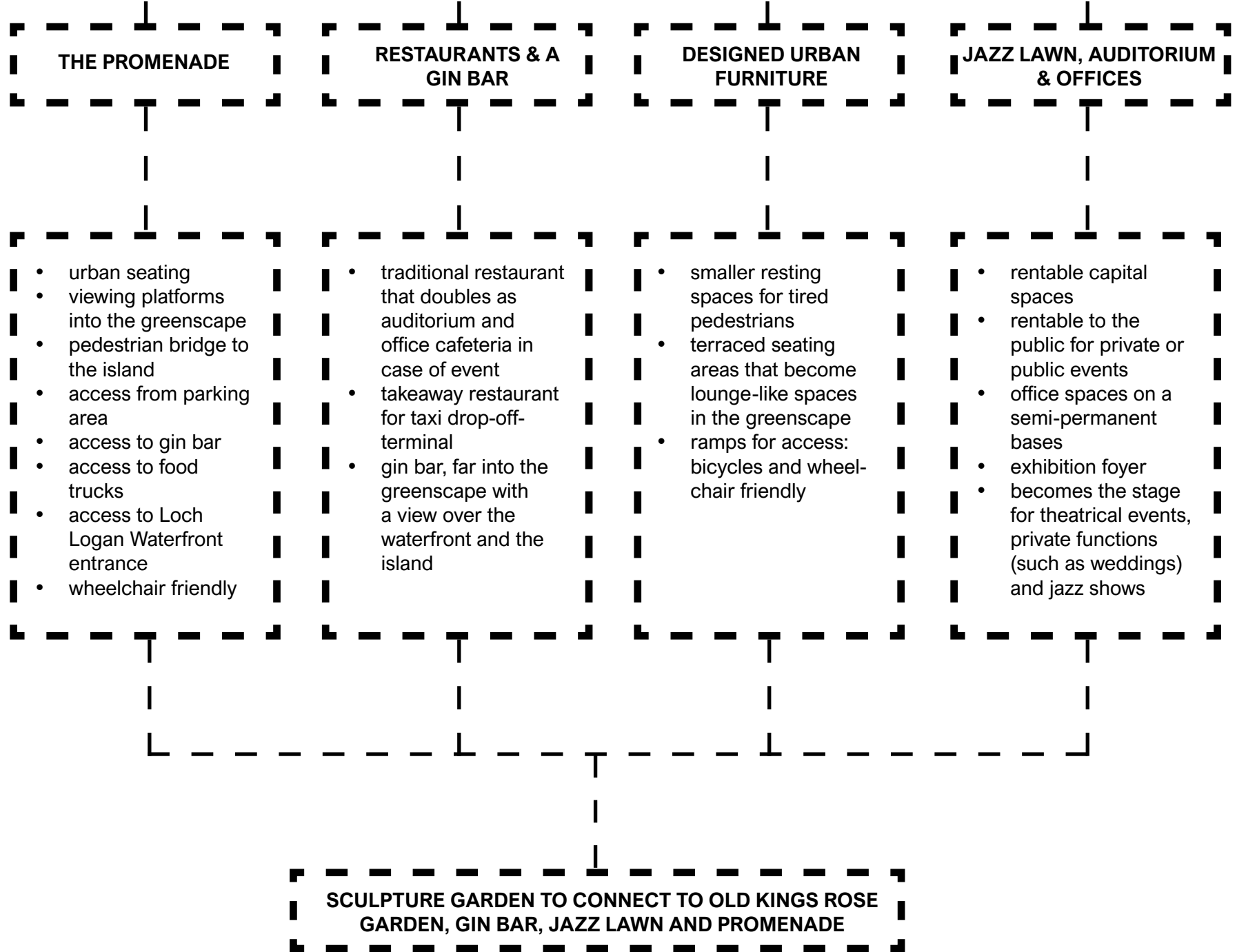
Better access to Kings Park from the CBD for users of public transport

**VENDORS MARKET SPACE**

**[LIMITED] UNDERCOVER PARKING**

**TAXI DROP OFF ZONE**

ACCOMMODATION LIST



VENDORS MARKET  
SPACE

- storage lockers with water and electricity facilities
- garage door façades that either open the storage unit to allow access to the inside, or for vendors to pack out and sell in the open
- shading system to allow comfort for vendors

[LIMITED] UNDERCOVER  
PARKING

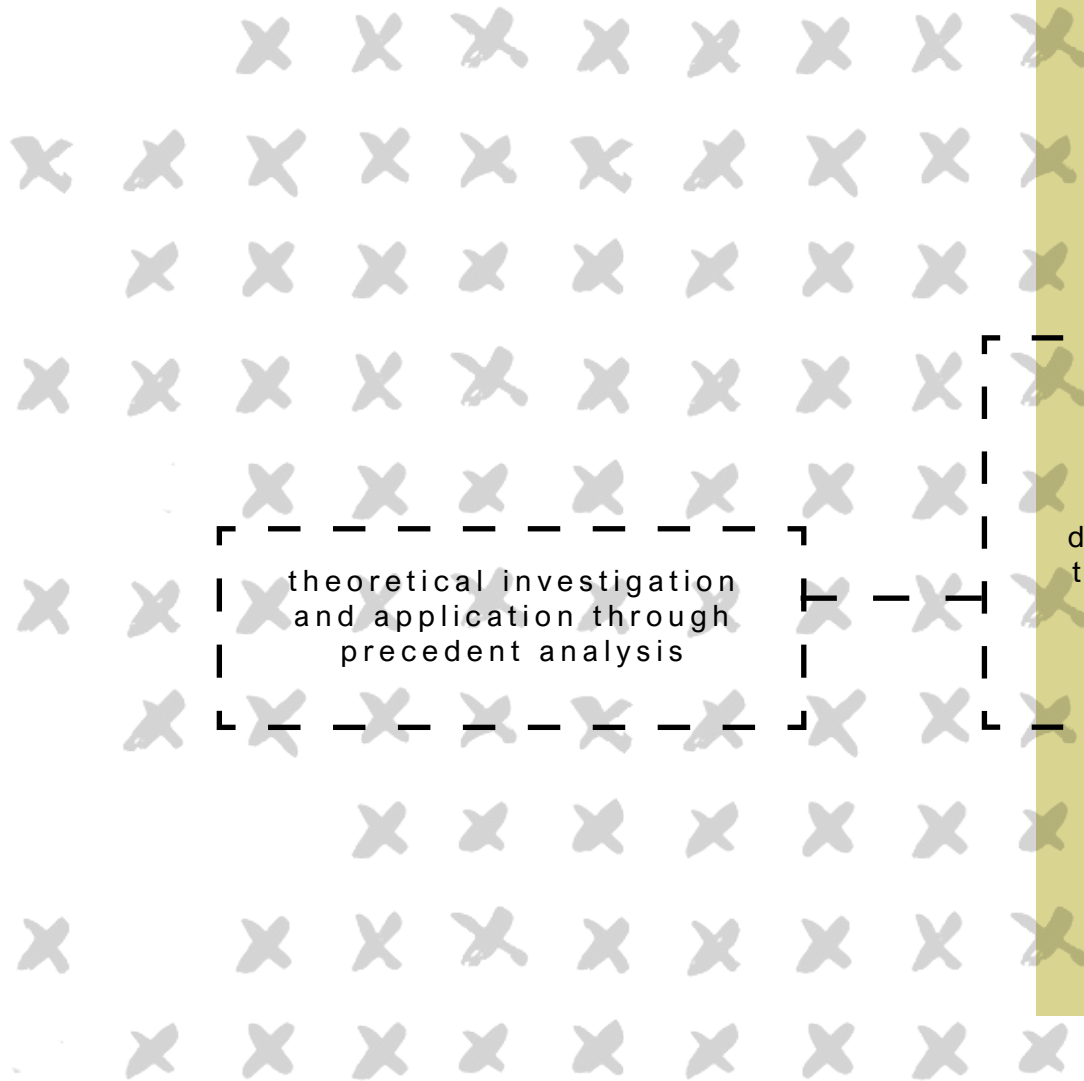
- the roof of the parking area to double for optimal use of space as the jazz lawn area, spilling into the sculpture garden
- the gin bar will be placed above the roof to create a view
- parking spots for food trucks towards the east, opening up towards the promenade

TAXI DROP OFF ZONE

- one way, in and out taxi drop off zone with public rest-rooms
- access to informal trade
- island in the middle of drop-off zone for dwellers to rest and gather on
- pedestrian walkways that lead to the island and to the jazz lawn
- entrance to the Loch Logan Waterfront mall

# PART 0.2





touchstones  
and conceptual  
investigation

**design  
generator  
02**  
[ TYPE ]

the great escape:  
the clients and the  
edge

dissolving thresholds:  
the user and porosity

roots [history]

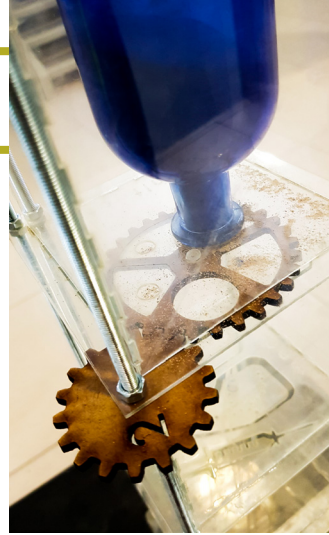
theoretical investigation  
and application through  
precedent analysis

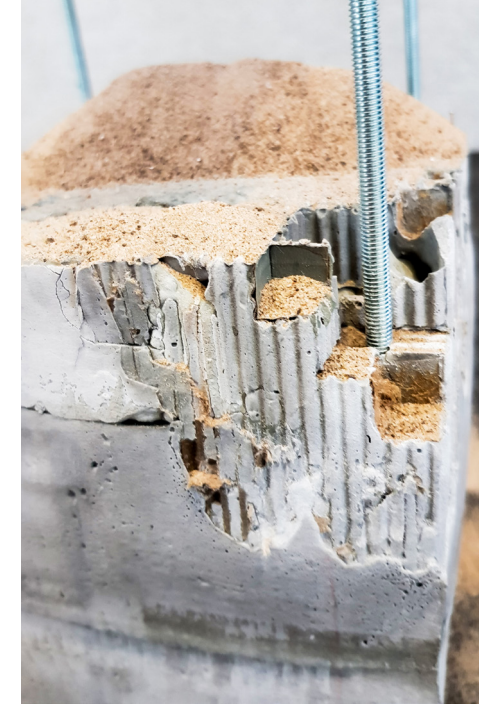
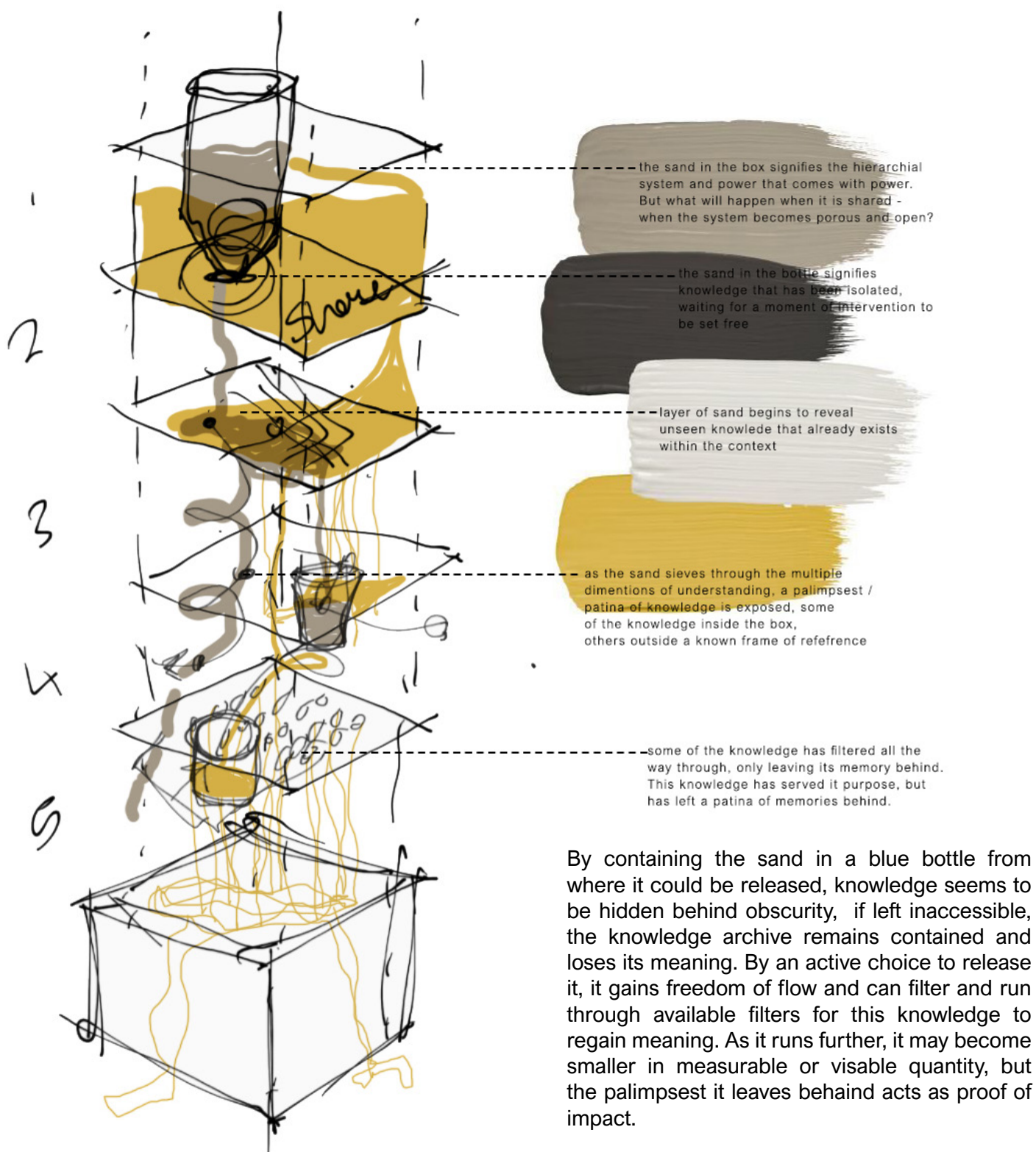
## TOUCHSTONE 0.1

Touchstone one was an interpretation of the kind of accommodation and use that the designer felt had to be incorporated into the envisioned structure.

The openness of the site was an attractive feature that needed to be preserved. The vertical relationship that the site has with the sky and the tall buildings in the area were interpreted as a system that passes knowledge from one isolated event to another by means of external intervention. The way that the future development needs to function has to take this into account. The actions and functions that are vital regarding the accommodated should aim at preserving this quality of the site on a horizontal plain.

In order to select a suitable idea, the focus for the development had to have an almost liquid-like nature: the host must have the ability to transfer contained properties from one person to the next, enabling the receiver to break the walls of a routine; opening up the fortress instead of holding on to the known. This will create stronger bonds between all people now part of a liberated system: the people sharing their archive of knowledge. Knowledge as a link to strengthening this bond, seemed to fit this description best. Water as a liquid was difficult to host in a structure and the choice fell to sand. Perspex was selected as a container to show transparency and also to make movement and flow visible.





## LESSONS LEARNT:

To use the flow of knowledge between incoherent elements to form a new narrative of meaning. As the main element in selecting what to host, this concept seems to be a good fit when addressing the question: Can green space in the city become more accessible by activating the edge?

Can a site that is disconnected on all plains use unconnected events to reinvest meaning into the site?

The project still needed a possible client and the municipality and the University was considered, most probably in a joint venture.

## TOUCHSTONE 0.2

A touchstone is a physical representation that translates ideas into physical form. Materials depend on circumstance and any physical material may be used to convey ideas in applicable matter. Due to the fact that the current site is a deserted parking area with nothing but carports on it, there was little to no surprise regarding found materials and elements found on the site. Broken or deserted artefacts in a state of degeneration were the only objects scattered around on the site. Its current genius loci of a forgotten experience indicates that the site is stripped of meaning, offering objects vacant of value to the citizens of Bloemfontein. This touchstone mourns the loss of the meaningful experience of the for which they were intended.

The touchstone mimicked the spirit of the site, while aiming to create interest by organising found items in such a way that it leads the eye to more prominently placed items, linear elements guide the viewer's eye to explore the touchstone further. As such, the touchstone aims to translate ideas of first contact, desolation and neglect, while also trying to create interest by offering variety of form, shape and linearity, ultimately creating intimate, enclosed spaces to gather in by celebrating the potential of what the site can offer in it's present state of imperfection.

The negative space around these enclosed nodes in turn create opportunity to gather in a different way; a more informal way.

Pieces of metal and broken artefacts were used to convey this emotional content, while striving to capture attention and interest with its



harmonious assemblage. It mimics the linearity of the site in order to assist in exploring missed opportunities on a linear site. Both of the long sides of the site will be exposed to scrutiny, refusing to allow the development of a one dimensional or one-directional design; the modus operandi of the intervention will thus aim to reinvent the current ritual of the site.

As a design stage it offered the designer the opportunity to reflect on first ideas and select the ones that stayed on the foreground to express in physical matter and to evaluate whether the translation was successful.

While the touchstone resembles the site in its linearity, it is not a pre-requisite for the touchstone to be interpreted as a regulating system to be applied. The touchstone interprets an active choice by the designer to improve the applicability to the selected site by investigating the existing, whilst understanding that there is more to be investigated beyond the boundary of the site itself. This in turn is applicable to the project in that the site is merely a smaller piece to be regarded within the larger whole: the project is a threshold between two extremes. The exercise becomes more useful by incorporating site characteristics. It can be argued that the first touchstone was done with the intent of getting to terms with what the site has to offer, to awaken first ideas and an awareness of the current gravity of the site, while the second touchstone investigates the potential of the site's slumbering opportunities and understanding how these factors can be incorporated in the design.

## LESSONS LEARNT:

The main ideas and responses to the site were communicated successfully regarding the means of gathering within a site that borders between two extremes.

The slim format of the final product was seductive and became an inspiration for the final design.



## CONCEPT 0.1

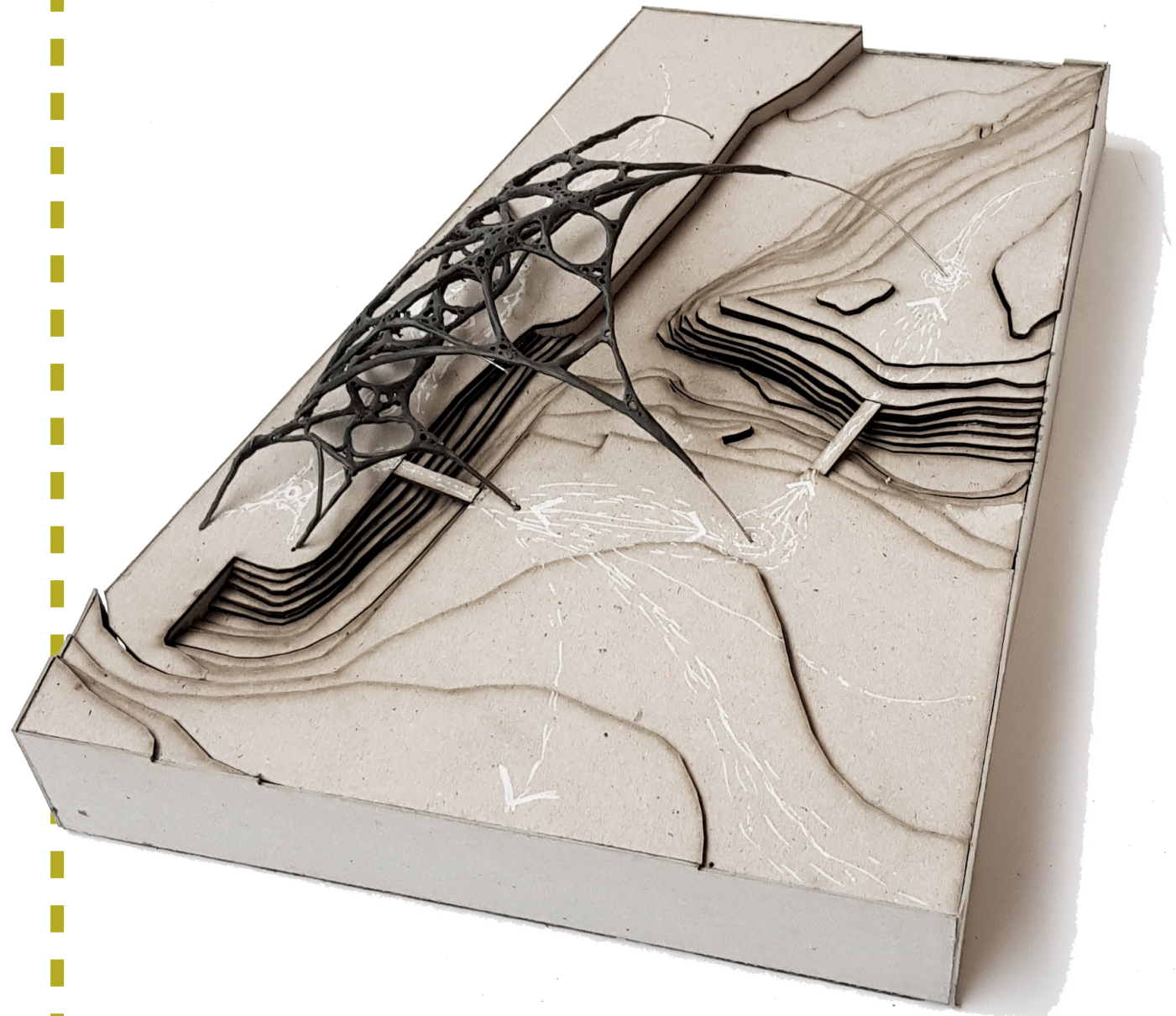
## POROSITY - PAUSE & RELEASE

At the root of this concept model was an awareness of porous experiences on site. How to develop something that will capitalise on this concept became an important factor regarding the longevity of the building's design.

The model is an open frame structure that aims to embed order on the site and give spatial reference to the user. By doing so it will focus activities on site and help to centralise use. The problem with the proposal is that it still leaves very little clues as to how to start to position solids or room-like structures under or around this framework. Its essence is an extension of the park and contributes very little in terms of something new to the City of Bloemfontein.

The park is extended and transcends the water mass, which reads as an obstruction to the existing park and island. By extending the park one might hope that citizens will be motivated to use the park more, but it will be quite a substantial investment without offering anything new.

The idea of porosity is a seductive concept regarding the project and may be kept to collaborate with another concept exploration.



## CONCEPT 0.2

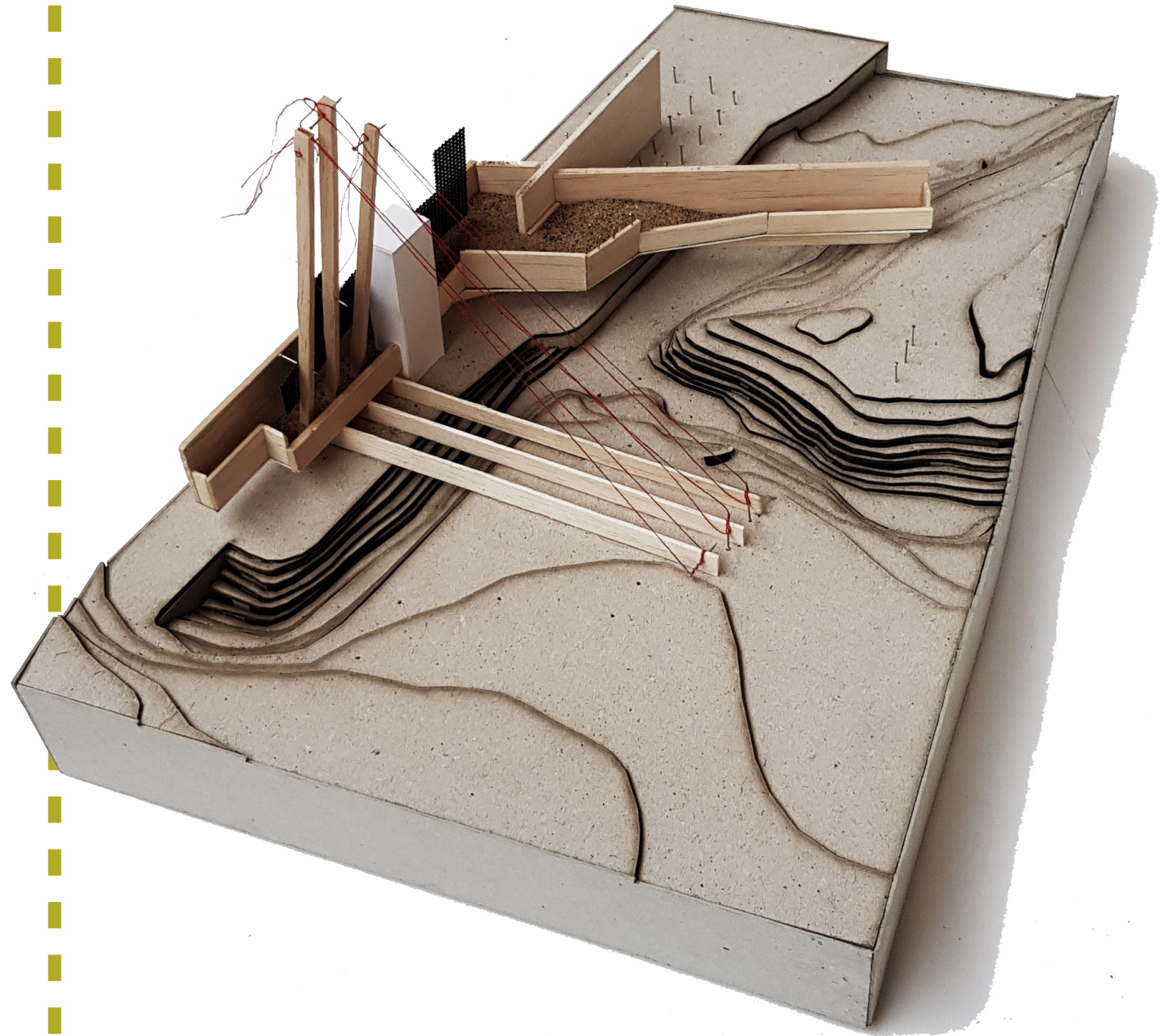
## MIMICRY

In an attempt to blend in with existing structures around the site, the existing was used as inspiration for the form development in this model.

The U-shaped waterfront mall was used and transformed to a solid L-shaped building with “fingers” extending towards the existing zoo parking lot. Though it creates a protected space to the south of this shape, it also duplicates the problems that the current mall created in the city, namely that it turns its back on pedestrian traffic and remains cold towards pedestrians passing the site to the north. It also enhances the barrier-like quality that the existing mall causes and views to the island is blocked.

Although investigating mimicking the surroundings was a relevant concept and worth investigating, the scale of such an intervention would have to be monumental, which would dehumanise pedestrian urban dwellers' experience of not only the site, but the surroundings as well.

In the circumstances of this project, a building that re-enacts the characteristics of its surroundings would be an insurgent intervention.



## CONCEPT 0.3

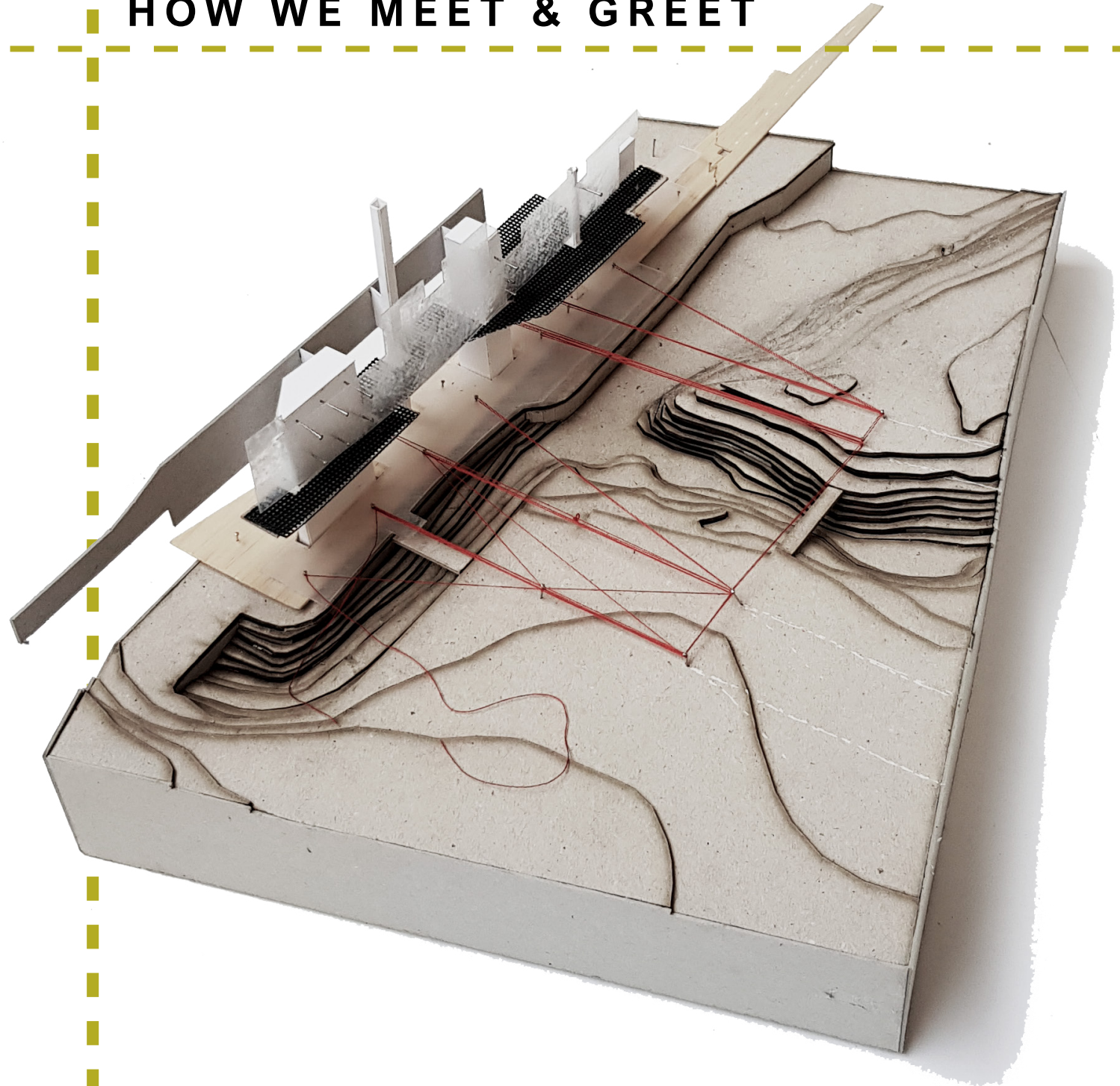
## HOW WE MEET & GREET

Three solid column-like structures are positioned on the site with open passage ways in-between. These recreate the slenderness of the second touchstone, which is attractive and theoretically fits well on the site.

It does appear that the solid areas of the model are perceived as too solid, but the transparent fins that fold around elements of these solid monoliths are appropriate to use on the site; the balance of transparent elements as opposed to solid elements start to instigate curiosity and will be further investigated. The open areas in-between the solids give clear views to the site and its surroundings, which seem like a positive attribute of this concept. The solids provide focal points for activities and helps to order the site, as it also gives reference points for the open experiences in-between.

The model demonstrates possible ways of layering one's response on the site and how to expand the structure in order to accommodate more functions.

The model is developed enough to offer many clues as to how the author can implement the construction within the order that it already implies.



# SELECTING A CONCEPT THAT BEST SUITS THE SITE

Concept model three seems to be the most appropriate conceptual application for the site and what is hoped to be achieved within the parameters of the development.

While the relationship between embraced space and disobedient space of concept one is attractive and can be incorporated with concept three, the spatial clues of concept model three indicate more clearly how the building can reach out into the greenscape of Kings Park

While this concept strengthens the edge of the park, it still opens views onto the park from the cityscape, which might assist in familiarising visitors to the edge development with the park.

Concept two seems too far-fetched and extreme.

The idea of porosity is seductive and will be incorporated into the final design, but the opened views in-between the solids of concept three are already exhibiting signs of porosity and, though it might still need some refinement, these concepts can be conclusively regarded as inseparable in relation to the conceptual foundation of the project.

The combination of these two concepts will be further developed in order to refine the edge of the park, which also forms the edge from the city.



Figure: Press play.

## DESIGN GENERATOR 02: TYPE & CLIENT

The Mangaung municipality identified a need for a commercial stream of income and wants to invest in building developments around the city. Rentable space and buildings will be handled by a letting department and the development on the edge of the park will be one of their investments. The building should not resemble a traditional office block, since this building type is littered in the city and are standing empty because of high rents, a challenging economic climate and the rise of the home office. The internet also supports a work environment where individuals can work according to their preference and a productive environment can be created anywhere. Though traditional needs for a work environment needs to be addressed, the municipality wants a more progressive environment for people to continue their daily working life, wheeling and dealing in a new typology that the user will find seductive and supportive. Rather than referring to an office building, there is a need for a building type that is conducive to higher interaction between diverse individuals

The development, once built, will be offered as a space for training and interaction with a wider public to financial institutions or a corporate client to rent in order to gain a stronger foothold in city life as educator to a community. A tender that will be linked to a time period will be submitted, after which the tender will be awarded to the successful tenderer. The business school of the University of the Free State will support training and promote activities where education to a wider public will be offered.

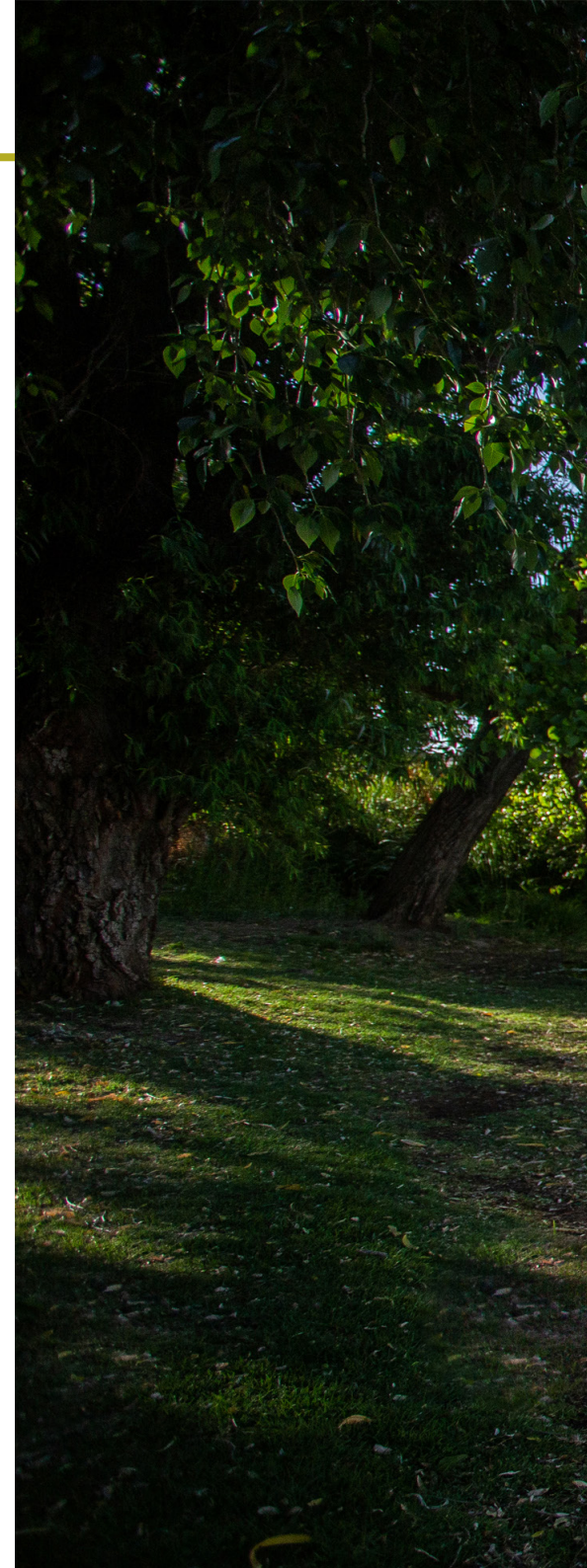
By including activities presented here into their formal curriculum a constant flow of educational activities is secured. Supporting activities and spaces to promote social gathering and interaction will also be available in the form of coffee houses, restaurants, an auditorium, informal trading hubs and a gin bar.

By offering social gathering opportunities and developing an architecture that offers a soft transition from city scape to park the building it-self will offer a desirable escape from the more regulated office culture. While it offers an escape and more laid back approach towards working space, it is still in close proximity to- and within reach of corporate life.

By growing a familiarity with the building and the activities that it offers, the regular exposure to the park also becomes a familiar sight.

Familiarity breeds association, which bring the potential that the park holds for recreational activities within grasp of the regular user. Activities on the island suddenly gain more exposure to the user of the building, but also to the city dweller that uses the taxi rank to arrive closer to their work space in the morning, or before leaving in the evening to go home. By offering activities that is available to all, people will start to invest time into being informed about activities that will be presented in the near future and can adjust their program accordingly.

To resolve the deserted parking area a taxi rank will be incorporated on the site in order to attract more people.





## THE GREAT ESCAPE: THE CLIENT AND THE EDGE

Figure: The contrast between cityscape and greenscape: the edge. King's Park, Bloemfontein (JC Schoeman Photography, 23 August 2019)

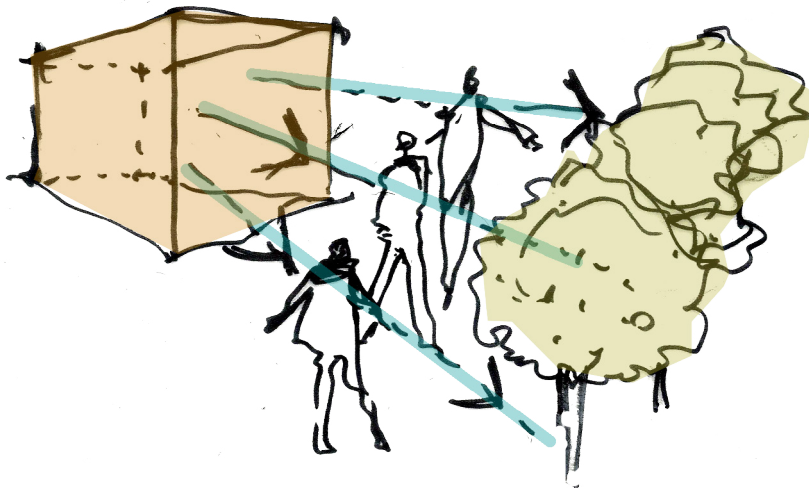
# THEORETICAL PRECEDENT STUDY OF DESIGN GENERATOR 0.1: THE SITE

Theoretical background for selecting applicable precedents that shows similarity or applicability of concepts and program:

A city park offers the city dweller a place where they can engage with a more natural environment where the rules of everyday life does not apply. As such it can offer a place of solitude, of healing, of reconnecting with the self and nature, maybe engage in an activity where social bonds are strengthened with piers, friends or family. In its essence it offers an opportunity where the individual can escape the strict routine of working life. It becomes a place of escapism where harsh realities fade away and a different life lures the visitor to dream different lives, rhythms and opportunities. TS Elliot writes the following on escapism:

“Poetry is not a turning loose of emotion, but an escape from emotion; it is not the expression of personality, but an escape from personality. But, of course, only those who have personality and emotions know what it means to want to escape from these things.” (Eliot, 1982, p. 42). By reflecting on life choices different paths may become more apparent and may even be within reach, though previously overlooked due to a lack of opportunity to dream or reflect.

While the escapism quality of parks may bring about healing, it is also not a real state: it is temporary and a return to a different reality when higher demands is eminent.



Working on the edge of a park generates its own problem when confronted with the threshold between harsh city life and the dreamlike quality of a park.

*“Poetry is not a turning loose of emotion, but an escape from emotion; it is not the expression of personality, but an escape from personality.”*

*But, of course, only those who have personality and emotions know what it means to want to escape from these things.”*  
-T.S. Eliot

The current state of the park keeps visitors at bay by the deserted state of the edge. It is not only stripped of living organisms and fellow citizens, it is also stripped of value and meaning, which discourages engagement.

By activating the edge with meaningful place, the edge gains meaning and can be overlaid with a myriad of layered experiences and interactions on site.

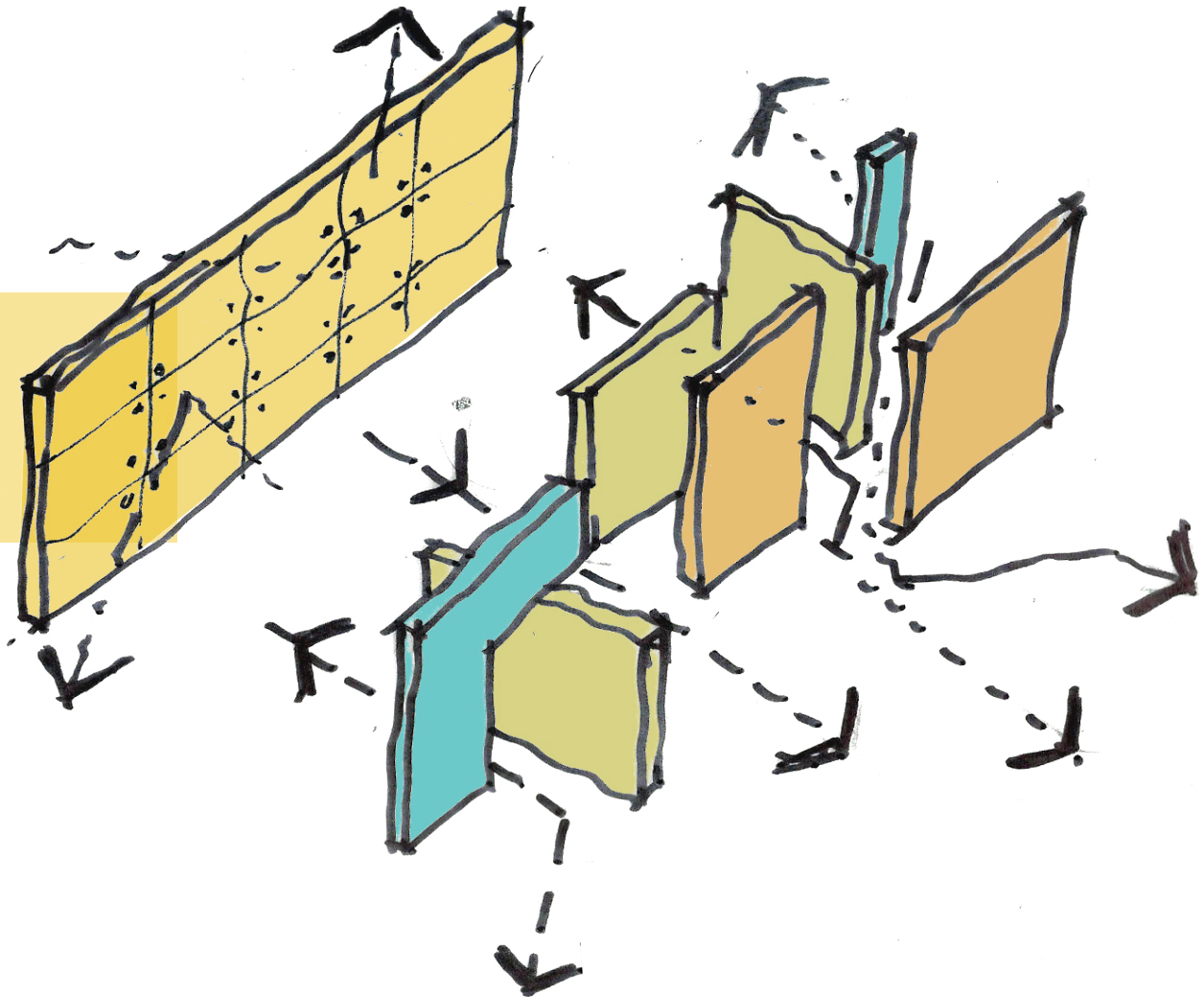
Emmet Truxes is a designer and artist currently living in Los Angeles. He received a Master in Architecture from Harvard University in 2013 and graduated summa cum laude with a Bachelor of Arts in Architecture from Princeton University in 2006. He is currently principal of ASTVDIO, a design studio based in Los Angeles run jointly with his wife and fellow GSD alum, Clementina Vinals Godoy (MAUD '12). As an early manifesto they wrote the following:

***“We acknowledge the existence of an architecture that inhabits an edge condition, which we define as a boundary, a border contained within a system of multivalent relationships. Architecture inhabits this edge tectonically, temporally, and perspectively”.***

They elaborate further by putting emphasis on the fact that architecture needs a contextual narrative and that it strengthens the architecture that acknowledge its context.

**They also move away from the concept of walls being the carrier of what architects do. Thresholds should carry more weight, allowing for a paradigm or world view to embody the designed space.**

As such the threshold is important, since it needs to balance the discrepancy between the two sides that it attempts to mediate.



# PRECEDENT STUDY 01.1: SEOUL, SOUTH KOREA

## CHEONGGYE FREEWAY

Lee Myung-bak became Mayor of Seoul in 2001. His key focus for his election campaign was to remove the highway that covered the Cheonggyecheon River. An integral part of the success of this development was to incorporate a Bus Rapid Transit system to get people to and from work, without the loss of the highway becoming a major hurdle to city dweller's movement across the city.

The freeway was removed by 2005 and the stream was restored. This project proved so popular that it earned him the nickname "Mr. Bulldozer" and put him in the race to become president of south Korea in 2008, serving a five-year term in this position.

The need to create green space in the city was more urgent in Seoul, but Bloemspruit is also partly covered by Mimosa Mall, The City Lodge, the Standard bank building, the Escom building, the Caltex building and the Symington and de Kock building. It is exposed just before it enters Loch Logan, where it contributes towards a water rich experience to the city dweller in this park-like setting. The success of the city development in Seoul underlines the importance of green spaces in the city and its healing qualities to a wider city experience. By developing the edge, the experience of a green lung in the city is exponentially enhanced.

(Figure: Urban refurbishment of Cheonggyecheon River, Seoul. (CruiseBe.com, 2019)



(Figure: Urban refurbishment of Cheonggyecheon River, Seoul. (CruiseBe.com, 2019)



## LESSONS LEARNT:

It is used as a precedent for the development of the edge of Loch Logan, since it creates easy access for people across the city to reach this part of town. It creates a movement hub and increases the opportunity for interaction. Loch Logan as a green lung in the city can be experienced as a calming zone where recreational activities may be entertained and promoted.

# PRECEDENT STUDY 1.2: FONTVIEILLE'S SITE, MONACO

The brief for the competition was to restructure an extension for the new Fontvieille site, Principality of Monaco in order to group cultural-, commercial-, public and landscaped spaces. A main focus had to be "... to emphasize how much the existing is incredible" .... The competition was won by Massimiliano and Doriana Fuksas for the project that had to extend and restructure the new site of Fontvieille, in order to re-invigorate the district and the port of Fontvieille in Monaco.

Major elements that was incorporated to achieve what was demanded were the curved lines to evoke the movement of the waves and the topography of the seabed. ... *"They also express the geometry of the building, conceived as an extension of the Rock from the mountain to the sea, with levels that are superimposed on terraces, offering outdoor spaces adorned with local plant elements. The border between inside and outside tends to disappear and the large hanging garden, at different levels, gives a new architectural identity instead. ..."*. The architecture becomes a contemporary and fluid structure that was allowed to develop organically through dedicated interaction with, and as a response to the site and its surroundings.



(Figure 1 and 2 on page: Fontvieille site, Principality of Monaco, prosal for landscaped spaces competition. (Fuksas & Fuksas, 2017)

## LESSONS LEARNT:

The building was constructed as a porous structure that allows movement through the building. People are allowed to flow through and around the building in such a way that nature (the sea) is within reach. Trees and shrubbery are incorporated in the structure and creates a softer transition between urban structures and the experience of the ocean. By allowing more than one access path to the ocean congestion is prevented and the edge of the sea becomes a destination space where the city dweller can wander and change to a lower gear in order to enjoy the immediate surroundings.



# PRECEDENT STUDY OF DESIGN GENERATOR 02: TYPOLOGY & USE:

*The theoretical background for selecting an applicable precedent that shows similarity or applicability of concepts and program is divided into two parts: the first theoretical discussion will be applicable to the use of the building, while the second theoretical discussion will apply to building form:*

## FIRST THEORETICAL DISCUSSION:

The first precedents were selected mainly for the way in which the building is used, and not to learn from its form or interaction with and within the city.

At Loch Logan the development on the edge of the park needs to allow for a transition from a harsh urban context to a soft, natural landscape. Though the edge of the site, as well as the island itself is manmade, it is allowed less control about the life forms that choose to settle there. Though the island and the edge of the water does not hold indigenous plants and -animal life, the life forms that settles in this area are not controlled and manipulated into certain strict behaviours, which is different from current traditional ideas about a work environment.

In nature life can sprout in an area simply because the opportunity for it to develop is available. In a less controlled environment wild saplings may not be removed, but allowed to grow into mature, giant trees.

In the park the establishment of indigenous trees will be promoted and the prosperous growth of alien trees will be discouraged. Alien trees change the pH of the soil, which inhibits the growth of indigenous shrubbery. The encouragement of indigenous trees also assists the site to be more unique, since it avoids alien impressions left by alien trees and other alien plants.



(Figure: The contrast between cityscape and greenscape: the edge. King's Park, Bloemfontein (JC Schoeman Photography, 23 August 2019)

The building will aim to blend natural elements with man-made structure and finishes in order to soften the transition from city to park, and also from park to city. By offering an environment where the vastness and current desolation brings down the scale of open space, it will provide nooks and crannies where people can gather, meet and exchange ideas. Though order may be needed in assigning functions, the feel of the space should be more informal and allow free interpretation in terms of use. Most spaces should have the agility to be used as a workspace as well as a social station.

There will be areas where people will be encouraged to engage in lively conversation as well as areas that will be designed for quiet reflection or productive engagement with work tasks.

In essence the feeling of the interior should be of an agile space where one is free to settle in a place that suits the mood you are in. Group meeting areas can be booked and should be adaptable to be used as either a boardroom space for a formal meeting, but also offer an environment adaptable to a design iteration session or think-tank situation. The different spaces on offer allow the user of the building to be more spontaneous and less controlled in selecting an area to settle in, which is synchronised with the way in which wildlife can settle on the edge of the water.

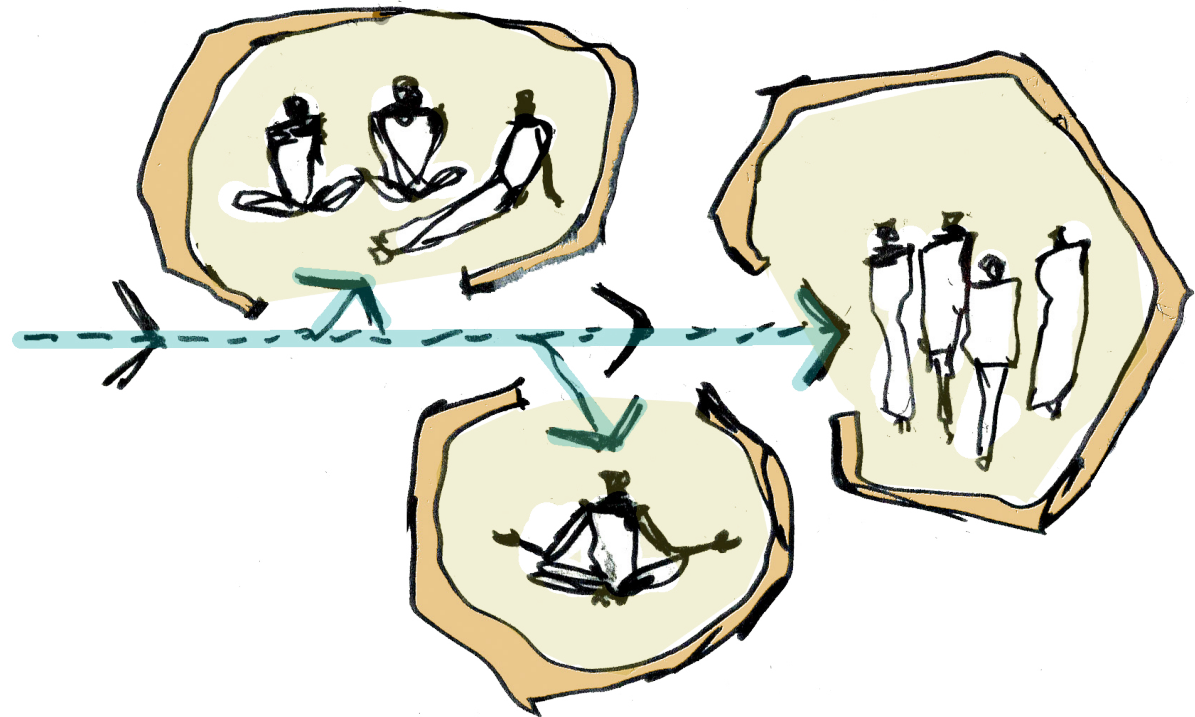


Figure: Gathering in larger groups, small clusters or reflecting on the self.

## THE THEORY BEHIND EAT, MEET AND GREET:



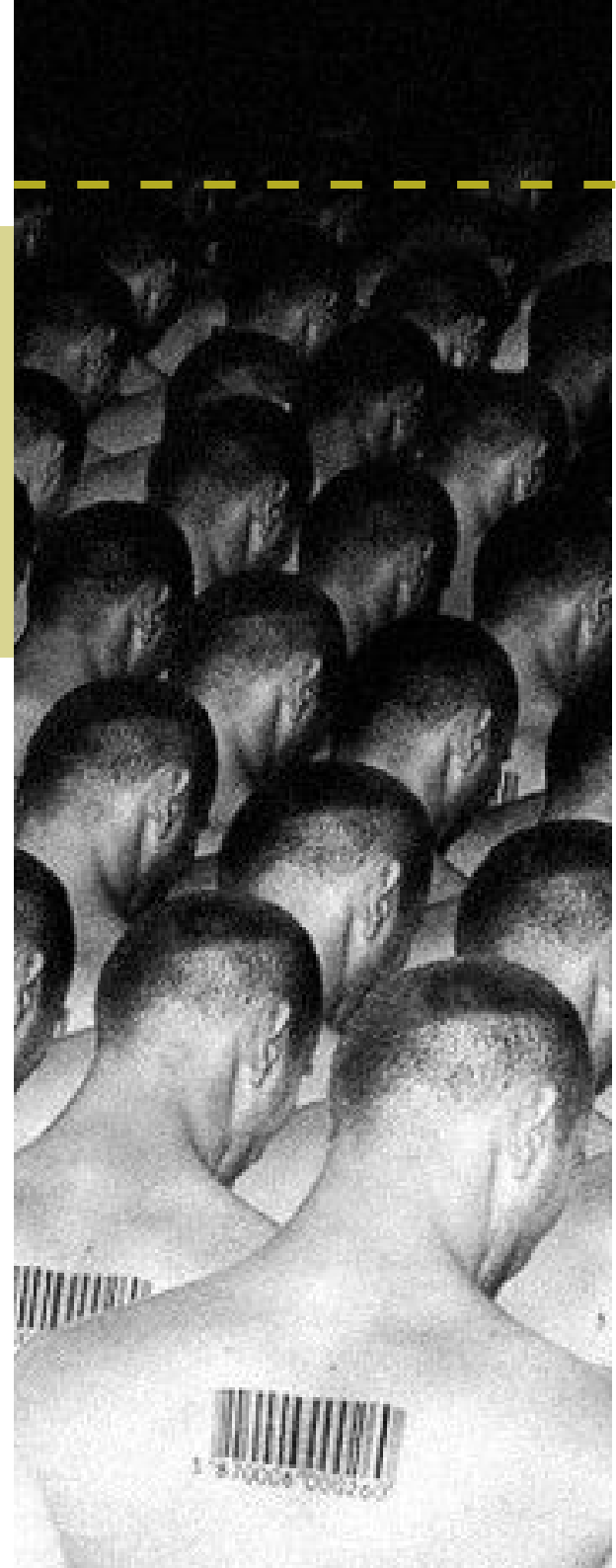
In an age where technology dominates society's interactions with others, the opportunity to interact with one another seems to be more and more regulated by people's ability to connect online.

Screen time is seen as social time with social interactions, which seduces people into staying indoors and avoid real-life interaction with others. It is seductive, simply because it allows more control over one's interaction with others: if an individual does not want to interact with someone else, he or she can simply go offline and ignore requests for interaction. Real-life interaction does not allow for the same level of control. One cannot simply vanish from an area, and to be asked to be excused needs approval by those present in one's direct environment.

By breaking down the scale of spaces within which people can meet, the individual is lured into a building that mimics the intimacy of a more homely interior where the visitor can feel at ease within a smaller, controllable environment as well as a smaller number of people present. By offering areas that allows for group interaction, but also offering work spaces for single occupation, one can settle in a space that one feels comfortable in. By allowing individuals to be present as individuals in an area where there is lively conversation they are included by association, though they may choose not to become part of the conversation.

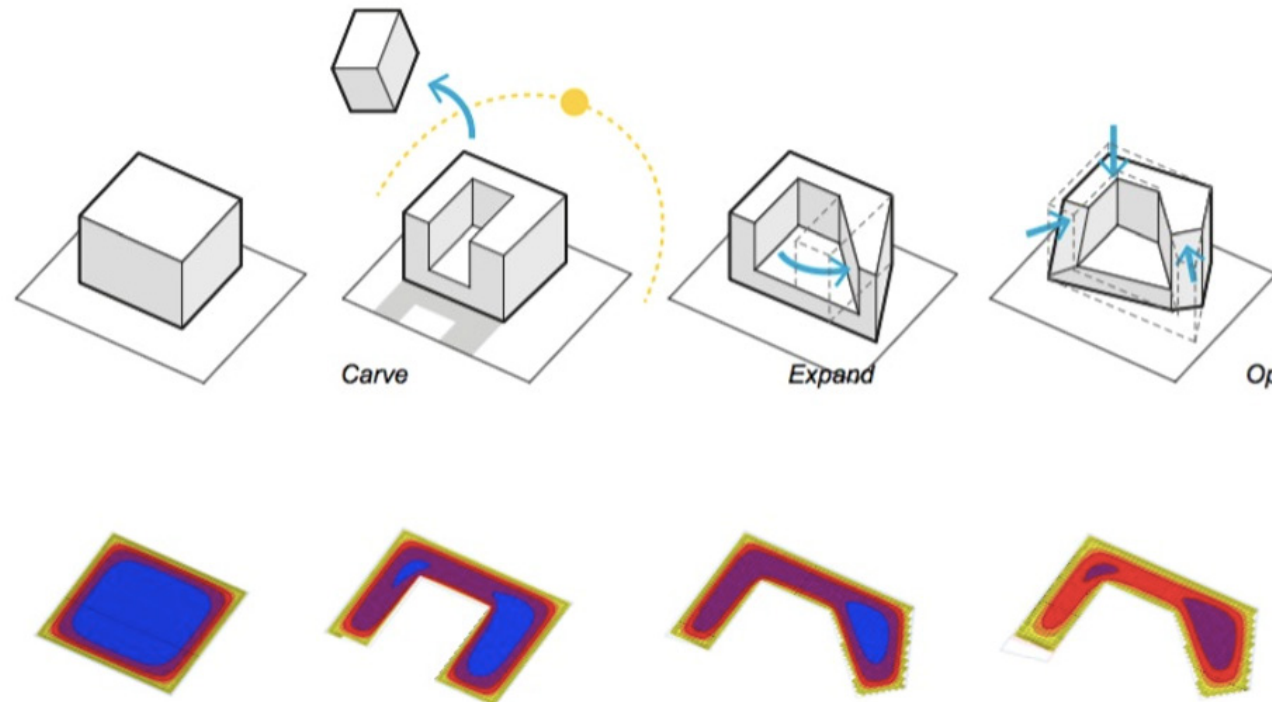
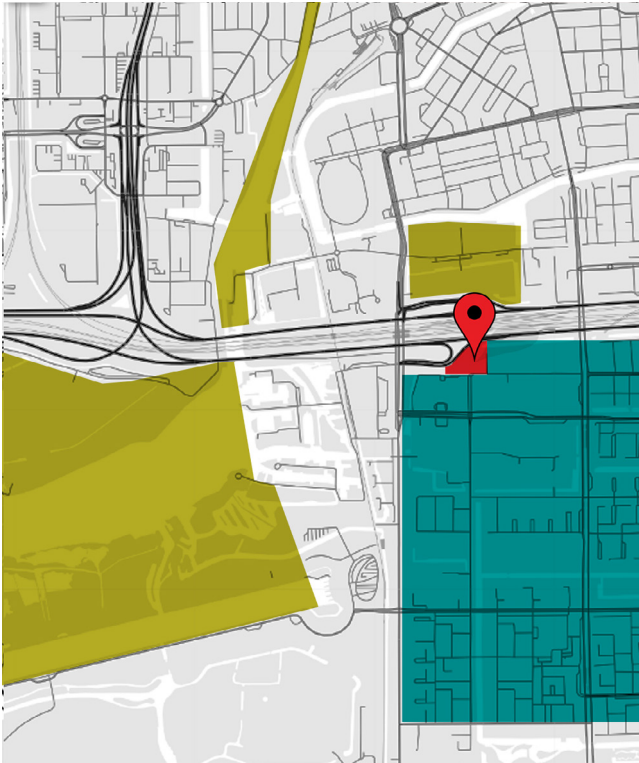
Figure: in an age of technology we need to actively reach out in search of a deeper connection.

Society is morphing individuals into carbon copies of each other, individuals are losing their uniqueness. People are afraid of standing out, believing that falling into sameness safeguards against loneliness, instead of venturing out and experiencing the journey of exploring the undiscovered facets of the self, the city, nature and fellow man.



# PRECEDENT STUDY 2.1: THE EDGE, AMSTERDAM

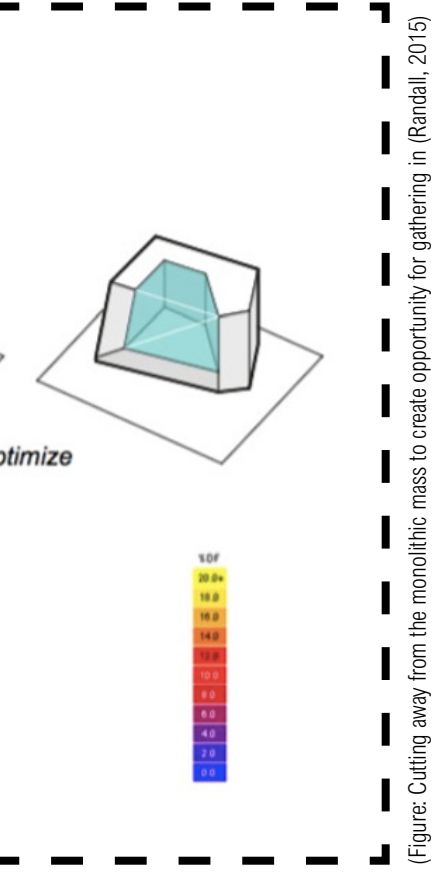
The Edge is a building that was designed on the periphery of the CBD. It presents itself as an open building with clear glass façades and nothing to hide. A 15-floor atrium allows visual connection throughout the office building and workspaces are scattered everywhere: in lobbies, terraces, decks and cafeterias. The building recognises you as you enter the building through the parking area and assign a parking space and work space according to your schedule for the day. How space was assigned and the free-space-for-all principle is called the new-way-of-working.



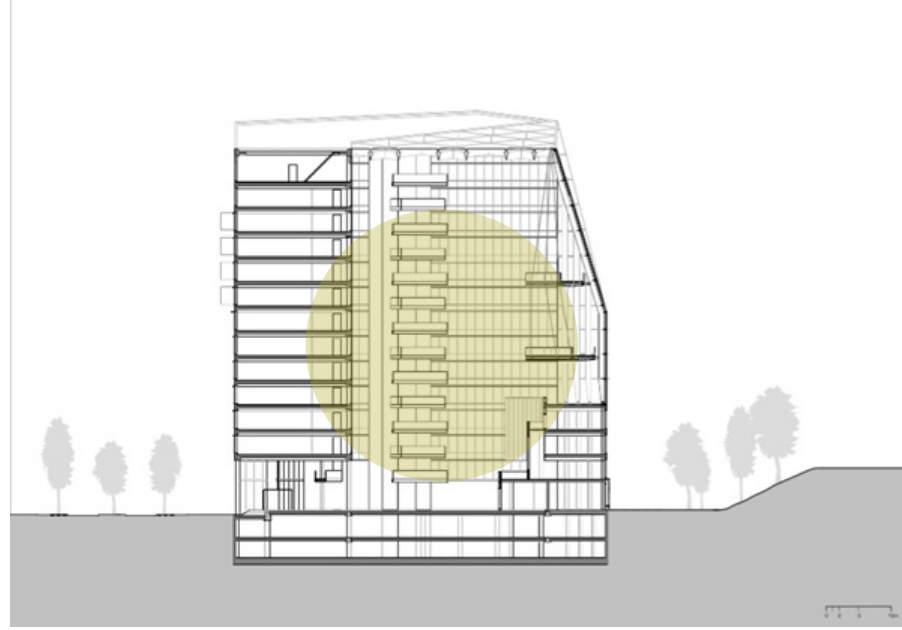
The building is not used as a precedent for its built form, but for the way that it operates and the way in which occupants are free to set up their work station for the day where they please.

Areas available for working varies from completely private and suitable just for one occupant, to group areas to an auditorium, accommodating more than a hundred people.

Social areas are present and food and beverages is available in the cafeteria. Spaces also vary from loud (cafeteria space) to silent rooms where one can take a private phone call out of hearing distance from anyone else.



(Figure: Cutting away from the monolithic mass to create opportunity for gathering in (Randall, 2015))



(Figure: Section of Building, showing multivolume gathering space (Randall, 2015))

## LESSONS LEARNT:

The Edge is incorporated as a precedent because of the way in which it assigns space to its users and the free environment that it creates. One's reference in terms of a workplace environment is linked to one's own computer and carry-on needs. One's office is seen as mobile and how it is set up can be either within a lively social environment, like the cafeteria, or in a private work booth where complete privacy is on offer. In terms of the architecture the exterior skin of the building may seem monotonous with only a slight variation in the atrium space as opposed to the more formal work spaces. The designers do not refer to the building as an office building, but rather a productive and transparent work environment.

# PRECEDENT STUDY OF DESIGN GENERATOR 02: TYPOLOGY & BUILDING FORM:

Theoretical underpinning for selecting applicable precedents for building type:

The site forms an edge to the Loch Logan island water's edge and King's Park. As such it is an existing edge condition. While the parking areas are open space in the city, it discourages engagement through the run-down state that it is in. It reads as a barren desolated space, stripped of meaning and left wanting in offering any value to the city dweller. Because of this lost piece of city space Kings park becomes for the most part inaccessible, which diverts the opportunity for gathering and partaking in recreational activities with the centre of Kings Park. Due to its secluded nature, the park functions as a void within the city. By increasing activity on the edge of the park and by easing access to the Loch Logan Island the park becomes more accessible to all due to the presence of more people on the edge of the green space. The presence of more people on the edge also increases safety, since there are more eyes monitoring the environment of the park and its surroundings.

In an article by Taramtadam, "On Spaces of inclusion vs walls of exclusion", there is a sharp focus on edge conditions in architecture and public space. One of the reasons why The Edge cannot be used as a precedent for building type is the rigid edge that the building has where it meets its direct environment. As such "the Edge" building functions as a wall in the city, preventing passage through the space that the building occupies.

Emmet Truxes highlights the fact that architecture does not have to be about the walls, but should aim to mediate transitions with sensitivity. Architecture should recognise pluralities in urban contexts and needs to address the prevalence of multi-valency present.

*This ability for fine manipulation gives our architect a wide range of control over his actions. And so, within the hard borders of a multivalent environment the urban architect weaves a series of internal thresholds, gateways that afford the ability to balance opinion, weigh perspective, and modify behaviour.*  
(Eliot, 2019)

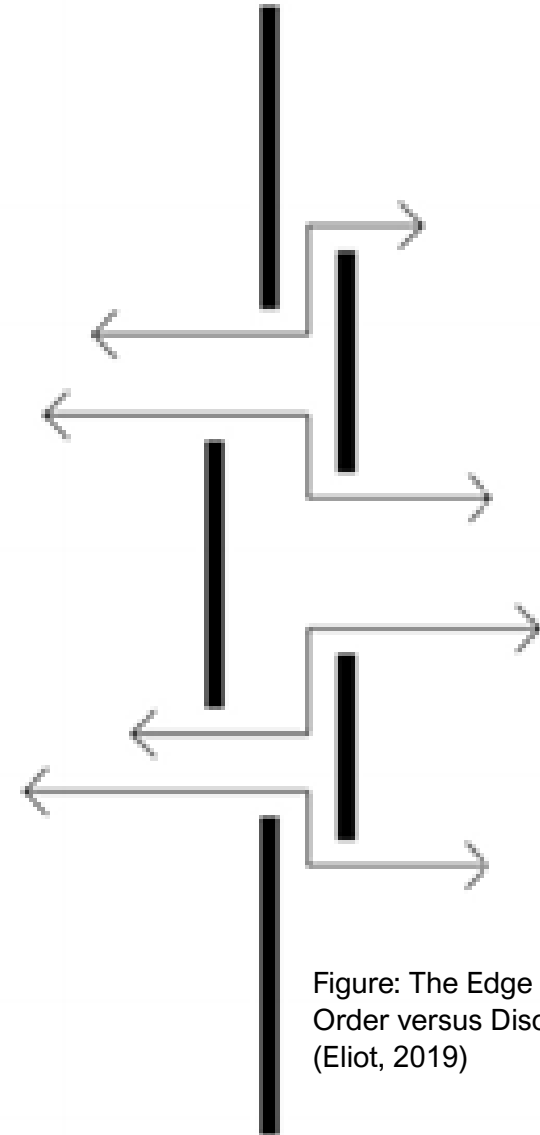


Figure: The Edge condition:  
Order versus Disorder  
(Eliot, 2019)

As such the city give rise to pluralities in expression and in ways of being, as well as ways of being aware. By allowing differences to interact and exchange experiences, a middle-ground should be available where interactions can happen freely in an unbiased environment, equally available to all.

By creating a porous edge to the park, the development aims to offer the city dweller the opportunity to look up from their screens and be delighted.

Porosity as a concept in design was promoted by Steven Holl's experiments in porosity. Porosity as an urban concept highlights the "...inexhaustible law of the life of a city, reappearing everywhere. It allows for the experiential phenomena of spatial sequences through movement with, around, and between that triggers emotions" (Holl, S: 22. 2009). It addresses lived-in space and offers different experiences to the user by allowing penetration of the designed, porous volume of space. A porous building offers flow through a building which can be varied in size, direction and shape. Porosity (of an egg) refers to very narrow, channel-like passageways through a structure that barely allows air or other mediums to filter through. BY widening the channel-like passageways the edge of a building becomes blurred and the exterior- interior relationship is compromised. While it may be unconventional, it frees movement and allows the user more options regarding a lingering pause, or directional, focussed movement.

In the design of offices and as a contemporary movement in corporate culture: hierarchy, assigned office space, and ownership have become redundant concepts to assign space to the users of a building. At the basis of this movement is design culture and the opportunity of all participants to have an equal opportunity to give input in the design of new products. It supports teamwork, but also allow for variation regarding a work environment.

The concept of hot desking may jump to mind, but PLP firm took the concept several steps ahead and designed a building that will assign a desk or workspace to an individual, based on the user's history in a building, as well as the schedule that such a person may have for the day (ArchDaily.com, 2016).

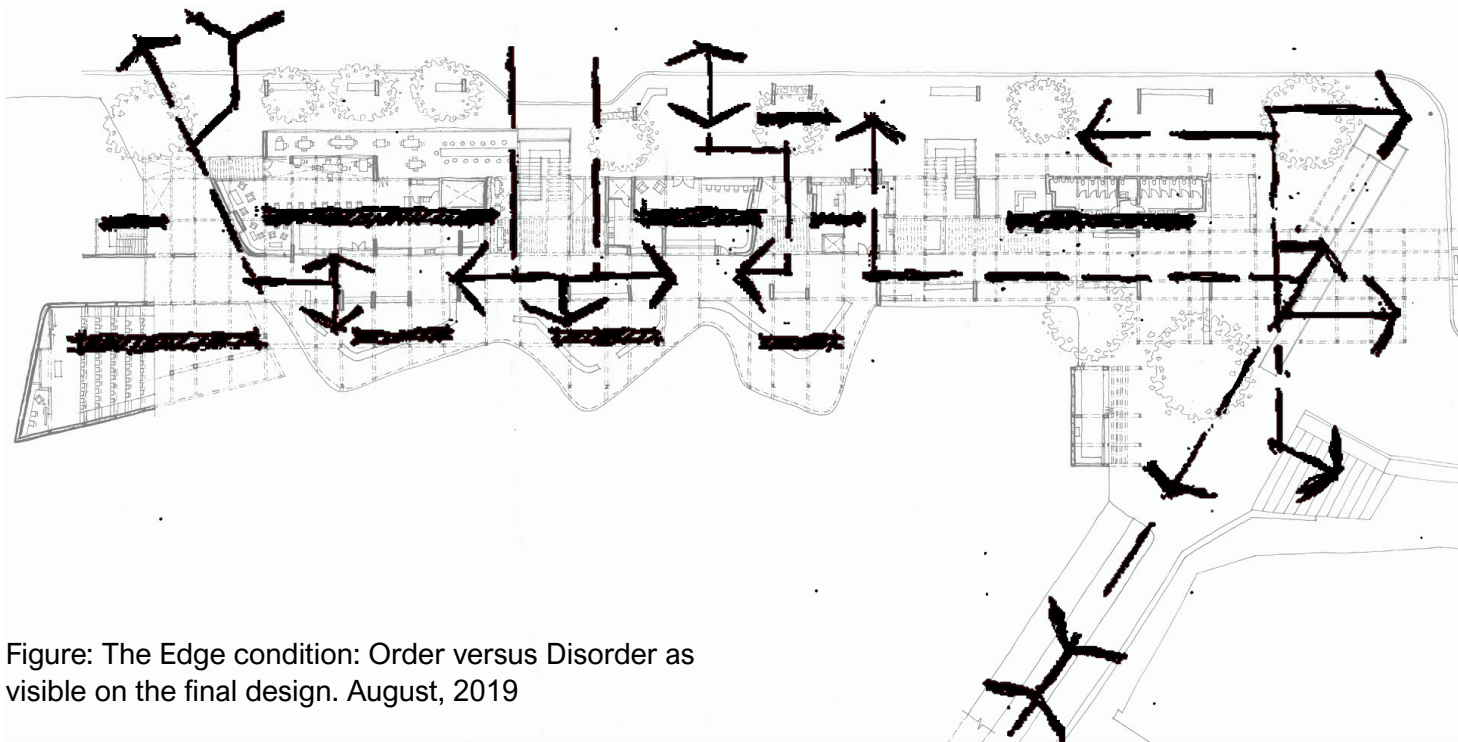


Figure: The Edge condition: Order versus Disorder as visible on the final design. August, 2019

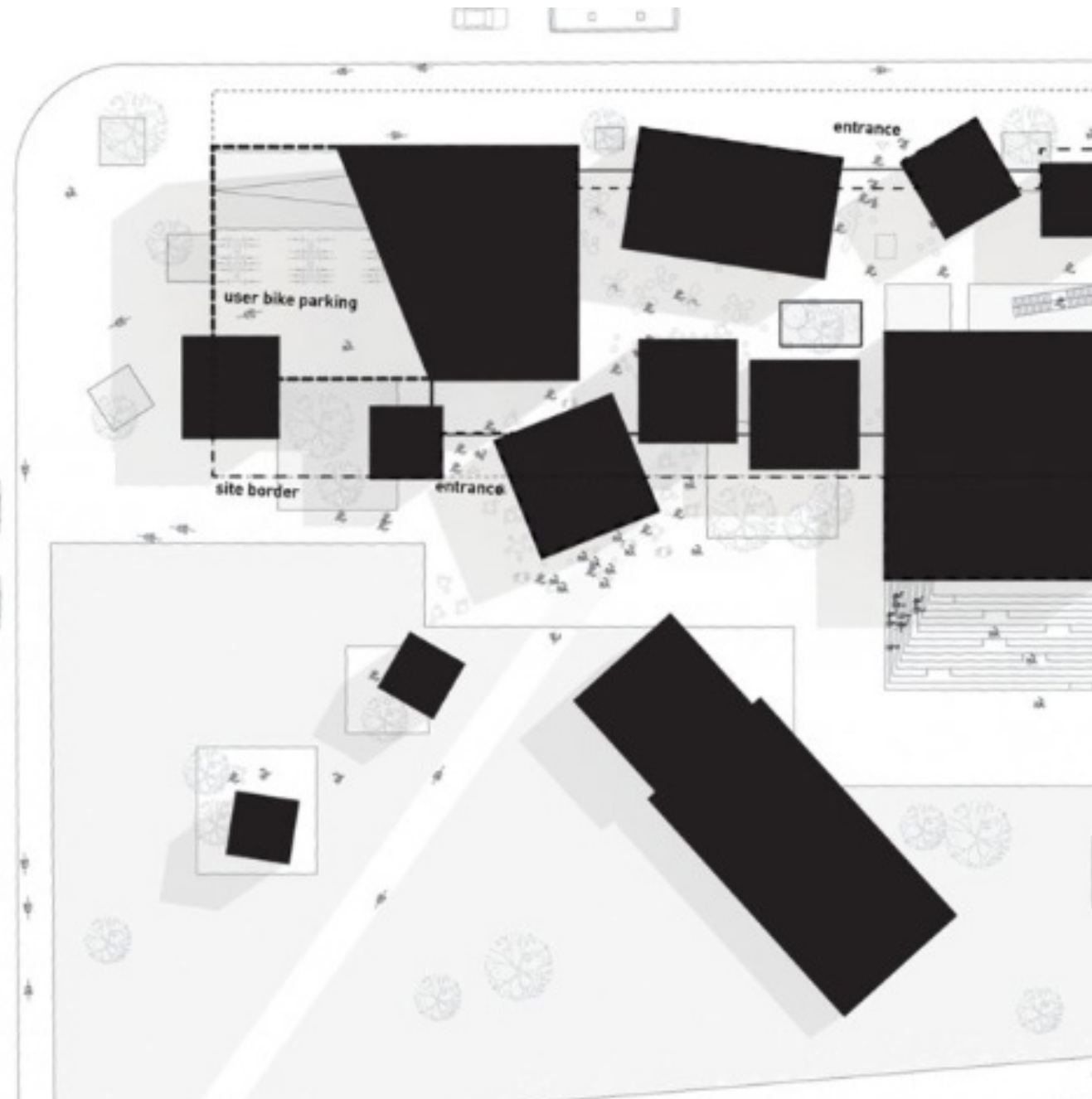
# PRECEDENT STUDY OF DESIGN GENERATOR 2.1: TYPOLOGY AND BUILDING FORM IN TERMS OF POROSITY:

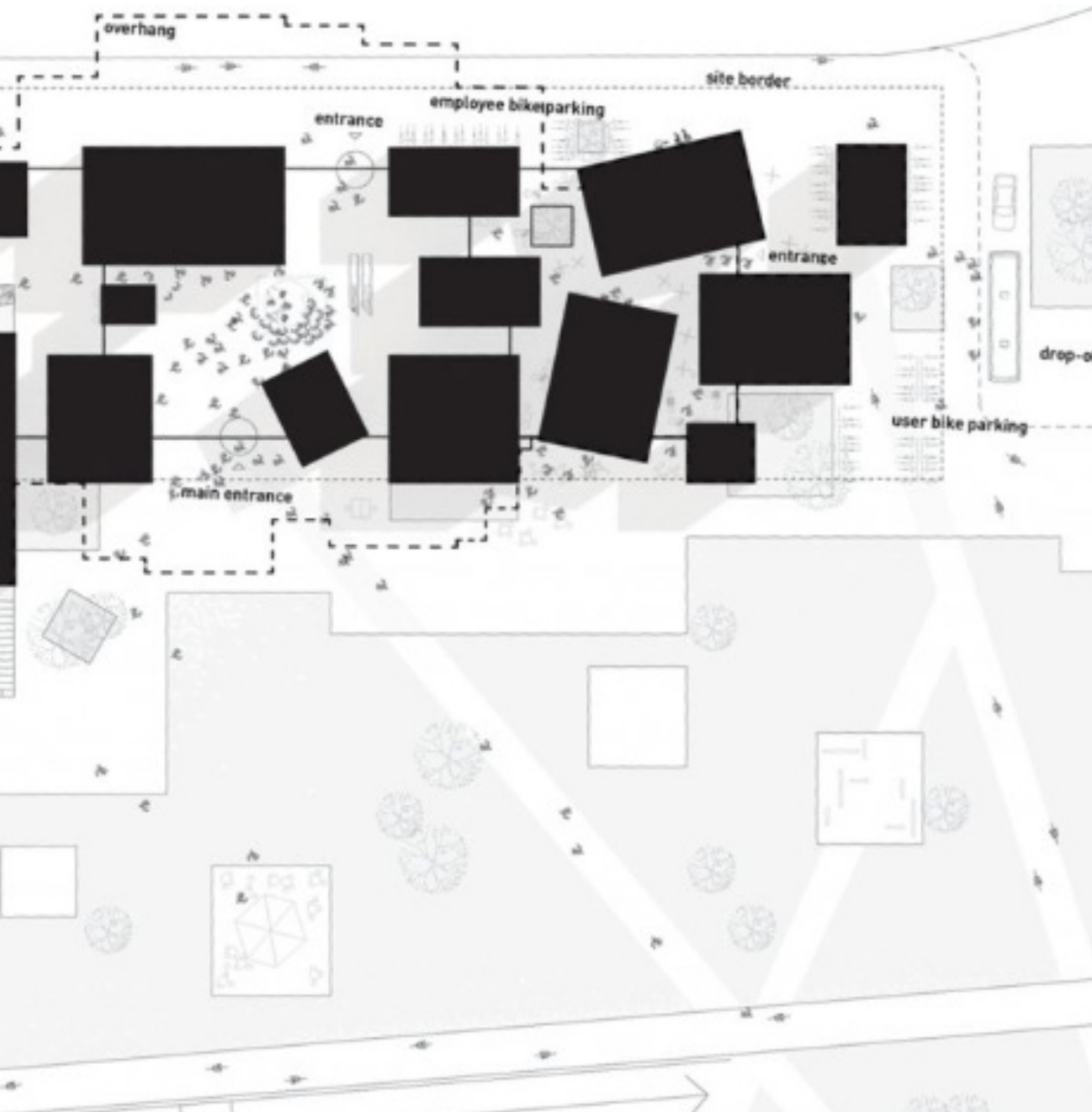
Location: Helsinki, Finland  
 Client: Helsinki Municipality  
 Program: Library  
 Size: 10,000 m<sup>2</sup>  
 Status: Competition 2012  
 Collaborators: Buro Happold Denmark  
 Team: Dan Stubbergaard, Eik Bjerregaard,  
 Greta Tiedje, Ole Storjohan, Chloé Blain

“Our proposal for the new library in Helsinki establishes a new type of library – a 'Library City' which is specifically dedicated to the public.

The library city is inspired by the diversity and density of the city, as it incorporates venues of different thematic characters and qualities within a single building. By subdividing the building program into smaller entities, each of them obtaining a human scale, the library becomes a continuation of the city space of Helsinki. Not only is it a complex series of spaces and activities, but also an architectural landmark, standing out clearly in the urban context as part of the 'pearl necklace' of cultural institutions surrounding Finlandia Park”.

Figure: Noli plan of Helsinki Public Library, indicating the importance of porosity. (Stubbergaard, et al., 2012)





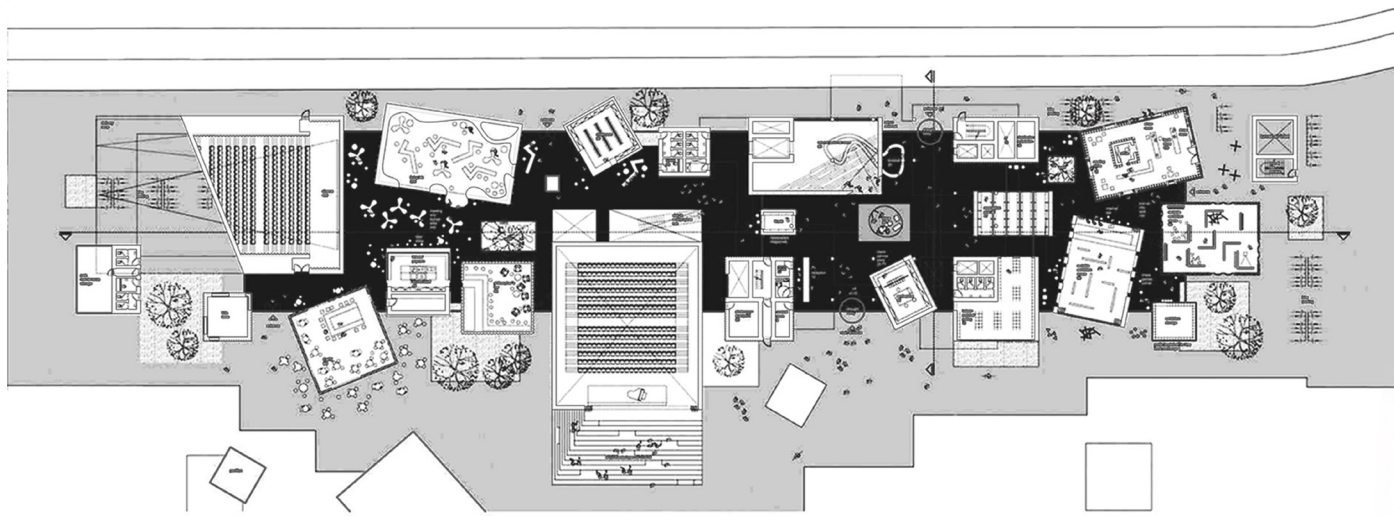


Figure: More detailed plan of Helsinki Public Library, the functions of nodes (Stubbergaard, et al., 2012)

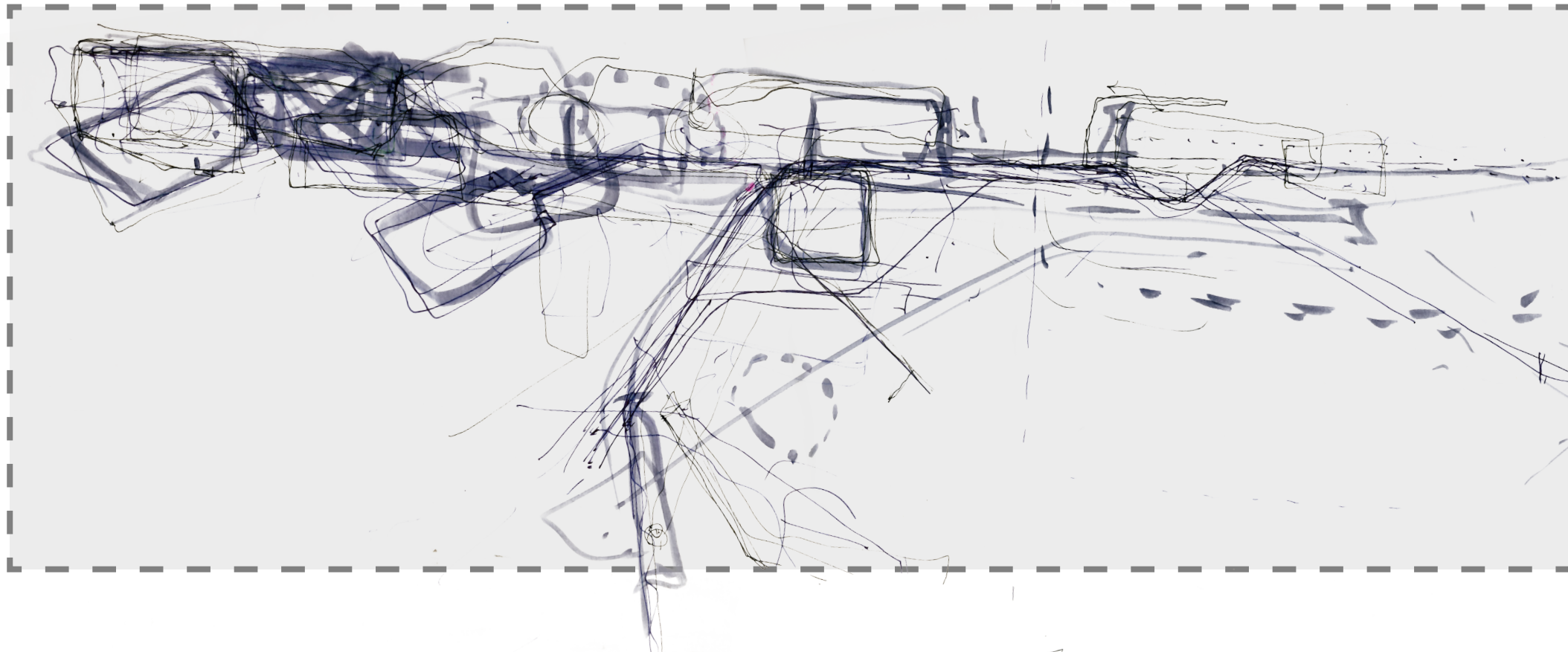
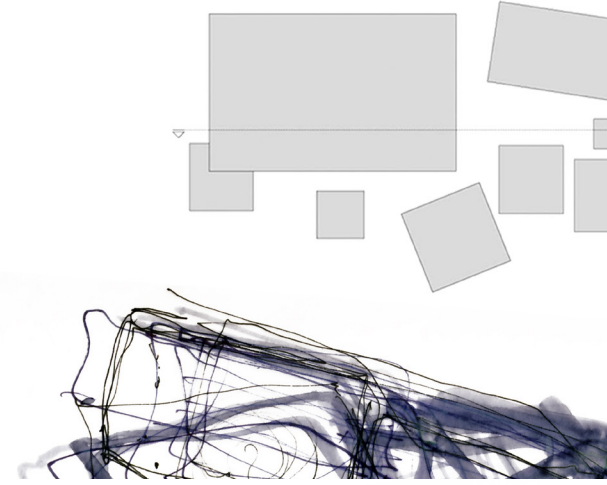


Figure: More detailed plan of Helsinki Public Library, the functions of nodes (Stubbergaard, et al., 2012)

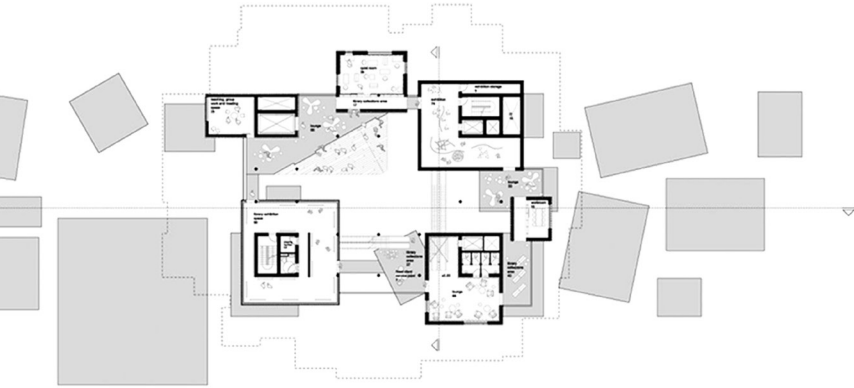


Figure: More detailed plan of Helsinki Public Library, the functions of nodes on the first floor (Stubbergaard, et al., 2012)



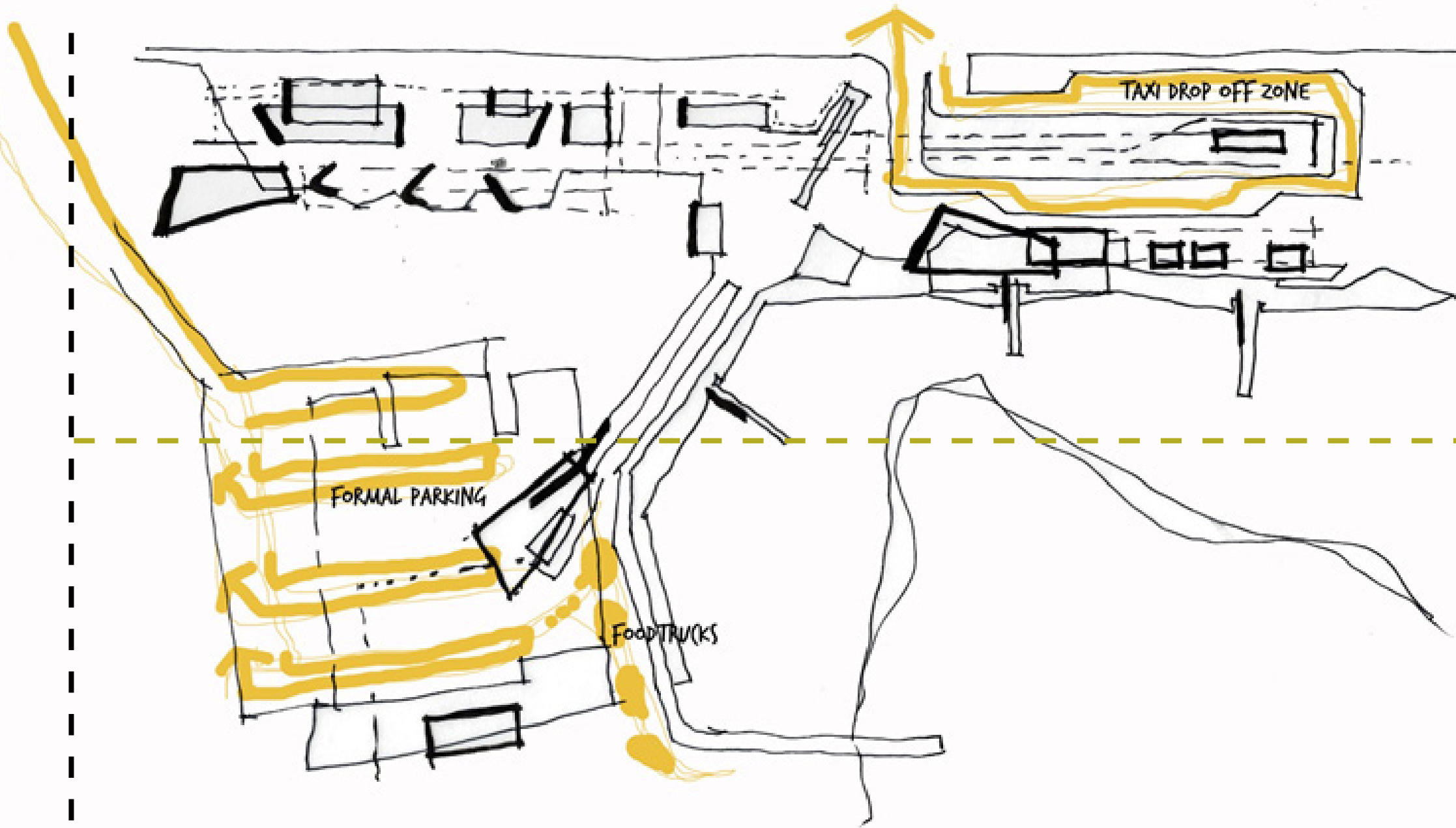
## LESSONS LEARNT:

The proposal for the Helsinki library was never built. The idea of a library city that hosts different functions, but functions as a whole was interesting. The porosity of the proposal is what my design next to the park's edge hope to achieve. The scale of the Helsinki project is substantially larger than what the proposed site at Loch Logan is, but it is the fragmented pieces of the building, the assemblage of functions that never merges into just one space that can overwhelm the visitor. It aims to deliver a building where the spaces and forms are human and the individual are not overpowered by the size of open space, as well as the size of the building itself. The project that won has a more monotonous, monumental scale to it and was then what the judges for the competition was looking for.

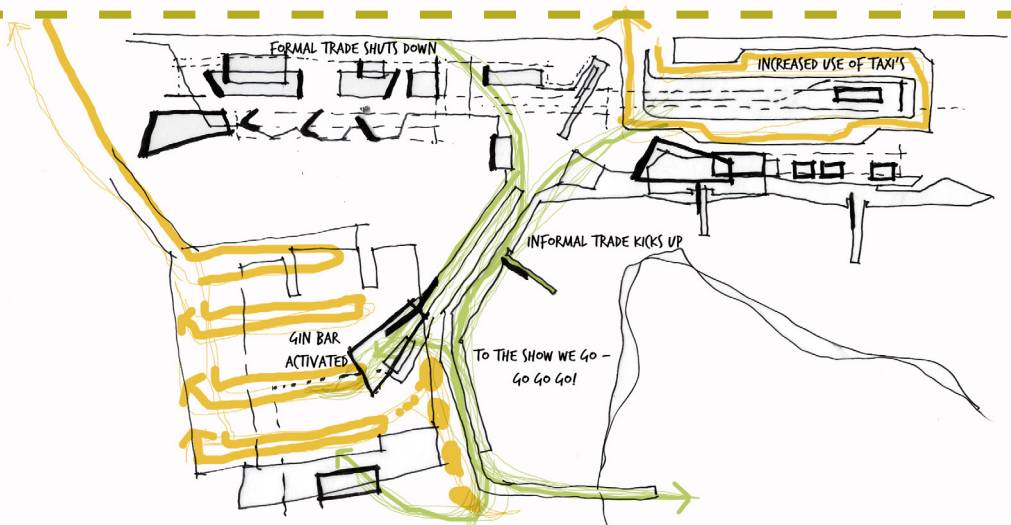
**Author's own interpretation of porosity as derived from precedent, a hint of how this influenced the final resolution follows on the next page.**

How this result was achieved to be discussed in more detail in Part 4

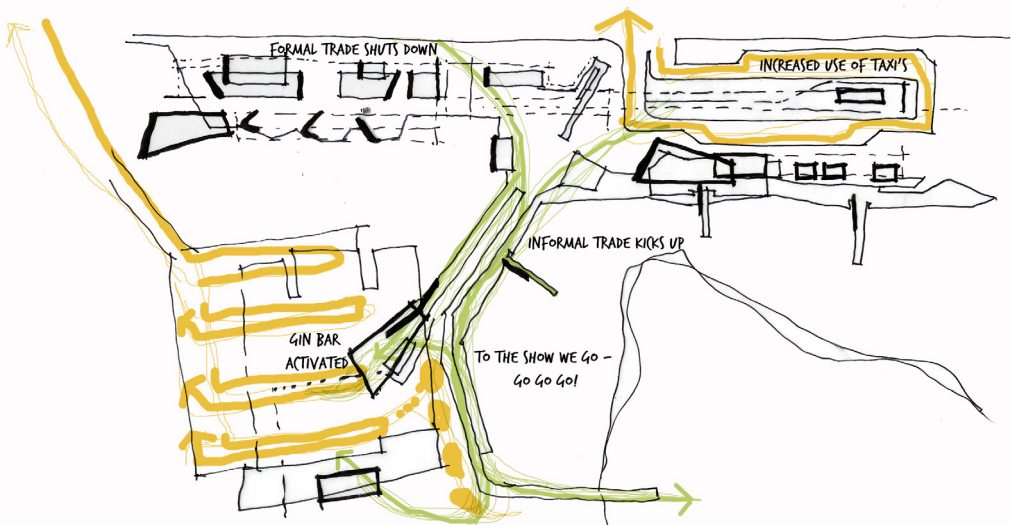
**AUTHOR'S OWN INTERPRETATION: EVIDENT POROSITY**



**MOTOR ACCESS: TAXI'S AND PARKING**



PEDESTRIAN AND MOTOR ACCESS: FESTIVAL / SHOW



PEDESTRIAN AND MOTOR ACCESS: FESTIVAL / SHOW



# PRECEDENT STUDY OF DESIGN GENERATOR 2.2: TYPOLOGY AND BUILDING FORM:

## IN TERMS OF POROSITY AND PUBLIC SPACE.

commercial architecture ·  
suzhou, china  
bau  
66900.0 m<sup>2</sup>  
2016  
(ArchDaily.com, 2016)

The project aimed to address the following areas of living together:

**Microcosm:** In order to counteract segregated development, the developers made a conscious effort to incorporate opportunities for work, housing, recreation and public facilities into the development. Sports facilities also extend the ways in which occupants of the development can interact with one another. (ArchDaily.com, 2016)

The site was originally earmarked for the development of a shopping mall, but the other amenities was added in order to create a microcosm for its users to live within a smaller footprint with more amenities within walking distance from home life (ArchDaily.com, 2016). The designers refer to this kind of development as Hyper-urbanity, since it create a heightened awareness of movement and one's fellow men.

This allows for the development of closer bonds between people who uses the same functions in the building and therefore interact more with one another. The closer bonds that has the potential to form between people are unpredictable and will be based on common interests and use of the structure. Since the project offers a variety of functions, the way in which the building will be used is not set in concrete, since use happens in the spaces between walls, planes, floor slabs and columns.



Figure: Kunshan New Life Hub, how we live together  
(ArchDaily.com, 2016. Online)



Figure: Kunshan New Life Hub, how we live together  
(ArchDaily.com, 2016. Online)



Figure: Kunshan New Life Hub, how we live together  
(ArchDaily.com, 2016. Online)

# LESSONS LEARNT:

85

Figure: Kunshan New Life Hub, how we live together (ArchDaily.com, 2016. Online)



When a development offers mixed use in its development program it heightens the possibility of interaction with others. There are social considerations that influenced the choice of functions to accommodate in the building. By allowing the occupants different pathways, roads and alley-ways there is always the possibility for surprise, since the development offers unpredictable variety. A variety of materials are used in order to shape identity of the different blocks. The architecture becomes more human and the scale of the development become more textured and accessible. The impression one is left with is not that of an overbearing development that dominates everything within a monotonous development, but use svmaterials and the making of place to delight the user and visitor alike.

PART 0.2

## Public and cultural benefits

The public benefits from the building's program, since a 24-hour use increase safety of the site because of the amount of activities practiced on the terrain. By developing a mixed-use development the site is used for 24 hours, instead of an 8-hour rush and then a 16 -hour period of emptiness, like most commercial districts (ArchDaily.com, 2016).

Because of the different textures applied to this development for roads and paths, there is always the element of being surprised by new situations, previously not experienced.

# POROUS ARCHITECTURE INVESTIGATION DESIGN CONCEPTS IN ARCHITECTURE: THE POROSITY PARADIGM, STEVEN HOLL ARCHITECTS

*"I depend entirely on concept diagrams, I consider them my secret weapon. They allow me to move afresh from one project to the next, from one site to the next."  
(Holl, 2002, page 73).*

"Porosity Pore" (from Greek πόρος) means "a minute opening".

Porosity or "the state of being porous" in the context of organic chemistry and the study of plants and animals indicates the existence of small openings. In biology and in medicine porosity is defined as:

**"The attribute of an organic body to have a large number of small openings and passages that allow matter to pass through" (Holl, 2002, page 73).**

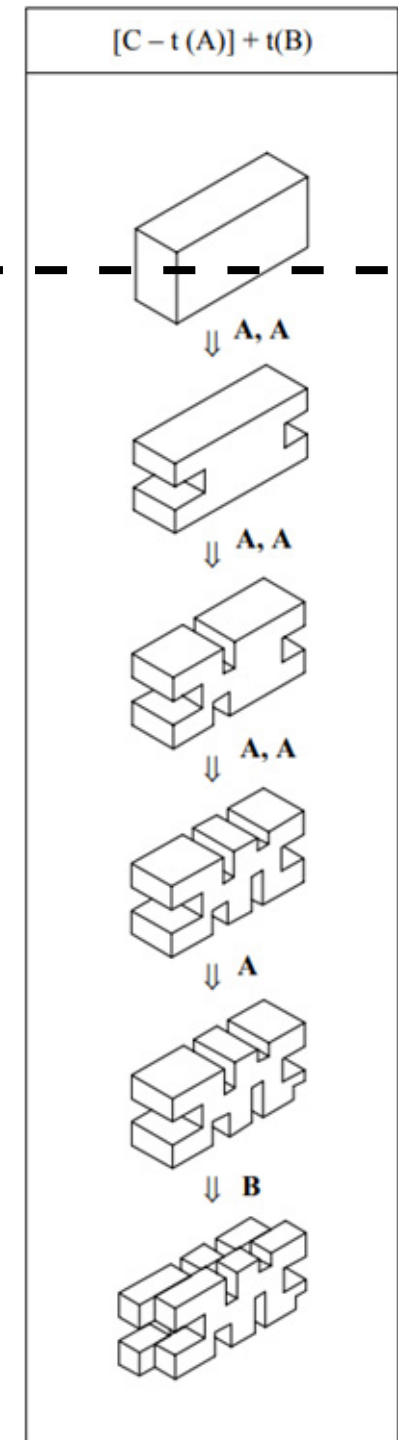
The forms, sizes and distribution of pores are arbitrary.

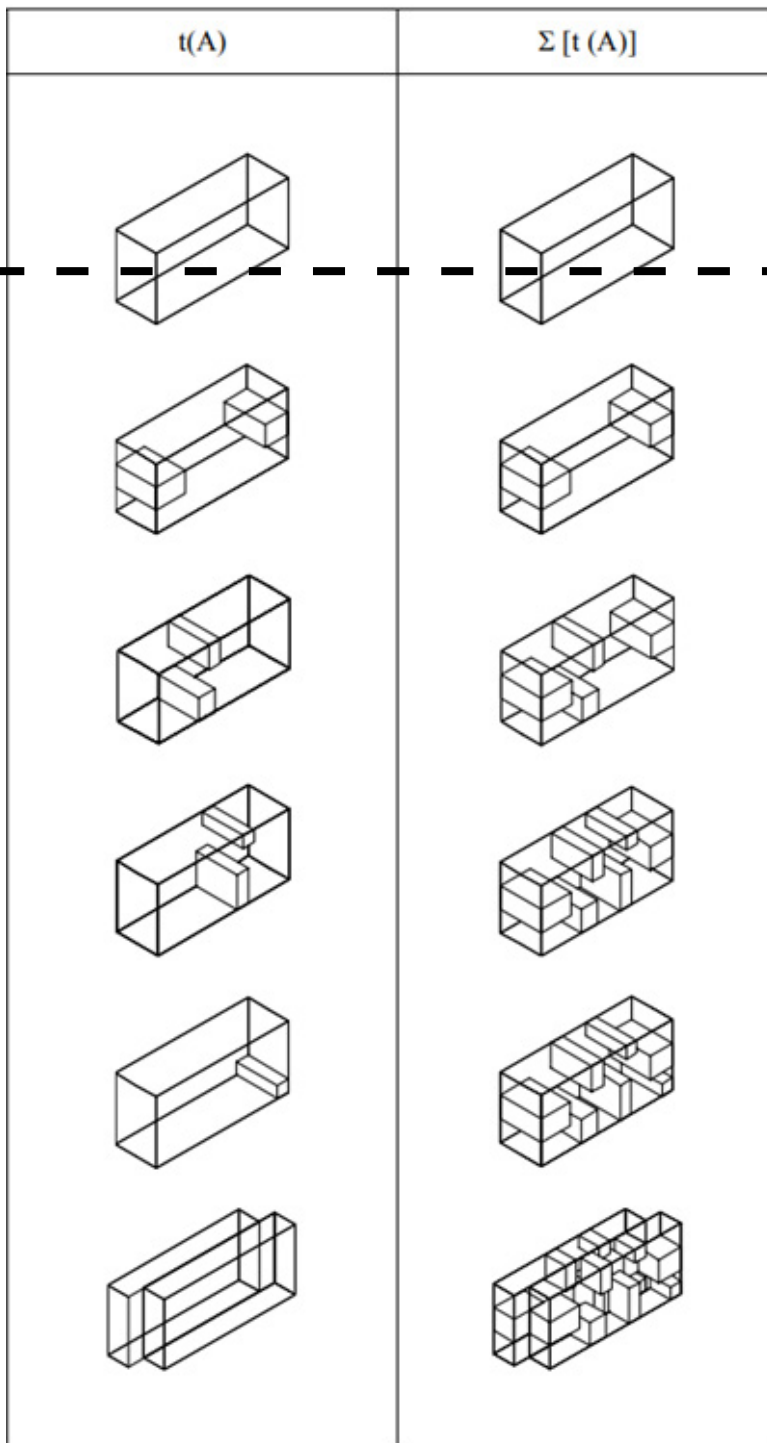
Their functionality is associated with circulation and filtration with respect to the external environment. Porosity was re-interpreted at Holl's studio, in order to be used in a new tectonic/urban context, to guide the production of a sponge-like building morphology. The use of the concept of porosity by Holl's team, reminds the principle of concept displacement, as described in Schön (1963).

**Holl (2000) notes: "What if one aspect of a site – porosity – becomes a concept? We hope to develop the possibility of a collection of things held together in a new way where the 'horizon' is open and merges with both exterior and interior".**

porosity	
porous, permeable	honeycomb
screen, net	riddle, sponge
pore	opening, hole
aperture, passageway	cribiformity
sieve-like, sieve	pervious
unrestricted	

Table of the Contextual definition of porosity, by Steven Holl Architects.  
(Holl, 2002, page 83.)





Porosity, porous, permeable honeycomb screen, net riddle, sponge pore opening, hole aperture, passageway cribiformity sieve-like, sieve pervious unrestricted Holl's contextual definition of porosity was part of the "permeability hypothesis"

that a porous morphology would produce positive effects at an urban and building scale i.e. better air and light circulation, better accessibility and visibility at an urban scale, and better communication between interior and exterior spaces at a building scale. The "permeability" hypothesis established new relationships among the facts provided by the building program.

**Holl (2000) recalls:**

**"Our project began by rejecting an urban plan that called for a wall of brick buildings of a particular 'Boston type'. Instead, we argued for urban porosity". At the early stages of the design process the architectural team developed a series of design alternatives. Contrary to what may have been Ullman's suggestion (multiple concept generation), each of the case-study-designs produced by Holl's team was a demonstration of implementing multiple variations of one concept: porosity.**

**The schematic variations included "horizontal", "vertical", "diagonal" and "overall" porosity alternatives, characterized by various types and degrees of "permeability". After the completion of the schematic proposals, many of the design alternatives were rejected by the building authority, for a variety of reasons.**

**Then, the team shifted to the "sponge" example to implement what was called "overall urban porosity".**

Figure: Two systems coexist: the Cartesian window-grid and the cavities; the rule of cavities as depicted by Steven Holl Architects, 2000, page 81

# PRECEDENT STUDY OF TYPE 02: THE AUDITORIUM 'CONCERT HALL BLAIBACH'

Concert Hall Blaibach / peter haimerl.architektur  
 peter haimerl.architektur  
 560.0 m<sup>2</sup>  
 2014

The concert hall represents the heart of the urban development to revitalize the new centre of Blaibach. It is located next to the new community centre and complements the space of a new village square that was realized with funds of the state urban development support. The concert hall is a solitaire of concrete with an inclination above the slope in the village centre following the topography and linking with its granite facade to the stone carver tradition of Bailbach. The monolithic tilted building opens itself to the visitors at the new village square and guides them by a staircase to the foyer below the surface. The foyer provides not only the functional areas like wardrobe, sanitary rooms and bar, but also leads the visitor excitingly around the auditorium into the inner concert hall.

The hall unfolds its acoustics within the seemingly light building. While the precise light slits illuminate the space. The building body is made of pre-cast concrete and only a highly intricate constructed form-work made the realization of the difficult form possible. The dominant tilted surfaces of the concert hall are based on acoustic specifications and include besides LED-lights also bass absorber behind the light slits as well as underneath the steps for optimal acoustics. The concrete in the hall is untreated. Its lively surfaces help to absorb the medium-height tones.

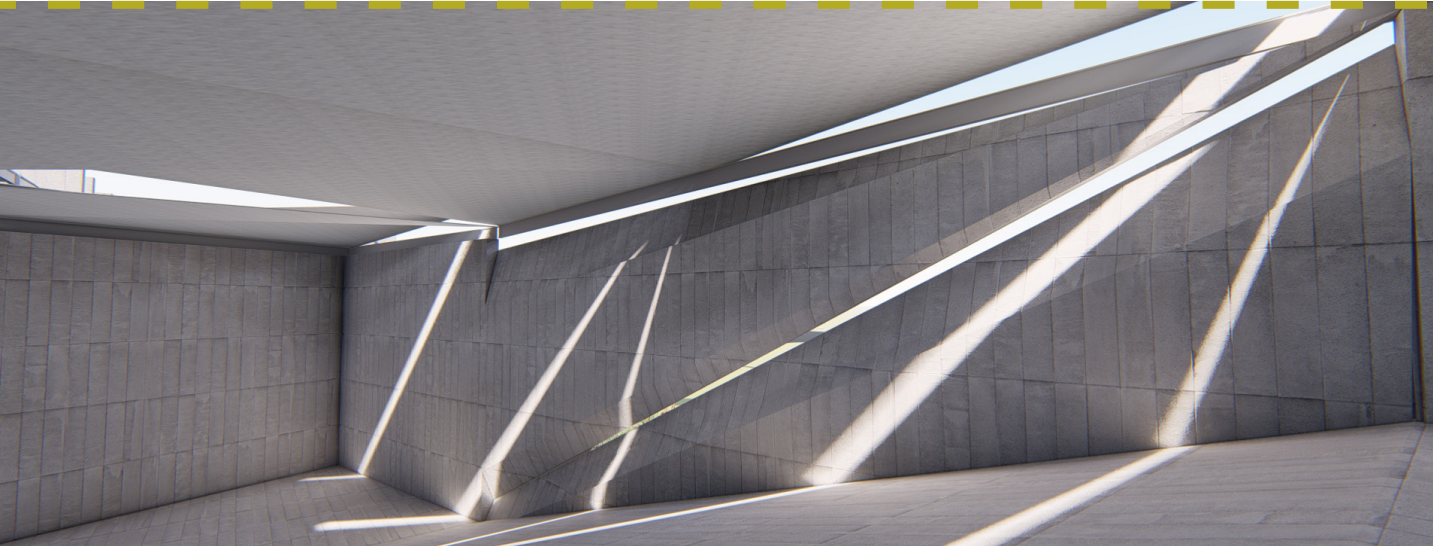
The inclination of the building – based on the increase of the slope – carry the gallery. The seemingly transparent seats, which are fixed on iron swords, appear to float above the light slits. The stage of the concert hall, which is only designed for its actual function not as a multifunctional room, is equipped with modern LED-stage technology.

Figure: Concert Hall Blaibach interior, (ArchDaily, 2014. Online)



## LESSONS LEARNT:

Figure: Author's investigation of how slits in concrete shells can allow light to enter the space: early investigation of final design. October, 2019



The concert hall is inserted into the context in such a manner that it becomes an ornament in the landscape, furthermore becoming a landmark to orientate one-self in the landscape.

Seeing as the auditorium is an important node on the site in terms of meaningful gathering, as well as its flexibility in terms of why people gather in an intimate way, the materiality becomes applicable to all spaces in which the user will dwell in a similar manner, i.e. the pods.

The way that the light cuts into and reflects over the inside of the building becomes an important factor of awareness to the user as well, these slits help the user to remain aware of the passing of time outside of their sanctuary.

Figure: Concert Hall Blaibach exterior, a monument within the everyday (ArchDaily, 2014. Online)



Figure: Concert Hall Blaibach exterior, a monument within the everyday (ArchDaily, 2014. Online)



# PRECEDENT STUDY OF TYPE 02: THE TAXI DROP-OFF ZONE - THE BARAGWANATH TRANSPORT INTERCHANGE

Theoretical underpinning for the selection of the precedent:

The Baragwanath Transport Interchange, with its informal market was designed with the intention of uplifting and integrating areas of Johannesburg's metropolitan area with its surroundings (Hansen, 2008. Online). The Baralink strip is an important gateway into and from Soweto and by acknowledging this connection through the design, the business that these commuters bring to the metropolitan area is celebrated (Hansen, 2008. Online).

Hundreds of vendors are accommodated and set up their goods to trade daily. The accommodation provided to these traders include management offices, support infrastructure, associated amenities and storage facilities. Various sizes and combinations of vendor stalls and amenities are available to choose from (Hansen, 2008. Online).

The Baragwanath Interchange runs over 1300 meters along next to Old Potch Road, with an average width of 50 meters.

Figure: Baragwanath Transport interchange. (Hansen, 2008. Online)



Figure: Baragwanath Transport interchange. (Hansen, 2008. Online)

## LESSONS LEARNT:

The design acknowledges the importance of making isolated places accessible. By adding a transport node as well as an informal market, the transport facilities as part of the development brings informal trade and high density of movement. Regarding the lessons of material, the use of concrete in the project acknowledges the importance of robust permanent structures. Clues can be taken from the application of materials in a creative way to relieve the monotony of a long linear building.

Figure: watercolour of a visitor looking at products for sale at one of the vendors at Baragwanath Transport interchange. August, 2017.

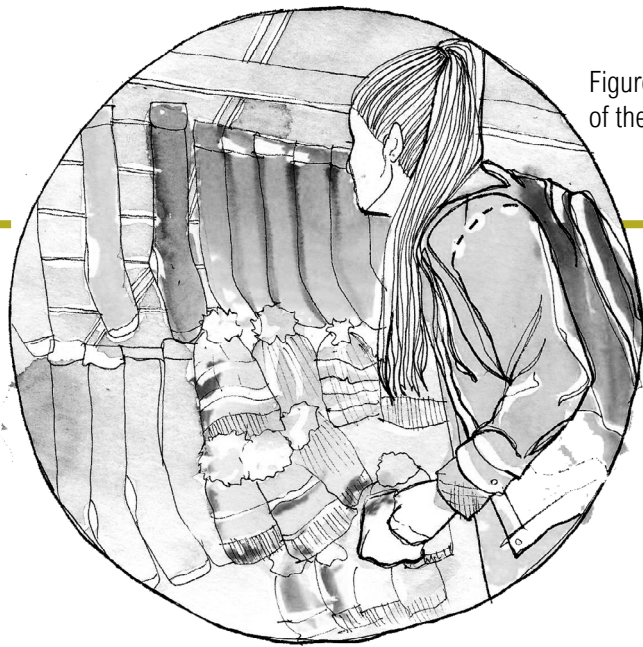


Figure: watercolour of a concrete installation intended for vendors to display their goods at the taxi rank. August, 2017.

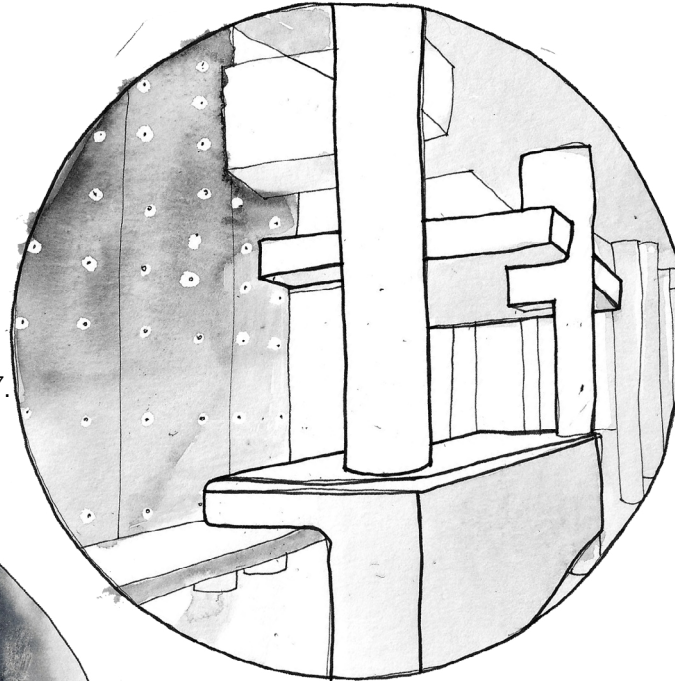
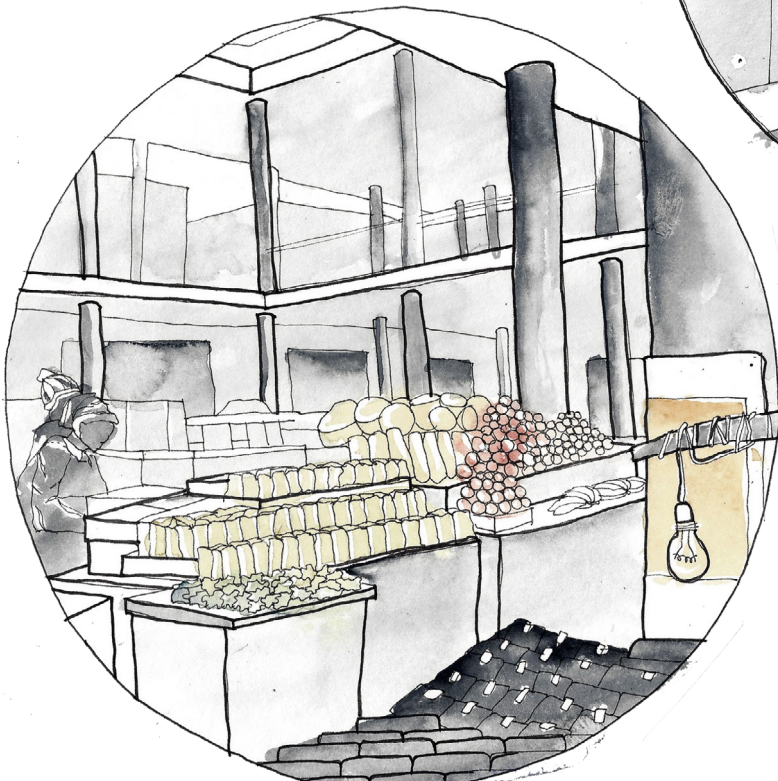


Figure: watercolour of informal trading as set up at the taxi rank. August, 2017.



**"These landmark towers become the focus of artwork done by local inhabitants, enhancing the sense of identity and ownership."  
(Hansen, 2008. Online).**

# ROOTS: HISTORY

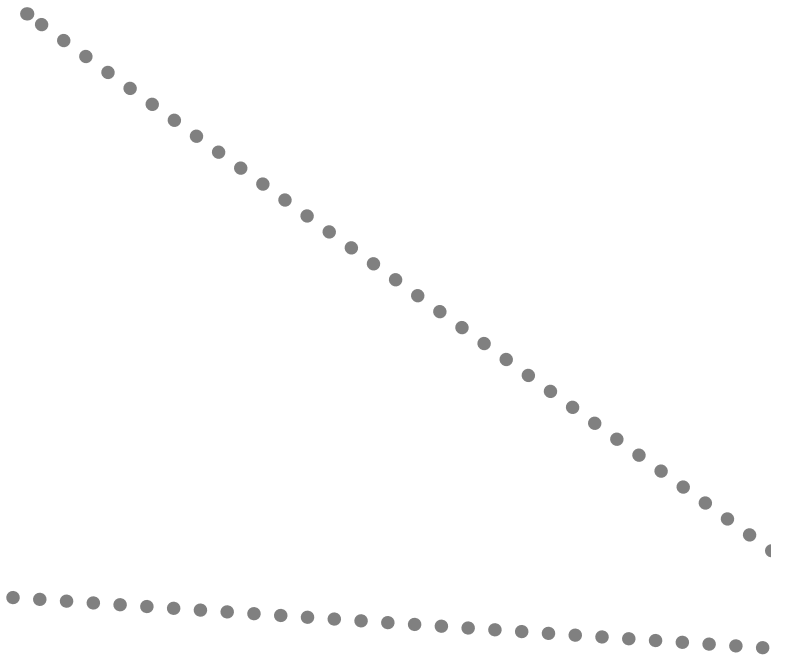
## PRECEDENT STUDY OF DESIGN GENERATOR TYPE 2:

Theoretical underpinning of criteria to select an applicable precedent for a sculpture garden.

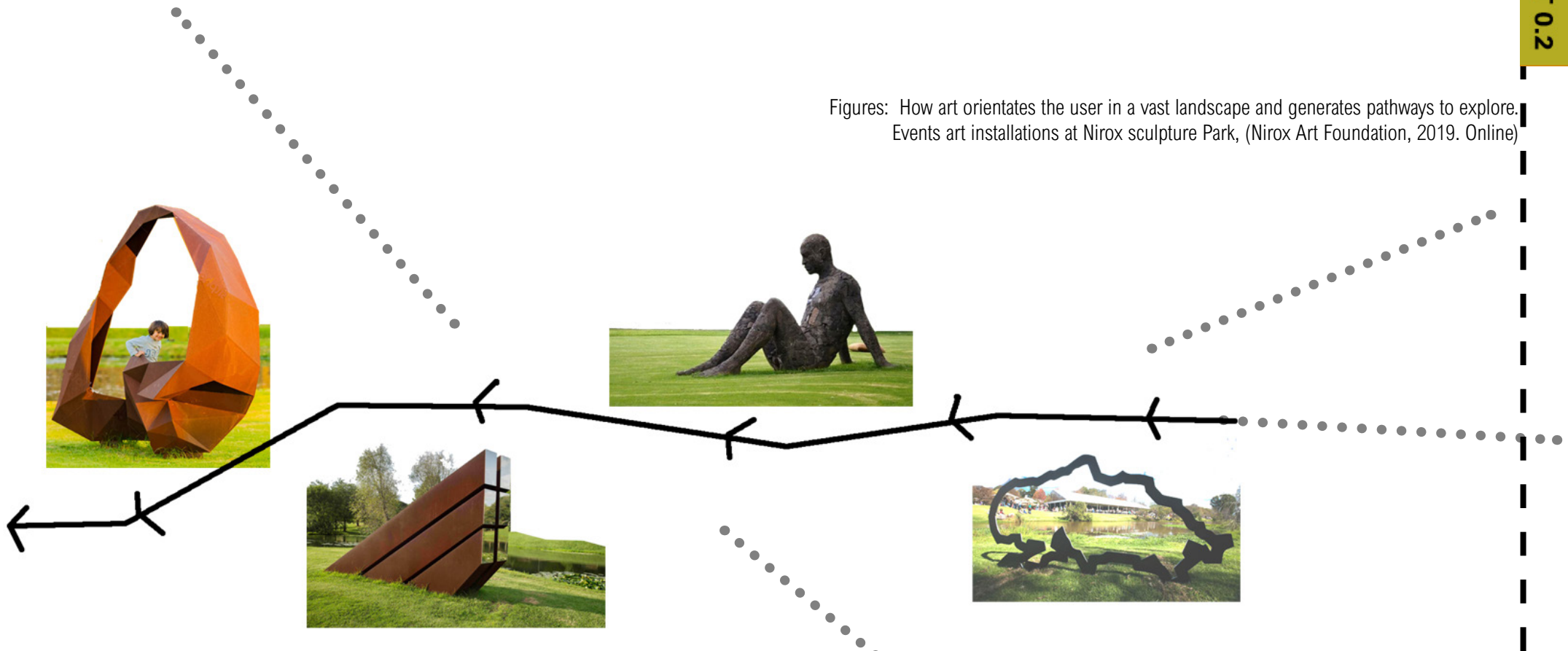
The site asks for an element to connect the rose garden to a stage area where music performances, etc. can be presented. A sculpture garden is proposed to form this link. It will give local artists the opportunity to create artworks for the park and by doing so help to establish a local character which would be difficult to repeat somewhere else, especially if the art pieces are once-off items.

The idea of linking two areas on site with a sculpture garden drives this design intervention. The link should not be so rigid that it limits movement. The sculptures should rather be seductive objects in a landscape that draws visitors from one sculpture to the next. Sculptures that will be exhibited in this space needs to be robust, since it is in a public park and accessible to all. The amount of sculptures is not as important as the fact that visitors should be able to enjoy them. An app will be available to download in order to access information about the sculptures, but also about the development.

The app will give visitors an opportunity to upload photos to a website that is linked to the development itself and can then be used for marketing by the successful tenderer.



Figures: How art orientates the user in a vast landscape and generates pathways to explore.  
Events art installations at Nirox sculpture Park, (Nirox Art Foundation, 2019. Online)



# PRECEDENT STUDY OF DESIGN GENERATOR TYPE 2.3: SCULPTURE GARDEN:

## NIROX FOUNDATION SCULPTURE PARK

The NIROX Foundation Trust was established to benefit the arts in South Africa. It is situated in the Cradle for Humankind in Gauteng and is about 1.5 km away from the Cradle for Humankind restaurant. The site is developed like a manicured garden with well-kept lawns that allow visitors to experience the sculptures from a distance as well as a changing perspective as one circles around sculptures, sometimes even through an installation. It offers residencies to budding artists where they can retreat from the hustle and bustle of everyday life and just focus on producing art.

There are restaurants, studios, workshop space and also outdoor concert facilities with supporting functions to support arranged activities on the site. The Nirox Foundation is committed to promoting art in all its forms and make it accessible through offering a venue where these works can be appreciated.

Figure: People lounge on grass terraces and listen to a music performance next to the water (Nirox Art Foundation, 2019. Online)



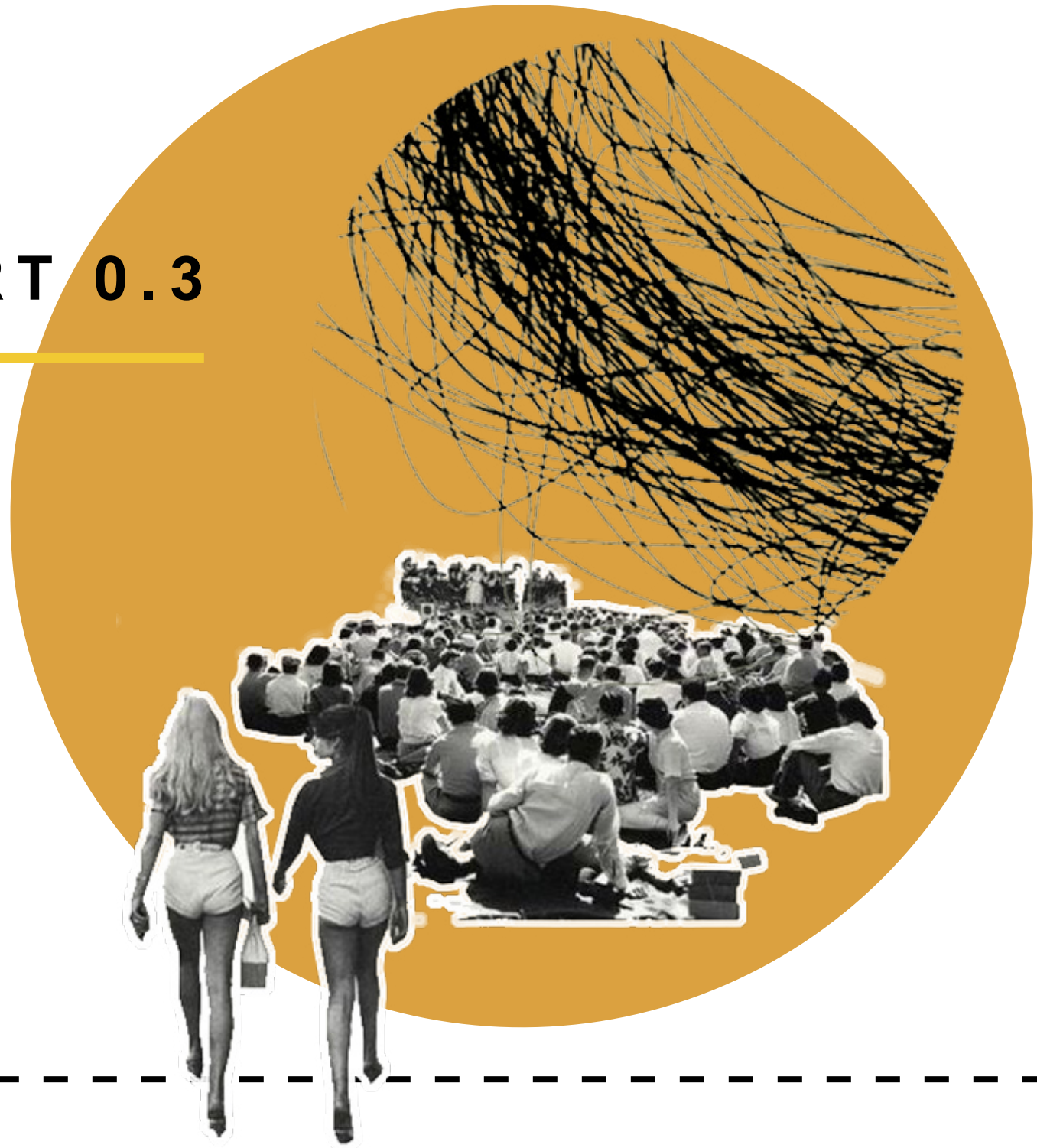


Figures: Events and art installation at Nirox sculpture Park, as marketed on the foundation's Instagram page. (@niroxfoundation Instagram, 2019. Online)

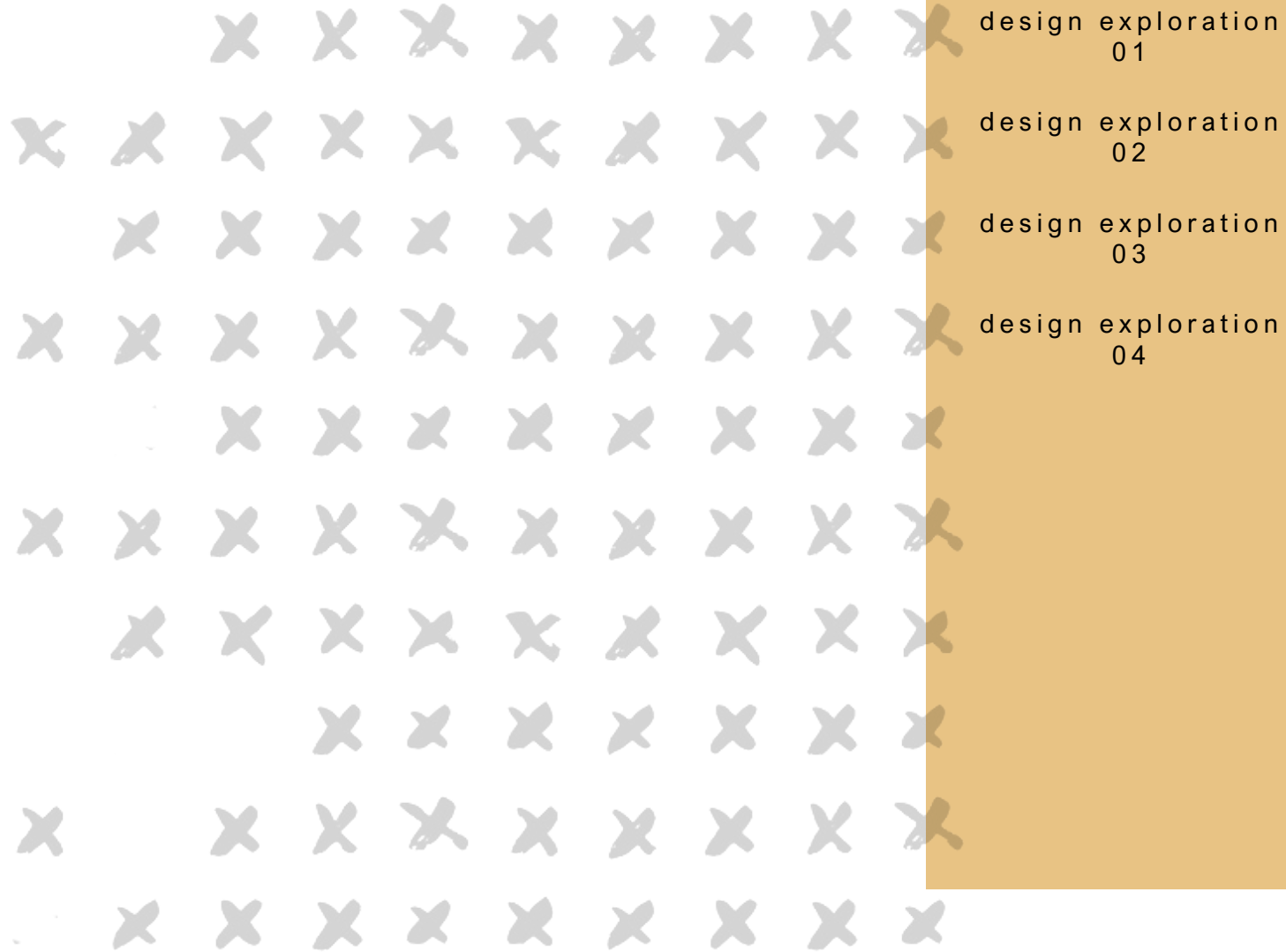
# LESSONS LEARNT:

Sculptures are exhibited in a park-like setting with manicured lawns that afford the visitor the time and space within which the sculptures can be appreciated and experienced. The works of art bring their own attraction to the park and visitors will be drawn towards them as they identify with them or not. The sculptures are the generators of movement through the park and its strategic placement expose them to the public just enough that it does not overpower a visitor with all of the arts available at the foundation. As such the art is used to take the visitor on a journey where there will be plenty of time for reflection and appreciation. Concert venues does not have to be big and overpowering and can be smaller happenings where a smaller crowd can engage with a performance. Seating does not have to be formalised, but an embankment ease the potential for appreciation and visual connection to a performance. Water is used to separate a stage form the audience. This highlights the potential of developing stages on the Loch Logan Island, but keeping the audience on the surrounding lawns in King's Park. Because of the close proximity in the development nest to Loch Logan, performing platforms may be moved to the furthest parts of the park. The site lends itself to masses of people coming together to enjoy markets, performances and other festivities. It lends itself to arranging experiences to Bloemfontein like Culture Sundays in the Netherlands, where an orchestra circles the water channels and then anchors at a final spot for an informal performance where thousands of citizens can rest on the lawns and enjoy the music.

# PART 0.3



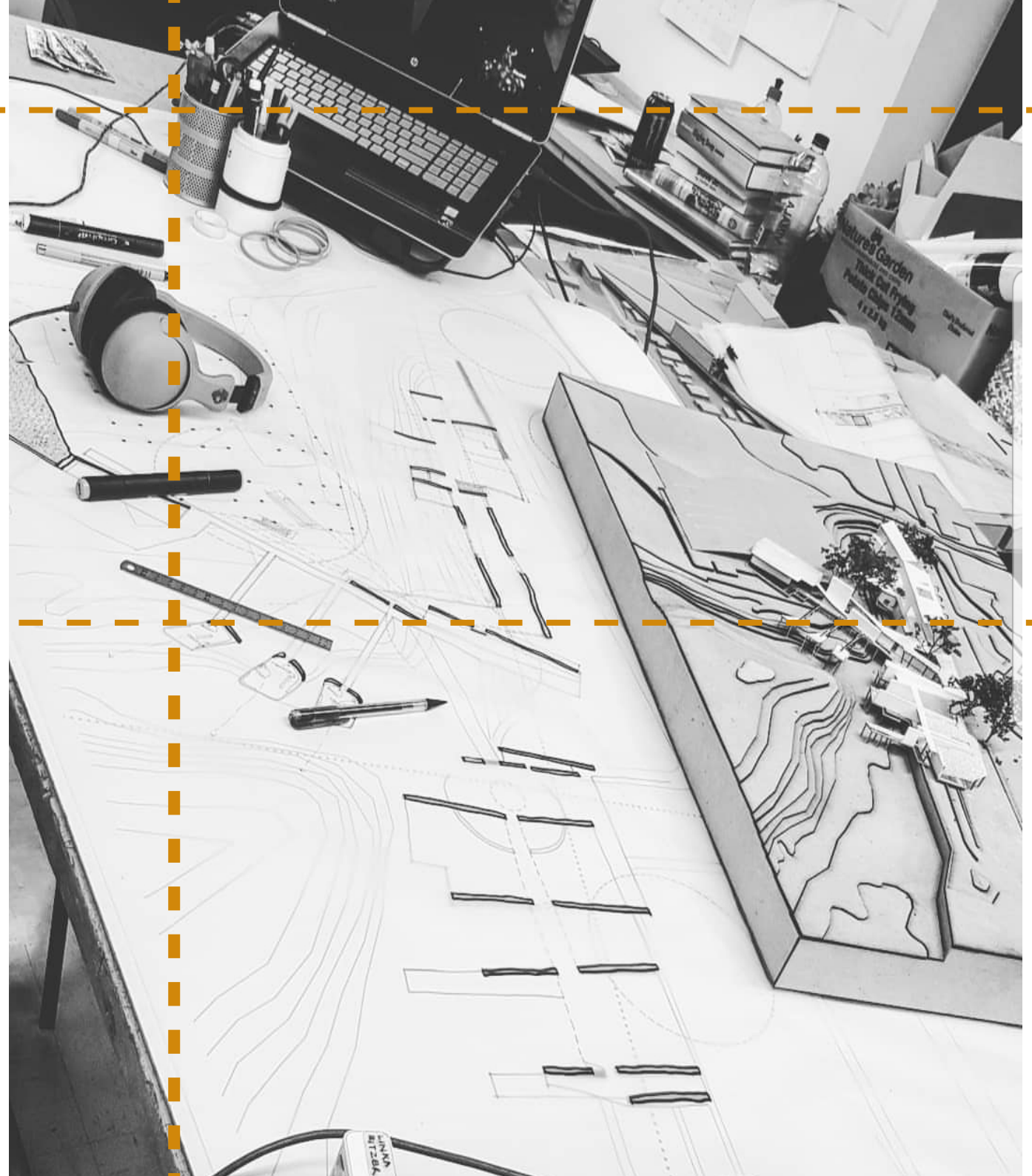
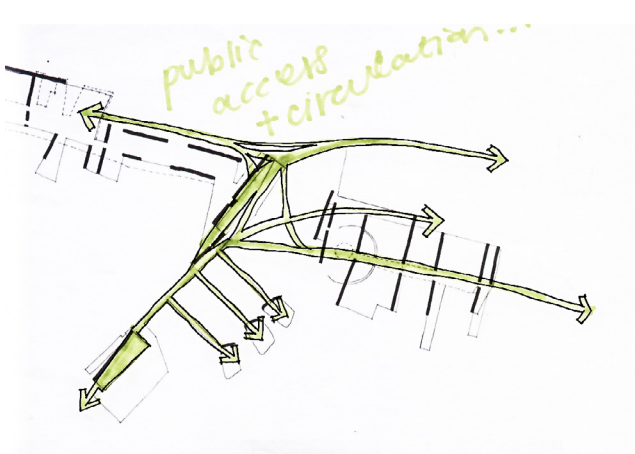
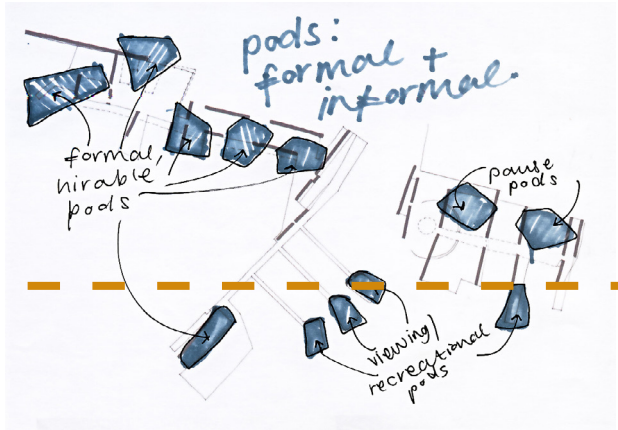
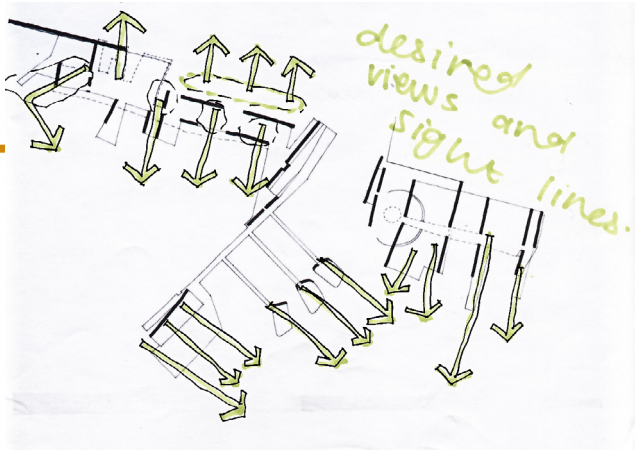
### DESIGN EXPLORATION AND DEVELOPMENT

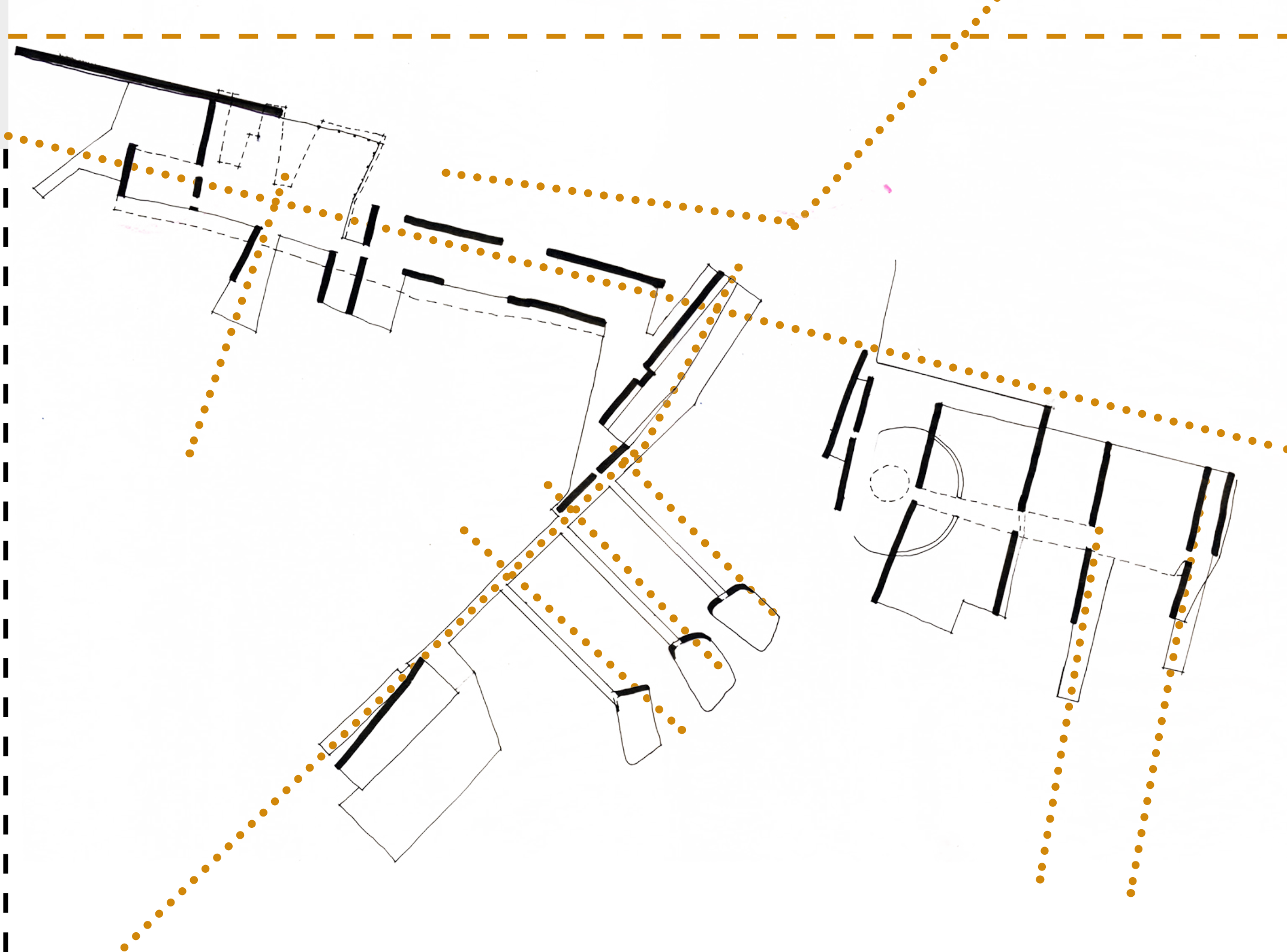


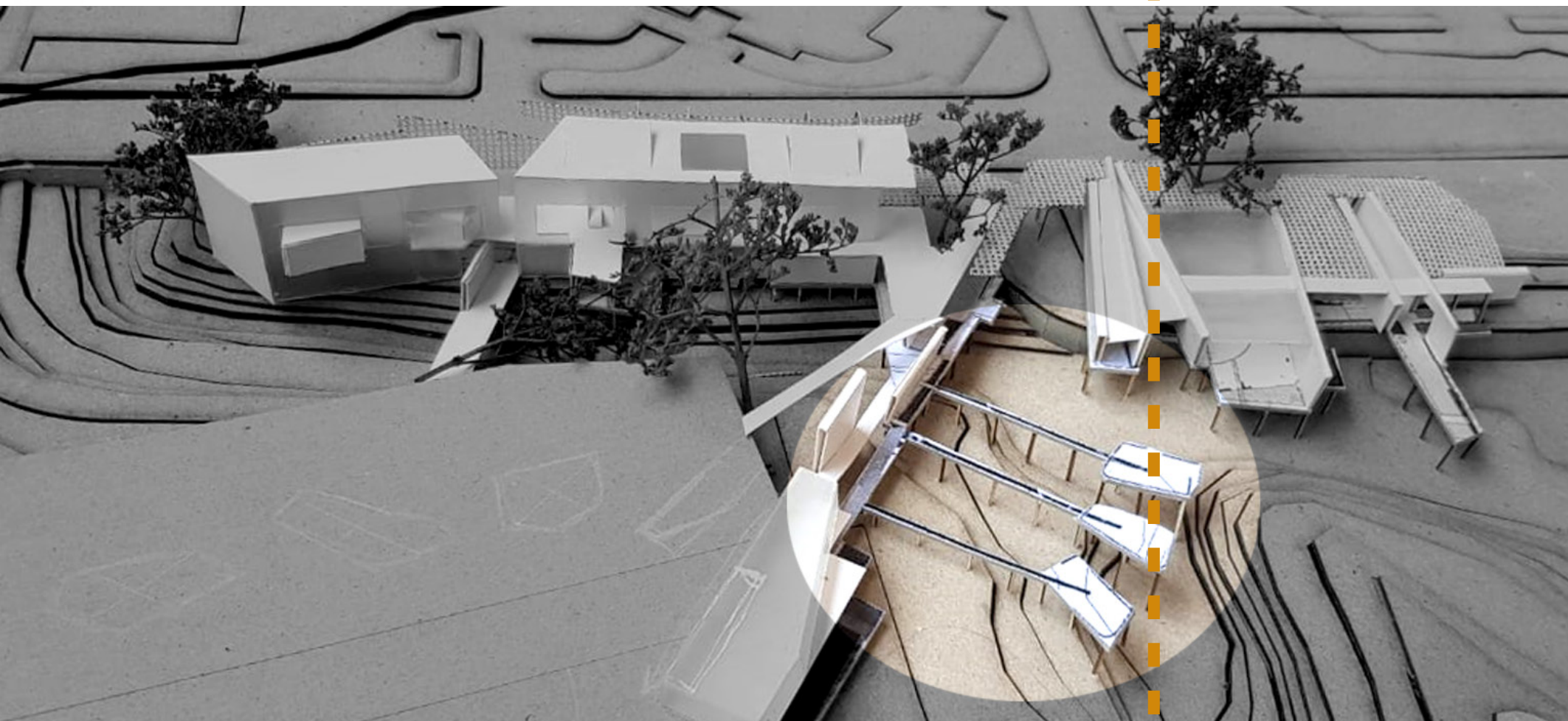


Walls were used to articulate rhythm on the site in both a north/ south direction, as well as a west-east direction. The building strives to soften the edge with the water by proposing platforms in the water that is linked to the building in order to make them accessible. The mass of the buildings seems to leave the impression of being solid and the forms used are geometrically strong. Platforms are wide and link the site over the water with slabs that can accommodate a high number of people.

Porosity is attempted by meshes indicating horizontal planes that allow light and air to travel vertically. Cuts are made into the roofs in order to allow light into envisioned rooms and gathering spaces. The end result offers variety and different options for movement and settlement in the structure.







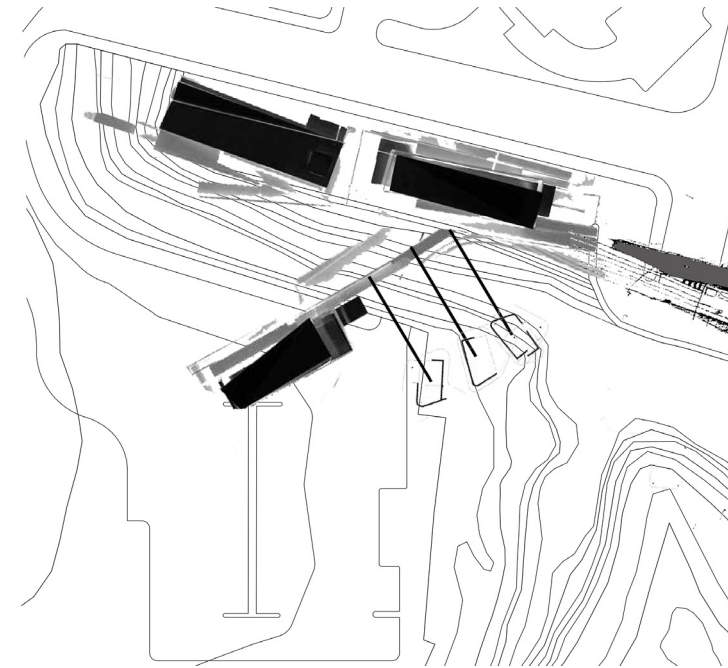
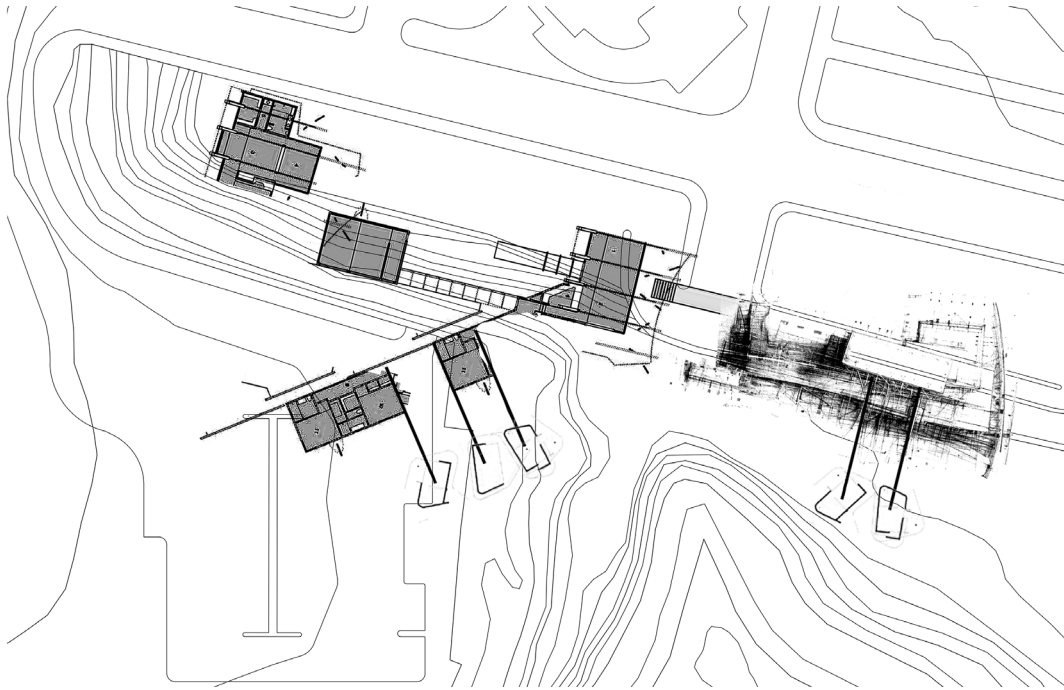
## LESSONS LEARNT:

While this design demonstrates that a fragmented approach to the site might be conducive to establishing a fine texture on the site, it is also clear that there is still a need to explore form more and to invest more energy into how different elements of the development connect. While the water platforms are seductive on plan, there is no guarantee that it will attract people to use these facilities, since it is disconnected from facilities that they might need to use, like ablution, for instance. It helps to create seductive forms, but might not be all that practical when it comes to whether visitors will use the space. It resembles jetties found at the beach and tried to mediate a historical memory of the designer to the site where the design is attempted. While memories of experiences and places can be shared, there is also the danger that it might be applied to a site that are regularly visited and that the fad to visit these platforms might wear off. Forms used still have an extrusion-like appearance and articulation is sparse with clumsy proportions.

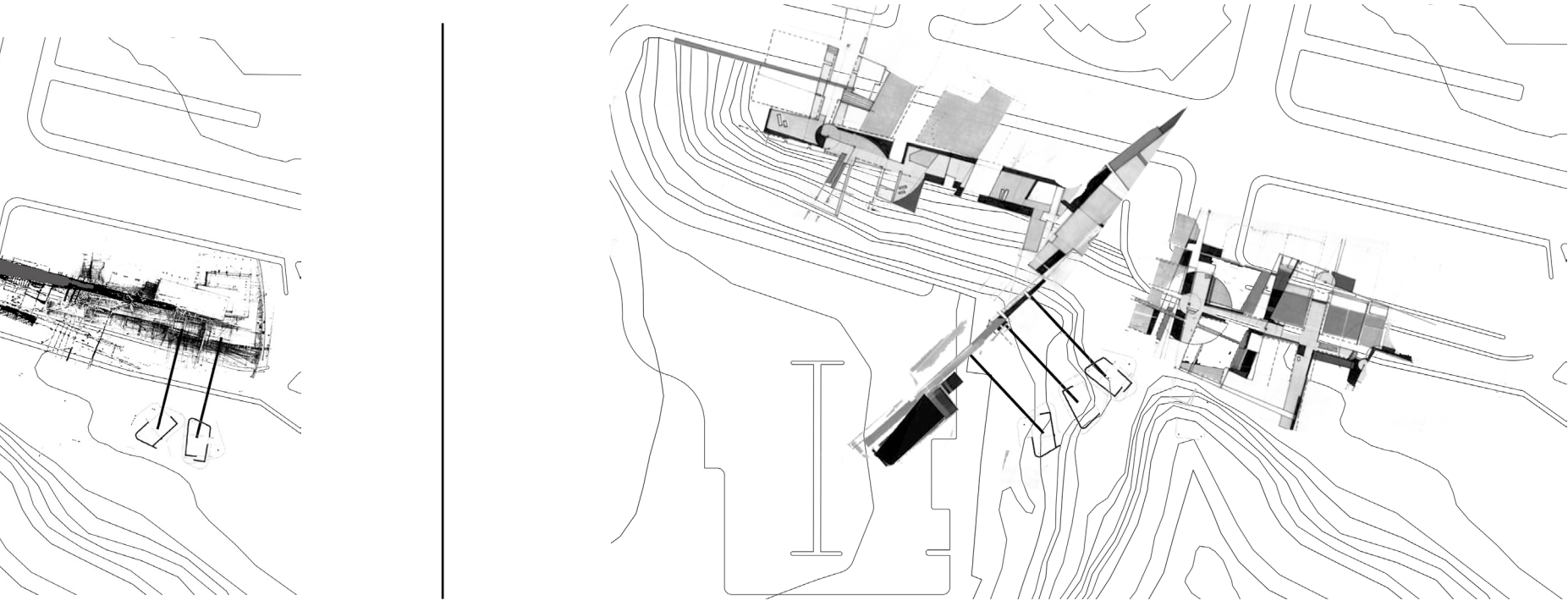
While all these changes needs attention, there is a usable, solid design rational behind the development that needs to be finer nuanced in its development.

# [between design exploration 01 and 02]

102

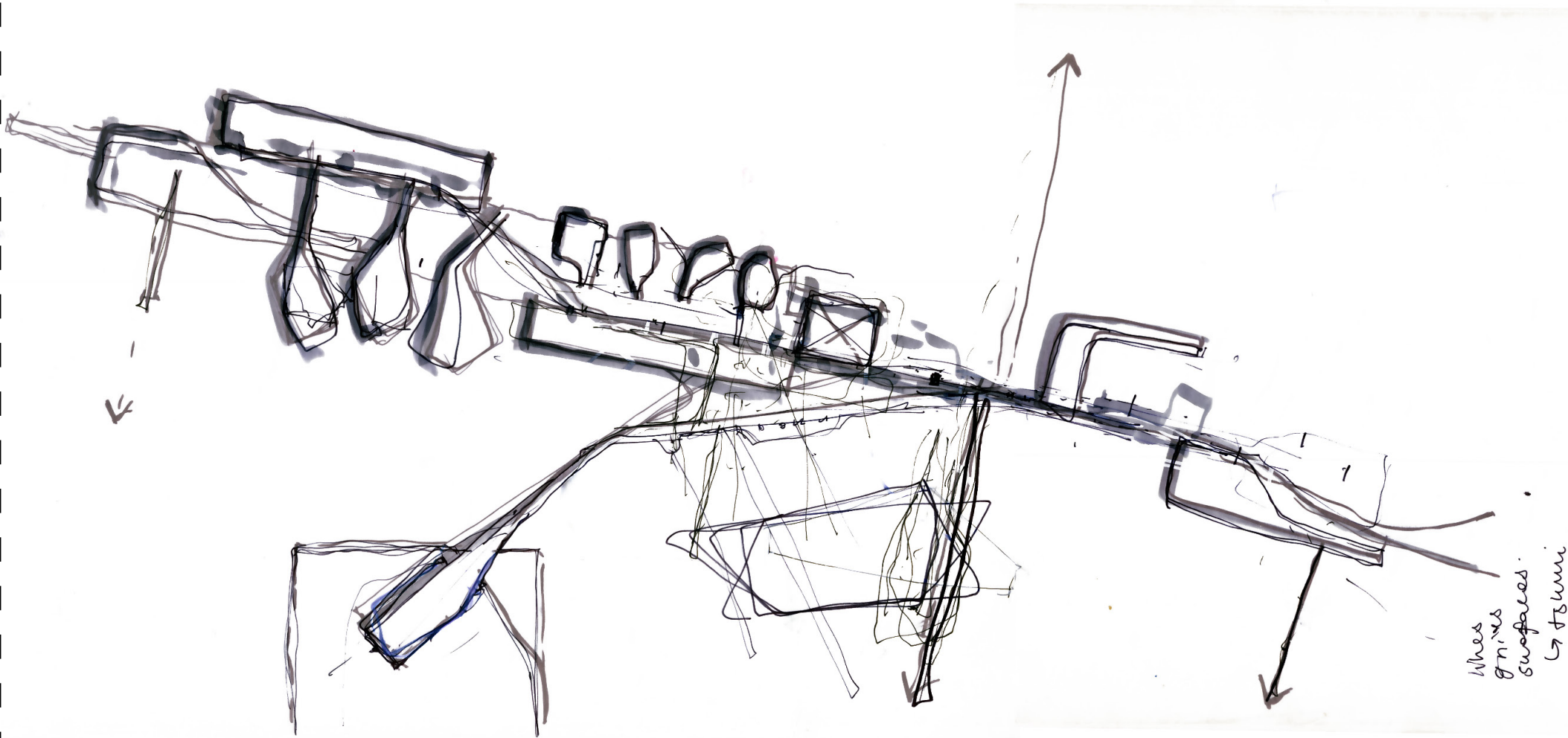


To the imprinted lines and patterns of the first design exploration, a set of collages were made. These assemblages act as instigators for different experiences of emotional immersion in the site and its surroundings for future investigation.



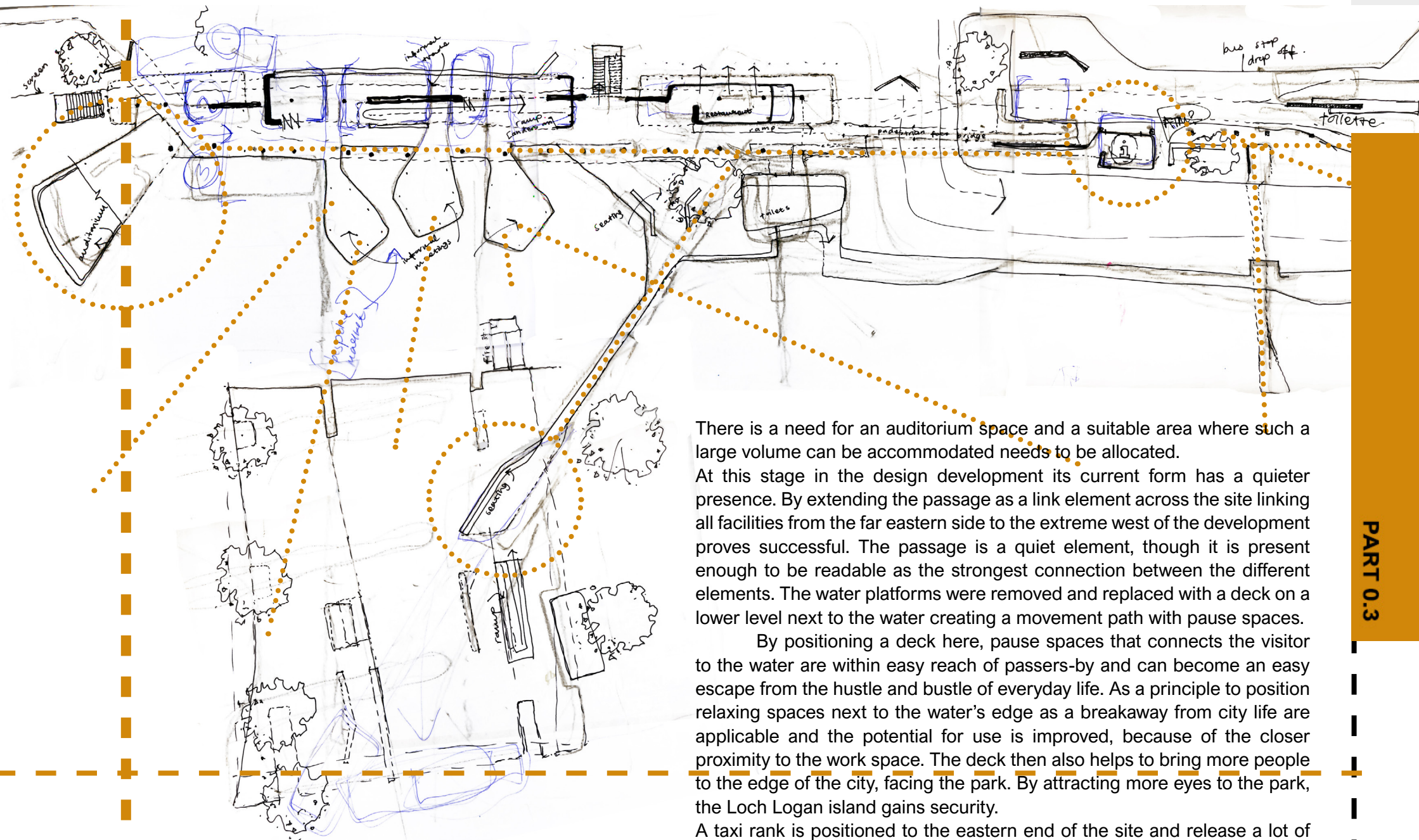
## DESIGN EXPLORATION 02

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The layout has a much stronger linear east-west development strategy with a dominant north- and south elevation. The forms proposed uses the east-west connection as its background and the strong north-south walls have been removed.

In terms of the program for the development the accommodation that needs to be catered for are becoming clearer, since the client has been finalised. The water's edge enjoys more attention and the option to establish a boulevard-styled edge becomes interesting and applicable to the site. Three boardrooms that can be rented out for team activities, think scrums, iteration- and planning meetings are used to articulate the southern façade. It is positioned like three seed pods standing proud from the main development and is connected to the strong east-west primary structure with a subtle link that resembles an umbilical cord.

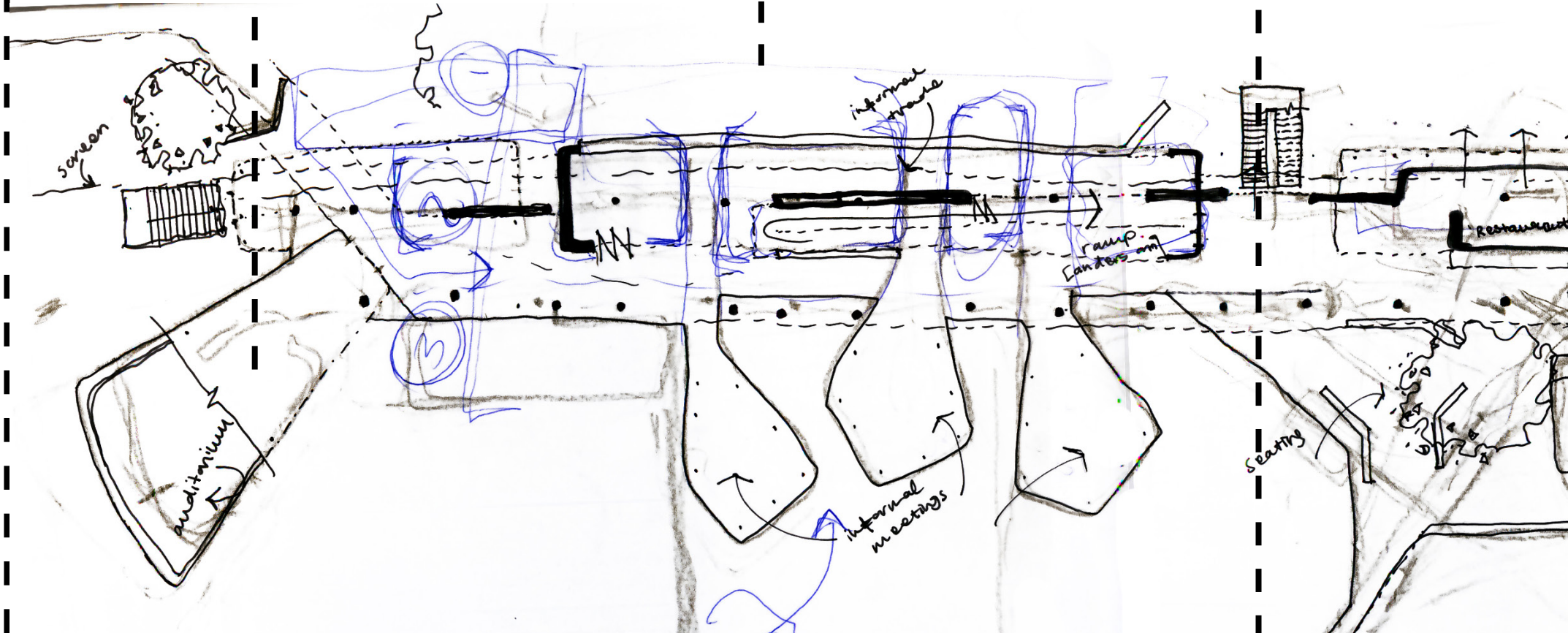
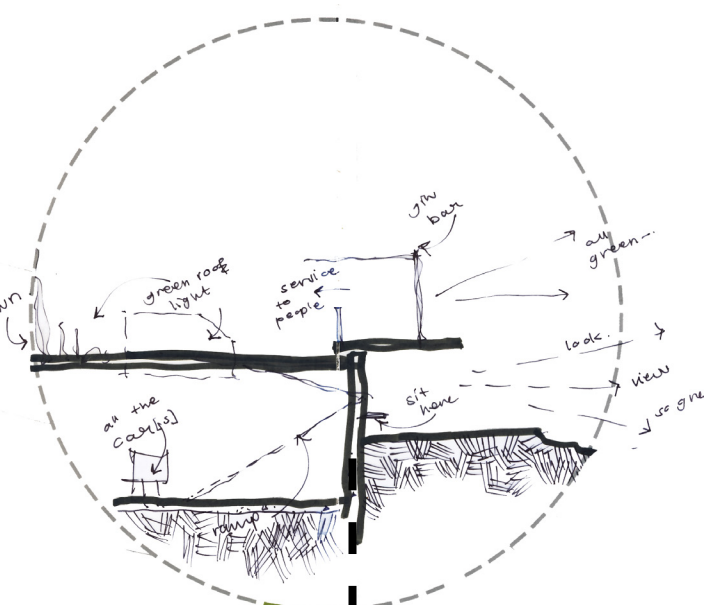
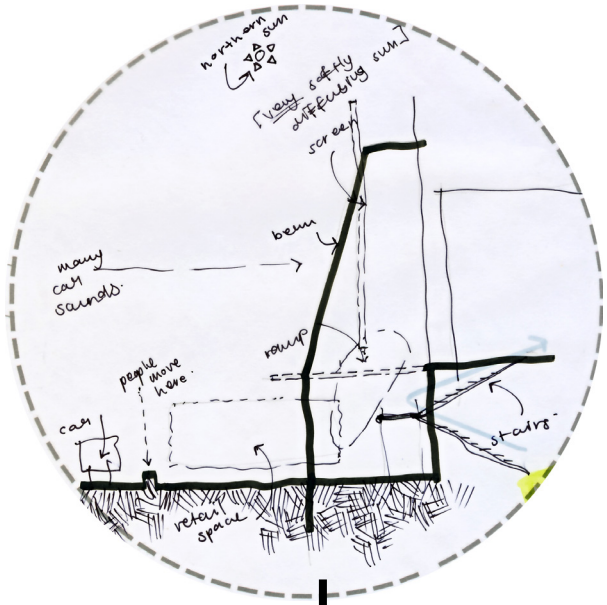
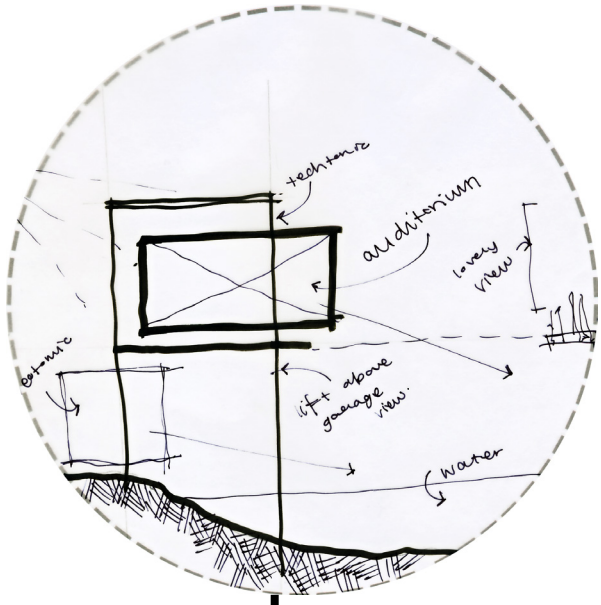


There is a need for an auditorium space and a suitable area where such a large volume can be accommodated needs to be allocated.

At this stage in the design development its current form has a quieter presence. By extending the passage as a link element across the site linking all facilities from the far eastern side to the extreme west of the development proves successful. The passage is a quiet element, though it is present enough to be readable as the strongest connection between the different elements. The water platforms were removed and replaced with a deck on a lower level next to the water creating a movement path with pause spaces.

By positioning a deck here, pause spaces that connects the visitor to the water are within easy reach of passers-by and can become an easy escape from the hustle and bustle of everyday life. As a principle to position relaxing spaces next to the water's edge as a breakaway from city life are applicable and the potential for use is improved, because of the closer proximity to the work space. The deck then also helps to bring more people to the edge of the city, facing the park. By attracting more eyes to the park, the Loch Logan island gains security.

A taxi rank is positioned to the eastern end of the site and release a lot of commuters into this part of town in the morning and extract them from the same point in the evening. Due to the amount of people that will be mobilised from this point onto the site, flow from the taxi rank to the north and west is an important factor that needs to be accommodated in the development.



# LESSONS LEARNT:

The way forward:

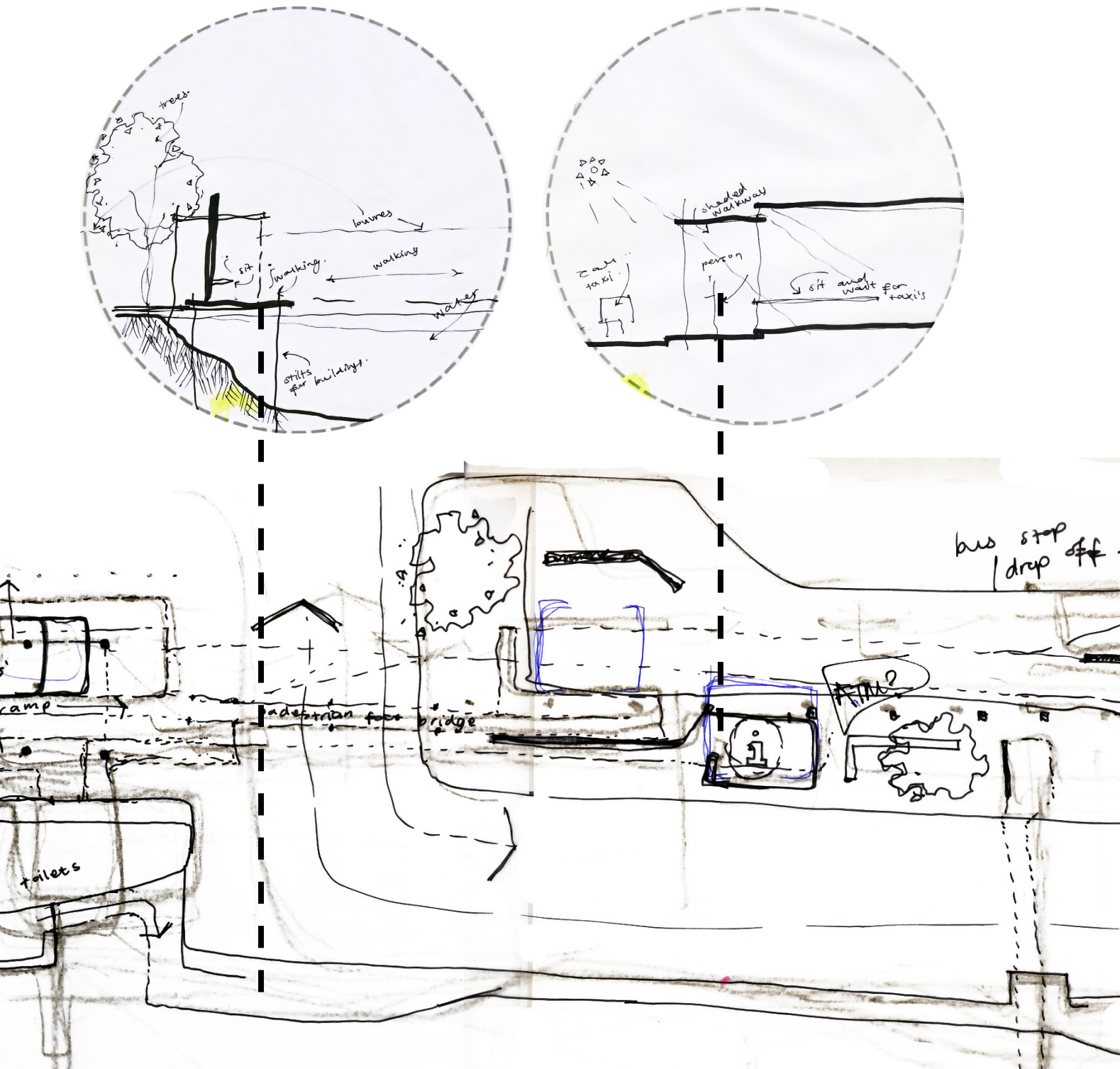
Sight lines from the taxi rank to the park are an important aspect to the development, since regular exposure viewing the park is important.

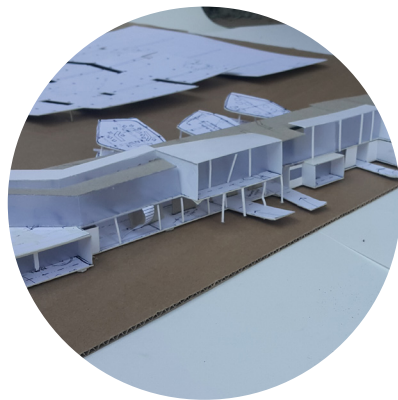
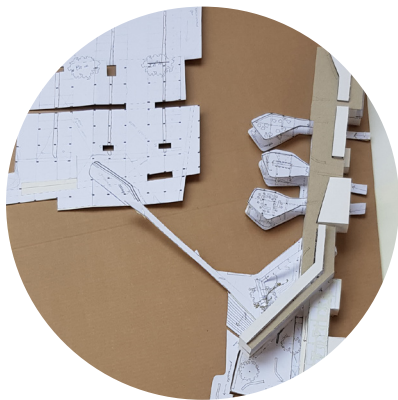
It offers a very brief awareness of a different place where one can break away and being in such close proximity becomes more real to the commuter-visitor.

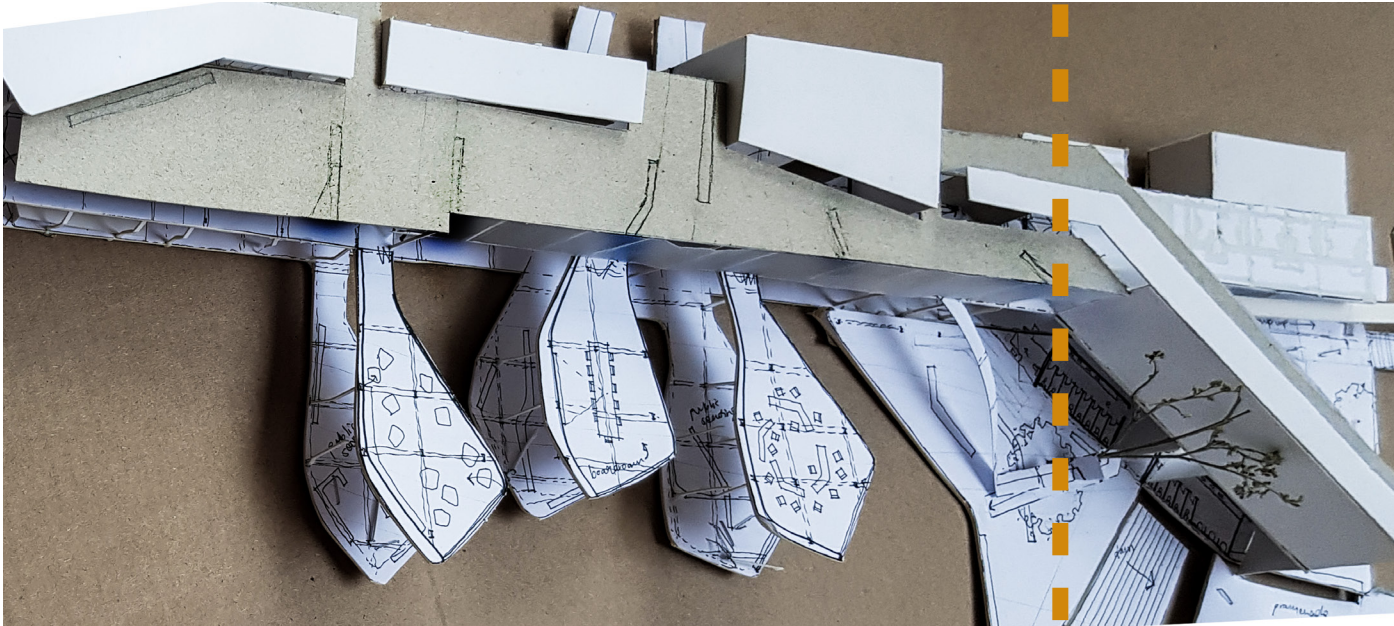
The scale of the pod-like structures to the south-west needs to be addressed.

Blending of natural elements into the development needs attention and flow of pedestrian traffic can offer more pause spaces along the lines of movement.

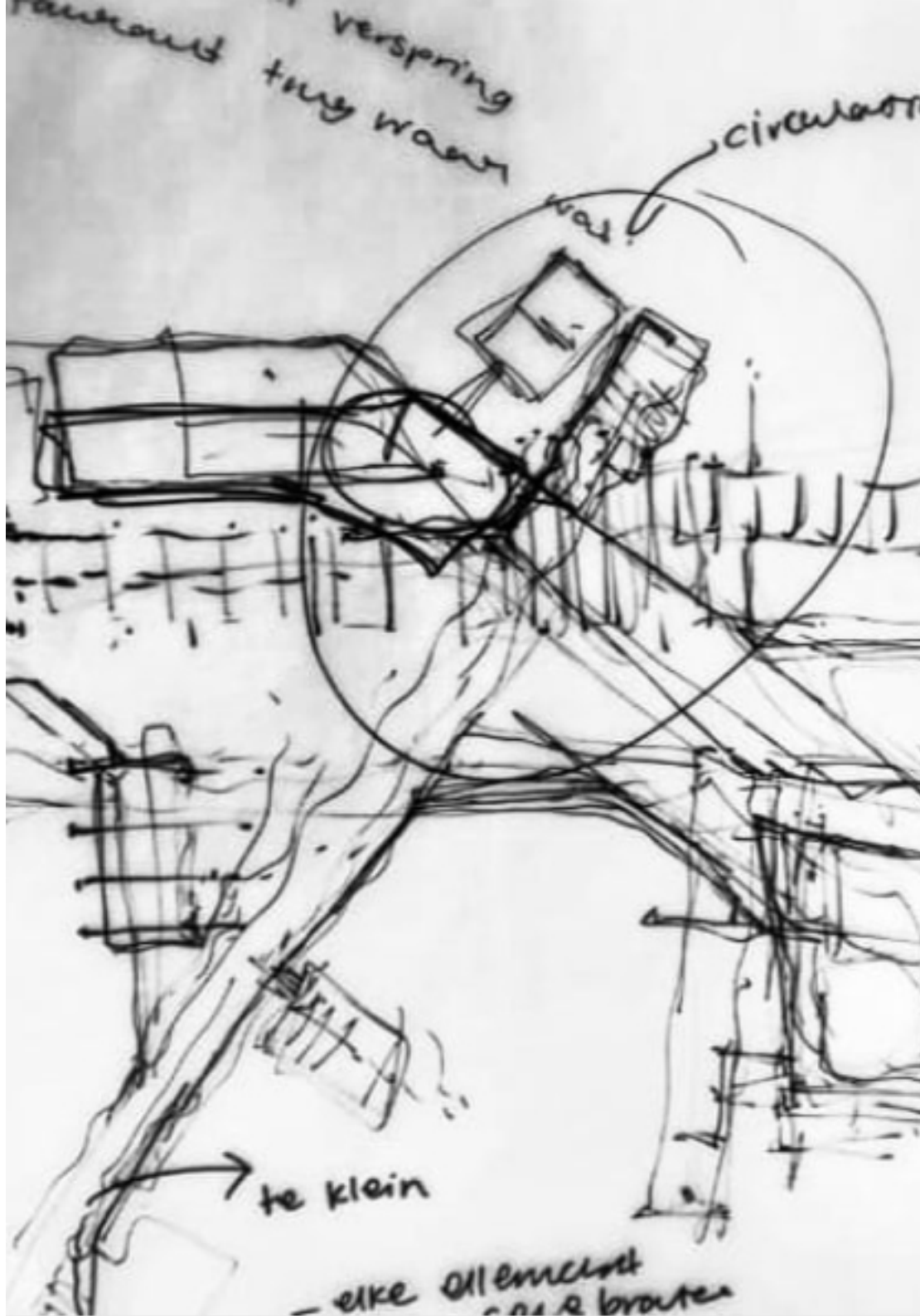
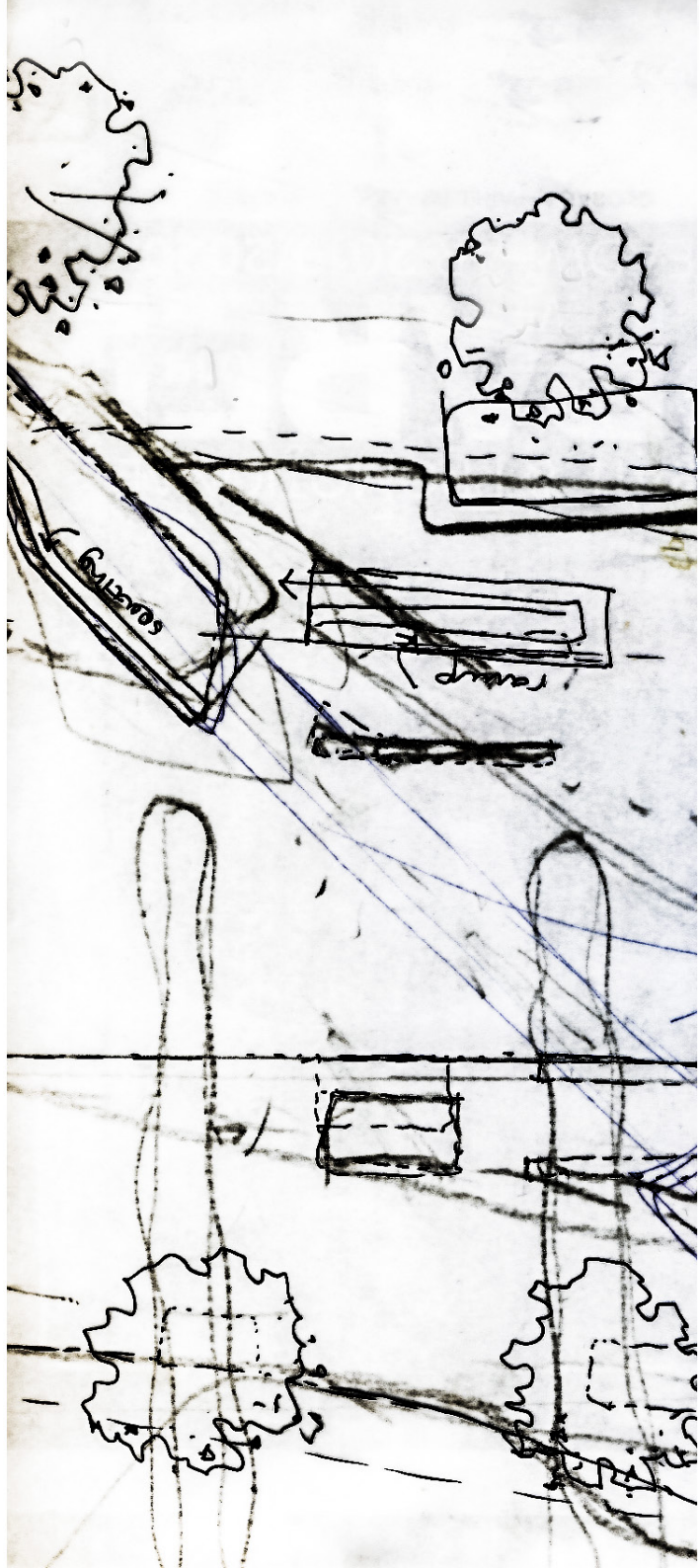
A bigger variety of options can be developed in order for the visitor to the site to suit a spectrum of moods and allow for a wider variety of interactions with others.

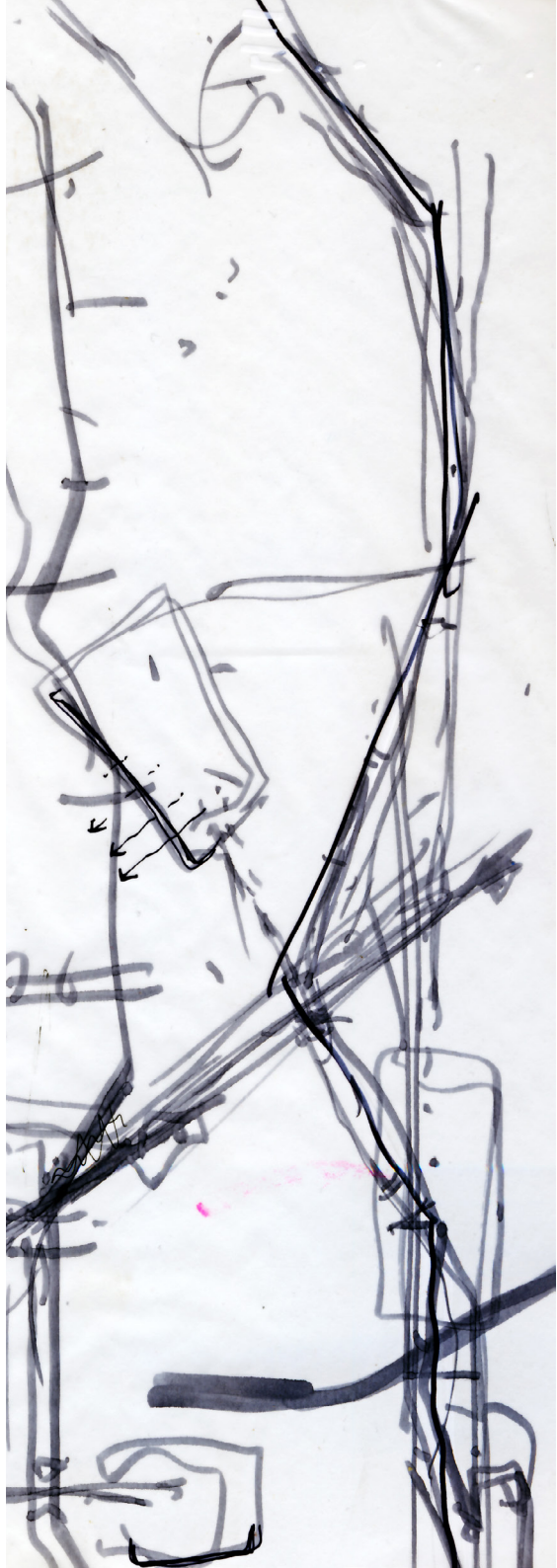
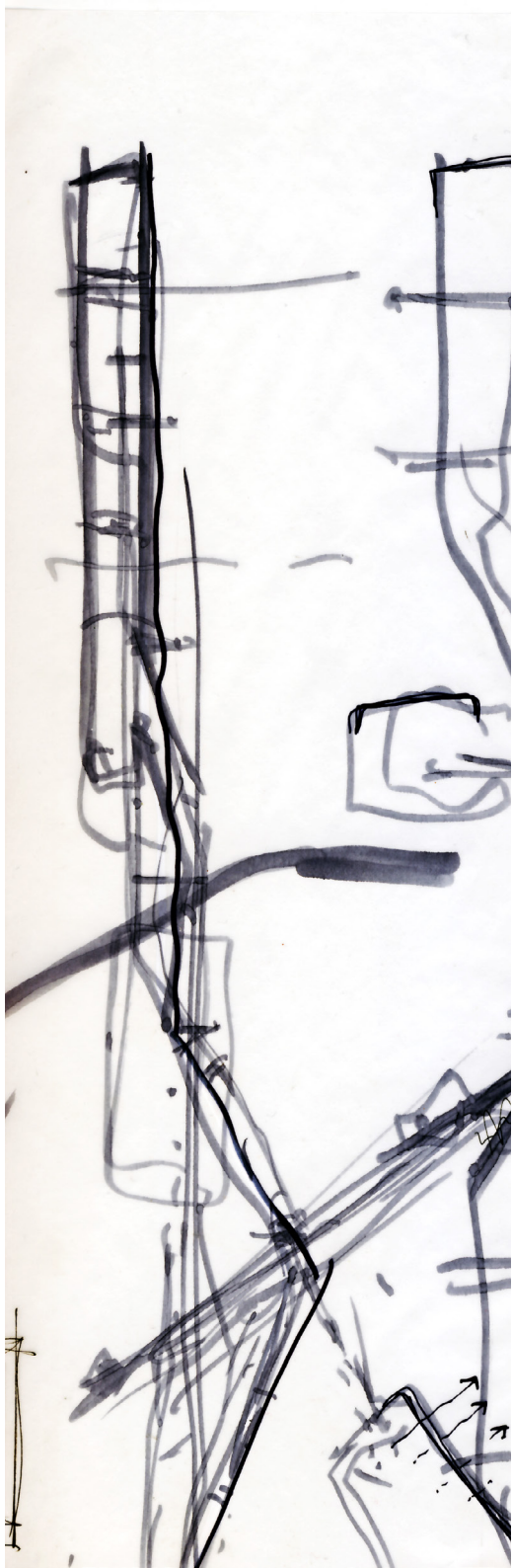
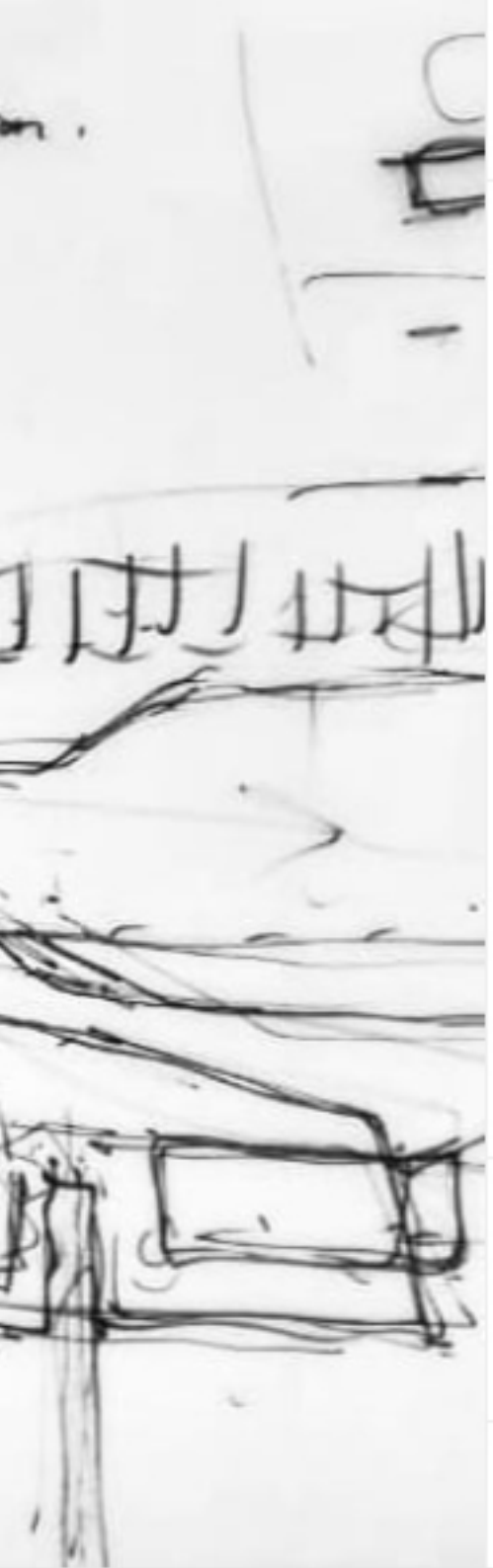


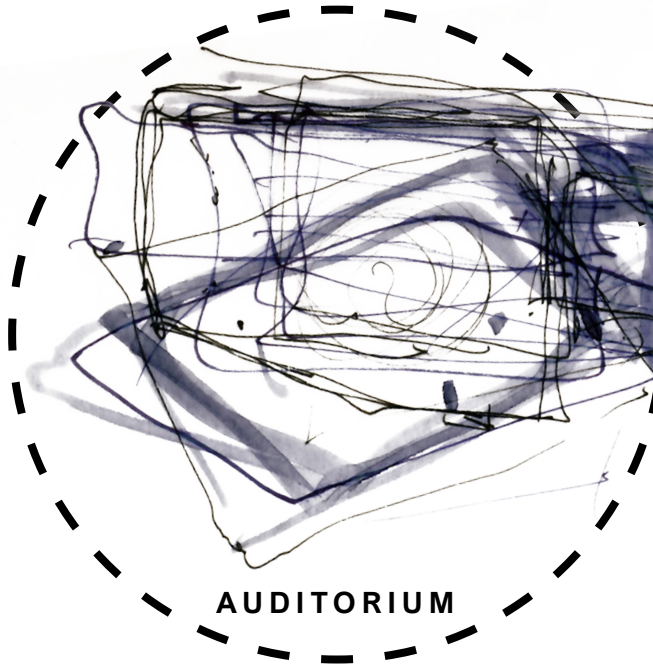




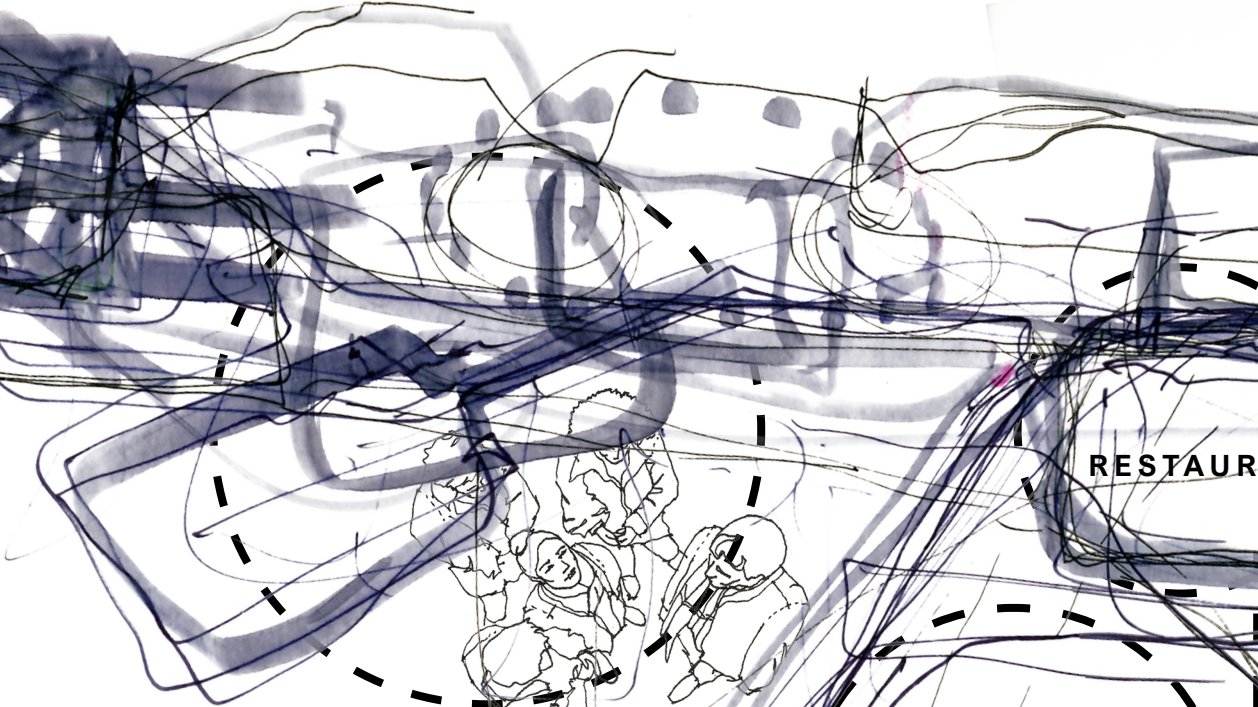
[between design exploration 02 and 03]







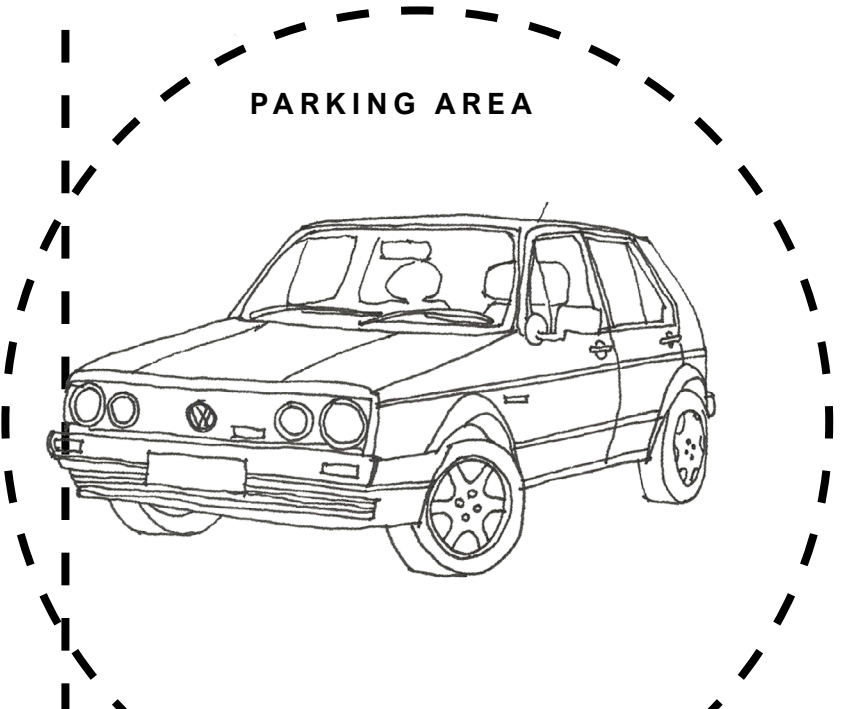
AUDITORIUM



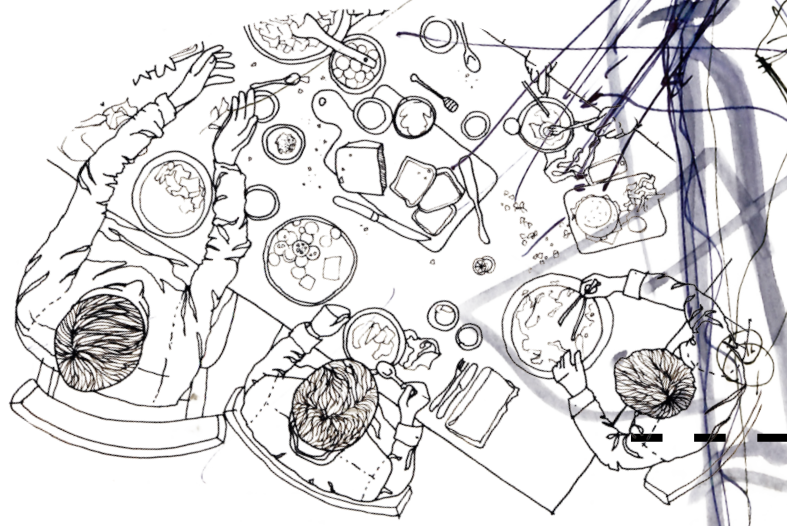
RESTAURANT

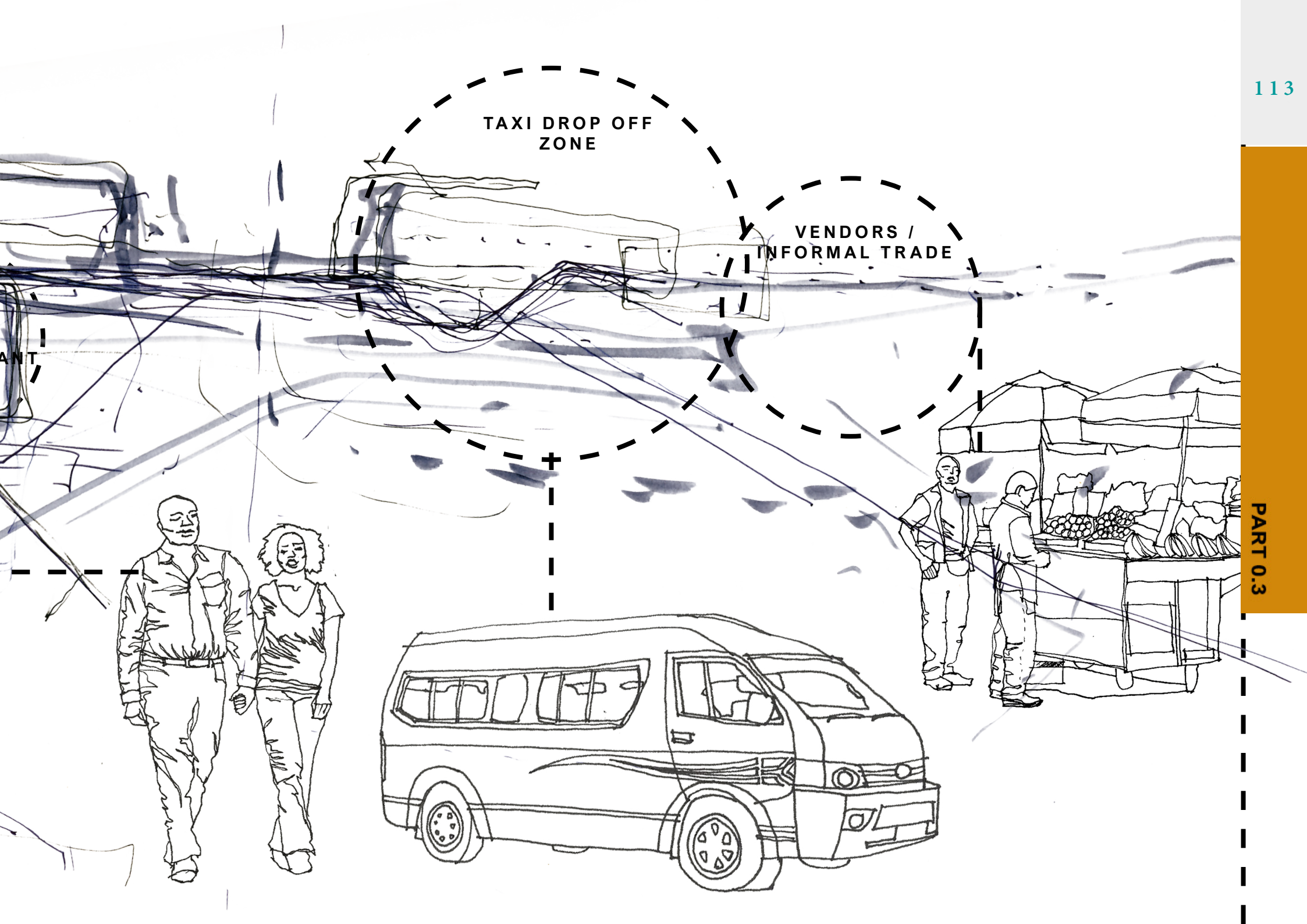
ORIGINAL DESTINATION OF PODS

VIEWING PLATFORMS



PARKING AREA





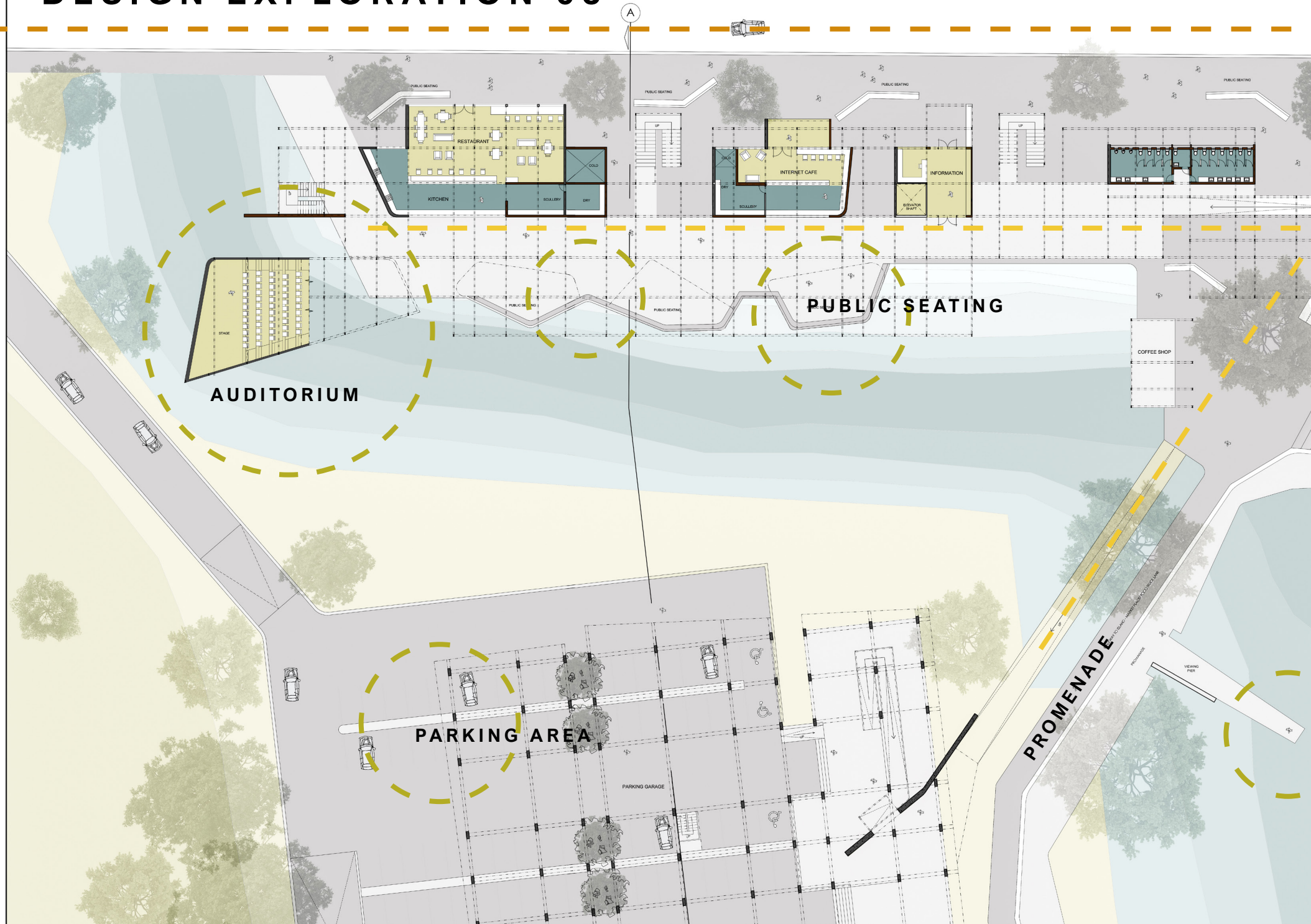
TAXI DROP OFF  
ZONE

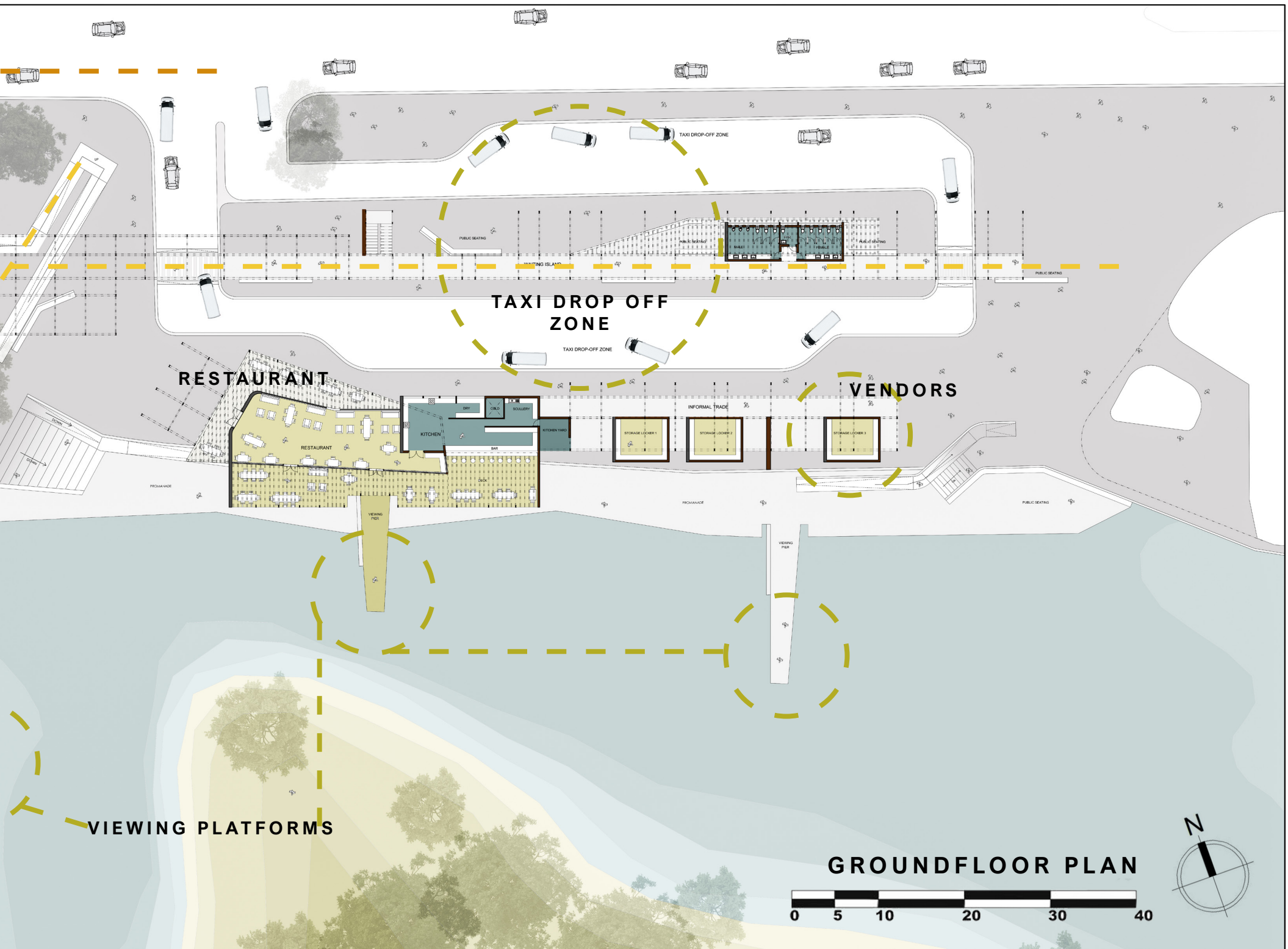
VENDORS /  
INFORMAL TRADE

# DESIGN EXPLORATION 03

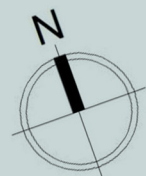


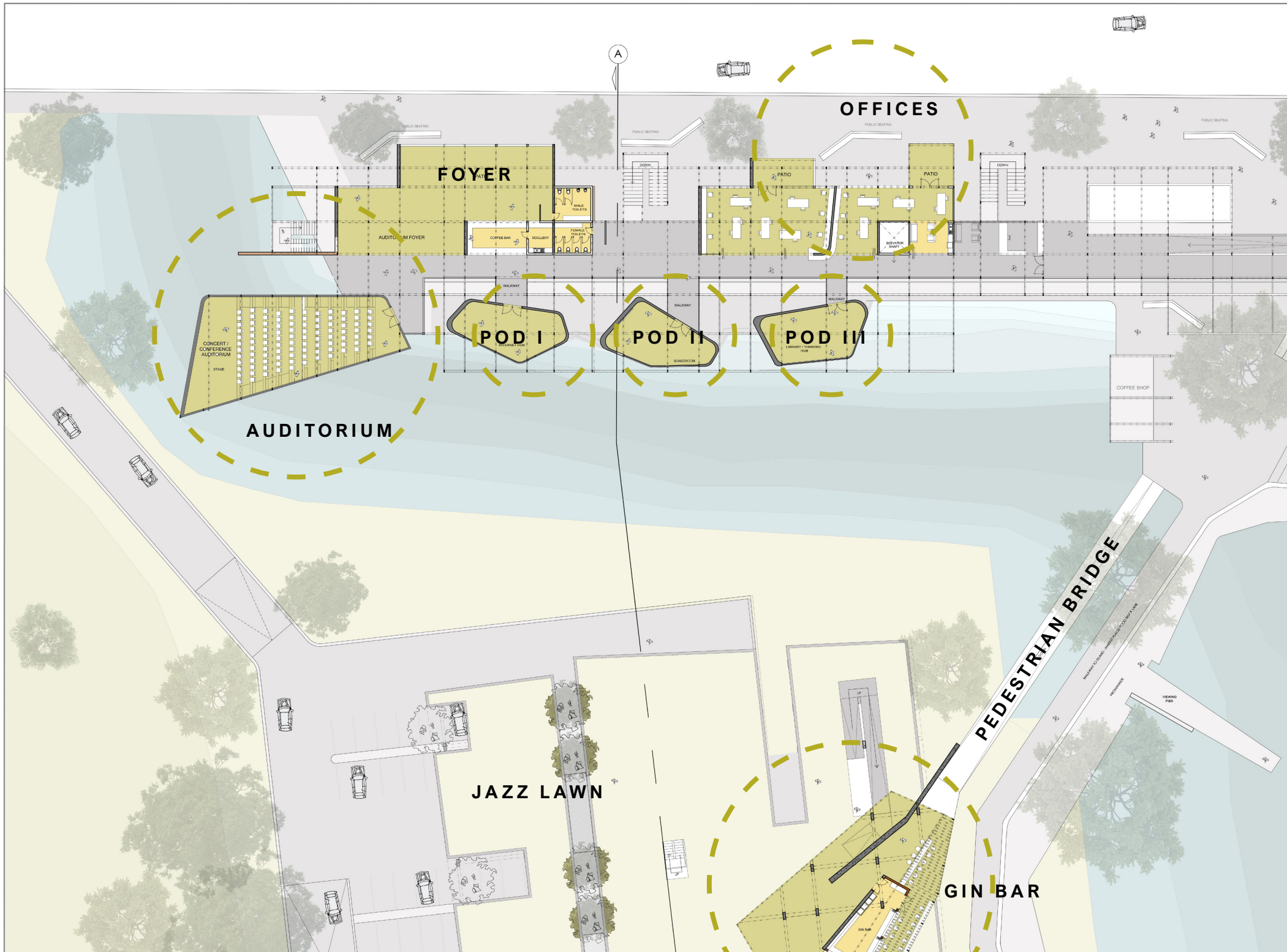
114

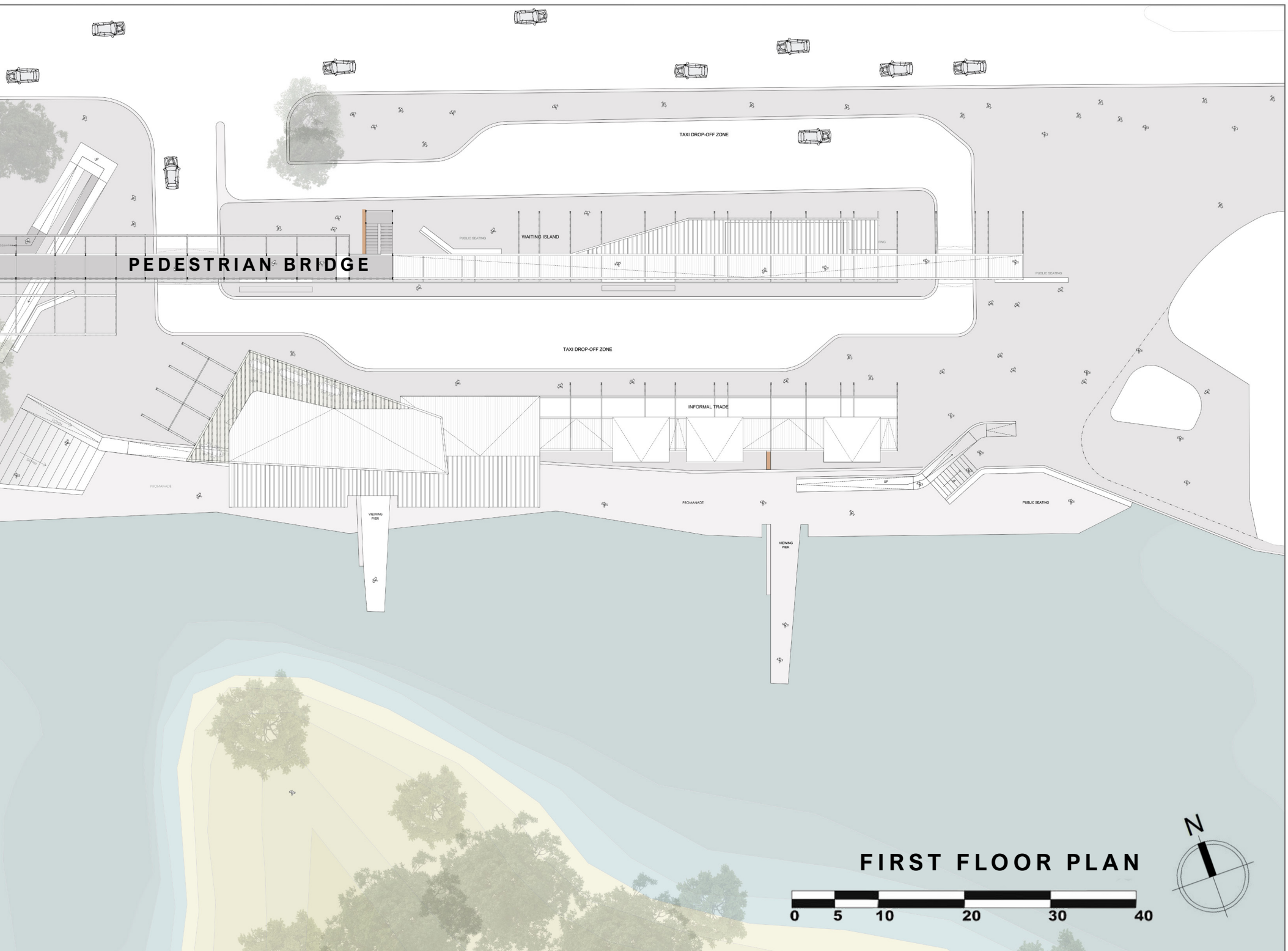




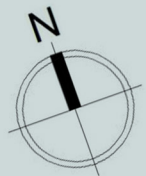
GROUND FLOOR PLAN

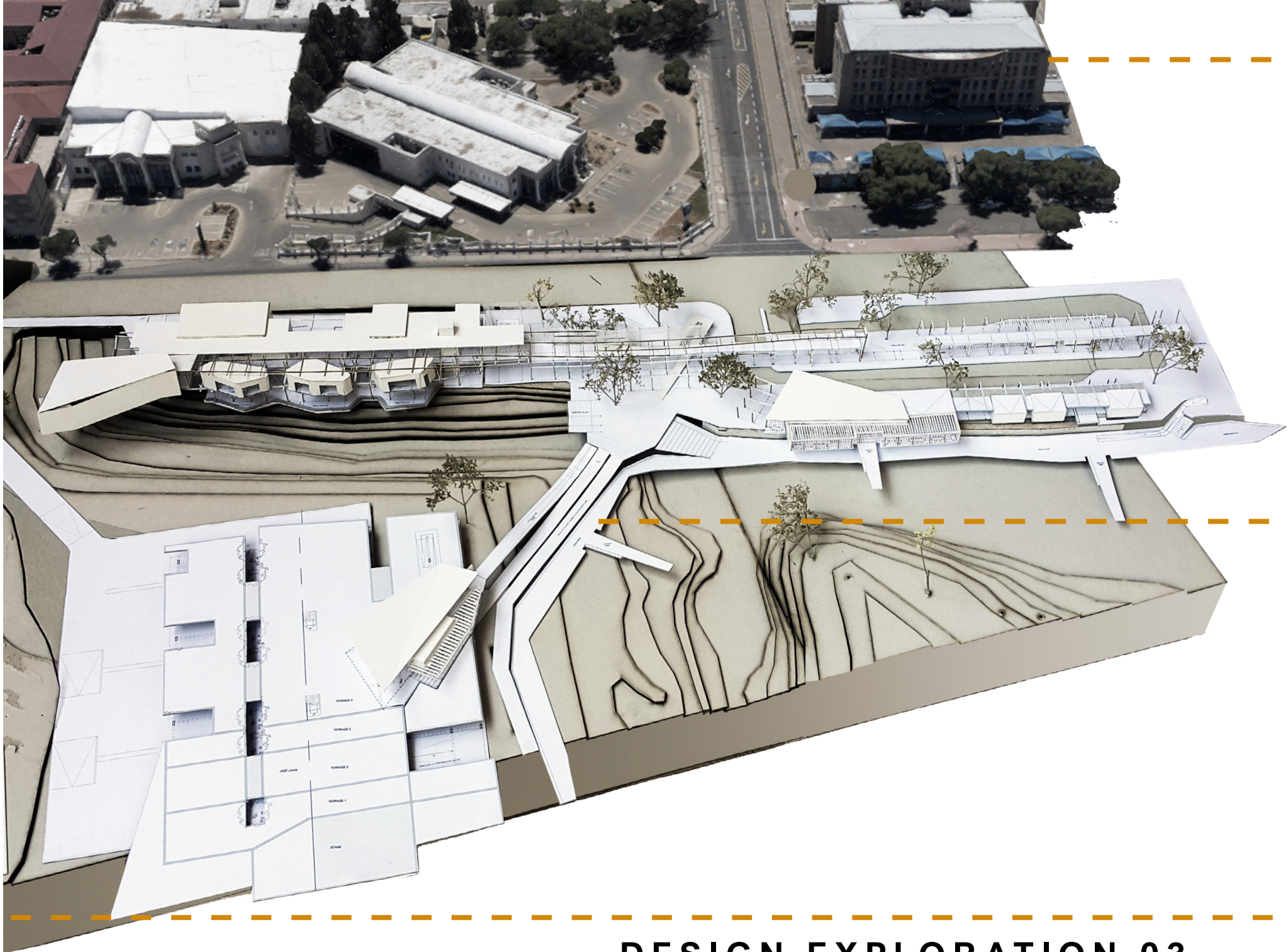






FIRST FLOOR PLAN





**DESIGN EXPLORATION 03**

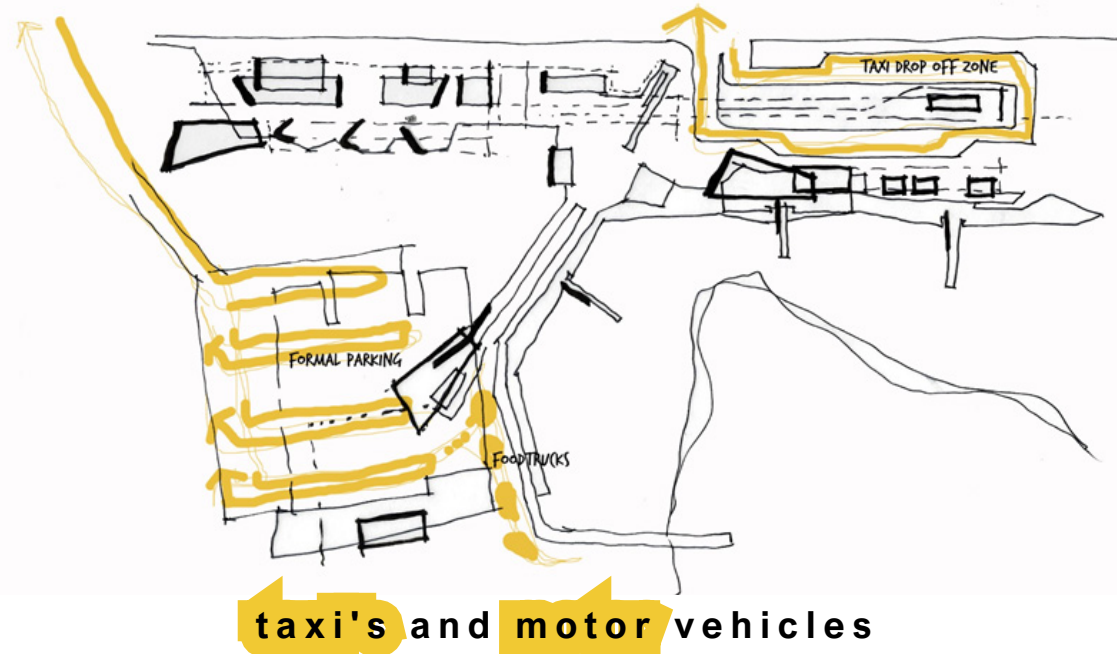
The major venues or destination spaces enjoy prominent positioning in the development. The auditorium that can accommodate 125 people and a variety of functions, from TEDx talks to concerts and business conferences. People are positioned to the extreme west of the development and offers a well-articulated end to the west. The shape of the Auditorium finds echoes in the shape of the gin bar and central restaurant and helps to create a cohesive blend of shapes and elements on site.

The articulation of shapes in the development becomes more homogeneous where metal sheeting roofs stand proud of concrete roofs covering pedestrian walkways. The scale of the different parts of the building become more realistic and connecting elements are subjective to destination venues. Trees are accommodated with more ease and contribute towards a more relaxed atmosphere. Canopies and louvred covers for patio areas create an articulated layer to the site and contributes towards the readability of the structure.

Flow of taxis onto the site have been resolved and flow of commuters are more structured. Informal trading offers products to people making use of the taxis and the spatiality around the taxi rank are also more nuanced. The volumes of the building seem to “breathe” more freely, since there are open areas spread throughout the development, allowing for fresh air to circulate passively through all buildings.

The centre of the site accommodates a public plane with natural elements in the form of trees in it. As a central element it allows for higher interaction between visitors and is the impact point on the site where vehicle owners and taxi commuters will make contact. Form giving on site addresses the forms of the side of the site that they are facing: softer shapes and curved forms face the park, while more rigid, clean geometries face the city.

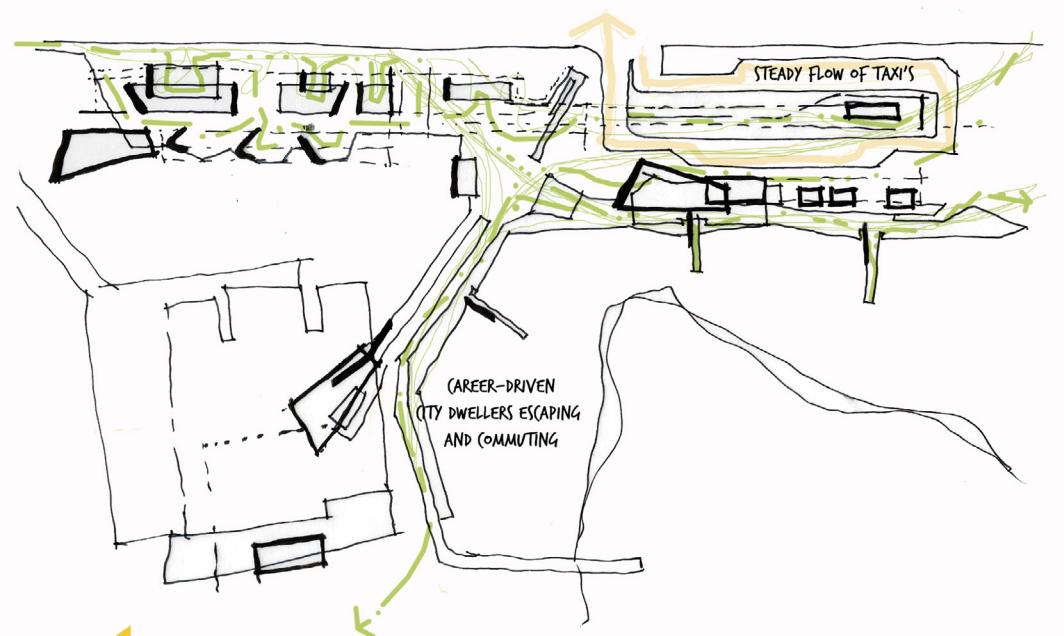
SANS regulations are being applied to the site regarding fire escapes, parking and accessibility.



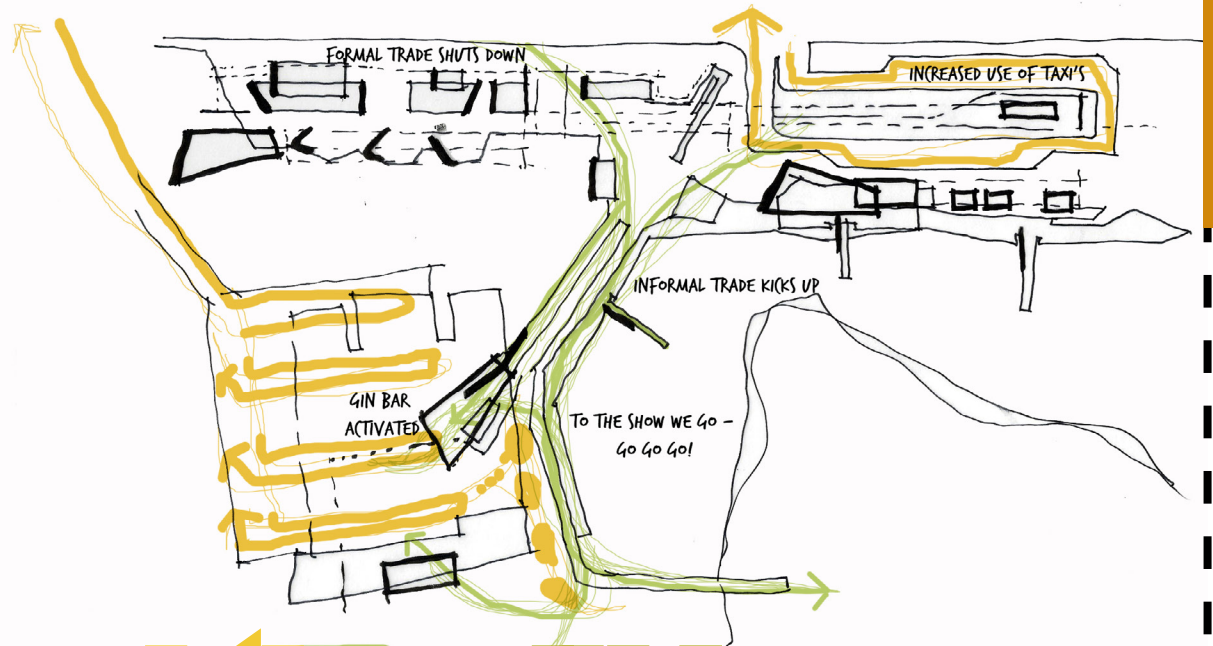
Possible interventions that might have been overlooked previously:

Facilities facing the park affords opportunity to develop performing platforms on the Loch Logan Island. Examples previously discussed from the Nirox foundation has a performance platform separated by water from the audience with an embankment that acts as seating for attendees to a concert.



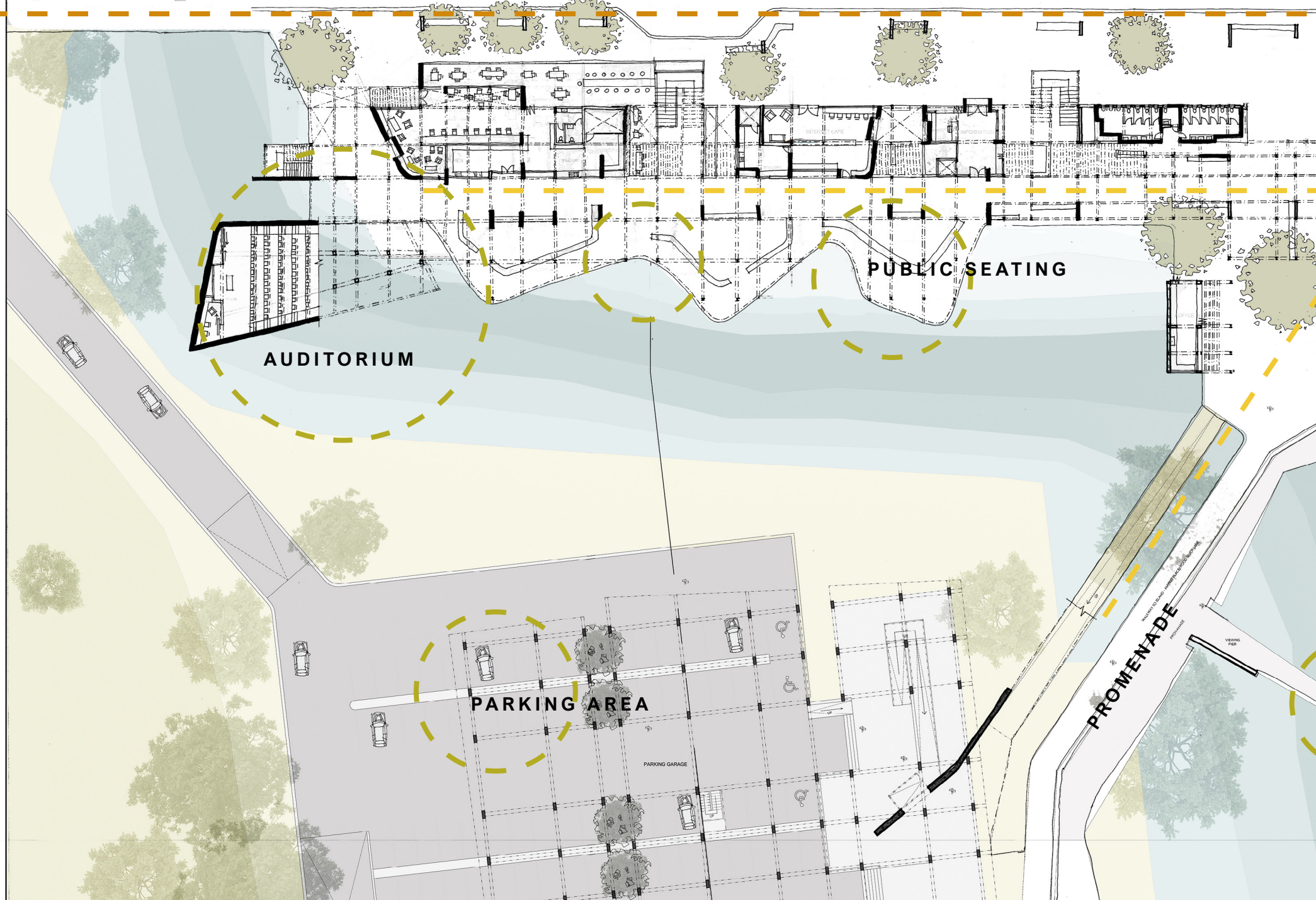


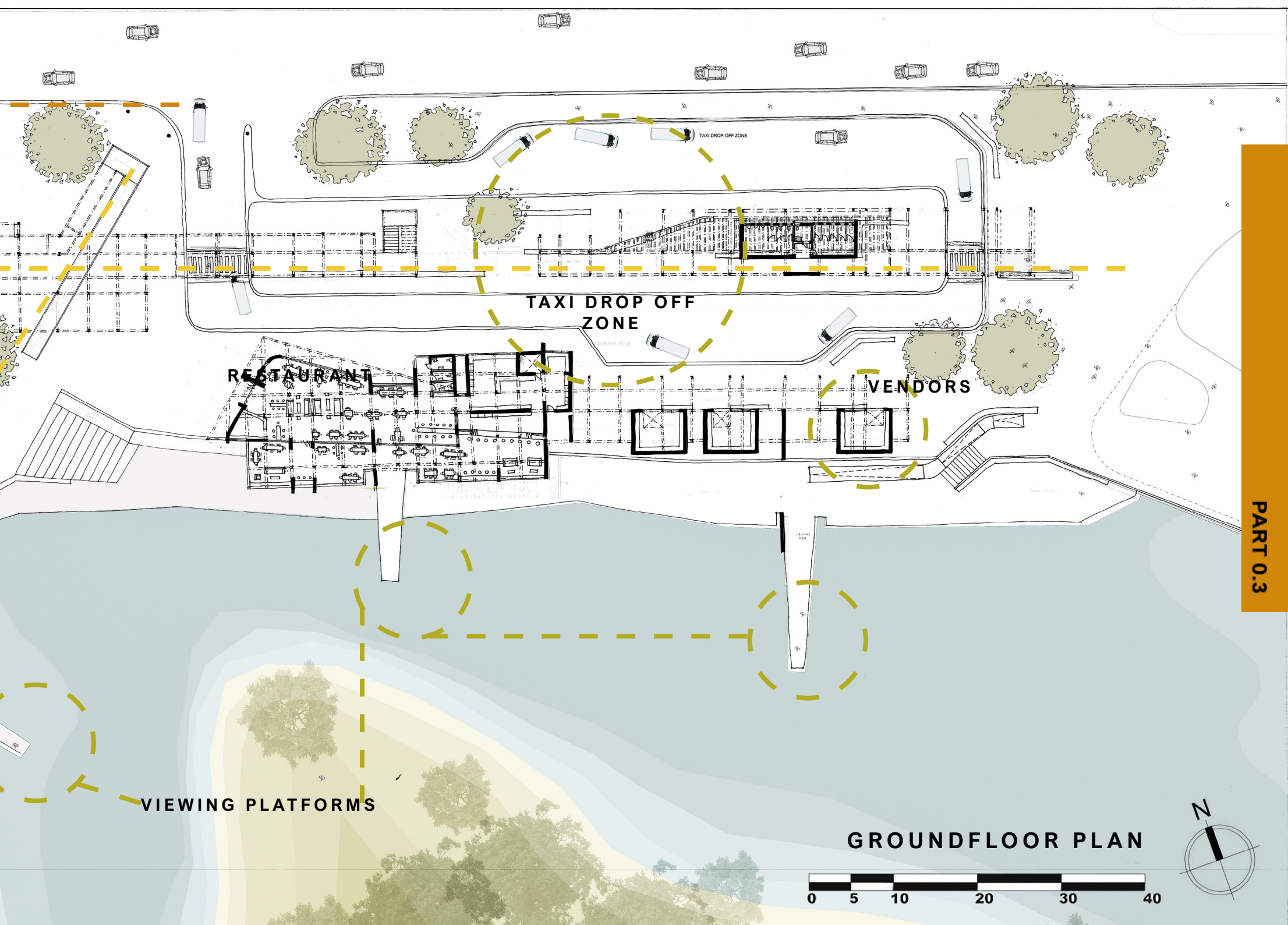
pedestrian and vehicles' daily route/ access



pedestrian and vehicles' festival / event route and access

# DESIGN EXPLORATION 04 : FINAL RESOLUTION





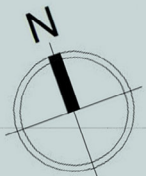
TAXI DROP OFF ZONE

RESTAURANT

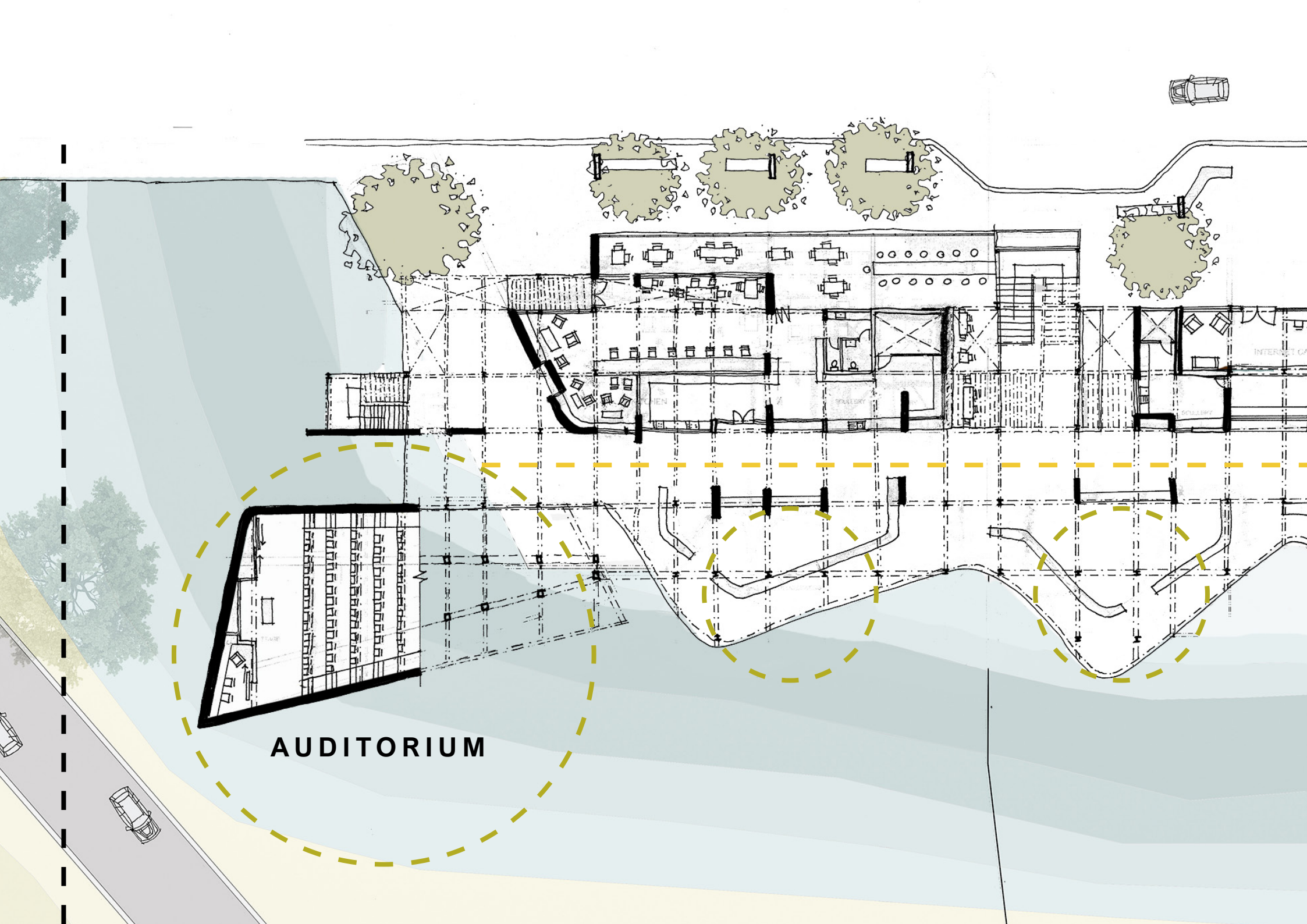
VENDORS

VIEWING PLATFORMS

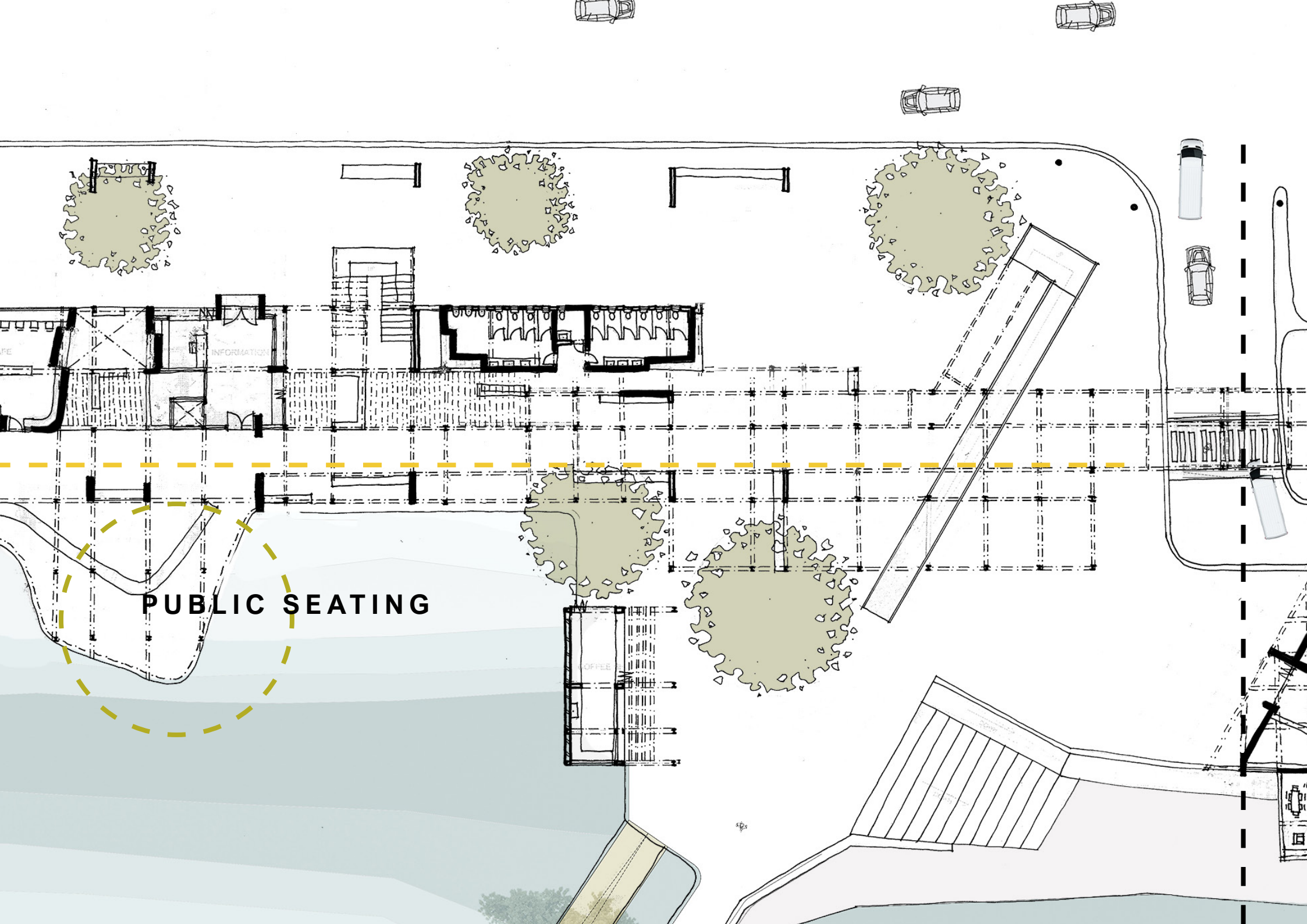
GROUND FLOOR PLAN



PART 0.3



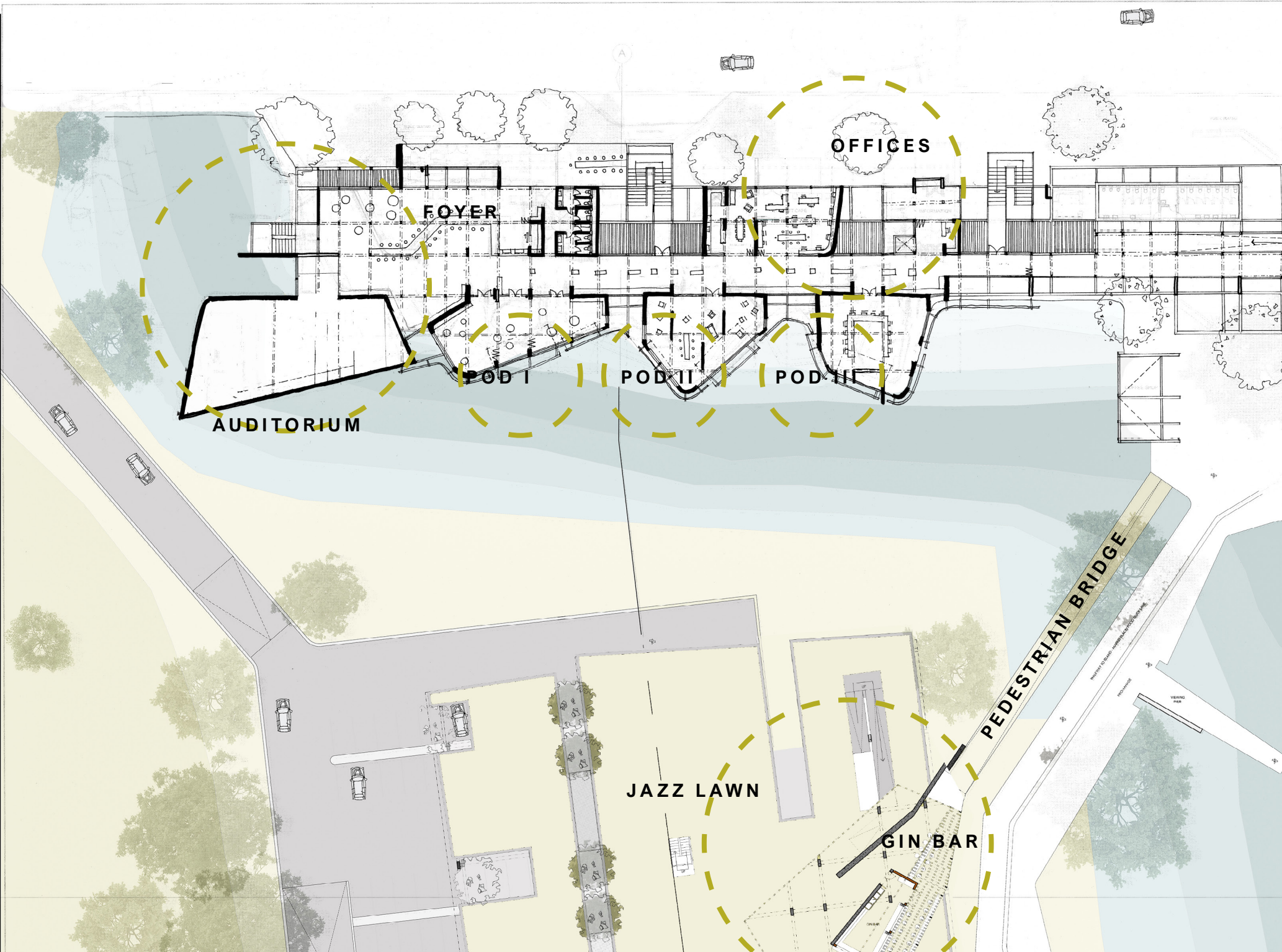
**AUDITORIUM**

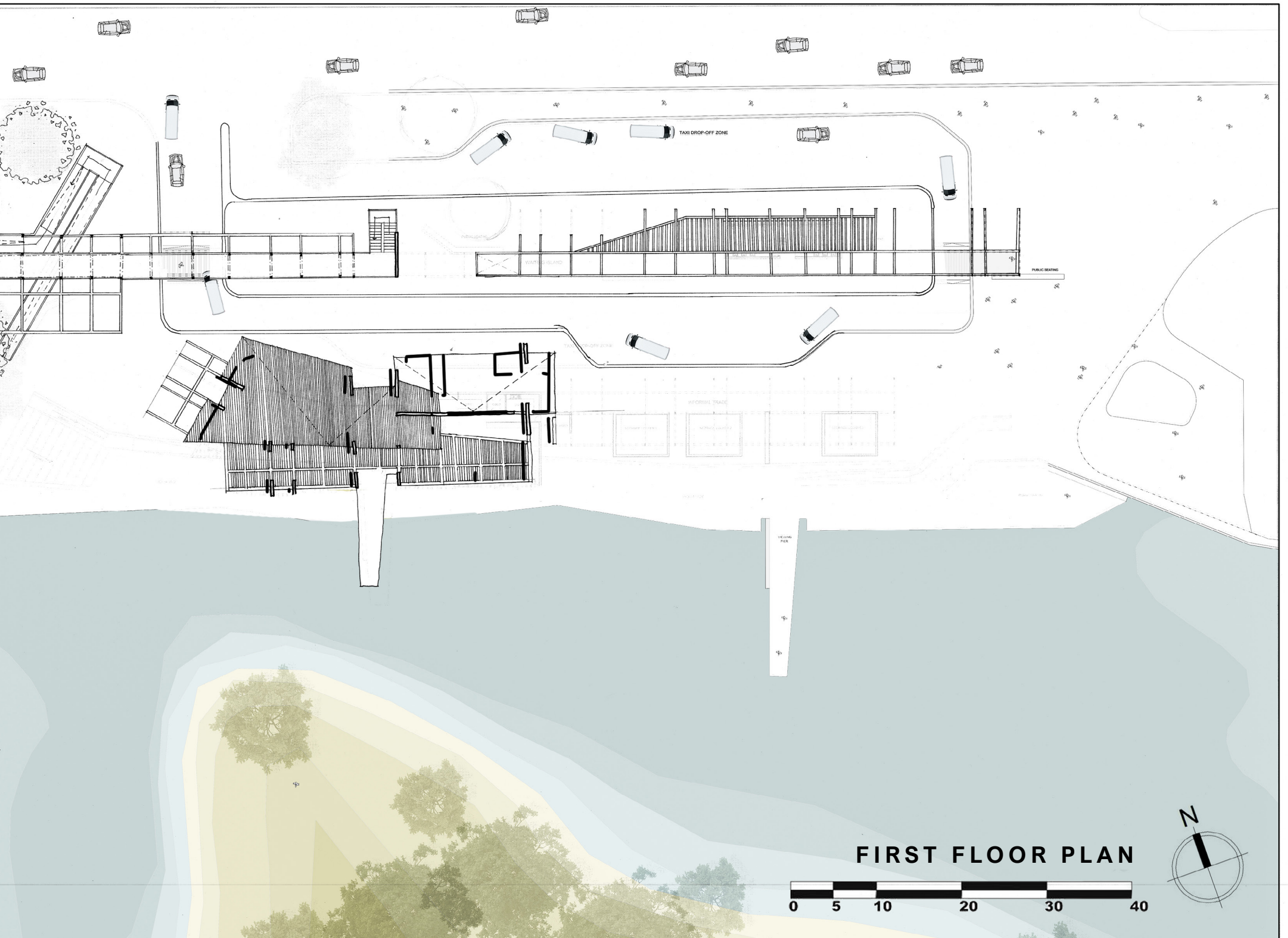


**PUBLIC SEATING**

INFORMATION

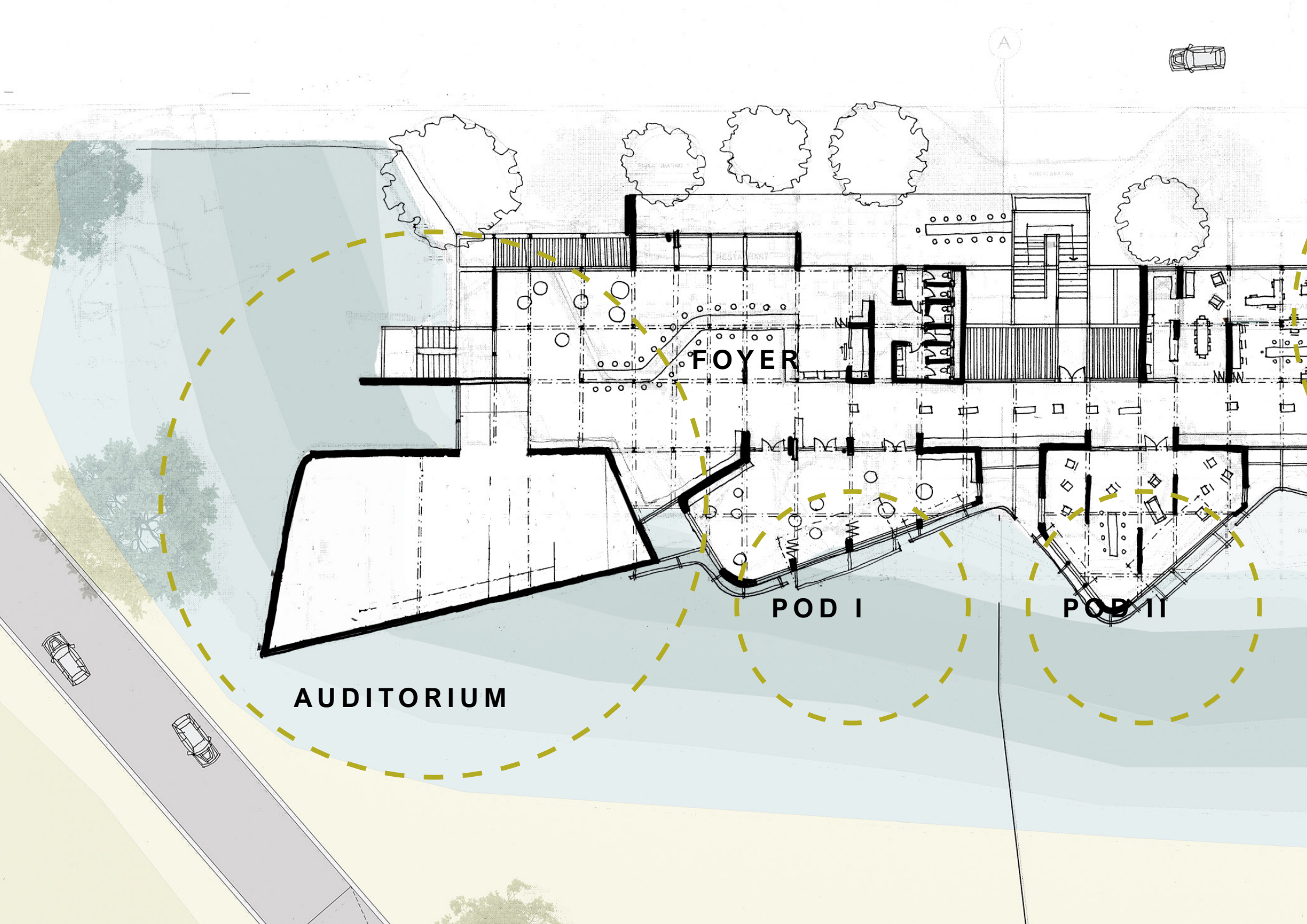
OFFICE





FIRST FLOOR PLAN





AUDITORIUM

FOYER

POD I

POD II

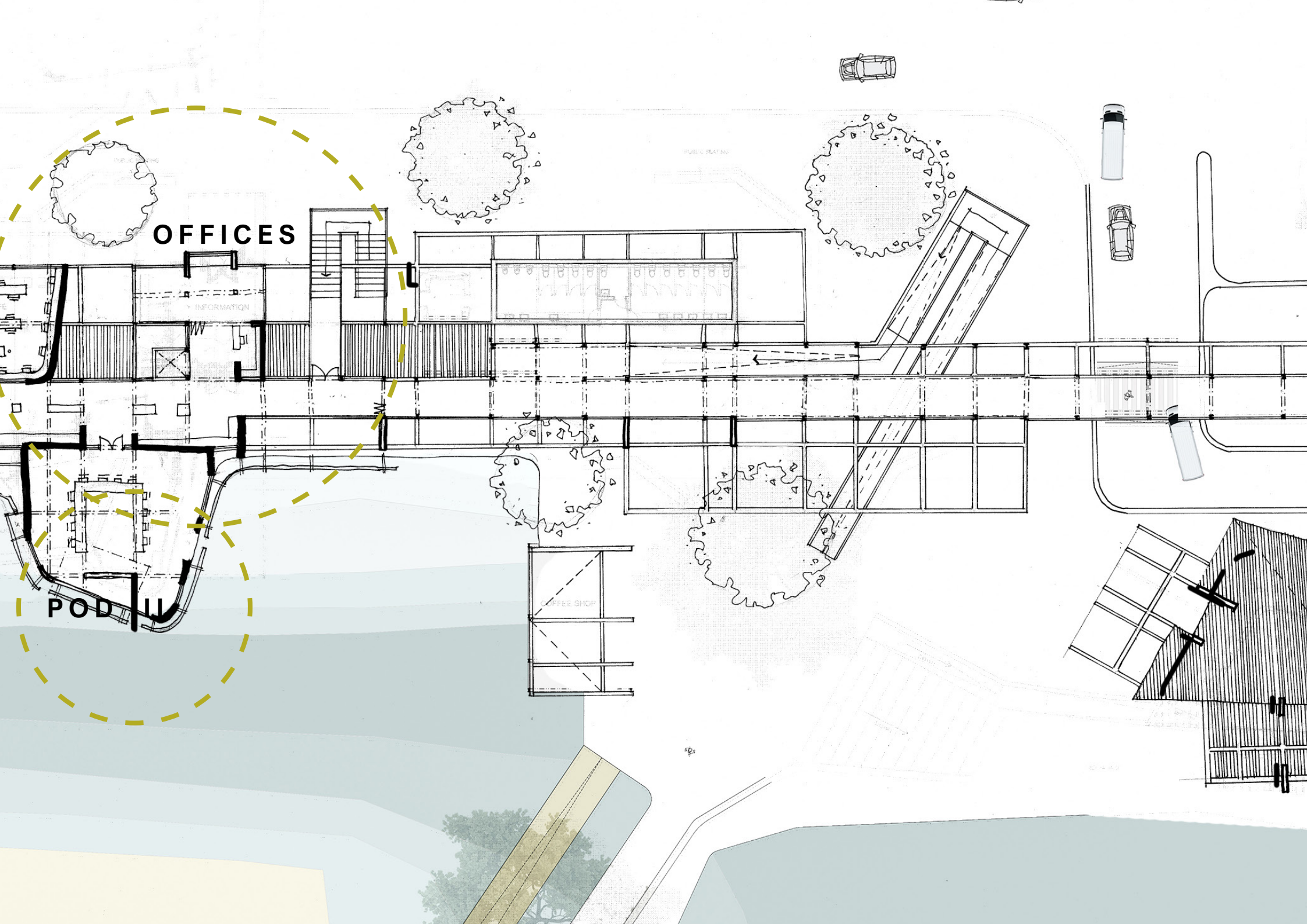
OFFICES

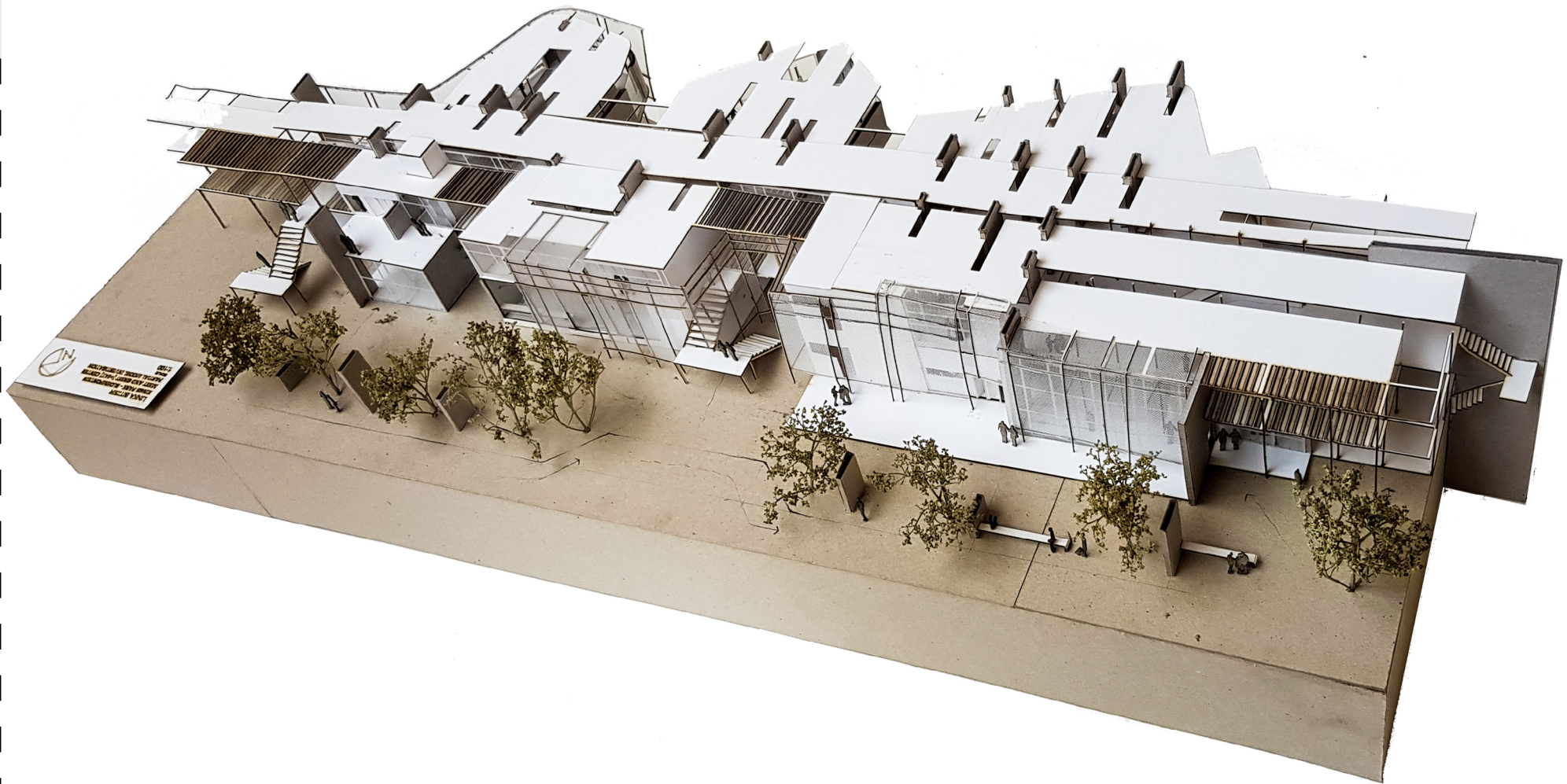
INFORMATION

POD II

COFFEE SHOP

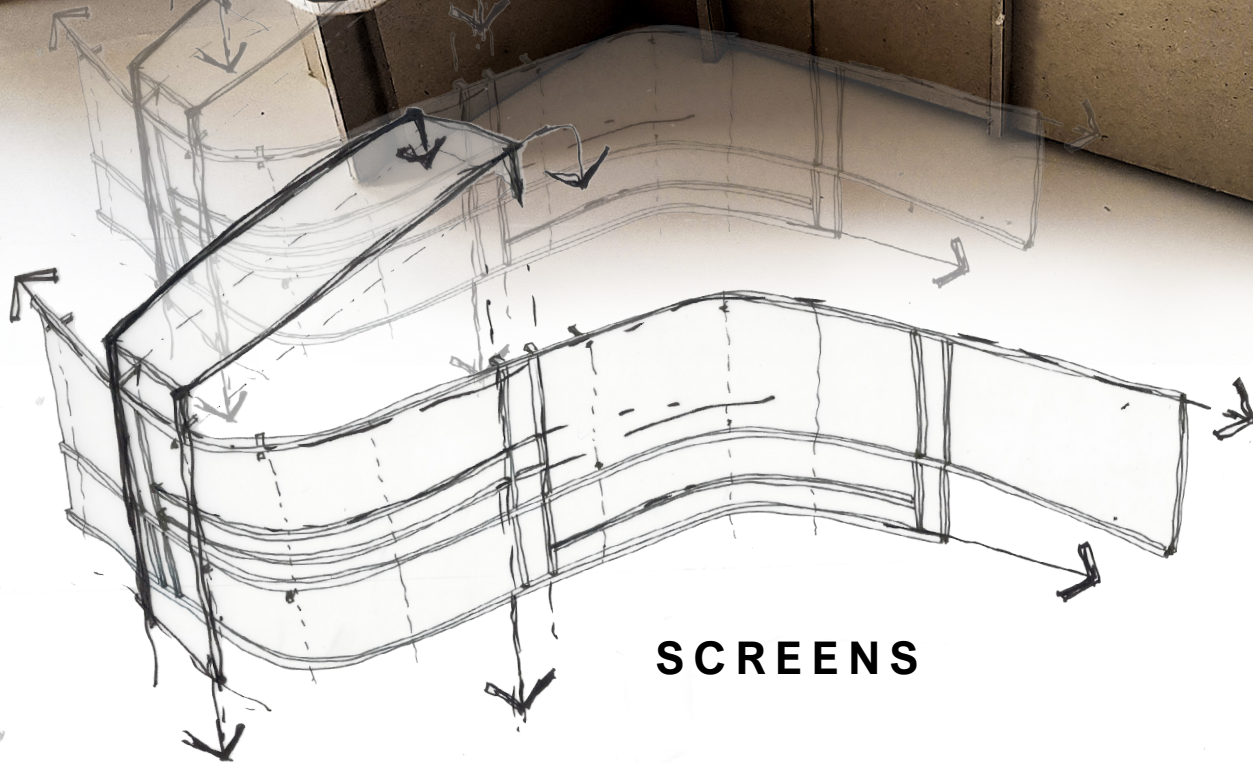
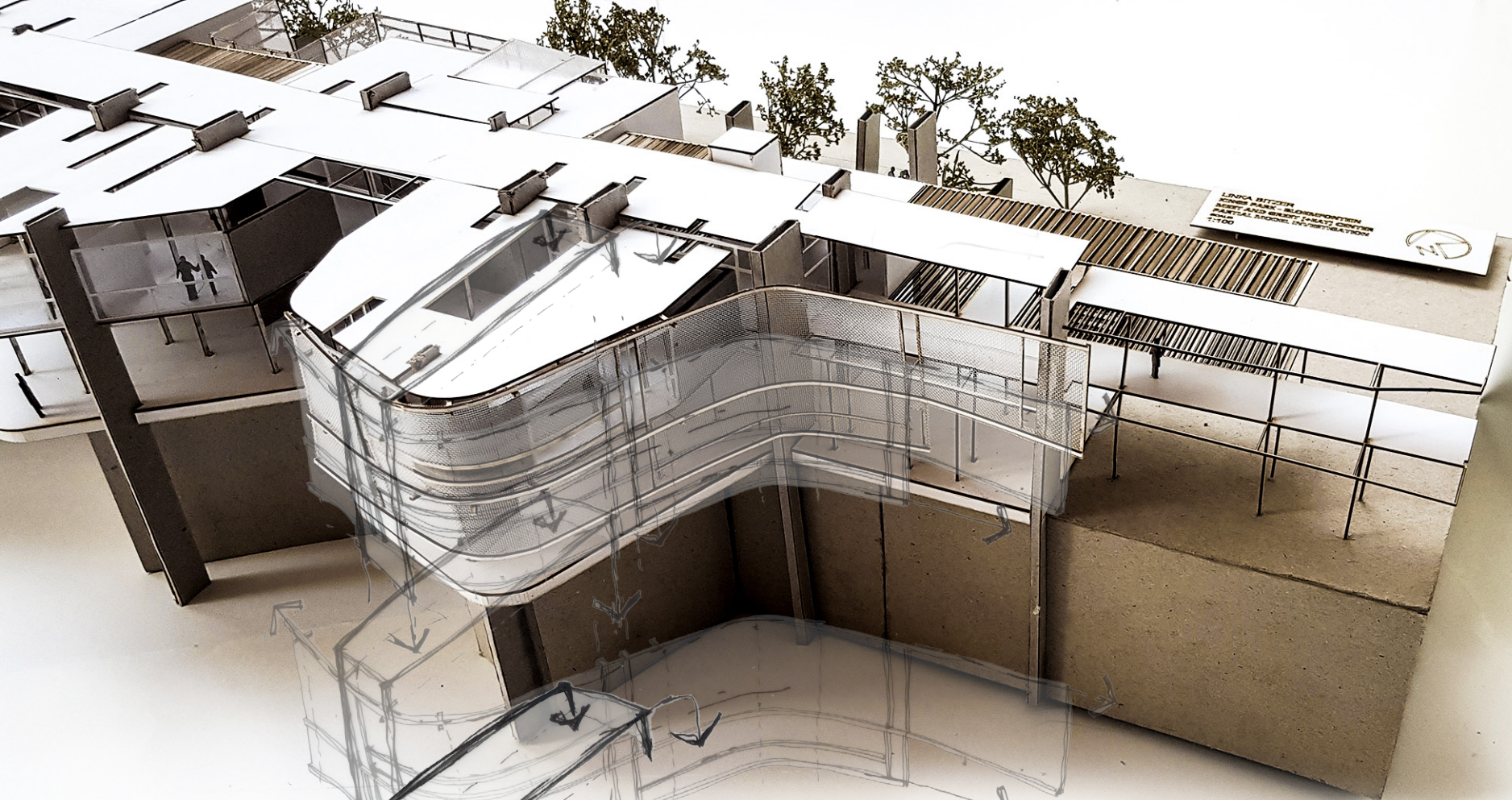
PUBLIC SEATING





The model is an in depth investigation of the **most** densely populated area of the project regarding the architecture. None the less, the building has opening sight-lines that open up the dwellers experience of the city-space into the greenscape of Kings Park. These windows appear to be small in passing, but act as a magnifying glass that frames the landscape, the closer the user moves towards this green node.

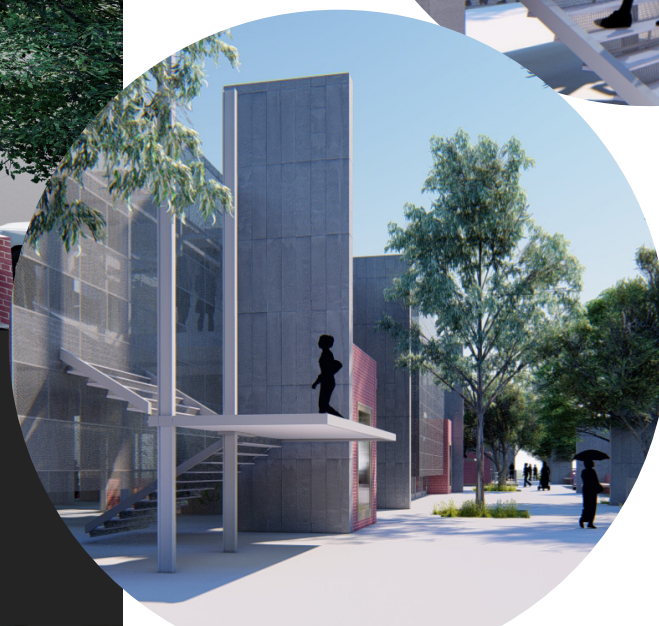
The Northern elevation of the Meet and Greet [+eat] building is designed to be more geometrical than that of the South elevation, as to maintain a connection with the city's typology. In contrast, the Southern edge of the building reaches out into the park on an undulating rhythm; completing the depiction of two opposing characters in this static space in Bloemfontein.



**SCREENS**



PRELIMINARY 3D SECTION



Articulation of facades, columns, forms and light are given more attention. Street furniture are developed further in order to offer pause spaces for the daily traveller that crosses the site.

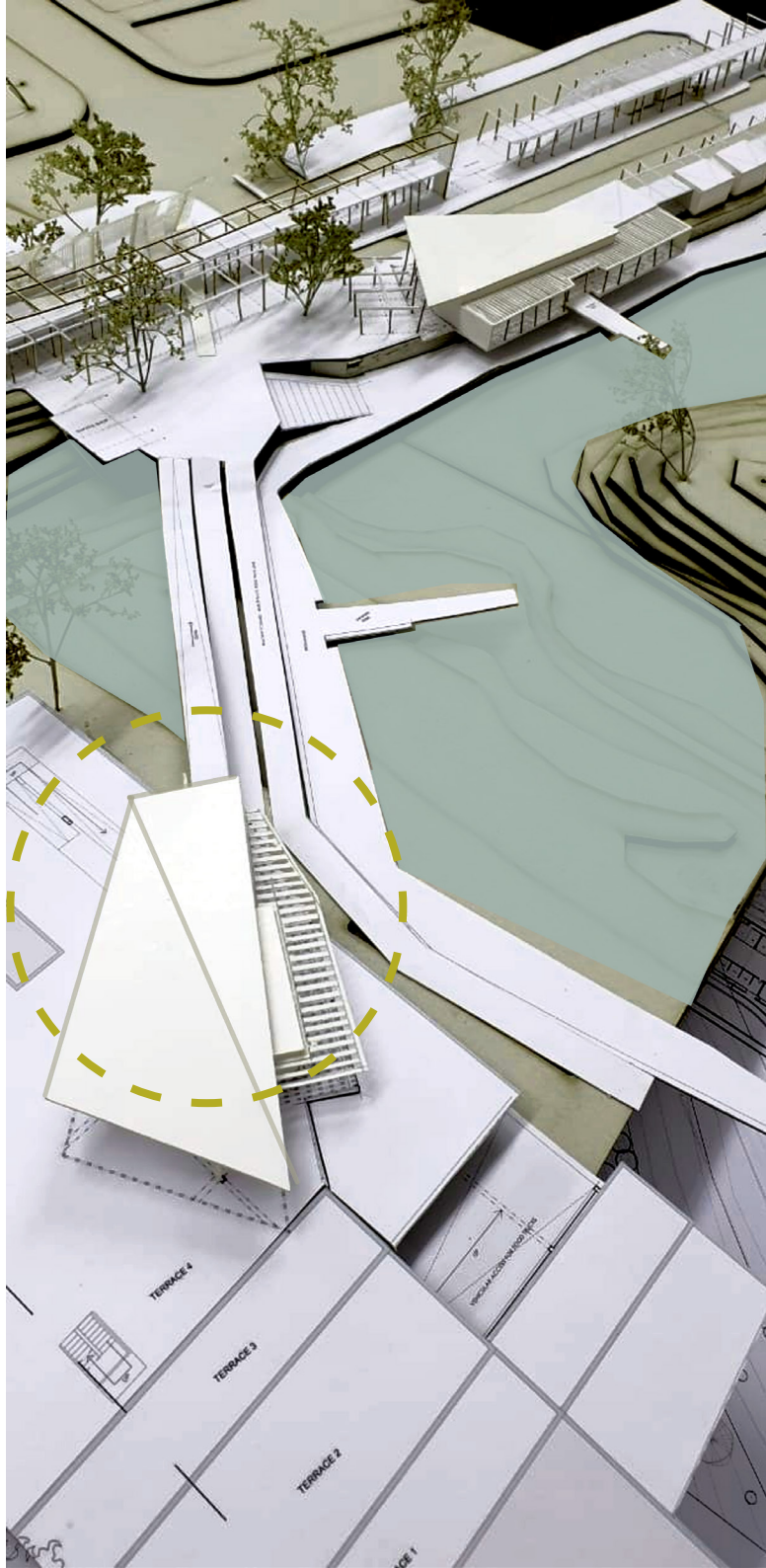
Skylights are used to invite more light into the heart of the more formal, western side of the development. The positioning of columns and beams are used as a generator for the positioning of light elements and create delight on the interior of the building. By opening the roof for filtering light, a vertical awareness is being evoked and it brings a different experience to the environment, one that the visitor may not encounter in the daily routines of their lives.

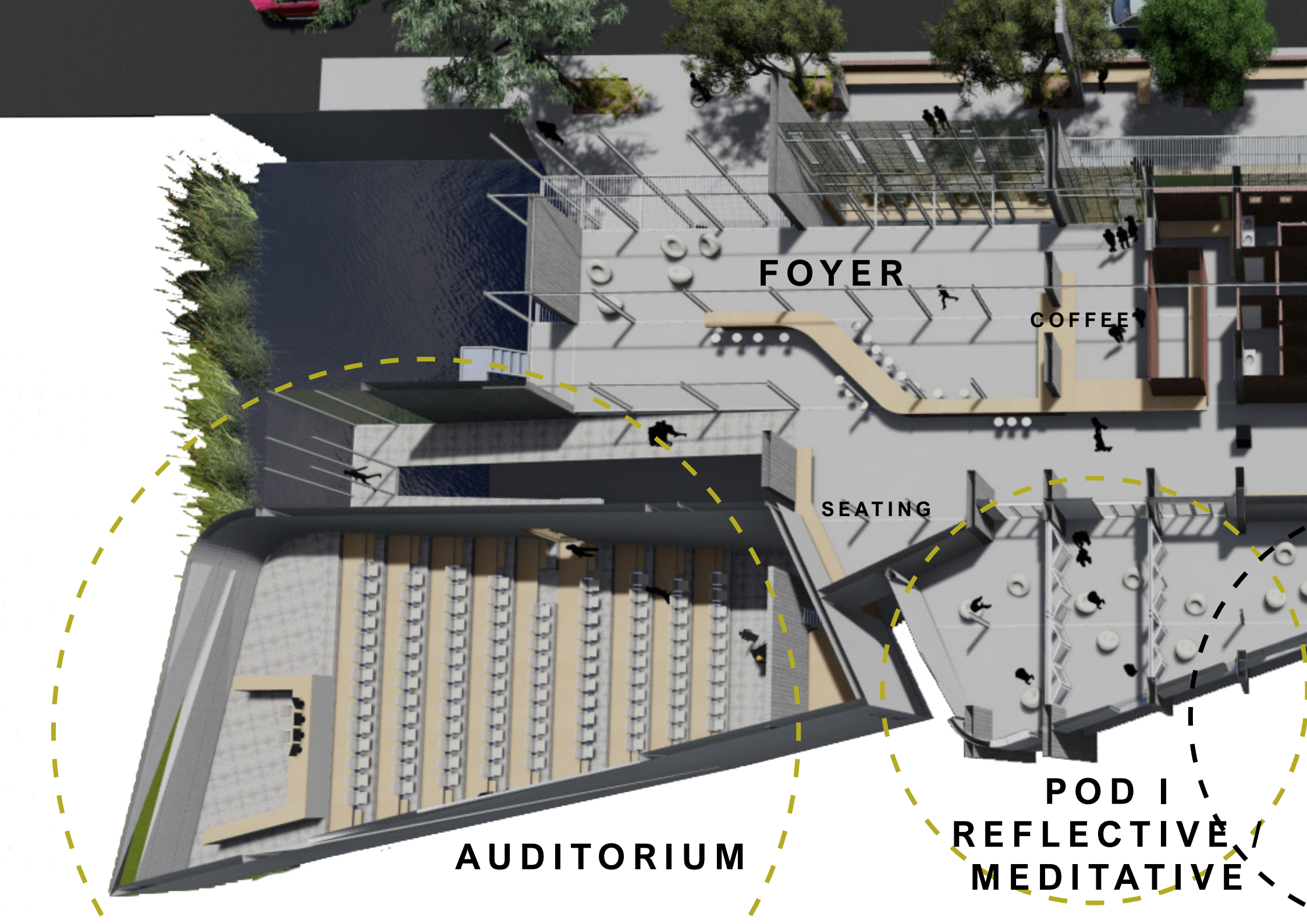
Some of the columns facing the park are articulated more by adding volume to the section of the elements. The driving force behind this decision is to isolate the interior, roofed area where benches are constructed in order to create privacy, while together with others in an area where one might choose to read a book.

Security needs to be addressed in order to prevent the homeless from sleeping on the benches provided. It might be more of a problem to the western end of the development, but the potential for overnighters on the benches constructed for commuters might also prove to be problematic.

The building offers enough clues to respond on the structure itself when designing details for the building. Positions for benches, lighting, advertising columns, windows, etc. can be accommodated by lining it up with existing design features, assisting the designer to tie the building together as one whole. There is a slight difference in rhythm from west to east, but there is still a quiet similarity in approach in how details are generated which helps to form a cohesive whole.







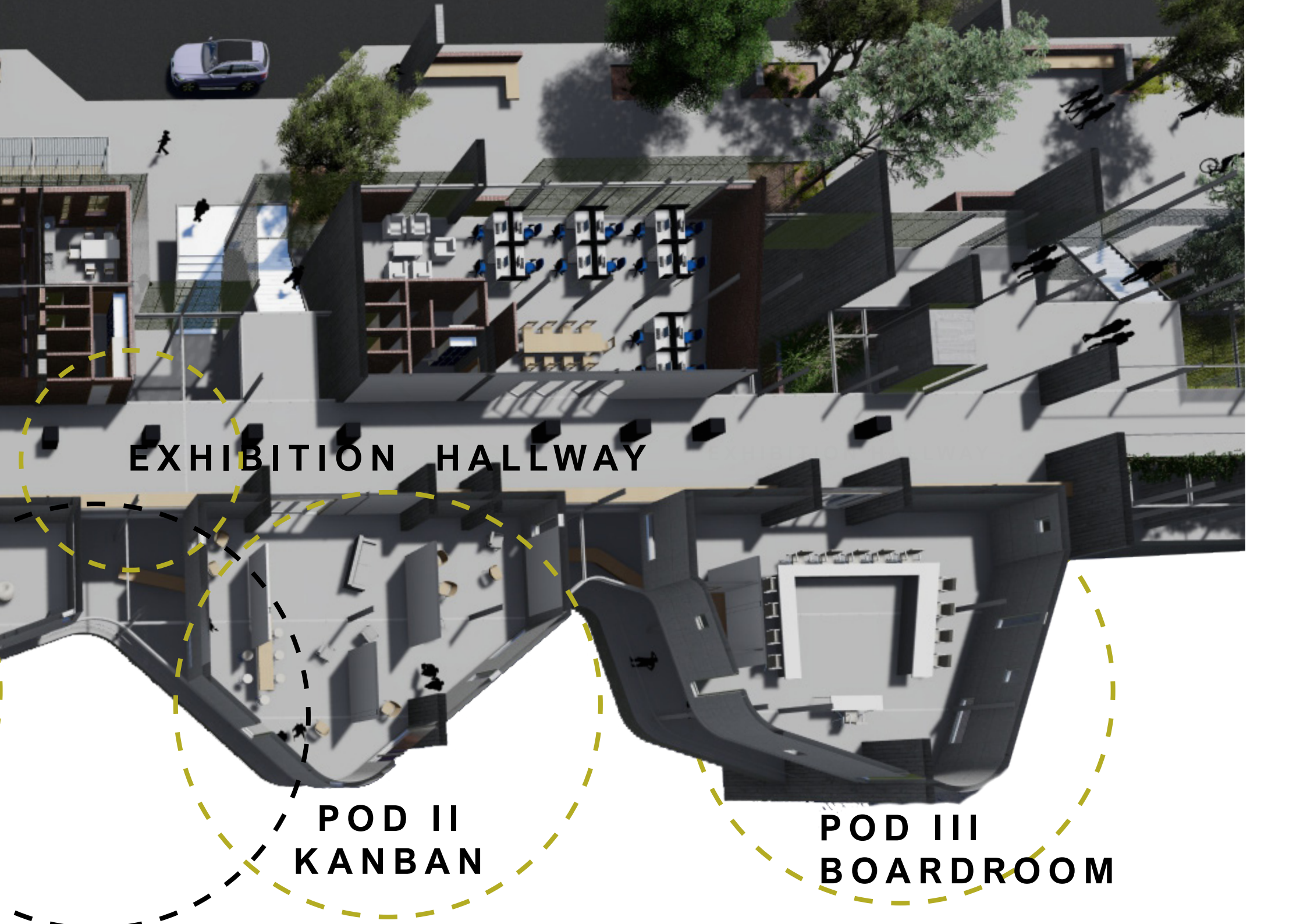
**FOYER**

**COFFEE**

**SEATING**

**AUDITORIUM**

**POD I  
REFLECTIVE /  
MEDITATIVE**

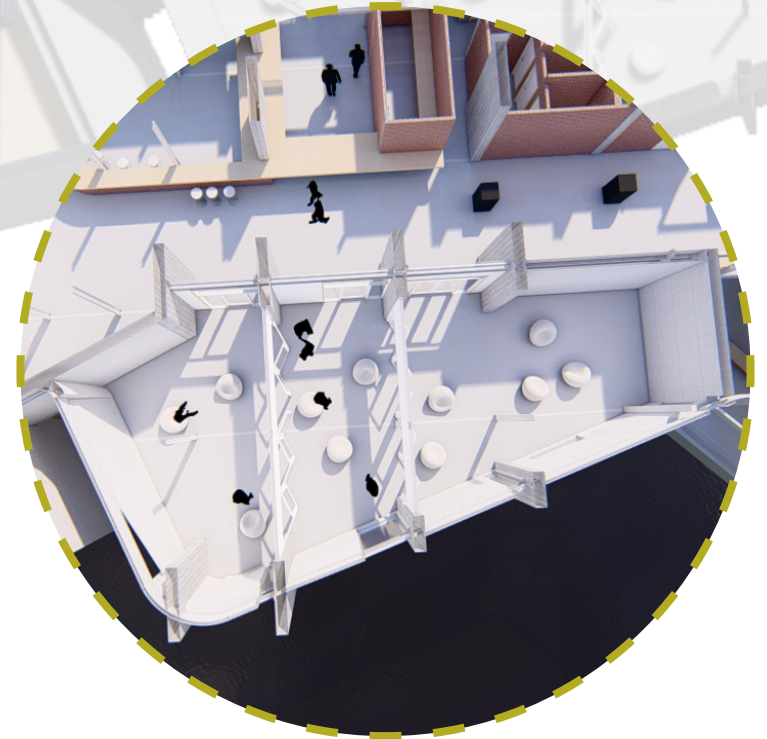
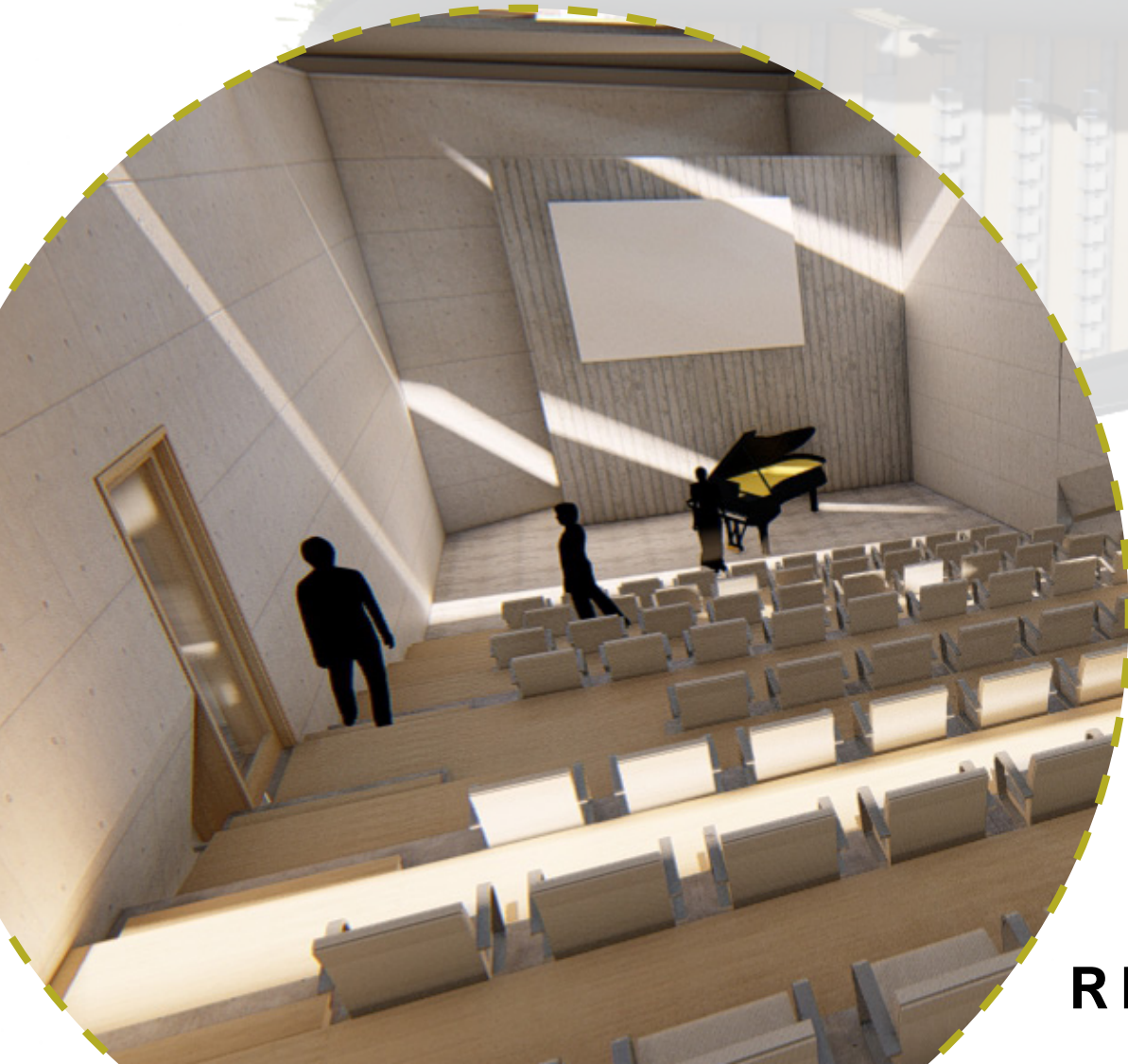


**EXHIBITION HALLWAY**

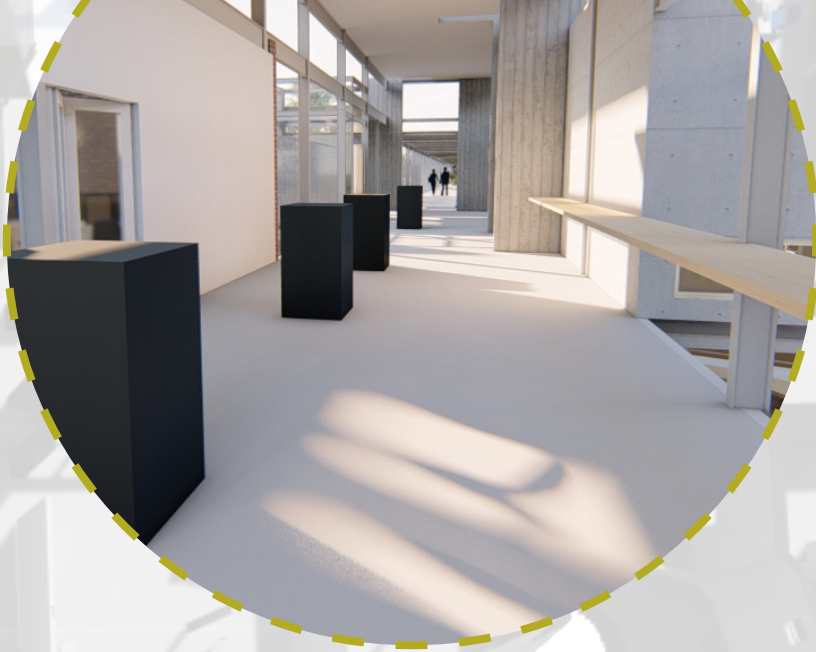
**POD II  
KANBAN**

**POD III  
BOARDROOM**

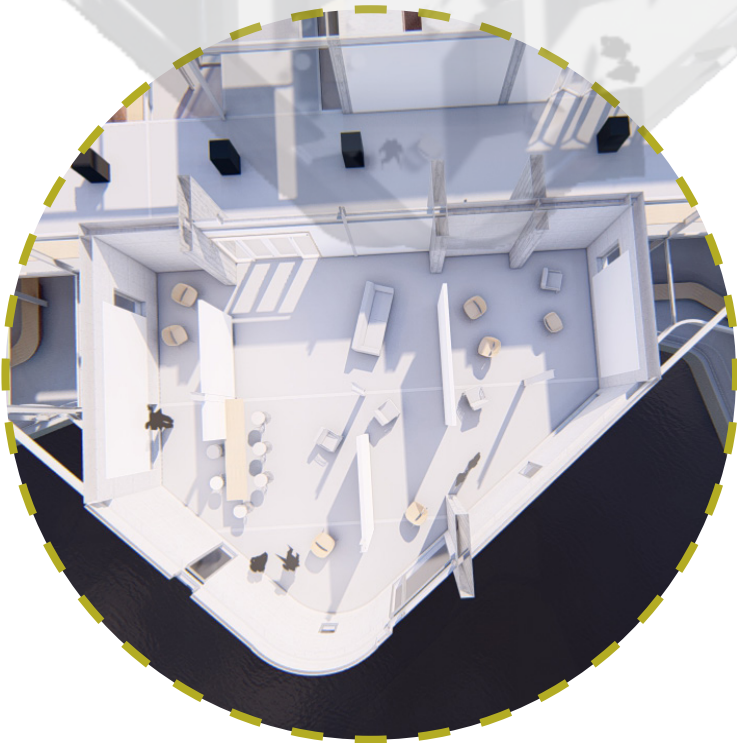
# AUDITORIUM



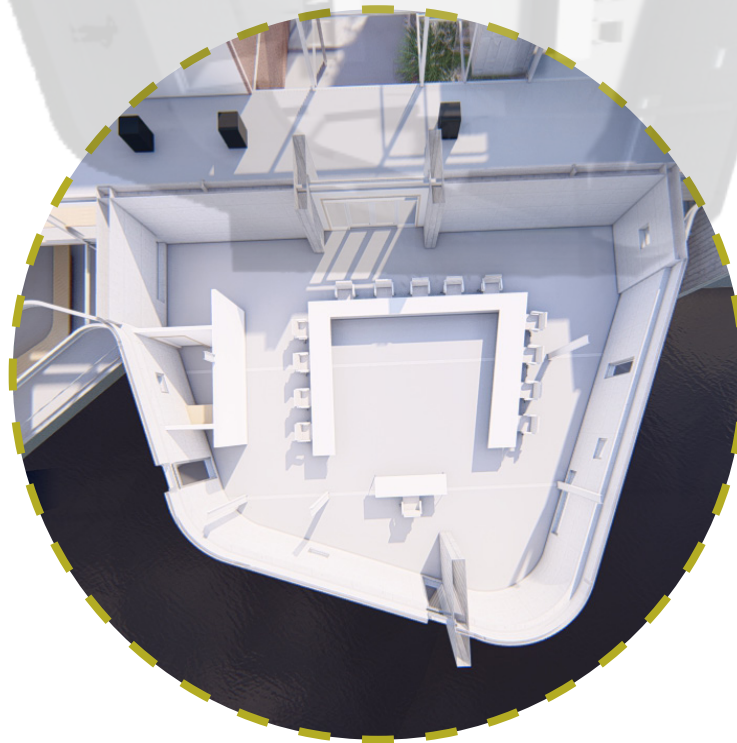
# POD I REFLECTIVE / MEDITATIVE



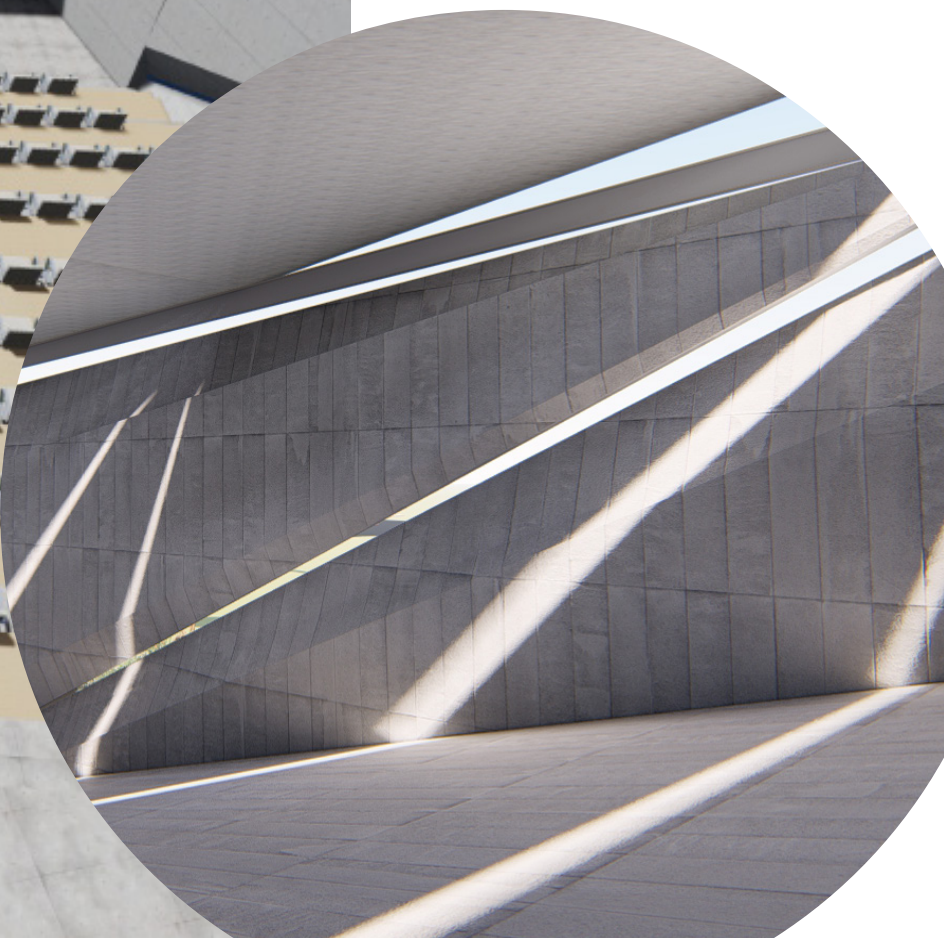
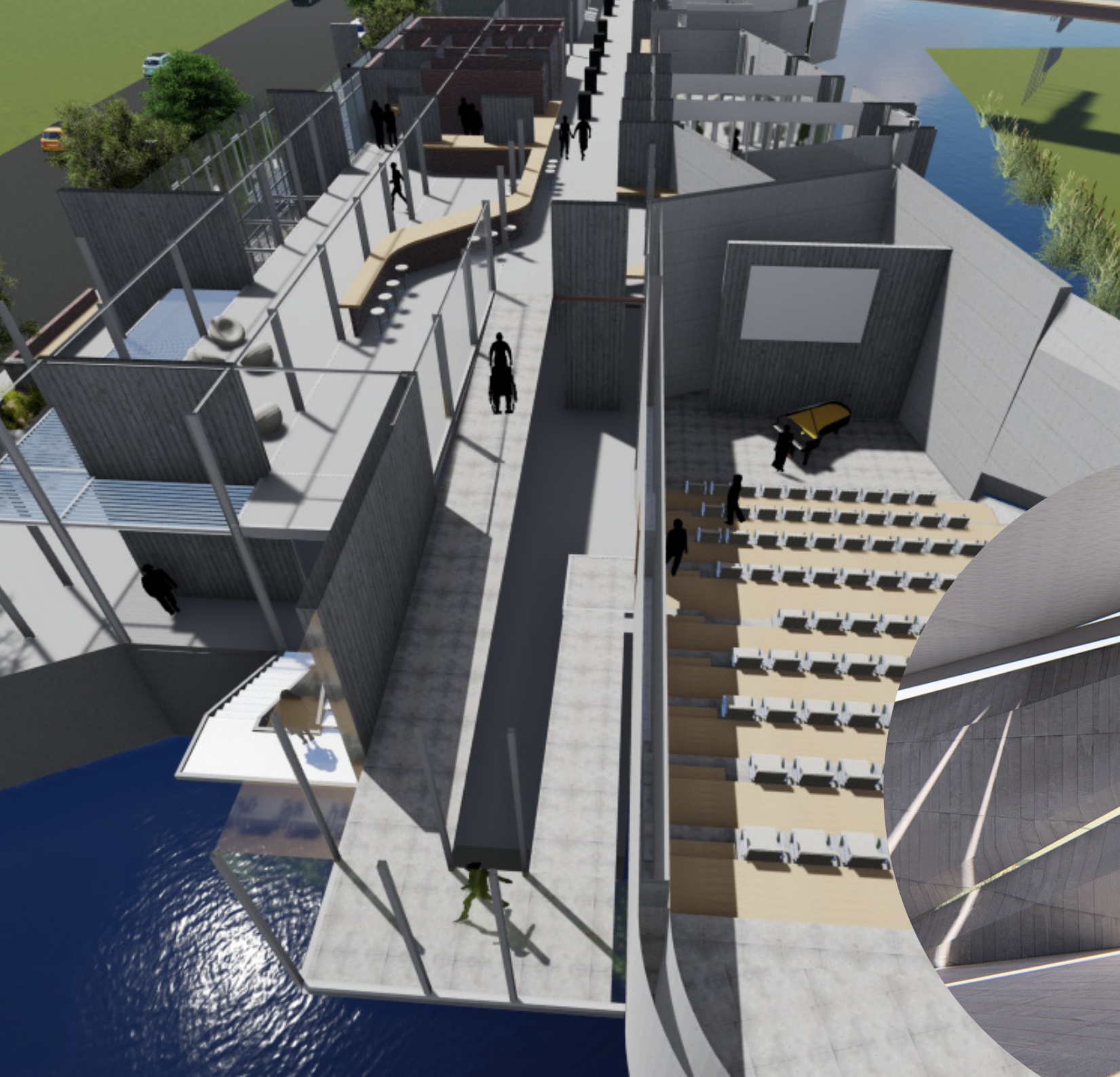
**EXHIBITION  
HALLWAY**



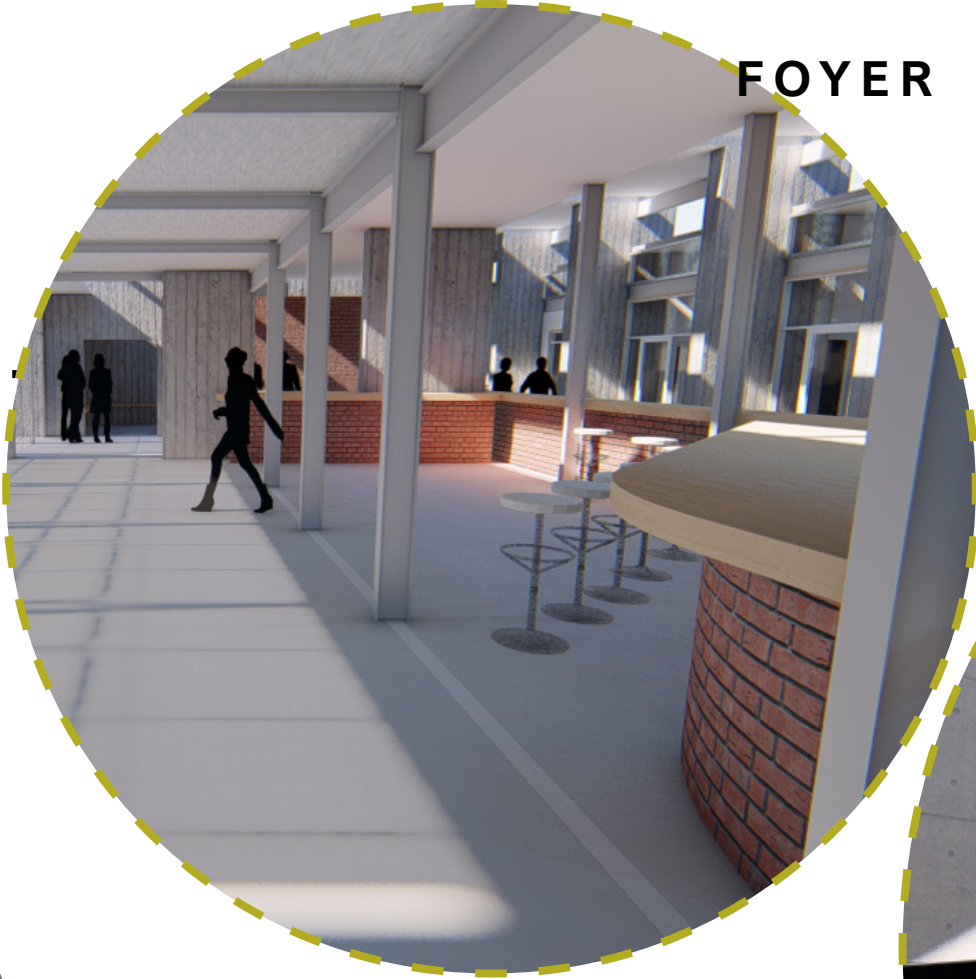
**POD II  
KANBAN**



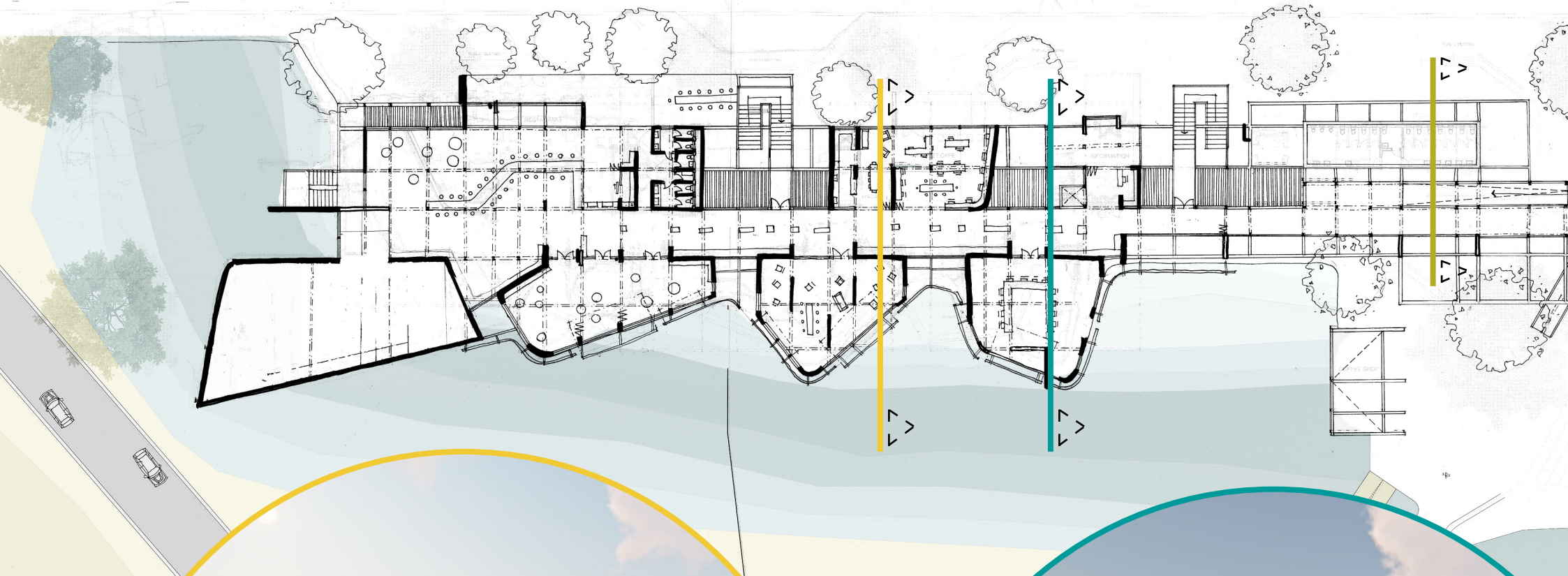
**POD III  
BOARDROOM**

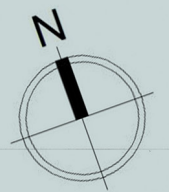
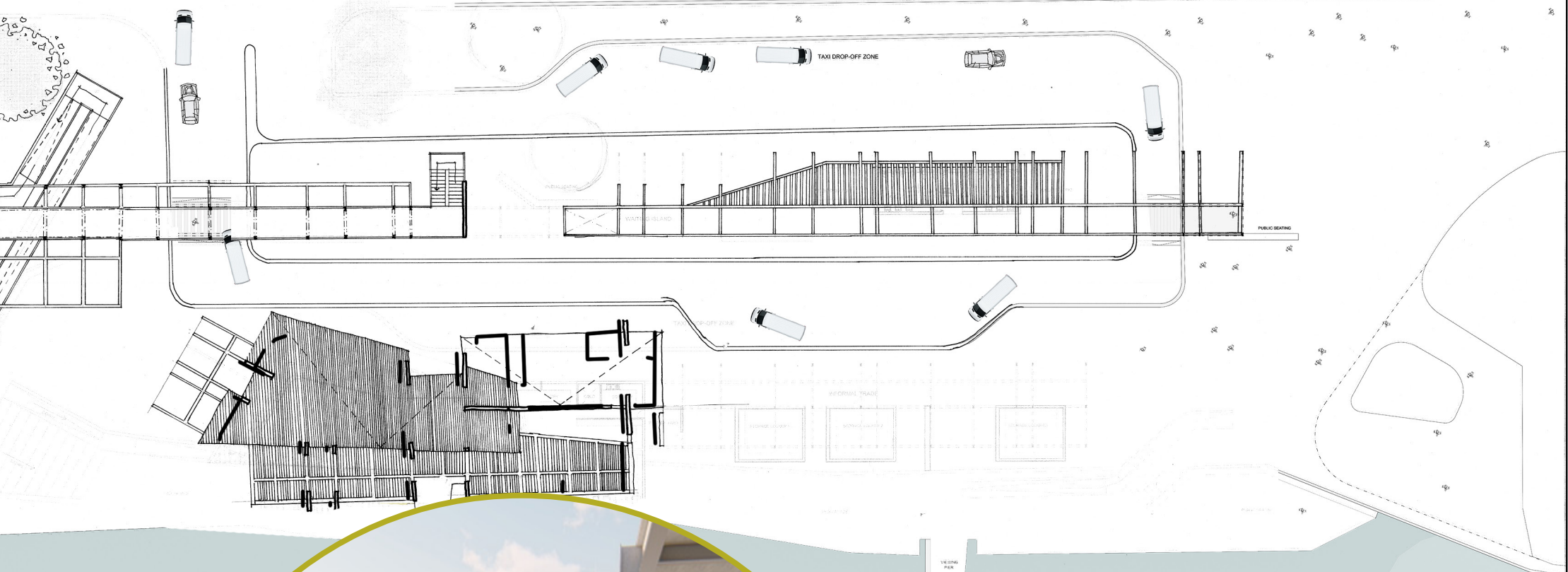


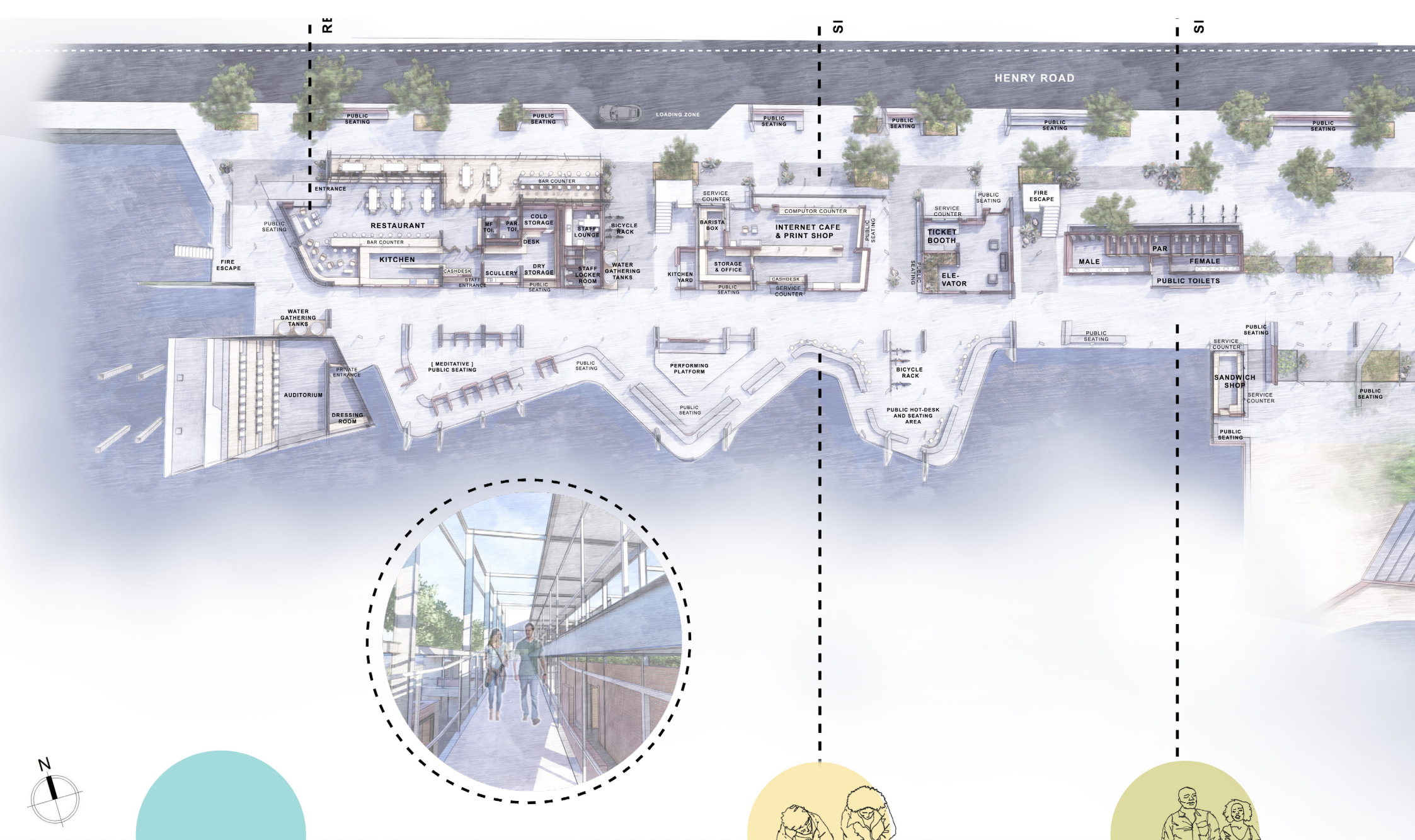
**FOYER**



**AUDITORIUM**



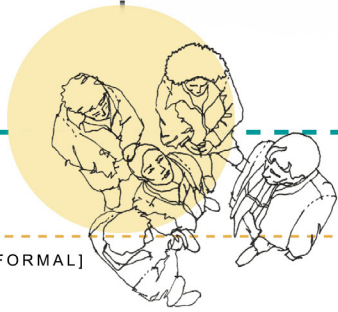




**GROUND FLOOR PLAN**  
**HOW WE MEET, GREET [+EET]**

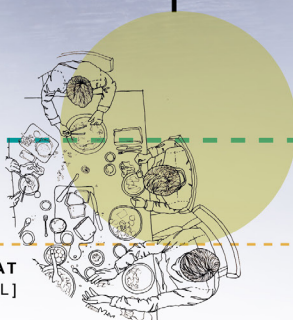
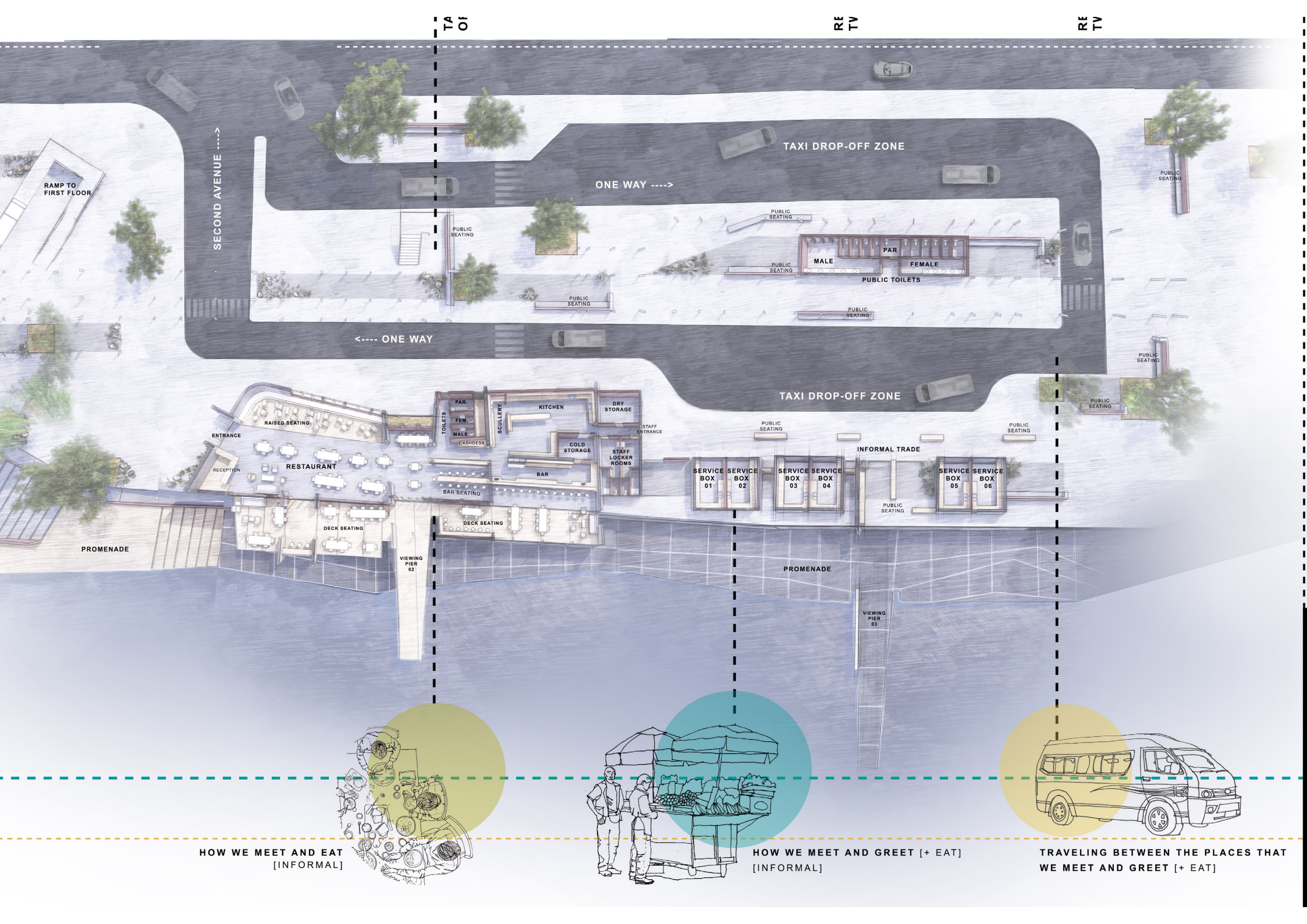


HOW WE MEET [FORMAL]



HOW WE GREET [INFORMAL]

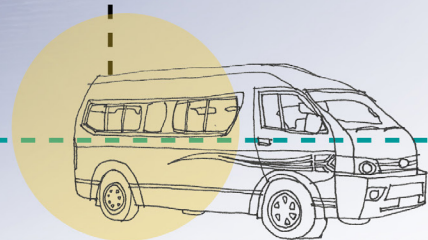




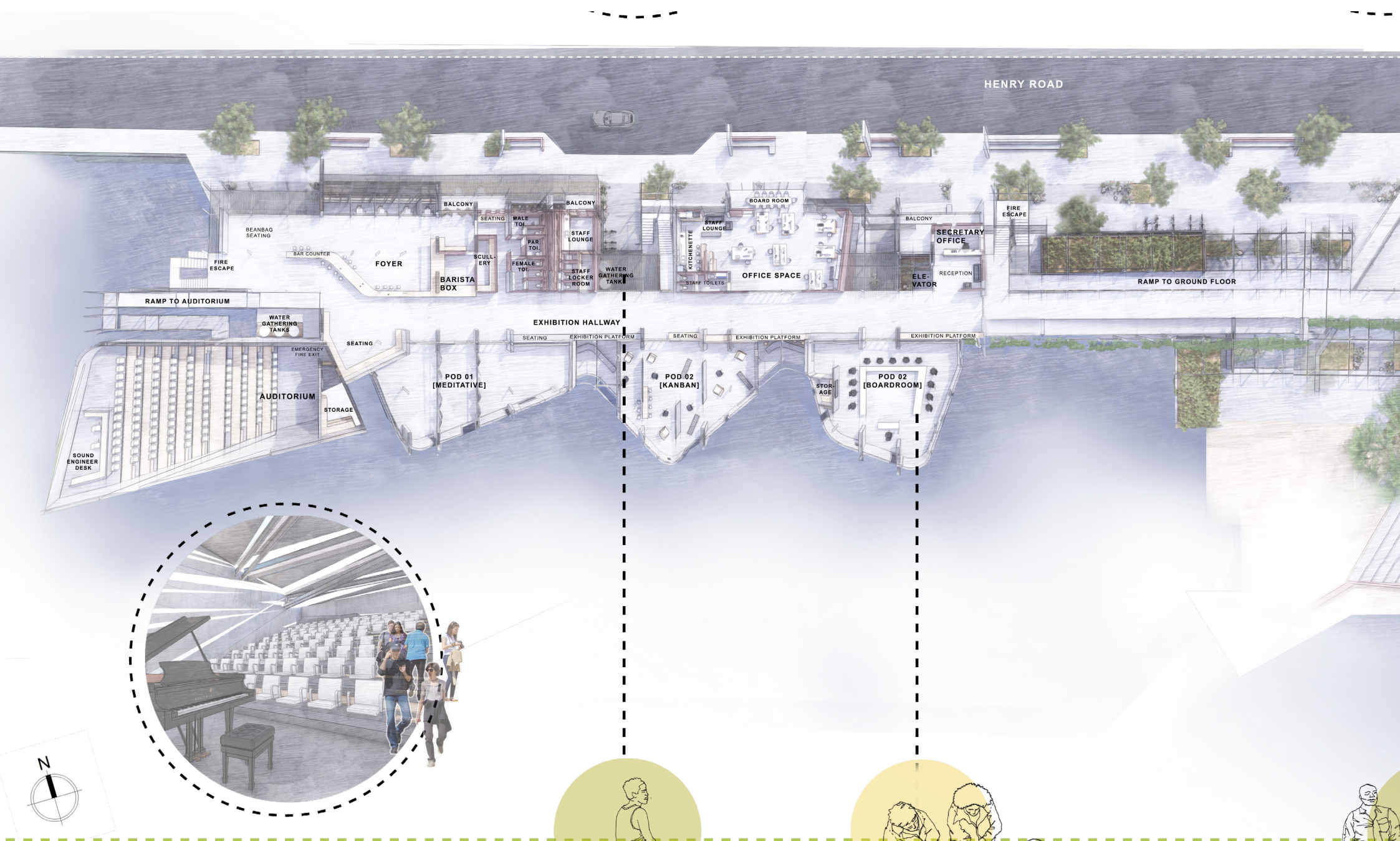
HOW WE MEET AND EAT [INFORMAL]



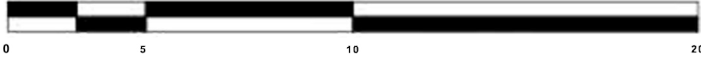
HOW WE MEET AND GREET [+ EAT] [INFORMAL]



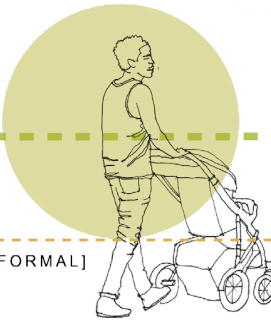
TRAVELING BETWEEN THE PLACES THAT WE MEET AND GREET [+ EAT]



**FIRST FLOOR PLAN**  
**HOW WE MEET, GREET [+EET]**

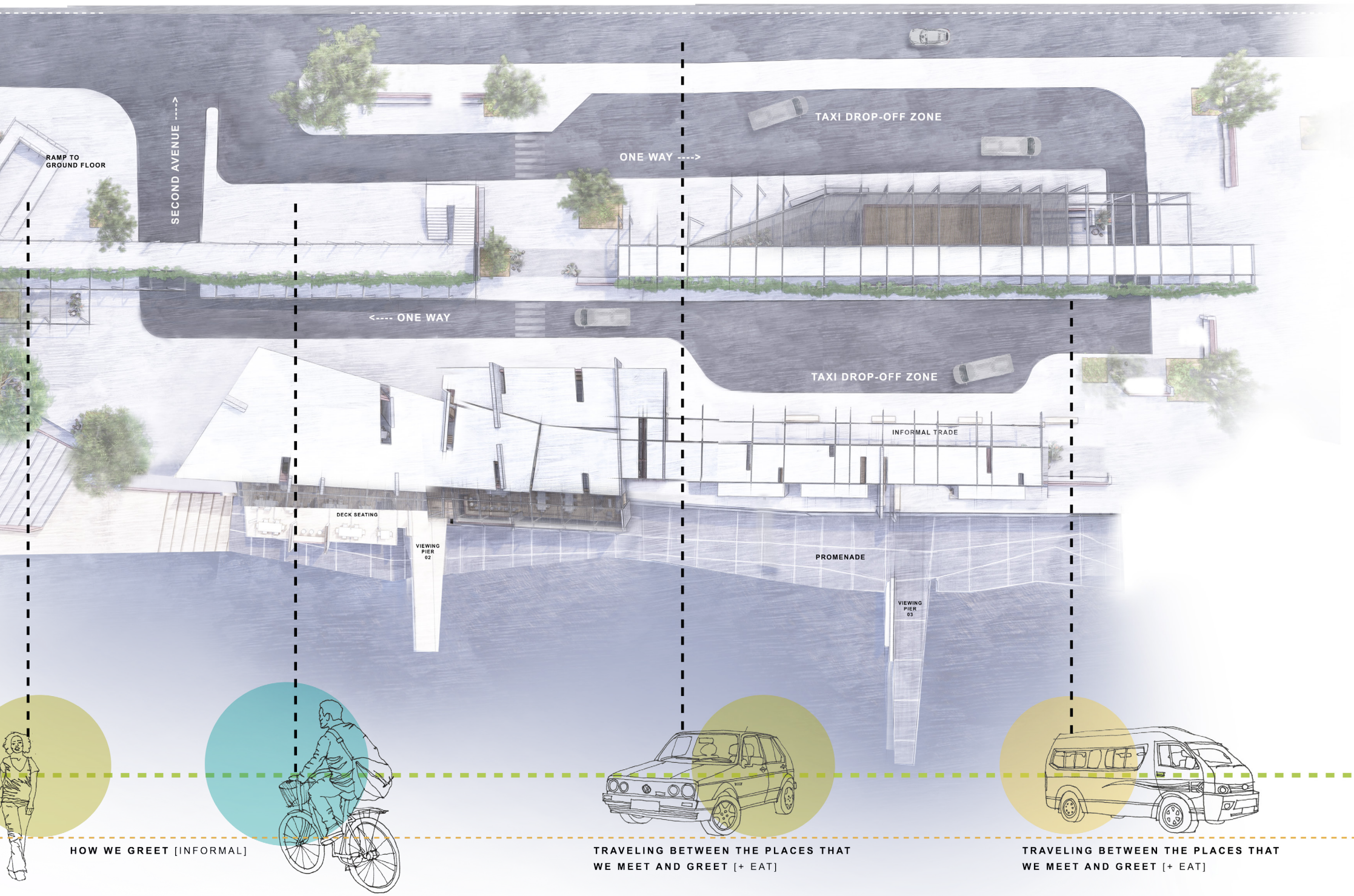


HOW WE GREET [INFORMAL]



HOW WE MEET [FORMAL]





SECOND AVENUE ----->

RAMP TO GROUND FLOOR

ONE WAY ----->

TAXI DROP-OFF ZONE

<----- ONE WAY

TAXI DROP-OFF ZONE

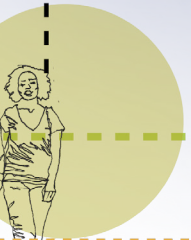
INFORMAL TRADE

DECK SEATING

VIEWING PIER 02

PROMENADE

VIEWING PIER 03



HOW WE GREET [INFORMAL]

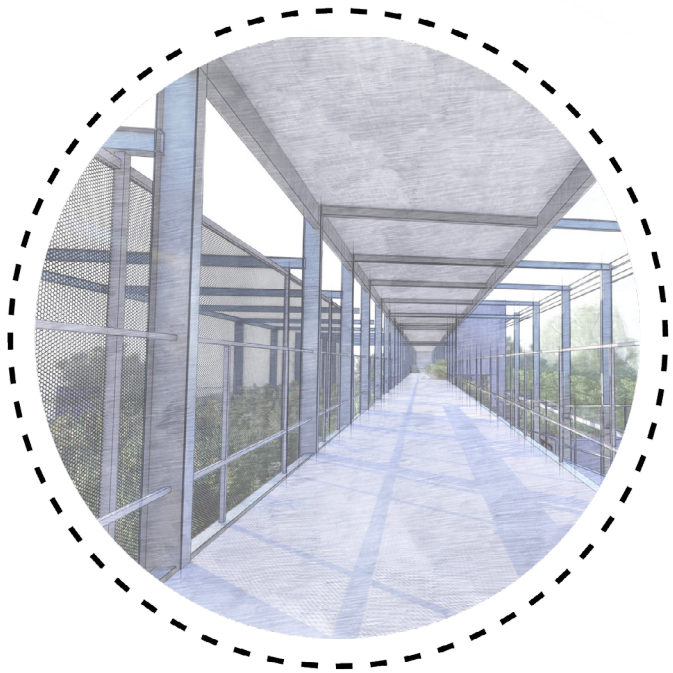
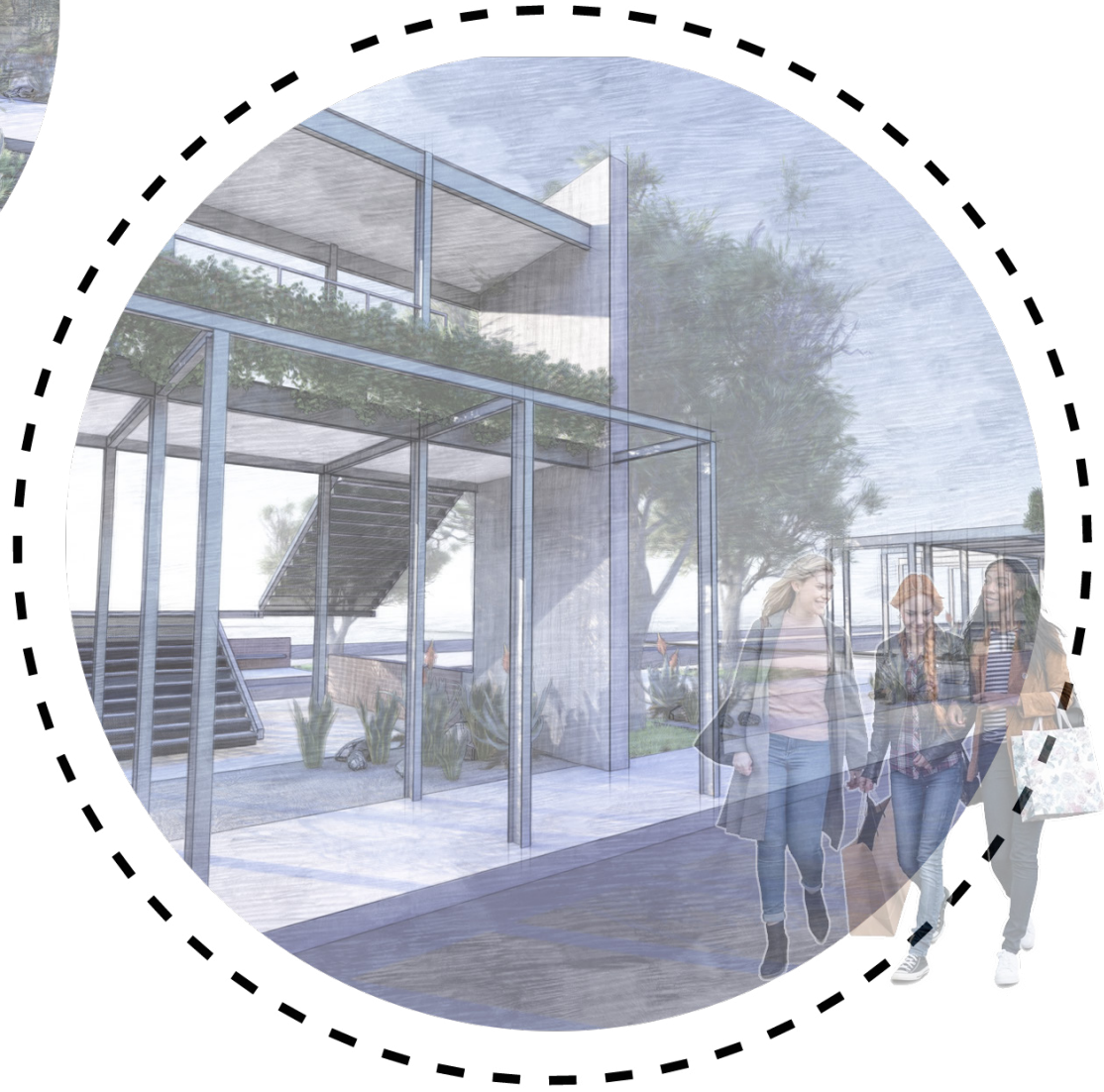
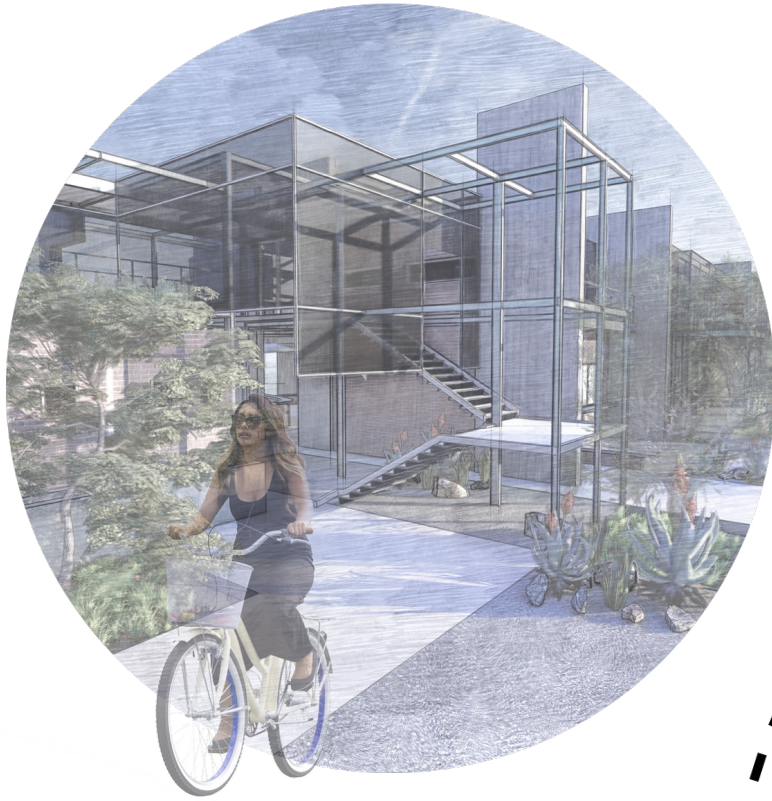


TRAVELING BETWEEN THE PLACES THAT WE MEET AND GREET [+ EAT]



TRAVELING BETWEEN THE PLACES THAT WE MEET AND GREET [+ EAT]



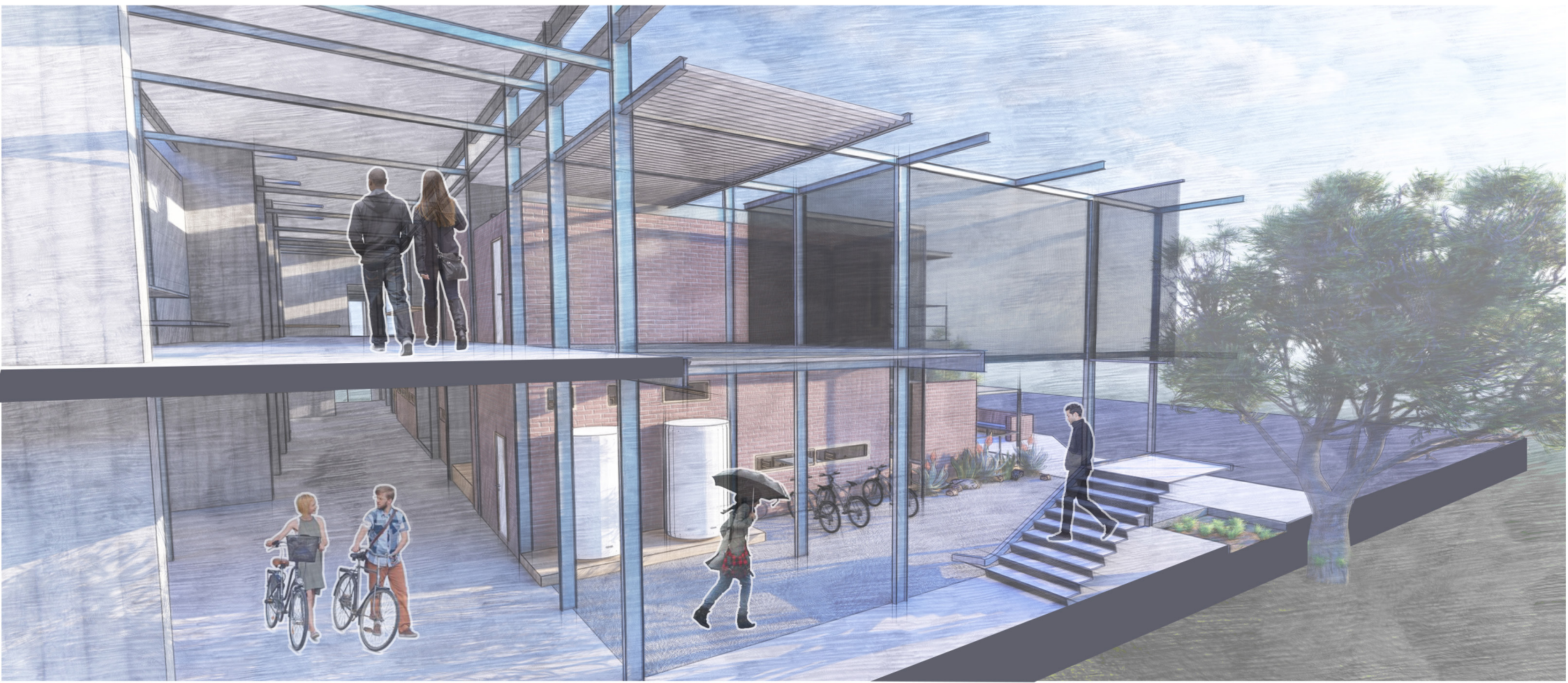




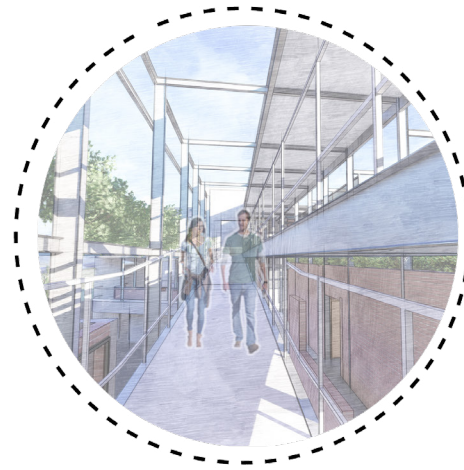
**NORTH ELEVATION POROSITY**



**PODS ABOVE THE WATER**

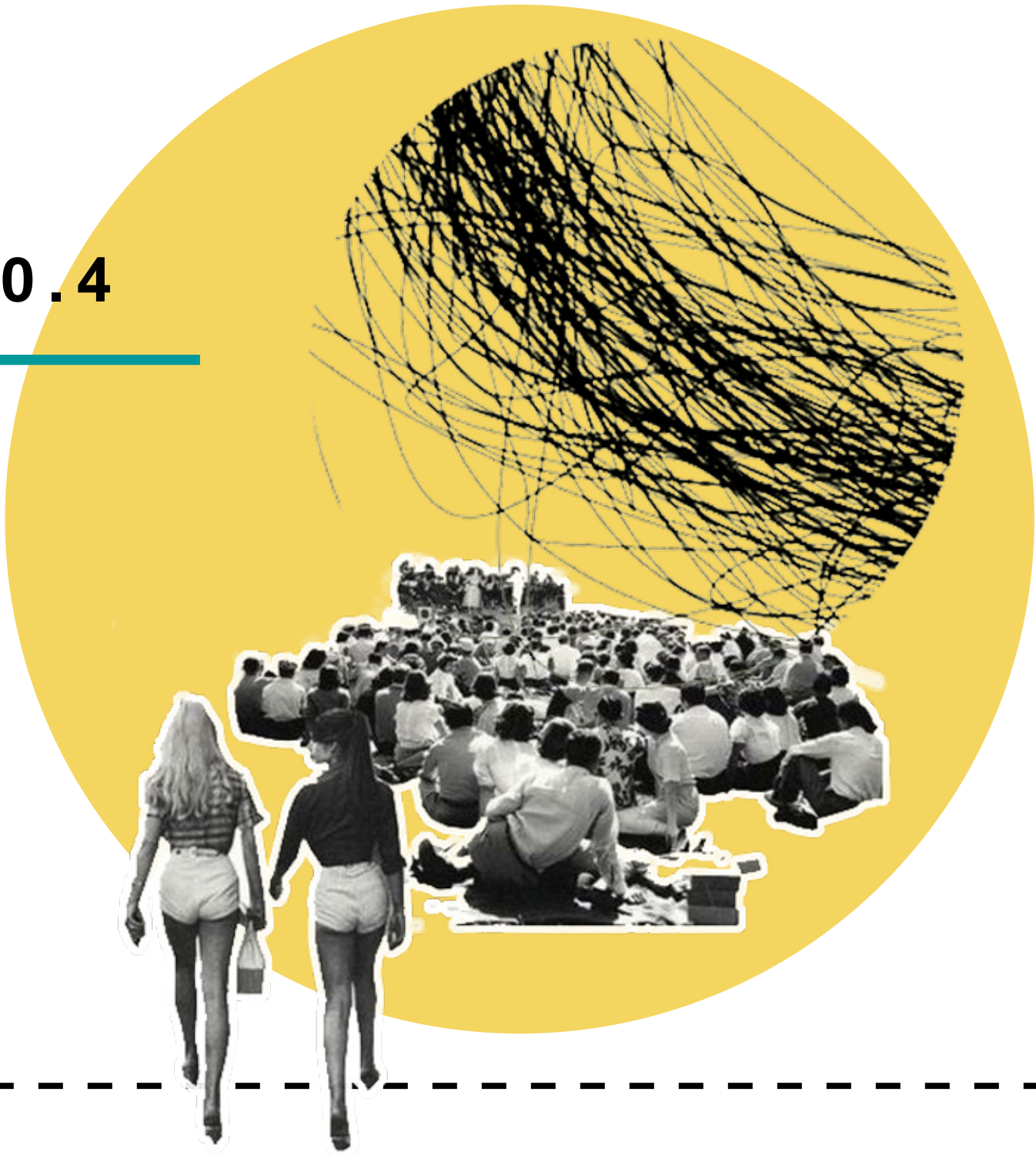


**SECTIONAL PERSPECTIVE**



PERSPECTIVE OF SOUTHERN FACADE

# PART 0.4



# TECHNICAL REPORT

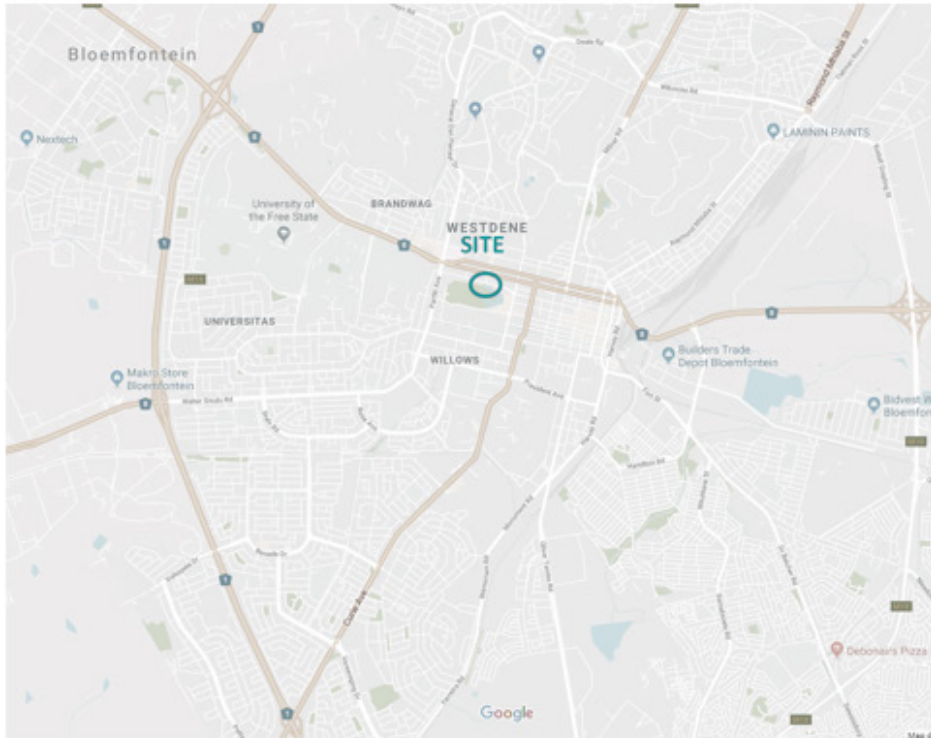
An investigation of the construction resolution of the proposed theoretical project. This report specifically outlines the technical aspects of the project grounding. It addresses technical and practical issues of the proposed design.

Materiality, detailing and grounding of pragmatic, technical decisions are investigated and explained in this section.

- 4.1 Introduction
- 4.2. Topography
- 4.3 Climate
- 4.4 Micro climate
- 4.5 Cadastrel information
- 4.6 Problem statement and concept rationale
- 4.7 User behaviour and requirements
- 4.8 Structural system & Materiality
- 4.10 Building services
- 4.11. Sustainability

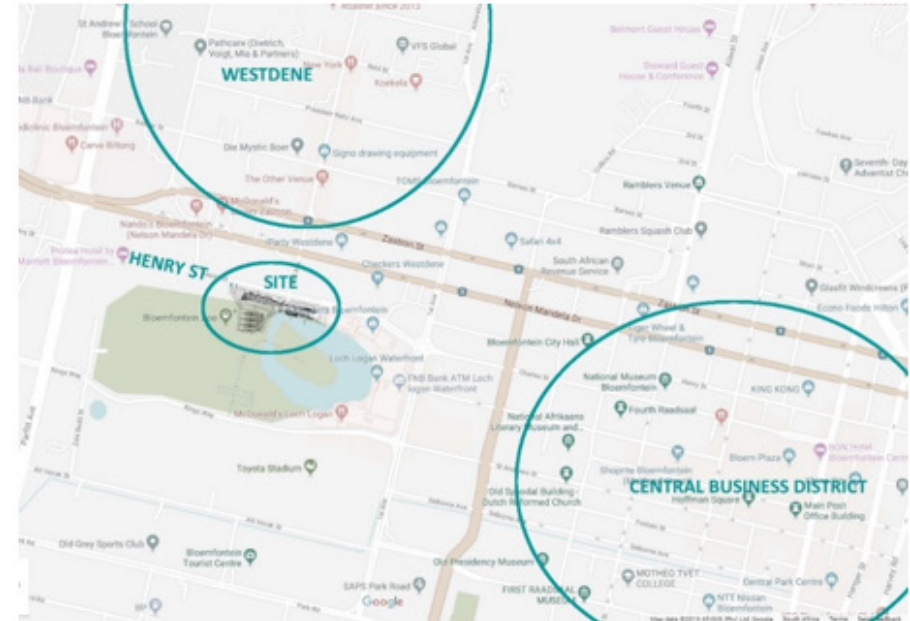
### 4.1 INTRODUCTION

The project investigates the activation of latent potential of green spaces in the urban context through architecture. More specifically, how an architectural intervention can instigate / reactivate recreational activities within the green cityscape.



Though green space is available in an area known for its commercial and corporate activities, it is under-utilised and functions like a void in the cityscape. The need for access remains because of ill-designed borders and the dilapidated state of the edges of this green lung in the city, preventing city dwellers to selectively pause and release: breathe

and move on. Loch Logan Island and Kings Park remain alien areas in the city.



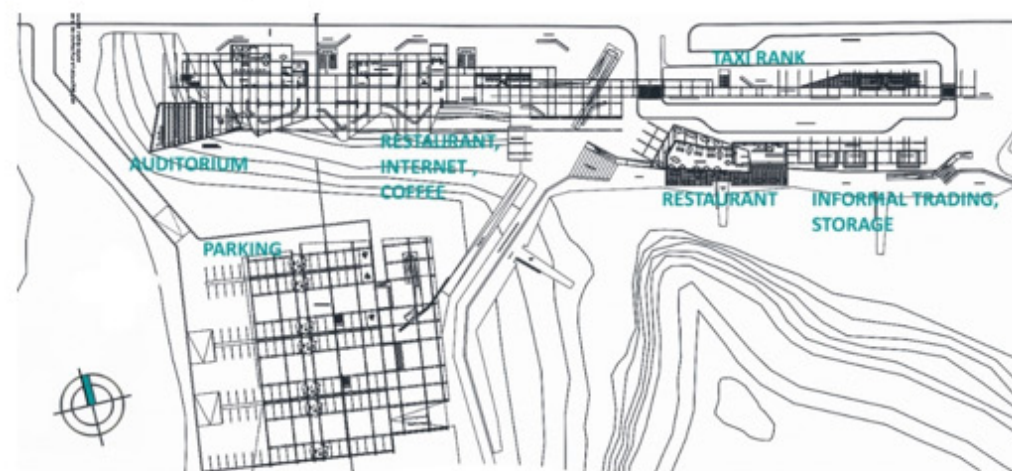
With human –, social- and natural capital as sub-themes, this design focus on developing an area on the edge of the park that will draw corporate clients to the edge of the park. A taxi rank was also incorporated to the eastern end of the site, allowing commuters to interact with other visitors to the site. By increasing the potential number of interactions between people the potential for growing bonds between them increases as well. By activating the edge of the park, the project hopes to improve security in the park, because of the higher amount of people present and improve access to the park as well. The design is a **Meet, greet [+eat]** facility by creating opportunities for people to:

- reconnect with one another on a social level
- take a moment to focus on themselves and cancel out the noise of the city
- momentarily escape the routine of urban career environments
- draw people to an environment where they will be exposed to nature
- experience the history and open space by the King's Rose Garden and by extension, Loch Logan Island.

With these aims in mind, it became apparent through working through literature pertaining to **escapism and the edge**, that other theoretical elements are needed to cohesively link these topics into a narrative. To create a thread that interweaves the fundamentals of escapism and a new experience of the edge of King's Park; **porosity** as well as the **historic** background of the site should be ingrained into the project's fabric.

The building was developed with mainly restaurants, a taxi rank, street vendors, boardrooms, auditoriums and supporting services.

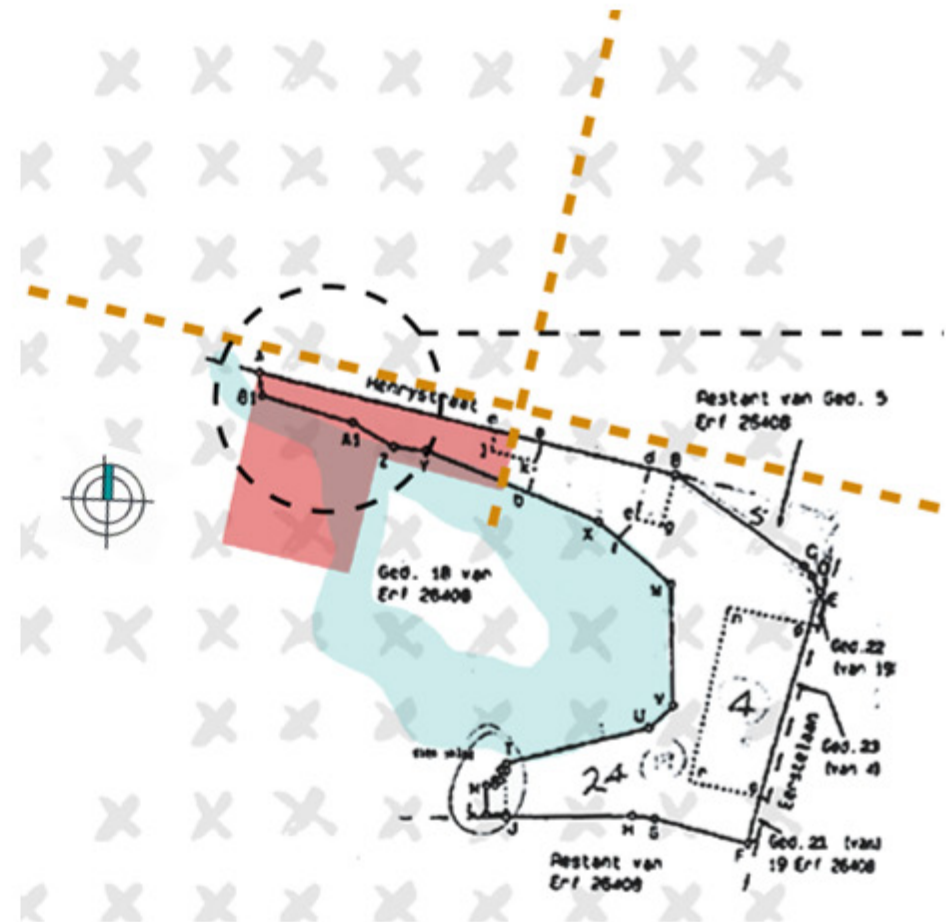
A comprehensive accommodation list is provided under 7: User behaviour and requirements.



## 4.2 TOPOGRAPHY AND GEOGRAPHY.

The northern strip of the site has a slight fall from west to east of around 800 mm and a fall from north to south of 500 mm. The site was previously developed as a parking area for the Loch Logan mall and is mostly flat with very little variation in height. The top of the wall of the channel around Loch Logan is the same height throughout. The area between the second avenue entrance to the site and the waterfront mall is currently a busy parking site, but the area west of the second avenue entrance is desolate with a few containers and construction vehicles parking there from time to time.

A few eucalyptus trees are growing on the water's edge, with some more bordering the entrance road from Second Avenue into the parking lot. Carports are present on the western side of the parking area, but fails to attract visitors to park their cars in this area. There is enough parking to serve the mall with the addition to the parking area about 9 years ago. The northern border of the site is formed by a palisade fence with built columns in-between (western side of the parking) while there is a bit more design flair to the fence bordering the eastern side of the parking area. Contains a large variety of elements.



The earth that make up the site is filled in and compacted earth. Besides these large expanses of flat ground, covered by a layer of pave blocks, the only dramatic change of topography is where the ground slopes towards the water.

In terms of sustainability the site is not a Greenfields site but can also not be categorised as a brownfield site, since no industrial activities was ever attempted on the site. No chemical rehabilitation needs to be done and no permit has to be acquired to deem the site safe for use by

humans. No real rehabilitation is needed, only repurposing the site with a new development.

Living organisms is mostly limited to the water of Loch Logan and the proposed development aims at a minimal impact on the water and water's edge. A single column is needed to support the structure of the auditorium and any effect that this construction may have on the environment will be minimal and temporary.

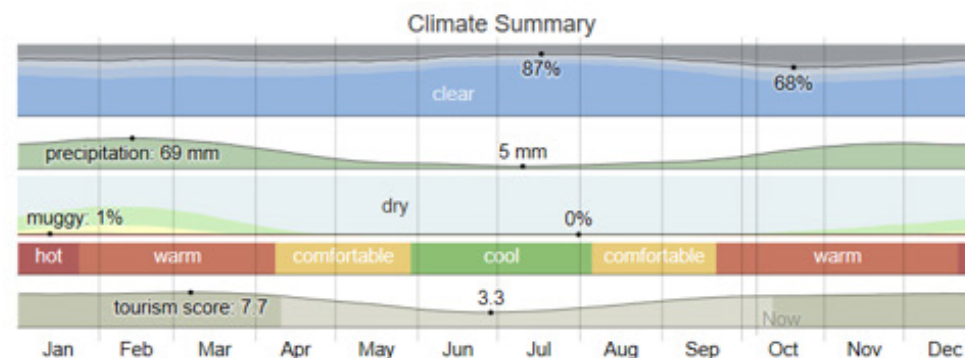
The site has a gentle slope into the Loch Logan channel from the zoo parking area, as well as from the Loch Logan Island.

### 4.3 CLIMATE.

The climate info was provided by the following site:

The climate in Bloemfontein is affected by several factors like wind, rain, clouds, temperature, etc.

The following table is a summary regarding weather conditions and whether extremes:



Skies in Bloemfontein are mostly clear, with a highest percentage of clear skies in July and the cloudiest weather in October.

When planning on a visit to the city the best times to visit is during the months of April and May, and then again in August/ September when the weather is pleasant, and temperatures are more bearable.

With summer highs of up to 40 degrees °C and winter lows falling to as much as -8 °C, it is not comfortable to be outside all year round. Though there are plenty of sun, outside activities might have to be planned, especially during the hottest (January) and coldest (July) months of the year.

Bloemfontein normally receives about 369mm of rain per year, with most rainfall occurring during mid-summer. It receives the lowest

rainfall (1mm) in July and the highest (65mm) in January. (Jacobs, et al., 2013)

The reigning wind direction is the Northern wind, which can be expected to be present through all 12 months of the year. Wind direction changes on a regular basis throughout the day, while the eastern wind is dominant for only 1.3 weeks of the year. The windier parts of the year last for 5.6 months, from July 26 to January 12, and the average wind speed can sometimes be higher than 13.5 kilometres per hour. November seems to have the strongest wind speeds, with up to 15.8 km /hour being measured. The calmer time of the year lasts from January to July with average wind speeds of around 11.3 kms /h.

#### 4.4 MICRO-CLIMATE

Because of the amount of green space present within the direct environment of the site and the Loch Logan Lake temperatures can be more bearable in summer than elsewhere in Bloemfontein. The size of the green space is not enough to influence other weather patterns, like rainfall, wind direction, etc.

Pleasant views from the site is mostly in a southerly direction where the island and most of the green spaces in the area is located. The Free State stadium forms the backdrop for the park and the island and has a slight influence on wind speed on the green space itself, though it is a minor.

The Loch Logan Mall to the east shelters the site from eastern winds, which is only dominant for about a week in the year.

Rainwater run-off from current parking areas does not contaminate the water, since it is under-utilised.

A promenade will be developed next to the water's edge, with a part of it being a wooden platform projecting south, over the water. By supplying a canopy to parts of this area it will help to create a pleasant pause space, since the water will help to cool the air off where the platform is this close to the water. Pause spaces will be scattered next to the water's edge for the same reason.

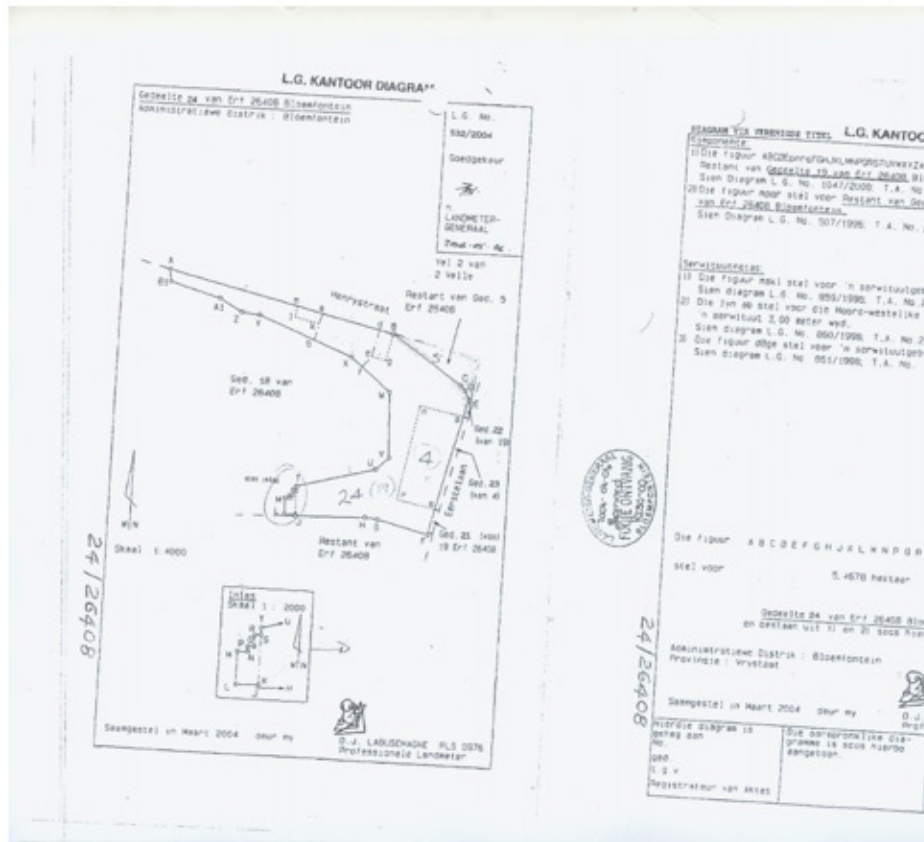
Connection between the parking lot and the conference/ Restaurant facilities is via a concrete ramp that will allow access to all parts of the site to all, including the physically disabled. It will not be covered and is only supplying a connection between facilities.

Insulation is important.

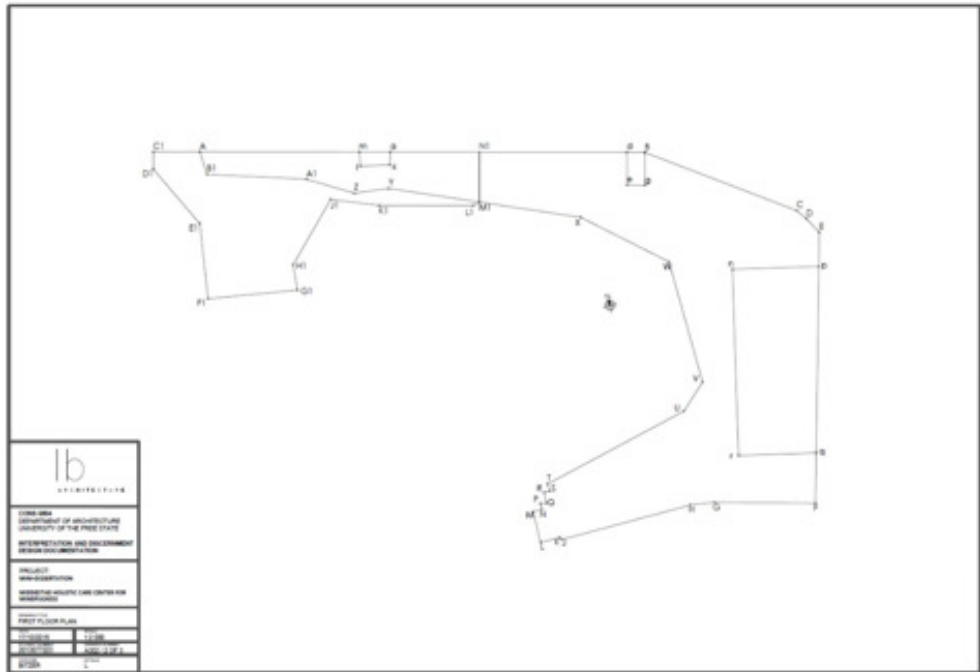
Passive means of temperature control will be used and will be prioritised before using within and around a building that is subject to a climate that encompasses extremely cold temperatures as well as very hot temperatures.

#### 4.5 CADASTREL INFORMATION.

The existing parking strip at the Loch Logan Mall would have to be separated from the bigger site in order to be consolidated with a piece of land that currently forms the parking area of the old zoo. See plan for detail.



SCHEDULE OF RIGHTS			
PROPERTY DESCRIPTION			
ERF / PORTION : 26408		SITE AREA : 7 417 m <sup>2</sup>	
TOWNSHIP: Bloemfontein		TITLE/ DEED NO : N.A.	
ZONING INFORMATION			
TOWN PLANNING SCHEME	Mangaung Metropolitan Municipality	AMENDMENT SCHEME NO.	N.A.
USE ZONE	Special Use Lii	ANNEXE NO.	N.A.
DEVELOPMENT CONTROL MEASURES			
Permissible	Control	Actual	
20m	Height of Buildings	t.b.a.	
88%	Coverage	t.b.a.	
1.5	Floor Area Ratio	6 526.96 m <sup>2</sup>	
not specified	Floor Area	N.A.	
only in case of hotel development (150 units)	Density Zone	N.A.	
7m relaxed to the discretion of the General Manager : Land Use Control	Building Lines	t.b.a.	



To apply for consolidation for the new erf's will be possible, but the cost of Rem 30 of 26 408 is still an unknown factor. The municipality will have invested interest in the success of the development, since they want Loch Logan Island and Kings Park to be an active break-away area in the city. BY developing something that will be accessible to all it improves the chances of success for their goals with supporting the project.

The original figure: ABCDEpnrqFGHJKLMNPQRSTUVWXYZA1B1 is rem 19 of erf 26 408. Together with npqr, rem 4 of 26 408, it forms the site for the Loch Logan waterfront mall.

It is proposed that the portion of rem 19 of erf 26408 represented by figure AN1M1YZA1B1 be registered as a separate erf. An erf number will be assigned for this portion, but for now I will refer to it as portion 30 of erf 26 408. Figure A1B1AC1D1E1F1G1H1J1K1L1M1YZ represents a portion of the municipal ground that needs to be registered as a separate erf as well, an erf number will be assigned by the municipality, but for the argument's sake I will refer to it as Rem 31 of erf 26 408. For the Development to continue, Rem 30 of erf 26 408 and rem 31 of erf 26 408 will be consolidated into a new erf which we will call Rem 32 of erf 26 408.

Our Ref: MM/BC  
Erf: 26408 City  
Date: 28 February 2019

Attention: Me. L. Bitzer

By Hand

Madam

**ZONING AND PERMISSIBLE USES: PORTION 24 OF ERF 26408, CITY, BLOEMFONTEIN.**

Your request refers.

In terms of the approved Bloemfontein Town Planning Scheme (B.T.P.S), the above-mentioned erf is zoned "Special Use Lii" and may only be used for the following purposes:

- Hotel, gymnasium
- Restaurants
- Pubs
- Shops
- Jazz club
- Informal market
- Open air theatre
- Miniature golf course
- Cinemas
- Tenpin bowling
- Conference facilities
- Recreational areas

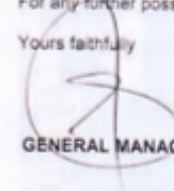
The development restrictions for "Special Use Lii" are as follow:

<b>COVERAGE</b>	: 88%
<b>BULK</b>	: As determined by a comprehensive traffic impact study and or following impact studies, whereof each impact study, including the service level determined therein, must be to the satisfaction of the General Manager: Land Use Control, but with a maximum of 1.5.
<b>HEIGHT</b>	: Restricted to 20 metres, measured from the lowest ground level to the highest ridge height of the proposed building.
<b>STREET BUILDING LINE</b>	: 7,0m relaxed to the discretion of the General Manager: Land Use Control.

<b>PARKING</b>	:	As determined by Section 23.9 of B.T.P.S for the respective land uses.
<b>VEHICLE ENTRANCES AND EXITS</b>		To the satisfaction of the General Manager: Town and Regional Planning
<b>SIGHT LINES</b>		Visual contact from Henry Street with the water surface of Loch Logan has to be maintained by a broken line of at least 6.0 metres in the building structures.
<b>IMPROVEMENTS OF INFRASTRUCTURE</b>		Any improvements of infrastructure, including the surrounding road and traffic system, which may be deemed necessary from the traffic impact study and /or following traffic impacts studies, shall be the exclusive responsibility of the developers and must therefore be implemented by the developer before occupation of the new building(s).
<b>MAXIMUM PERMISSIBLE FLOOR AREA</b>		The total floor area of the two largest tenants or entities at any moment may not exceed 16 000m <sup>2</sup> . Provided that in the provision of businesses the floor area taken up by recreation uses and business that are recreational inclined, such as restaurant, shall not be larger than the floor used for retail purposes
<b>MAXIMUM NUMBER OF ROOMS PERMISSIBLE FOR THE HOTEL</b>		150

For any further possible restrictions, see the title deed of the above-mentioned property

Yours faithfully



**GENERAL MANAGER: LAND USE CONTROL**

#### 4.6 PROBLEM STATEMENT AND CONCEPT RATIONALE

The main problem that must be resolved is the following:

- Can a green space in the city be activated by activating the edge of the green space?

The design aims to bring more people to the edge of Kings Park and the waterside of the Loch Logan Island. By activating the edge of the green space, the design aims to allow familiarity to grow by regular exposure to the green lung in the city. A taxi rank will also bring more people to the site and expose them to a different way of being than just to complete their daily tasks and return home.

The development will function like a meet and greet venue with eating offered in the restaurants, which also forms part of the development. A deck projecting over the water surface will function like a boulevard and is extended to wrap around the western side of the water's edge. By doing so opportunities for hosting venues on and around the Loch Logan Island improves. Where energy is invested in a site and the focus of that investment is on people, it is important to understand what they need. By developing the area just higher than the water's surface individuals get the opportunity to linger on the site where the temperatures in summer will be the most bearable. The timespan in a year that people will be able to enjoy this facility will be extended, since it is only in the months of June, July and a part of August that temperatures are dropping too low to relax close to the water's edge.

#### 4.7 USER BEHAVIOUR AND REQUIREMENTS.

The part of the site where the main mass of construction work will be done is focussed on a meet and greet and eat facility for the City of Bloemfontein. The focus group for the development is business and corporate clients wishing to escape from the office environment for work or to meet and greet clients, customer's colleagues and

share knowledge with like-minded individuals or groups. Internet facilities will be provided for users to be connected to their client base.

The University of the Free State School of Business will also be involved in educating people about business management and good business practice.

The taxi rank will bring thousands of commuters to site, easing their routes to and from work daily. An informal market with storage facilities is positioned next to the taxi drop-off zone and caters for commuters grabbing a bite on the go. Advertising boards will be announcing activities presented in the conference facilities and auditorium, which cater for groups from 6 to 123 seats in the auditorium.

There are a scattering of loose spaces, benches and seats which allow visitors or clients to the centre to settle in a variety of ways to do work on laptops, meet with colleagues or relax with a cup of coffee and a quick bite.

Walking along the water's edge it is easy to see the opportunity for flaneuring along the water's edge. A promenade to create meaningfully aesthetic experiences en-route to the island should be utilized.

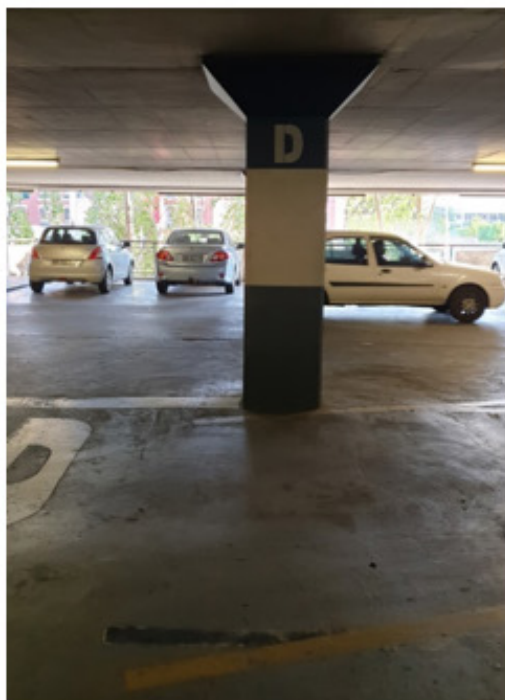
The extended boulevard affords the site to be used for bigger gatherings and the slope of the site into the Loch Logan Lake can be used as seating. Bloemfontein has two major festivals that is presented during a year. The Vryfees happens in July when it is too cold to make use of outside space in Bloemfontein. Makufe is presented in the month of October when temperatures are pleasant, and rainfall is low and relatively predictable.

By investing on the edge accessibility improves for all. An area where food trucks can be parked supports greater gatherings and become an additional source of income for the city of Mangaung.

#### 4.8 STRUCTURAL SYSTEM & MATERIALITY:

Precedents for the structural system:

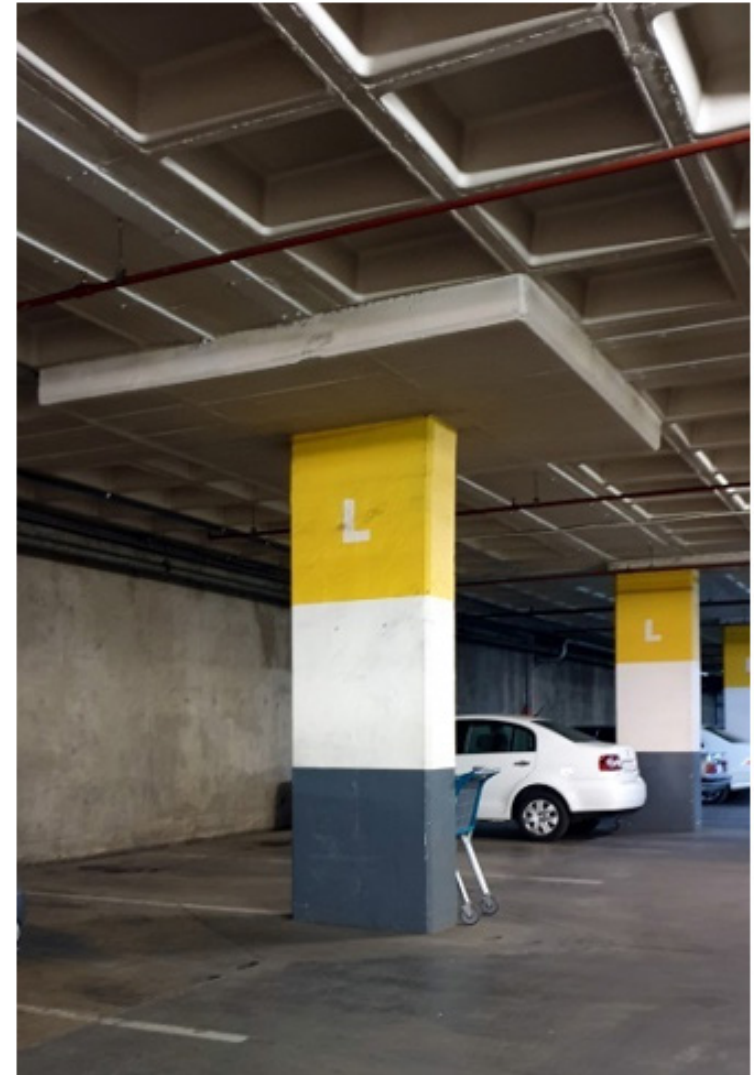
Construction-wise there is Mimosa Mall as well as Loch Logan mall where ideas to resolve the structure can be borrowed. Because the site is compacted, layered earth, which sits on top of clay, a raft foundation will be used. Mimosa mall and Loch Logan mall make use of a raft foundation for the main structure.



At Mimosa mall the whole primary structure is a concrete beam and column structure that sits on top of a raft foundation. Lines have been grinded into the raft foundation to guide cracking, should it appear, around the column that is also supported by a pad Foundation under the raft.



Floor slabs were cast in-situ with a waffle slab system. Beams have been cast to be supported by the concrete columns. Rectangular waffle- cavities have been used for big parts of the structure, but closer to the elevators the waffle cavities was made smaller with a bigger padding support sitting on columns.



A channel around the edge of the floor provides the lowest point on the basement parking level in order to have a channel from where to extract water, should the basement parking become flooded.



At the extended parking area for the Loch Logan Mall the floor slabs are supported by a steel structure, strengthened by cross-bracing. H-columns and I-beams form the structure and cross bracing made of angle iron sections, fastened to a rectangular steel plate assist to stabilise the structure against lateral forces. The floor slabs were cast on IBR sheeting that was used as formwork and is still visible as the soffit of the slab. It was left in place, since it is cheap enough and cannot be removed afterwards, because of the weight of the slab.



The roofs are formed with metal sheeting over the top parking level, while part of the parking level slab also functions as roof area.

**Structural selection:**

The structural system that seems to be the most suited for the development is in line with the extended parking lot of Loch Logan mall. A concrete slab will be cast in-situ on IBR sheeting, supported by a steel structure of H-columns and I-beams. Cross-bracing will be constructed from angle irons, connected to each other by means of an 8 mm rectangular steel plate. A raft foundation will carry the two-storey super structure. All metal work will be prepared for painting by thorough cleaning of all metal work to remove all grease and oil painted with a rust-prevention red oxide layer, finished by two layers of water-based enamel paint, colour to architect's choice.

All brick and mortar walls will be non-loadbearing, infill face brick walls. All external door to be solid core doors with raised and fielded panels. Wooden doors to be prepared for varnish to manufacturer specification, with two layers of varnish to seal the doors, or as per manufacturer specification.

With the proximity of the water, cross ventilation should be sufficient to cool down most rooms via passive means in hot summer months. The cold season is most harsh during the months of June, July and middle of August.

Services like a central HVAC will only be installed for the auditorium, because of the amount of people that it will accommodate when presentations or small concerts take place. For the other rooms be handled by installing a ceiling in the passage, from where outlets to the different rooms will branch off. Lights will also be dependent on the height of the ceiling cavity to ensure that LED down lighters will still fit within the soffit of the slab and the cavity of the ceiling.

Fire installation with smoke detectors and a sprinkler system will be installed for the auditorium, boardroom facilities and restaurant.

## STRUCTURAL SYSTEM

'The Adelaide Subgroup attains a maximum thickness of approximately 5000m in the south-east, which decreases rapidly to approximately 800m in the centre of the Basin and thereafter more 29 gradually to 100-200m in the extreme north. The Koonap Formation attains a maximum thickness of approximately 1300m, the Middleton 1600m and the Balfour 2000m. In the west, the Abrahamskraal and Teekloof Formations are up to 2500m and 1400m thick, respectively' (Botes, 2015, p. 29)

'Bloemfontein is situated on the Adelaide Subgroup of the Beaufort Group. The Beaufort Group falls within the Karoo Super Group and consist of Blue-grey and purple mudstone interbedded with yellow sandstone and siltstone' (Botes, 2015, p. 28). According to Enrico Diederichs, a Geotechnical engineer at Simlab Geotechnical Services in Bloemfontein, up to 95% of the city's upper earth crust (3300mm) is comprised of clay/ sand an, below the 3300mm, shale. To reach dolerite in the Bloemfontein area, one will have to dig deeper than approximately 5000mm (Diederichs. 2019.).

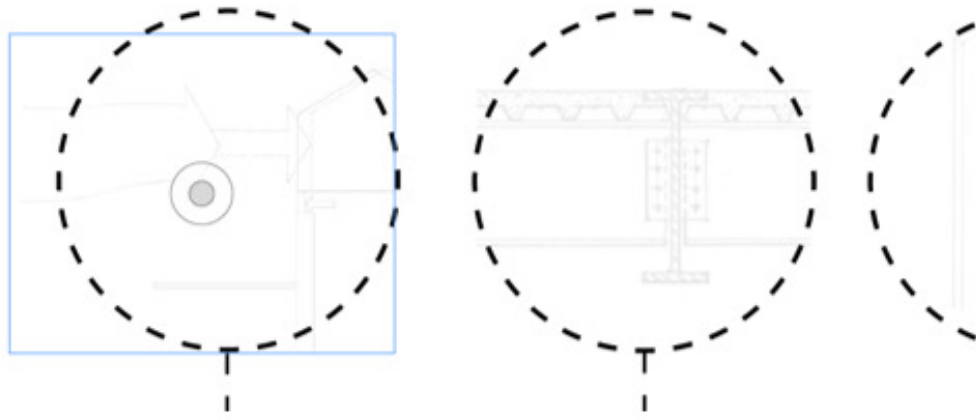
'Bloemfontein is underlain by the Karoo Super group and consists of mudstone and sandstone. Post Karoo dolerite intrusions also occur.' (Botes, 2015, p. 35)

**The site is composed of 'slightly moist light brown, medium density clayey sand' and will have to be constructed using raft foundations, see Appendix A for more details regarding the soil on this site.**

Due to the fact that the presumptive bearing capacity of clay is very poor and that the site sits so close to the water, is above the water level and will - at times sit on the edge of a clay ledge, the raft foundation will be deepened, becoming the retaining edge of the clay mass as well; To ensure that the building sits secure and moves as a unit, the raft foundation will be deepened from a standard 600mm float, to 1000mm (excluding the concrete slab).

Classification*	Symbol	Description	Presumptive Bearing Capacity <sup>1</sup>		Susceptibility to Frost Action	Permeability & Drainage
			psf <sup>1</sup>	kPa		
<b>Silts</b> LL>50 <sup>2</sup>	ML	Inorganic silt	2000	96	Very high	Floer
0.002-0.05 mm	CL	Inorganic clay	2000	96	Medium	Imperious
<b>&amp; Clays</b> LL<50 <sup>2</sup>	OL	Organic silt-clay		Very poor	High	Imperious
<0.002 mm	MH	Elastic inorganic silt	2000	96	Very high	Floer
	CH	Plastic inorganic clay	2000	96	Medium	Imperious

Clay soil (Ching, 2014, p. 16)



A raft foundation, also called a mat foundation, is essentially a continuous slab resting on the soil that extends over the entire footprint of the building, thereby supporting the building and transferring its weight to the ground.

(Ching, 2014, p. 85)

A raft foundation is often used when the soil is weak, as it distributes the weight of the building over the entire area of the building, and not over smaller zones (like individual footings) or at individual points (like pile foundations). This reduces the stress on the soil.

(Ching, 2014, p. 85)

**Due to the deepened foot of the raft foundation, the entire raft will be flipped upside down so to speak, essentially making use of down stand beams instead of upstand beams.**

The raft foundation is also deepened to compensate for the shear effect of the wind that blows in from the south of the site, gaining speed over the water mass of Loch Logan Waterfront

The first floor will make use of a two-way structural system column and beam system

Steel sections will measure as following:

302 x 100 mm H-beams

202 x 82 mm H-beams

202 x 82 mm H-Columns

All joints of the steel structure will be welded together on site

## MATERIALITY

The use of materials always have to remain aware of what was there before, before introducing new materials. The implications of these materials also have to be taken serious note of:

What will these materials imply?

**Concrete:** the main gathering nodes on the site. The most solid and immovable material should be used for the most important factor of why architects design: to instigate meaningful moments for people to gather, reflect and become more aware of their surroundings.

The **implementation of greenery** (biophilia) into the building itself reminds the dweller of the oasis nearby.

**Metal** is the pliant material that binds all these factors together.

The **screens** act as noise cancelation elements and provide privacy selectively. These screens act as a reminder that there is a between: the same way the site is a filter and a threshold between the city and nature, the screens that wrap around the various functions of the building, indicate that the dweller has moved forward, there is a place between sanity and chaos.

## BUILDING SERVICES

There are more designed elements to a project than the lounges, the bathrooms and the public gathering spaces; special services are often rendered necessary by the users and / or the circumstance

- Ventilation

The auditorium and offices will have full air conditioning, whereas the restaurants' kitchens as well as the toilets will have suction vents. The

rest of the intervention will depend on insulation and cross ventilation to control the temperature of a room.

- Access

The site is surprisingly level, allowing ease of access for the average pedestrian and cyclist that wishes to zap through the park / over a bridge etc. To ensure that all buildings and all open air recreational spaces are wheelchair friendly, 4 ramps that are 1/12 gradient distributed over the site, as well as an elevator for the auditorium / office building/ floor on the western side of the site.

- Circulation

The whole intervention relies on circulation to make sense before each individual function could be refined, please see the diagrams on page 17 and 18 for more information.

- Security

The best way of ensuring that the park and the pathways between the functions remain safe during the day, would be to ensure that there are no boundaries against which any person could potentially become trapped. The park will be open at all times, with panic buttons for emergency care / protection to be manned by a security company, such as Bloemsec. The financial responsibility for the services of the company will be spoken for by a small percentage of the accumulative rent paid by the various clients.

In the event of a concert/ show etc. in the open air theatre / on the island, the responsible parties are to oversee ticket sales and access as well as all security on the island.

- Refuse removal

The only point on the plan that could potentially create problems regarding refuse removal would be the gin bar on top of the jazz lawn, but this is easily fixable via a trash chute that will go down into the parking garage below the jazz lawn. A refuse pick up point will be created for the Jazz lawn, the island and the Gin bar.

- Deliveries

There are roads and potential loading docks that are close enough in proximity for all the important services that would acquire deliveries.

- Landscaping

The cost of hiring a company to maintain the landscaping of the building and of the site will, as with the security company's clause, be included in the rest of all the clients/ vendors. Please remember the use of greywater for irrigating the plants on the site. Once done by a landscape architect company the main worry will be maintenance.

## SUSTAINABILITY

The opportunity to reduce the carbon footprint of the building in regards of the site itself are pretty clear and tangible: the site has a long, thin

edge on the northern edge of King's Park. Due to this fact the clear assignment of functions along the spine allow for an uncluttered commute from the one side of the site to the other, allowing for the minimal use of large quantities of building material. The spine like nature of the site begs for a simple, clean /stripped design. Adding too much of anything will not only kill the concept of a porous, breathable threshold, but the clutter will also be a heavy load on the environment's shoulders. The site demands nothing more than enough: enough is never too much.

Another aspect regarding the site and its contribution to the minimalization of the building's carbon footprint is that the building is right next to a body of water. The water might not be 'recommended for public use', but with minimal filtration, grey water can be used to water the plants via an irrigation system within the building as well as the jazz lawn. The grey water from the Loch Logan Waterfront can also be used to flush toilets, and to scrub any outdoor floor areas once or twice a month.

In terms of **sustainable capital**, the site hopes to contribute the following gains to the City of Bloemfontein:

- **Financial capital:** By capitalising on the need for humans to connect with nature and with each other the physical gain of the facility will contribute to the community of Bloemfontein by offering meaning and value to a site that was previously seen as lost and meaningless to a wider population within the city.

- **Human capital:** (Du Plessis, 2009:360) this thesis aims first and foremost to increase the quality of human capital available to Bloemfontein by increasing interactions between different economic human groups within the community. Initially human capital was just

referred to as labour available within a certain community and it was offered in exchange for remuneration. But by increasing the number of interactions, as well as the ease at which these interactions can occur between educated members of society and members less fortunate the potential to increase the knowledge base of all members of society improve exponentially.

- **Social capital:** The basis for social capital lies in human relationships, partnerships and co-operation. By providing a platform for co-operation and integration the potential for social gain are raised substantially. By presenting workshops, conference facilities, and recreational areas and by increasing opportunities to pause the project aims to promote social fibre by offering an area where interaction can happen within a controlled environment.

- **Manufactured/ or physical capital:** As a production space the site will not act as a production site. It would rather act as an intermediary agent where members of society can gain knowledge on manufacturing processes, financial needs, structuring production, etc. through interaction with fellow members of the same society.

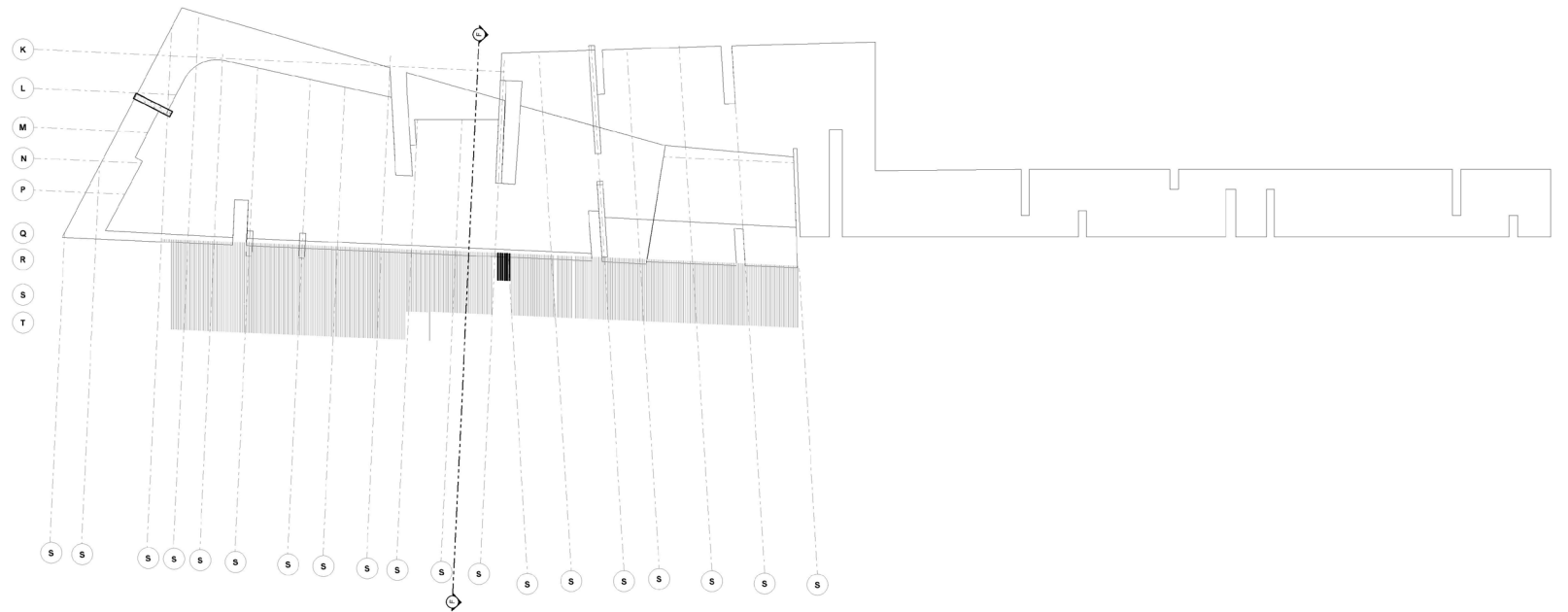
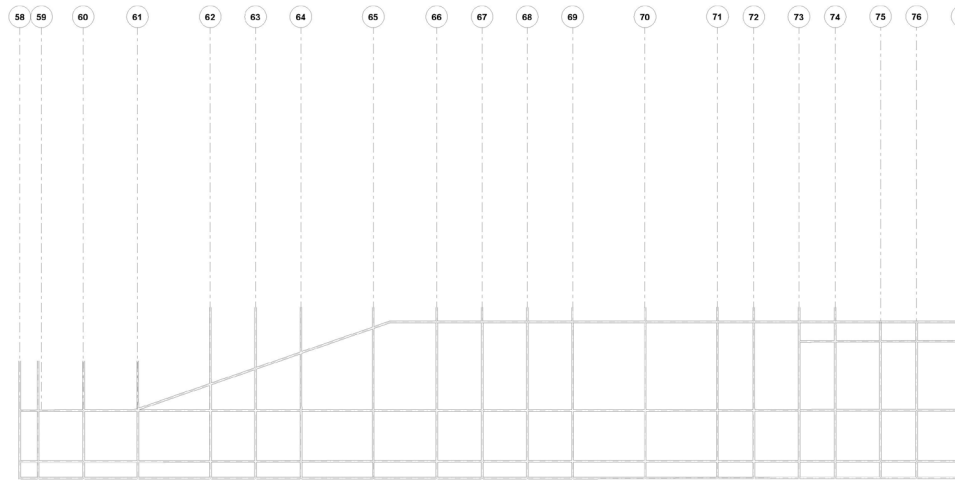
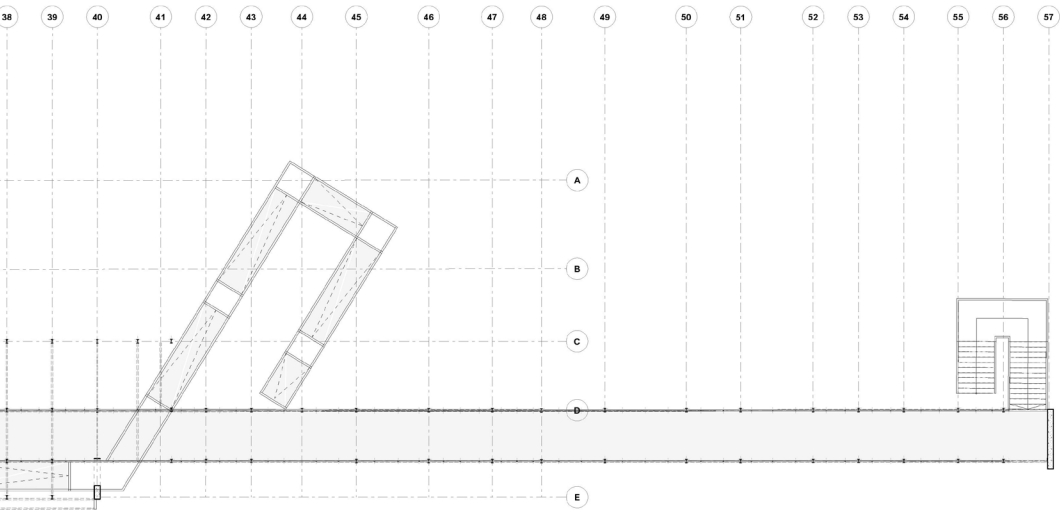
- **Natural Capital:** Natural capital falls into three categories: resources, living systems and ecosystem services. By promoting knowledge on our own dependence on a wider ecological environment and a limited ability to provide in all needs Bloemfontein can gain a sensitivity to-wards our responsibility to conserve our natural habitat. Architecture can never claim to be the bearer of any of these cultural products, but it can offer a platform on which a community can hone their knowledge and understanding of the world around us and the role we play within its conservation.

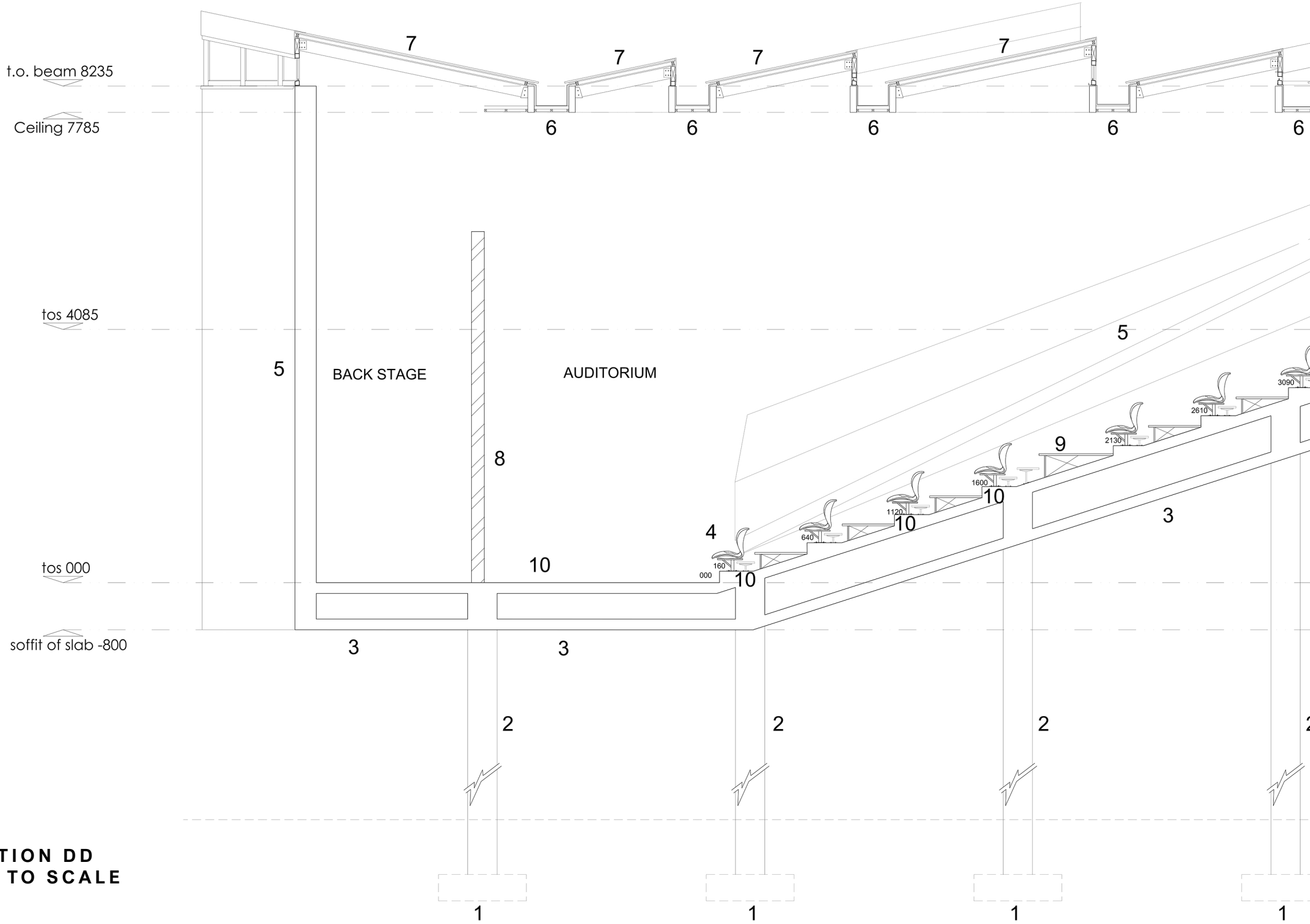




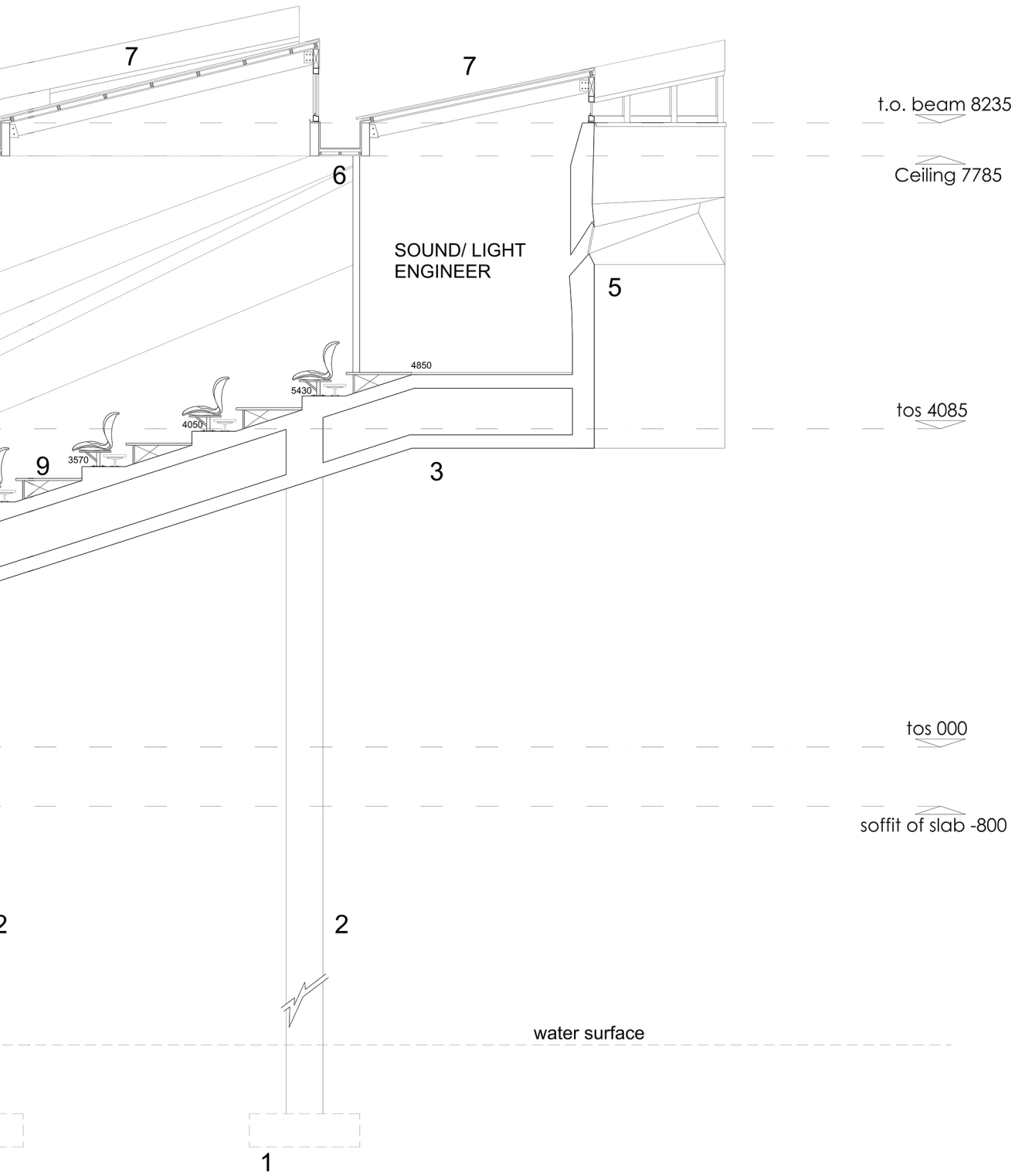


FIRST FLOOR  
NOT TO SCALE



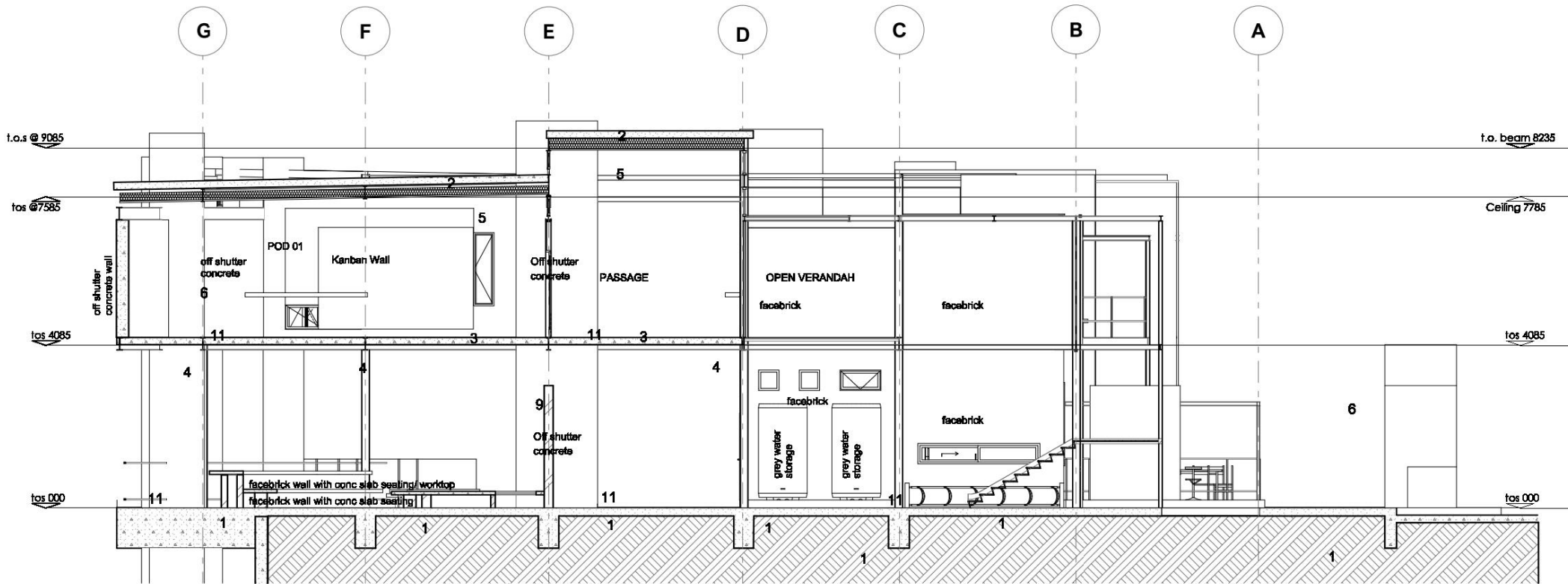


**SECTION DD  
NOT TO SCALE**



LEGEND:

1. 2000 x 2000 x 450 mm pad foundation to engineer spec.
2. 500 x 500 mm reinforced columns to engineer spec.
3. Closed waffle slab with 120 mm closer slab & 255 mm reinforced interior floor slab to engineers spec.
4. Fixed auditorium seating by selected manufacturer, Colour to architect specification.
5. Off-shutter concrete walls with in-situ cast window openings to later detail.
6. 110 x 450 SA Pine Laminated beam with plastered ceiling closer on 38 x 38 battens on 38 x 56 mm batten. Galvanized custom formed metal sheeting box gutter with minimum 1 ° fall, detail by architect to spout where water is dropped on the lower roof of the first floor passage.
7. Klip Lok metal roof sheeting o.e.a.a. on 18 mm shutterply wooden board for sound & heat insulation. 38 mm roof cavity for temperature insulation with 18 mm shutterply as ceiling on 228 x 76 mm SA Pine beams, moisture content to comply with SANS 10400 codes.
8. 220 mm masonry wall with plaster and paint both sides. reinforced interior floor slab to engineers spec.
9. Wooden platform to be built from 18 mm shutterply with clearcoat epoxy finish for wood protection. Epoxy colour and type to be specified by architect, to manuf spec.
10. All concrete floors to be epoxy-coated with Crete coat: colour: grey. to later detail.



SECTION AA SCALE 1:100

A A

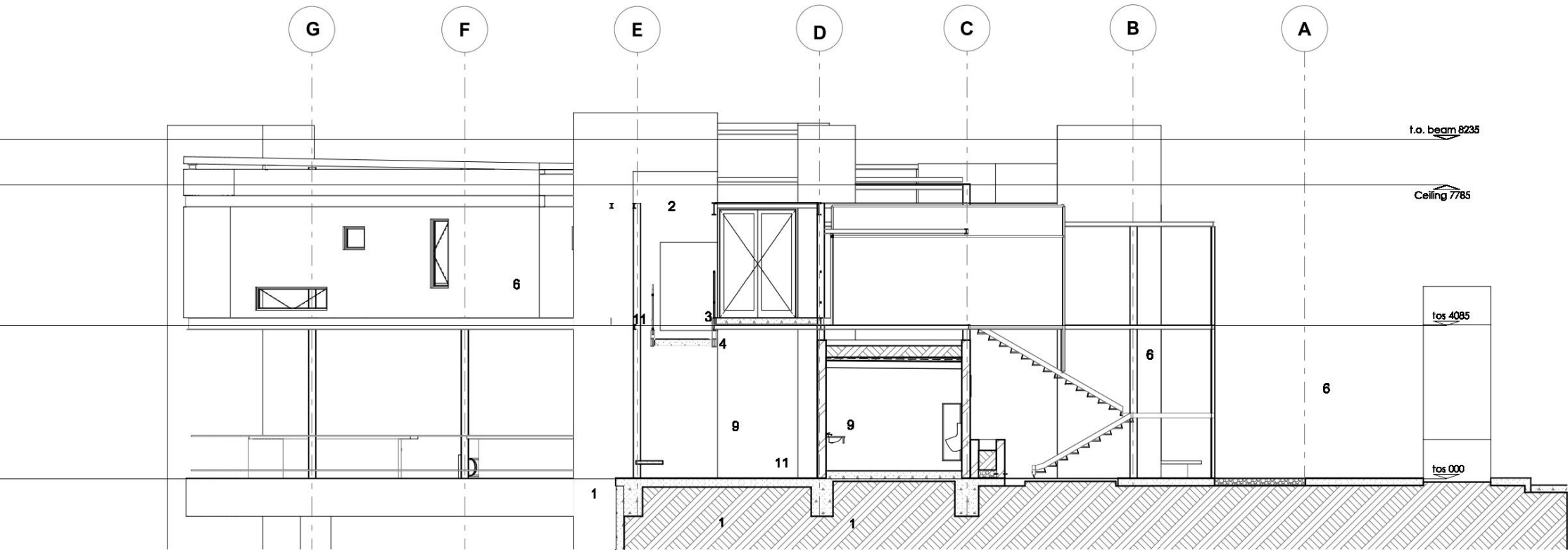
Building Section

4-100

**LEGEND:**

- 1 . Raft Foundation to engineers spec.
- 2 . 170 mm roof slab with waterproofing on screed to 110 Ø mm rwdp, casted in concrete columns.  
slab rest on 305 x 110 x 15 mm m/s H-beam grid with ties welded to top.  
and 205 x 85 x 10 mm m/s H-beam in short distance to eng spec,  
Red oxide base coat with 2 finishing coats of waterbased enamel  
colour by architect
- 3 . 170 mm floor slab with min 30 mm screed with Cretecote - Sand Dollar finish.  
slab rest on 305 x 110 x 15 mm m/s H-beam grid with ties welded to top.  
and 205 x 85 x 10 mm m/s H-beam in short distance to eng spec,  
Red oxide base coat with 2 finishing coats of waterbased enamel  
colour by architect
4. H-beam grid rests on 205 x 85 x 10 mm I-columns with same finish as H-beams  
welded to 10 mm base plate fixed to raft foundation with 8 x 12 Ø mm rawl bolts  
to eng spec.
5. 110 mm Glass fibre insulation in roof cavity with 12 mm shutter ply ceiling fixed to  
150 x 65 x 20 lip channel branding with self tapping screws.

**SECTIONS  
NOT TO SCALE**

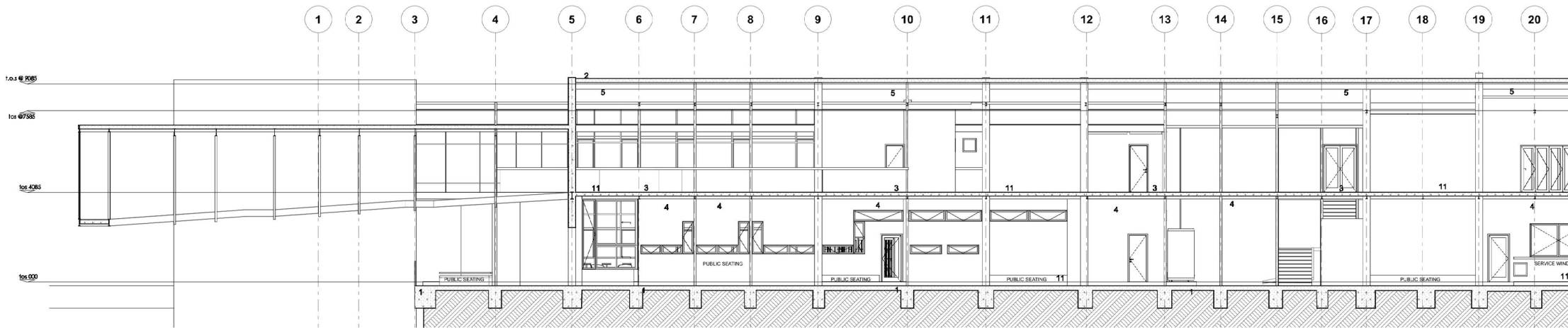


SECTION BB SCALE 1:100

Building Section

4-14

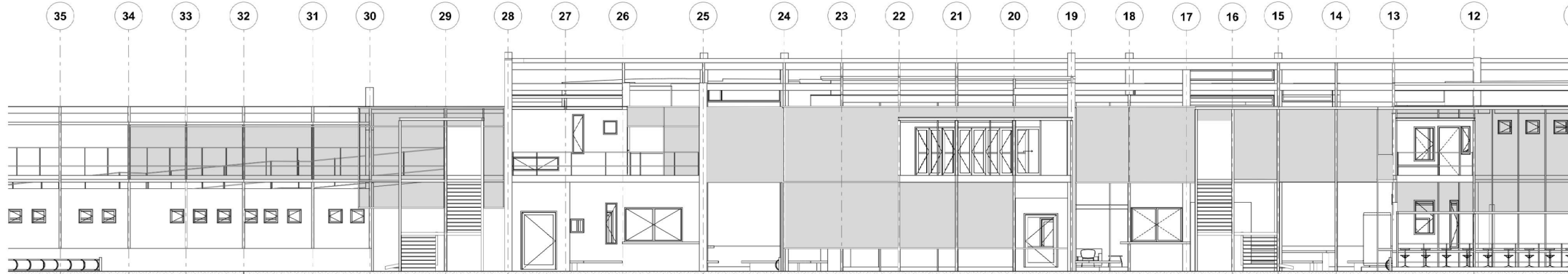
6. Off-shutter concrete walls with in-situ cast window openings to later detail.
7. 110 x 450 SA Pine Laminated beam with plastered ceiling closer on 38 x 38 battens on 38 x 56 mm batten. Galvanized custom formed metal sheeting box gutter with minimum 1 ° fall, detail by architect to spout where water is dropped on the lower roof of the first floor passage.
8. Klip Lok metal roof sheeting o.e.a.a. on 18 mm shutterply wooden board for sound & heat insulation. 38 mm roof cavity for temperature insulation with 18 mm shutterply as ceiling on 228 x 76 mm SA Pine beams, moisture content to comply with SANS 10400 codes.
9. 220 mm masonry wall with plaster and paint both sides. reinforced interior floor slab to engineers spec.
10. Wooden platform to be built from 18 mm shutterply with clearcoat epoxy finish for wood protection. Epoxy colour and type to be specified by architect, to manuf spec.
11. All concrete floors to be epoxy-coated with Crete coat: colour: grey. to later detail.



SECTION CC SCALE 1:100

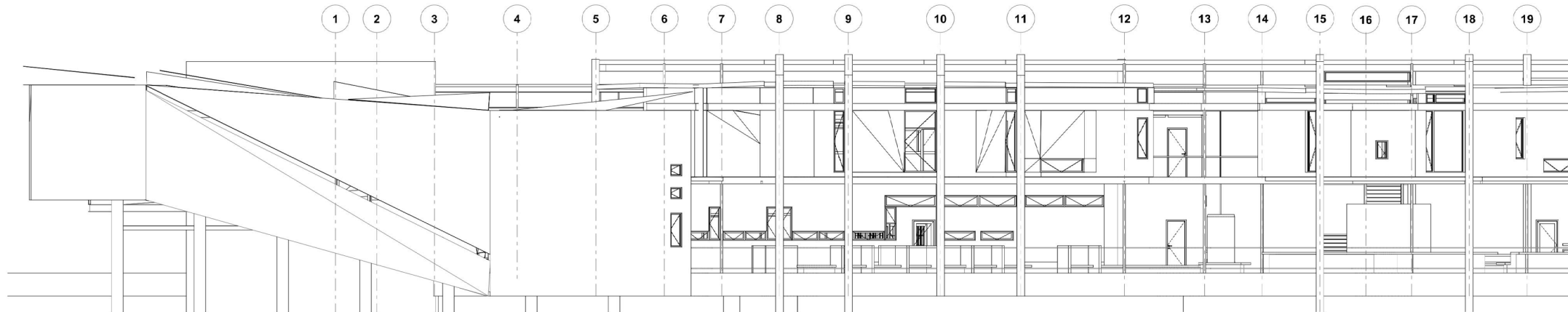
CC

Building Section

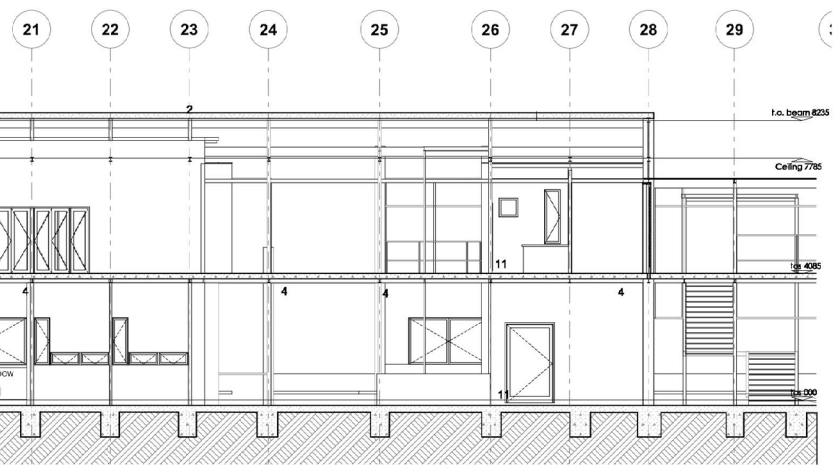


NORTH ELEVATION SCALE 1:100

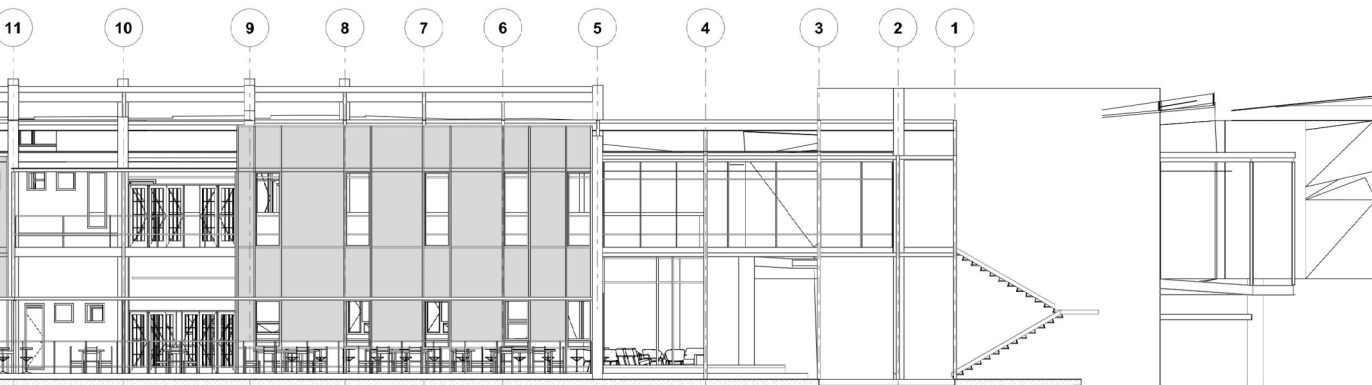
North Elevation



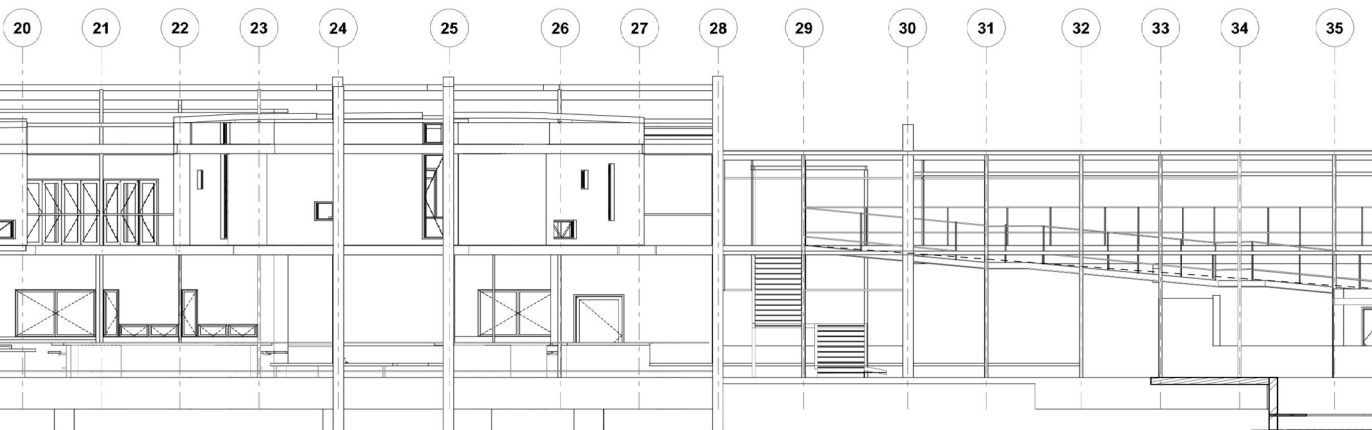
SOUTH ELEVATION SCALE 1:100



1:100



1:100

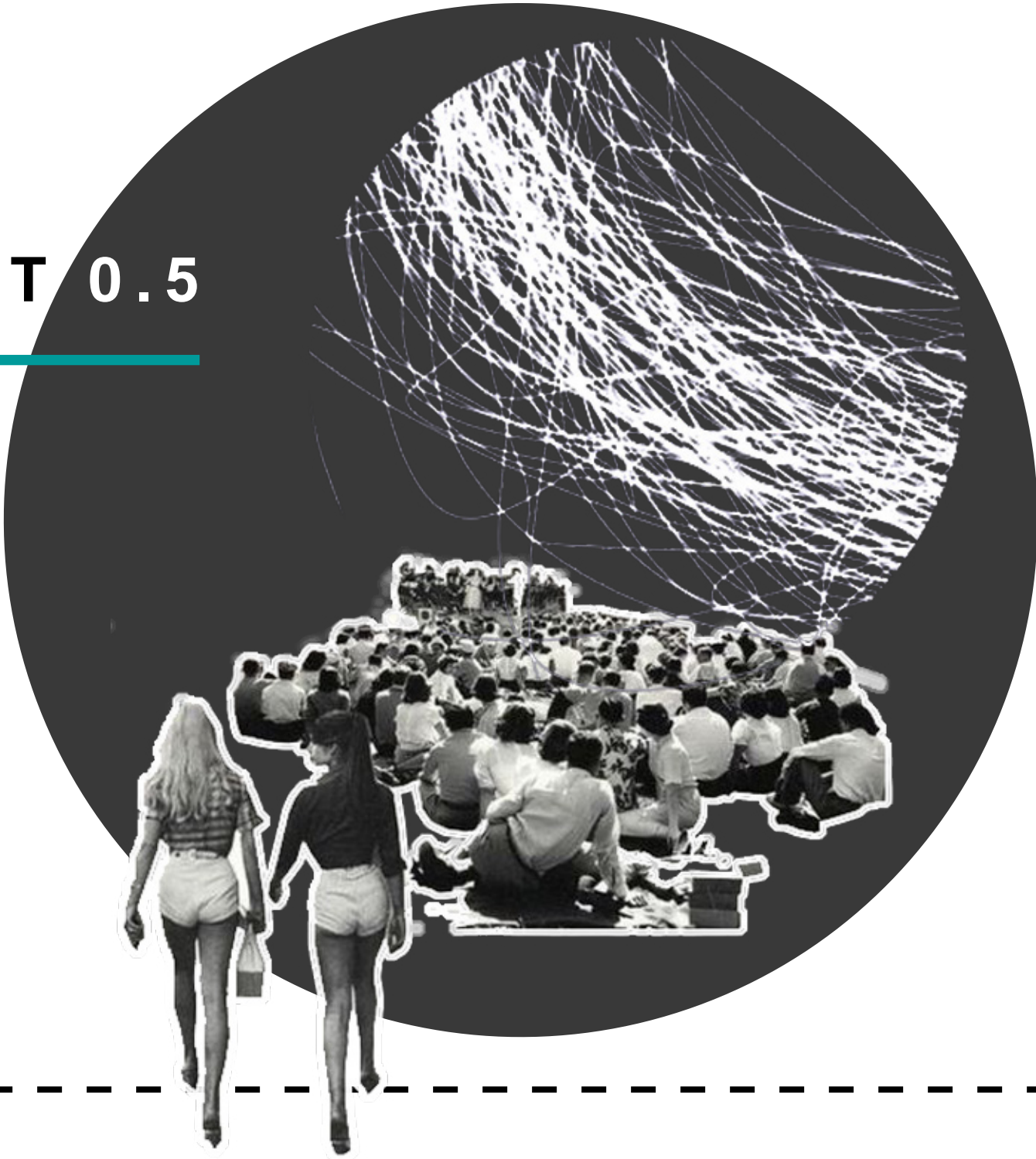


## SECTIONS NOT TO SCALE

### LEGEND:

- 1 . Raft Foundation to engineers spec.
- 2 . 170 mm roof slab with waterproofing on screed to 110 Ø mm rwdp, casted in concrete columns. slab rest on 305 x 110 x 15 mm m/s H-beam grid with ties welded to top. and 205 x 85 x 10 mm m/s H-beam in short distance to eng spec, Red oxide base coat with 2 finishing coats of waterbased enamel colour by architect
- 3 . 170 mm floor slab with min 30 mm screed with Cretecoat - Sand Dollar finish. slab rest on 305 x 110 x 15 mm m/s H-beam grid with ties welded to top. and 205 x 85 x 10 mm m/s H-beam in short distance to eng spec, Red oxide base coat with 2 finishing coats of waterbased enamel colour by architect
- 4 . H-beam grid rests on 205 x 85 x 10 mm I-columns with same finish as H-beams welded to 10 mm base plate fixed to raft foundation with 8 x 12 Ø mm rawl bolts to eng spec.
- 5 . 110 mm Glass fibre insulation in roof cavity with 12 mm shutter ply ceiling fixed to 150 x 65 x 20 lip channel brandering with self tapping screws.
- 6 . Off-shutter concrete walls with in-situ cast window openings to later detail.
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- 9 . 220 mm masonry wall with plaster and paint both sides. reinforced interior floor slab to engineers spec.
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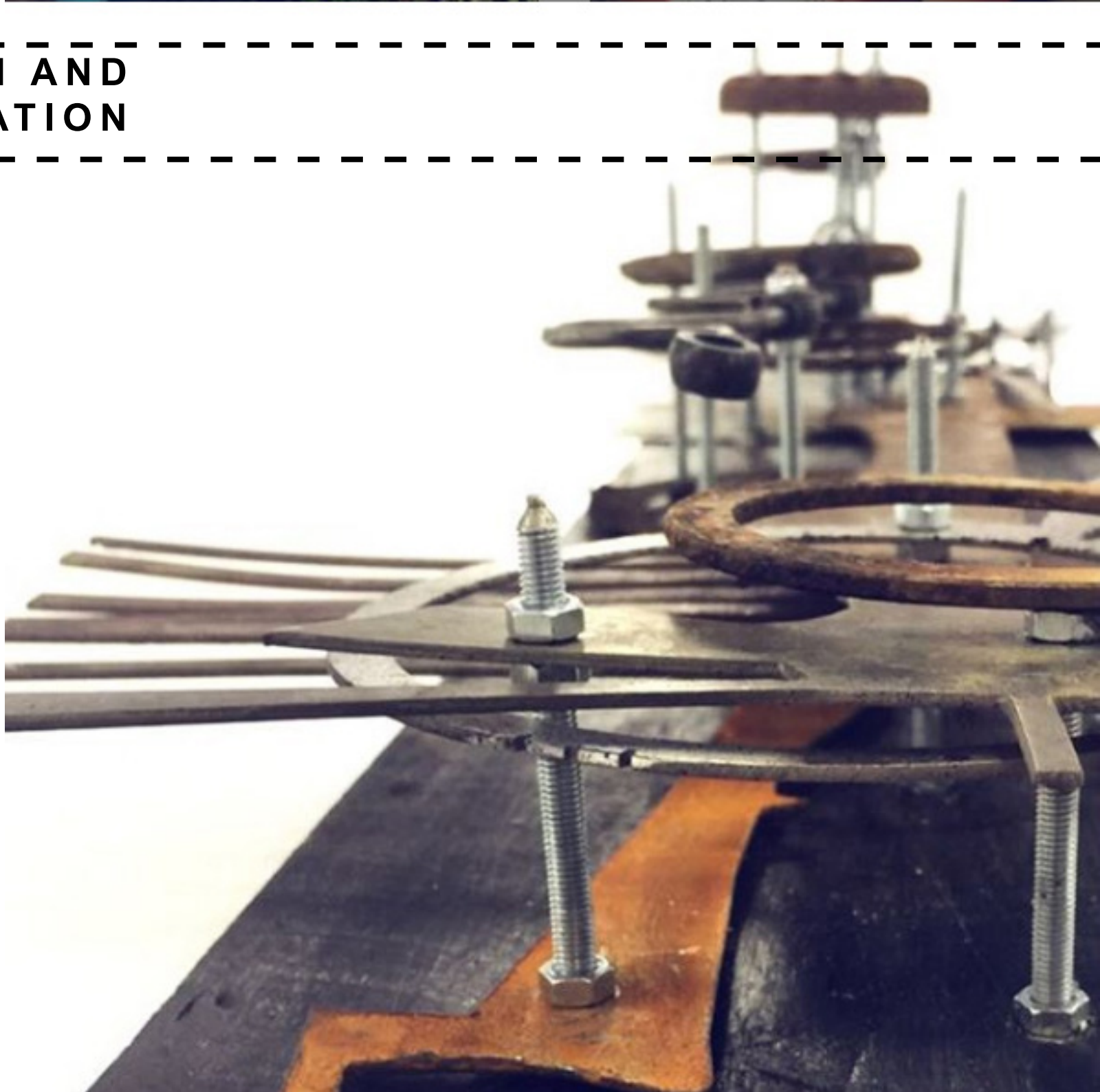
# PART 0.5





	reflection and self-evaluation
	reference list
	addendum's
	dedication

REFLECTION AND  
SELF-EVALUATION



Reflecting on this project is integral to its success.

Over the last five years I have learned so much about my own approach to design and problem solving methods, but in this project specifically my abilities have been tested to the extreme.

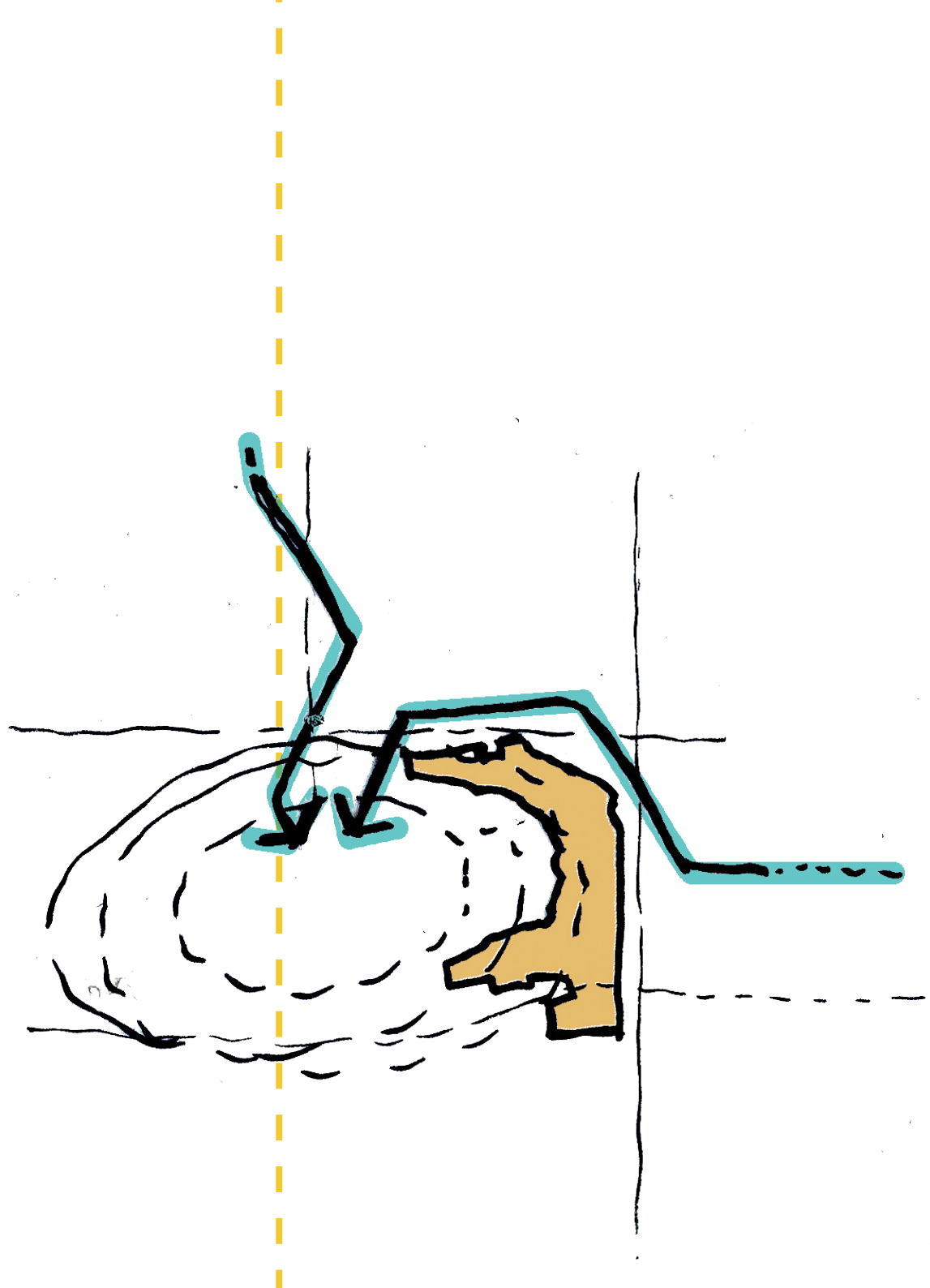
What would I have done differently?

I should have trusted touchstone two more and its power to drive this project earlier on. Together with concept investigation three, these two forces were the main drivers behind my final design decisions in hindsight.

What am I proud of?

My building serves its users in terms of their quest to liberate the balance between the self, the city and nature. This project proves to me that a building does not have to be imposing to be successful.

The building as a gesture can also serve the user well.



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## DEDICATION

tussen bed, boek,  
en inspirasie soek  
is daar vyf jaar se groei en  
meer koppies koffie as wat enige persoon  
op aarde kan tel

tussen potloodlyne, koki merke  
en rooiwyn vlekke  
is daar herindinge van gesprekke wat sin  
maak en ook nie -  
van familie  
en stunning nuwe mense  
wat my nou **ook** goed ken  
en ek sê dankie

dankie, dankie  
dankie  
vir geduld en daarwees  
tussen my deurmekaarwees  
en moegwees en  
mal mal mal wees  
oor die **stunning** ding  
wat ek doen



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