HAMMERSMITH BRIDGE ENTERTAINMENT INTERCHANGE

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Design Project I Summary

My first design projected culminated in the development and production of a clipper exchange on the northbank of the river, featuring an open air cinema.

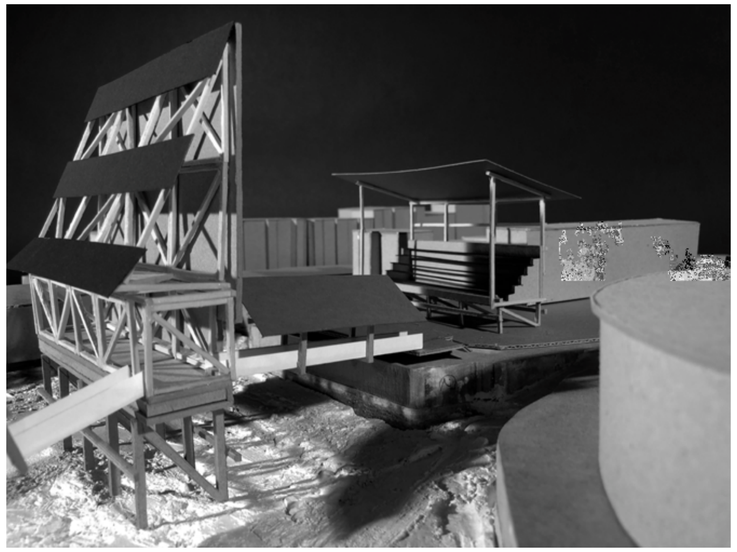
Initial design developments of the project revolved largely around the concept of old fashioned drive ins, typically seen in films of the generation. I found it facinating to see how such a simplistic action, viewing a screen, could be carried out in such an alternate fashion. People would drive from miles around to congregate in one open expanse and then view what was being shown from their cars. It was as though the action of the person moving to their sofa to view the television had been replaced by the vehicle, and the human would be a bystander in the whole 'operation.'

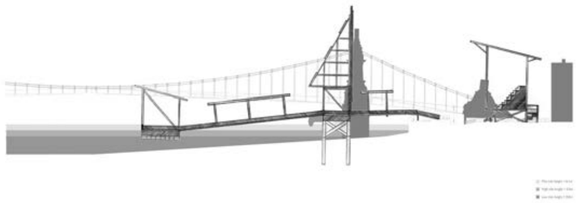
To begin my conceptual developments I completed a series of montages, the most successful of which shown to the left. The idea being of this process was to remove any element which was not of importance to the design and focus enitirely upon what was. The primary focus, the screen, and how the rest of the scene is then based around it. I continued this notion in my own developments, maintaining the screen as the centre point of the design and then designing around it.

The project was also to include a Thames Clipper stop to serve the Hammersmith area. This led to the testing of how the cinema could be blended with the Clipper exchange. I wanted to design the proposal as though it would be one seamless movement from the land, through the screen and on to the boats. I feel this is what I managed to achieve. By positioning the screen actually in the Thames, it allowed it to act also as an initial fixed pontoon. Those wanting to access the exchange would pass underneath the screen without disrupting those viewing, and could then move to the secondary pontoon, adjusting to tide heights, where the boats pull up to. Essentially one action would be able to continue to occur whilst another takes place. Whilst I wanted to implement the open air cinema a large focus of mine was to make sure everyday actions would not be interupted. This also includes people passing through the site, meaning the area needed to remain public. The proposal was raised above ground level so that there would be no chance interferance for the viewers whilst people could still walk through the site on necessary routes.

The project was certainly about implementing a proposal which was not already present, creating a new 'attraction' for the area, but at the same time maintaining the current environment and not disturbing the public realm of Hammersmith.

The beam formation process that I started to implement in my first design project (shown in the model image) I want to continue using and develop in this next project, eventually leading to a proposal with the primary form created by said process. I want the beams to develop into being the actual design, as well as the primary structural form.





Design Project 2 Programmatic outline

Moving forward from the intitial Design 1 concept of the open air cinema, I want to continue the trend of producing a structure of entertainment, specifically in the form of a theatre. This is the primary programme of the proposal that I will be developing during the course of this project, creating a new site for theatrical performances to take place within the Hammersmith Riverside area.

From the beginning of the project I want to be clear that I do not intend to create something that already exists within the Hammermsith Hub, for example the Hammersmith Apollo. I want to centre the project around adding to and developing the hub, creating a new form, attracting people to the area for an alternative and new kind of performance.

The secondary requirement for the design is for it to act as a Thames Clipper station, to provide greater access to and service the Hammermsith area. I do intend to carry ideas forward from my Design 1 project, in particular the nature of how the two programmes interact, it will be a priority to design the proposal so that one can continue to occur alongside another without either causing interruptions. Also, the clipper station is to be designed in such a way so that it seamlessly fits with the form and appearance of the theatre. I wish for the final proposal to appear as one structure so that it seams far less like two propositions butted against one another, the idea is to create a multi-use form, entertainment and interchange from water to land.

The Hammersmith Apollo

Ambitions

As I mentioned, the basis for this design process is not to create and duplicate a form that currently exists within the Hammersmith Hub, but to develop a structure which adds to the collective.

In terms of the theatre space, sites for world wide productions already exist, what I am going to create is one formed with the notion of it being centred around the community. The space is to give those aspiring an opportunity to gain greater exposure to the deep theatrically-rich environment of the city. It is to act as a 'spring-board' for those wanting to reach higher up in the performance world but may lack the chance to do so. Whether it be junior theatre schools or fully fledged professional actors, the theatre provides the opportunities many may require. Due to the design site location being adjacent to the river and the incorporation of a boat station in the design, the proposal gives direct access to the area, providing instant exposure for the theatre to anyone passing by.

The theatre is to be centred around natural voice productions, meaning what you are hearing from the stage is coming from the actors, not through sound systems typical of larger venues. My aim is to create a theatre with a close intimate feel within the auditorium and I feel by not using speakers for voice progression will significantly aid this and lead to said environment being created. The reason being to try and make the patrons of the theatre to actually feel like they are part of the production occuring. Doing this will require significant sound insulation due to loud exterior surroundings, of which will be investigated later in this project.

As said, this theatre is to be for those aspiring. To aid the process for some, the theatre is open to everyone who wishes to watch, the theatre will cater for everyone in terms of what people wish to view and what time to view it at. By allowing this to occur I feel that people may likely have a better chance of climbing the rungs of the 'performance ladder.' This access to all also applies in the physical sense, I intend to design a theatre, along with an 'add-on' spaces, in a way that those who are less physically able are also able to have the same experiance as others.

The Space Arts Centre - a theatre located in the Isle of Dogs away from the common theatre clusters amongst the centre of the city

Site Context Relation

The proposal generated by this project will be making an addition to the existing hub, providing what does not already exist. Visually I want the structure to become part of the landscape and not for it to just appear as an independent structure. This is meant in the sense of the natural landscape rather than the existing structures, such as the neighbouring Riverside Studios next to the design site. The reason being for this to trully encapsulate the main aim of the project, to provide a grounded interchange between land and water.

The current environment surrounding the design site, is very much in two seperate styles. To the west of the bridge you have the riverside mansions; old classical style buildings representing the affluent population of Hammersmith. However, this border directly with a large area of council housing, the majority of which in the form of large scale apartment blocks. From investigations in Design 1 it seemed that the Hammersmith Bridge was the border between the two 'classes' of architecture. One of the aims I have for this project is to bridge this gap within the surrounding area of the design site, and I plan to do this through the open nature of the theatre, allowing people from various social classes to congregate and mix with one another.

The London West End - the location of thee main cluster of theatres within the heart of London

Theatres on the Thames

All along the River Thames within the City of London there are countless theatre and event spaces, whether in clusters such as the West End, or seperate from one another such as the Space Arts Centre in the Isle of Dogs. All of these locations show various forms of entertainment, many with set trends; musicals, voice productions etc. My concentration of study is on the clusters, whilst the Hammersmith Hub may not be large I want to devleop it to a stage that the act of going to the theatre is not going just to thee theatre and back, instead it becomes an experiance. People are able to arrive via the interchange and go for drinks / food at a variety of pubs and restaurants before then passing on to their respective performance location e.g. my proposal theatre. The process of thought is not just about the performance but also the process to which the performance is involved

The Site - Hammersmith Bridge North Bank

How is the site unique?

The design site I am considering using is the space adjacent to Hammersmith Bridge and the Riverside Studios development. This section of the land is particularly unique due to how it acts like a buffer zone (shown by dotted lines) between the various social classes, in structural terms, The old network of the riverside mansions to the west; the modernistic studios to the east; and the council housing to the north. It is this issue which I am interested in bridging by the creation of a community orientated theatre.

The key factor of the design site is the main walkway going through the site. From site studies during the Design 1 project, I found that this pathway is heavily populated at certain times throughout the day, essentially meaning that it is of prime importance that this path is kept open, or an alternative route is created.

The Riverside Mansions (Digby mansions adjacent to the bridge)

The Digby mansions are ornate victorian apartments marking the end of the Lower Mall, located adjacent to the Hammersmith Bridge.

Originally the site was occupied by Digby House, a georgian mansion of size-able proportion featuring various outhouses and carriageway in the extensive garden. Around 1896, the house was demolished and a few years later in the 1890s, the mansions were created. The result was as the site is seen today, a red brick victorian mansion block featuring high ceiling rooms and wrought iron balconies facing the river. Due to the visual nature of the mansions they are often a popular choice for film and television.

The character of the site

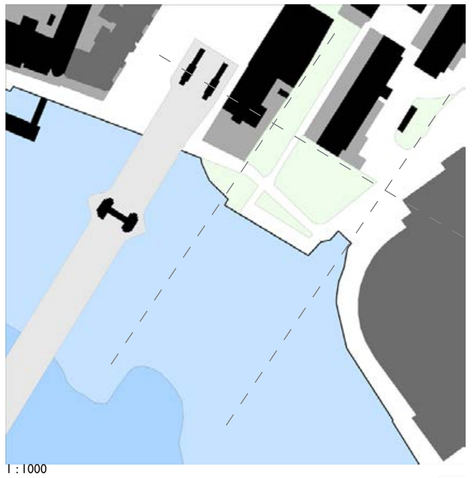
Viewing the site from above gives an idea of how it is encapsulated from all sides (mansions / Studio / council housing), providing a set area to work with, a typical trend of construction within the city. However due to being adjacent to the river there is the ability to extend the site outwards, protruding into the Thames. I feel this is going to become a significant factor when progressing with designs later in the project, aiding its key theme, interchange between land and water.

Currently the design site provides a key social space, located within walking distance of various offices, people use the site for a place to relax at lunchtime or potentially after work. After spending a day at the site during the working week conducting site analysis, I noticed a definite increase in the population of the space aorund midday. Potentially making the location more popular is the several benches placed providing resting points for people, with a scenic view of the Thames and the opposing south bank.

The Riverside Studios

Initially the site was used as an iron foundry before being developed into a film studio in the 1930s. Since then the site has been ever-evolving as a film / television studio and arts venue.

In 2014 the building was closed for major reconstruction work , resulting in a new flexible complex for performing arts / work spaces / tv studio /cinema / rehearsal spaces. Hospitality services have also been introduced with the addition of bars and restaurants. These redevelopments significantly added to the hub of Hammersmith providing new and alternative services to existing structures. For example a more intimate performance venue in comparison to the Apollo located near the undergorund station. This addition of services is what I want to achieve with this project, I do not want to replicate what already exists.



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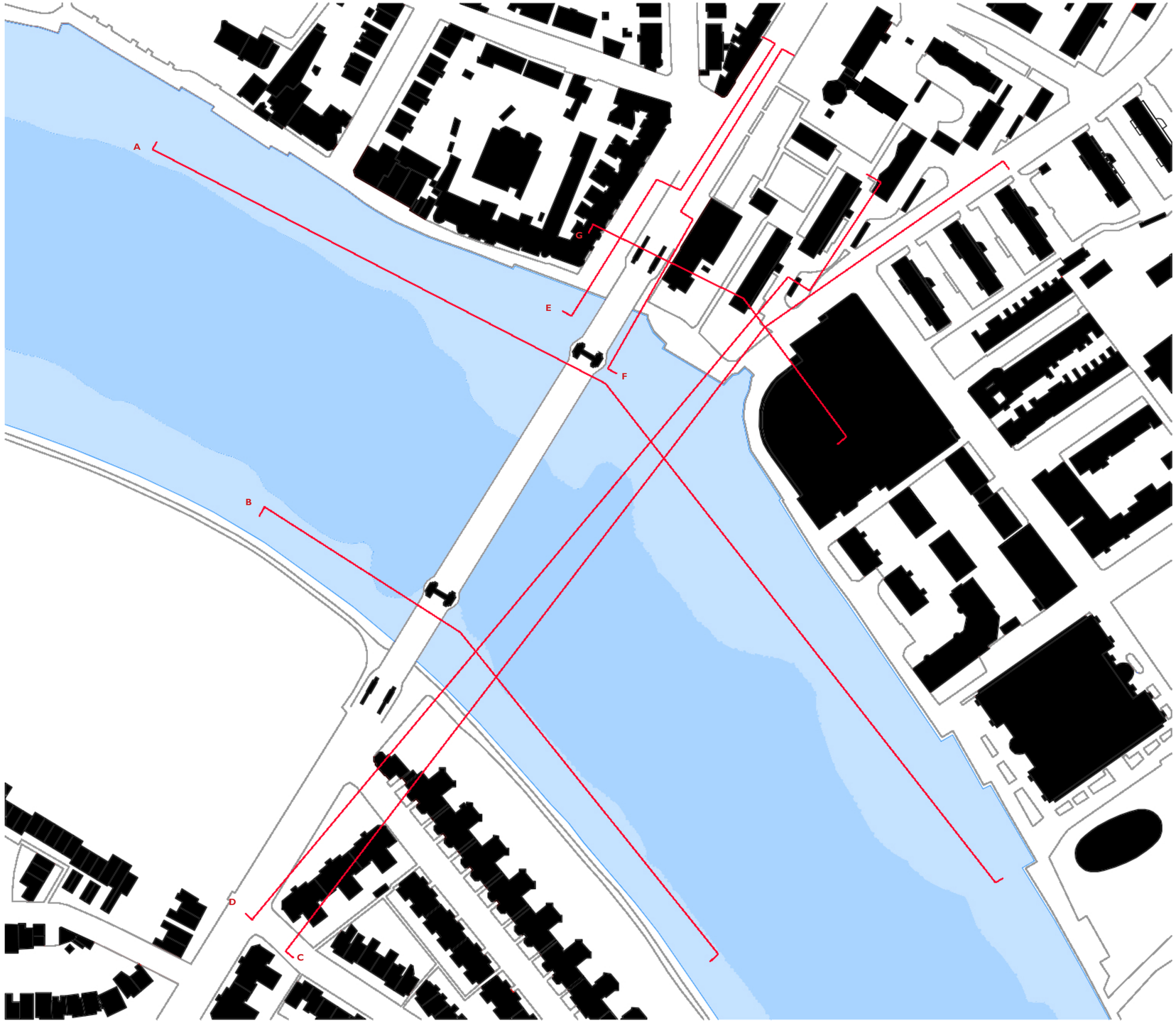
Routes of movement
Low tide
High tide
Grass areas
Hammersmith Bridge
Private ground
Digby Mansions / Riverside Studios
Existing structures

Digby Mansions

Council block to the north of the design site

Riverside Studios

Sub Brief 1 - Site Survey Drawings



The purpose of Sub Brief 1 was to allow myself to view the site in an analytical fashion, in order to fully understand the site we were working with and, once the design prcoess commences, combine our conceptual forms with the existing structures and froms, rather than them appearing as a seperate entity seeming out of place. As well as this, the sections which are to follow, provide a solid basis for one to work off and resulted in myself being able to see the overall space of the area I was working with and how potential forms may sit within the site.

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Sub Brief 1 - Sections A


The Rutland Arms

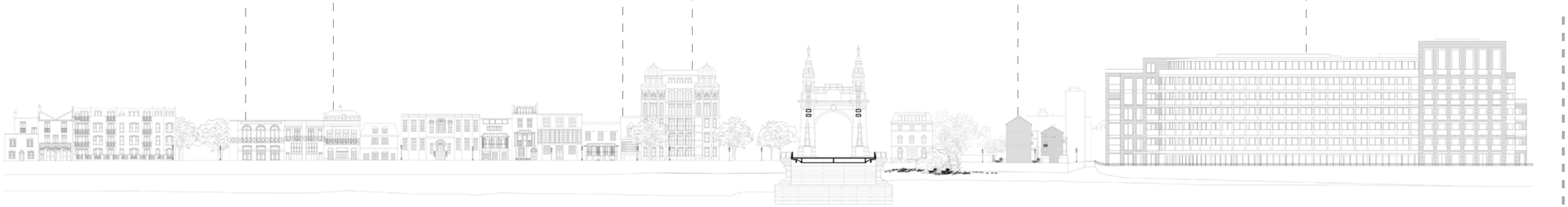

The Blue Anchor


The British Rowing HQ


Digby Mansions


The Queen Caroline Estate


Riverside Studios



Section A pt 1

Section A pt 2


Chivas House - the London HQ of Chivas Regal Whisky


Fulham Reach - also the location of the Blue Boat pub

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Sub Brief 1 - Sections B

Riverview Gardens

Section B pt 1

Section B pt 2

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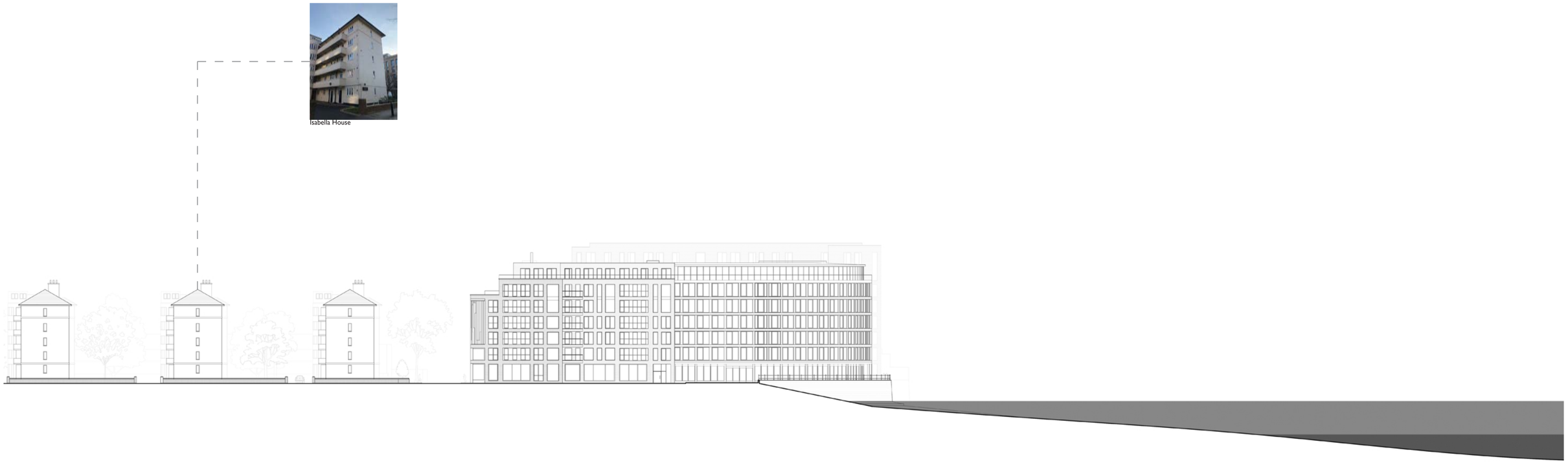
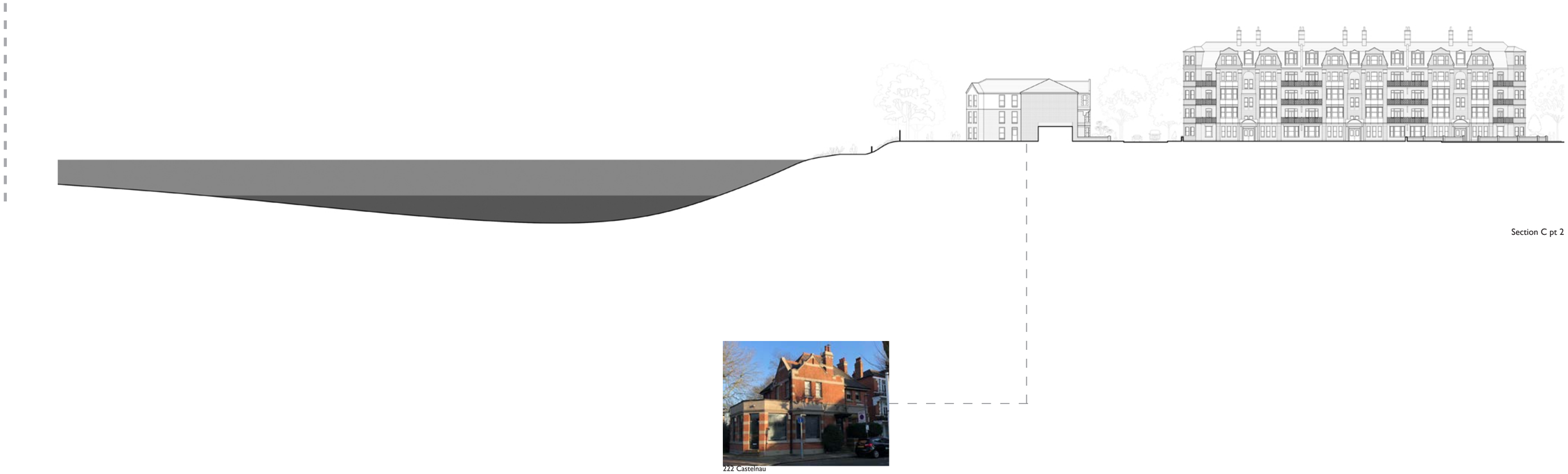
Sub Brief 1 - Sections C





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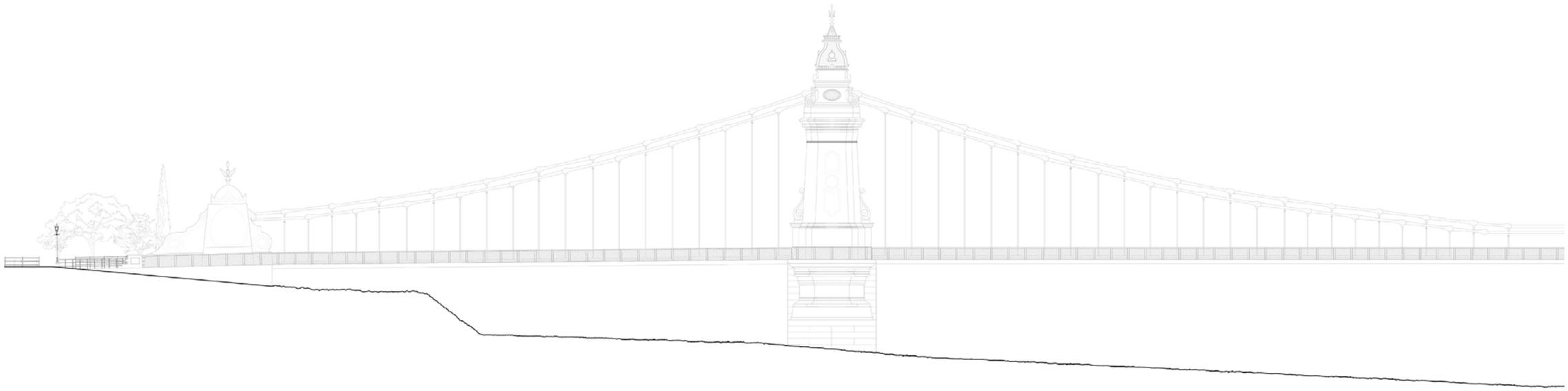
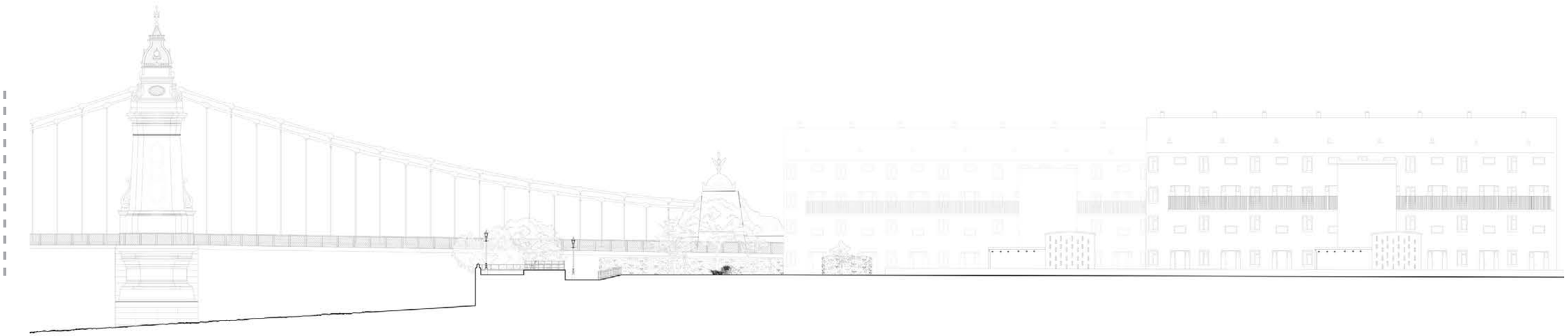
Sub Brief I - Section D



Section D pt 1



Section D pt 2

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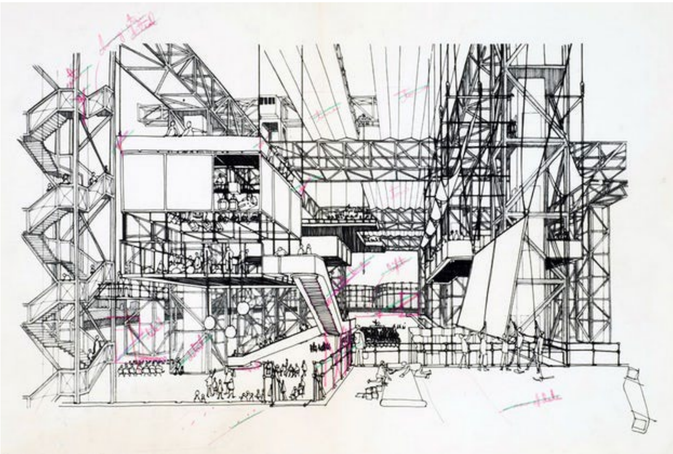
Sub Brief I - Sections E / F

Section E

Section F

The Shed (Bloomberg Building) was designed by Diller Scofidio + Renfro, the lead architect, and Rockwell Group, the collaborating architects. The result was the creation of a 200,00 square foot structure with the ability to physically transform. The architects took inspiration from the Fun Palace, a hugel influencial but never built concept designed by Cedric Price and theatre director Joan Littlewood.



Cedric Price's Fun Palace

The Spaces

The McCourt - this is the most iconic space of the Shed, formed when the moveable outer shell is deployed over the adjacent square, creating a 17,000 square foot fully climate controlled performance space, for large scale performances / exhibitions / events. The auditorium created can have a seated capacity of 1,200 approx or 1,500 if standing. The moveable shell moves using a system typically ofund in shipping ports. The steel frame is clad with 'pillows' of ETFE, a lightweight teflon-based polymer that has the thermal properties of glass allowing for such a controllable interior environment.

Level 2 and 4 galleries - both levels are designed to create 25,000 square foot column free exhibition spaces

Level 6 The Kenneth C. Griffin Theater - a small scale 500 seater auditorium for smaller more intimate performances which can be divided into small scale spaces

Level 8 (top floor) - The top floor of the shed has reduced ceiling heights in comparison to the other levels of the structure, creating spacing for events / rehearsals / artist development. Another theatre space can be implemented on the floor, with a 450 capacity for seating and standing room for 750

The adjacent square (where the outer shell of the Shed extends over) - When the outer shell is nested over the main structure the square can be used as an outdoor space for programming

Interior of the deployed auditorium

Location

The Shed is located in Manhatten, Hudson Yards (a real estate development built on a platform over the West Side yard, a storage site for Long Island Rail Road Trains.

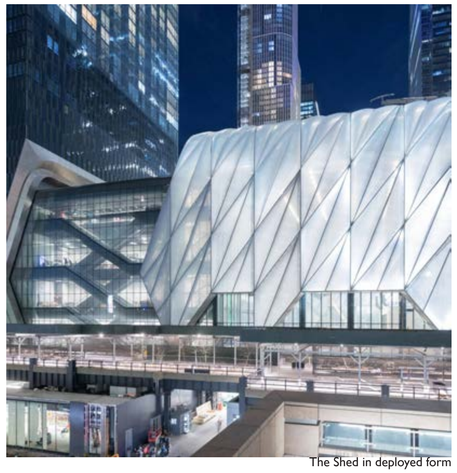
Adjacent to the site is the Highline, an elevated park located on a disused rail line featuring gardens / artwork / food stalls etc. The park is around 1.45 miles long leading to the Shed, at 2nd level of the structure

The Shed's location is similar to that of my design site, a newly regenerated area within the heart of the city. I therefore felt that I could potential translate the design from one site to another, aiding my design process and train of thought. However what drew me to the structure foremost was the extendable outer shell. The concept of being able to physically extend the form to essentially create a deployable auditorium I found particularly intriguing and would like to work with further, potentially to develop into my own designs. The ability of the building to constantly adapt and evolve to various needs and unknown future is another trait I would like to keep in mind.

The position where The Shed meets the adjacent Fifteen Hudson Yards apartment building

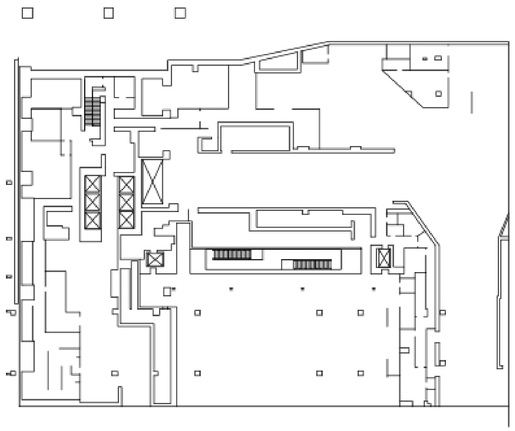
View of the Shed looking down the Highline

The Shed movement system

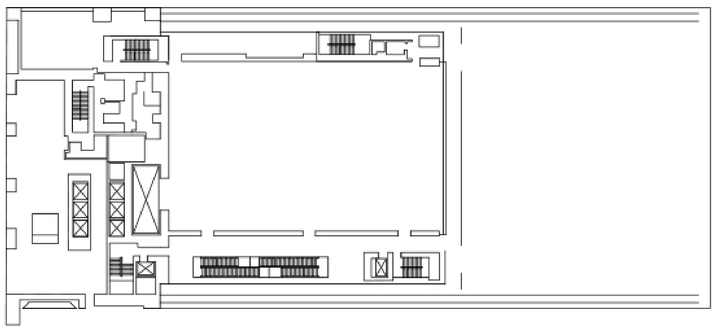


The Shed in deployed form

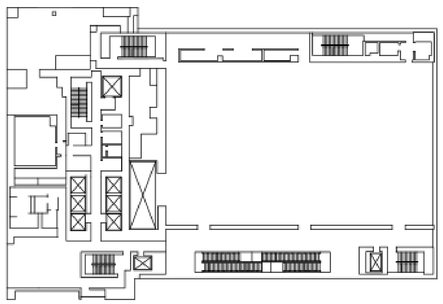
Sub Brief 2 - Floor Plans



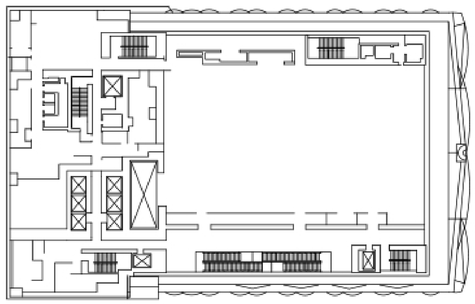
Ground Floor (street level)



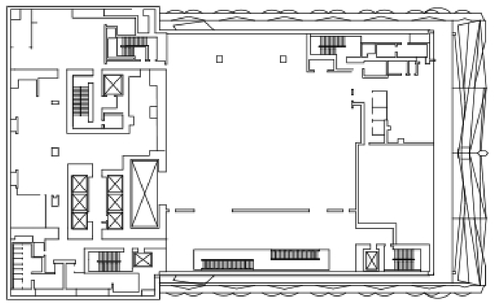
2nd Floor (at the level of the adjacent Highline form)



4th Floor



6th Floor



8th Floor

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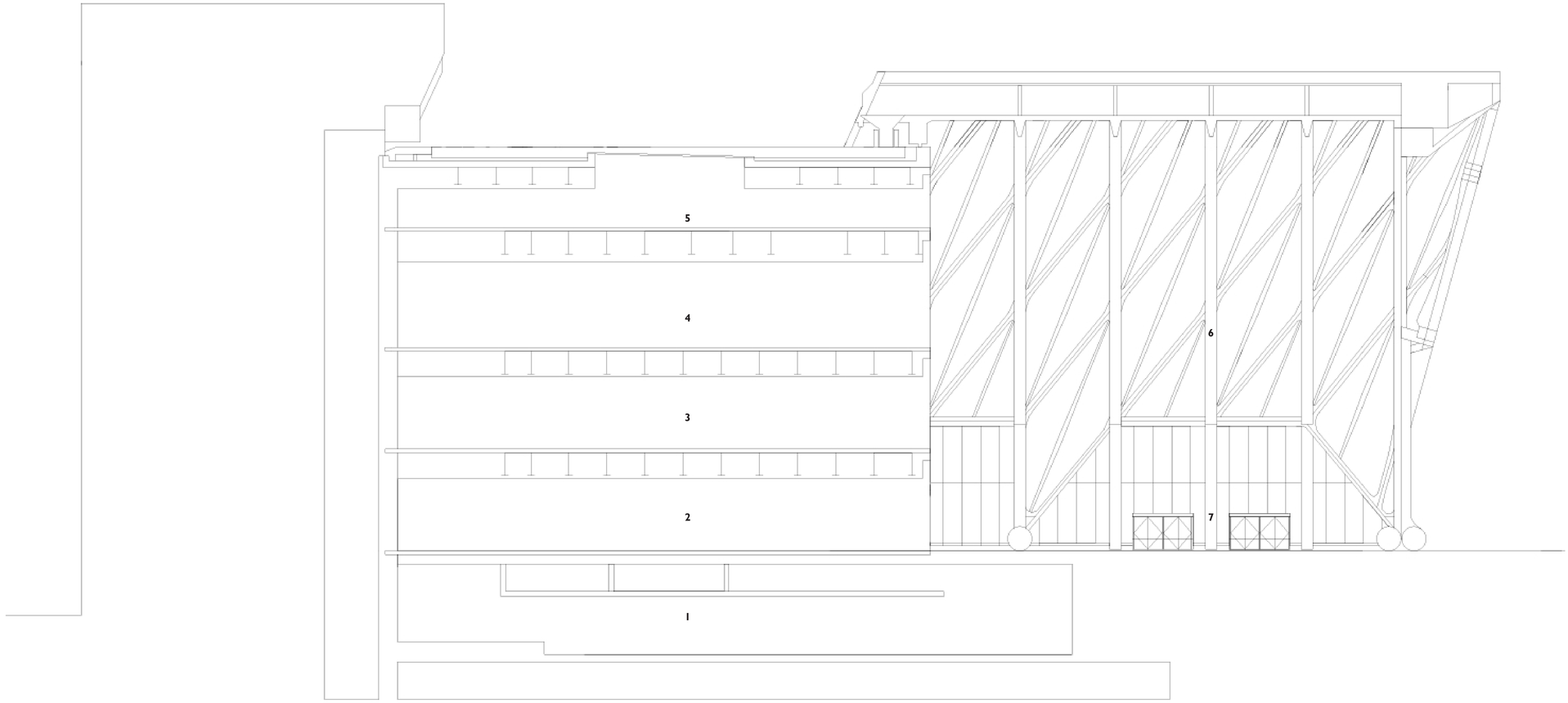
Sub Brief 2 - Deployed Section



This section shows the condition of the interior of The Shed, when the extendable auditorium has been deployed. As shown, once deployed the auditorium created is a large void with the height of all of the floors combined, creating an ideal space for large performances to take place. The land that the Shed moves out on to is a large open square adjacent to the design plot that when not used by the structure creates a central communal area of surrounding office buildings etc.

1 Ground floor - street level entrance and loading area

2 2nd floor - at the level of the Highline form used as a large exhibtion space

3 4th floor - column free exhibition space

4 6th floor - small scale 500 seater auditorium

5 8th floor - secondary small scale theatre with 450 seating capacity

6 the deployed auditorium - the primary theatre space of the Shed structure

7 The McCourt - the adjacent square to which the auditorium is deployed over

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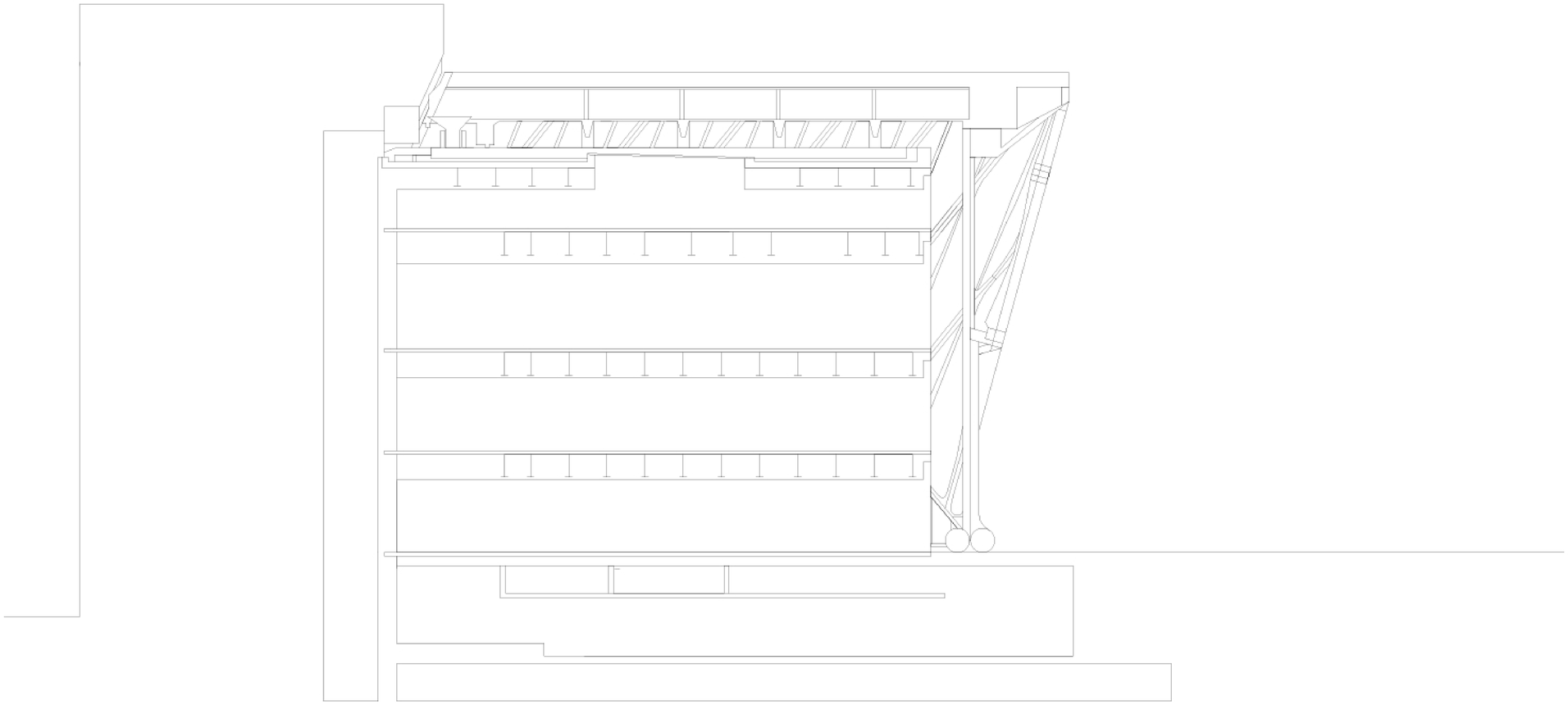

This section shows the condition of the interior of The Shed, in its nested state. As can be seen each of the floors are isolated to themselves creating several seperate auditoriums / event spaces / exhibition halls.

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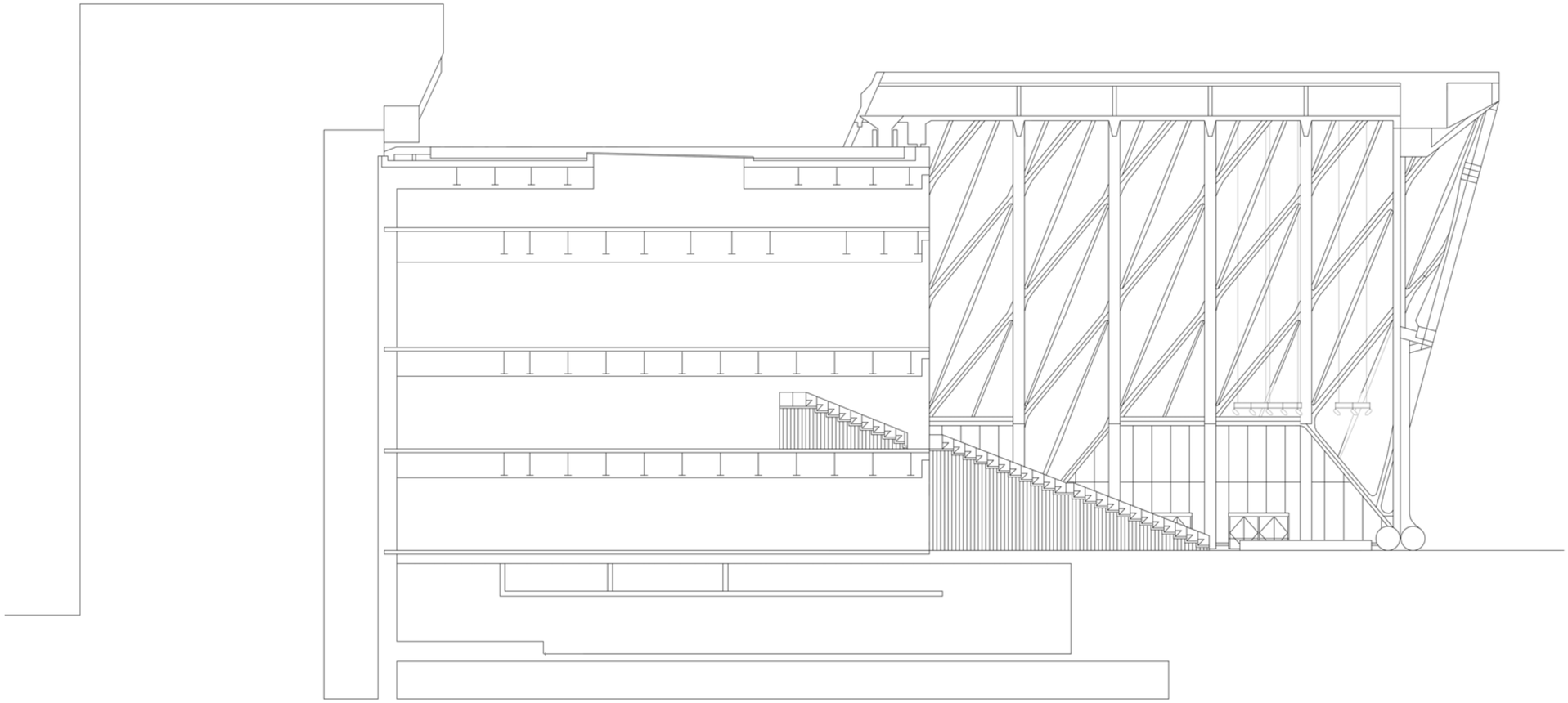

Here I have used the deployed section of the Shed to show the set up of the large auditorium once deployed. As can be seen the seating utilises a large portion of the deployed space and if needed the interior short side of the 4th floor of the Shed can be opened so that the seating then extends into it.

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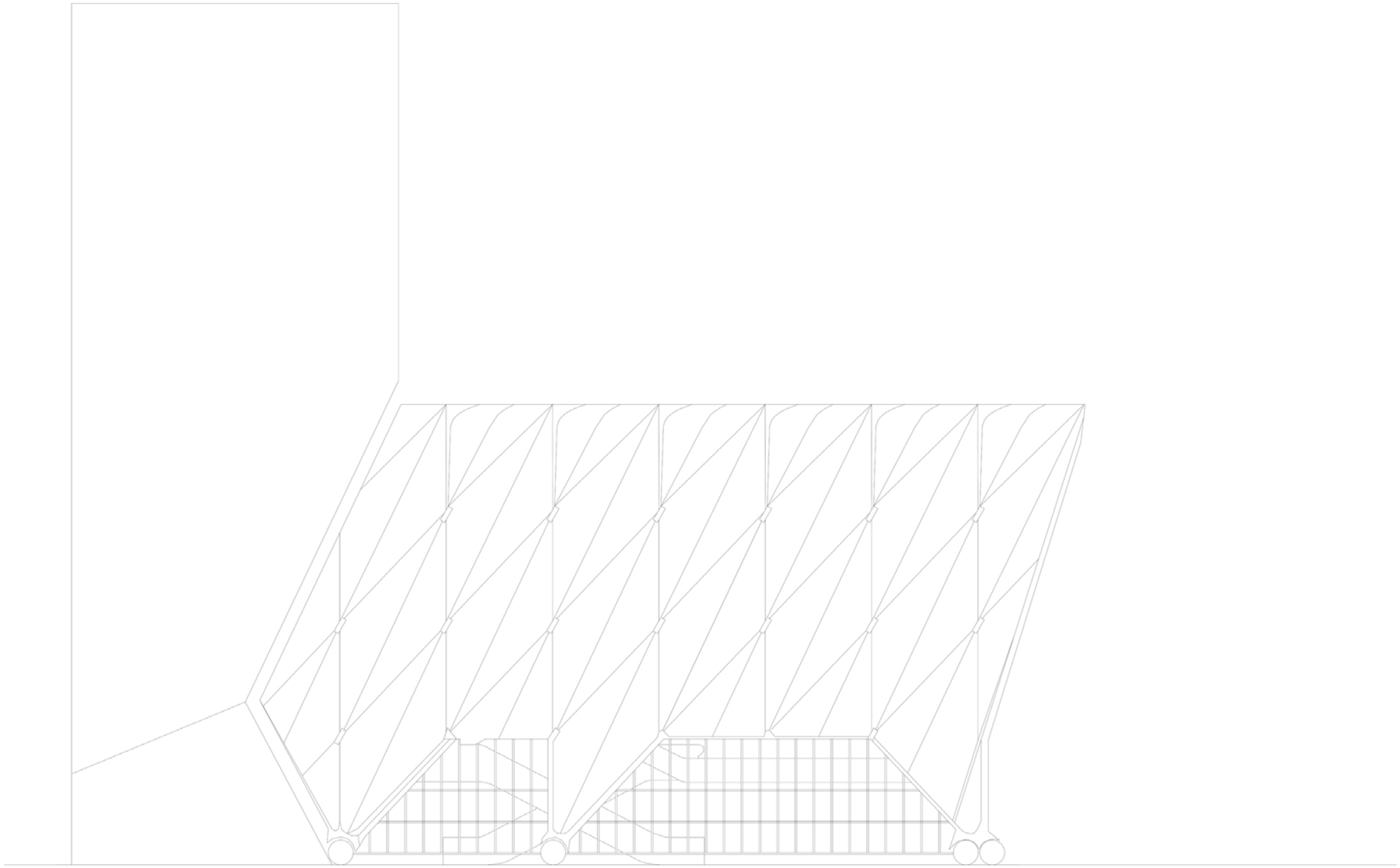
Sub Brief 2 - Nested Elevation



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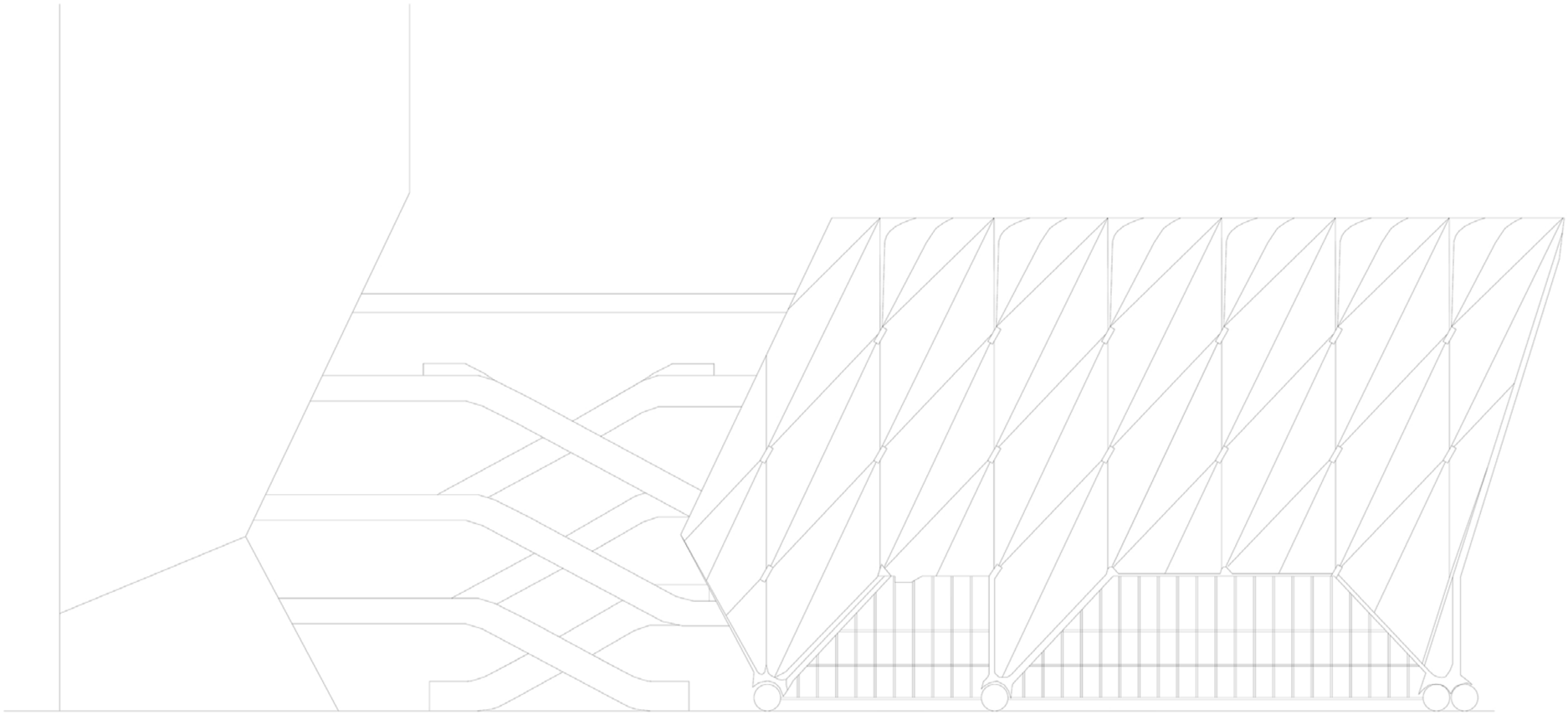
Sub Brief 2 - Deployed Section



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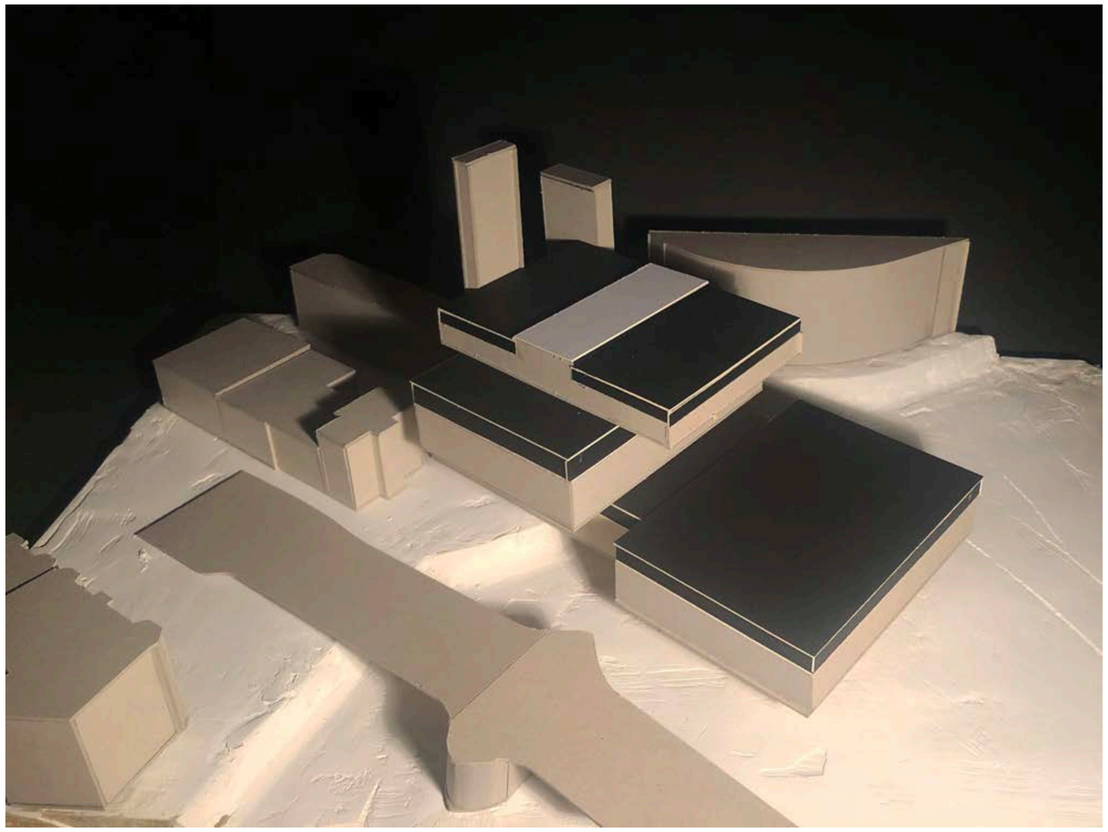
The purpose of this stage of the sub brief was to physically investigate the volumes of the precedent study, from main auditorium spaces to the stair wells. It was interesting to see the building striped down to its bare elements, giving a greater understanding of what the structure is comprised of.

As can be seem from the images above, when the study is placed within my design site, Hammersmith riverside, it does not remotely fit within the current landscape. A likely reason being the actual site of The Shed, Manhatten. The concept of taking a structure from the centre of a high rise landscape and placing it outside of the main centre of London where the heights of buildings dramatically decrease, is never likely to work. The result of such actions would be, as seen, grossly unproportionate.

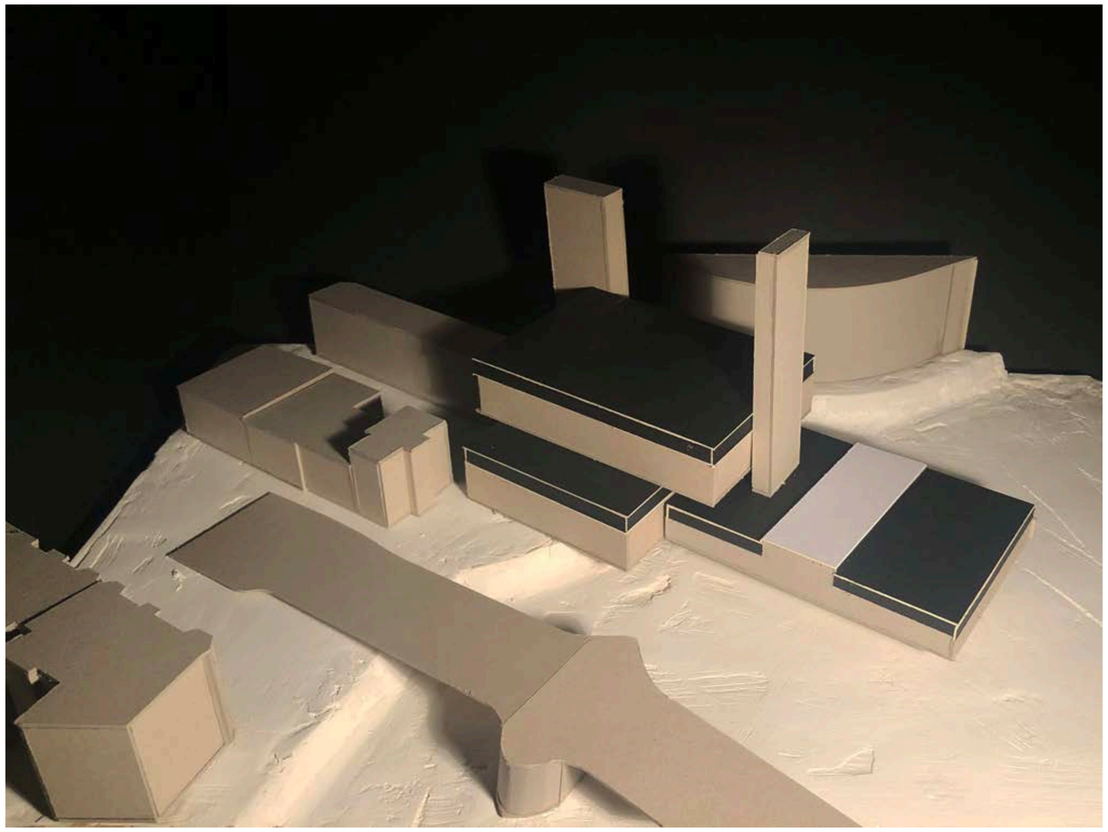
*The volumetric model is built from the second floor of the Shed upwards, due to said floor being on equal level with the adjacent Highline form (the level at which I consider my design site equates to).



Following the placement of the original structure, the next stage was to rearrange its principle forms, as an attempt to make it more suited to the site. The first major change I made was the removal of the deployable auditorium, Whilst it may be the defining image of the structure, realistically on my design site, it would never appear appropriate due to its significant unproportioned size. The only way it may potentially be used is if there were a large reduction in the height, as to not tower over the adjacent Hammersmith Bridge.

I continued to use all of the remaining exhibtion spaces, creating a configuration which had less of a vertical factor and instead started to engage with the form of the land. This still required the form moving in to the river, however this is as a positive as it dramatically aids the inclusion of an interchange for the Thames Clipper service. Upon the original form there are a number of stairwells and lift shafts, I have sigificantly reduced this as an attempt to utilise less land for the proposal. Bar two located on the exterior of the structure, more may be located on the interior. I felt this would have no programmatic implications, the spaces would still be able to be used for the same purposes they always have done.

*The black card represents the voids between each floor in the original structure
**The white card is a glass roof which is located on the top floor of the original Shed



Here I have reduced the volumes by one, now having three performance spaces. The reason being to experiment using the forms from the original structure to create a proposal of similar proportions to the existing forms. The result was a form that I felt would be far more just in the design site and within the restraints the site provides. I have used two exterior elevator shafts / stair columns for this adaption, in order to provide a form of travel outside the volumes as to prevent potential disruption to actions on the interior. Their height are a large issue as they tower over the main body of the structure , so they would be reduced to an appropriate height. (their placement was the main note).
The programmatic implications are not major as the way the concept has been formed is to create a flow for people to follow through and round the building; moving in at the gorund floor; outwards on the river; upwards to the second floor; down to the ground and exit.

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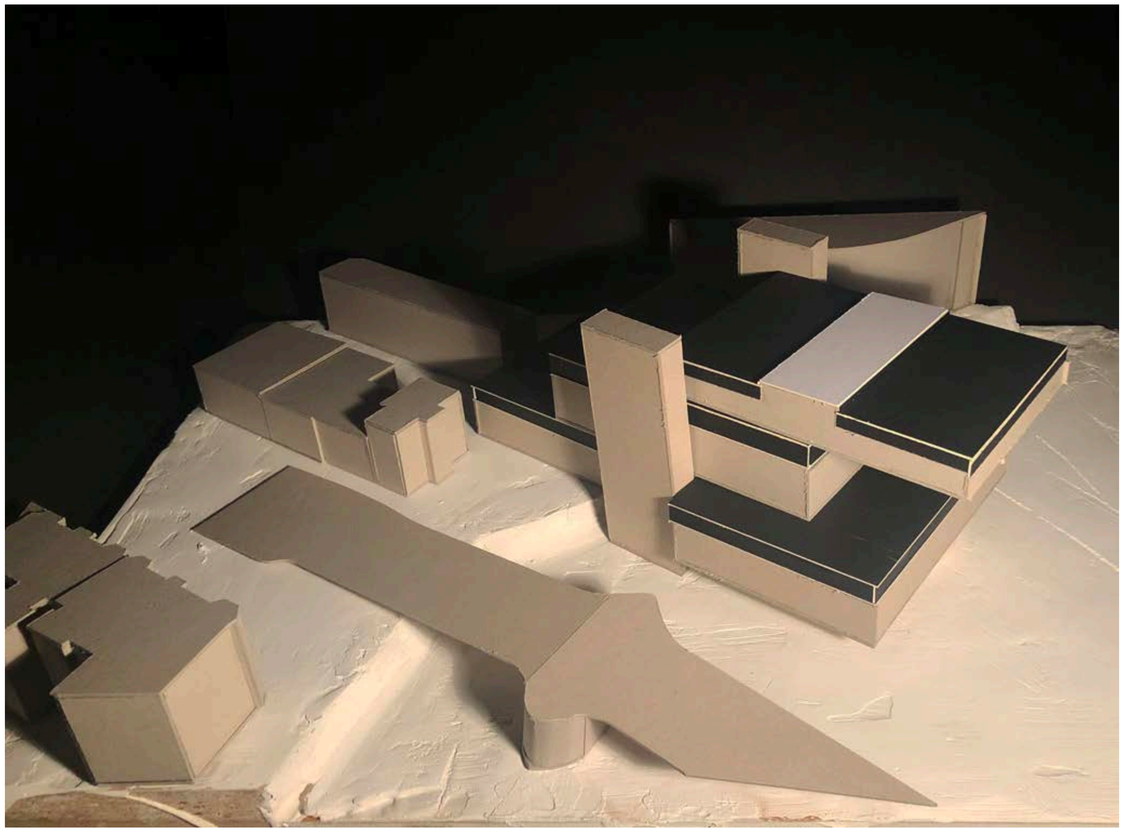


I wanted to experiment with the idea of an arrangement angling out over the river. I began with two of the main exhibition volumes located on the land creating a long form ideal for stretching into the Thames for a potential interchange location. They are then built them up as the proposal moves out over the river as to try and create a sense of the structure opening up as you moved further into it. A particular element of this configuration I like is the overhang created out on the river, between the top and gorund floor, creating an ideal area for a potential exterior space for various uses, such as an exterior restaurant. I have positioned two lift/stair columns to appear as though they are containing the width of the proposal, but by doing so provide exterior access to all of the three floors.

I personally feel this adaption is the most potential viable option due to, at ground level on the riverside, it does not crowd adjacent structures from it's height and also one would still be able to pass around the structure. Also the individual main spaces are arranged to create a suitable flow for people to move around the proposal, with little impact on potential activties occuring inside each.

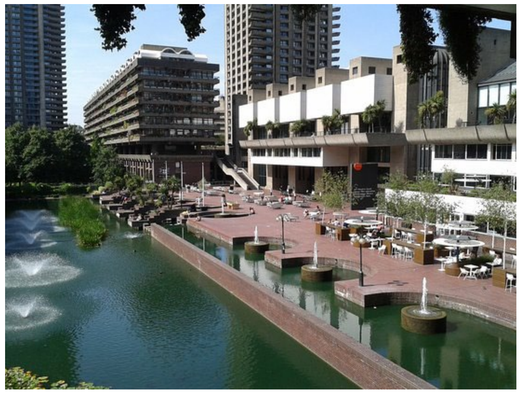
Theatres of London Field Trip

During a studio trip to London we visited a variety of theatres showing the variance in their structures when changes in location and typically as a result, economic input are taken into account. It was very clear that as we moved further towards the centre of the city there was a dramatic increase in the theatres' sizes and design. In particular it was interesting to see how the form of each theatre would be appear customised to its surroundings.

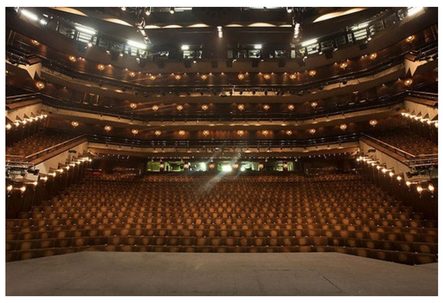
Visiting the theatres throughout the day gave me inspiration for various ideas to continue with in my own designs. It proved very helpful to actually see such ideas in real forms, allowing for greater understanding.

The Yard Theatre - Hackney Wick - 110 capacity
The Yard, represents the very basics of a working theatre, using the very basics of what is needed. Created on a minimum budget, located within an old warehouse complex, it utilises the existing forms and surroundings to develop within. Surrounding the theatre, within the other existing warehouse, a new social hub is being developed including, bars, cafes and a small scale brewery. This element of a whole social environment I intend to continue investigating due to developing the entire culture of the theatre.

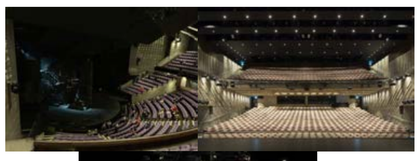
The Young Vic Theatre - Waterloo - 550 capacity
Of the four theatres we visited, I found this to be the most useful for my design process, due to the layout within the auditorium. The staging is designed so that it can be drastically changed and adapted in order to fit what the production at the time, requires. This means that the stage is often brought out into where the seating may usually be, resulting in the majority of the stage being surrounded by the seating. This is a concept which I would very much like to build upon, as opposed to the standard stage opposing seating format, like the Barbican theatre for example.



The Barbican Centre - Barbican - 1158 capacity
This was the first of a complex form of theatre, a performing arts centre, whereby the auditorium shares the structure with other uses, not only bars/cafes like the Shed and Young Vic, but exhibition spaces, a library and multiple restaurants. Along with this, the centre is located within a network of flats, offices, outdoor gardens and a school. Whilst this can often be unavoidable due to the clustered nature of London, my site allows me to design with a spatial border and I wish to utilise it to create a 'standalone' form, rather than butting against an existing structure.



The National Theatre - South Bank - 1160 capacity (Olivier) 890 capacity (Lyttelton) 400 capacity (Dorfman)
Again a performing arts centre, hosting three seperate theatres of various sizes located on the south bank of the river. What I found most interesting about this structure was the overall exterior design, with the continuous cut outs from the brutalist concrete form. Whilst I am not building with concrete I would like to include this notion, allowing as much air and direct light in where possible into particular areas. A potential concept may involve the use of a 'net' timber system which then cradles the auditorium, and others spaces which may be included.



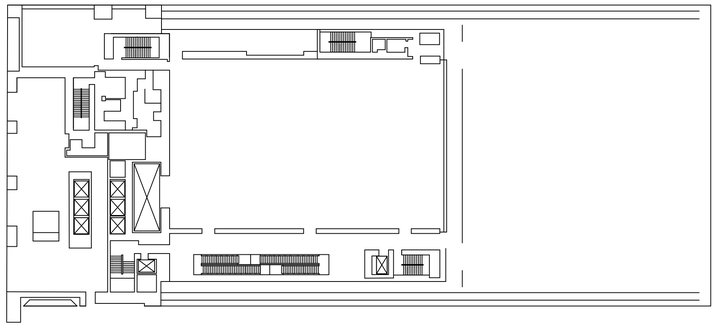
Sub Brief 3 - Collage Urbanism

The purpose of this 3rd sub project was to begin the process of the urban proposal study, to actual begin thinking about a potential design to start developing towards a finished design.

This was to begin by first considering the surrounding areas of the venue being constructed. Earlier in the project I have briefly touched on this a couple of times, thinking about what currently exists in surrounding area of the site. This stage of the project provides the opportunity to begin going further into the investigation and how each of the existing buildings of the 'cultural hub' can combine, creating a network of locations. Whether these locations be bars / restaurants / other theatres etc, they are all part of the system of the hub in the area surrounding the design site.

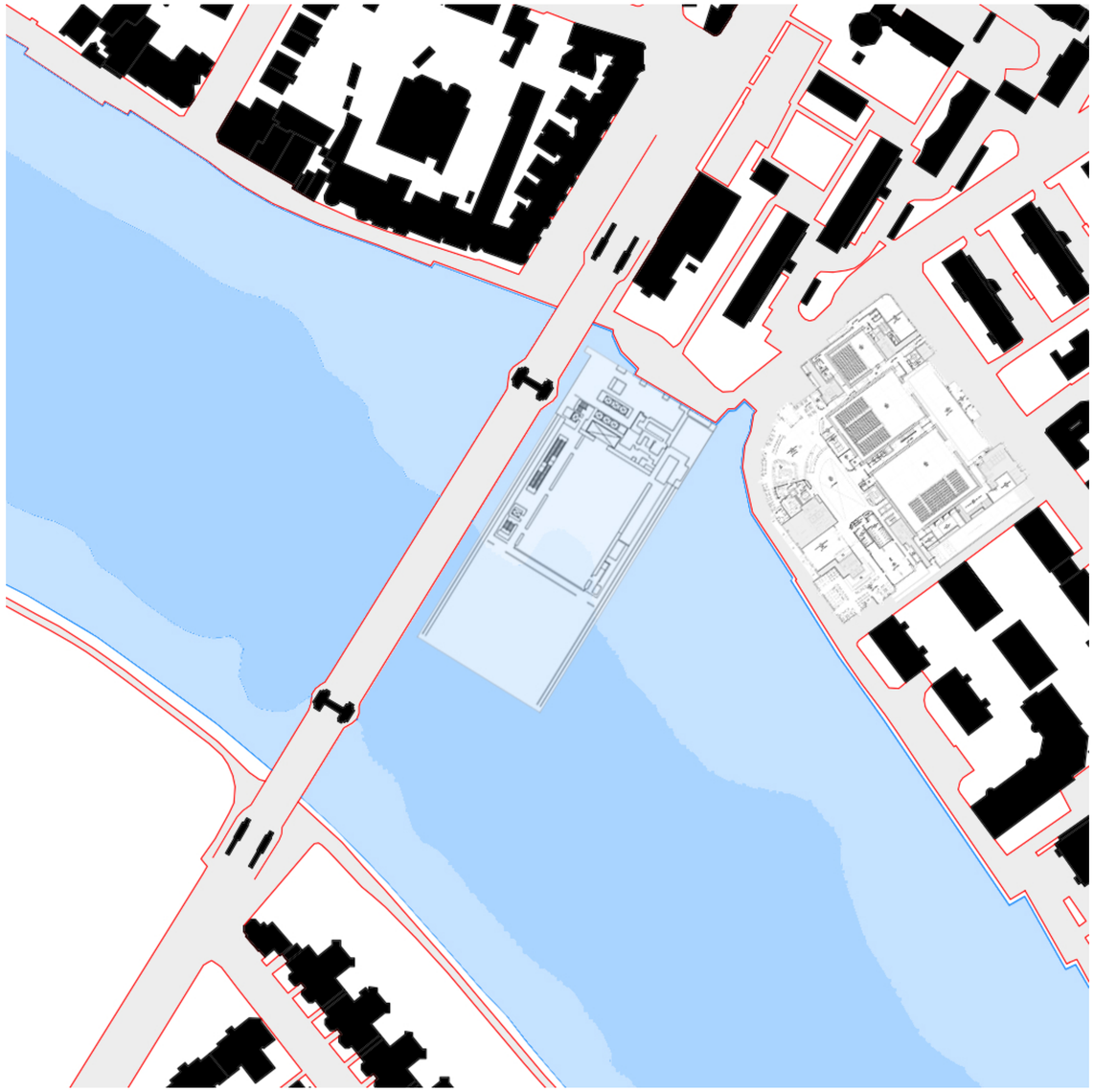
The task at hand was to start sketching out the landscape of the potential proposal learning from the train of thought mentioned, considering various factors such as adjacent / existing buildings; positioning in relation to the riverbank; water access; potential travel routes from another location of the hub to the site. For the proposal at this point we were to use the ground floor plan of our previous precedent study, in my case the Shed in New York, and then introduce a second year study building, The Playing Fields Theatre (later introduced). The idea was to utilise the plans to collage potential placements within the design space considering factors mentioned and more. It was an option to take actions such as removing existing residential housing but it would result in having to place said buildings elsewhere. The floor plan of the adjacent Riverside Studios building was also to be included due to the space between a potential design and said building being key in terms of maintaining current travel routes along the riverside walkway and preventing clustering between the two, allowing both to work simultaniously.

*As previously mentioned I am considering the design site to be in relation to the second floor of The Shed i.e. I will be utilising the second floor plan.



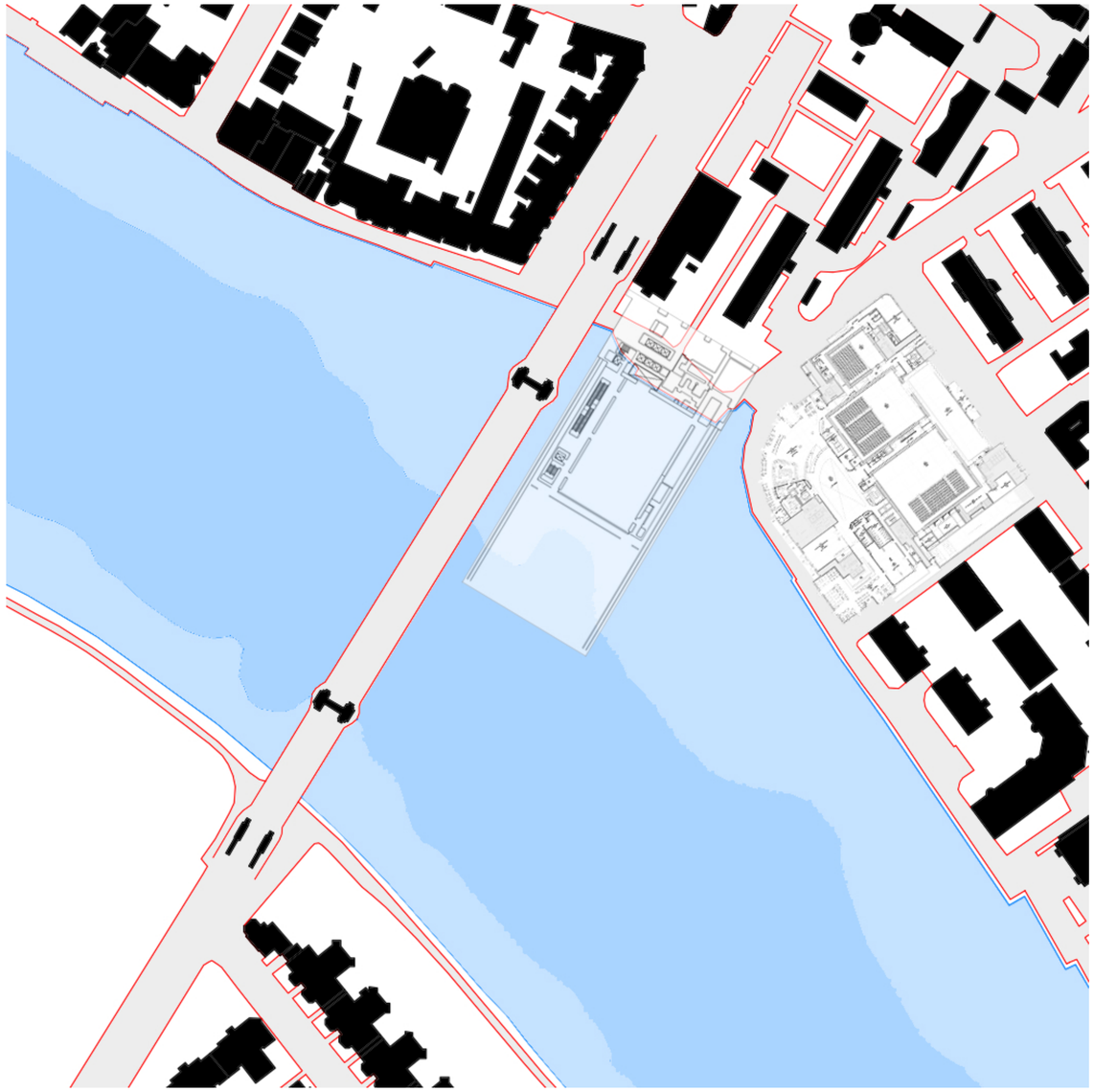
The Shed - 2nd floor 1:500

The Riverside Studios



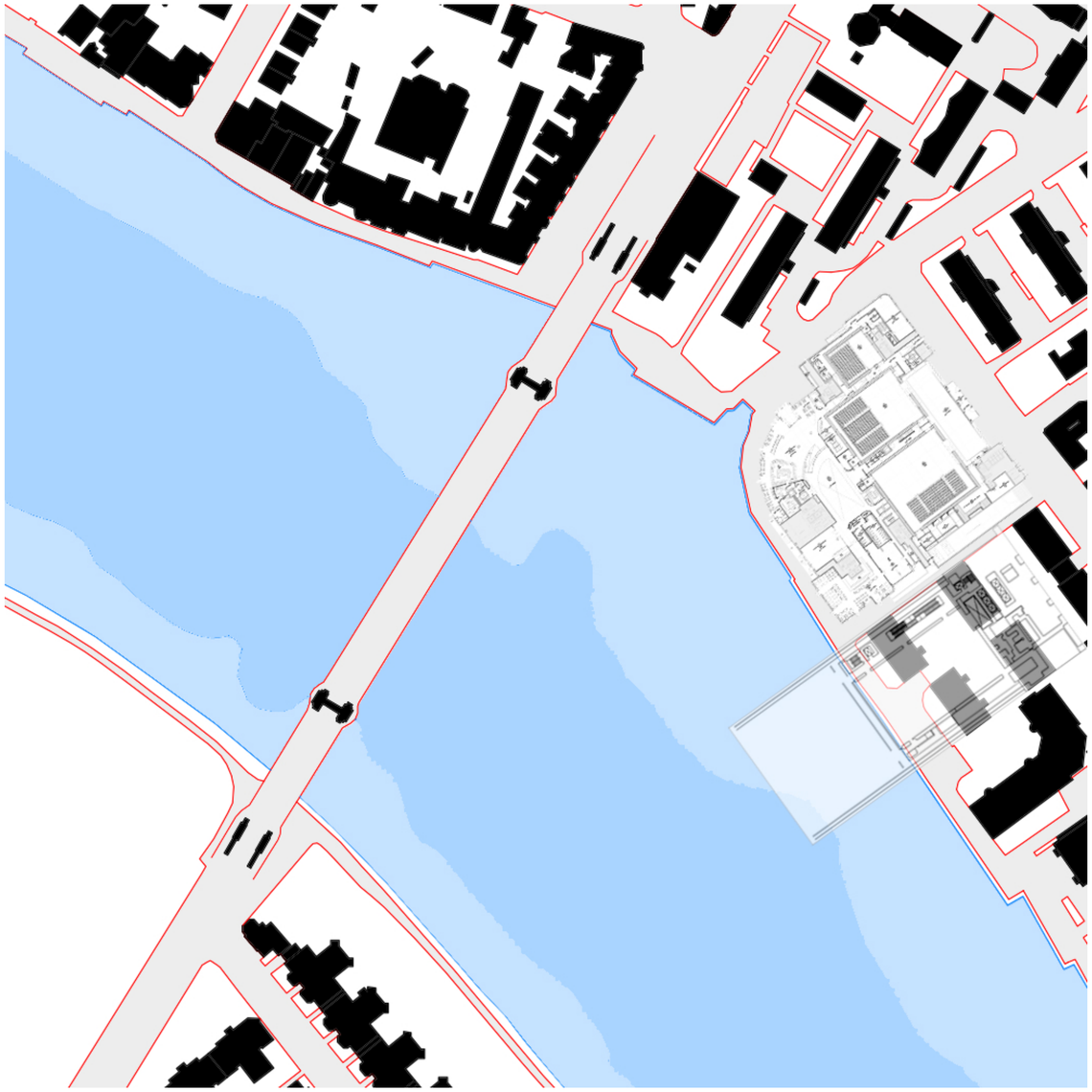
The reasoning behind these initial collages utilising a plan of my precedent study, the New York Shed, was to test different sections of the northbank as a potential design site for future proposals seeing which may have the most advantages.

I have specifically used the deployed plan of the Shed, as it covers the largest area and will therefore require the most consideration. Here I have simply butted the form against the river wall. Reasons being to then not disrupt the flow of people along the banks of the river and any existing structures. This being the first advantage, then due to the structure have a deployable form, the structure is able to reach low tide as shown. This meaning that there is able to be a continuous interchange between land and water throughout the day no matter the tide level.



Here I have pushed the plan so that it overlaps on to the land in order to reduce the interuption potentially caused on the river. The deployable feature of the Shed still reaches low tide but just occupies less of the river. The portion of the structure overlaping the land I would intend to construct so that it essentially 'leapfrogs' the existing path along the riverside, therefore still allowing people to pass by without the structure causing an interferance.

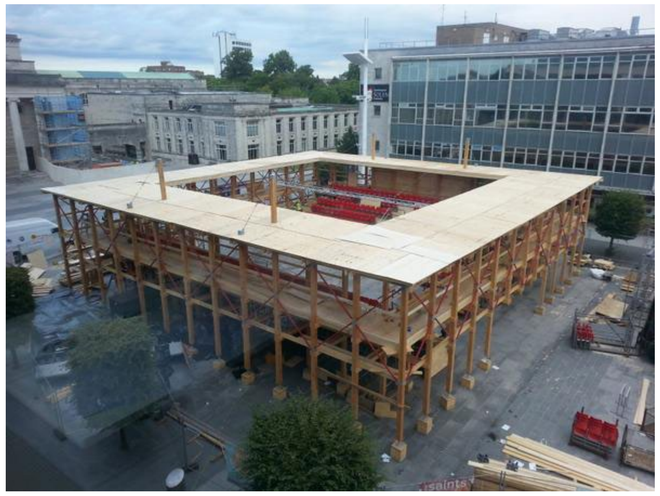
1 : 1000



The final proposal involves moving the structure further to the east along the north bank. The entire permanent structure is placed on the land with only the deployable section passing out onto the river, again reaching low tide. Along this portion of the bank there are various pontoons acting in a similar and with similar positioning to what the structure would have. The buildings currently in place are small standard flats which would be able to be reconstructed in nearby land resulting in no loss of housing. By using this proposal there would be no issue with interuption of flow along the site adjacent to the bridge and little to no interuption caused on the river.

1 : 1000

Sub Brief 3 - Introduction of the Playing Fields Theatre

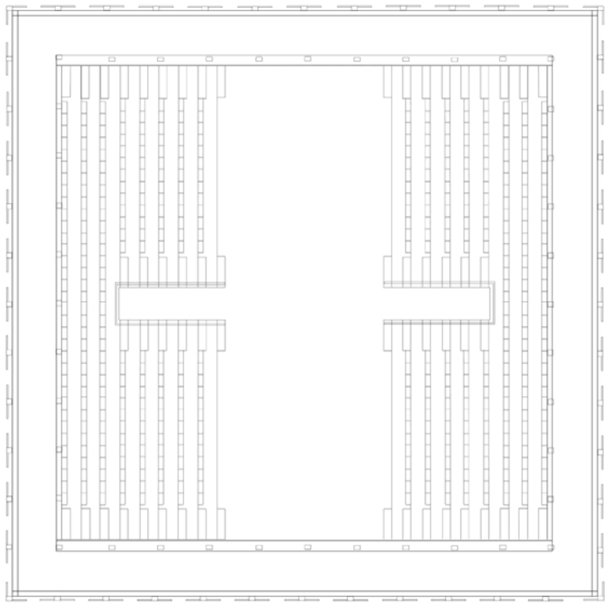


The Playing Field was a pop-up theatre, capacity of 450, completed in June 2014 to host performances for a 17 day art festival. The structure was built in a town square in the city of Southampton, commissioned by the Nuffield Theatre as a collaborative project between the city's art organisations. The purpose of the commission was to attract a new audience to the theatre 'universe' by utilising a new design form. This involved taking inspiration from the most successful of exhibition spaces, a football ground, hence the name. The idea was to take the basic premise of the typical theatre and the generic layout of the sport stadium to create the presented, new original design.

The theatre was formed so that there were large gates at either end allowing people to move freely through the auditorium when performances were not taking place. The Playing Field was designed with simplicity and efficiency being key factors, resulting in only one crane being required for the elements of the structure to be moved into place.

Due to the design location being in a city square, it prevented ground fixings from being used resulting in a rigid structure to weigh the theatre down. This caused for a system of timber beams supported by criss-crossing steal braces. This construction form, especially in terms of a visual aspect, I would like to employ in my personal designs going forward.

Moving forward in the design process I intend to start incoorporating the Playing Field plan with that of The Shed, collaging potential plan iterations to carry forward in the project.



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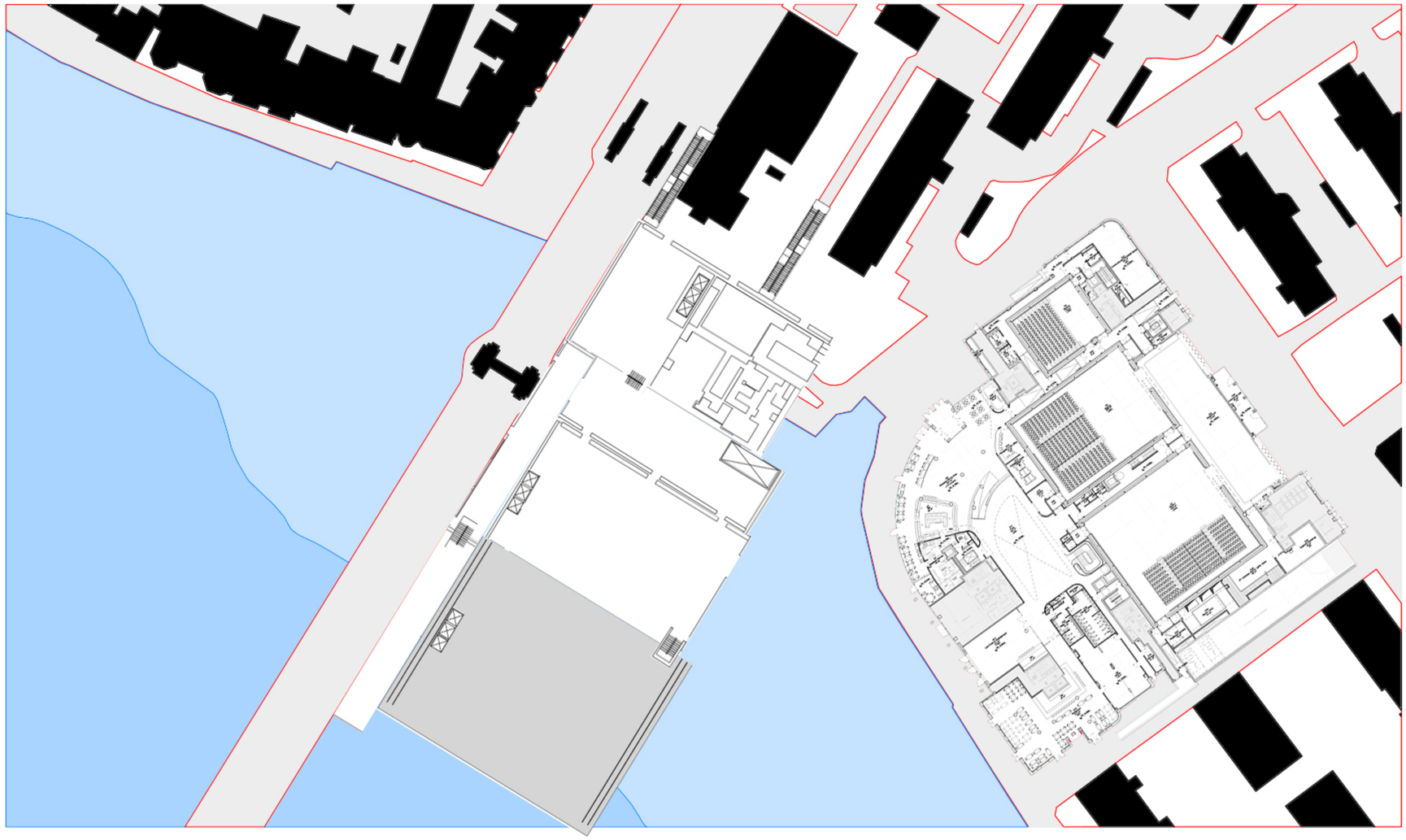
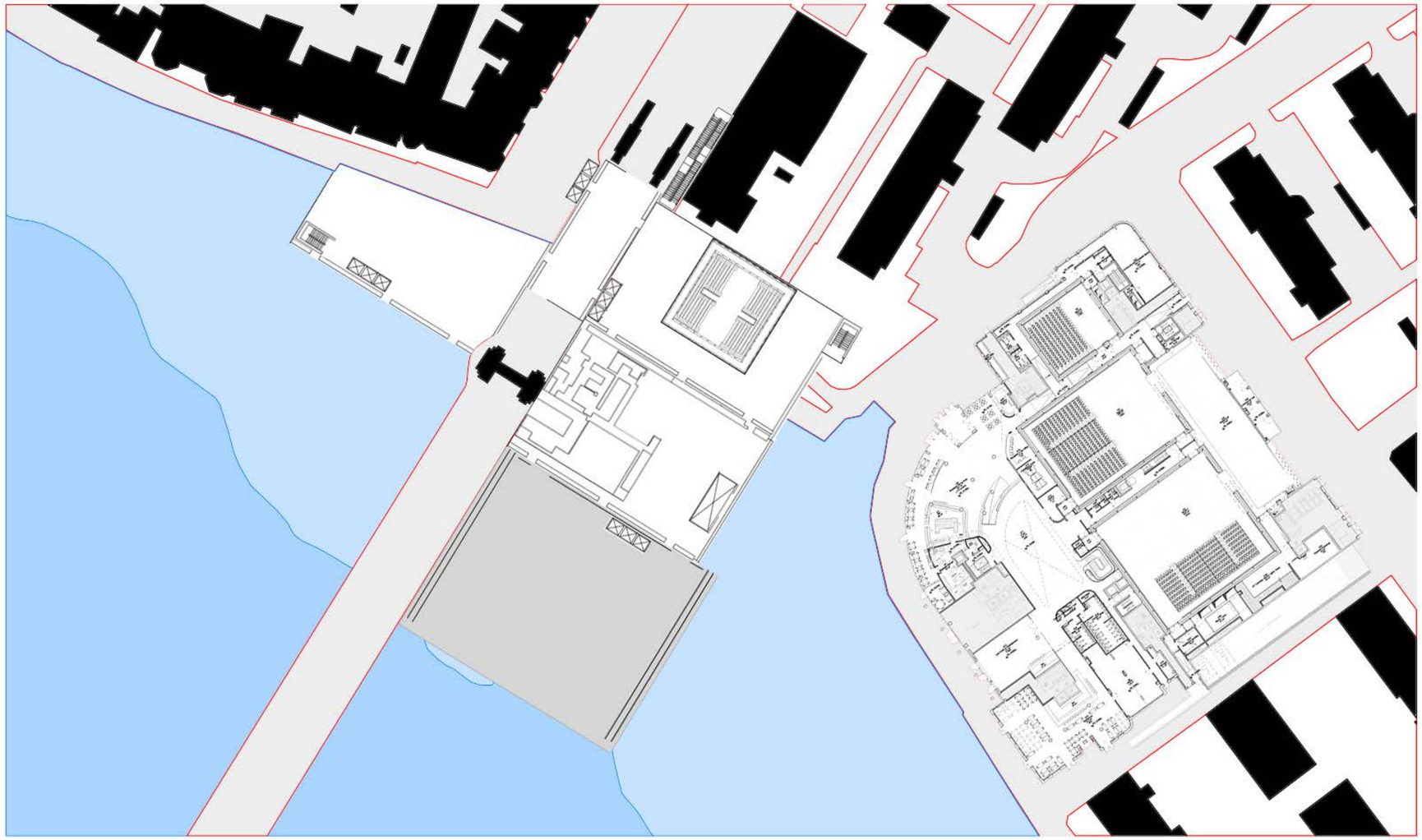
Sub Brief 3 - Is it possible to consider Hammersmith Bridge as a similar feature to the Highline where The Shed originally sits ?



The original Shed structure is designed adjacentl to the Highline, a walkway running the length of the building. This study was to see what structural configuration I could create using the bridge in place of the walkway. The purpose being to try and use the bridge to service the entirity of the potential structure. As can be seen I have designed the proposal so that as you move deeper into the building it opens up more so leading to the retractable temporary auditorium, key to the original structure. But, I am not sure as to how this would be structurally faesable this would be and the interior environment that would be created as a result. There is a permanent walkway running the length of the proposal to allow greater flow and access to the structure, expanding the narrow walkways of the bridge. Also the walkways provide an interchange point for the Thames Clipper service. The advantage of this configuration is still being able to maintain the precense of the extendable auditorium. Having is so that so that it moves out into the Thames is a key advantage as it does not require further land on the riverside. However, this may in turn cause high levels of disruption to the river traffic and may cause issues to arise with the numerous rowing clubs in the area.

1 : 500

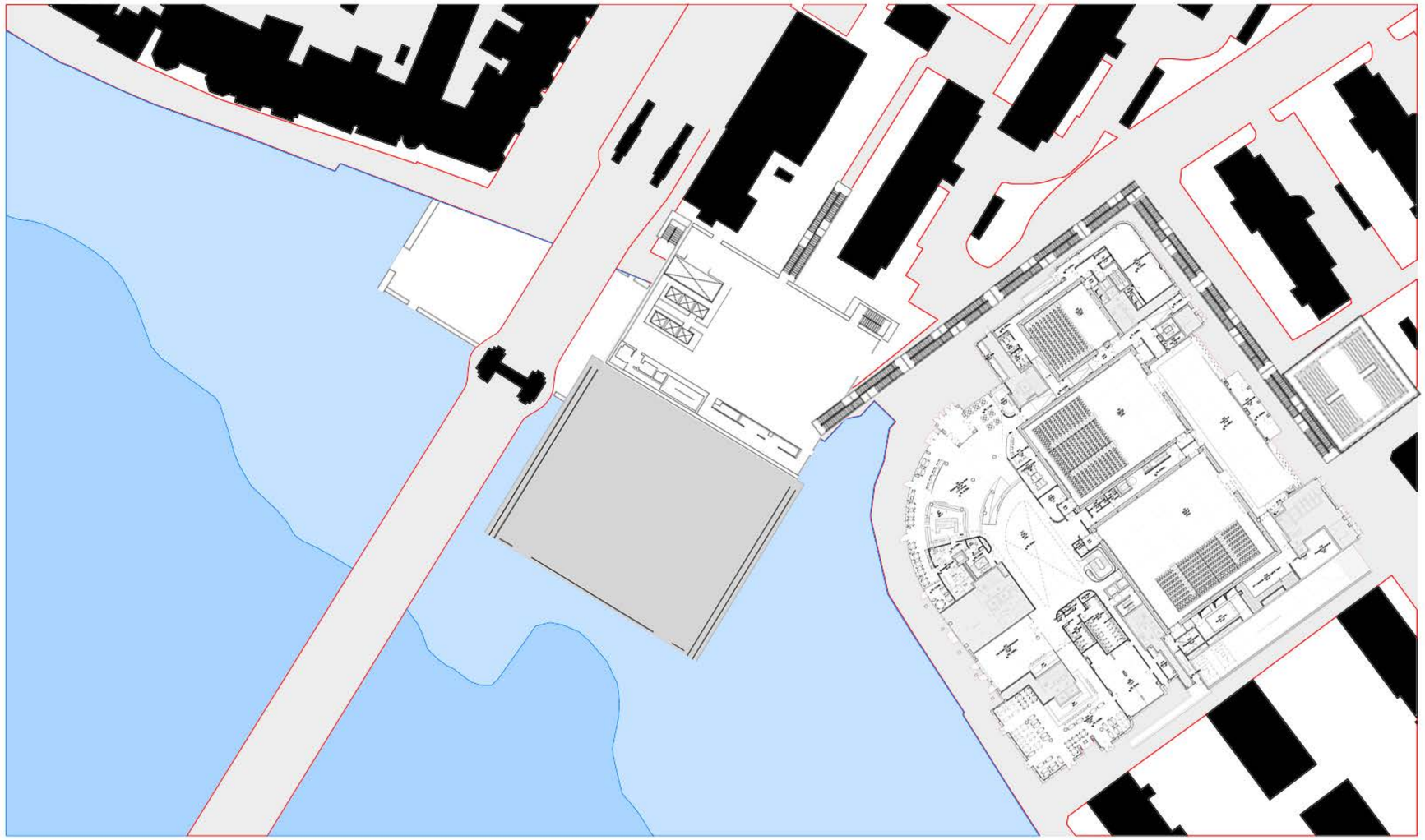
Sub Brief 3 - How can you combine surrounding travel routes with the access to the reorganised Shed and Playing Fields theatre ?



Here I very much centre the proposal around Hammersmith Bridge making it a central image to the structure due to its iconic precense in the area. Moving into the proposal from the riverside, I have placed the plan of the simple Playing Fields Theatre. The reason being to provide instant access to an auditorium from the riverside. This is to act as one of two spaces. You are then able to move through the space into where the offices / ticket office may be located before passing through into the secondary auditorium created by the Shed. On the south facing portion of the Shed auditorium a Clipper service stop may be located, providing a river interchange for the Hammersmith area. However, to do this the auditorium space would be significantly reduced in size, comprimising the capacity of the theatre. To include the bridge within the design I have considered the proposal 'leapfrogging' it to create a viewpoint raised above the level of the cars. This then moves back to water level where a potential restaurant / coffee house may be located. This is designed so that it fits within the border of the riverside walkway attempting to make the proposal combine with the landscape, a key factor of my design process. As just mentioned I do feel that the configuration does use the environment more, becoming part of it, along with less disruption being caused to the river. But, having to pass through an auditorium to reach the central box office will cause timing issues and potential disruptions in terms of performances.

1 : 500

Sub Brief 3 - How can you zone / organise the programs of the theatres within the surrounding streets of the design site ?



Here I have decided to expand the design site into the surrounding roads. I have tried to use the existing travel routes to aid the proposal. The idea is to essentially have two auditorium sites. One, located on the river front accessed through a large lobby area raised above the floor where people are still able to pass under along the walkway. Moving through the auditorium will give access to the Thames Clipper stop for Hammersmith. From here a restaurant can be accessed, partially using space under the bridge preventing further land usage elsewhere. To access the secondary site I proposed a walkway above the road to reach the Playing Fields Theatre. Inspiration for this design comes from the Chicago train network wherby they are able to run and other forms of travel are able to continue to occur underneath. The site of the Playing Fields Theatre is currently only a small playground meaning relocation issues are not a problem. I feel this proposal is a viable solution, creating a structure with a working flow of people throughout. Also, it does not appear to cause disruption to existing travel routes, most importantly being the riverside walkway. A downside is if the river were to flood above the high water mark which often occurs, the retaurant area would not be a viable option. Also due to the walkway moving round the back of the Riverside Studios where deliveries take place, disruption may happen.

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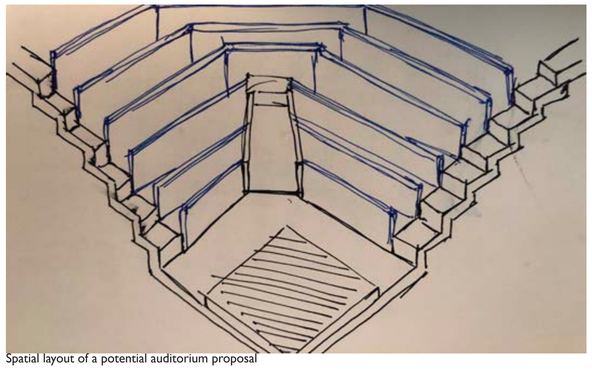
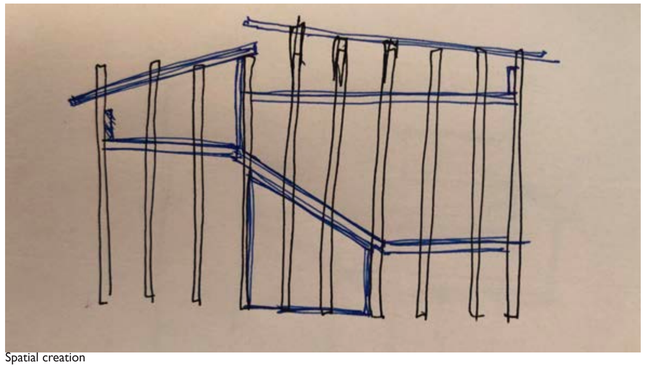
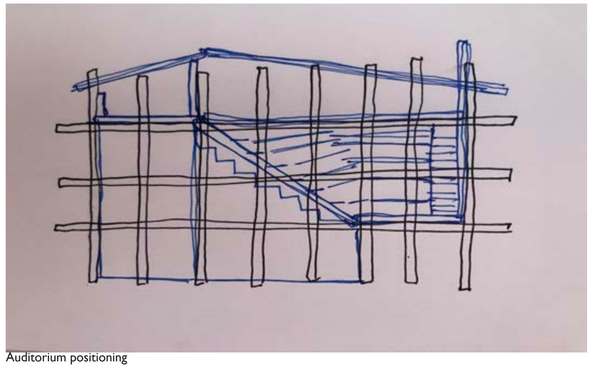

Spatial layout of a potential auditorium proposal


The auditorium seating and the wrap around walkway above


Spatial creation


Auditorium positioning

The Completion of Sub Brief 3, working with my precedent studies, resulted in the creation of potential spatial designs. The brief aided my process in working with the site to explore the various placement options that would be potentially possible on the site. The results allowed me to see where certain placements would excel compared to others. My proposal's spatial design was significantly developed as I worked with creating the various spaces which may be included within the structure, leading to the provisional 'mapping out' of the programmes to be contained within the structure.

Moving forward into the detailed design stage I want to start heavily working with the timber beam format I utilised in my first design project, recapped at the beginning of this portfolio. I want it to become the primary image of the proposals developed, acting as the main structure which then supports, or in some cases, creates the individual spacing for the programmes of the structure.

Initial Volumetric Sketch model

Rooftop gallery - potential bar area

Glass channel walkway - sound barrier to the main road leading to the brdge

Auditorium space

Escalator / ramp leading to the rooftop gallery

Theatre / thames clipper ticket kiosk

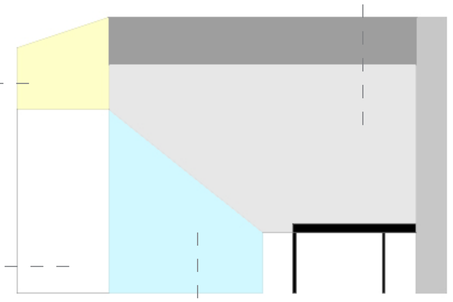
Riverside walkway void to incoorporate into the proposal

1 : 200

Initial Volumetric Model Section with Programmatic Collages

A potential arrangement / placement of the rooftop bar and walkway.

An interior view of the potential auditorium space, with a large window overlooking the adjacent Riverside Studios.



- Rooftop Bar / Walkway
- Public Walkthrough
- Theatre / Clipper Kiosk
- Auditorium
- Noise Buffer Channel
- Noise Buffer Channel
- Stage upon movable lift system

The underside of the auditorium hanging over the key riverside walkway maintaining its ability to be used.

The ticket kiosk arrangement for purchase of tickets for the Thames Clipper service or at certain times of the day, for the theatre.

The Louisiana Museum of Modern Art

The auditorium of this study building is what drew my attention. I have come to the conclusion that I want to implement a tiered seating style that wraps / partially wraps around the staging, in a similar fashion shown. Also I want to implement an entrance / exit which splits the seating in half. The reason being so that when people enter the theatre, they are initially in its centre, and then they disperse, rather than coming in through doors on the perimeter. Said design I feel would give those entering an initial intimate feel for the space. Before the performance has started, they have already been within a short distance of where the act will take place.

An aim of mine is to create an intimate theatre, where the audience can feel as though they are almost involved with what is occuring on stage. I think you can achieve this to a far greater level utilising a layout similar to that of the Louisiana Museum. Also, the formation of the auditorium gives a greater staging variancy, as a result of a broader range of view points from the audience. Unlike a 'head on' style theatre where the seats oppose the stage resulting in a far smaller variance of views being accessable. Stage designs can be made far more intricate due to them being able to be viewed from this greater level of viewpoints.

A key element of the auditorium which I want to utilise is the viewing gallery. Within the museum it overlooks the seating /stage from above, with a balcony feature in place. For my own design I do want to close of the gallery creating two seperate spaces. The idea being so that people are able to be in the gallery, potentially being used as a bar whilst looking over performances taking place below.

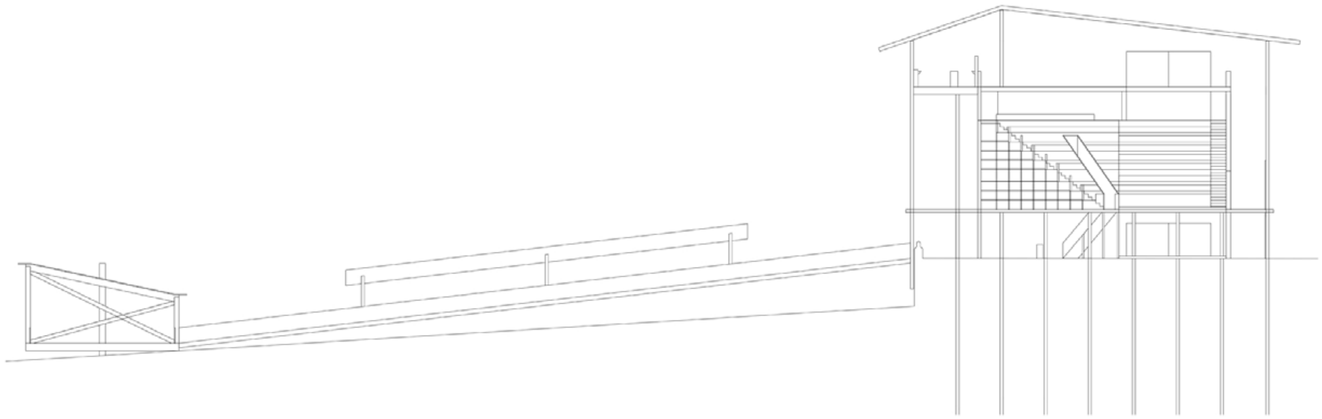
I want to make use of the natural light as much as possible within the design, reducing the need for artificial usage. To do so I want to implement similar windows in my design, as used by the museum. They may potentially run the length of the auditorium to allow an abundance of light into the space,

Peter Zumthor's Zinc Mine Museum

This study is to focus upon the developments of the exterior supporting structure, a potential primary 'shell' that I want to support the individual spaces of the proposal. Through the coming design stages I want to place a focus upon these key structural elements of the proposal. I have previously mentioned how important the riverside walkway is and that the the design must accomodate its placement, allowing people to continue passing along the route at all times. This has led me to the notion of the structure potentially 'leapfrogging' over the path. I want to employ a system similar to what is shown in Zumthor's study whereby the building is supported by a beam configuration. A system which has the potential to be easily adapted to cater for spaces implemented within the structure. I find it facinating to see how the primary structure, the beams are exposed to the open air, and then contain the actual forms within it. Exposing the raw form of the building similtaniously creates the visual architecture which people see, a method which I very much want to continue with and heavily integrate into my personal studies.

Shown in the second image is another element of the study which I am interested by. The form is attached to the side of the vertical wall, appearing as though it is, to an extent, part of the wall. The structure becomes part of the existing physical landscape. in terms of practicalities this is a positive as it uses lest land space. However it is the visual form I am interested in. I want to work with my study so that it starts to become part of the riverside area, and less so a completely seperate form that has been placed in the design site. I would like the proposal and the site to become one rather than two seperate entities.

1st Design Iteration - Long Section



The purpose of this first design section was to really start understanding to spaces that I wanted to work with through this design stage, hence the lack of material precence, I wanted the spatial forms to be strong before moving on to the finer details. The main focus is of course around the auditorium area, hence why I have positioned it within the central portion of the structure. I really want to start working with the form of the auditorium appearing suspended within a wooden beam formation, seeming as though it is two seperate designs that have been intertwined. After completing this section, a particular factor that I want to focus on and develop into becoming a key view of the proposal is the underside of the auditorium. I have designed the theatre so that people are able to, essentially, walk through it at ground level, and I want the undulating underside to have a strong precense in what their view may hold as they pass through or when they are visiting the theatre. A key element of this early design I want to point out is the attachement of the river facing beams to the river wall, a design form I found intriguing in the research of Zumthor's mine museum.

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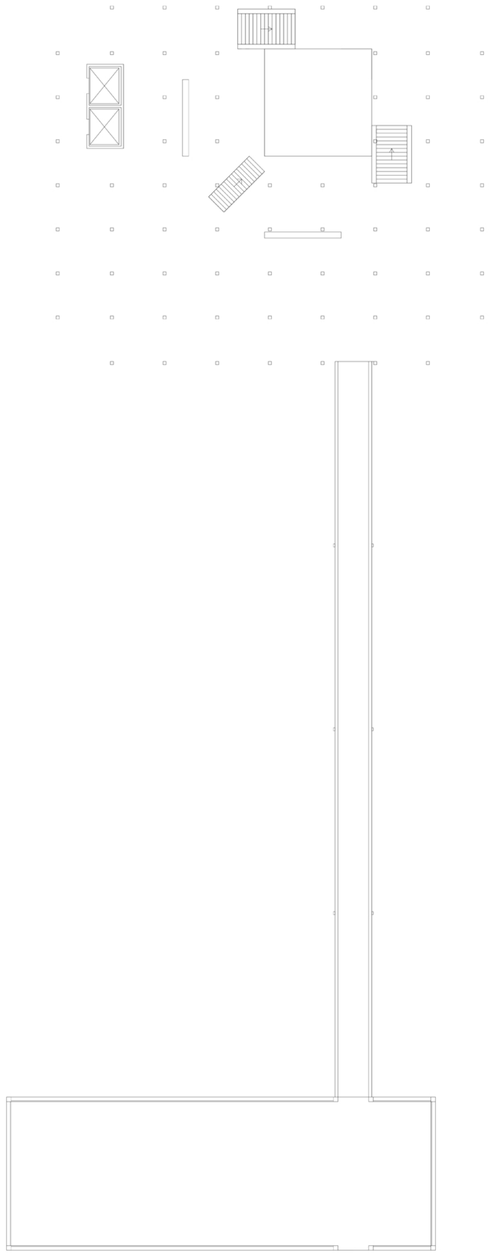
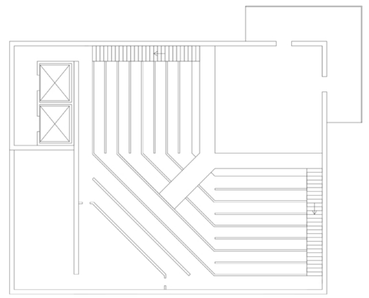
1st Design Iteration - Plans

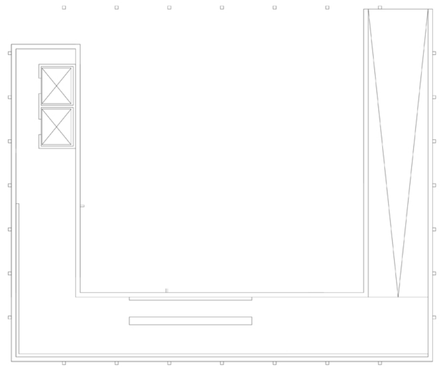
Ground Floor (street level)



Auditorium Floor



2nd Floor (viewpoint / bar)

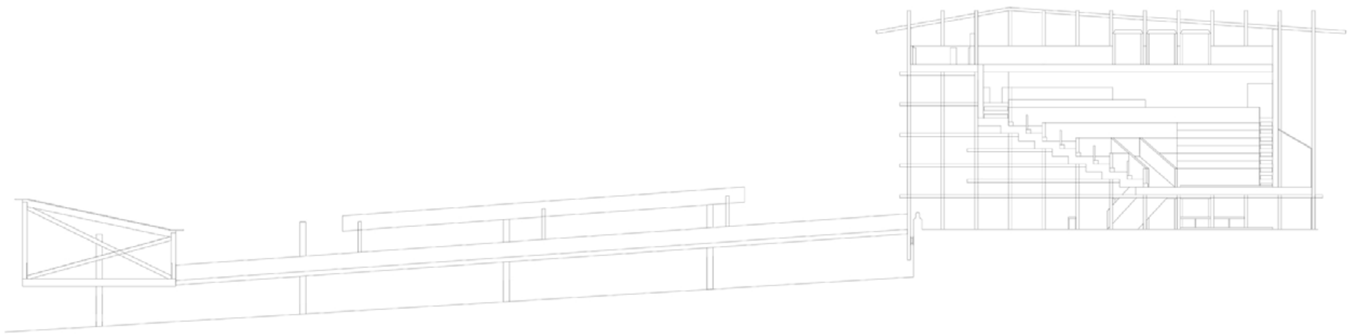


As mentioned previously this first iteration was focused upon the spatial designs, creating the areas that I wanted to be present within the riverside theatre structure, The auditorium area I designed so that the audience essentially wraps around the staging, taking inspiration from the stage style used in the Young Vic Theatre, By doing do I felt that it would encapsulate the staging making for a more intimate environment. Of course there would be a need for a entrance / exit from the theatre space and I felt that a central form would suit the design, allowing people to enter and then disperse accordingly. This is instead of having to move across the entire auditorium, if the entrance was located upon the perimeters. I have included a passageway exterior to the main structure of the auditorium, adjacent to the stage, accessable by two doorways, for use by actors as a 'back of house area.' Passing through the passageway and down sets of stairs can then lead to the exterior of the structure. I have included another 'back of house' area to act as the primary storage space located within the auditorium in the opposing corner in a seperate room. this would be accessed by passing through the lighting area at the rear of the theatre.

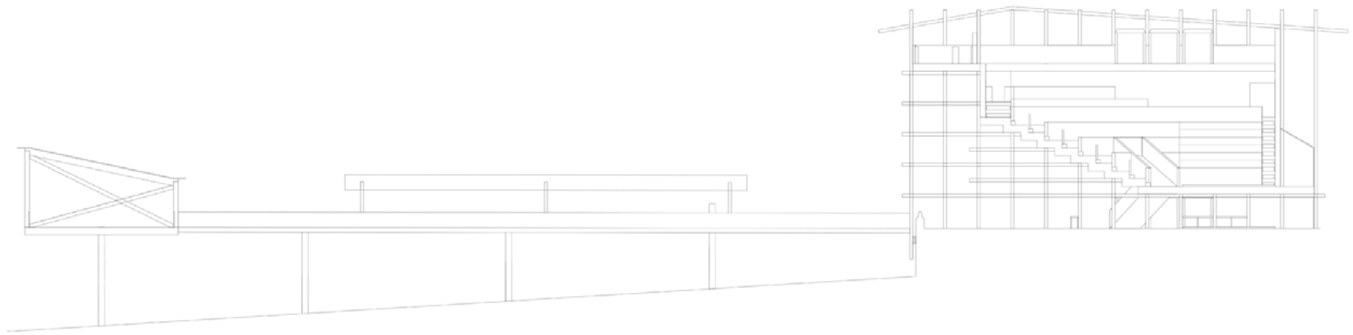
Located on the second floor, wrapping around the theatre space seperated by a duel glazed wall, is the viewpoint likely to be used as a rooftop bar. I wanted to provide an additional space which allows people to relax with a view over the river, potentially for pre-performance use where people may meet one another. There are lifts present providing access to all floors, prioritised for disabled use. In terms of general access to the bar area, I am intending to implement either stairs or duel escalators located in the east side of the site (currently shown by a ramp).

Due the proposal being designed around the formation of a series of wooden beams, resulting in one being able to still walk at ground level through the structure upon the existing path, it allows a simple inclusion of the pontoon bridge leading to the Clipper station, positioned at low tide. I intend to design this pontoon in a similar fashion to the main structure so that it is one proposal rather than one butted against another. This will include vertical beams positioned both sides of the bridge and the pontoon, to keep both steady in the current of the Thames.

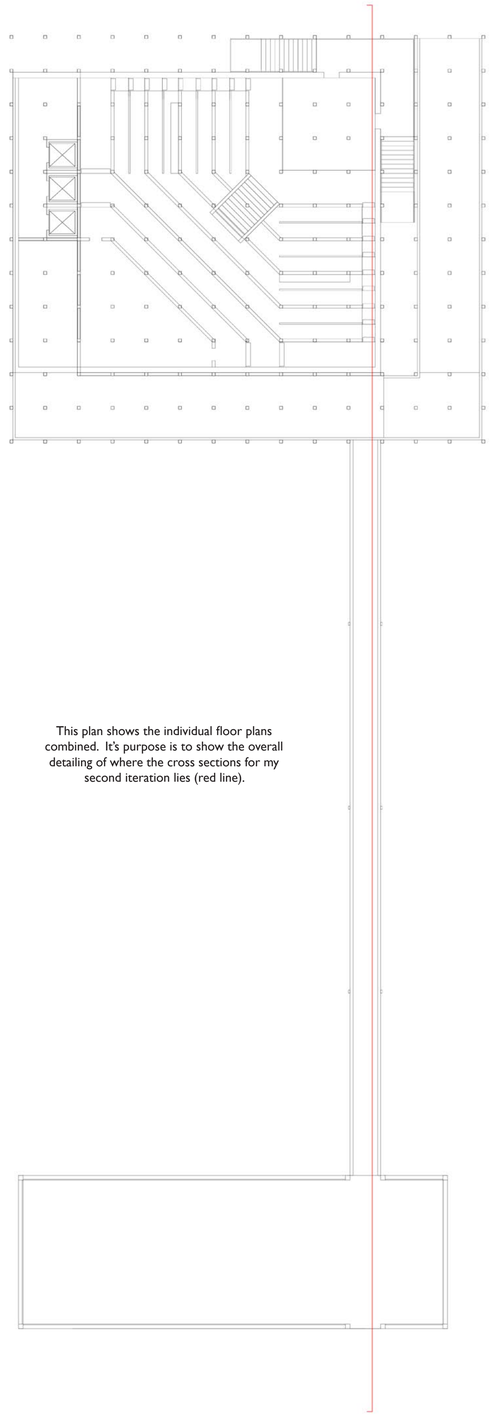
2nd Design Iteration - Long Section



Low tide



High tide



This plan shows the individual floor plans combined. It's purpose is to show the overall detailing of where the cross sections for my second iteration lies (red line).

The primary adaptions in this section iteration involve basing the proposal around a regulated grid of vertical beams (each beam being 20x20cm). In the previous iteration I began the design by first creating the spaces to which were going to be included, and then added the structural support. However, when combining the two components issues arose in regards to the integrity and composition of the structure. Therefore giving reason for the first step in this iteration being the structural beams. A finer detail of the beam devleopment, is the attachment to the river wall. In the previous iteration they were butted against one another, however this would result in the wood being permanently wet without being able to dry, in turn causing damage to the beams. To solve this issue I have pulled them away from the wall through the use of a metal attachment, resulting in allowing water to pass round the beams and drain away when the river is at low tide, preventing damage to the wood.

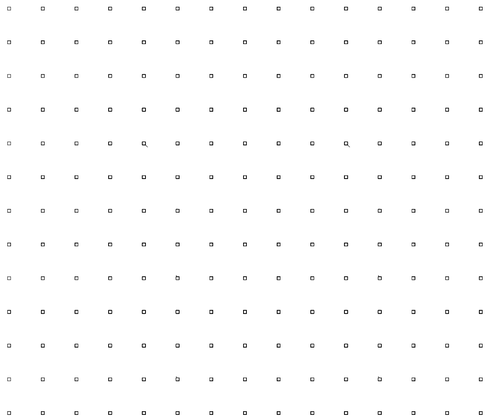
The benefit of having the base grid to build from was it set out where I would be able to design and the constraints that would potentially be in place, regulating developments made. I wanted to start to progress with the mentality of the beams 'holding' the spaces, utilising horizontal beams in certain portions of the design.

In addition to the development of the grid, the spatial aspect of the auditorium has been revised. The entrance / exit now appears far more proportioned to the adjacent seating, preventing the elongated opening seen in the last iteration. This has aided the process of making the seating more open with an increased capacity, due to the lack of the tunnel cutting through.

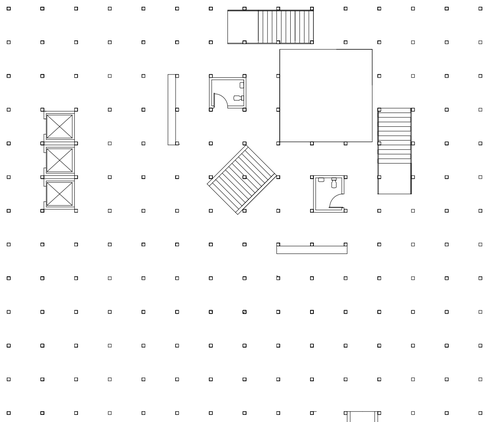
1 : 200

2nd Design Iteration - Plans

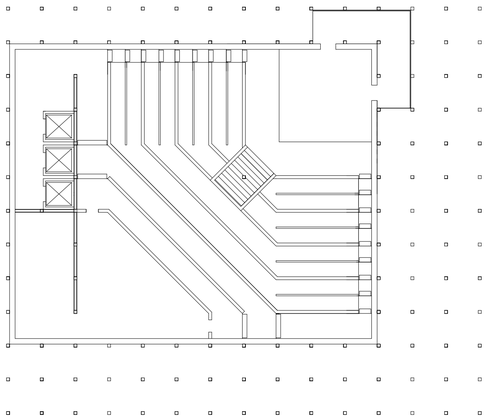
2x2m vertical beams



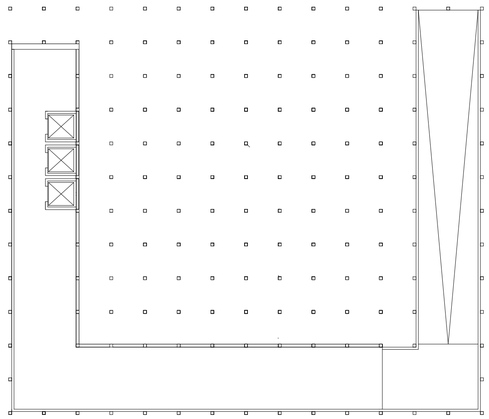
Ground Floor (street level)

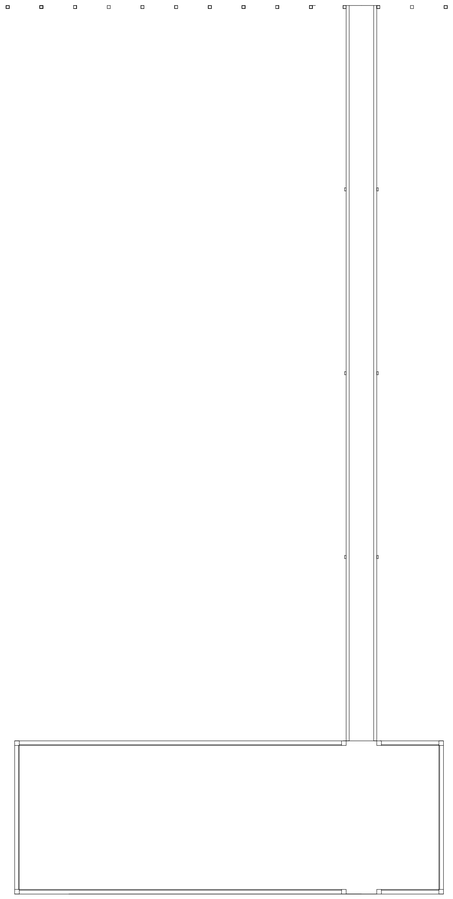


Auditorium Floor



2nd Floor (viewpoint / bar)

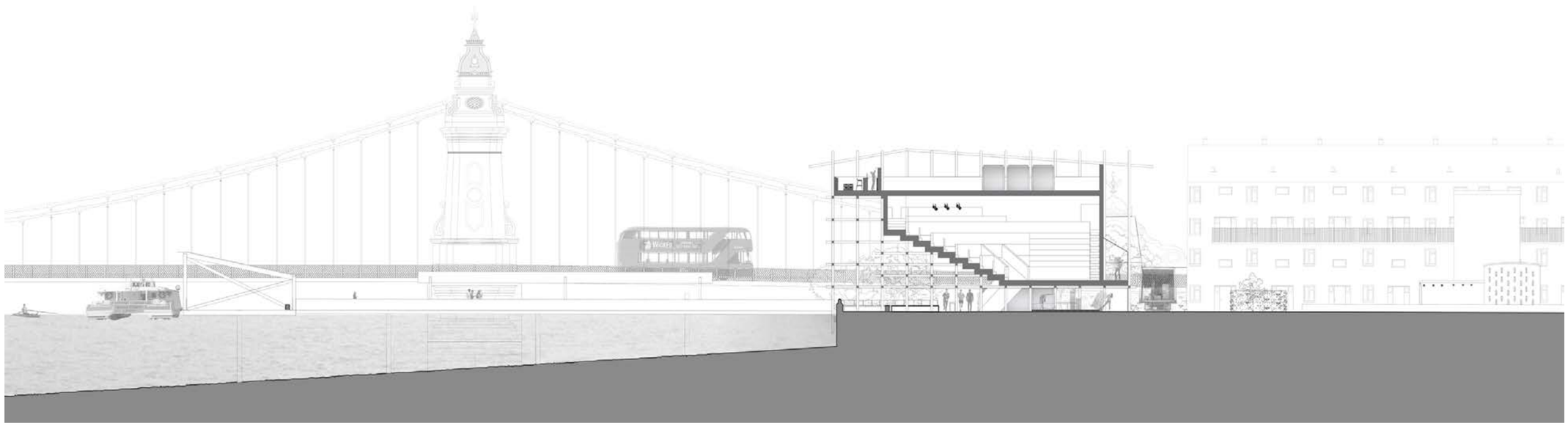




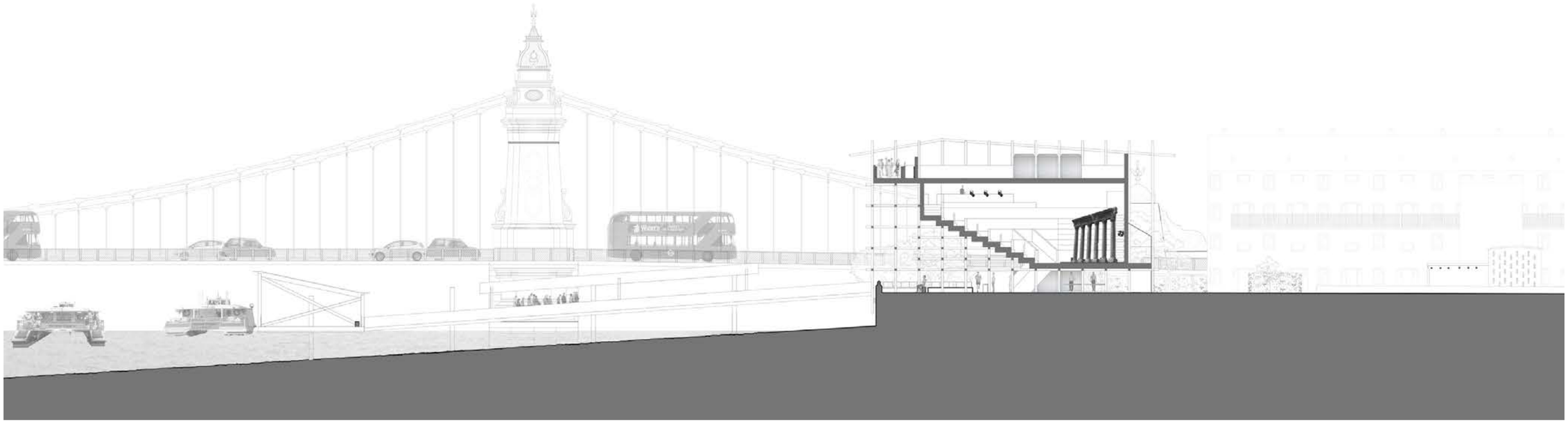
The improvements between the previous iterations plans and the current can clearly be seen, most noticably with the proposal now fitting to the 2x2m wooden beam grid, mentioned in the annotation of the accompanying section. I feel that by utilising the structural grid, apart from making the proposal a stronger form, the design has become more refined and regulated, whereby each space created is now controlled and manipulated by the vertical beams. The beams are now the primary form compared to the previous iteration where by the spatial design was the primary.

A key feature to mention is on the ground floor plan of this iteration. I have shown the plan lying in the same location as it is in the auditorium. The reason for this being is the stage acts as a lift system which enters and exits the theatre, allowing for large scale deliveries straight into the space. A feature I have again fit directly within the grid system being used as the basis for this design.

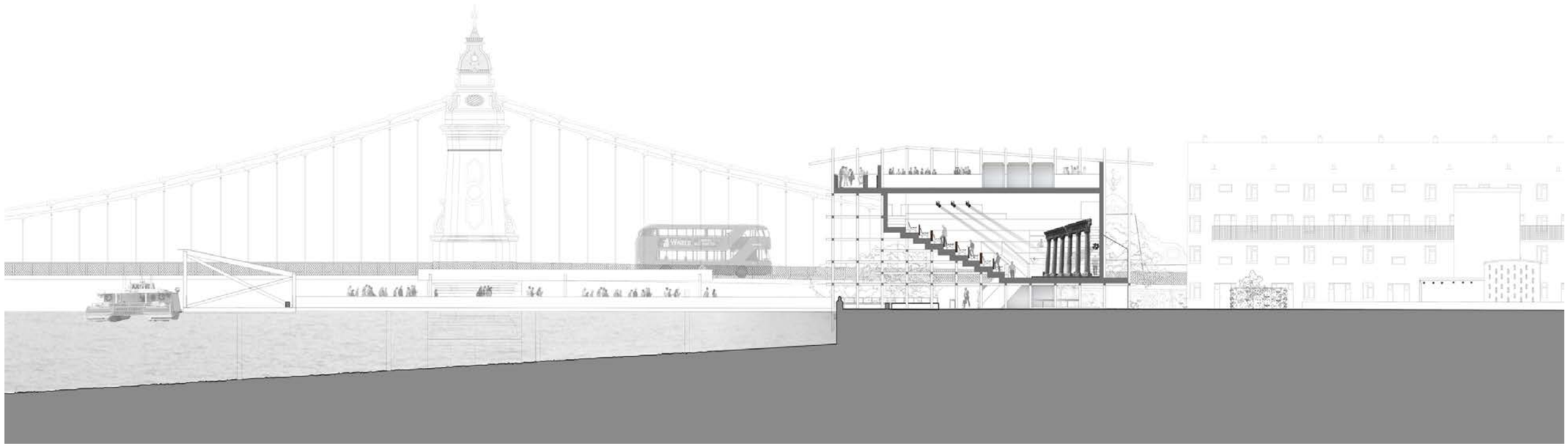
1 : 200



The purpose of this trio of montages is to utilise the current section iteration I am working with, to view the proposal at different times of the day. Above is the morning set up, approximately 8:00 am, when the Thames is at high tide. Earlier in this project, I talked about how I wanted to maintain the riverside pathway, so on this montage I have shown how people are still able to utilise said pathway by walking through the structure on their way to work. The Thames Clipper interchange is also in use, with people disembarking for work in the Hammersmith area, an action which would not previously had been possible due to the lack of said feature. Also shown are deliveries being made via the the walkway exterior the auditorium adjacent to the stage and via the stage lift, a feature of the proposal allowing large scale deliveries directly into the theatre.

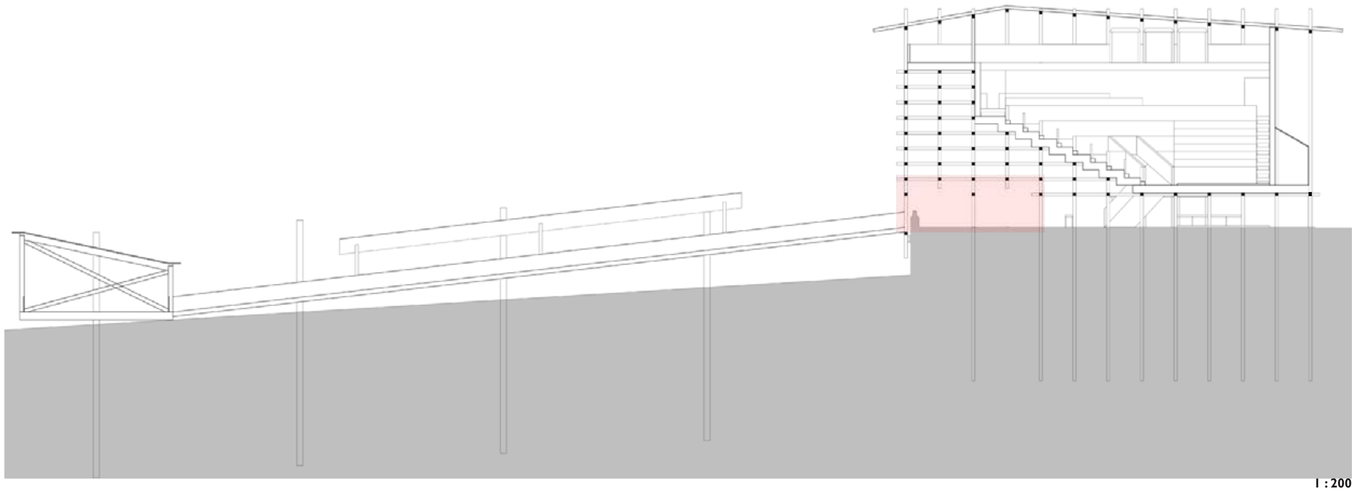


The time of this montage is approximately 1:00 pm, at which point the Thames is at low tide. What I feel would be typical of the proposal at this time, firstly, is the pontoon in use of river access. Secondly, is the top floor, bar area, which I felt may potentially be in use by people meeting. The idea of this being to show that the structure is not just for theatrical purposes. At the current site benches are present overlooking the Thames, as shown in this montage I want to keep them in place as the they seem popular throughout the day. In terms of the interior of the auditorium, I feel this is when the space would be getting set up for evening performances, hence a man present checking the lighting in the back of house area. Due to the stage lift, the set for the evening performance has also been installed.



This is the evening setting for the proposal, around 8:00 pm, high tide. I wanted to show how there would be a great influx of people within the vicinity due to a performance at the theatre approaching, hence the greater populated pontoon bridge. Also I have increased the presense within the bar area, I want to demonstrate how the upper floor of the proposal can be a popular location for theatre goers prior to a performance. The stage is now fully set and lit demonstrating how the auditorium may appear at the time of use, along with the space now being inhabited. By doing so, the montage starts to give an idea as to the scale of the structure and its potential occupancy.

3rd Design Iteration - Long Section



1 : 200

1 : 50

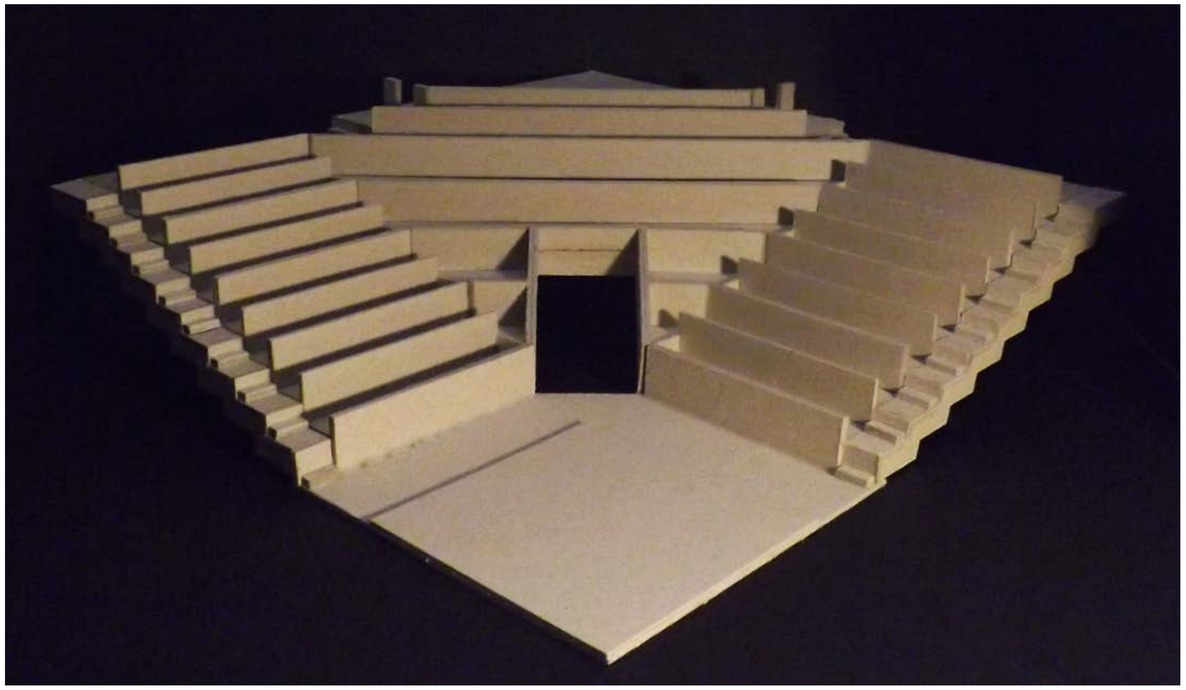
Iteration 2

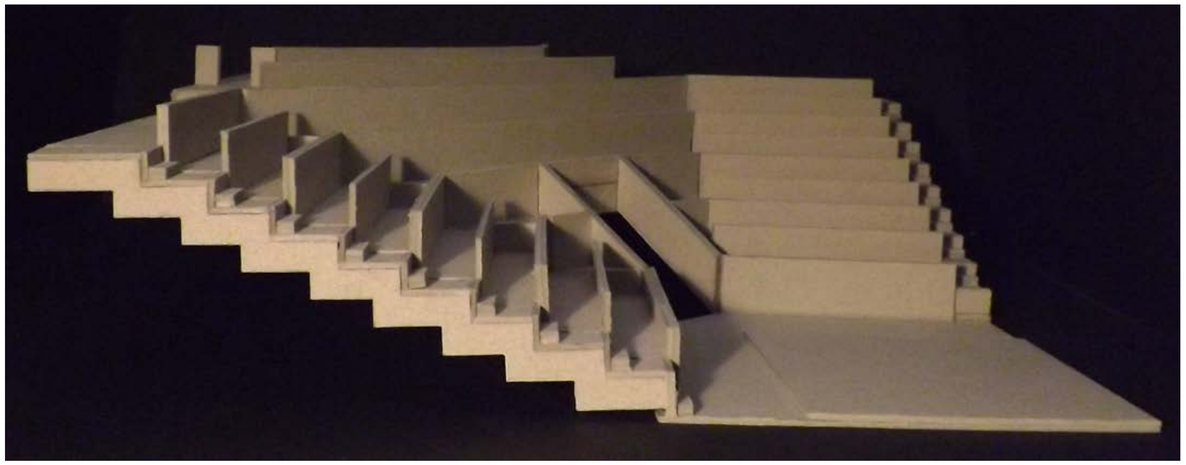
1 : 50

Iteration 3

For this iteration I only made minor changes , specifically to the region of the proposal adjacent to the riverside walkway. In the previous iteration I laid out vertical columns equaly spaced, spanning the width of the structure. As a result people are able to make they're own path when walking through the structure when moving from one side to the other. However I felt that in the location of the route of the path, there is likely to be an issue with overcrowding. Hence, I felt it necessary to open the routes in the specifc location essentially allowing for a greater flow of people to path through without feeling crowded by other users. Also, by making this adaption it allows for people disembarking from the pontoon bridge to have an easier passage on to the path, preventing the chance of one colliding with another.

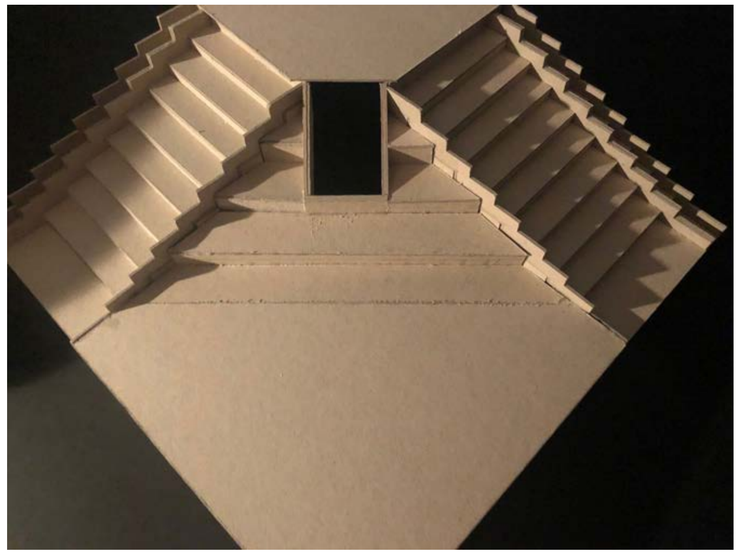
1:50 Auditorium Model - Gaining spatial perspective



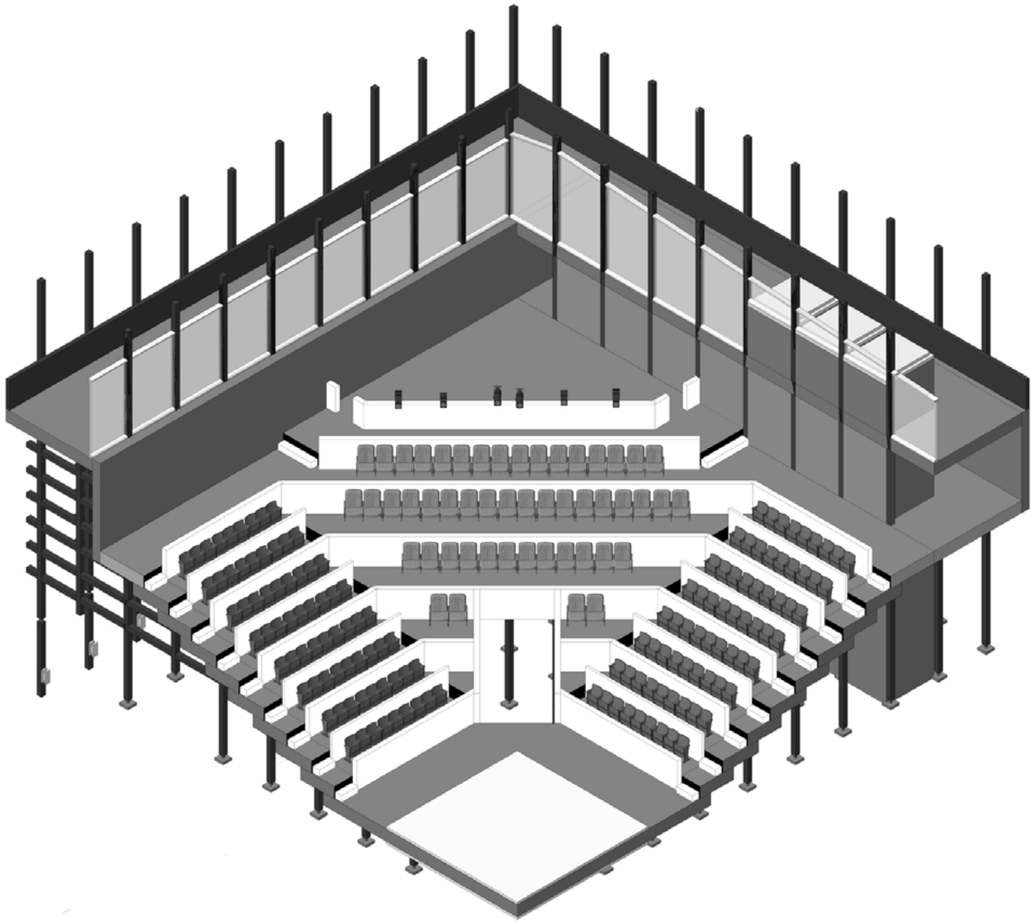


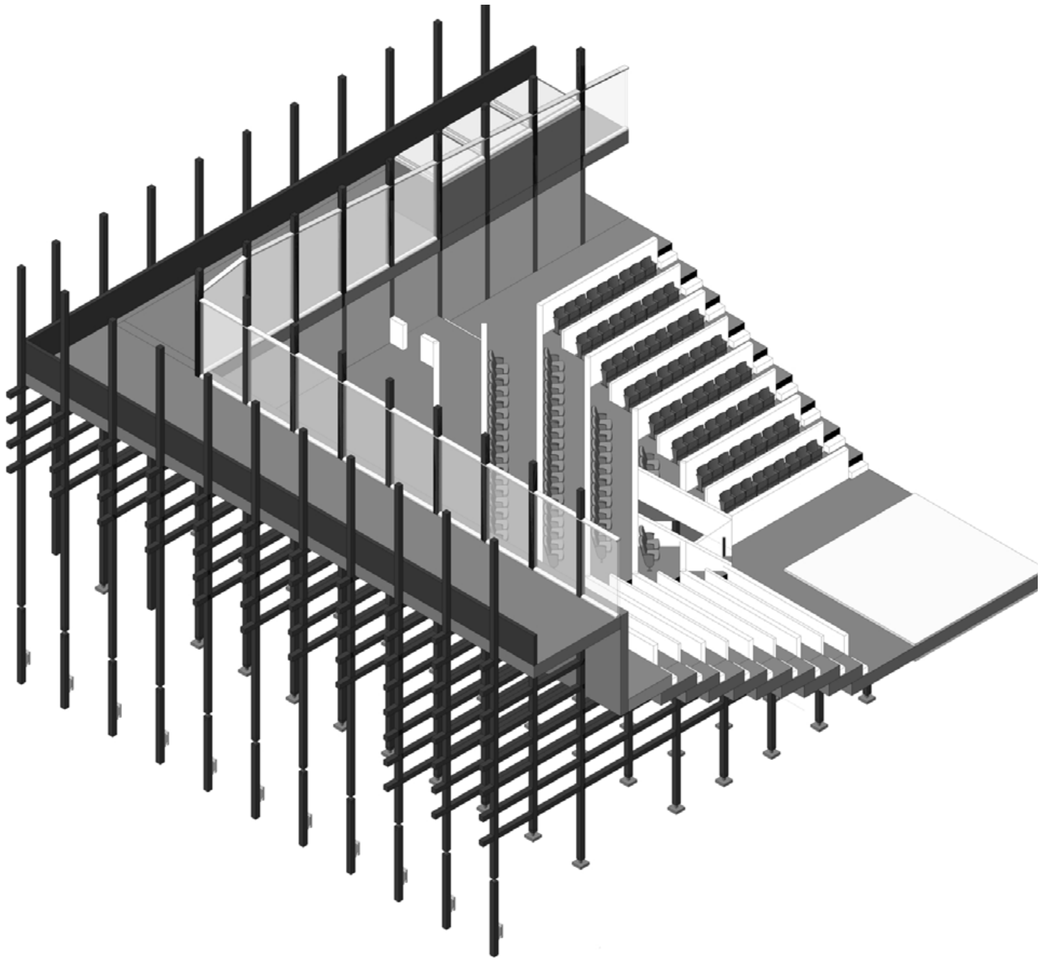
After several iterations I felt like I was at the design stage where I felt had a solid basis to the overall structure and shaping of the proposal. As a result I wanted to really start to consider the interior layout of the auditorium, leading to the creation of this physical model. I decided not to make a physical model of the whole proposal as I did not feel that a home made model from card would do the design justice. Preferably I would have liked to construct a whole model out of wood, as you would then have been able to fully comprehend the design, however this was not possible due to the closure of the university as a result of Covid-19. As a result I chose to model the primary element, the auditorium. Through the process of it's construction I began to understand the layout I was working with and actually have some perspective of what the interior would physically feel like, an element of this design process that could only have been taken into consideration only so far through sections and plans. I felt a 1:50 scale would be appropriate for this model as it would be large enough for me to gain the necessary understanding of the proposal I have been working with, any smaller and I dont think this would have occured.

The creation of this model also allowed me to gain a greater perspective of what the proposal would look like from the riverside walkway passing underneath the structure, shown in the image below. The tiered system of the interior I want to make sure is exaggerated on the exterior as well, almost as an interior/exterior reflection, making it a iconic view of the proposal.



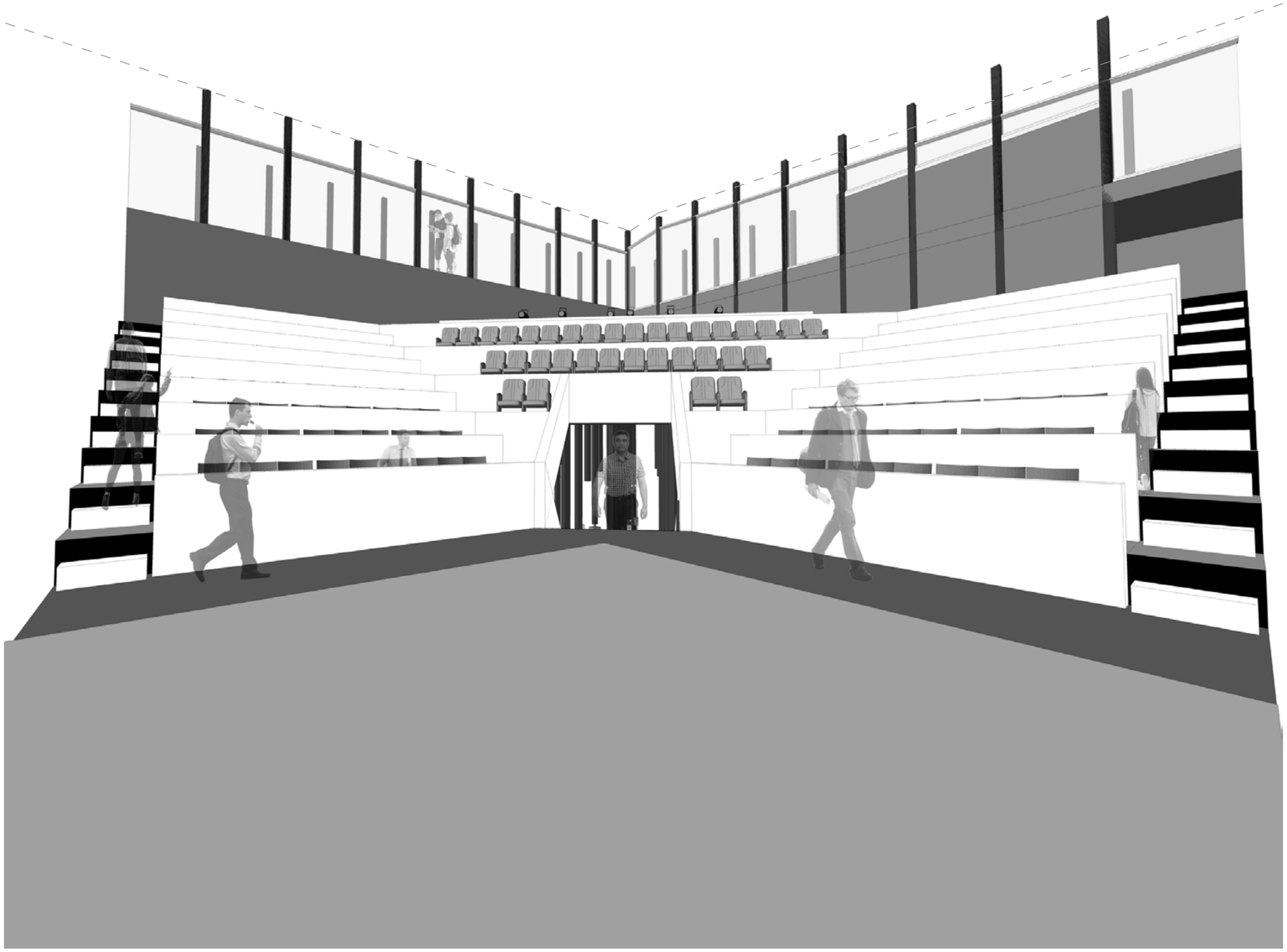
Auditorium Design - Isometric view



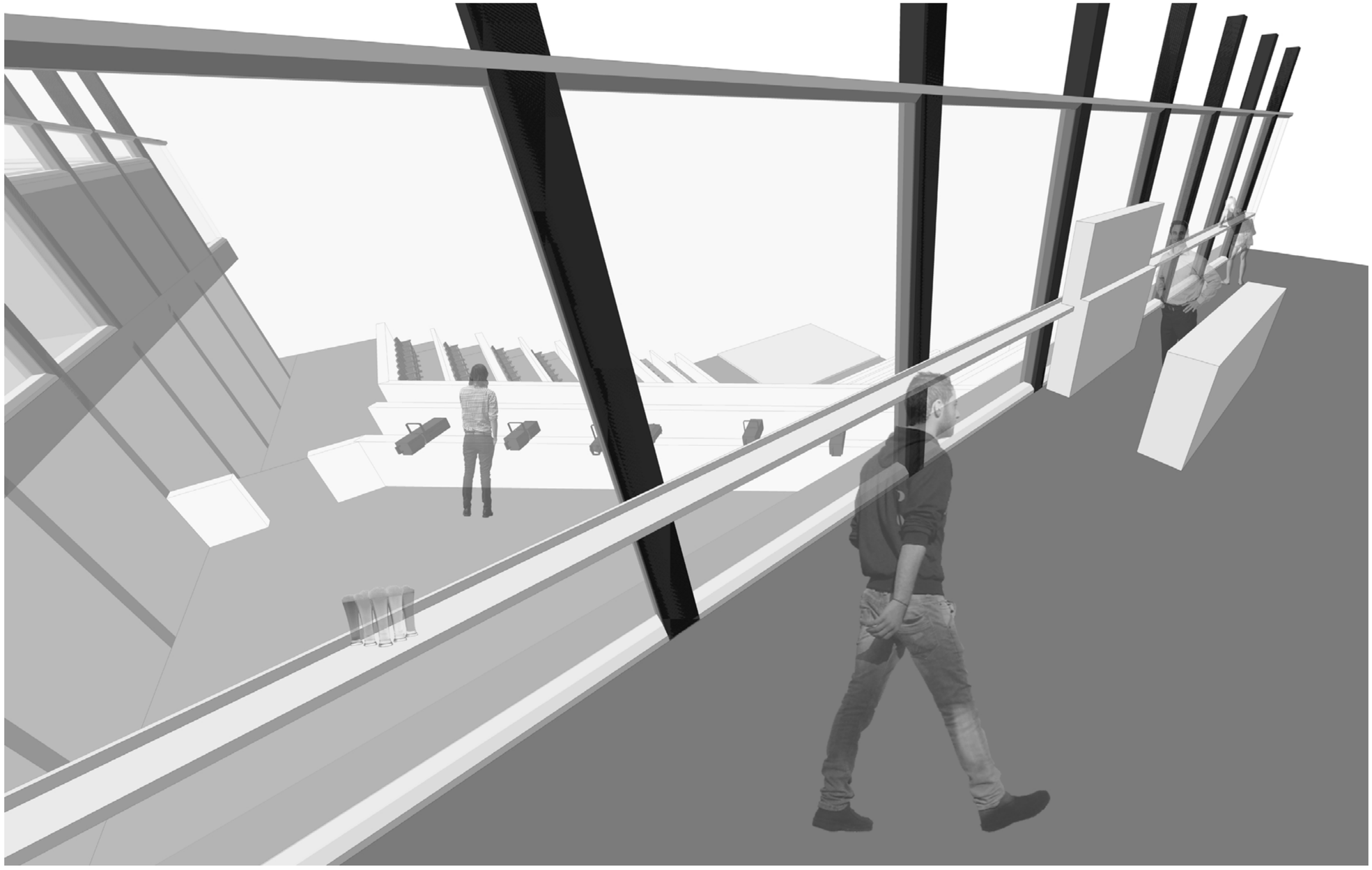


The model above has been constructed utilising the program Vectorworks, the roof and side walls have not been added for visual analytical purposes. I intend to complete the model but I wanted to utilise this stage of the production to view the auditorium space in isometric view, similarly to the previous phyiscal model, to aid the understanding of the spatial aspects of the void created. I have designed the seating layout so that standard seating is on either side of the entrance / exit with premium seating located inbetween, providing optimum angles upon the stage. I have also allocated a portion of the auditorium to disabled seating, located on the same level as the lifts, so that stairs do not become an issue for wheelchair users and alike. Also on the model I have begun to construct what I think the upper floor walkway, bar area, may appear as, you are able to see the walkway and the theatre space are completely seperate but you are to able to see through, along with light being able to pass through. This is a key element at this stage, as I want the theatre to be able to utilise as much natural light as possible when able to. Lastly, two seperate rooms are shown coming off the main auditorium. In the opposing corner to the stage is the back of house area, positioned so that access is only possible by passing through the lighting platform, preventing the public gaining potential access but also for ease of storage. Adjacent is where people will move to if needing access to the lifts, providing travel to the upper level or back down to the riverside, use of the lifts will be prioritised for those less able to use the stairs in the centre of the auditorium.

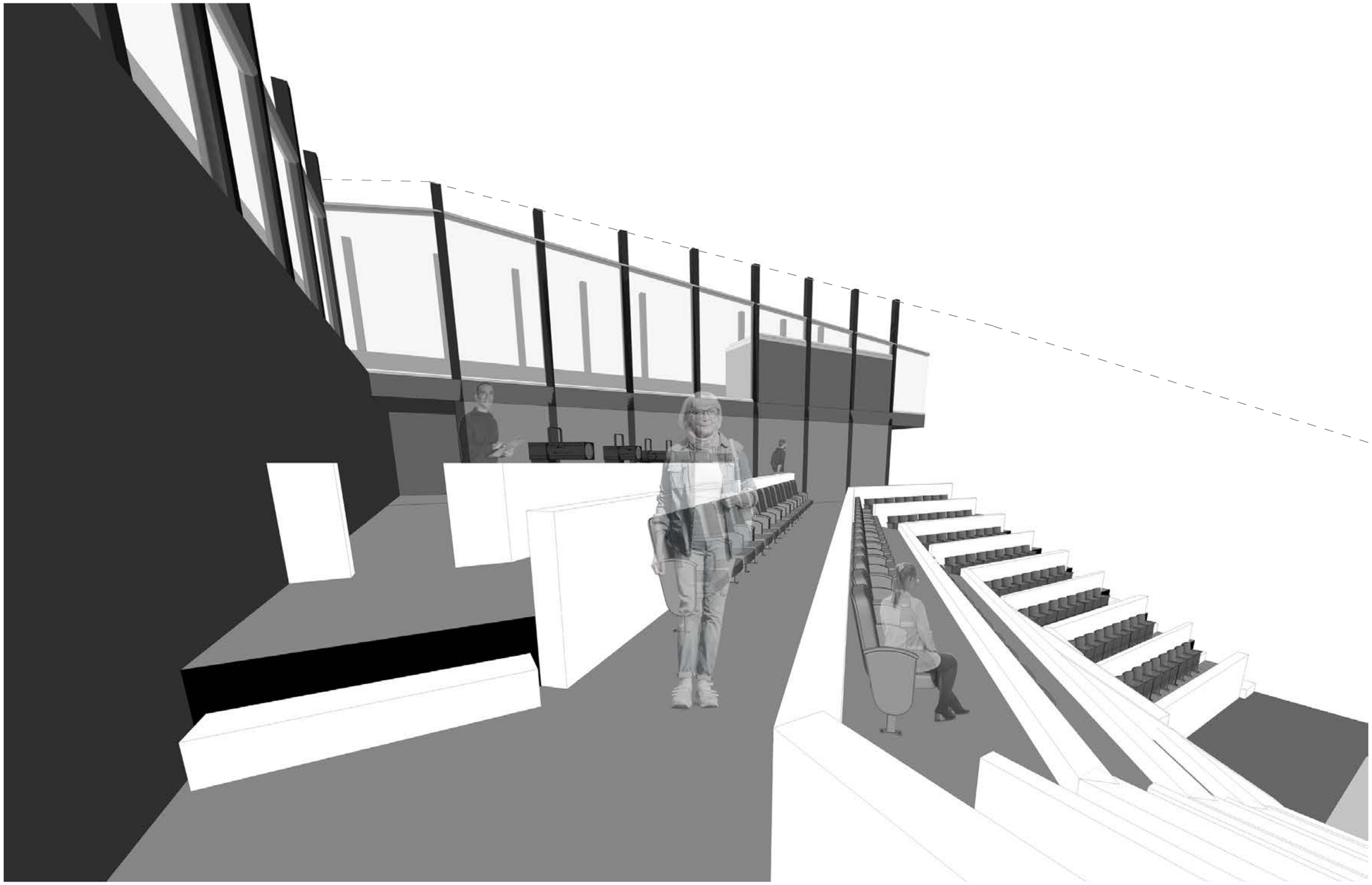
Vectorworks Auditorium Model - Viewpoint Study 1



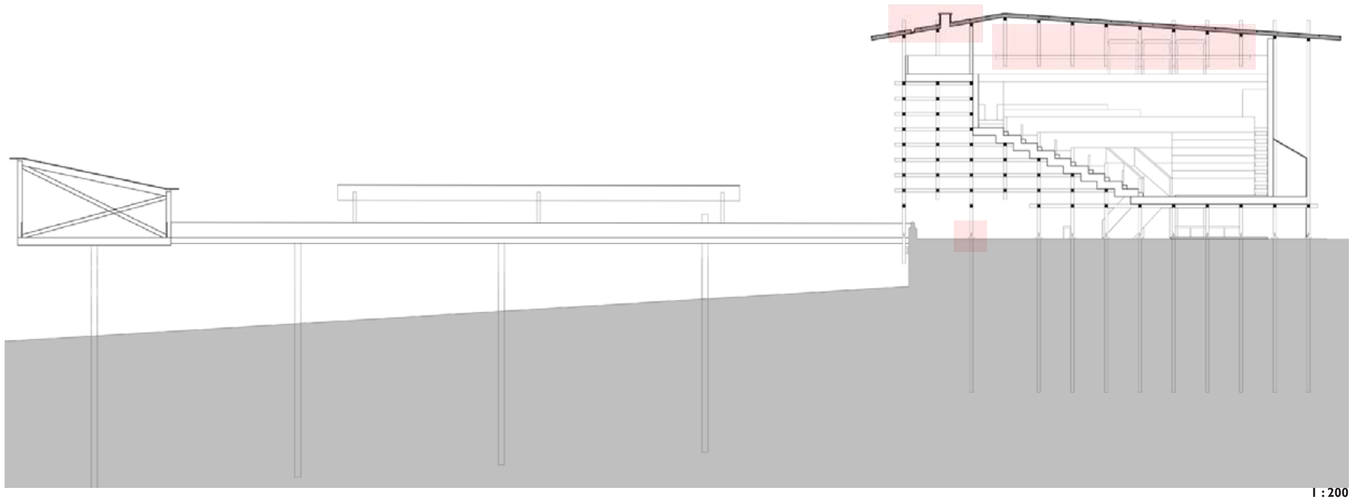
Vectorworks Auditorium Model - Viewpoint Study 2



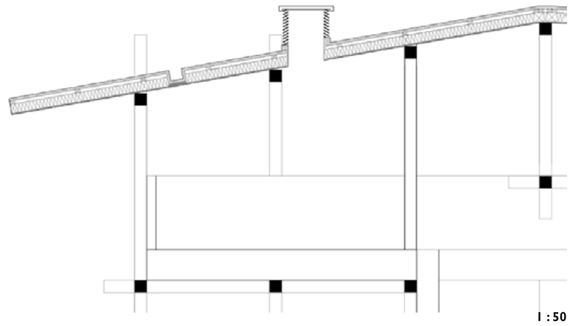
Vectorworks Auditorium Model - Viewpoint Study 3



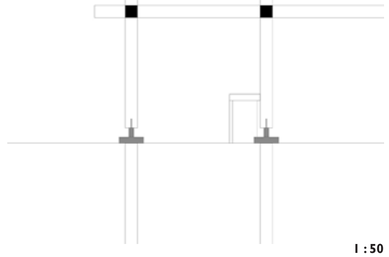
4th Design Iteration - Long Section



1 : 200



1 : 50

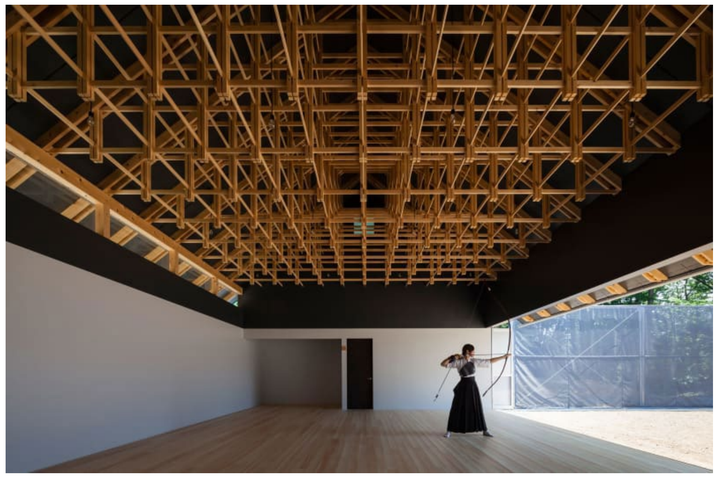


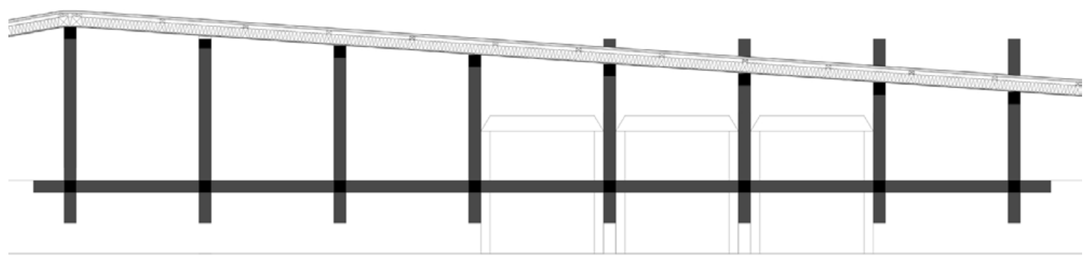
1 : 50

For this new iteration of my proposal, several adaptions have been made to the structure, firstly developments have been made the roof formation, including the involvment of a guttering system and also cowls for ventilation for the structure. Both of these inclusions may be for technical purposes however I have developed the guttering system to visually connect with the zinc seam roof, and not seem as a seperate entity. To do so I have placed the gutter in from the side of the structure and included it within the form of the roof. In terms of the Cowl, I intend to create it out of wood in order to fit with the wooden panelling used for the main body of the proposal, wrapping the auditorium on the exterior.

Another change to the structure can be seen in the beam footings, I have raised the wooden beams off the ground in order to reduce exposure to moisture in the ground which has the ability to caused damage to the beams. I have done this by using a steel structure which slides into grooves made in the base of the beams transferring the structures weight into base plates connected to the concrete foundations.

The final adpations made for this iteration are the beam formation entering the auditorium space in the centre of the roof space, not just at the perimeter of the structure. This is purely for the purpose of visual design architecture. The inspiration for this came from looking at the roof structure used in the archery hall designed by FT Architects in West Tokyo. The beam formation used in the archery hall is similar to that I have been working with, and felt the visual presense of the beams within the structure would be of great addition to my design proposal.





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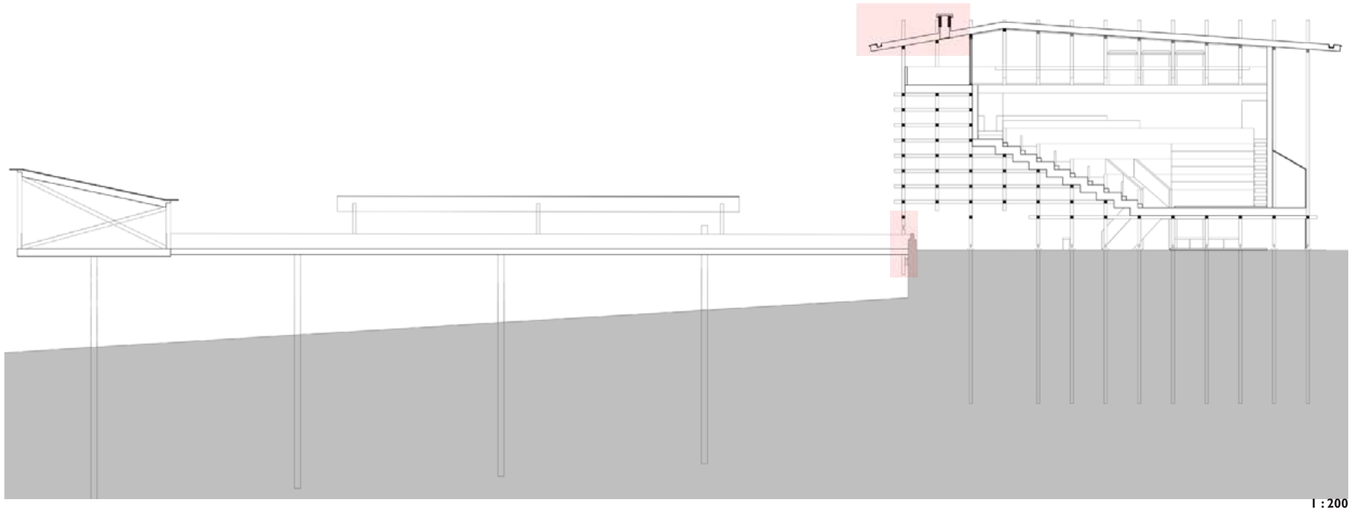
5th Design Iteration - Long Section



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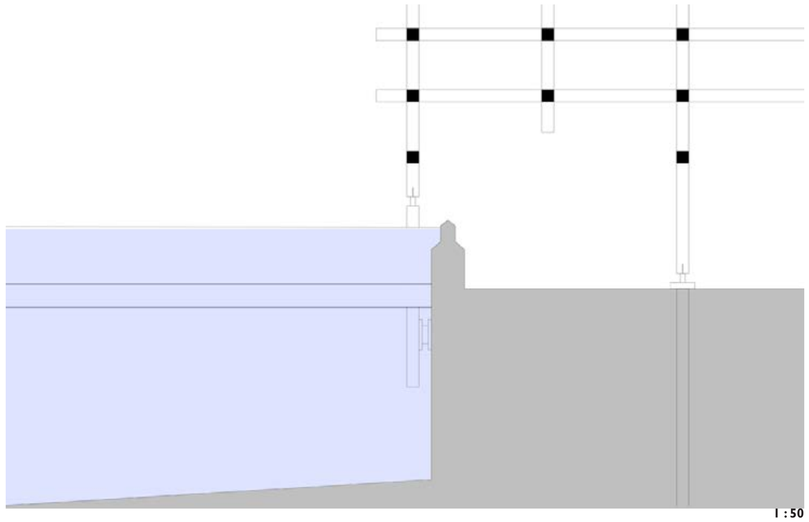
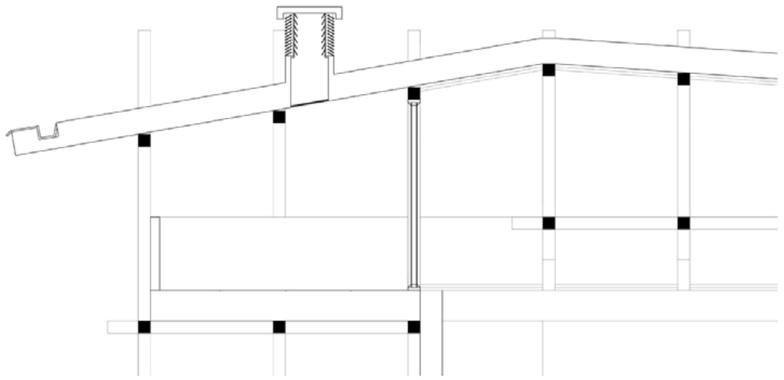


1 : 50

For this final iteration of my proposal I have made two minor structural changes.

For the riverside beams, connected to the Thames wall, I have changed the positioning of the steel connection so if the river were to flood the wooden beam remains out of the water preventing any water damage to the structure.

Secondly, changes have occured upon the roof. The gutter systems have been relocated closer to the edge of the roof, combined with the inclusion of a rain 'runoff' element, reducing chances of rain accumulation upon the roof. Also, the vertical height of the cowls have been increased as an attempt to ventilate the auditorium as best as possible, providing copious amounts of fresh air.

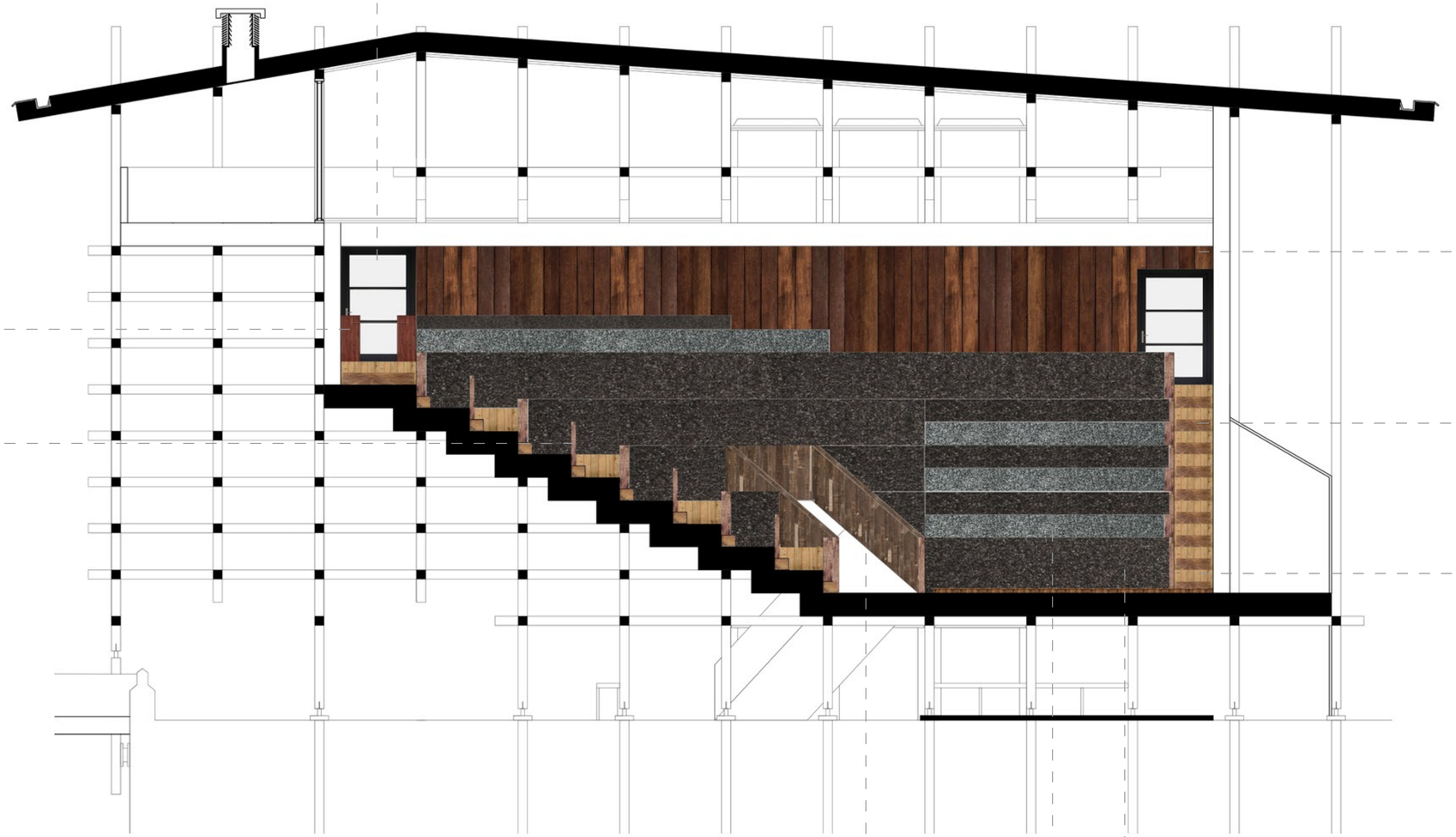


1 : 50

Auditorium Materiality Study

Bulky Metal door with frosted glass panelling - Allows light in without without cause for distraction

A different tone of wood used for the pillar entrances to private sections (back of house) of the auditorium - distinguishes from the public realm of the proposal



Rich coloured oak panels to coat the walls of the auditorium. A darker colour prevents the chance of any light potentially be reflected from natural / artificial sources back into the space

Small / short scale beams to act as the butt ends for the seperation boards inbetween each row of seating

For the individual steps, seperate from the main form of the auditorium, I intend to use adapted railway sleepers / panels of wood cut from the sleepers to create a lighter form

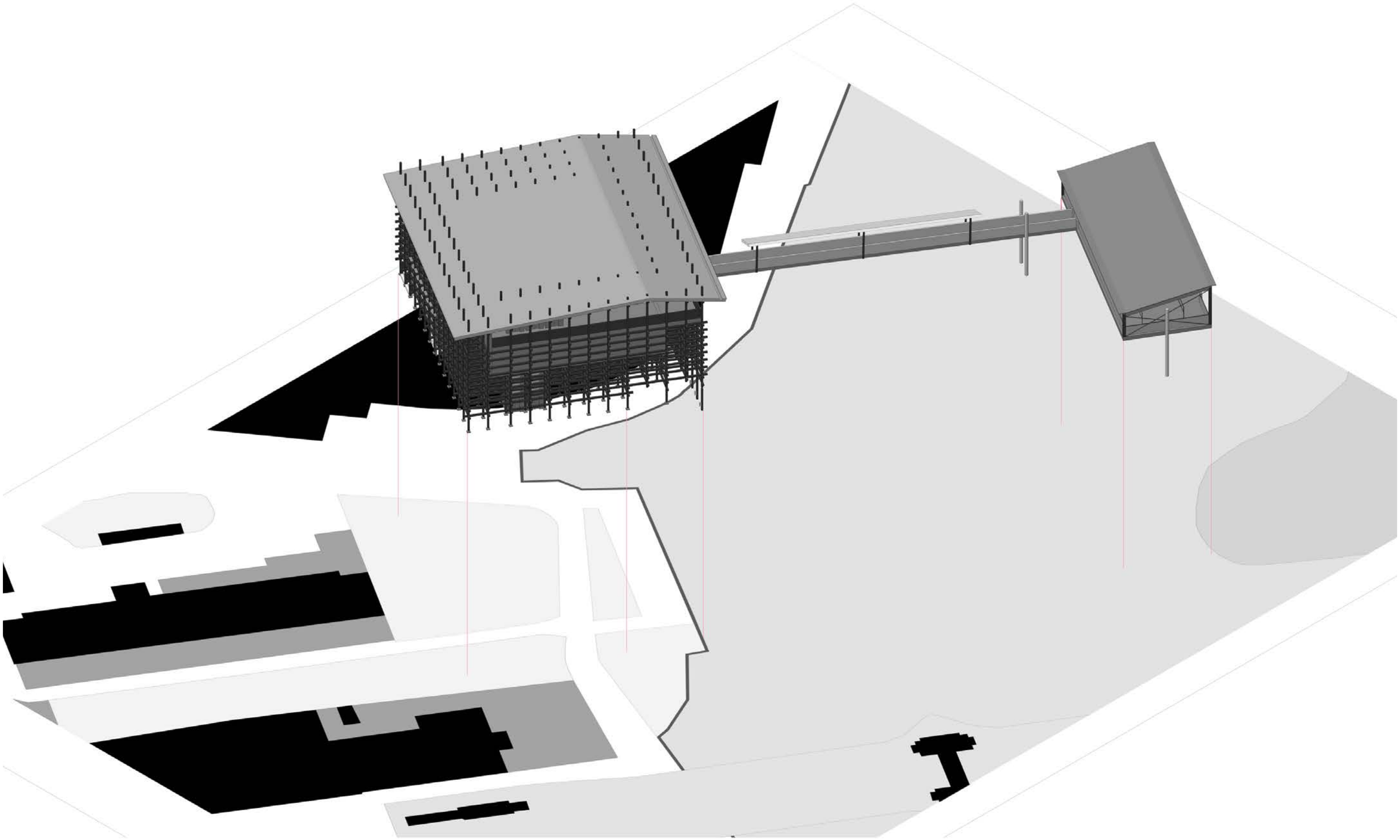
light wood panels / panes used for the back of the steps formed to the main structure, to distinguish from the individual steps

Reclaimed oak panels with an 'original' appearance i.e. they havent been treated to give them a cleaner appearance. The reason being is they line the entrance tunnel for the stairs and I want to immediately make clear the theatre's style of recycle and reuse

Two tones of acoustic carpeting to cover the seperation boards between each row of seating - reason for carpet usage, to aid noise absorption, preventing noise from resonating around the space

1 : 100

North Bank Proposal - Isonometric View



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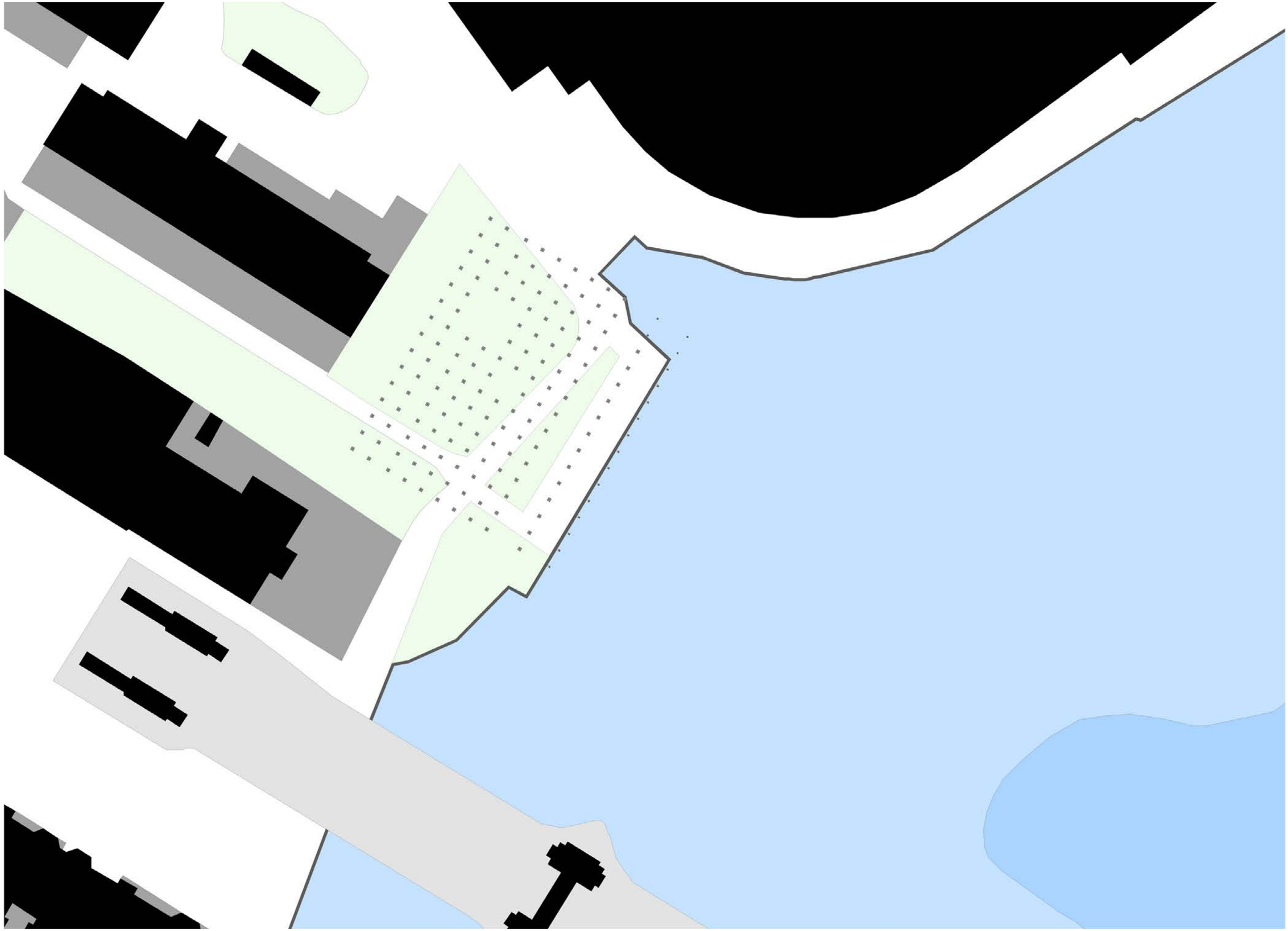
North Bank Proposal - Beam Plan



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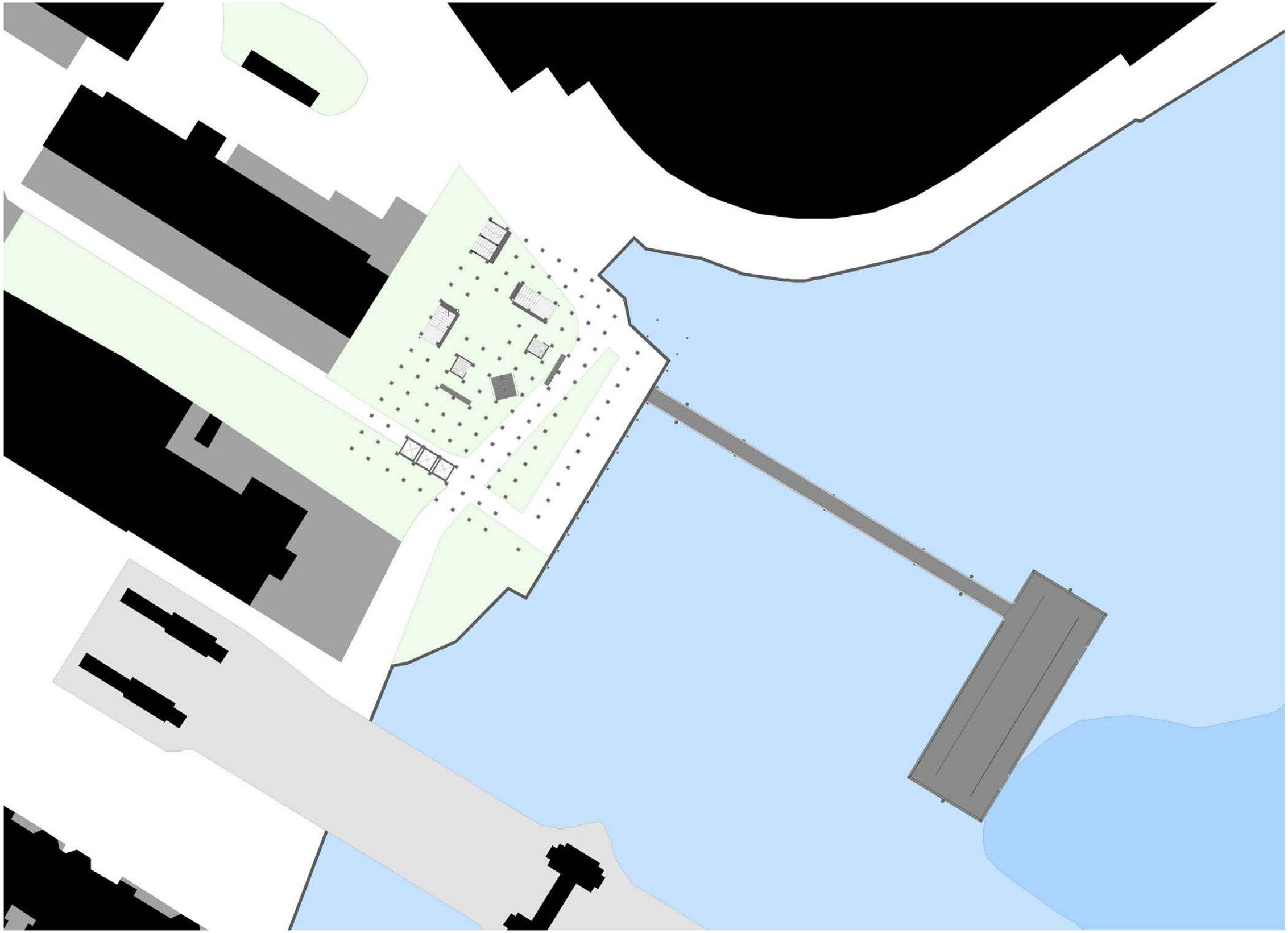
North Bank Proposal - Ground Floor Plan



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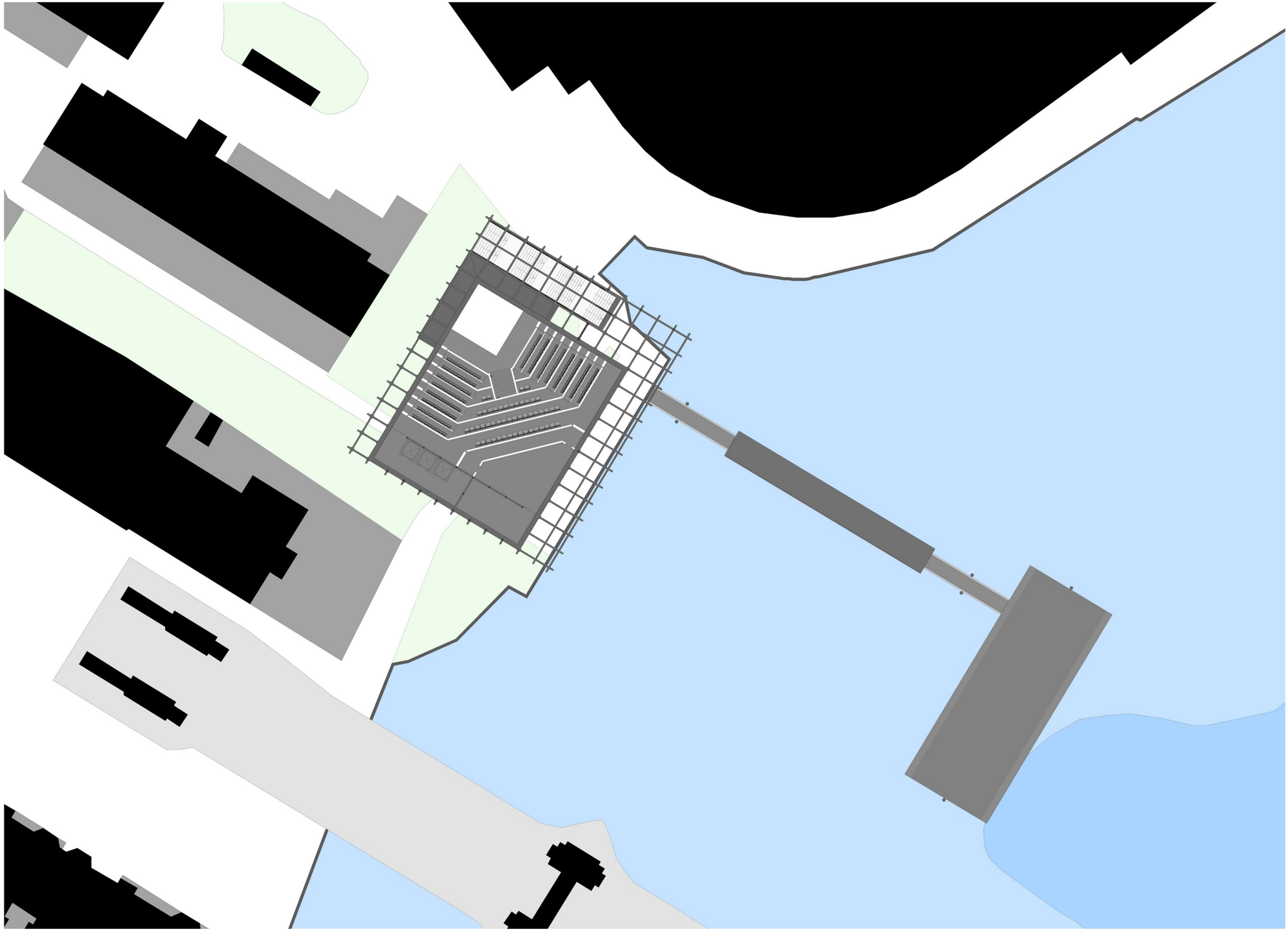
North Bank Proposal - Auditorium Plan



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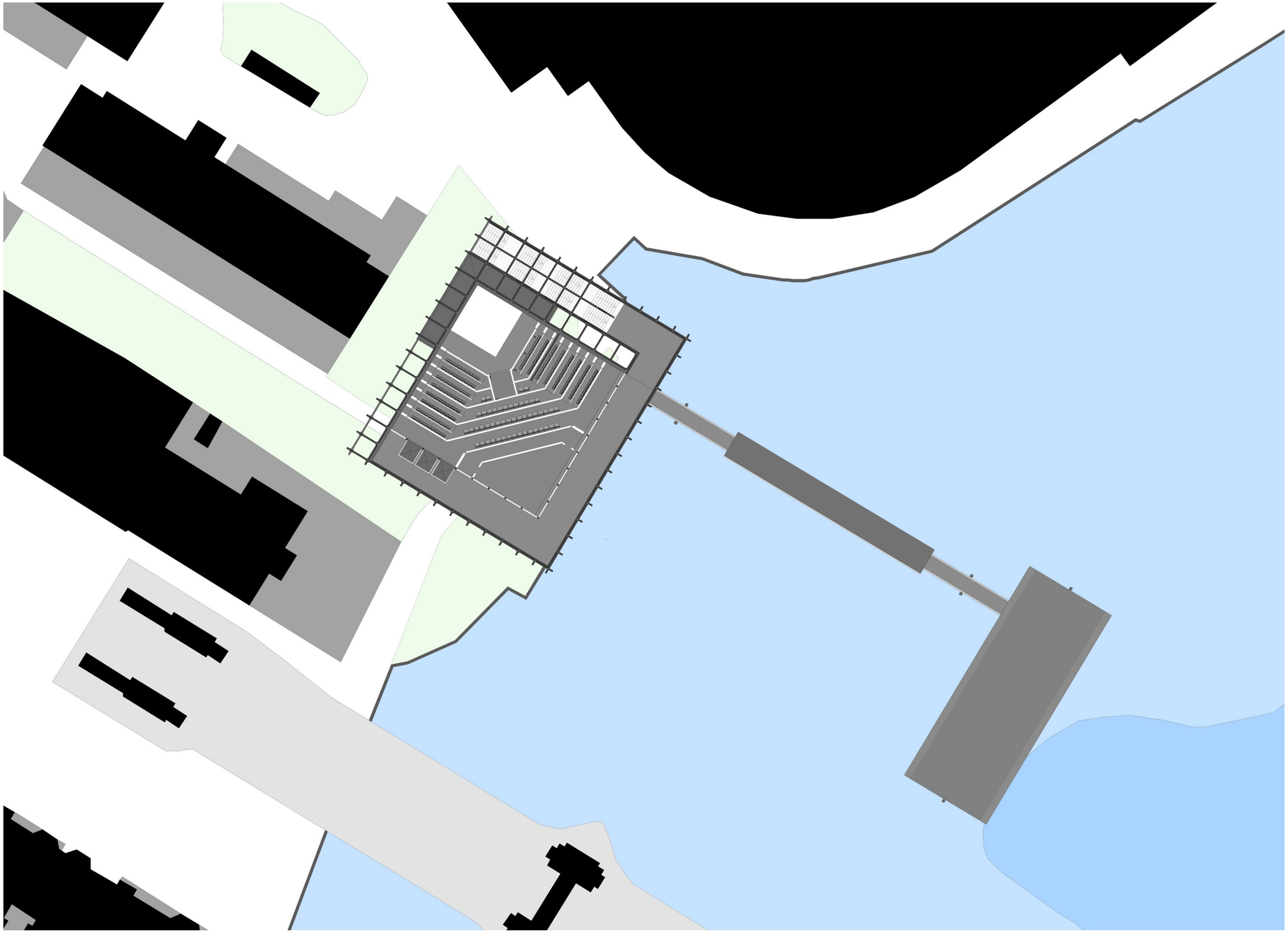
North Bank Proposal - Walkway Plan



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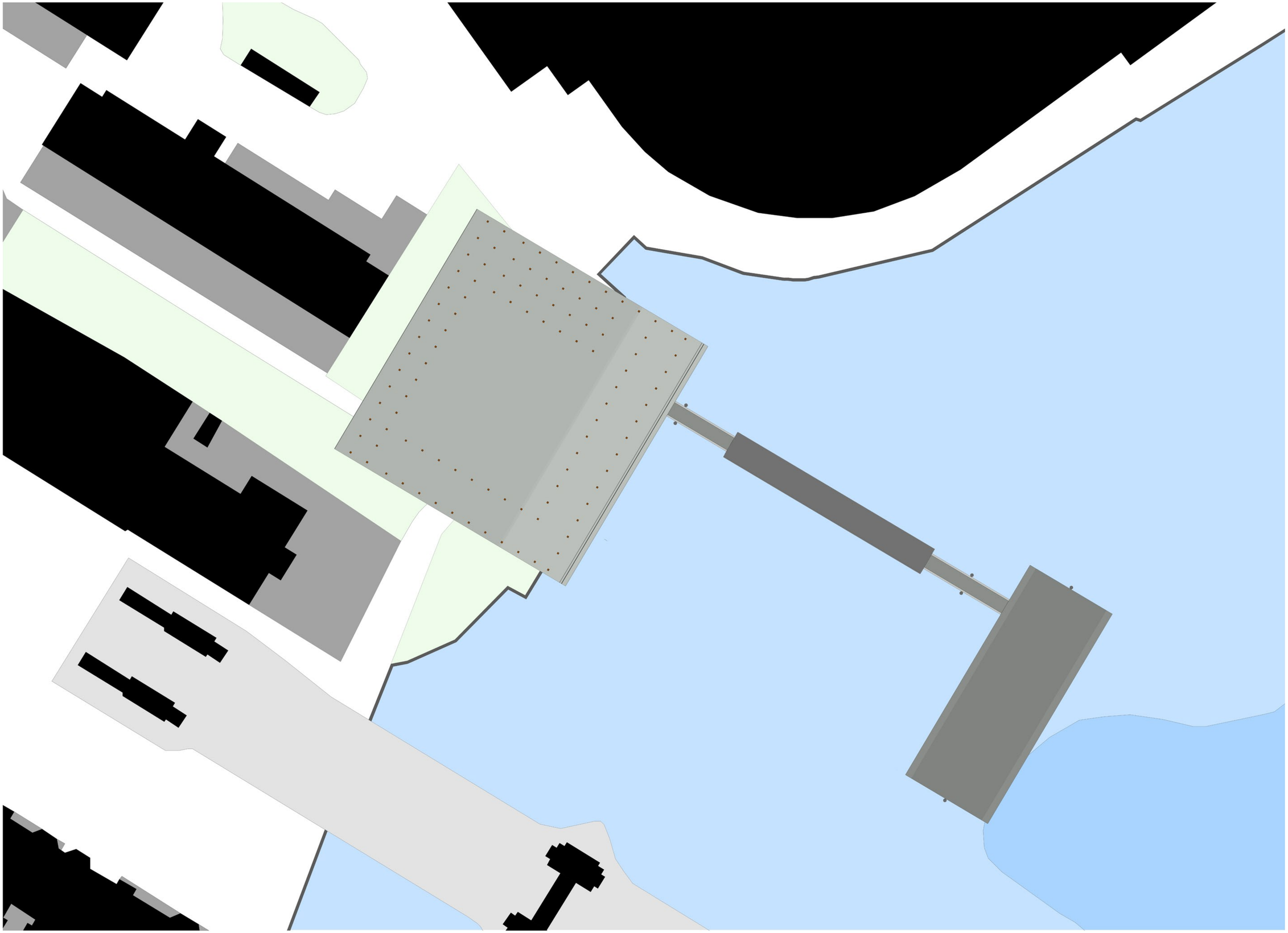
North Bank Proposal - Roof Plan



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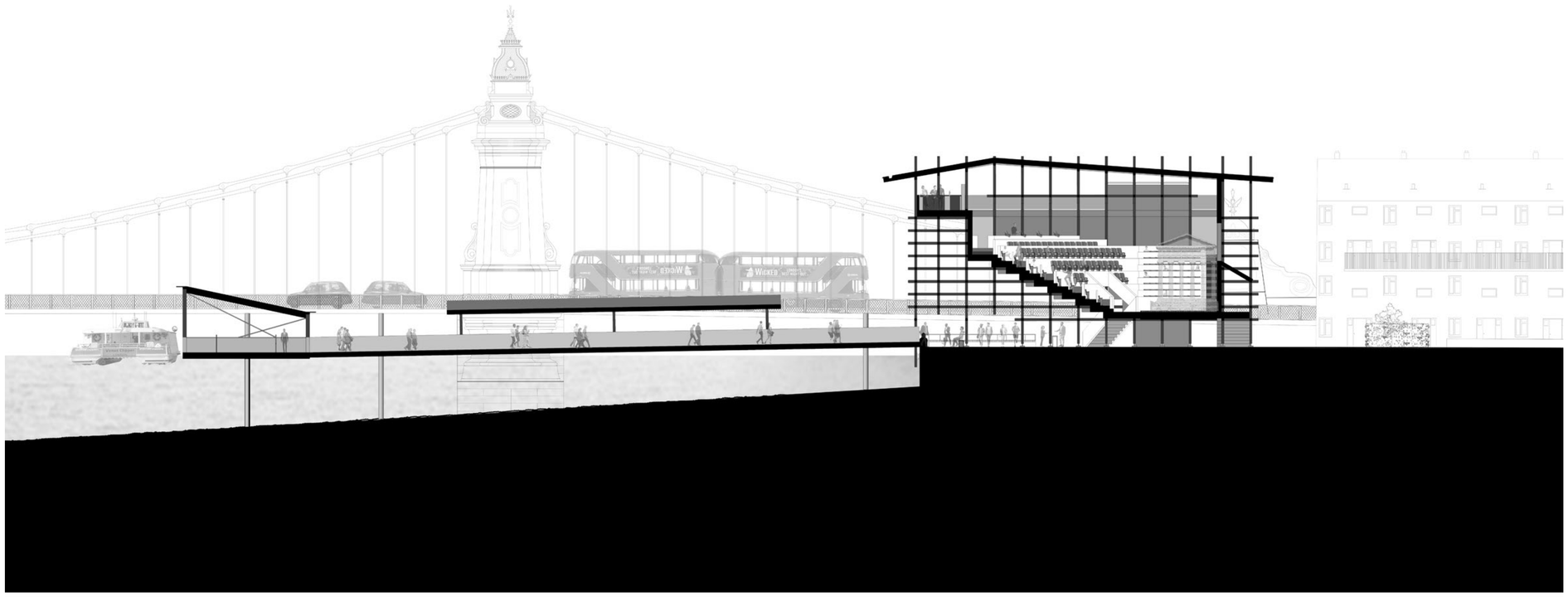
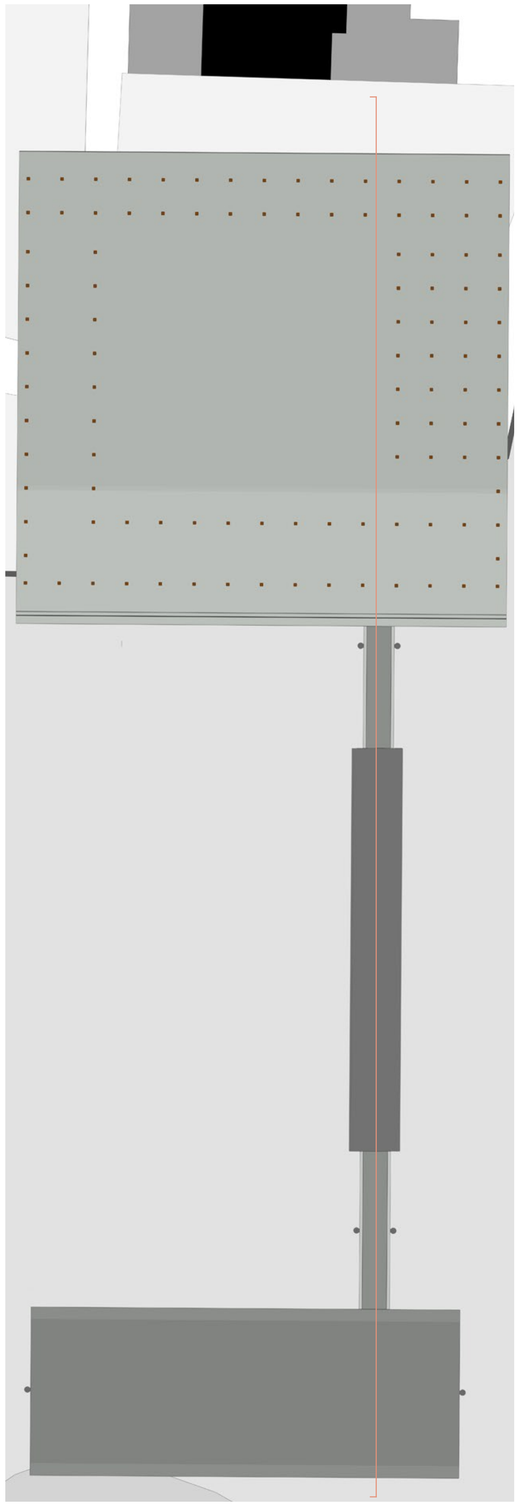
North Bank Proposal - Long Section





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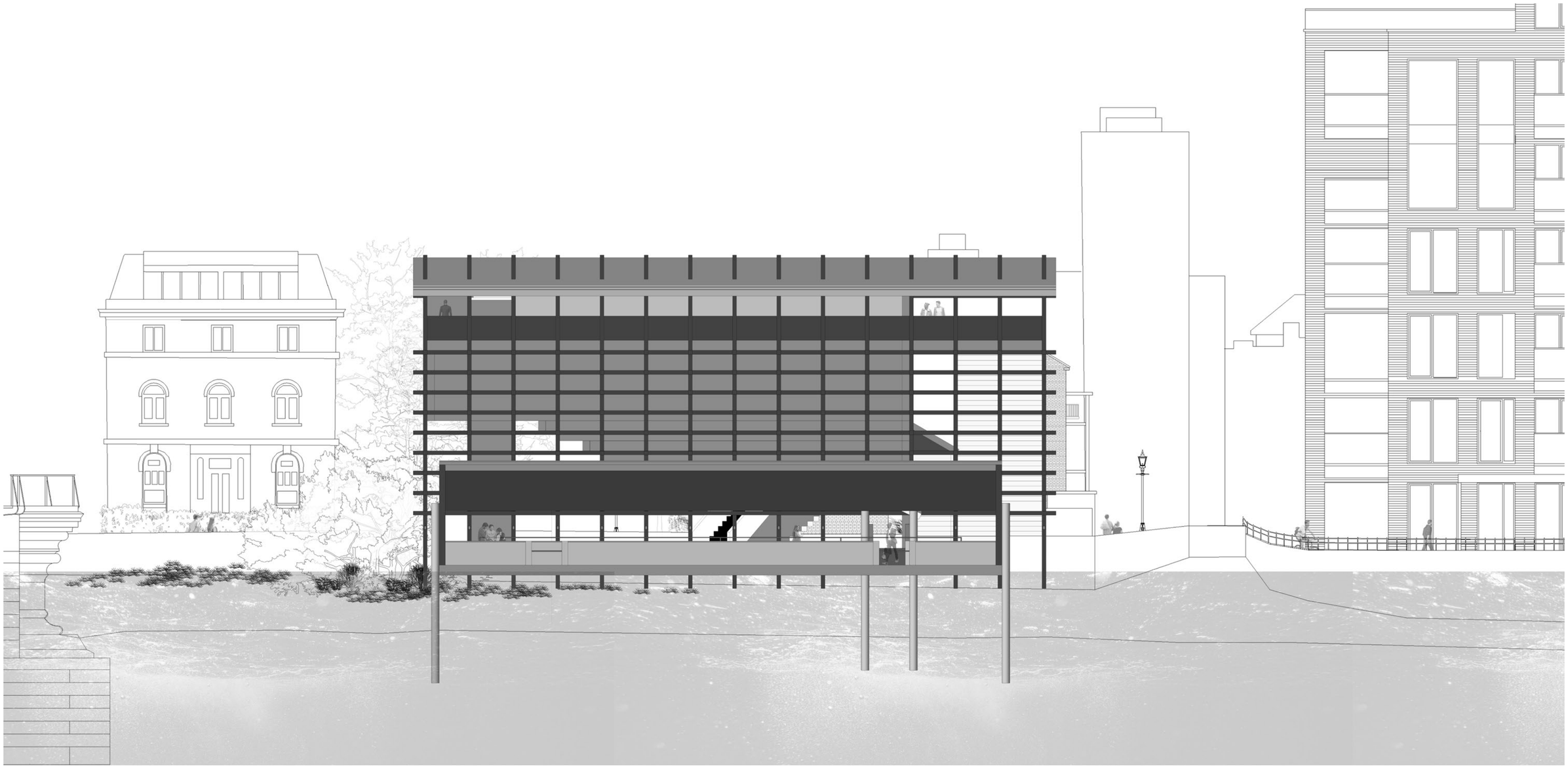
North Bank Proposal - Long Elevation

1 : 200

North Bank Proposal - Riverside Elevation



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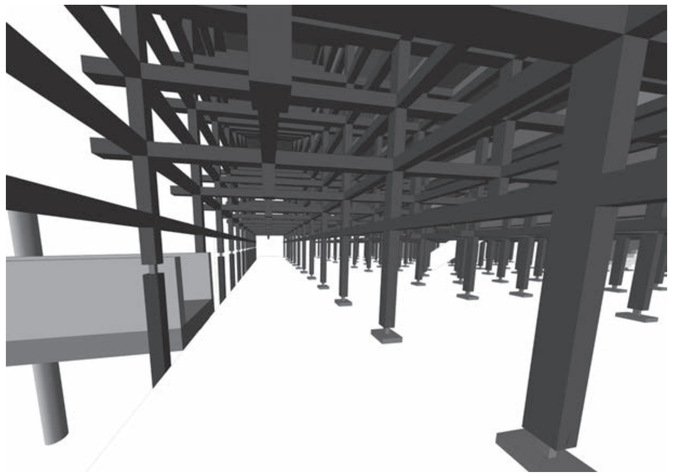
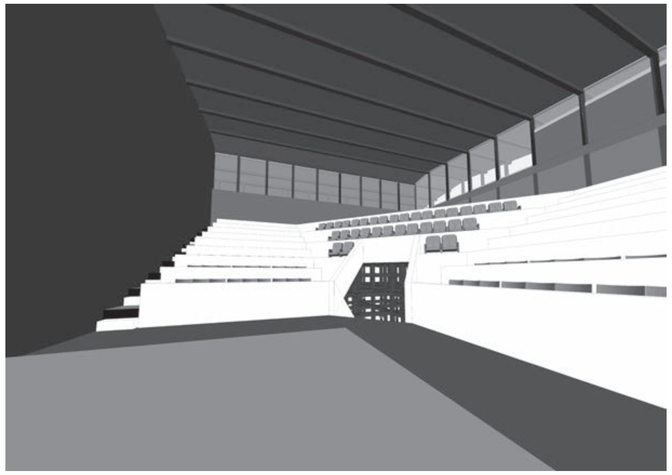
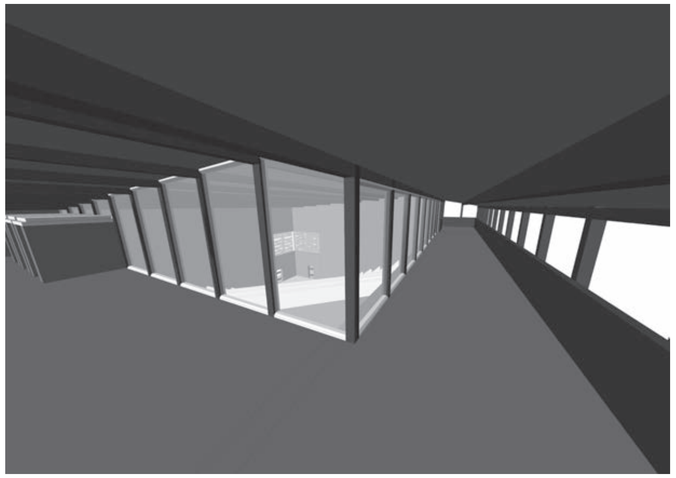
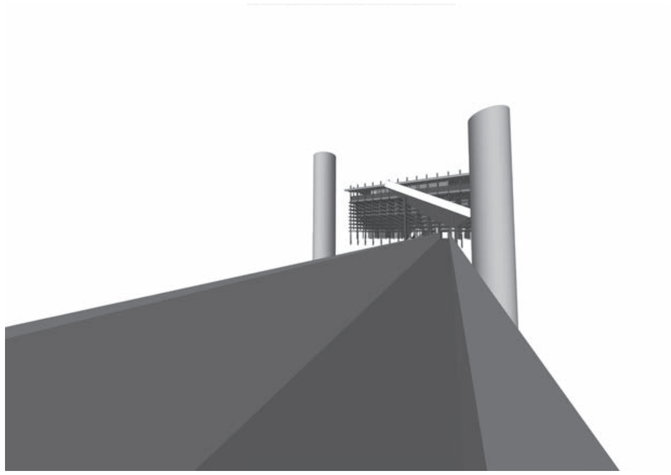
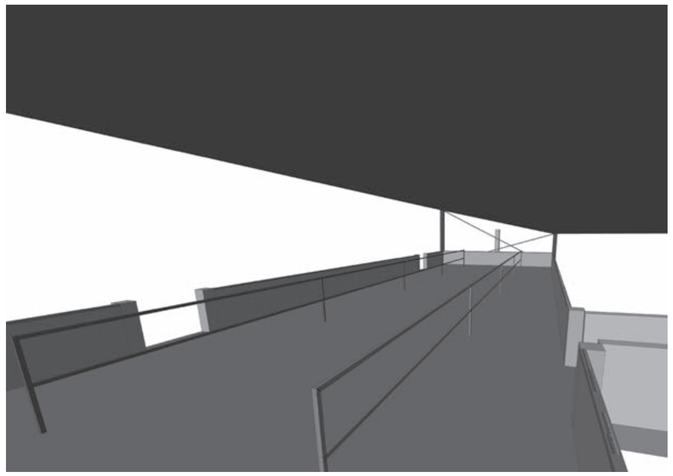
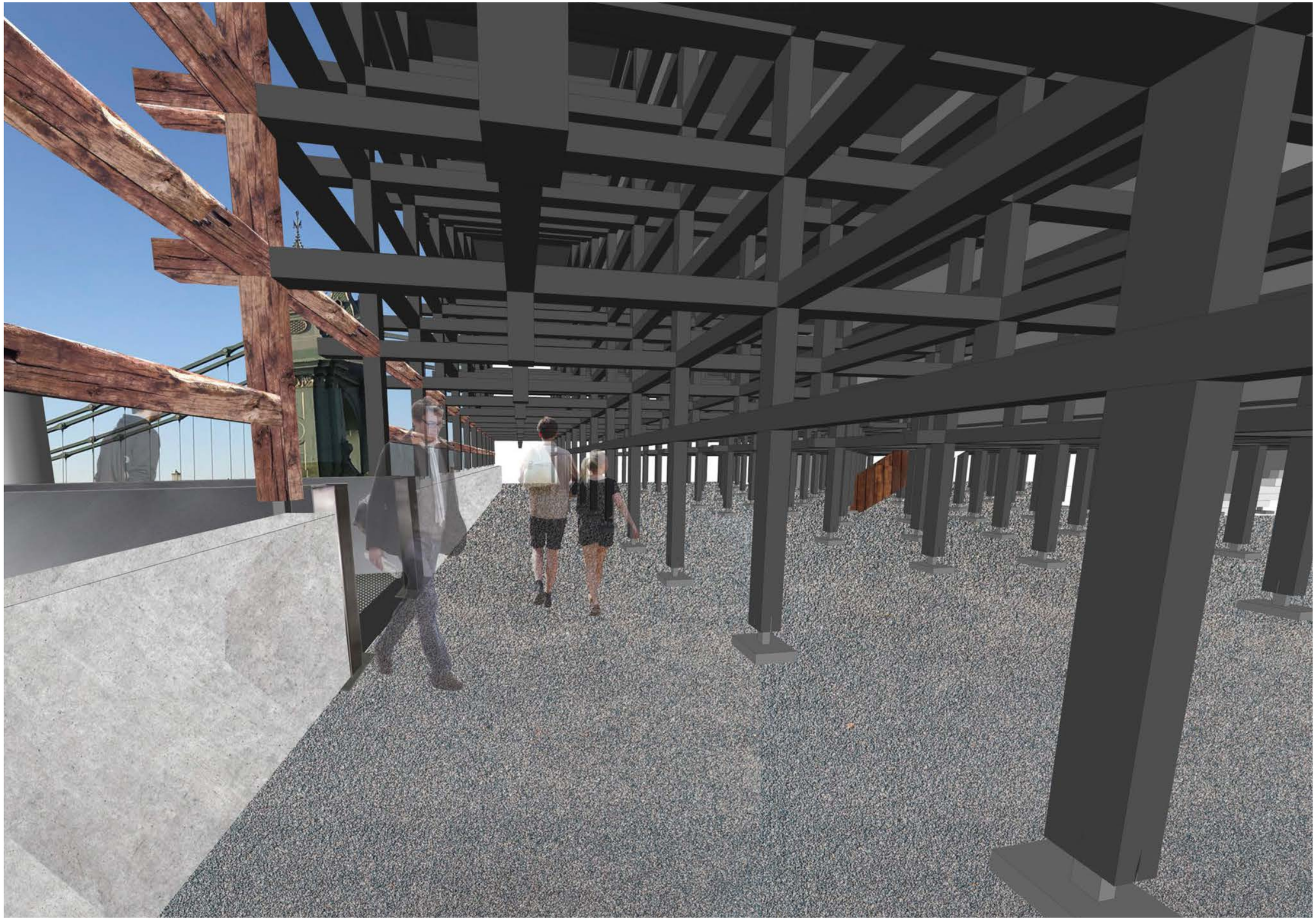






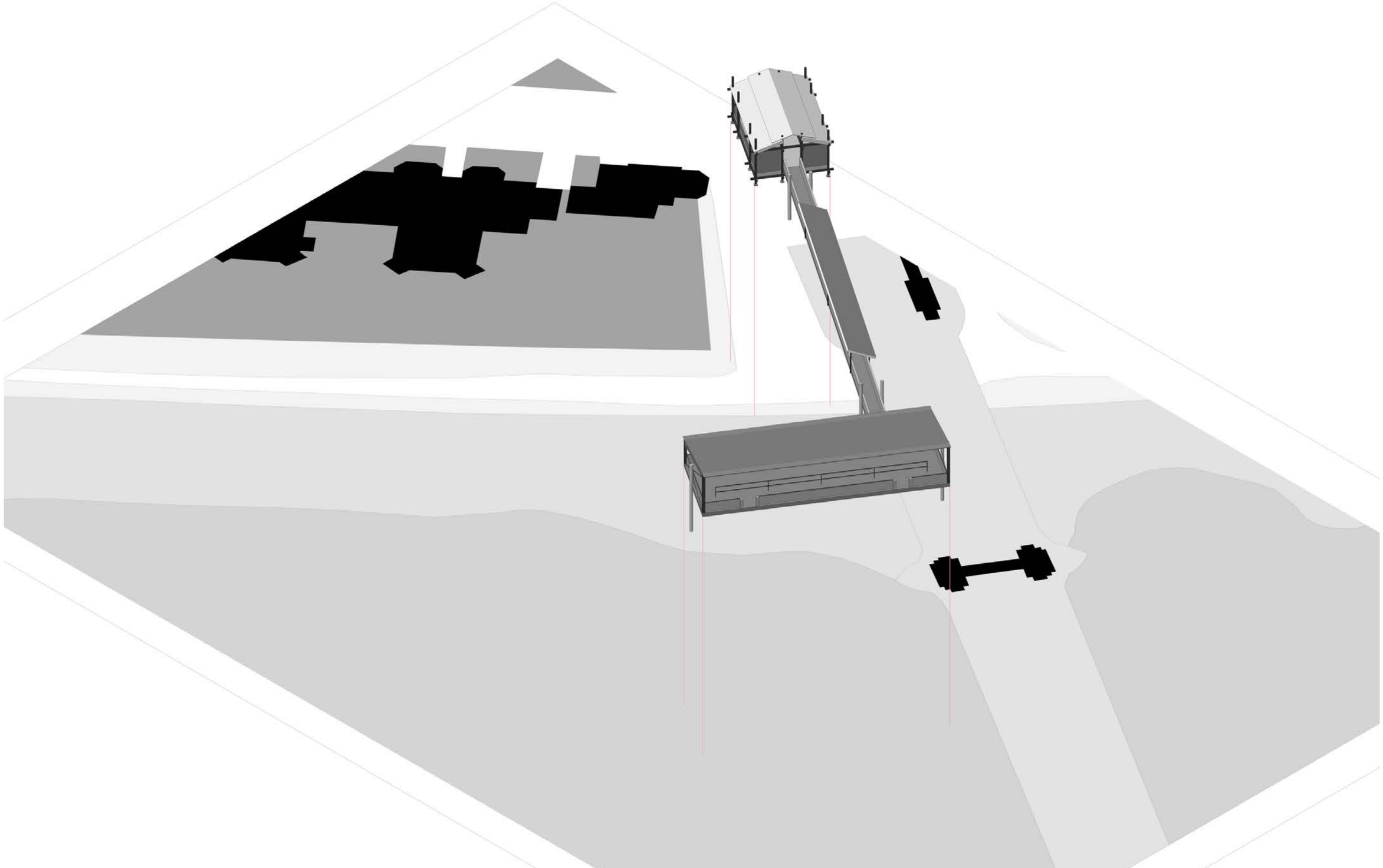






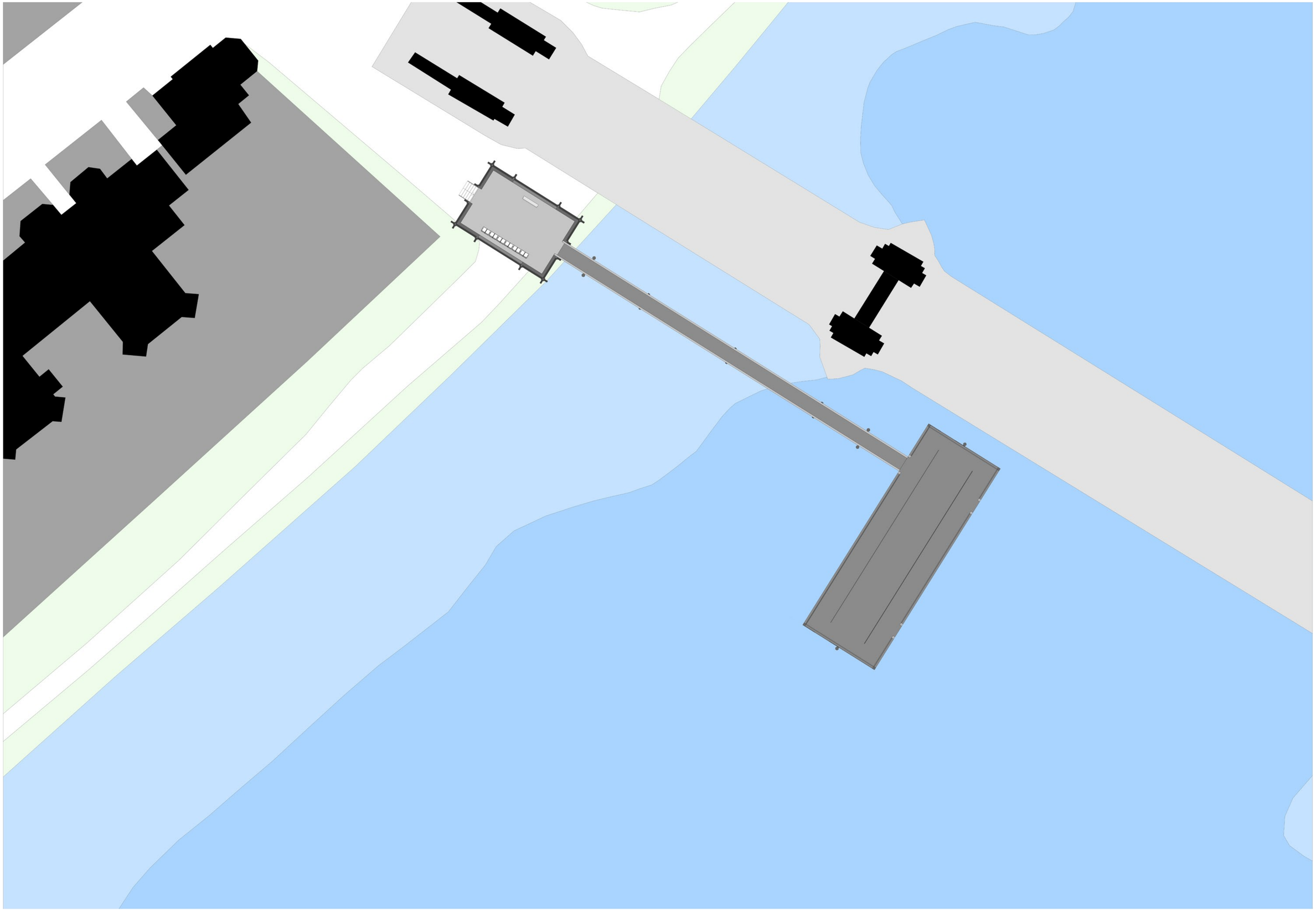
* The timber beams are shown above the river wall to display how the theatre would appear from ground level

South Bank Proposal - Isonometric View



1 : 200

South Bank Proposal - Floor Plan



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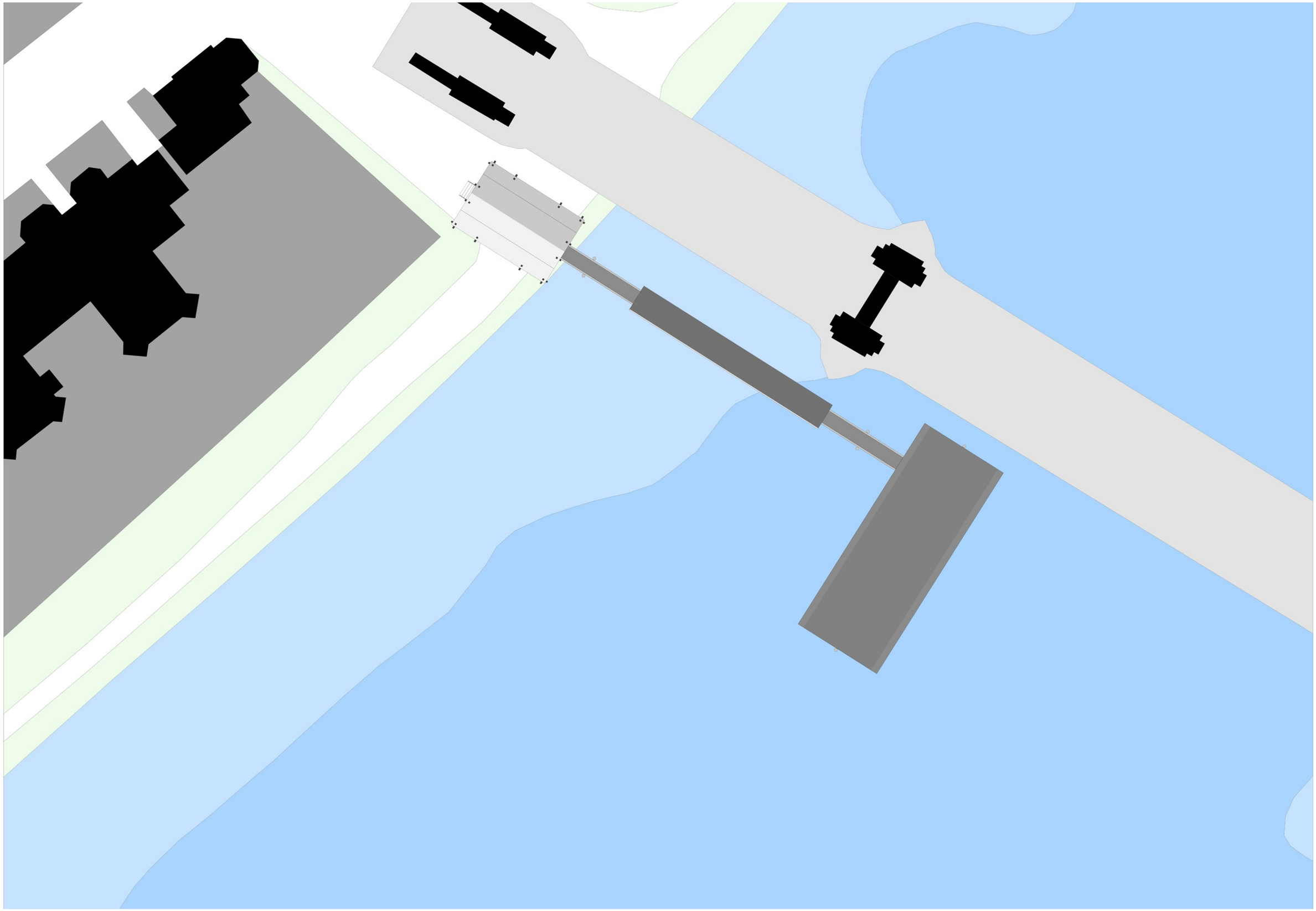
South Bank Proposal - Roof Plan



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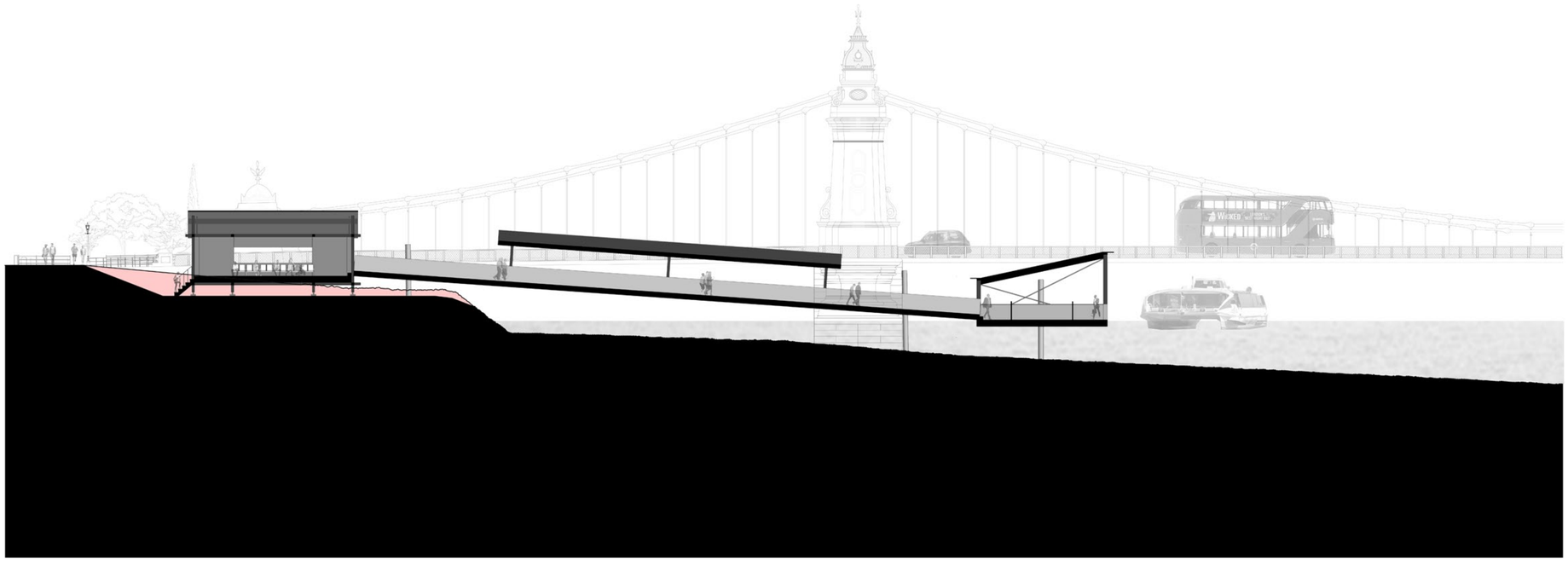
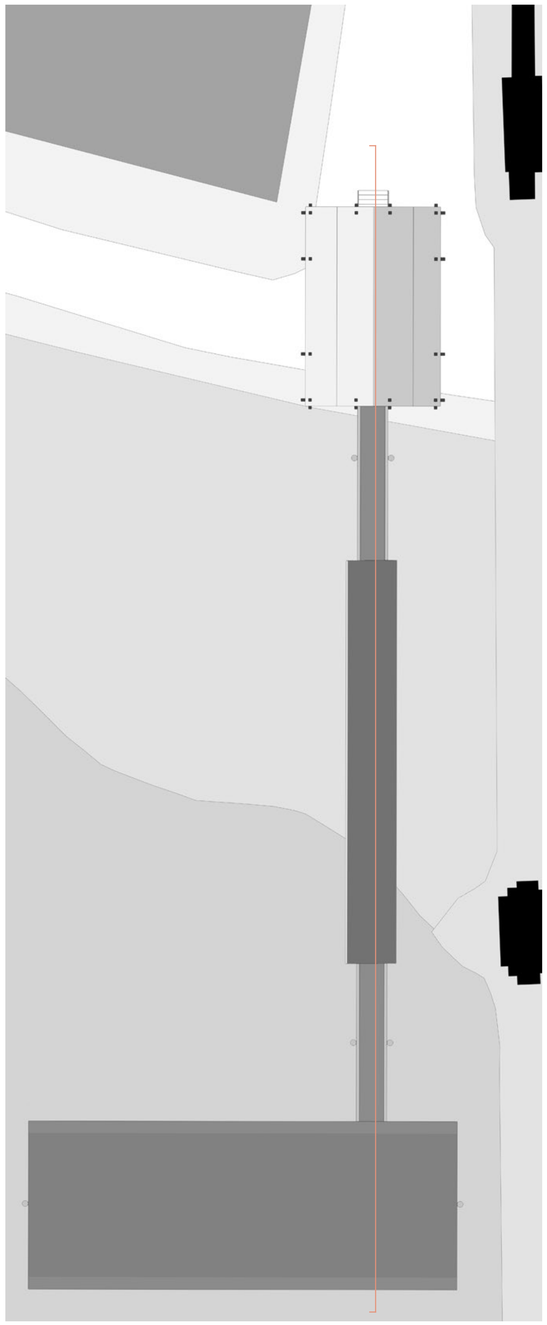
South Bank Proposal - Long Section

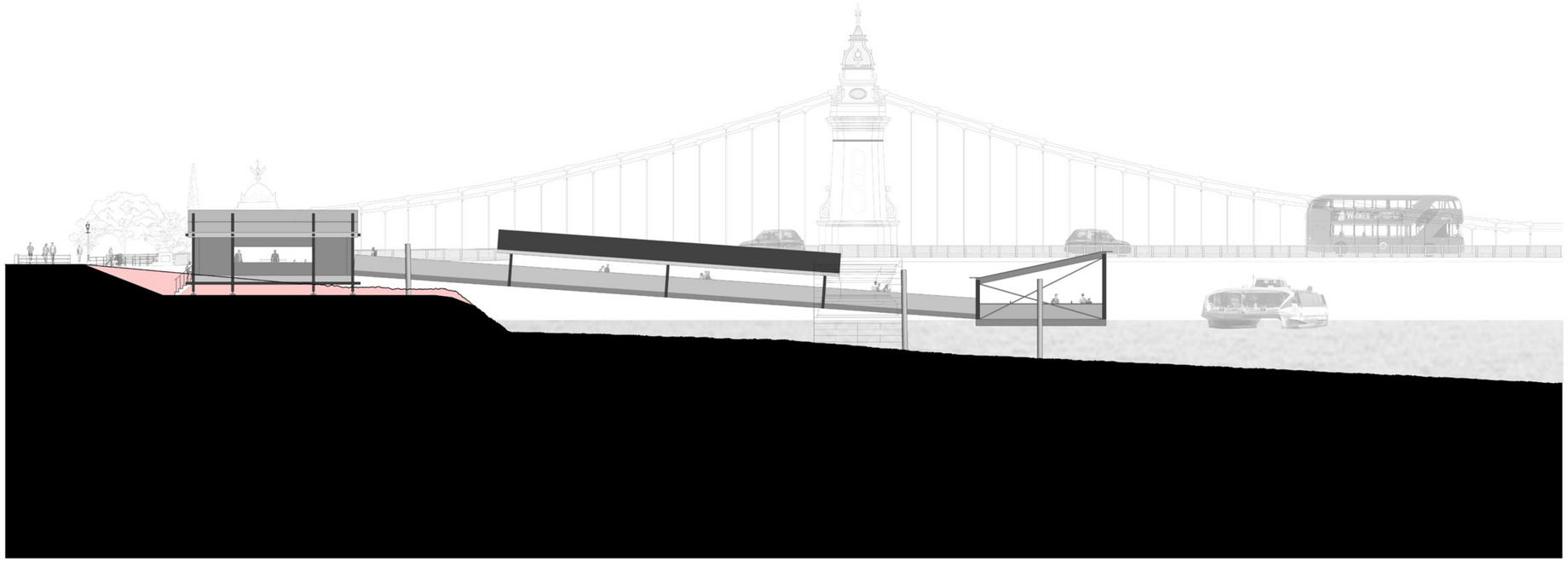


*The red highlights excavated land to allow the south proposal to sit level on the river bank



1 : 200

South Bank Proposal - Long Elevation



*The red highlights excavated land to allow the south proposal to sit level on the river bank

1 : 200

South Bank Proposal - Riverside Elevation

1 : 100