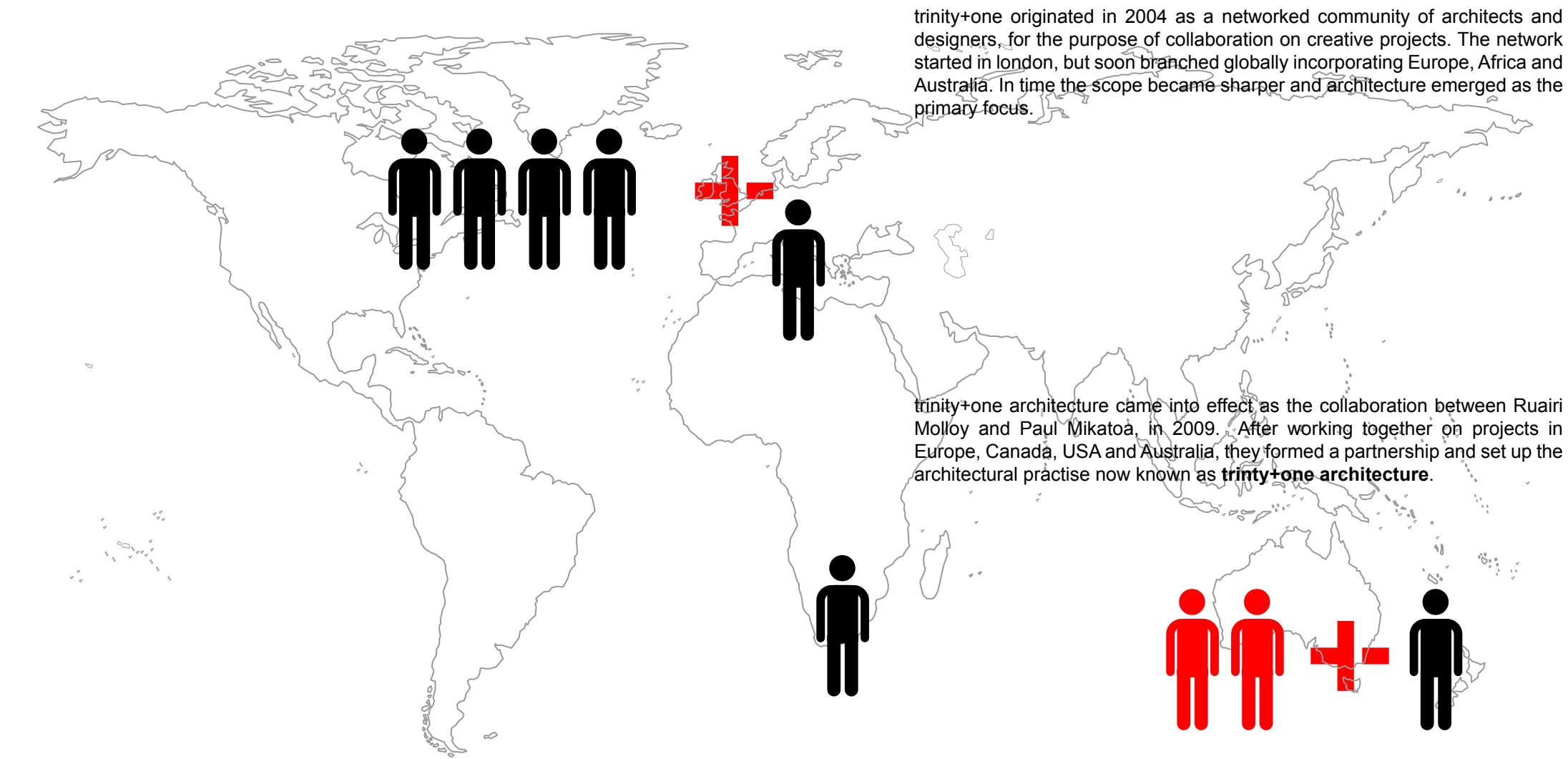


**masterplanning**  
**architecture**  
structure  
civil

**‘Delivering high quality design  
through creative collaboration’**

# What is trinity+one

who we are and where we came from



trinity+one originated in 2004 as a networked community of architects and designers, for the purpose of collaboration on creative projects. The network started in London, but soon branched globally incorporating Europe, Africa and Australia. In time the scope became sharper and architecture emerged as the primary focus.

trinity+one architecture came into effect as the collaboration between Ruairi Molloy and Paul Mikatoa in 2009. After working together on projects in Europe, Canada, USA and Australia, they formed a partnership and set up the architectural practise now known as **trinity+one architecture**.

The key to the success of trinity+one architecture is the significant collaborative network from which it draws its expertise. The extensive knowledge and skill base enables us to create teams tailored to the job, be it strong documentation or highly advanced digital design skills. It allows us to create strong custom-made teams which are project specific thus ensuring that the best people are working on your project.

At trinity+one we aim to provide innovative and syntactic solutions to design challenges. Irrespective of the size of the project the same attention to the design process will take place.

At trinity+one we have coined the term "essd"- environmental and social sustainable design. This pushes sustainability from a purely construction and environmental context into the realm of sociology. We believe that to make a design truly sustainable, it must also be sensitive in the larger framework of community, be it local, national or global.

# Design Philosophy

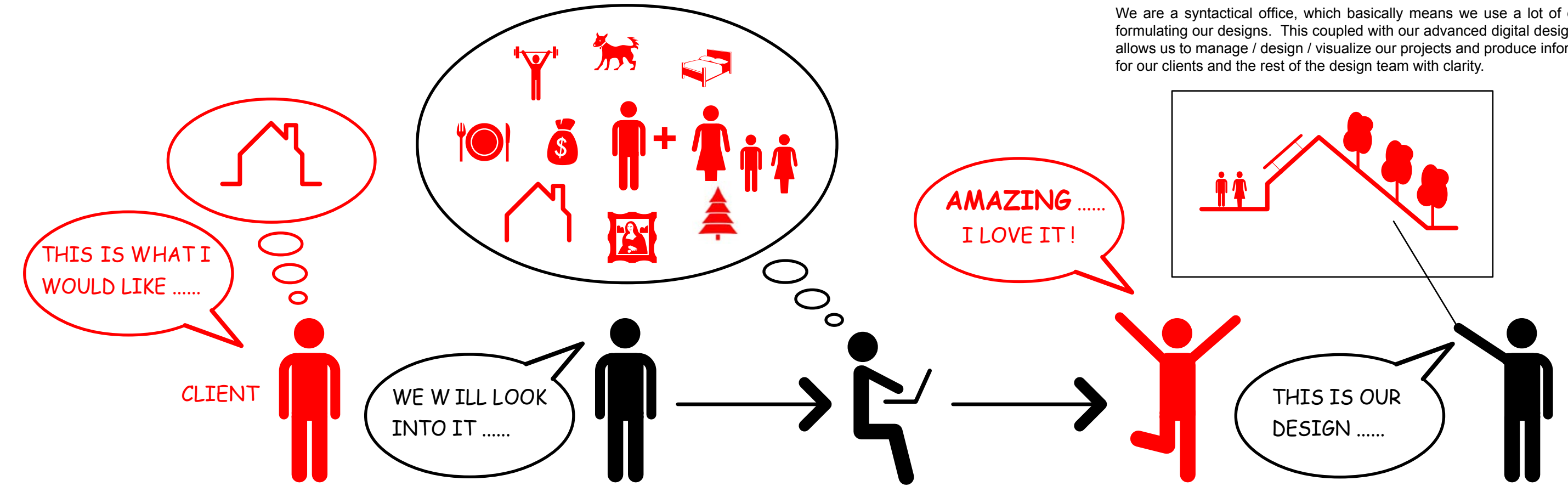
progressive design and creative collaboration

At trinity+one we have a simple design philosophy. That is to provide creative design solutions for our client that responds to their brief.

The process we take with our projects starts with selection of people with the right skills for the job. Since one of the important aspects our design philosophy is creative collaboration this stage is crucial for us. We try to vary our design set by drawing upon the trinity+one network, that way we don't always use the same set of techniques. This makes our designs more specific and unique.

Often many offices have an off the shelf design policy, whereby they take a similar or previous project they have done before and just try to make it fit on a new site. At trinity+one we don't believe in this. We believe each project is different and requires a specific design.

We are a syntactical office, which basically means we use a lot of data in formulating our designs. This coupled with our advanced digital design skills allows us to manage / design / visualize our projects and produce information for our clients and the rest of the design team with clarity.



We also offer our services in the form of building information modeling (bim) 3d, standard computer aided drawing (cad) 2d and advanced parametric modeling. It is with this advance skill set that we can offer a very comprehensive service to our clients.

With all these skill sets aside, our basic mantra is to provide our clients with a creative design solution which responds to the client's needs and requirements, with a reaction to the site and the environment.

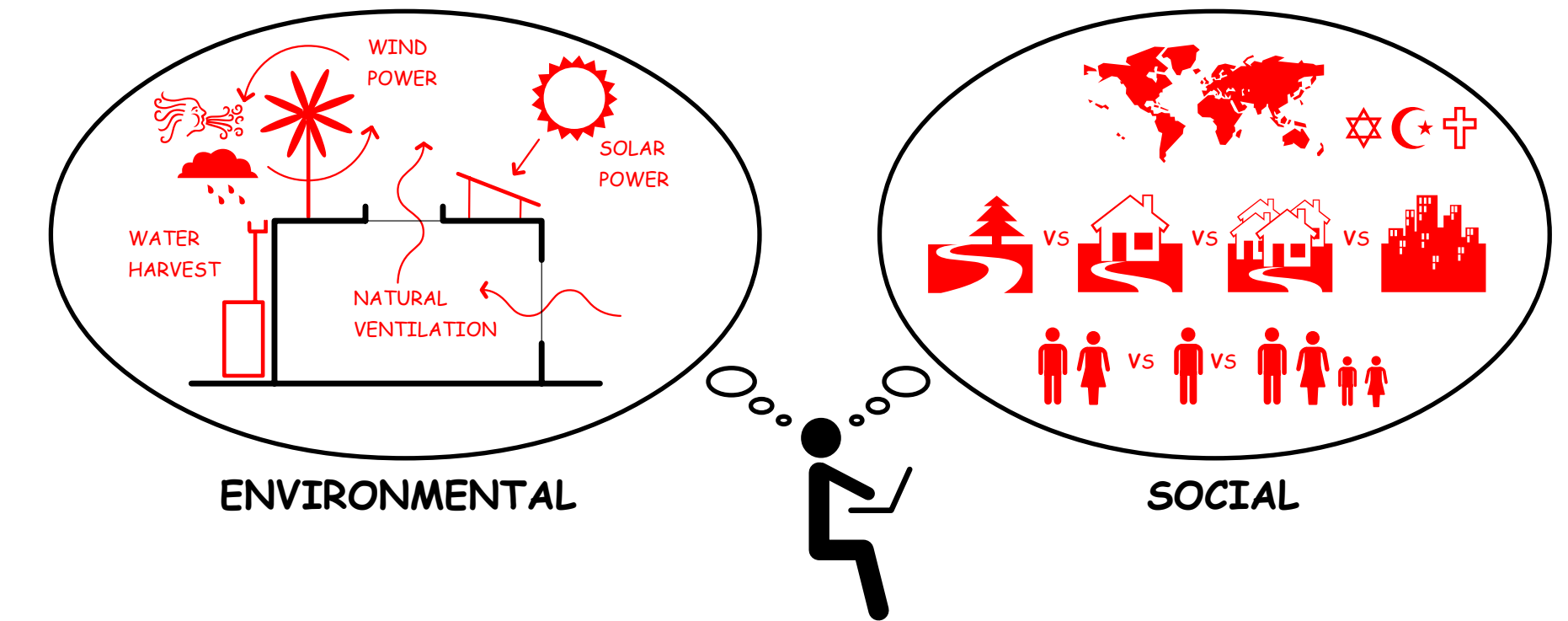
trinity+one has coined what we refer to as essd. For those of you familiar with esd (environmental sustainable design), we are just taking the next step. For us esd is obvious and essential, what is missing .... and so often overlooked by other designers is the social agenda.

Hence essd (environmental and socially sustainable design)

So what are we talking about ?

Basically with all of our designs, we look at the impact of the project not just on the environment, but we also look to see what the impact is socially, whether that is on a local, national or global scale. We also take the opposite and see what impact these surrounding influences have on our projects. We find this is key to true sustainability.

Many practises will sell themselves on the environmental properties of their design approach and their process ..... at trinity+one we see this as a given, to us this is the easy part, where we see the fundamental gaps in design today is how buildings affect people outside the site.



We have seen too often how this is ignored, and how bad the consequences can be in the aftermath. So as part of our practise beliefs, we are happy to advise our clients as to the best design proposal we think is right, whether that involves building something, or not building anything at all !

**derek kinsella**  
BSc(Eng), Dip Eng, Civ Eng Tech, RBP

## principal structural & civil

Having been involved in the construction industry for over 27 years Derek has considerable experience in the design of offices, commercial, residential, institutional and leisure projects requiring a familiarity with a broad range of construction methods and materials. He has led both new build and refurbishment projects.

During his early career in Ireland he twice won the G&T Crampton centenary award for the engineer most likely to make a significant contribution to the construction industry. He worked for Arup in Ireland before transferring to their Melbourne office in 2000. Derek spent time working for Beca and Robert Bird Group prior to his integration with Trinity+one.

His skills include all aspects of design of structures using either manual or computer aided design processes and he has excellent familiarity with the use of computer aided drafting. With a keen interest in lightweight structures he has been involved with several projects with the Arup facades group. He has carried out peer reviews of multistorey residential towers and carries out independent checking and design of temporary structures for major building contractors.



**ruairi molloy**  
b(a) dip ma architecture

## principal architectural documentation

After studying and working in the uk ruairi moved to Australia in 2006.

Ruairi's approach involves high quality, syntax based design produced via a process of innovative solutions and creative collaboration.

Specialising (with a masters) in advanced digital design systems, he has worked for a number of high profiled australian practices, leading both design and documentation roles.

In a previous life he trained as an architectural documenter, this coupled with his experience on site gave him the skills and experience to deliver and manage projects later in his career.



**paul mikatoa**  
b(a) architecture

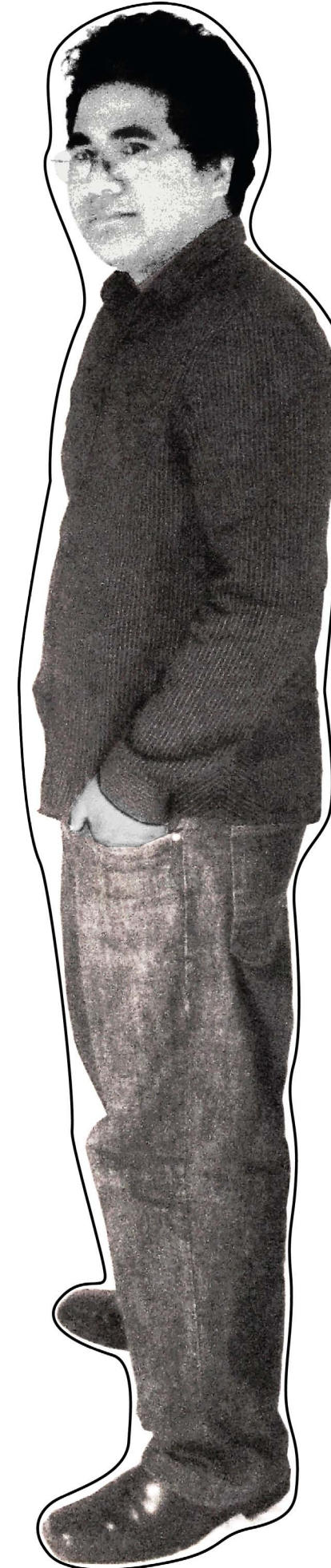
## principal architectural design

Paul is a registered architect in Australia, having relocated here in 2005 from Auckland, NZ.

He completed his bachelor of architecture in Auckland, and is a registered member of the Australian Institute of architects. with experience in high end residential, civic, educational and commercial projects, he later joined gregory burgess architects, as a project architect leading teams on residential, education and performance projects.

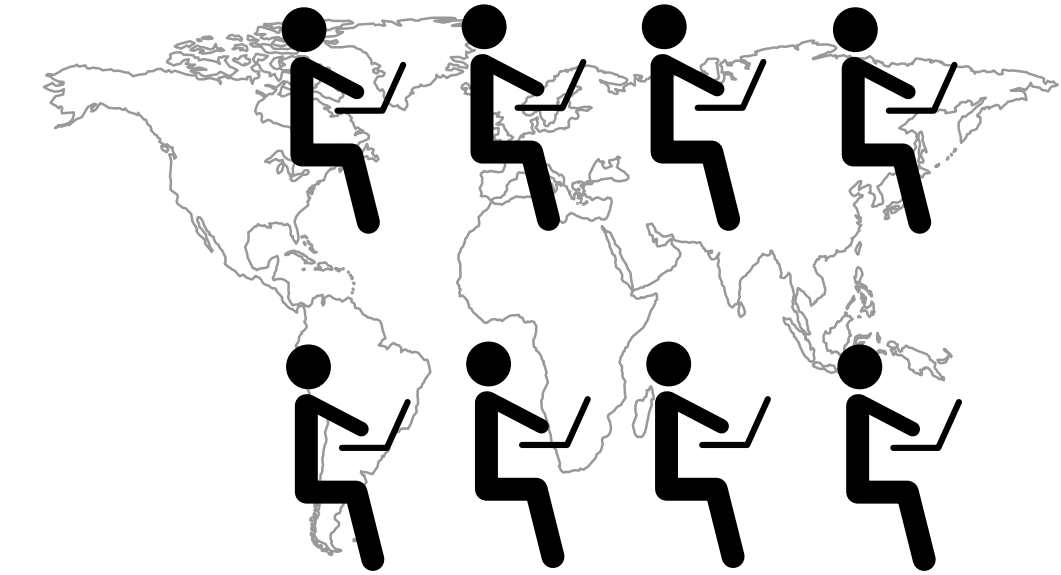
His skills in coordinating documentation packages for complex building types and his sharp eye for construction detailing with his proven technical knowledge has proved effective in high quality project delivery.

He has a strong interest in social and environmental sustainable design, innovative building technology, and construction procurement. His expertise lie in developing high end designs through to completion, and are based on his skills in client liaison, design, documentation and construction procurement.

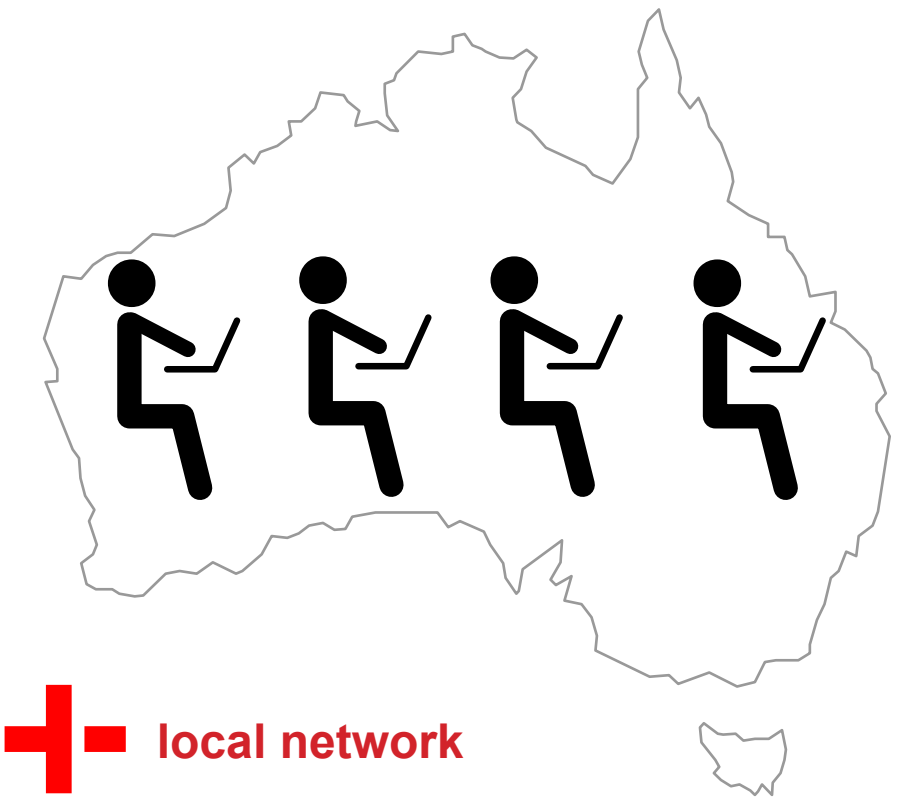


# People

## principals and resources



+ global network



+ local network

# Design Services

## Architectural

trinity+one offers a full range of architectural services. These are outlined as follows.

### **feasability (f)**

trinity+one will help advise the client on preparation of a brief, scheduling of the project.

### **sketch design (sd)**

trinity+one will help prepare design options in conjunction with briefing requirements including cost options.

### **town planning (tp)**

trinity+one will prepare documents and applications for relevant planning authorities if required.

### **design development (dd)**

trinity+one will prepare detailed documents and drawings, including materials, fittings and associated costs.

### **contract documentation (cd)**

trinity+one will produce technical drawings and specifications for construction to obtain a building permit.

### **tender (t)**

trinity+one will prepare a document package for the tender process. we can also help the client with negotiations with a builder selection.

### **contract administration (ca)**

trinity+one can advise the client of the most suitable contract for the project. we can liaise with the builder to access the quality of work, we will keep the client aware of progress and variations, certify progress payments and decide when practical completion occurs. please note that trinity+one will not supervise building works.

### **defects and liability (dl)**

trinity+one will help identify defects and administer their rectification.

The scope of these services may vary depending on the requirements of the client and the specificities of the agreed engagement between trinity+one and the client. This scope will be agreed and negotiated before commencement of architectural services.

trinity+one is available for engagement for any and all of these services. Please contact us for further information, and arrange a meeting to discuss engagement possibilities.

# Consultation Services

trinity+one offers a full range of architectural and design services to other architects and consultants.

Because trinity+one specialises in delivering high end advance design solutions, we are positioned to offer these skills and services to other practices who have the projects and want to upgrade their designs.

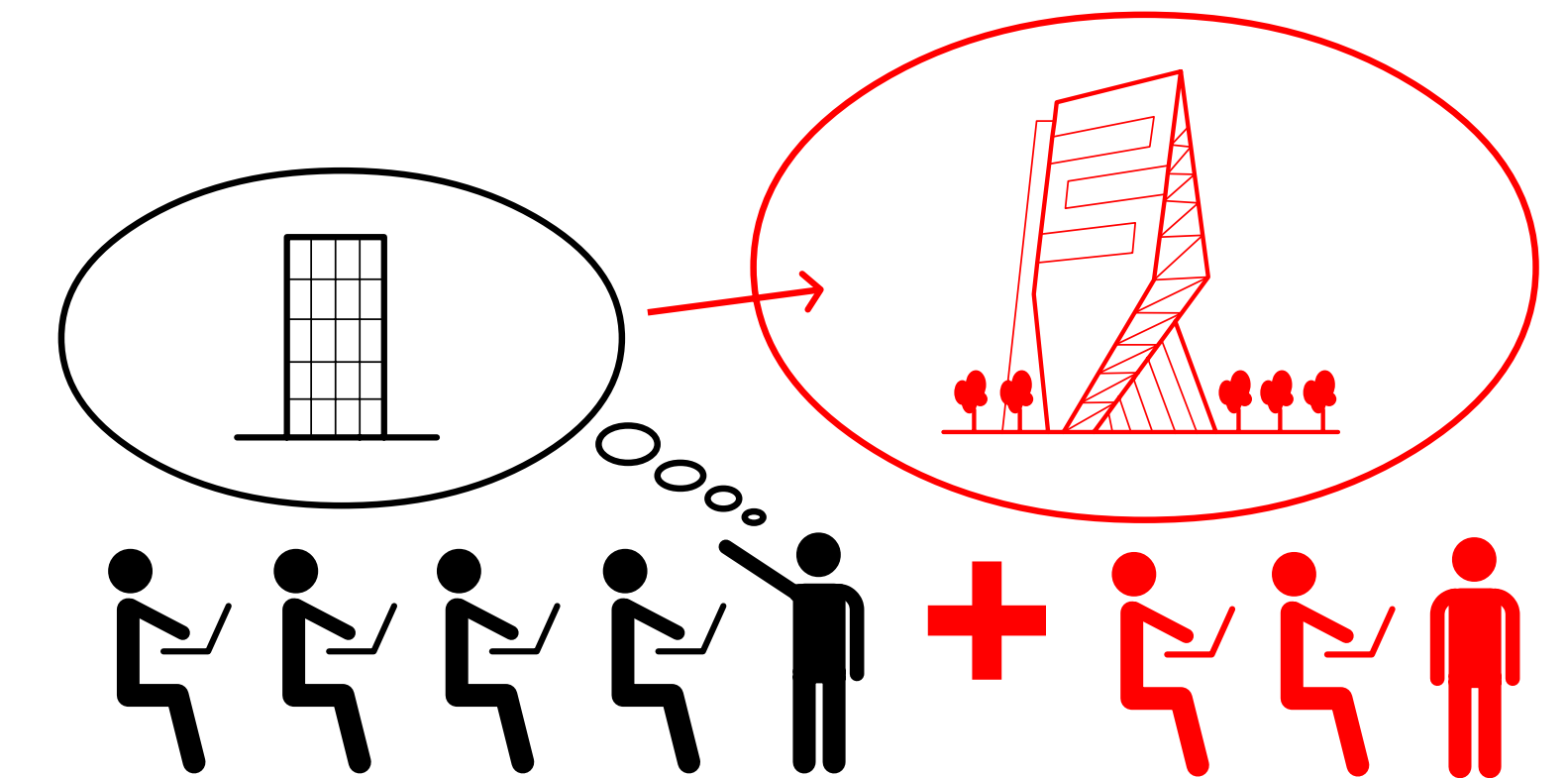
Some of the services to consider are:

## **sketch design and design documentation**

We can help to collaborate on the project design, our design philosophy means we usually operate with 3d models to help us understand the design direction. the earlier we are brought onto the project, the more coherent we can keep the project through the design phase.

## **contract documentation**

From our experience with advance design, we have found that we have had to produce some advanced models to help understand the construction and manufacturing. For us this process can involve both parametric and generative parametric modeling.



If you would like an explanation of the systems we use and how we can compliment your services with ours, please contact us.



# Documentation Services

trinity+one offers a range of documentation options. To learn more about these options, please take a look at the trinity+one documentation book by clicking on the link below. A brief outline of the services we offer are listed as follows

[click for trinity+one documentation link](#)

## upload

For this service trinity+one staff are available to add our staff to your design team.

## download

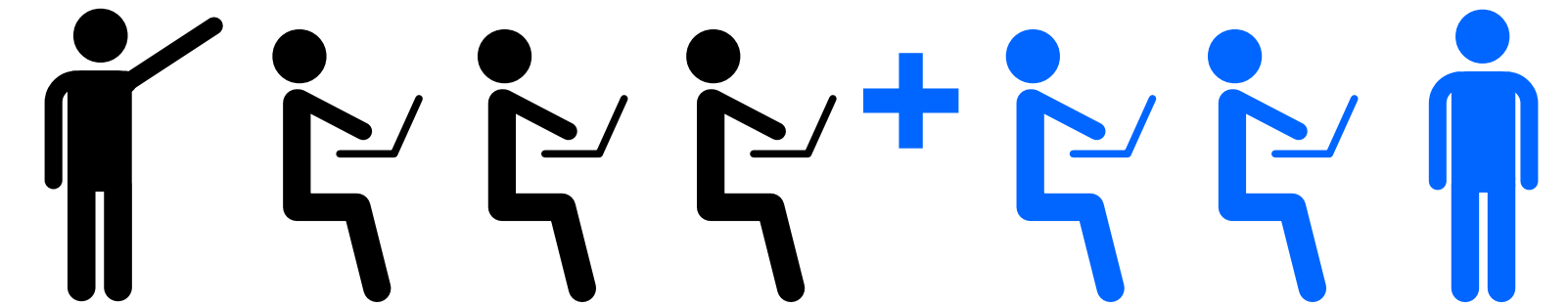
For this service trinity+one will take the project work from you. In this role you become the supervising architect, and trinity+one becomes the project team.

trinity+one staff members are equipped with the following skill set.

**bim (revit)**  
**cad (autoCAD, vectorworks)**  
**3d modelling (3d max, rhinoceros, grasshopper, sketch up)**  
**administration (microsoft office, acconex)**  
**graphics (photoshop, illustrator indesign, flash)**

CLIENT PROJECT TEAM

trinity+one TEAM

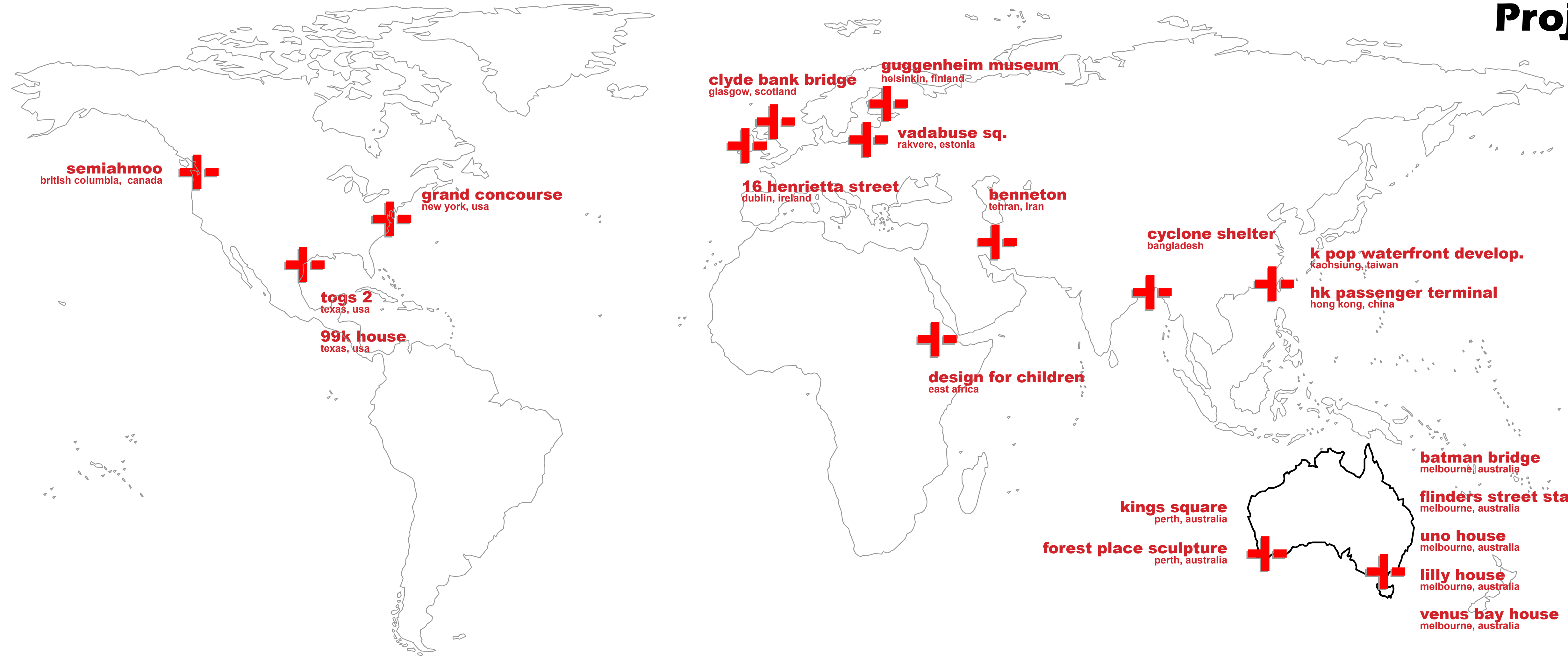


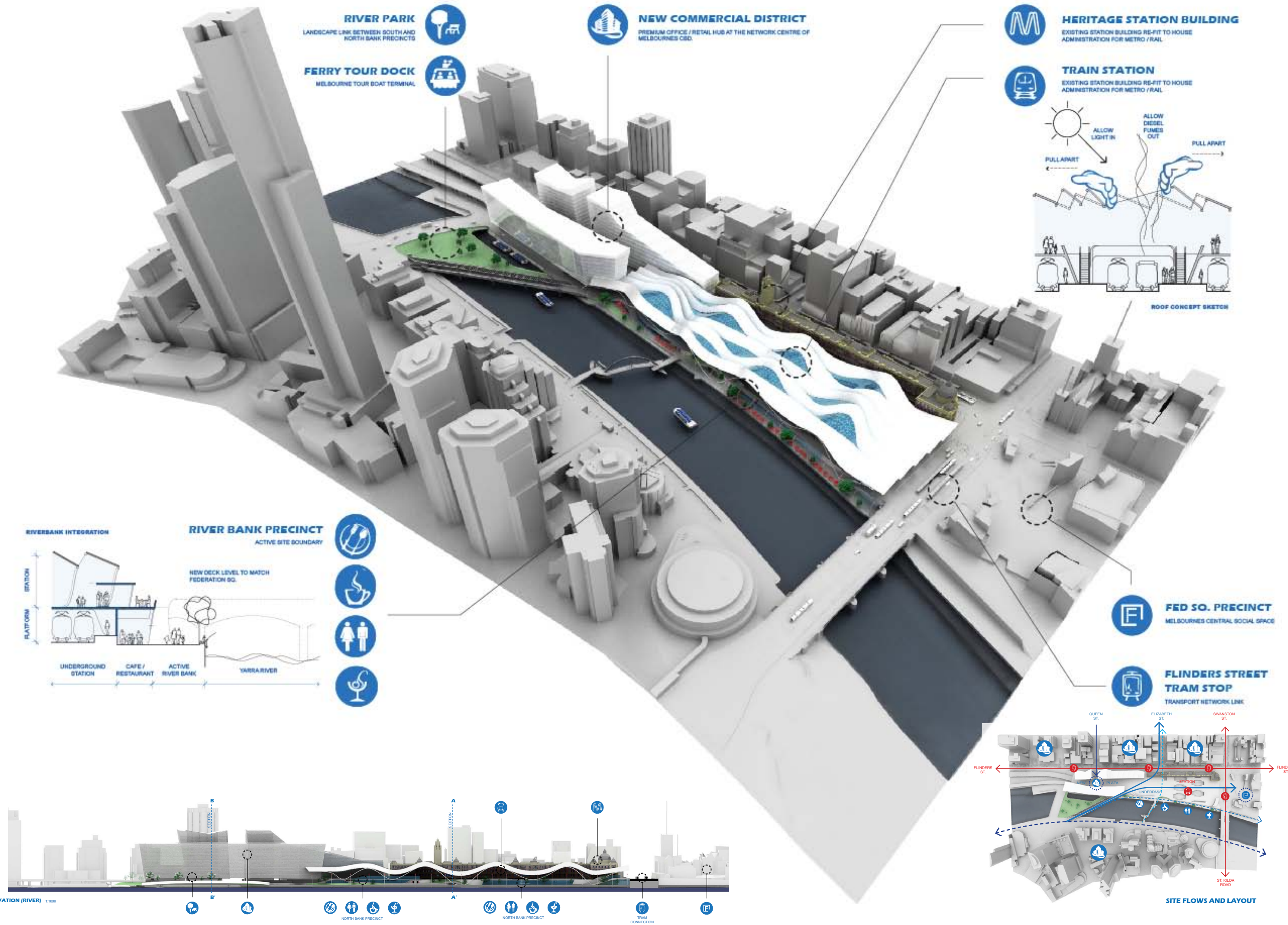
So why choose trinity+one ?

The answer is simple, we are not another drafting service ! trinity+one is a high end design firm, who have delivered projects for many of Australias top design firms. We have the skills to document high end design solutions and to bring them to reality.

The scope of these services can vary depending on your needs. Its is best to contact trinity+one to see how we can help you with your projects. This scope will be agreed and negotiated before commencement of services.

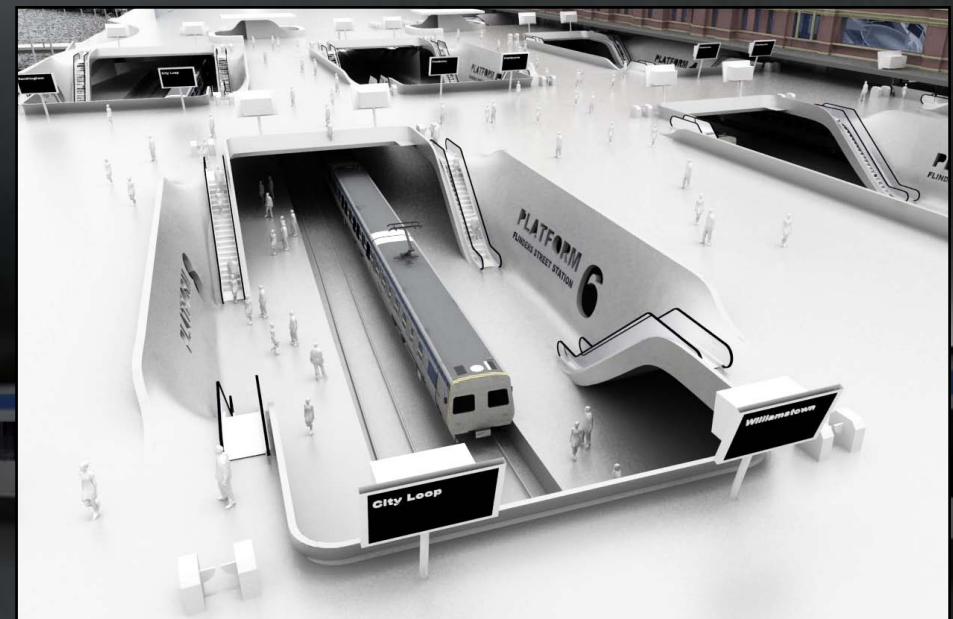
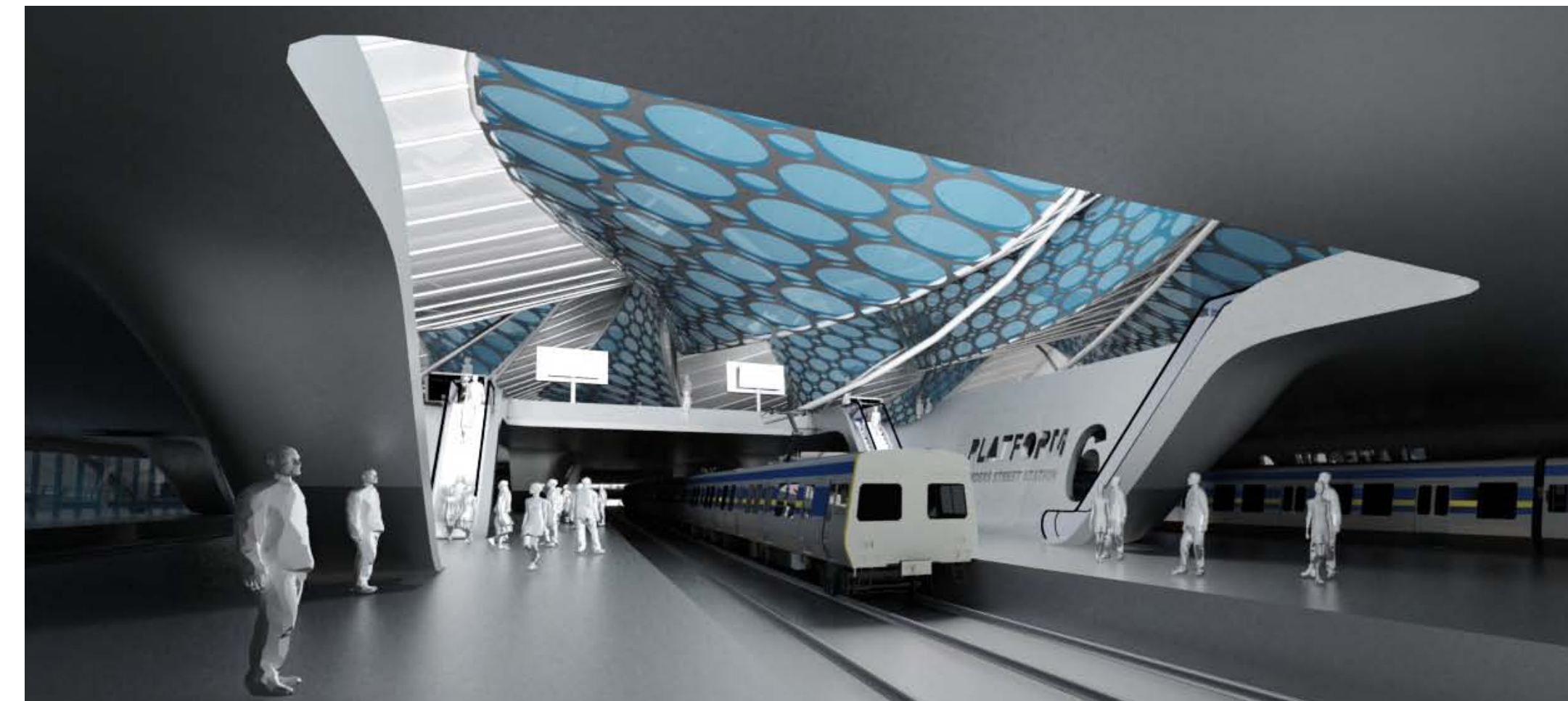
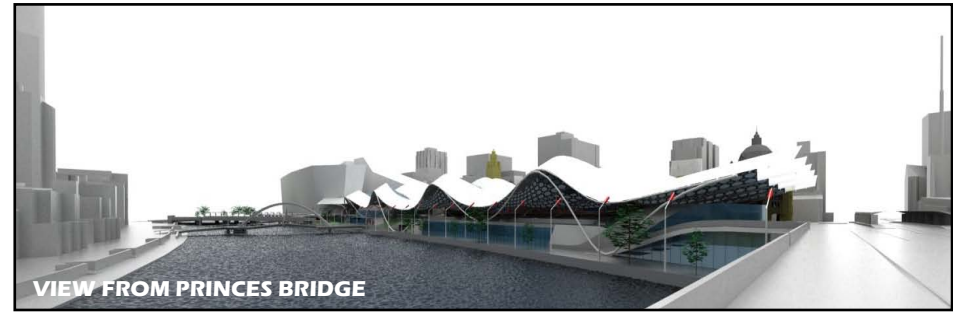
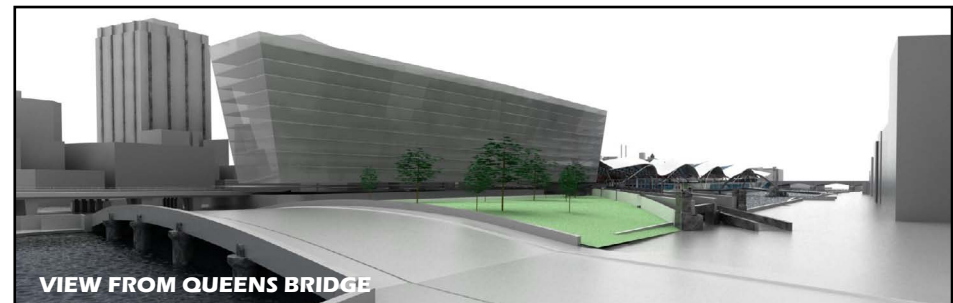
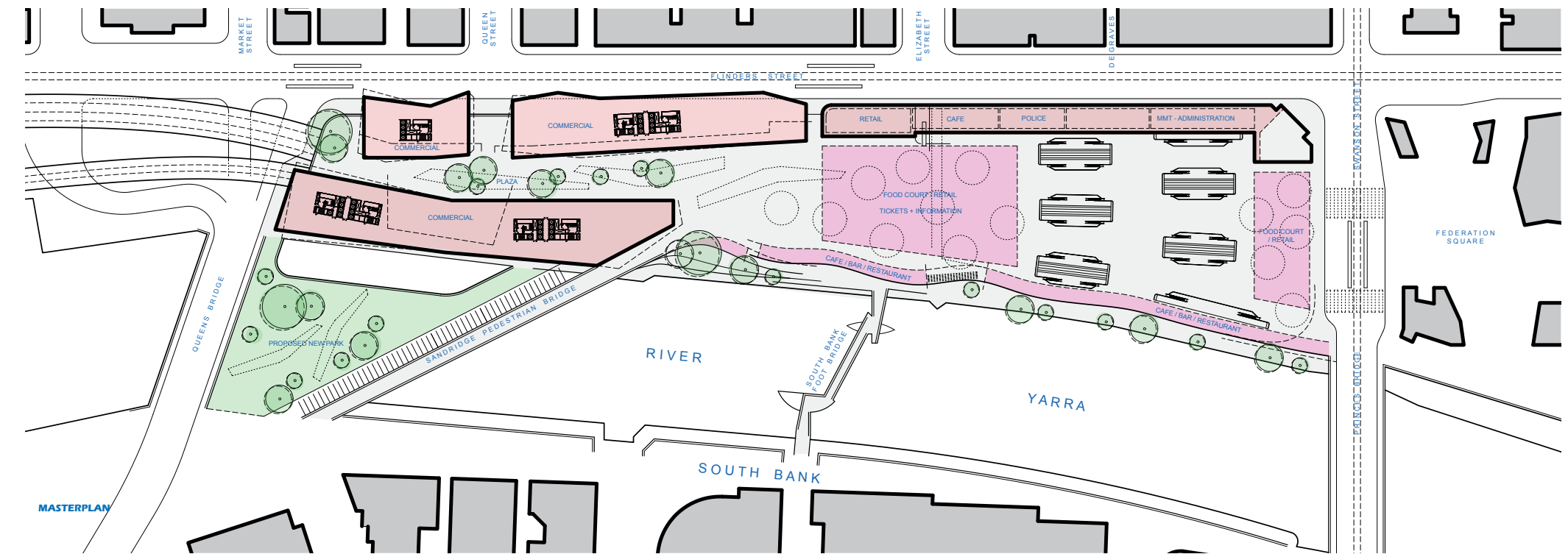
# Projects





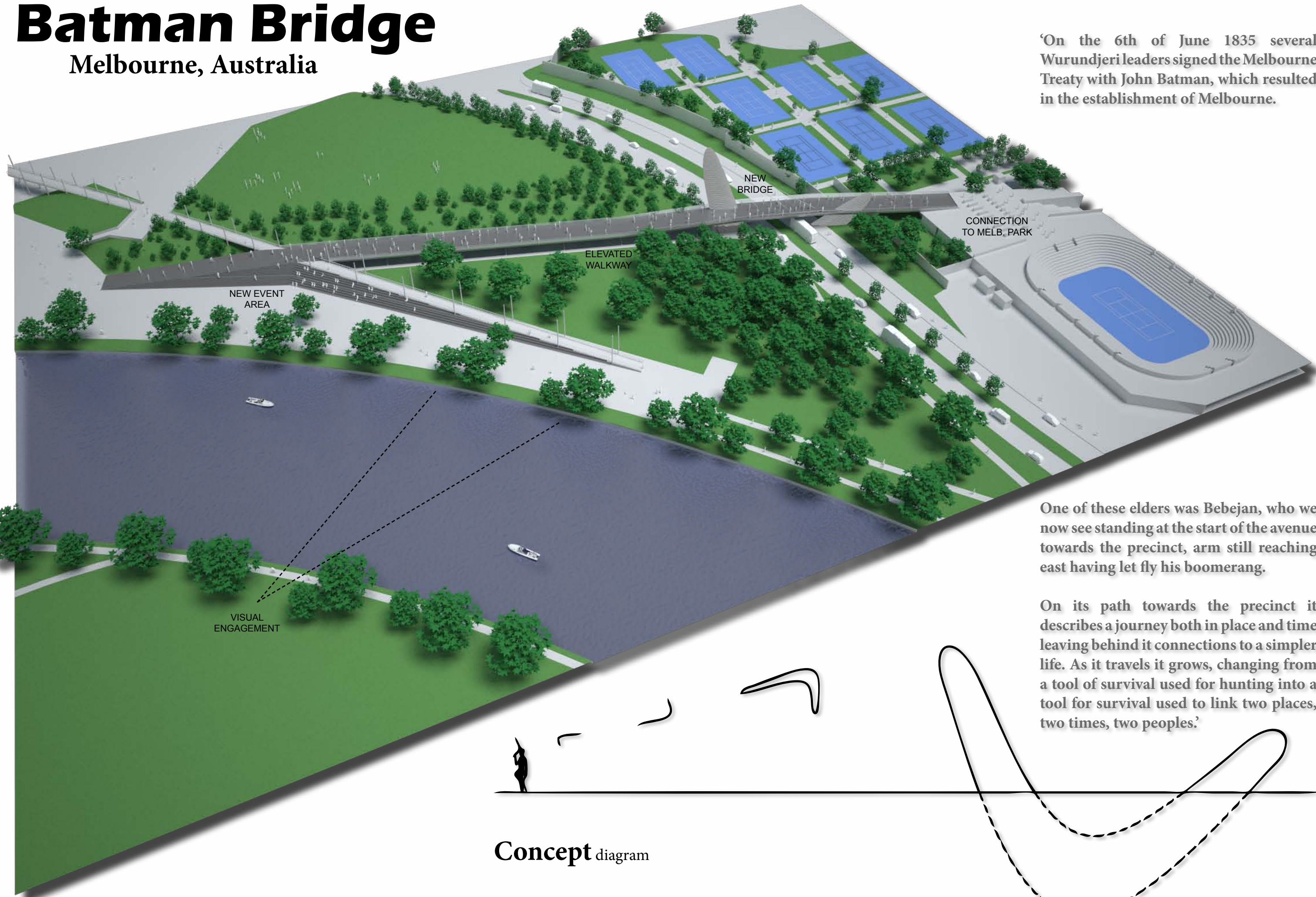
# Flinders Street Station

## Melbourne, Australia



# Batman Bridge

Melbourne, Australia

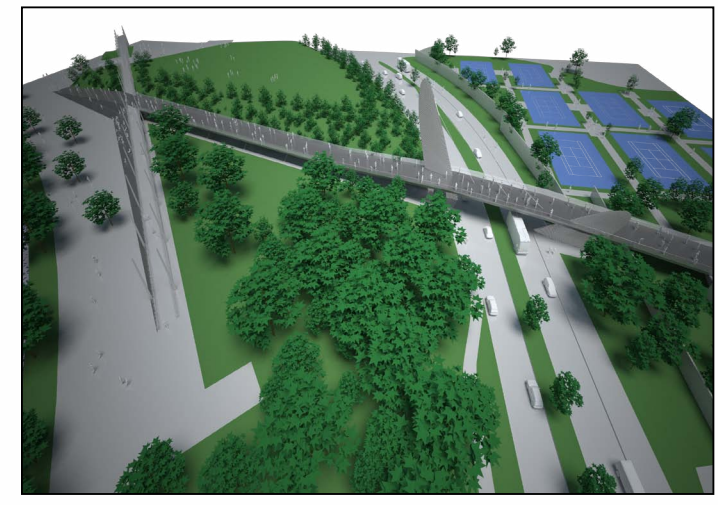


'On the 6th of June 1835 several Wurundjeri leaders signed the Melbourne Treaty with John Batman, which resulted in the establishment of Melbourne.'

One of these elders was Bebejan, who we now see standing at the start of the avenue towards the precinct, arm still reaching east having let fly his boomerang.

On its path towards the precinct it describes a journey both in place and time leaving behind it connections to a simpler life. As it travels it grows, changing from a tool of survival used for hunting into a tool for survival used to link two places, two times, two peoples.'

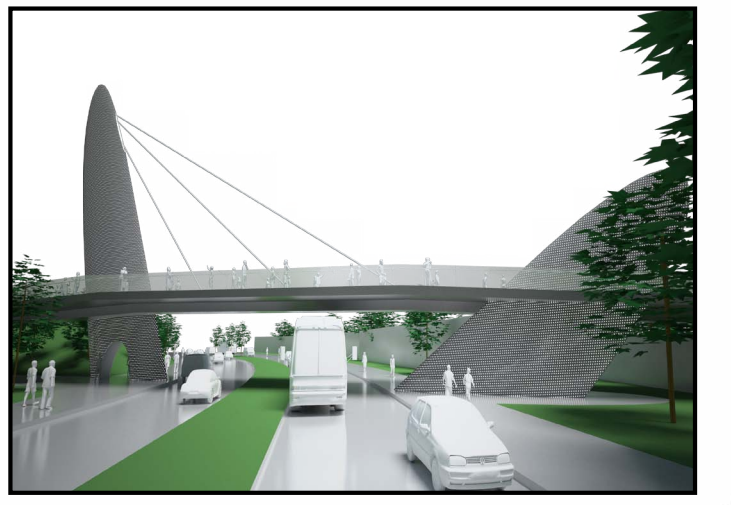
Concept diagram



overview of Bridge Link

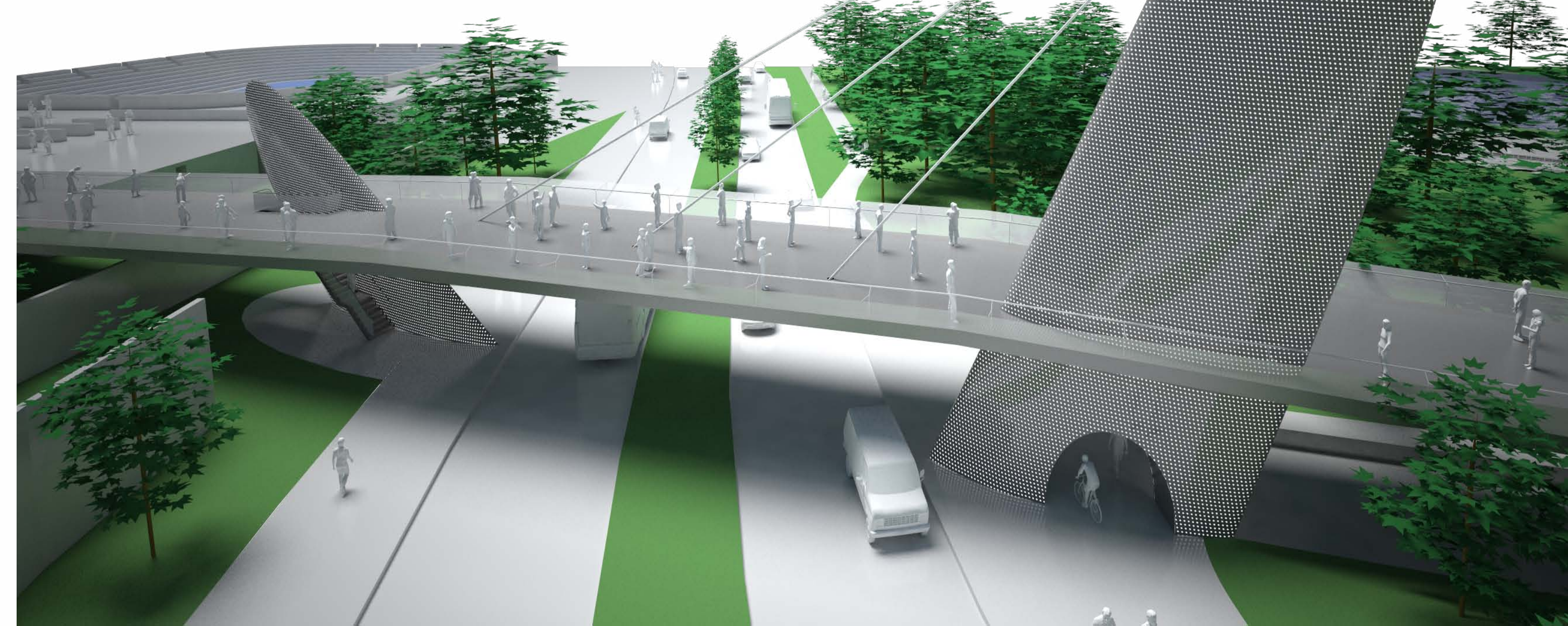


view towards Melbourne Park



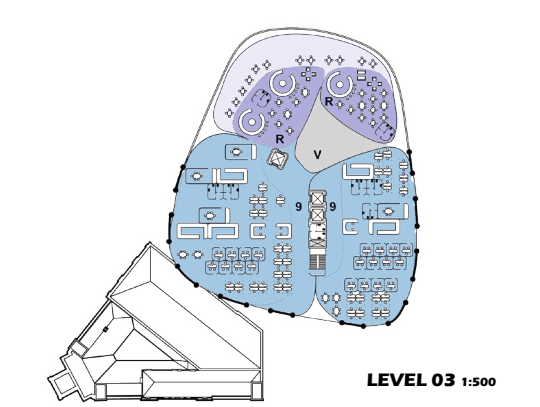
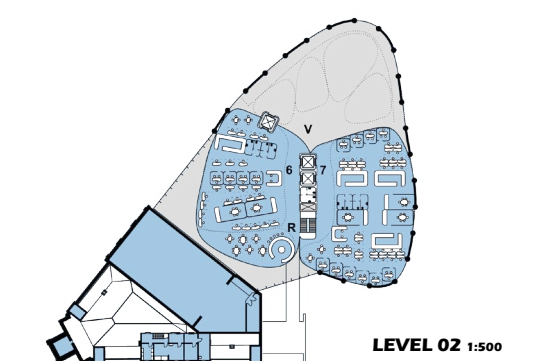
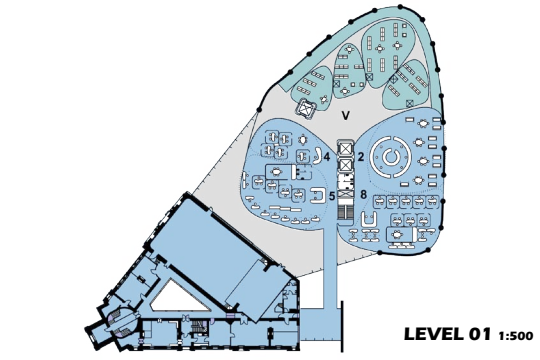
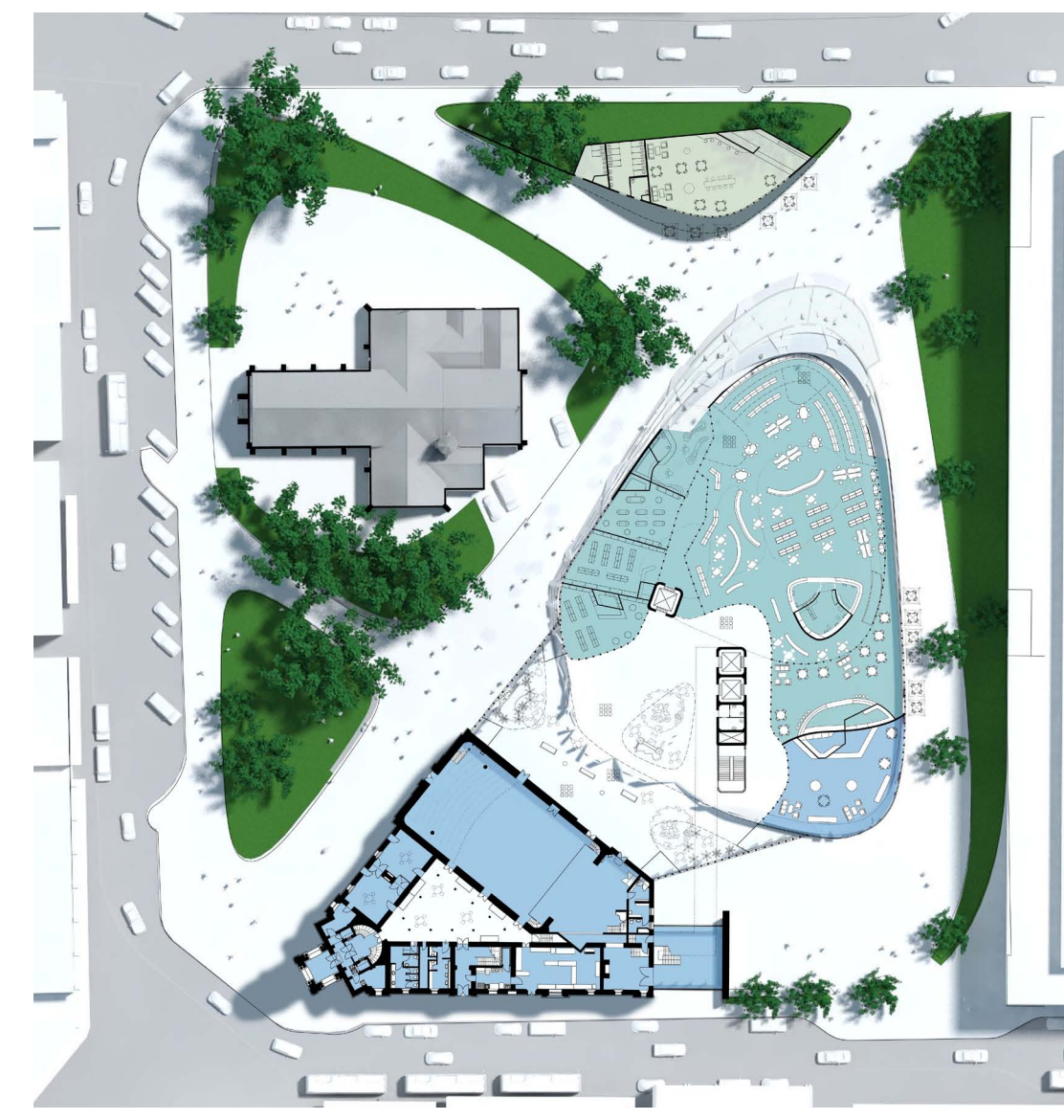
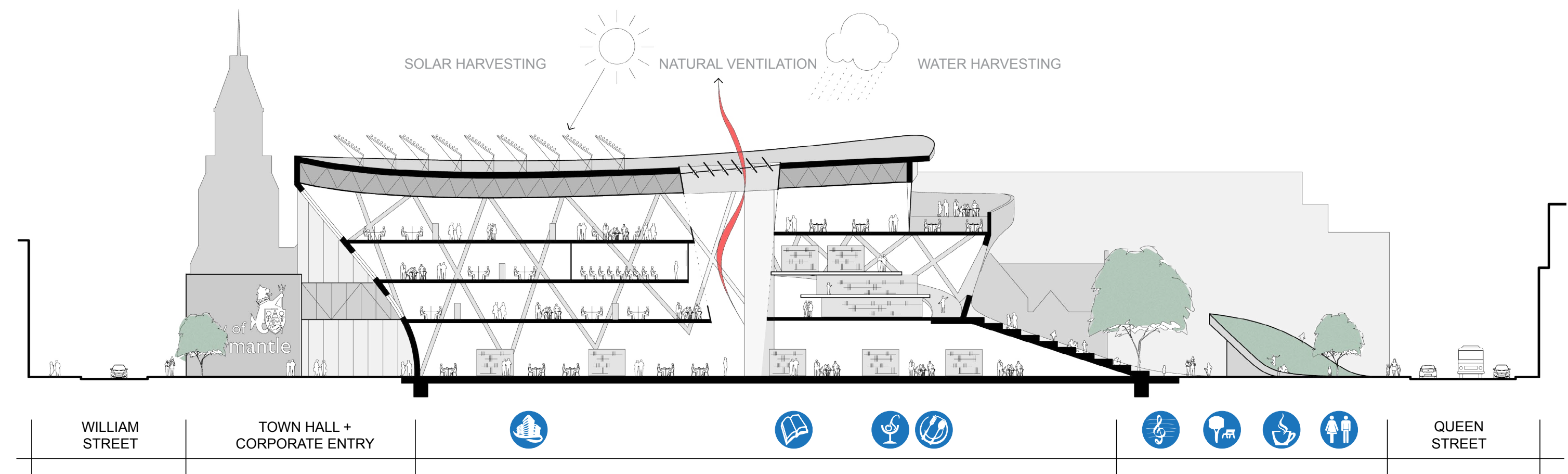
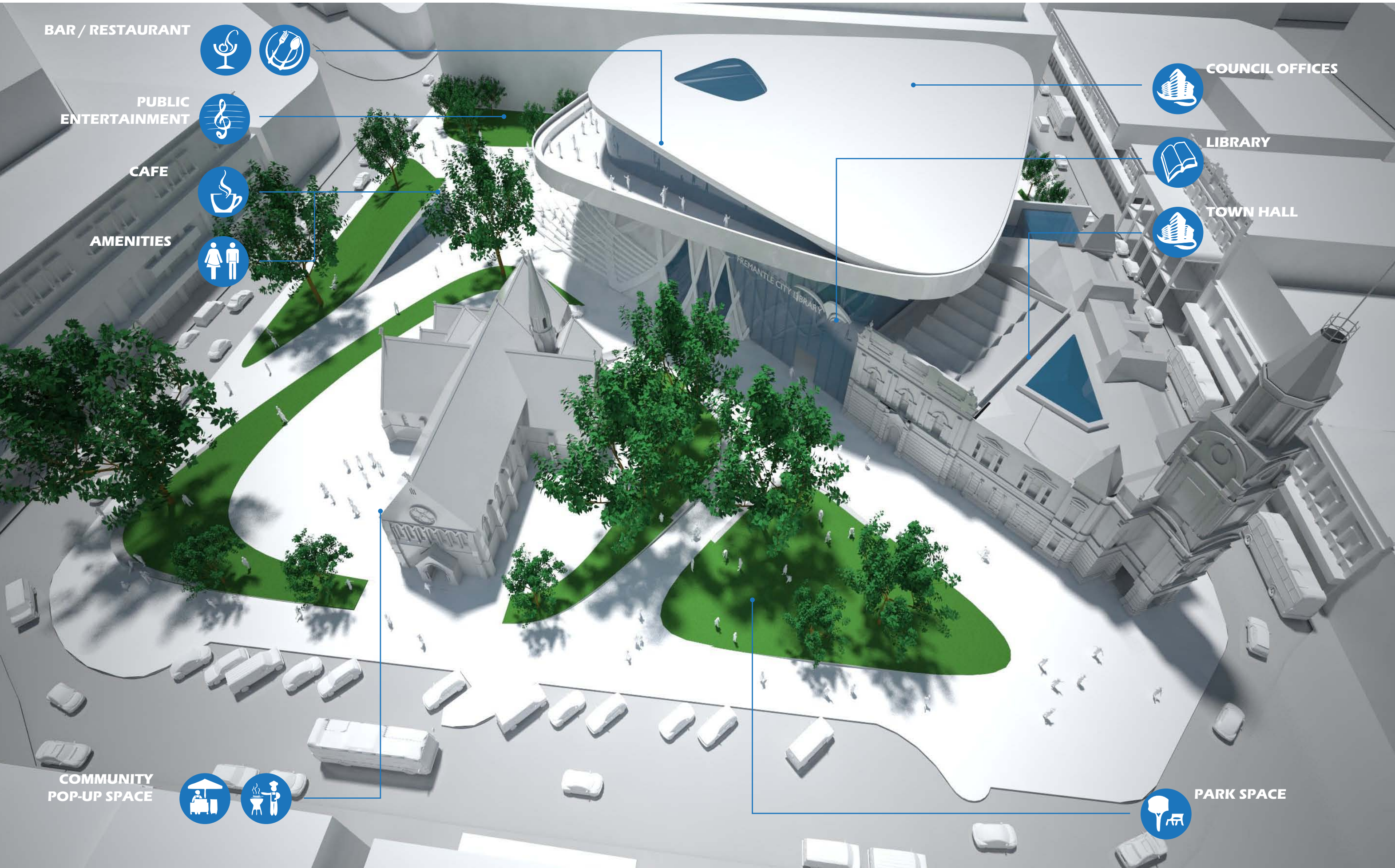
view along Batman Ave.

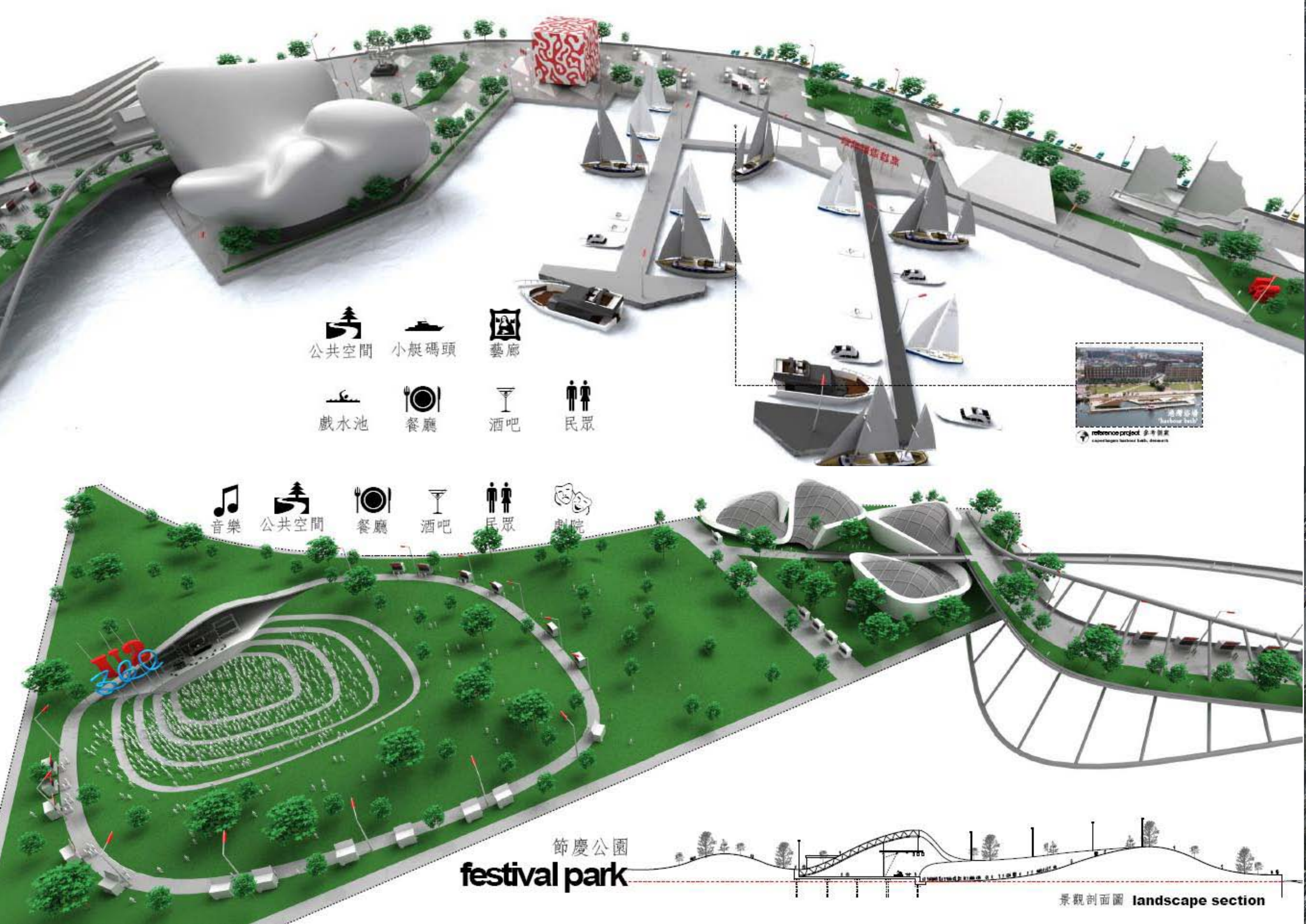
'Finally coming to rest, partly returning to the earth, it reaches skywards towards the city beckoning and helps bridge the void.'



# Kings Square

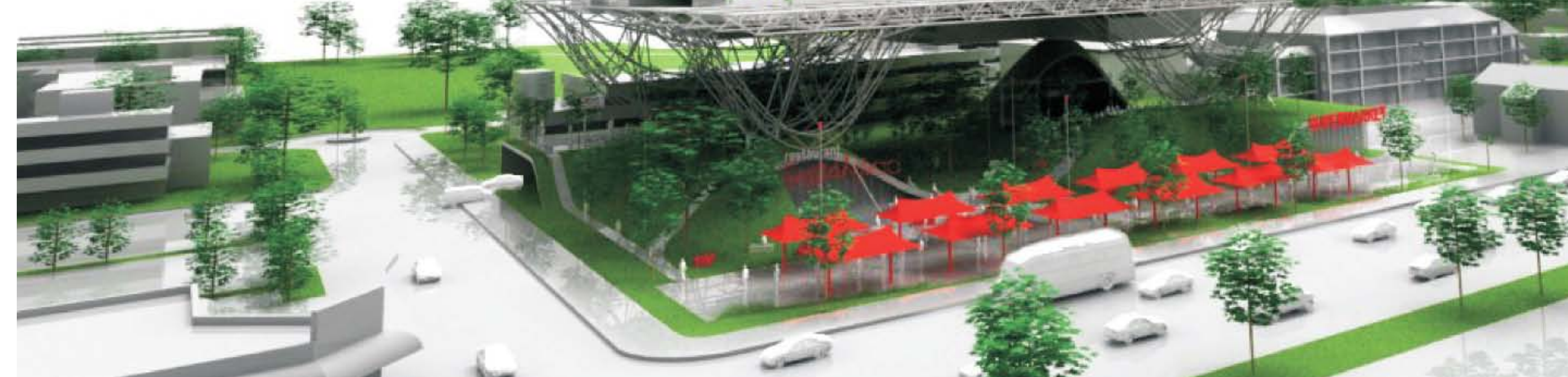
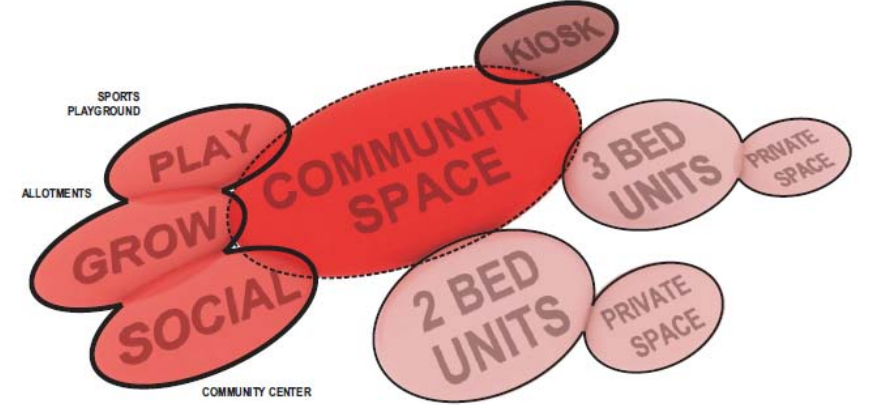
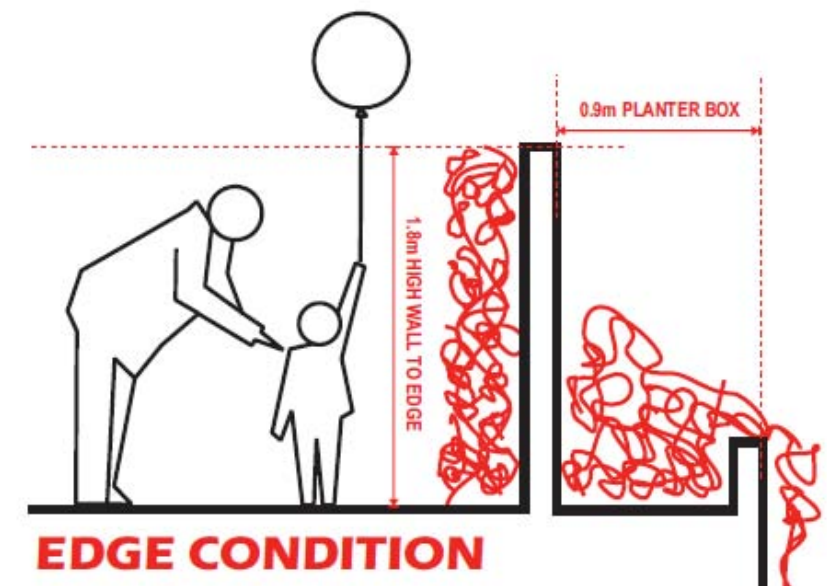
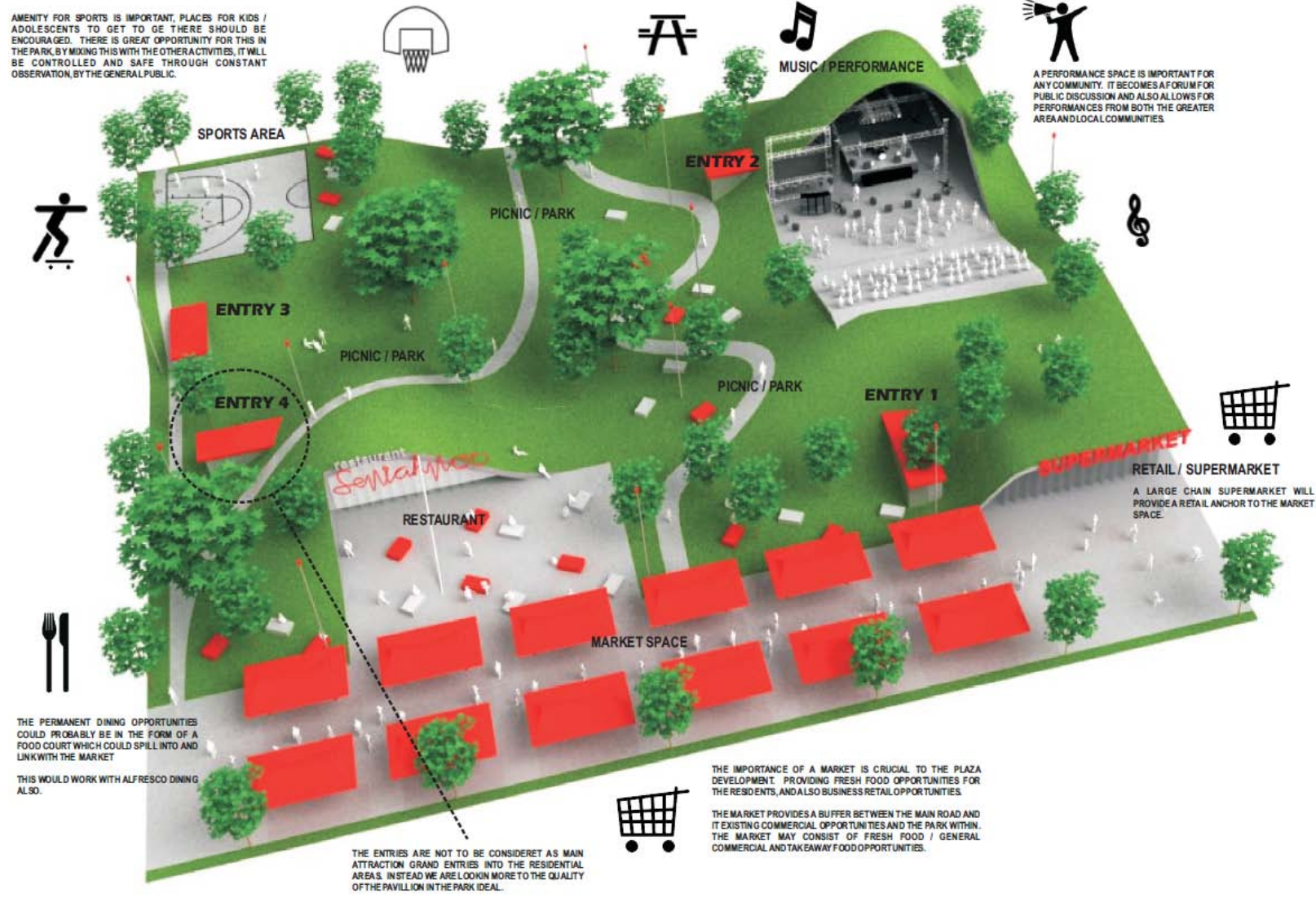
Perth, Australia





# Semiahmoo Masterplan

BC, Canada



### CONTEXT

**LOCATION**

**CLIMATE**

**KEY CONCEPT**

Proposed design moves away from the normal concrete elevated bases on stilts and looks at how we can use local materials such as the bamboo.

PLAN A + RAFT = PLAN B

The raft floating floor was then added as a 'Plan B' to increase the enclosing structure was to be full. The raft is made up of recycled steel drums on the foundation device with bamboo floating over.

**Bamboo withstands strong winds**

On 12 April, a severe tropical storm hit Bangladesh and neighbouring eastern India states. Striking with a maximum 100 mph, the cyclone brought heavy rain. In Bangladesh, 100 million people were affected and 40,000 people died. An estimated 100,000 homes were destroyed and the combined death toll reached 130, with 21 of those deaths being children. There were lucky areas where houses survived the storm and not surprisingly, their houses contained the strong bamboo. The cement used in the case of the bamboo that survived the storm.

**Bamboo is an incredible building material that combines flexibility with amazing tensile strength.** Despite one billion people around the world being bamboo, it is a natural building material that is treated at withstanding natural disasters. While the bamboo houses may bend with the wind, the structure will hold.

Green Earth News, 19 April 2010

**INTERNATIONAL DESIGN COMPETITION CYCLONE SHELTER BANGLADESH**

2

### LOCAL MATERIAL

Bamboo grows very fast in Asia. There are various species of bamboo throughout Bangladesh. As per statistics, there are 200 different types of bamboo in Bangladesh.

**LOW EMBODIED ENERGY**

Bamboo grows very fast and without the need for fertilizers or pesticides. Harvesting does not require any agricultural tools. Bamboo is lightweight and locally available making the embodied energy used in transportation.

**SKILL DEVELOPMENT**

The selected emergency shelter design will be constructed by the locals under the guidance of bamboo experts. The local people will be trained in modern bamboo building which will enhance their existing skills with bamboo.

**EMPOWERMENT**

The local people will gain new knowledge and skills in the process of building a modern bamboo building. These local people can then use their knowledge and skills to train other people and use it to maintain the structure. The design development should involve a series of ownership and empower people to start their own local enterprise.

**MICRO ENTERPRISE**

Bamboo is an excellent natural material. A vital non-fossil fuel alternative resource. With its multiple uses, there is great potential for local enterprises to thrive once sustainable integrated farming systems are introduced. Low cost technology requirement, low start-up equipment and low overhead costs are opportunities for people to generate jobs for themselves. (Organ, MP 1996)

**RENEWABLE RESOURCE**

Bamboo is a highly renewable resource. It is one of the fastest growing plants on earth. Various culms can be continually harvested after 3-5 years without the need to replant after harvesting. This produces a steady harvest and provides a sustainable supply of the material.

**WHY BAMBOO?**

**SUSTAINABLE**

Bamboo is a tall grass and one of the fastest growing plants on earth. It has one of the highest rates of carbon sequestration. Every year of bamboo has a use - either for building, making cane for housing and products.

**STRUCTURALLY STRONG**

Bamboo is one of the strongest natural building materials. With a tensile strength superior to steel and compressive strength stronger than concrete, it is a natural alternative to steel and concrete resources on earth.

**EMPLOYMENT**

Displaced workers of bamboo in Bangladesh.

**INTERNATIONAL DESIGN COMPETITION CYCLONE SHELTER BANGLADESH**

2

### DESIGN PRINCIPLES

**LANDSCAPING FOR WIND PROTECTION**

Landscaping used on the windward side to provide protection from the high cyclone winds. Bamboo can be used as an effective wind break.

**SECURED ROOFING SHEET**

Roofing sheet will be secured with the bamboo rafters using a double pronging a 100 kg connection without having to drill holes into bamboo.

**ROOF PITCH = 30°**

A pitched roof with an angle of 30° is used to minimize lifting of the roof during strong cyclone winds.

**SMALL OVERHANGS & COLLAPSIBLE AWNING**

Small overhangs are used to minimize the risk of the roof collapsing and being lifted. Collapsible awnings that can be raised during cyclone event are used to provide weather protection and also to prevent bamboo from natural enemies.

**RAISED STRUCTURE**

Structure is raised on stilts with a waterproof ground floor in case of being floating water.

**RAFT FLOATING FLOOR**

Recycled drums used in the floor to create a floating floor that will automatically float along when the water flooding reaches the 100 Star level.

**CURVED BOATING EDGE**

Curve edge similar to the shape of a boat hull is used to minimize the impact of the first waves on the First Floor of the structure.

**RECTANGULAR PLAN**

Rectangular plan is used to minimize the risk of the building being lifted. If the building is rectangular it should be wider than it is tall. The width should be more than 3 times the height.

**RAISED PLATFORM**

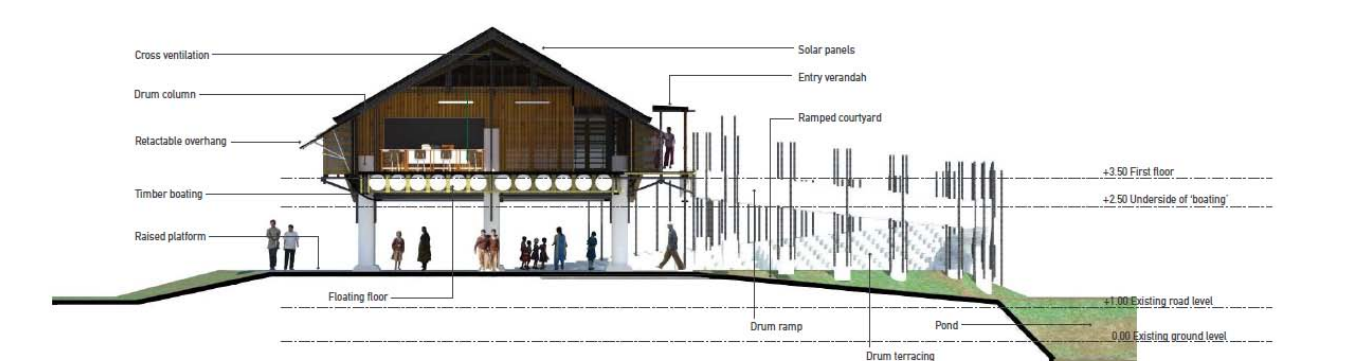
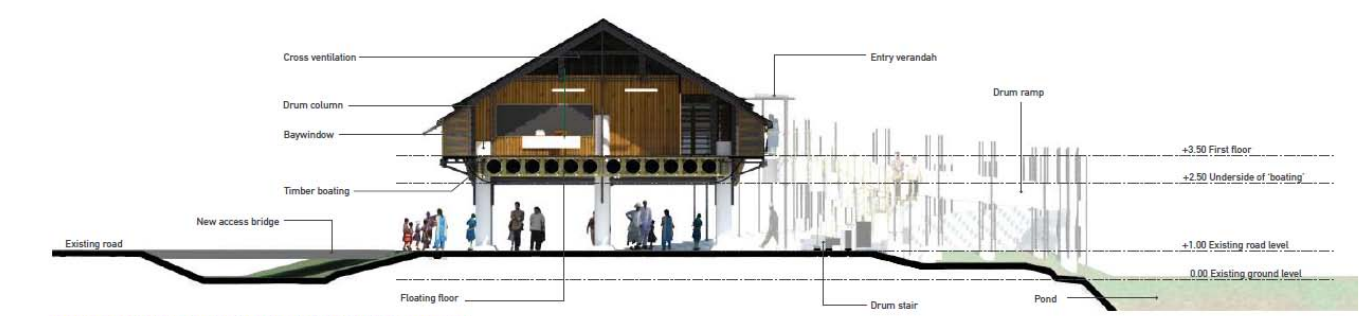
Structure is raised on stilts with a waterproof ground floor in case of being floating water.

**INTERNATIONAL DESIGN COMPETITION CYCLONE SHELTER BANGLADESH**

3

# Cyclone Shelter

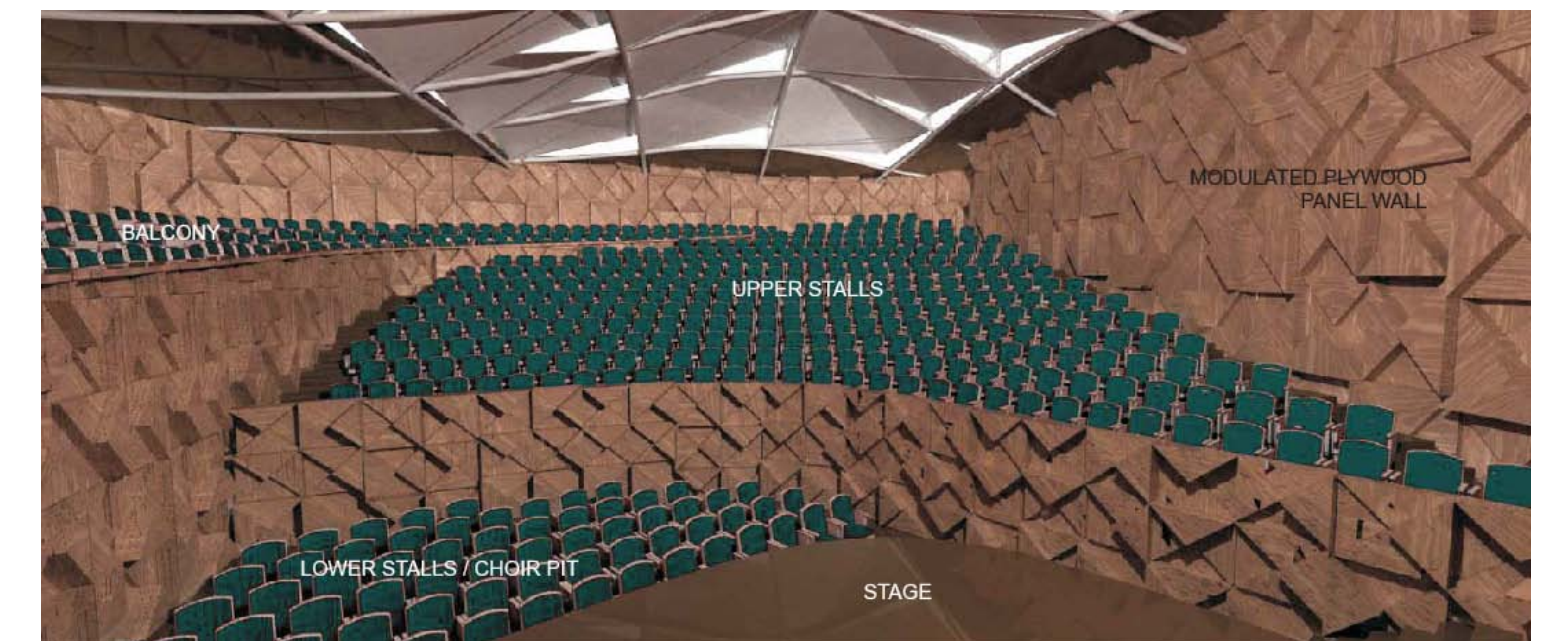
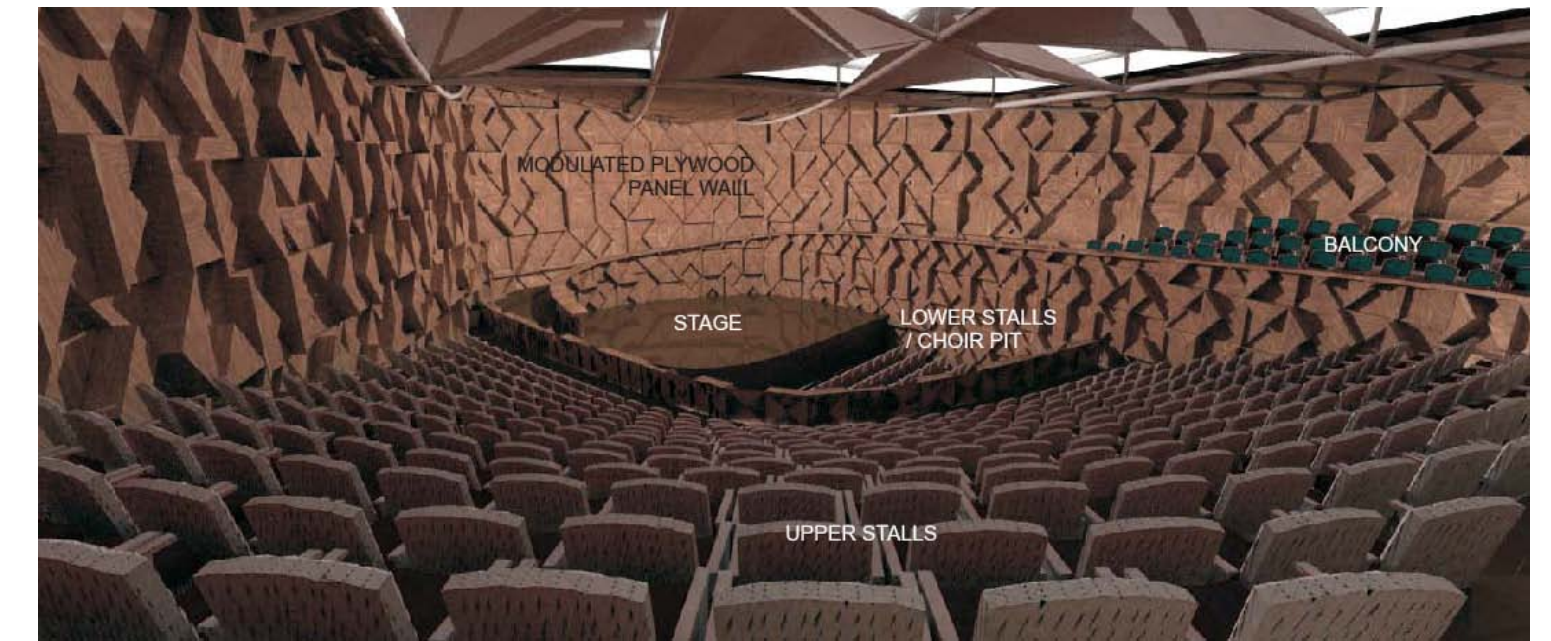
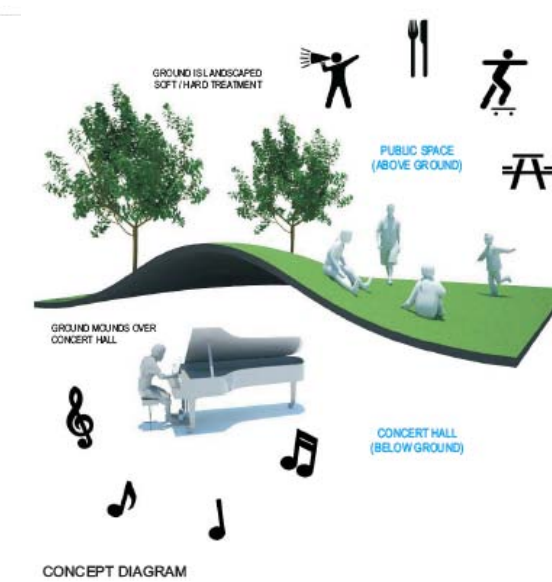
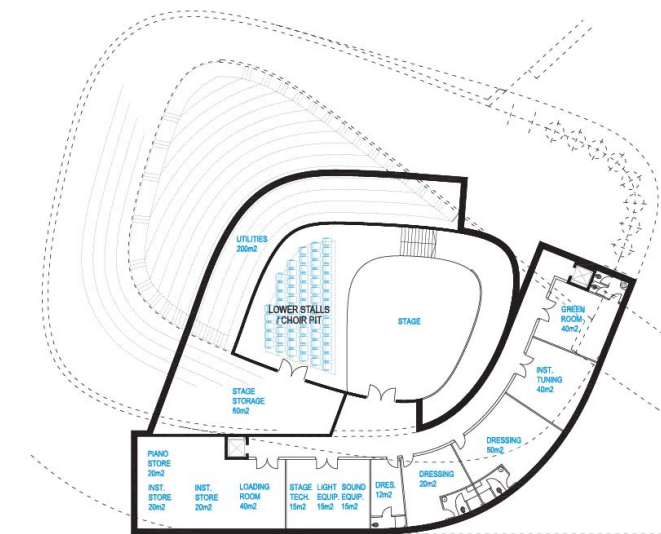
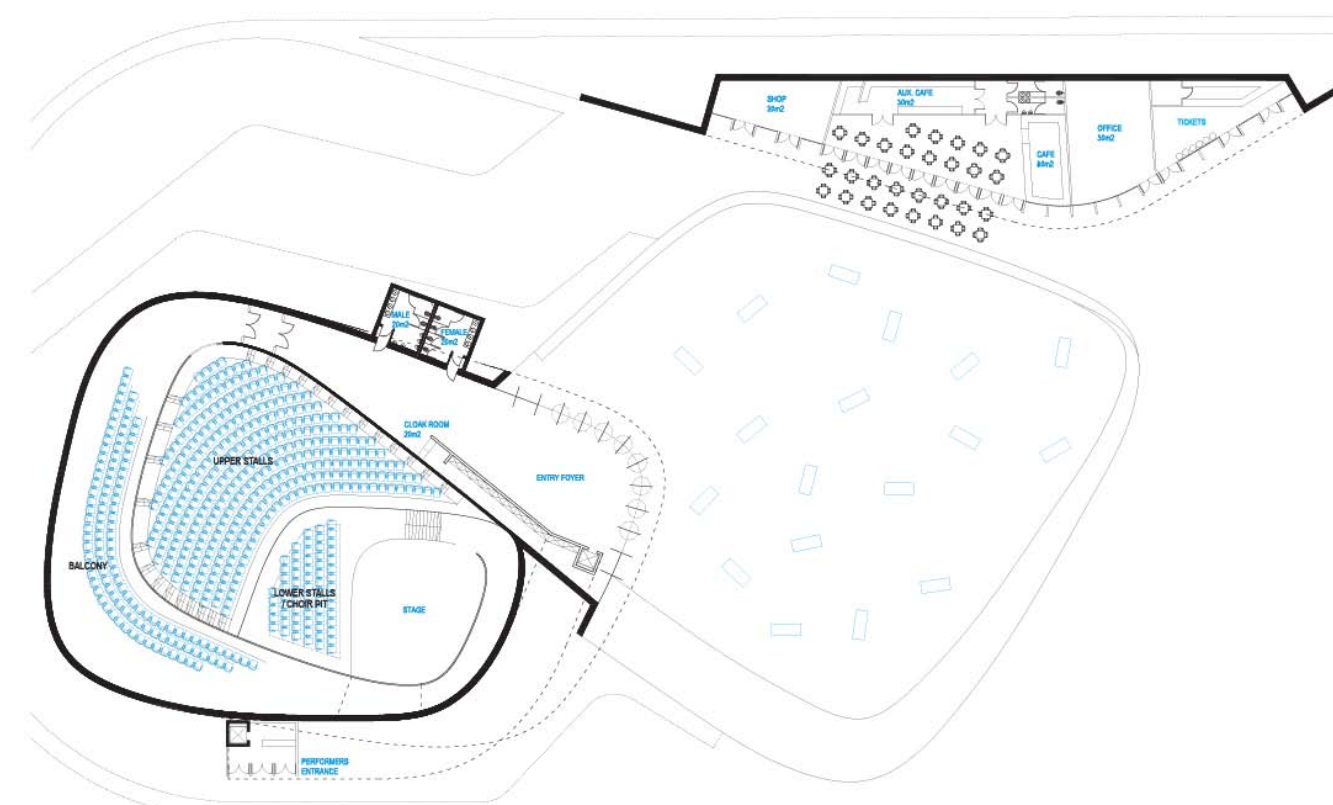
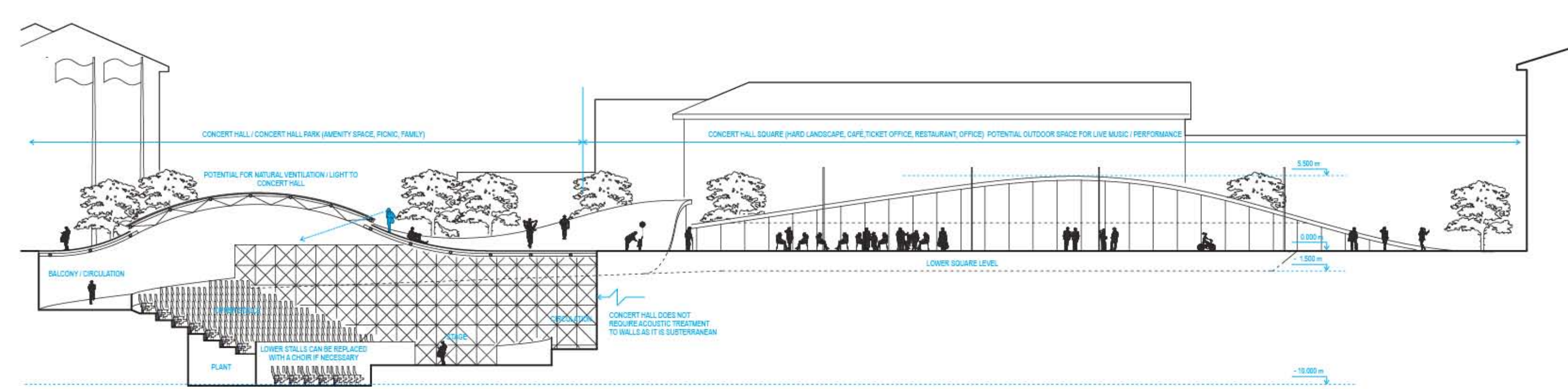
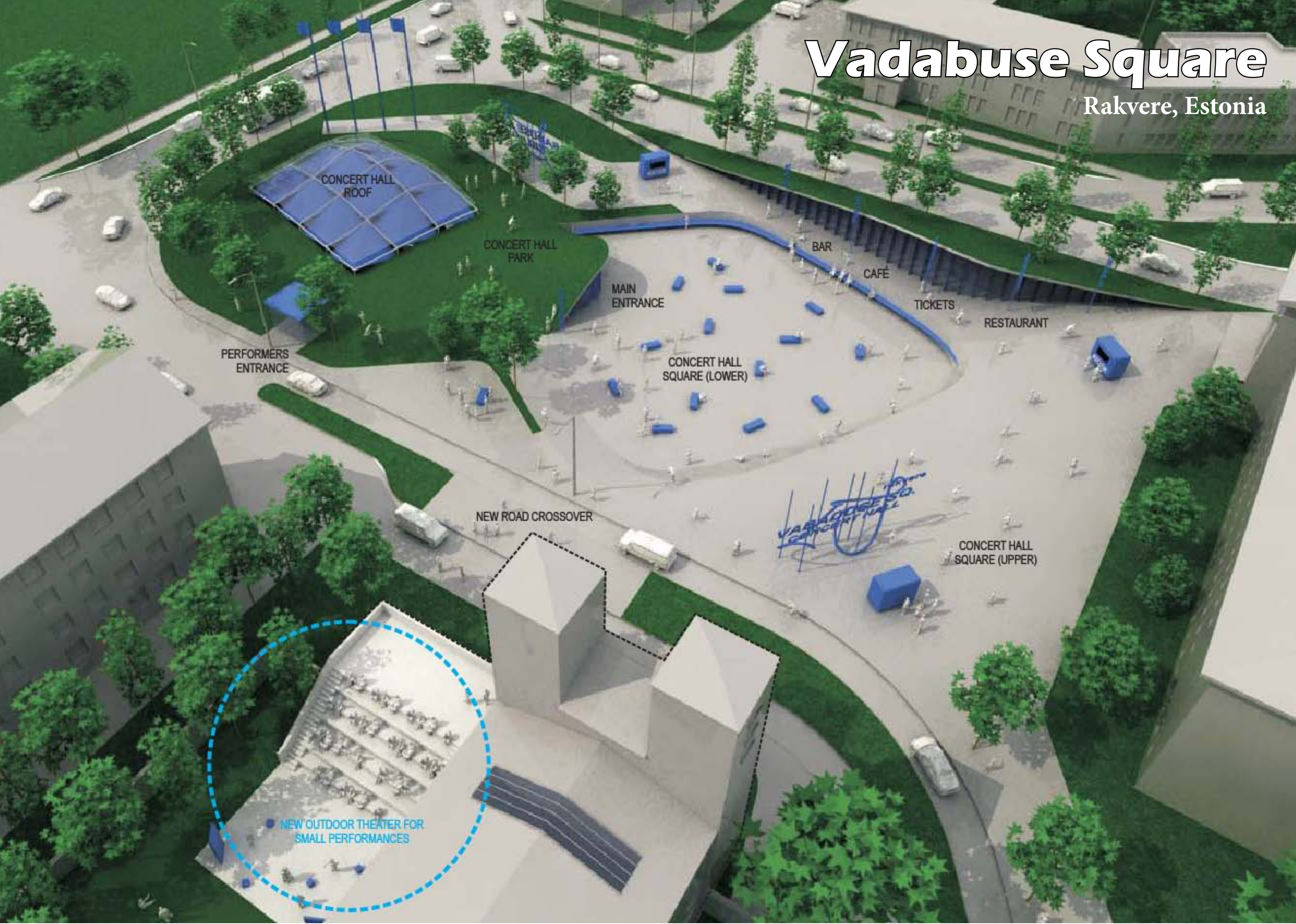
## Bangladesh





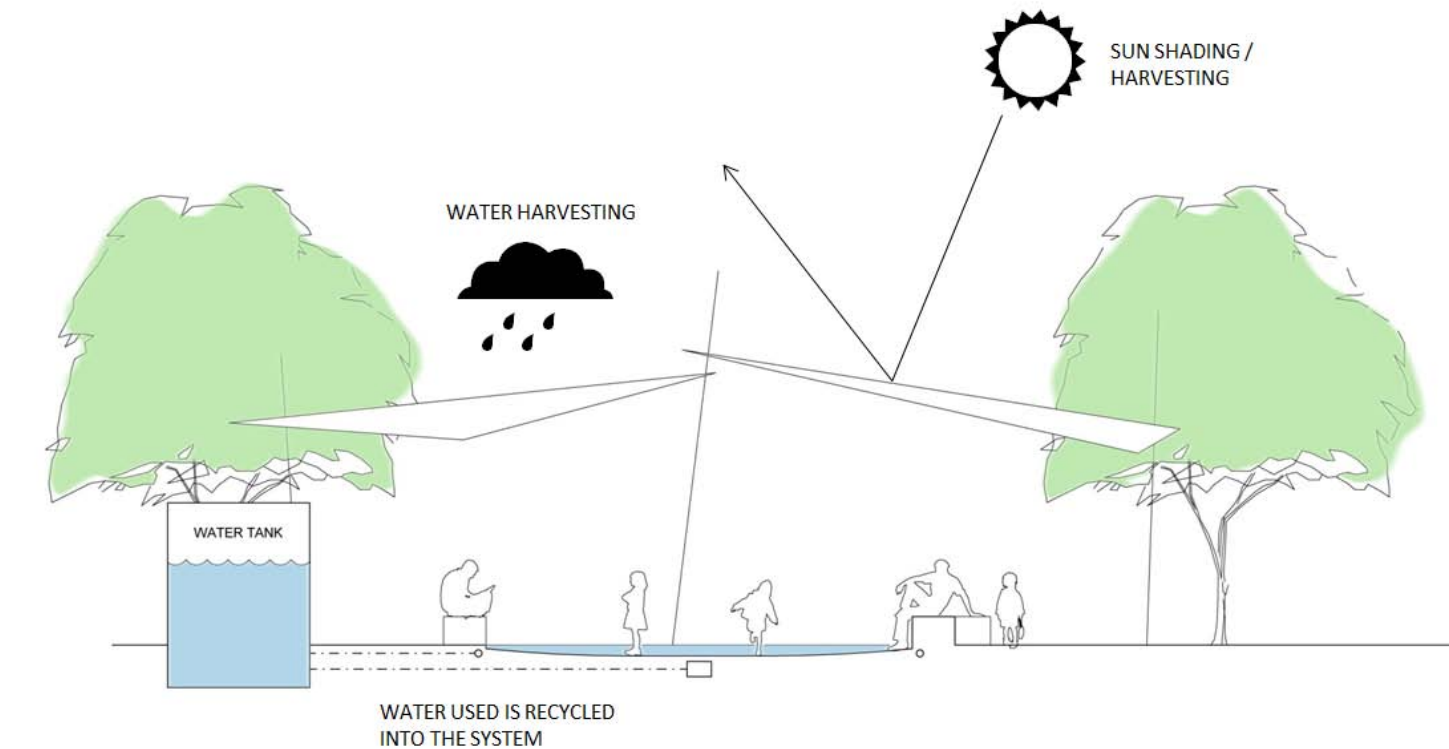
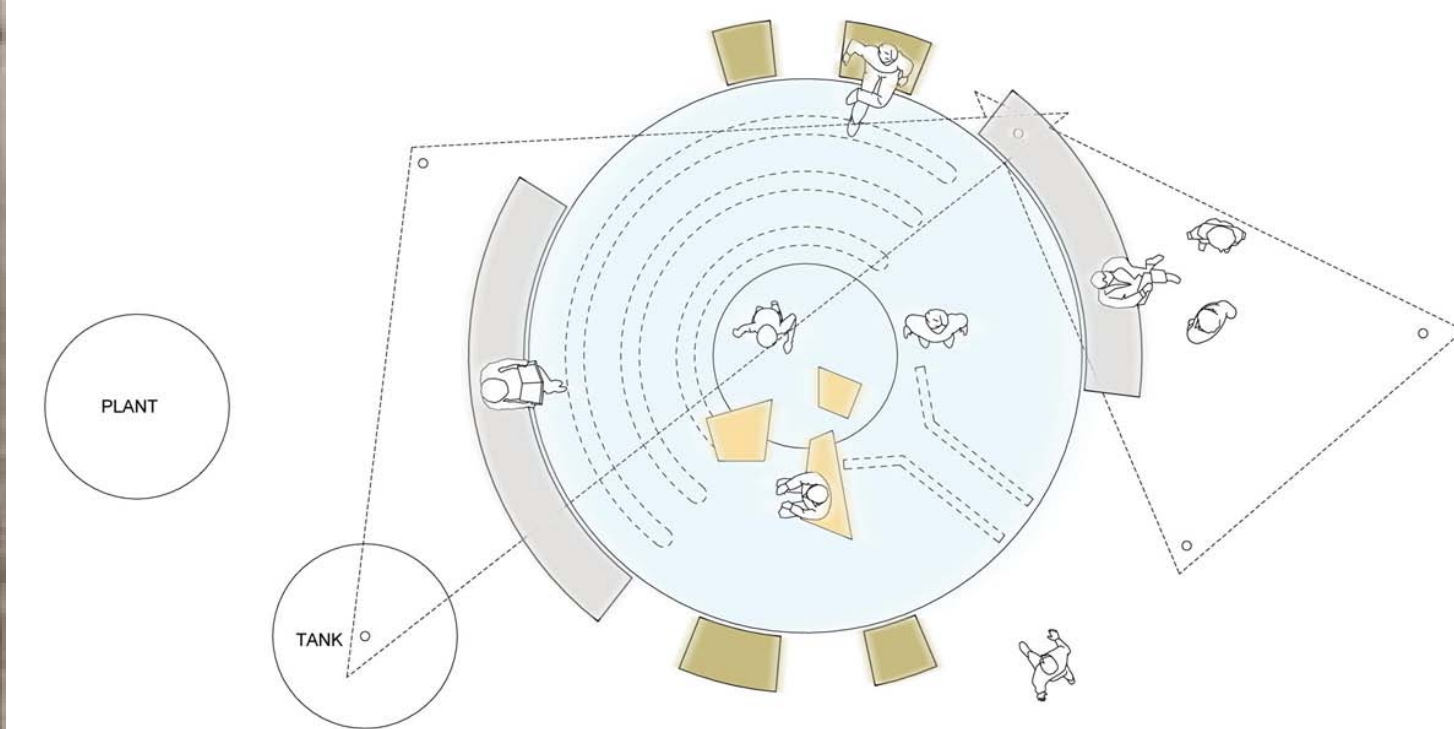
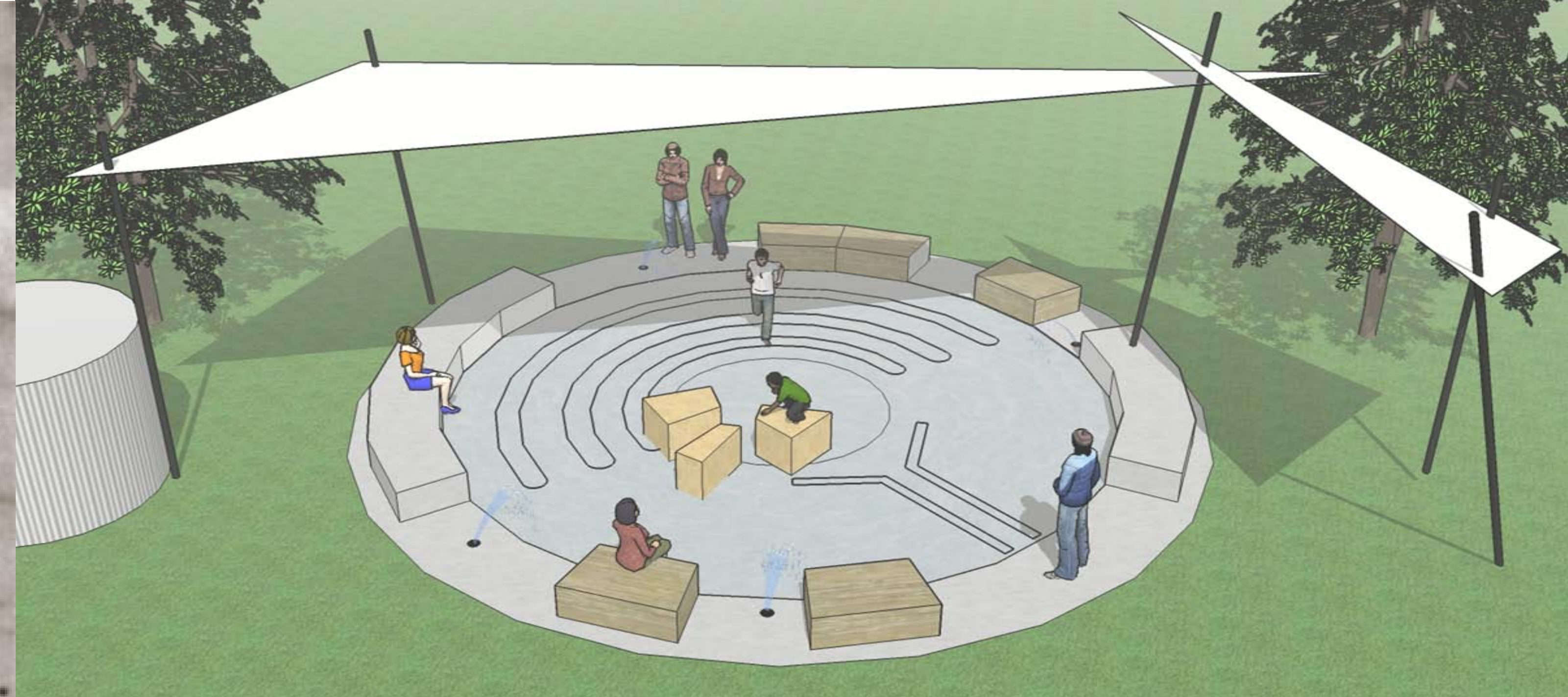
# Vadabuse Square

Rakvere, Estonia



# Ballarat Aqua Park

Ballarat, VIC, Australia



# Banule Childrens Hub

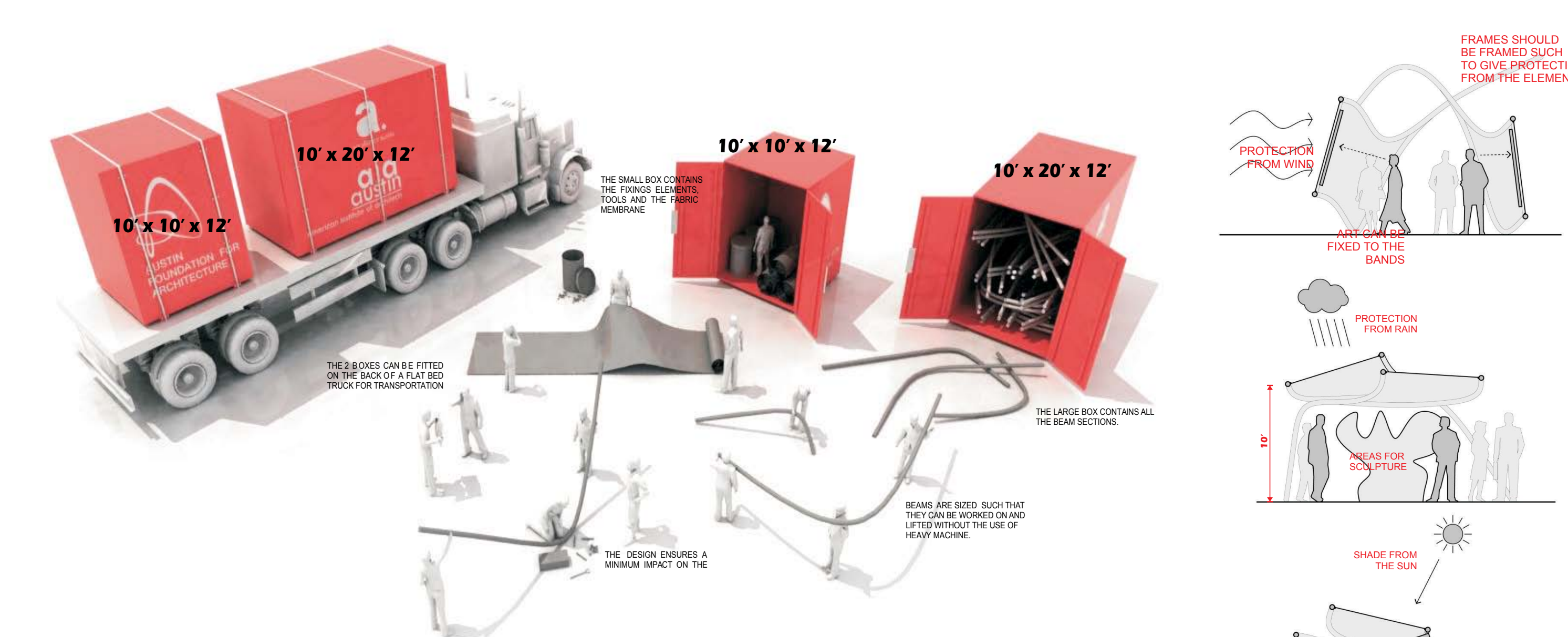
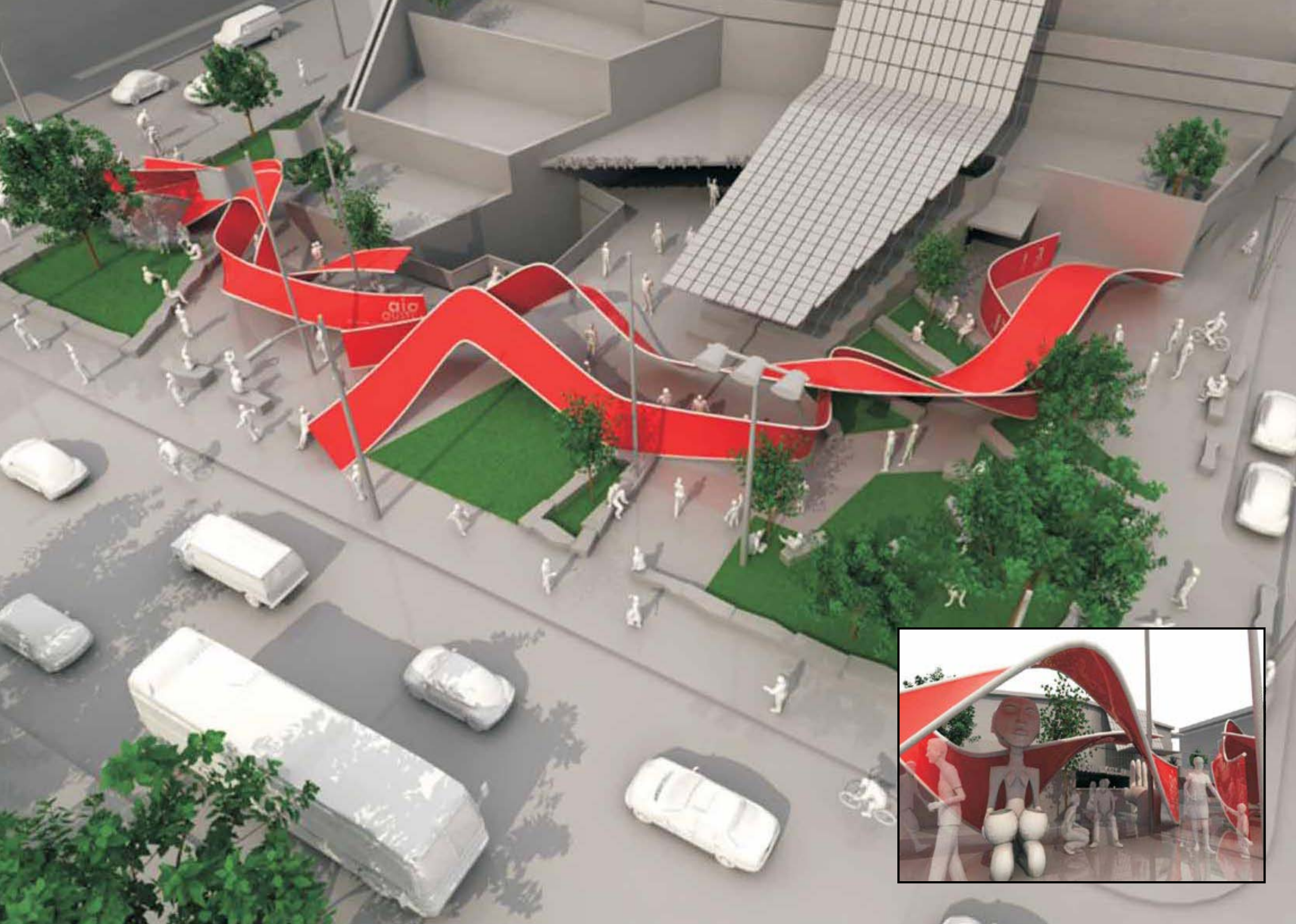
Banule, VIC, Australia



# Venus Bay House

Venus Bay, VIC, Australia





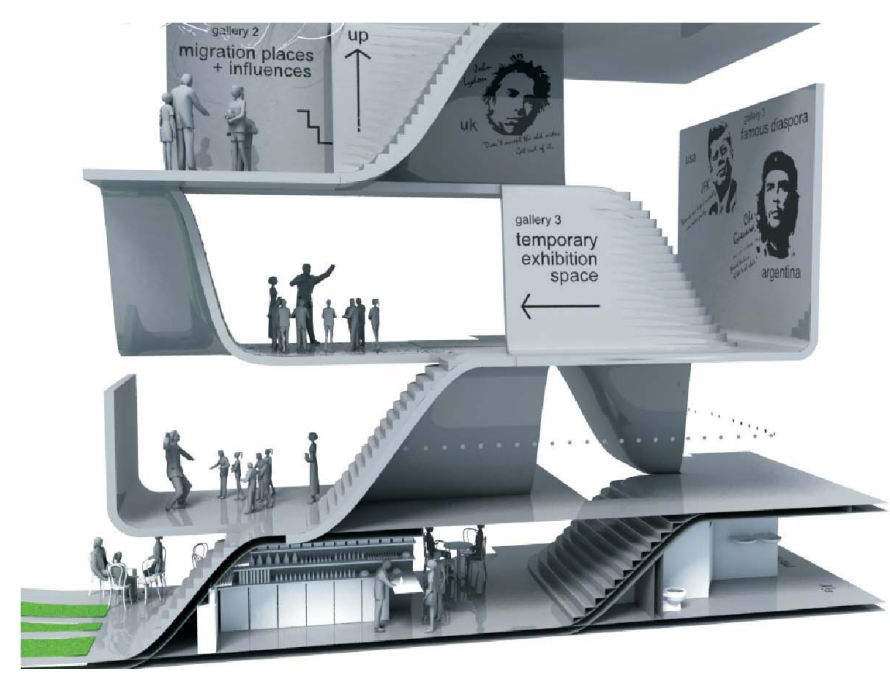
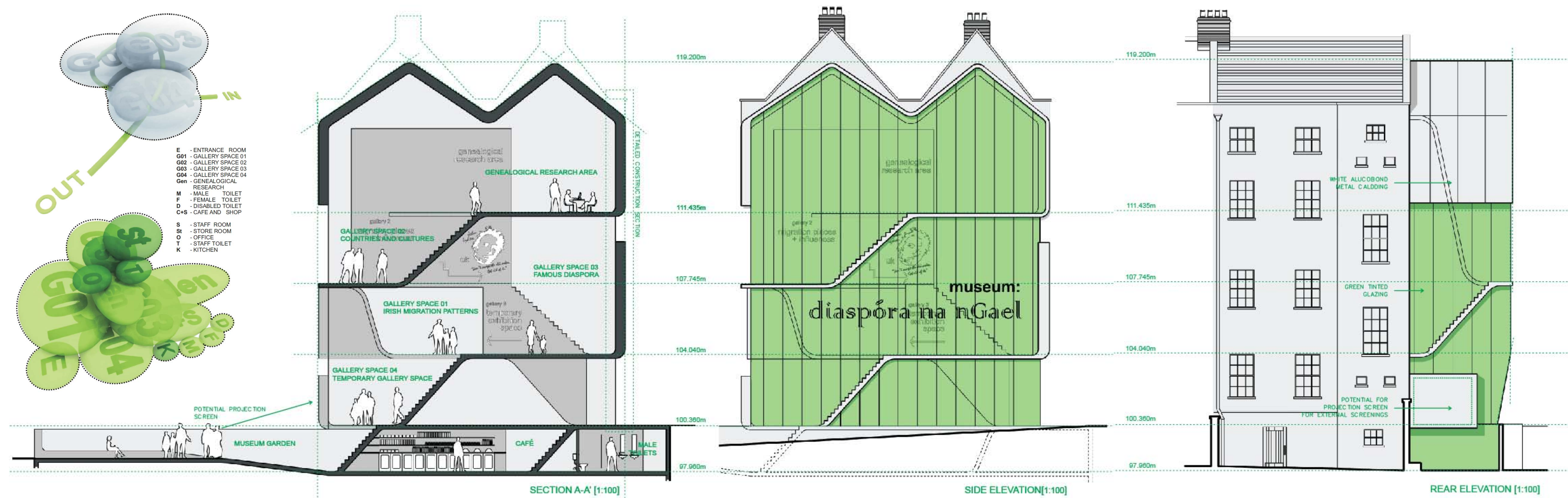
# TOGS 2 - Outdoor Exhibition

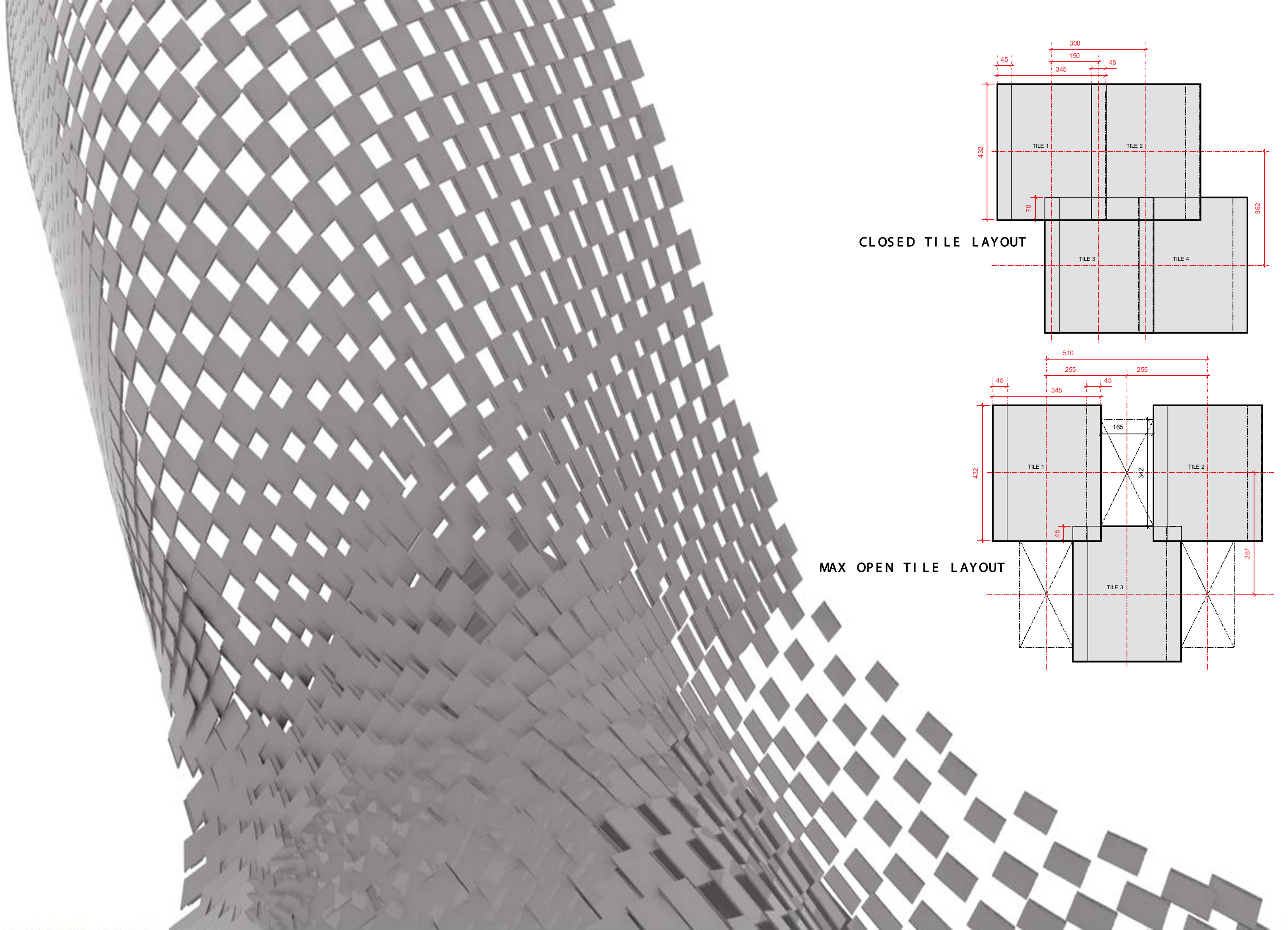
Texas, USA



# 16 Henrietta Street

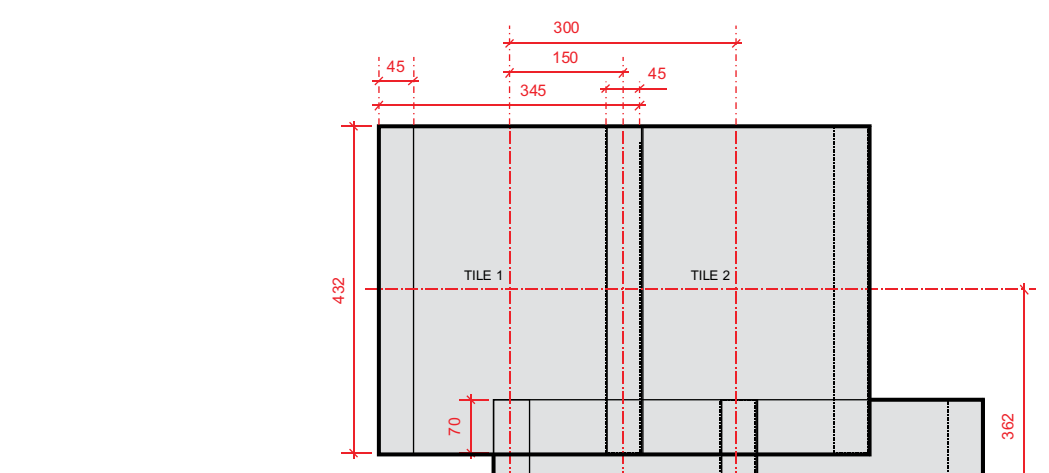
Dublin, Ireland



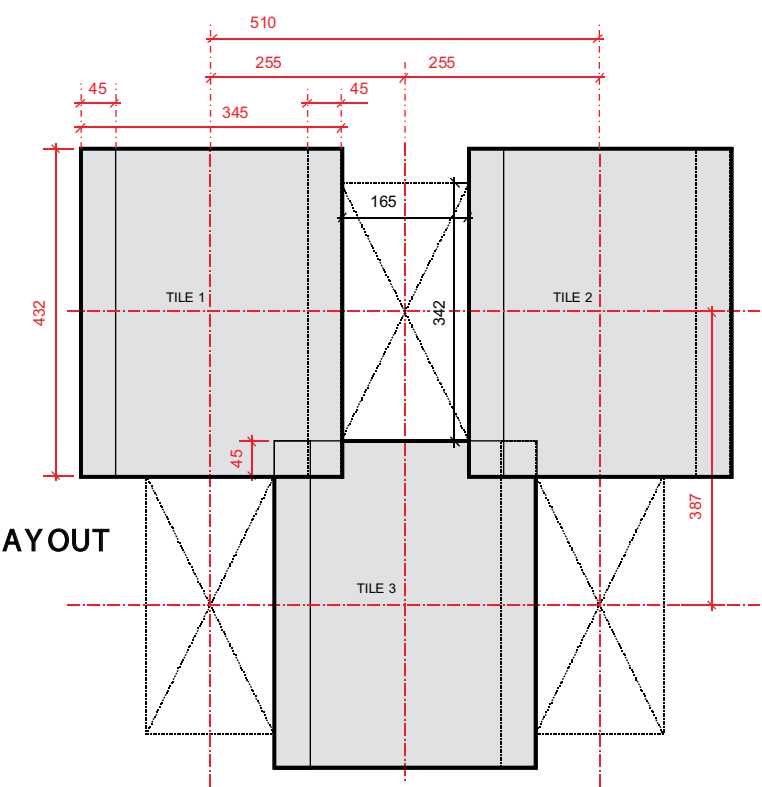


# Uno House

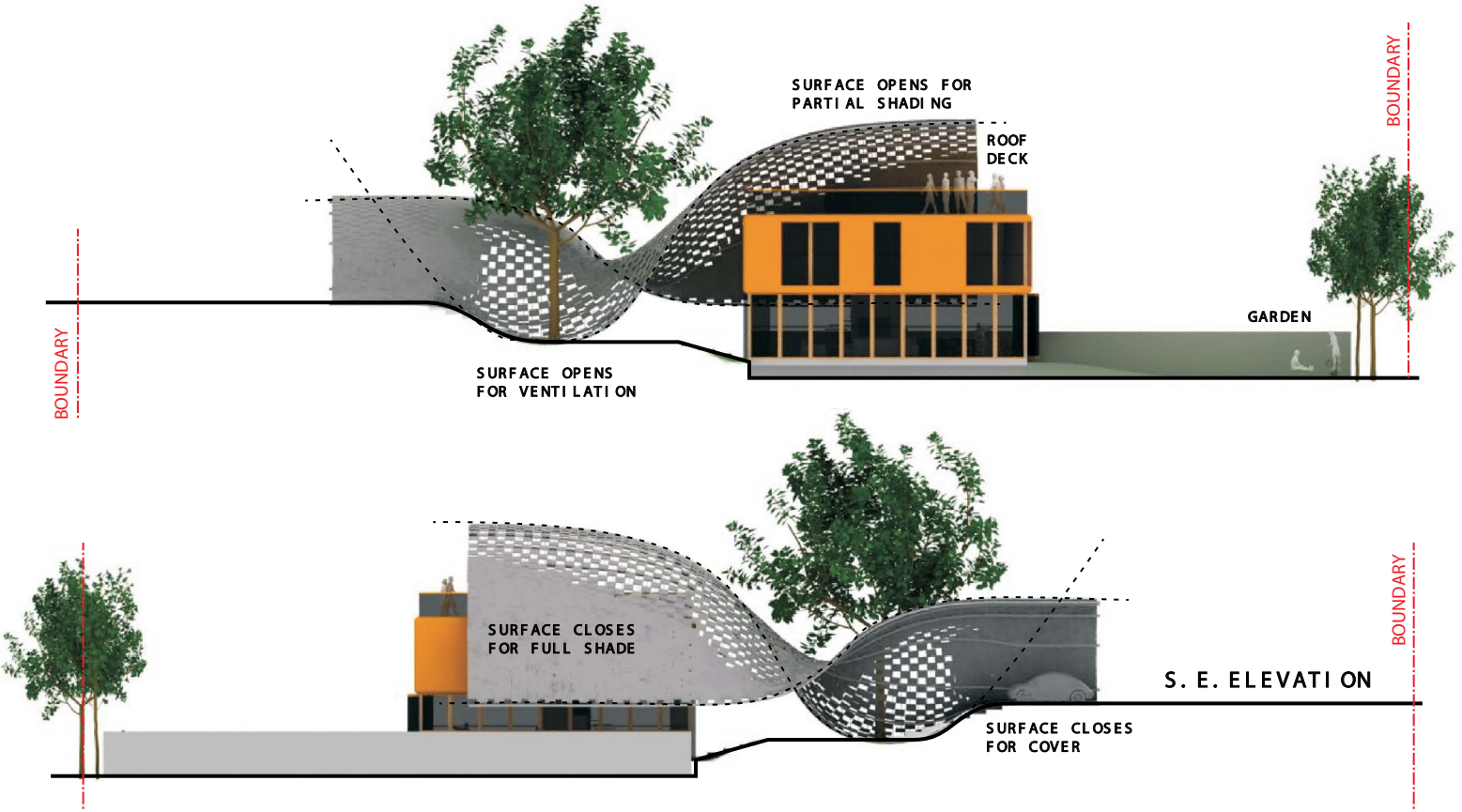
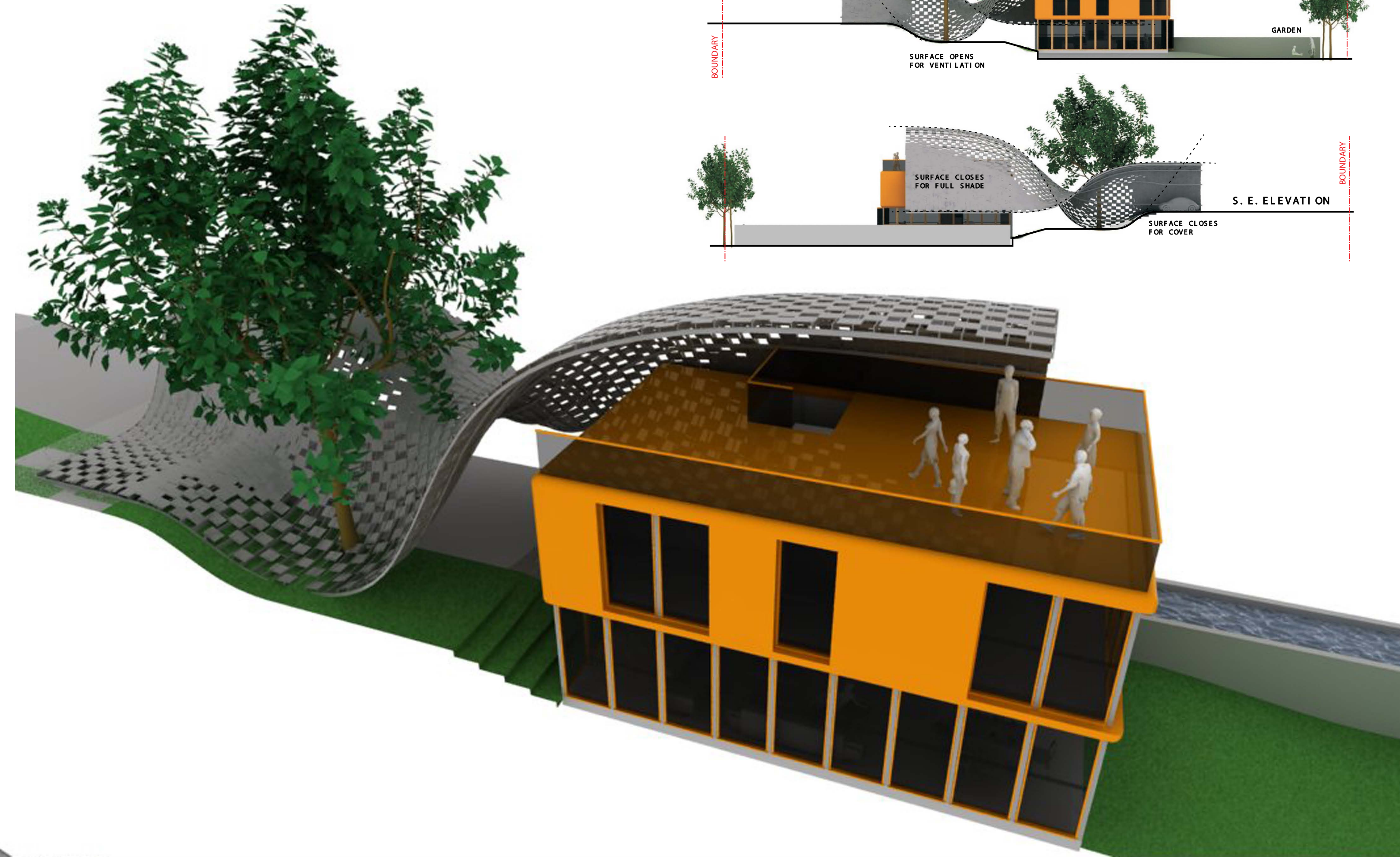
Victoria, Melbourne



CLOSED TILE LAYOUT



MAX OPEN TILE LAYOUT



if



=



then



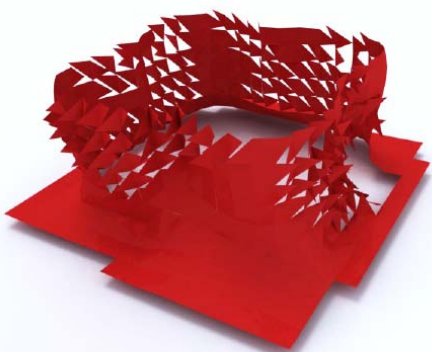
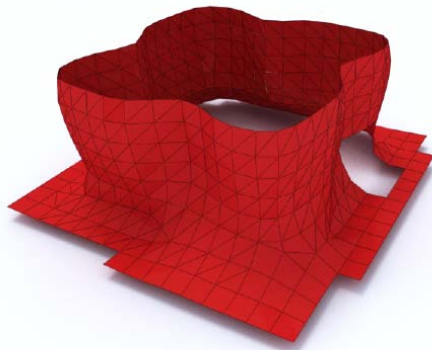
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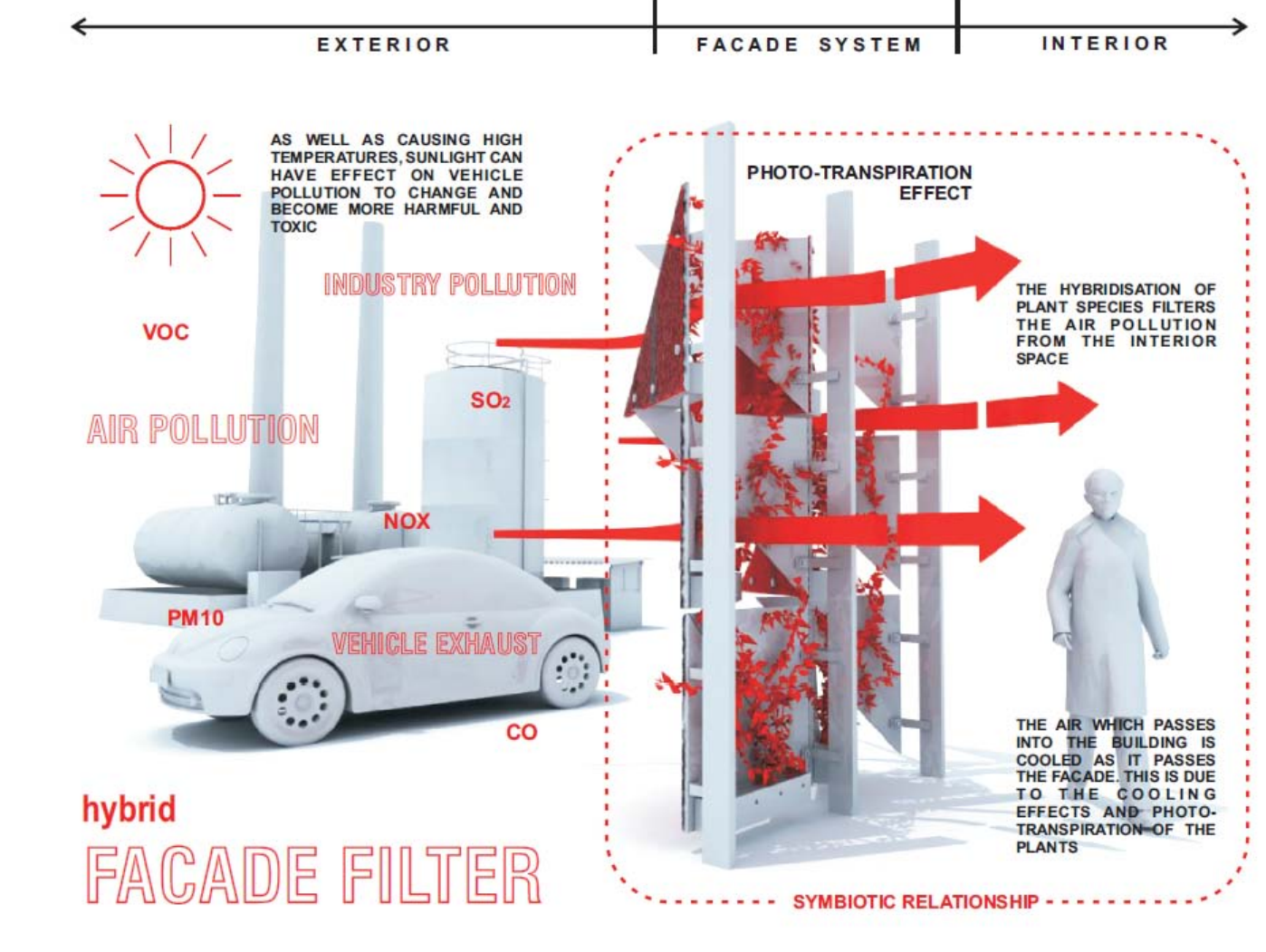
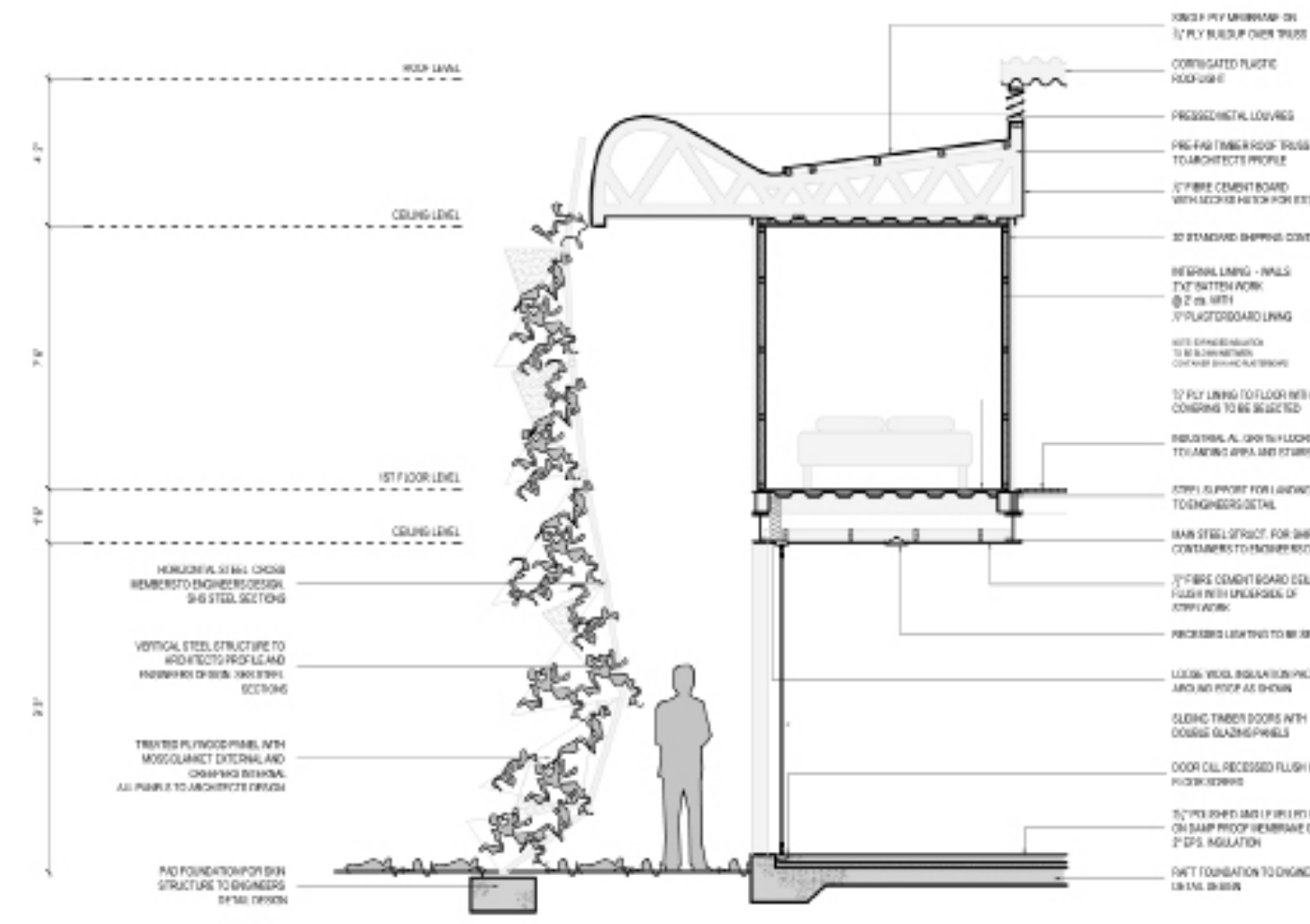
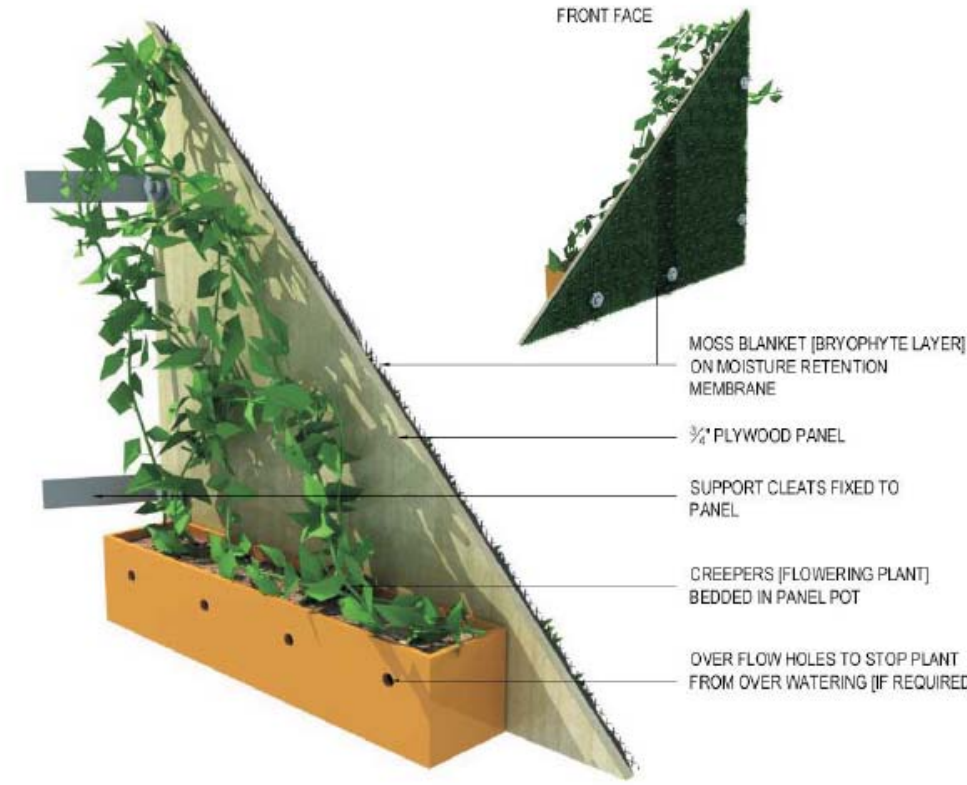


rethinking AMENITY SPACE



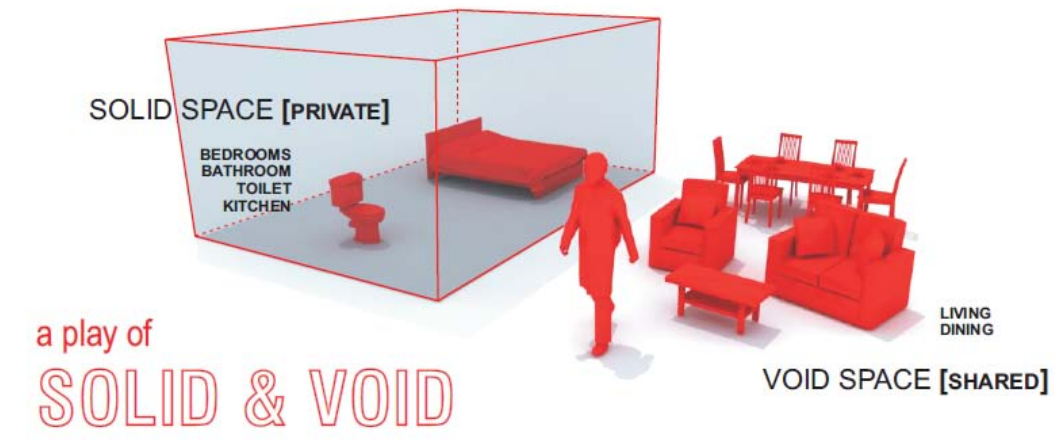
# 99k House

Texas, USA



- a house for **\$99,000 US**
- PRIMARY STRUCTURE**: APPROX \$4,150
- CONTAINERS**: \$1300 CONTAINER + \$5500 FT OUT EACH ALL UP AND DOWN \$33,000
- STAIRS & LANDING**: APPROX \$7,400
- SERVICES**: APPROX \$18,960
- SECONDARY STRUCTURE**: APPROX \$12,560
- ROOF**: APPROX \$1,830
- EXTERNAL SKIN**: APPROX \$10,790





# Bronx Grand Concourse

New York, USA

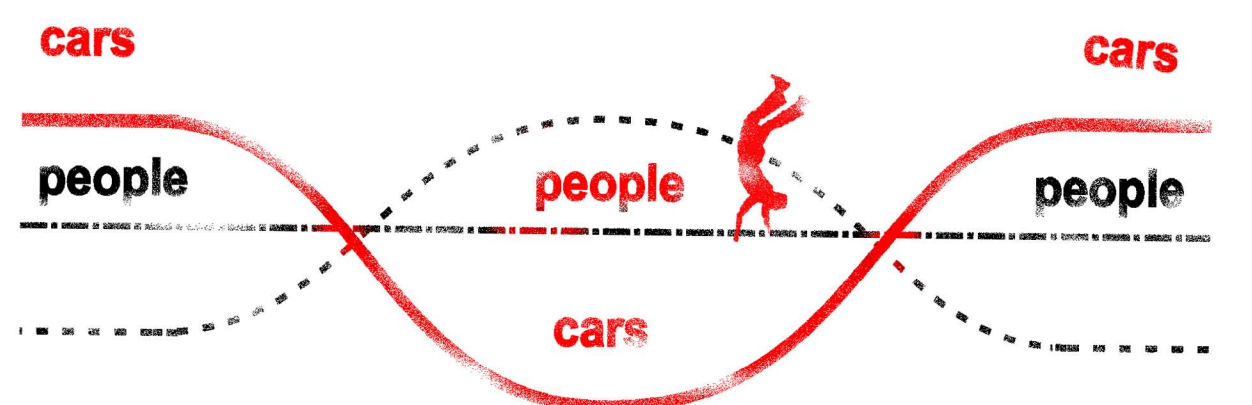
CONCEPT ANALYSIS



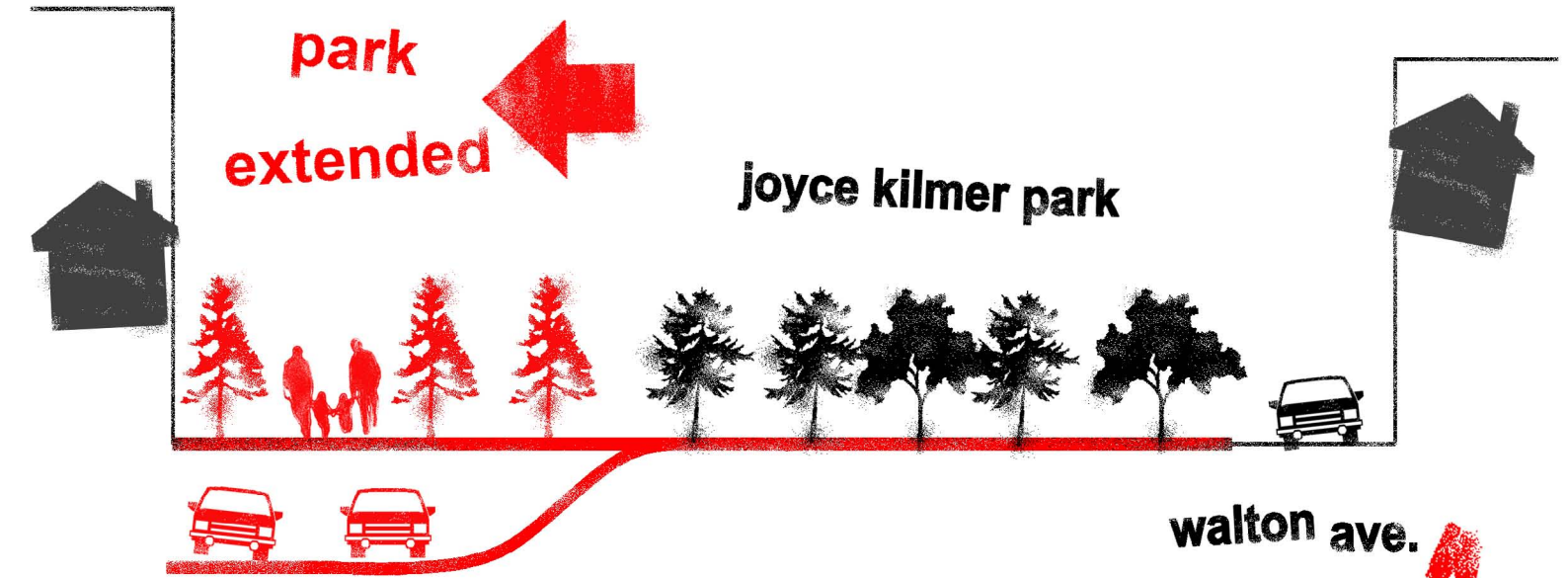
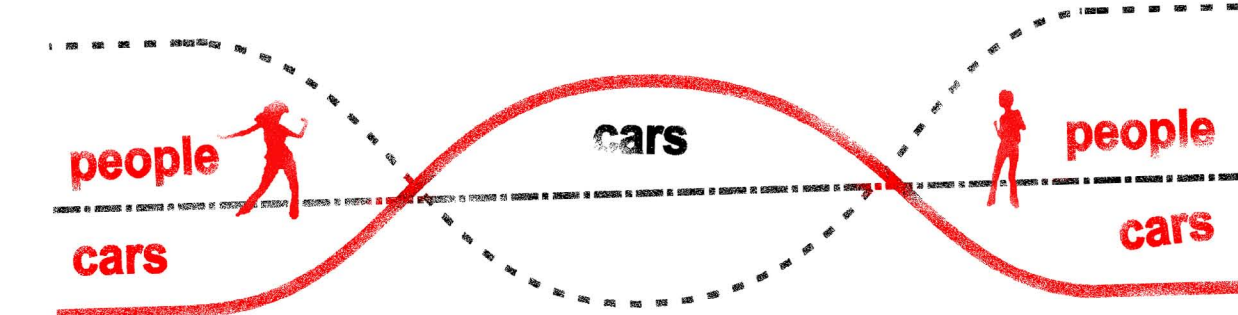
E 163rd

E 162nd

LONG SECTION



PROGRAM ANALYSIS



grand concourse  
CROSS SECTION



PROPOSED  
CONCOURSE PLAN

<p>208</p> <p>skate park</p> <p>Subway</p> <p>01 John mullayly</p>	<p>500</p> <p>science park</p> <p>Hostos Community Center</p> <p>02 hostos</p>	<p>750</p> <p>residential park</p> <p>franz siegel park</p> <p>03</p>	<p>850</p> <p>music park open air theatre</p> <p>04</p>
<p>1100</p> <p>art park</p> <p>BRONX MUSEUM</p> <p>05</p>	<p>1500</p> <p>kids park</p> <p>clairmont park</p> <p>06</p>	<p>1650</p> <p>water park</p> <p>07</p>	<p>1900</p> <p>floral park</p> <p>08</p>
<p>2150</p> <p>sport park</p> <p>09</p>	<p>260</p> <p>residential park</p> <p>10 poe park</p>	<p>3000</p> <p>floral park</p> <p>11</p>	<p>3300</p> <p>nude park</p> <p>rise street garden</p> <p>gun hill parkway</p> <p>12</p>

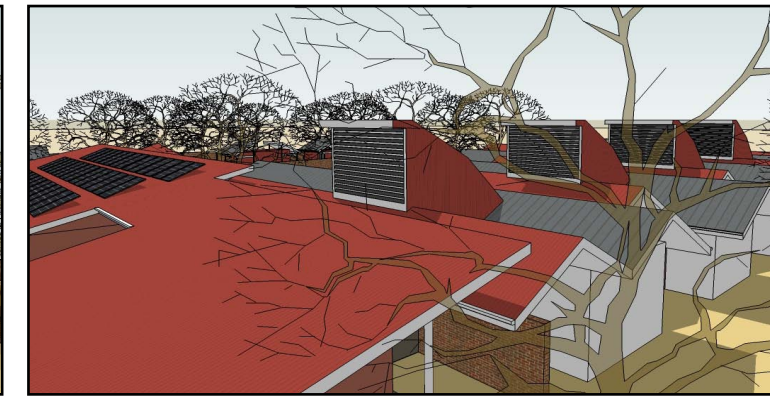


panel 2



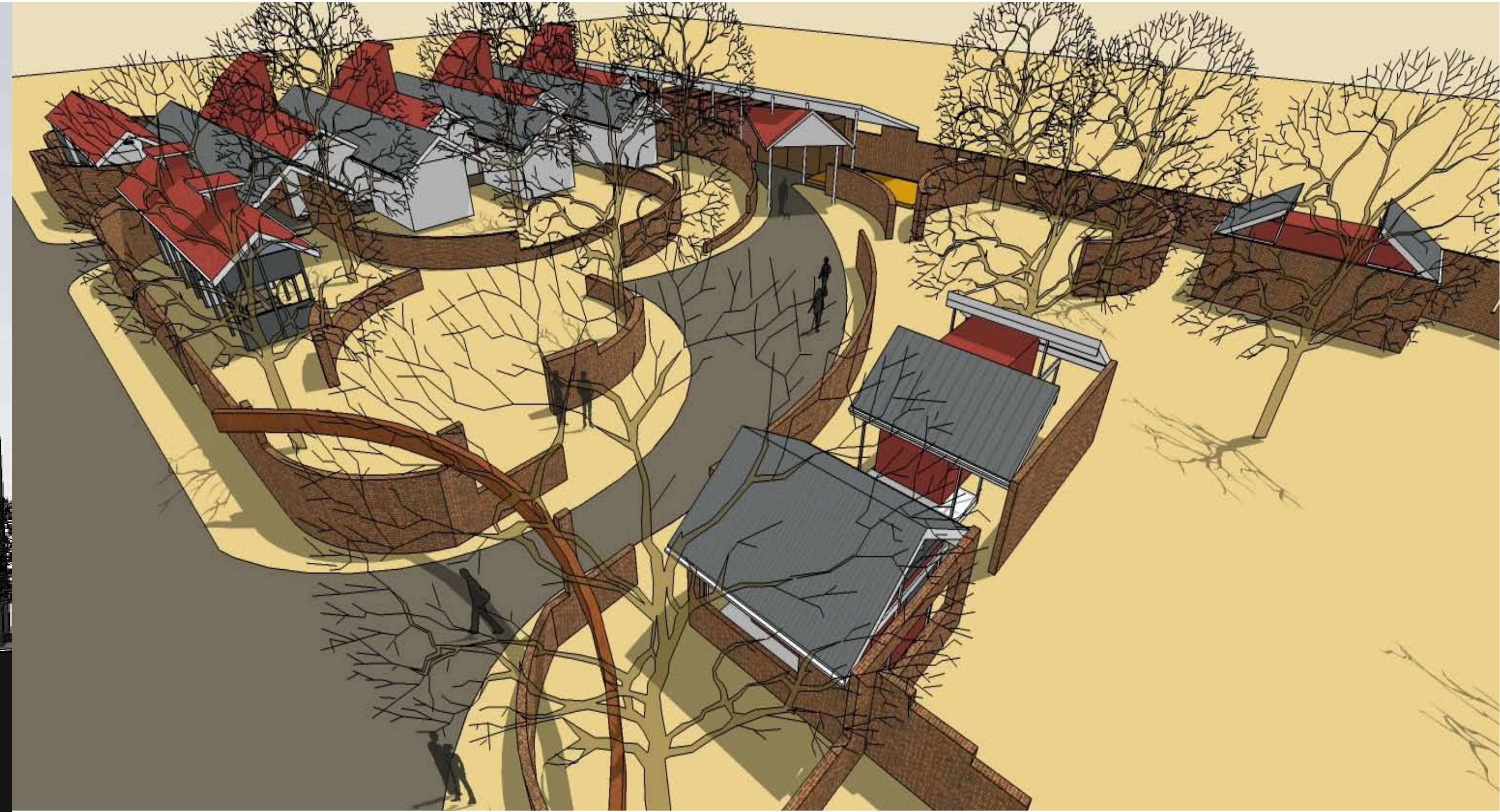
# Benneton

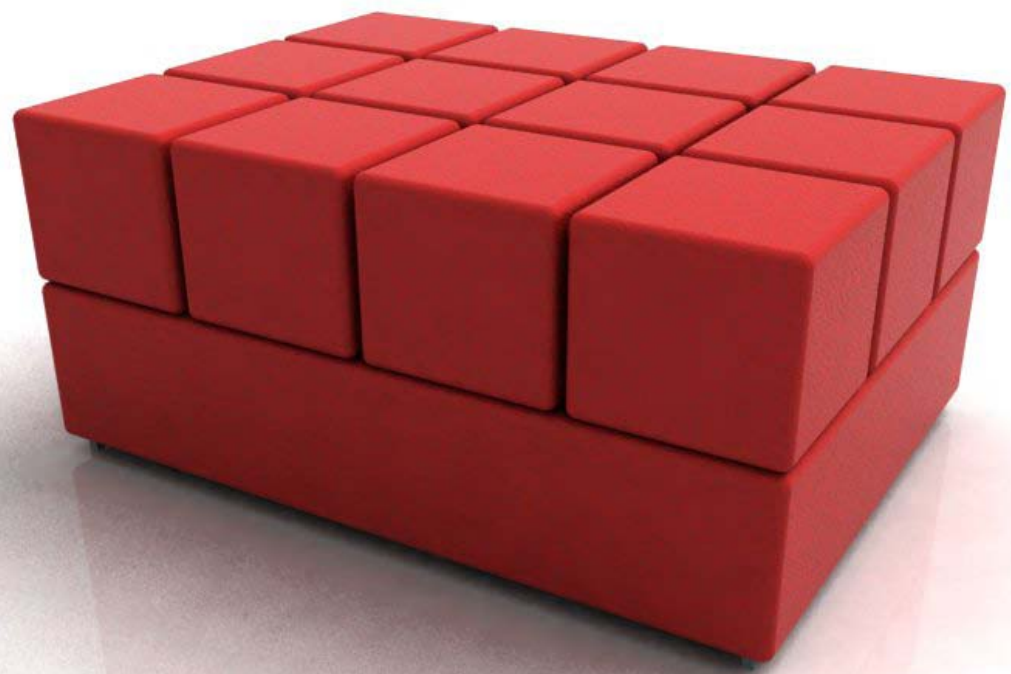
Teheran, Iran



# Pediatric Clinic

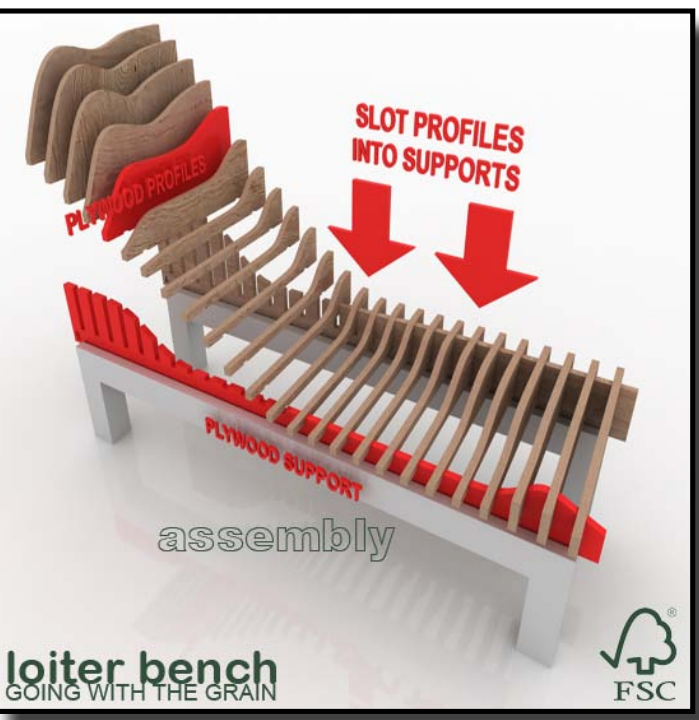
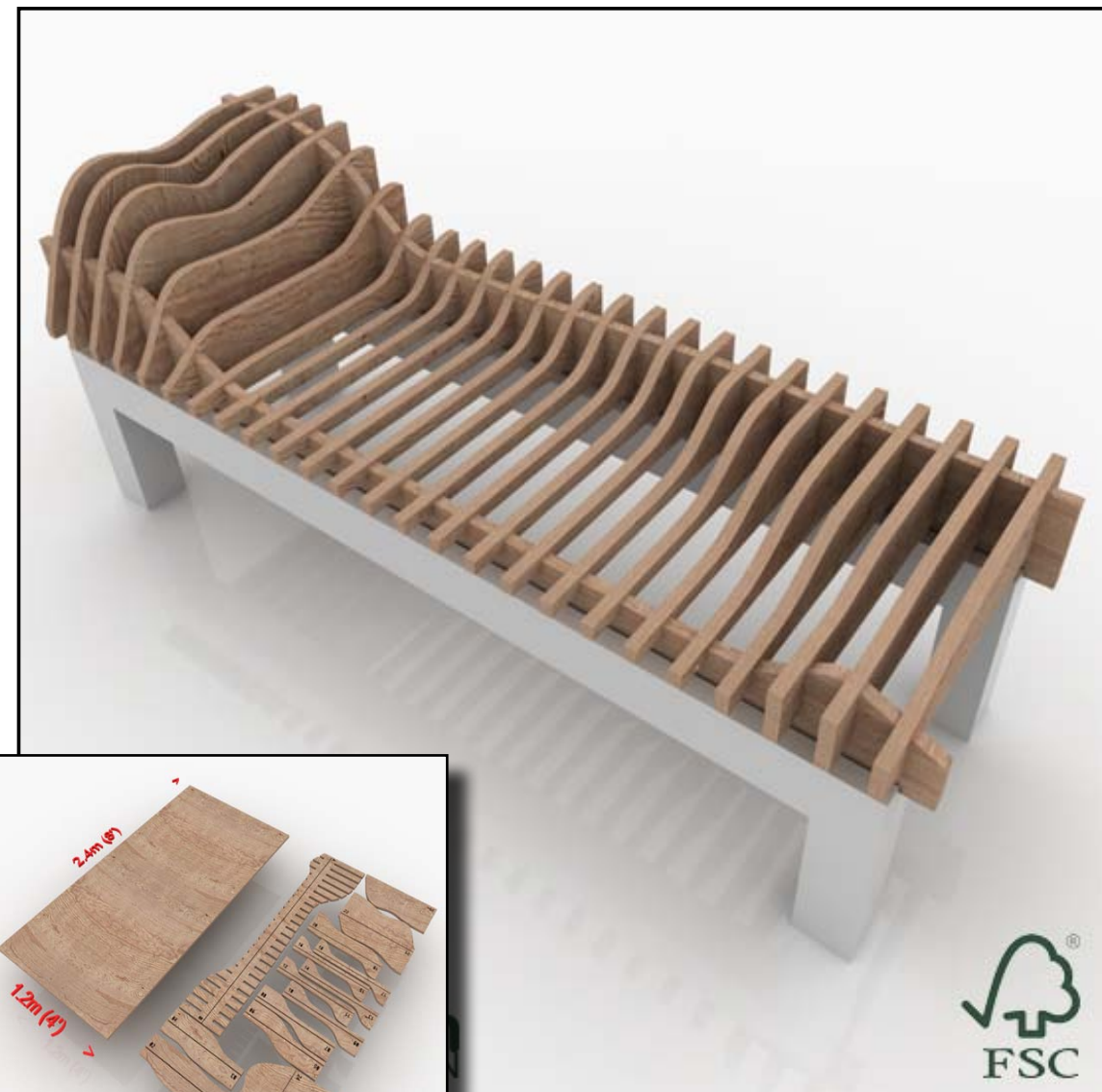
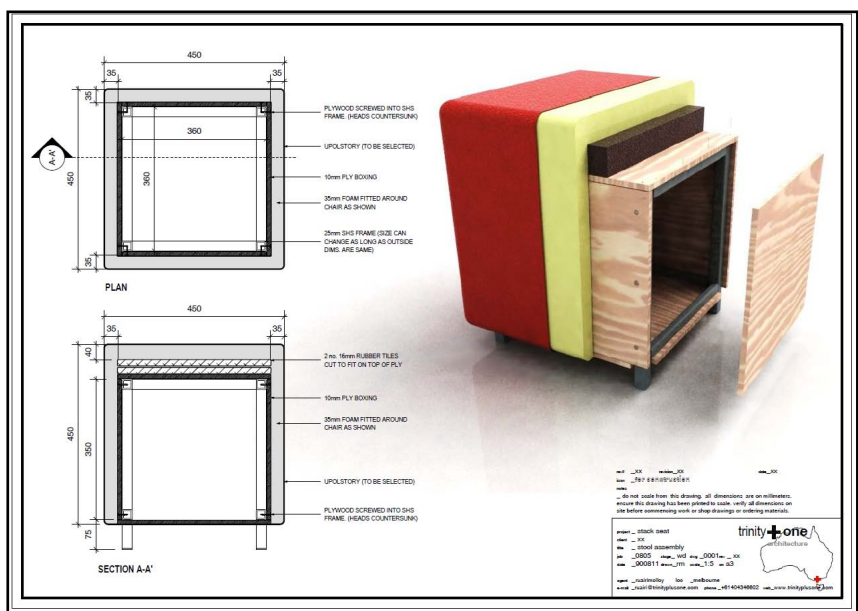
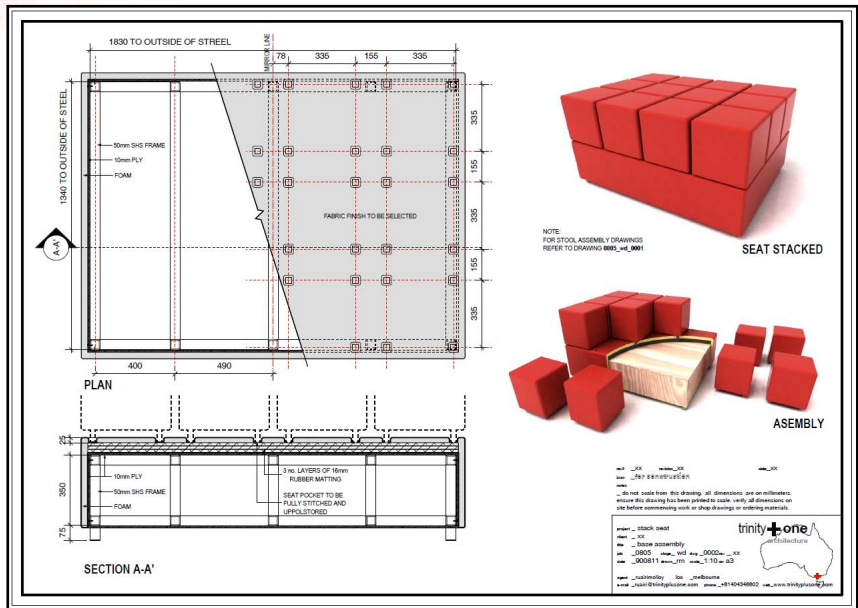
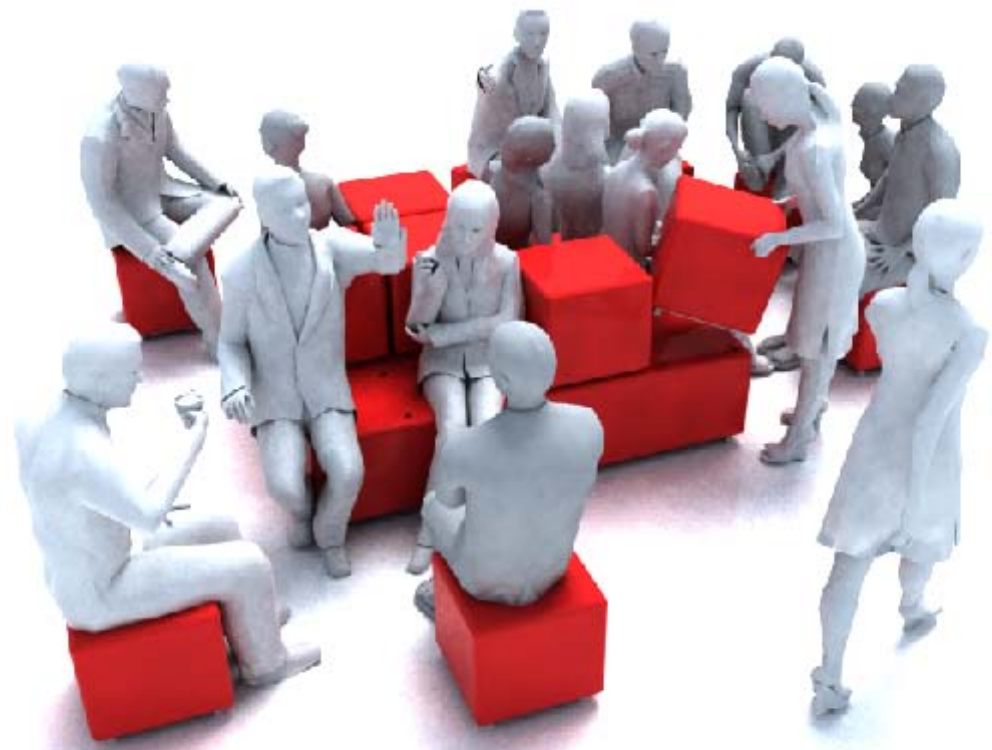
East Africa





# Stack Seat

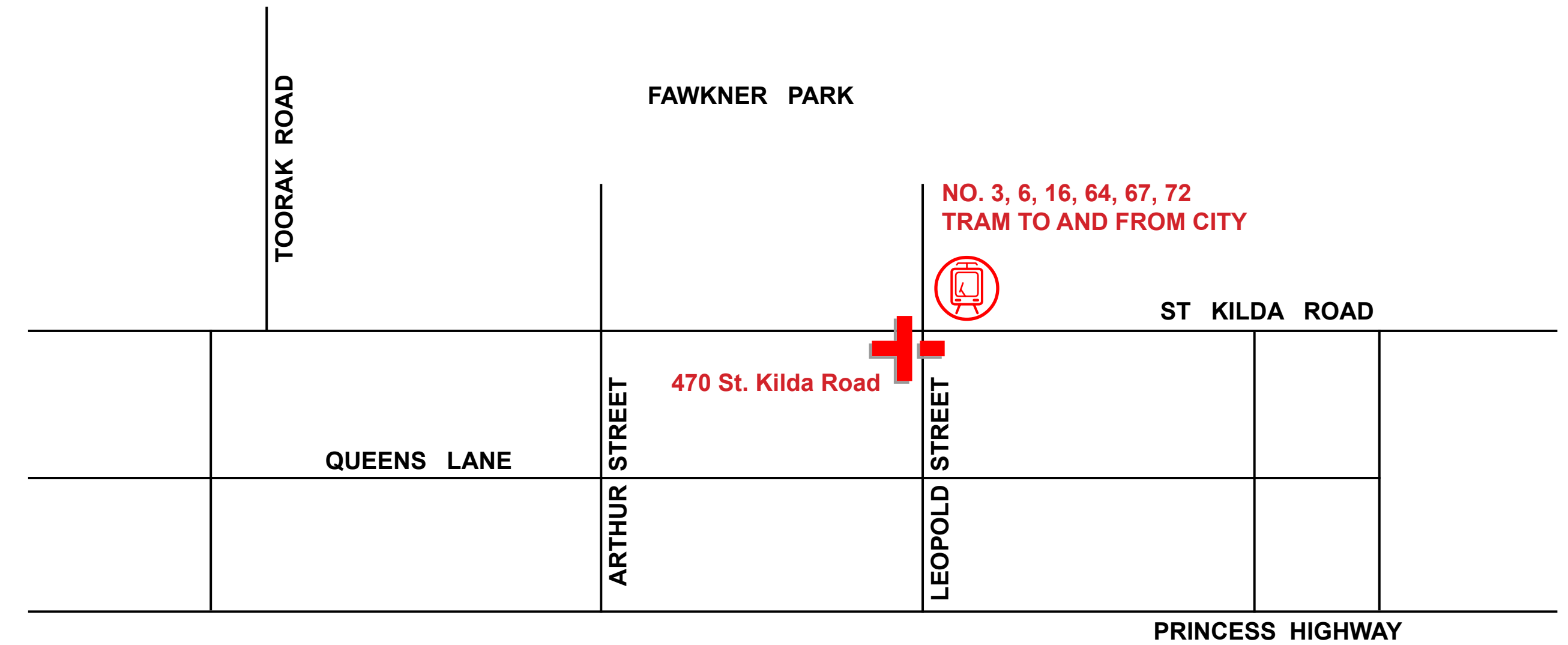
shared seating



# Loiter Bench

ergonomic seating

# Contact Information



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