

An **URBAN** Detail





An Urban Detail

by
Héctor J. Ralaí-Sotomayor

July, 2001
Blacksburg, VA

Thesis submitted to the faculty of architecture of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

MASTER OF ARCHITECTURE

Approved:

William Brown, Chairman

William Galloway,

Hans C. Rott

What defines the architectural character of a space?

What defines the architectural character of a Detail?

What defines the relationship between space and details as Architecture?

These questions lead the study of space as a Whole through the investigation of its parts – shape, material, assembly and its surroundings.

The investigation examined how the detail influences the space it assembles, how space conforms the structure embracing it and how a structure affects its surroundings. Observing how the Whole evolved through the process was an additional task of the study.

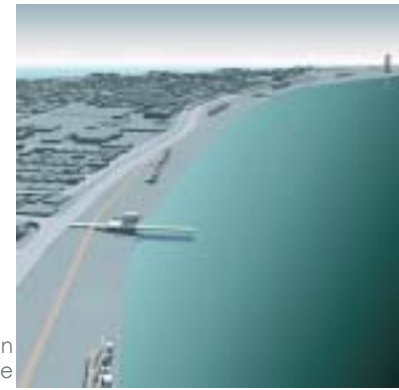
The design intended to create among every element a vocabulary apprehensible throughout the entirety of the project. The manipulation of each material, detail and edifice to share this vocabulary developed a cohesion among them. This relationship allowed the inhabitant to have a complete perception of the element and Whole's character.

Scale:

Defining three levels of perception



Urban Development for the 1992 Olympics, Barcelona, Spain



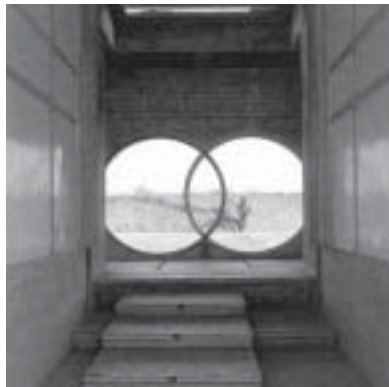
Project view at an urban scale



Fisterra Cemetery, Fisterra, Spain. Cesar Portela



View of a dwelling area in the project



Brion Family Cemetery, Treviso, Italy. Carlo Scarpa



View of the project's "parts".

The urban scale of Barcelona's Olympic City development involved the reshaping of the urban fabric. The project interlaces multiple types of activities with existing urban conditions such as the beach area, the old city fabric, commercial spaces and residential developments. It is a Joint/Detail at an urban scale.

The proportions of the series of paths and simple edifices of Cesar Portela's Fisterra Cemetery convey a proper scale for dwelling. The careful arrangement of the edifices, minimal use of elements and tangible boundaries define space and harmoniously integrate the inhabitant with the context by framing images of the surroundings. With these means the project becomes a Joint/Detail between the dweller and the site.

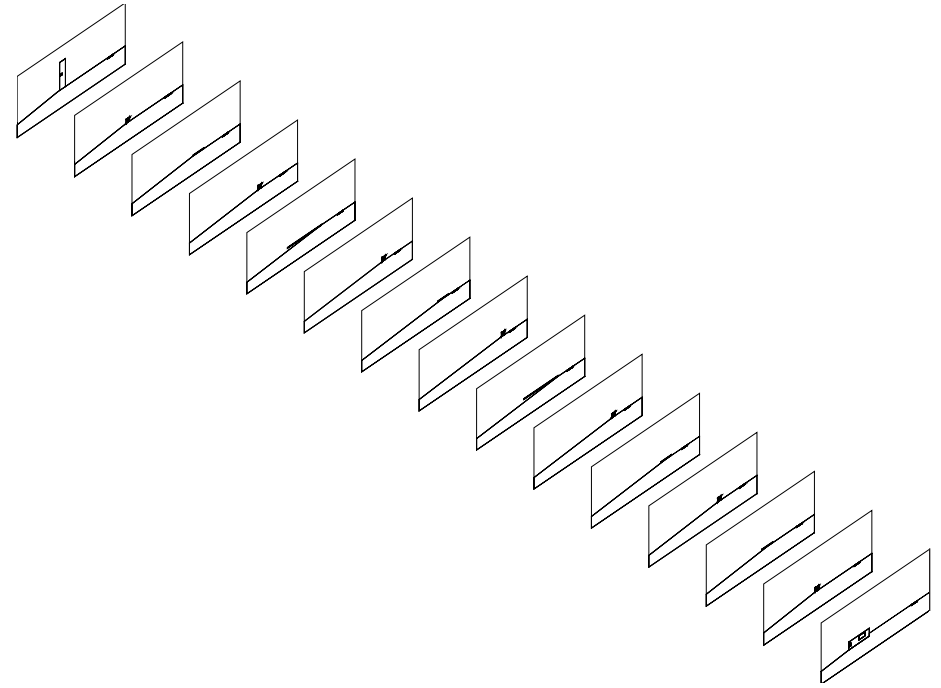
In the Brion Family Cemetery Carlo Scarpa applies one tectonic vocabulary on space, materials, and details. The project's Form expresses the character of a Joint/Detail. It is revealed cohesively on several scales and each space's assembly relates directly to the inhabitants presence. The project acts as a Joint/Detail between dweller and space.

Site:

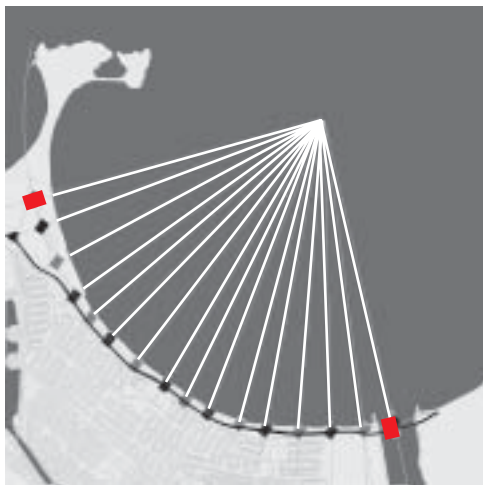
Identifying the nature of the project



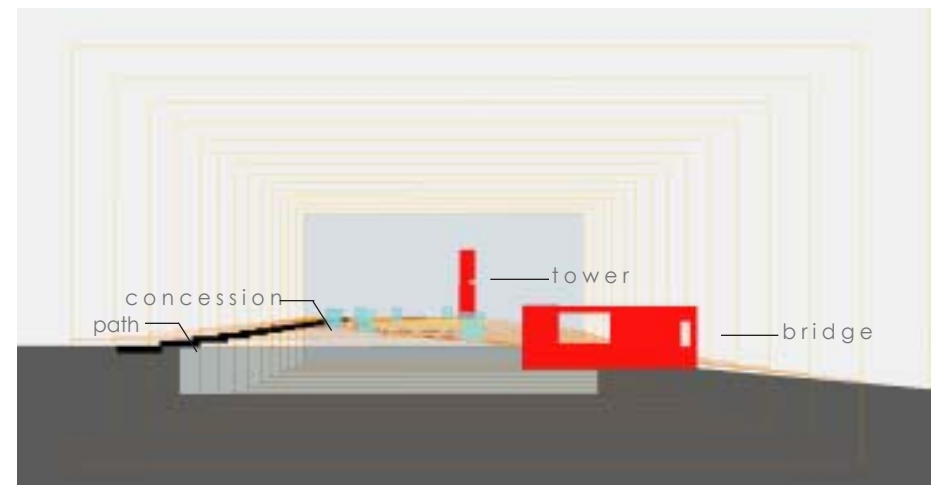
Aerial view of the site



Section study: conceptualizing the selected points of intervention



Site analysis: points of intervention



Section study: Selected points of intervention

Identifying the character of the site became a determinant factor to establish the nature of the proposed intervention, the Whole. Defining this Whole as a derivative of the site's character allowed them both to be intrinsically part of each other. The Whole had the task to integrate and complement the site.

A thorough analysis made clear the need to identify the precise points of intervention along the site. These points became essential to mark the presence of the Whole and how would it be tangibly perceived. Establishing this, set the grounds for the design process to elaborate on scale, proportion and tectonic issues, and develop the cohesion among the elements of the project.

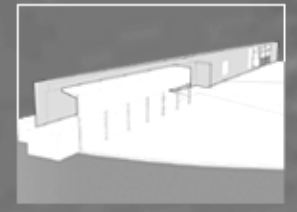
The study consisted of a series of sections through the identified points along the site. They captured the pattern, typology, scale and density of the context. Three typologies surfaced: Institutional, residential and recreational. Each typological area, structure and activity existed isolated from the other. This showed the lack of connection and interaction throughout the urban fabric. This became an evident problem to be addressed by the design.

It was determined that the project would hold the program for a recreational area. It would provide a tower for cultural and social activities, an entrance area to formally define the project's access, multi-use concession spaces, piers and paths to connect the existing urban fabric to the beach area. Each of these areas were located in accordance with the site's typology pattern.

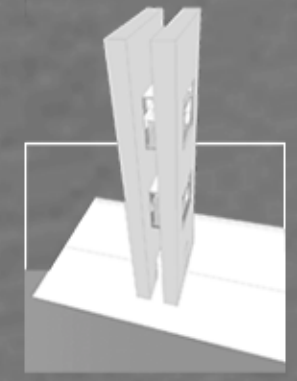
The Whole



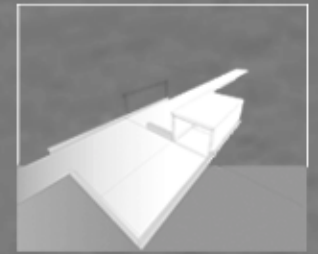
GATE



TOWER



PIER



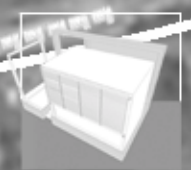
CONCESION A



CONCESION B



CONCESION C



the parts

Process:

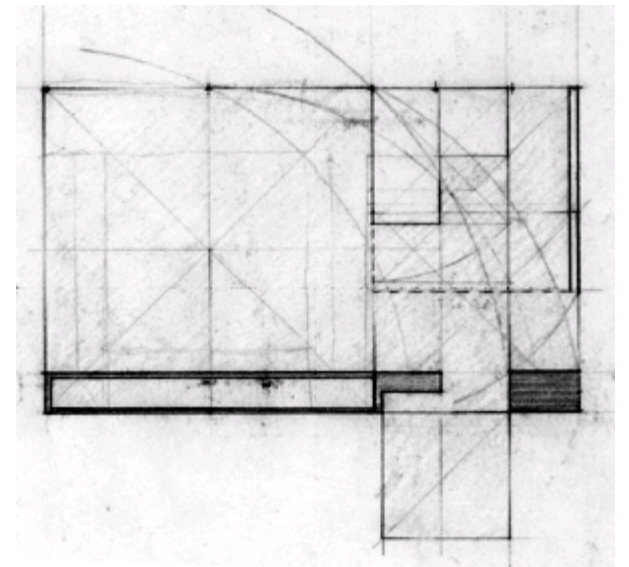
Calibrating scale and developing cohesion



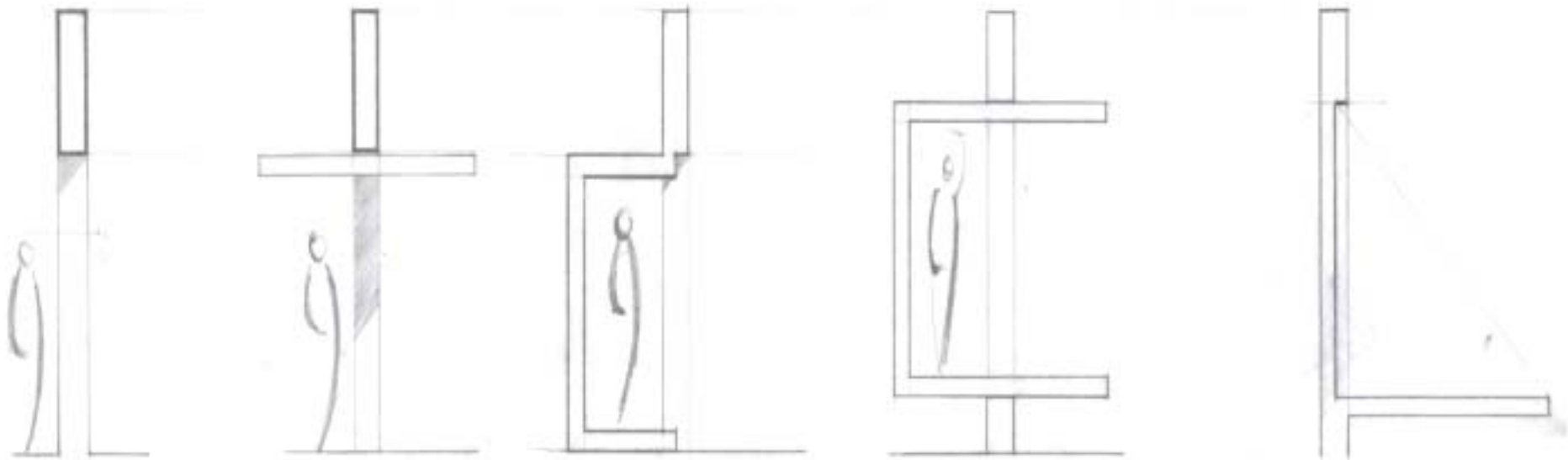
Model study: reading the "line" of intervention along the site



Model study: conceptualization of the structures and tectonic vocabulary.



Plan study: initial layout and proportion study of one structure



Section study: Defining space and closure while the repetition of elements define a Whole

The initial stages of the design process explored the extents of the intervention in the site. The site's proportion and geometry could be associated with a linear shape. One outcome of the process was to have this line tangibly perceivable without being too literal in its construction. Careful calibration of the dwelling areas, paths and structures successfully materialized this Line.

This design process could be characterized as being diachronic as well as synchronic. It gradually defined the Whole by constantly circulating each finding among earlier and later phases of the design. Applying these findings on urban, dwelling and detail elements of the project, and consequently the Whole, created the cohesion among them sought by the design. Thus, details began to assemble spaces, spaces to construct edifices, edifices to define the Whole and the Whole to relate with the surroundings.

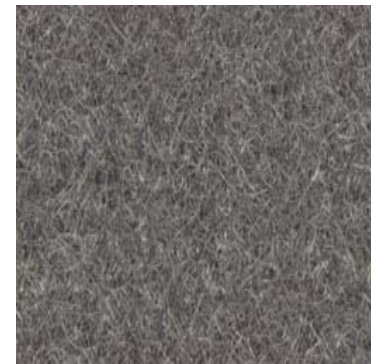
Perception:

Aprehending the elements comprising the project

Concrete



Steel



Wood



The project is gradually presented to the inhabitant on his approach to the area. Construing the image of the project, the Whole, involves perceiving the character and Form of the elements comprising it. These elements are embodied by three different materials. Aside from their inherent purposes for construction these materials indicate the location, outline space and provide enclosure for the interventions.

Initially, at a urban scale - being outside the project-, the elements are perceived through the use of Concrete. The massive quality of the material illustrates the location of points of intervention and provides a sense of their shape. The perception at this distance defines the extents of the Whole.

On a closer approach, Corten Steel delineates the space marked by the concrete mass. This material, while providing structural support, frames the dwelling area of each element. Its capability to withstand corrosion makes it ideal for the area.

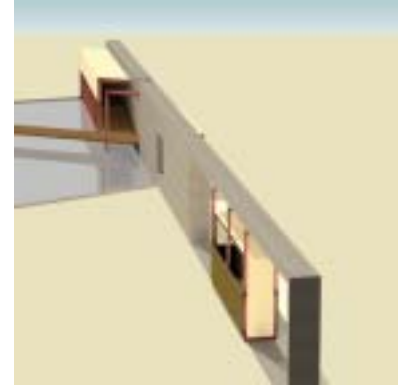
The spatial character of each edifice is further defined through the use of Wood. This material articulates and encloses the dwelling area. Its warm and noble qualities mediate between the inhabitant and the additional parts conforming space. At this level of interaction with the project all elements comply with their pragmatic purpose and transmit the tectonic qualities bestowed upon them to define space. The details, apprehensible to the dweller, present how each element is combined, thus, revealing the cohesive relationship among spaces and edifices.

Project

The Path



The Gate



The Tower

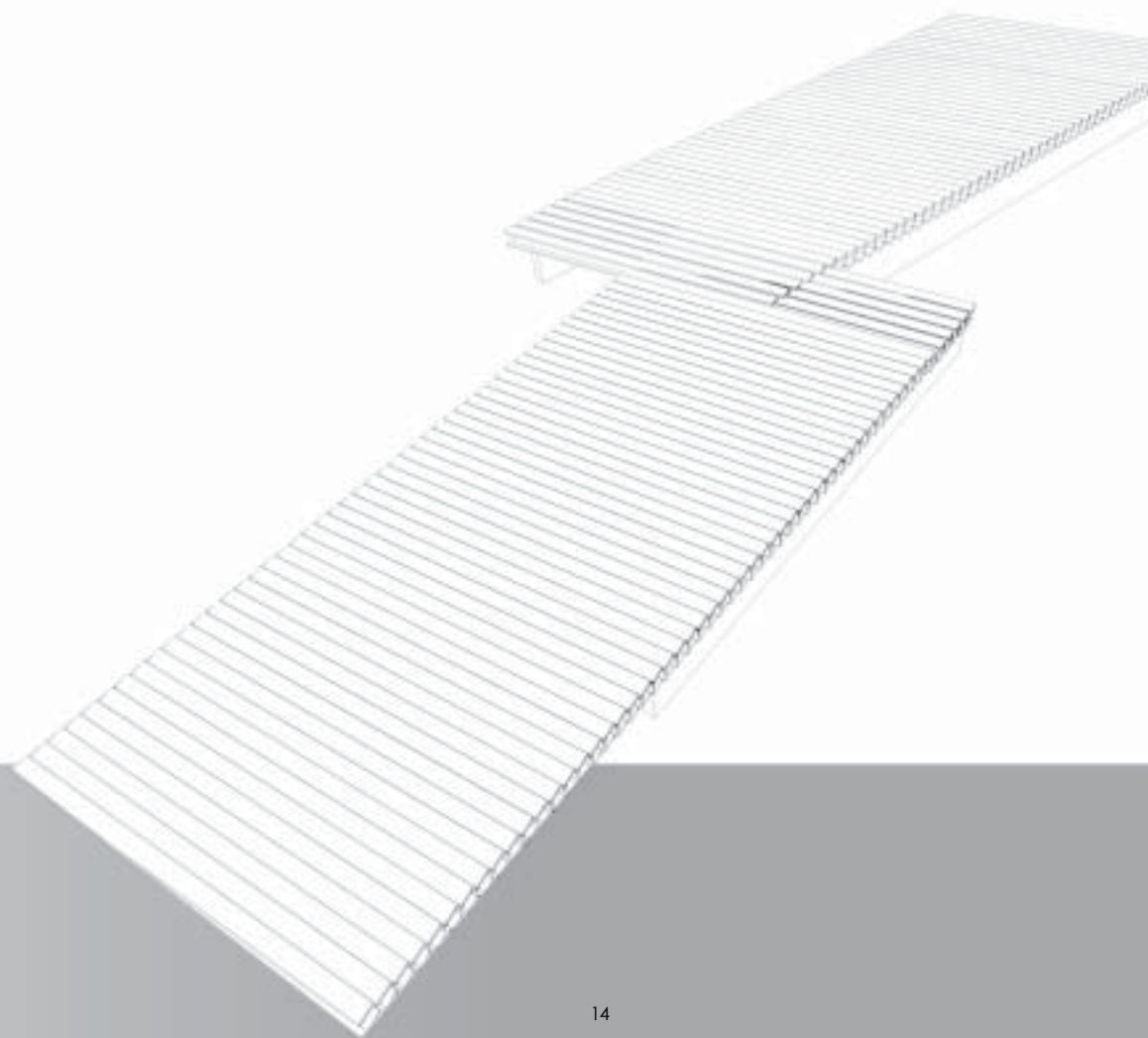
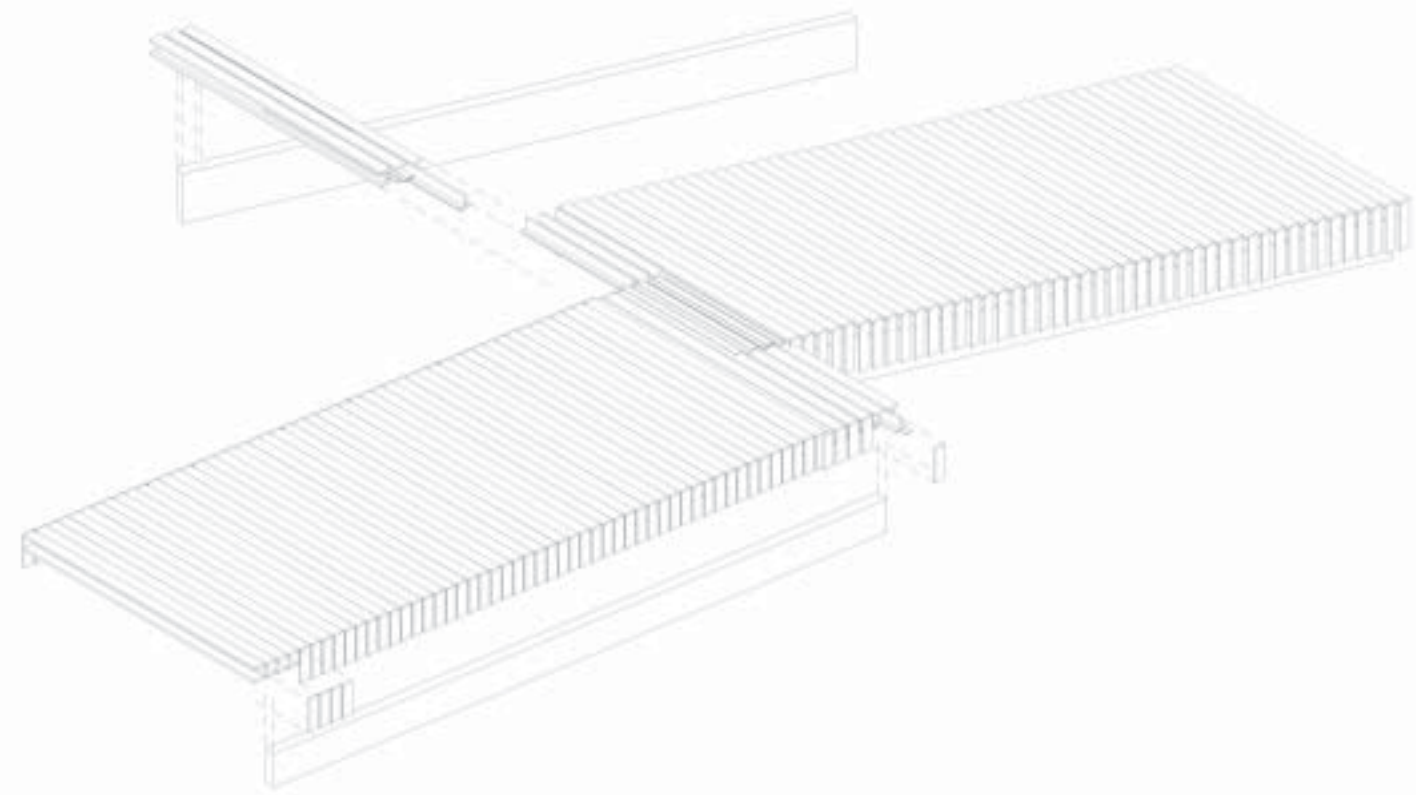


The Pier



The Concession





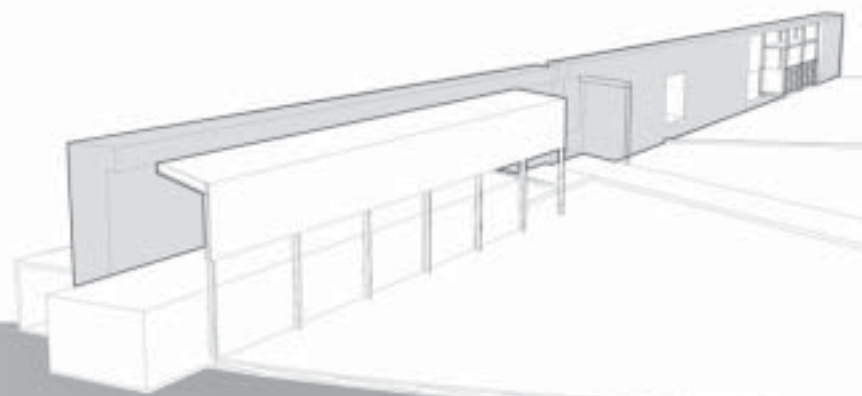
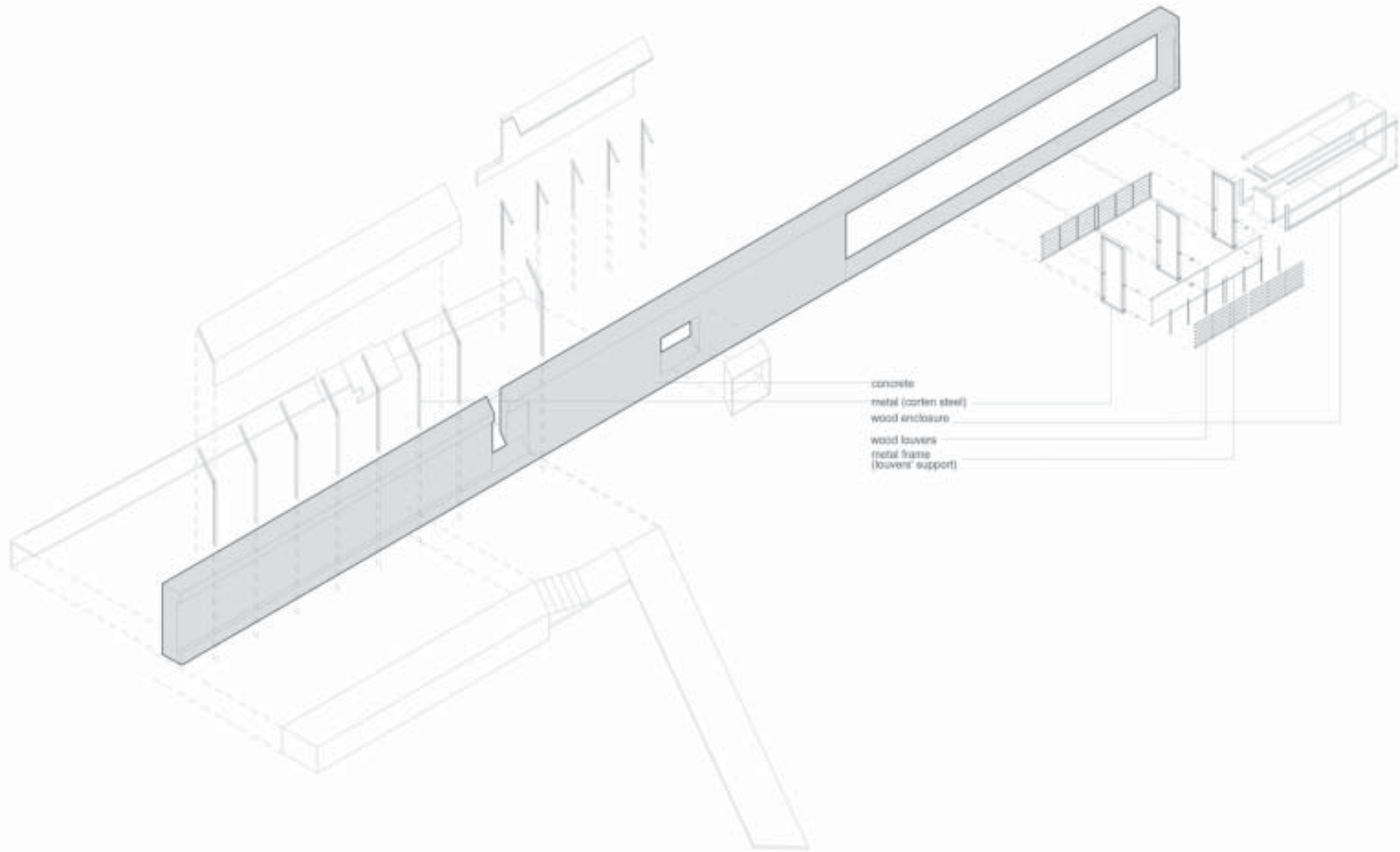
The Path

The path serves as a physical connection between the existing urban fabric and the elements comprising the Whole. It is embodied by wood planks which is the material constantly interacting with the dweller.

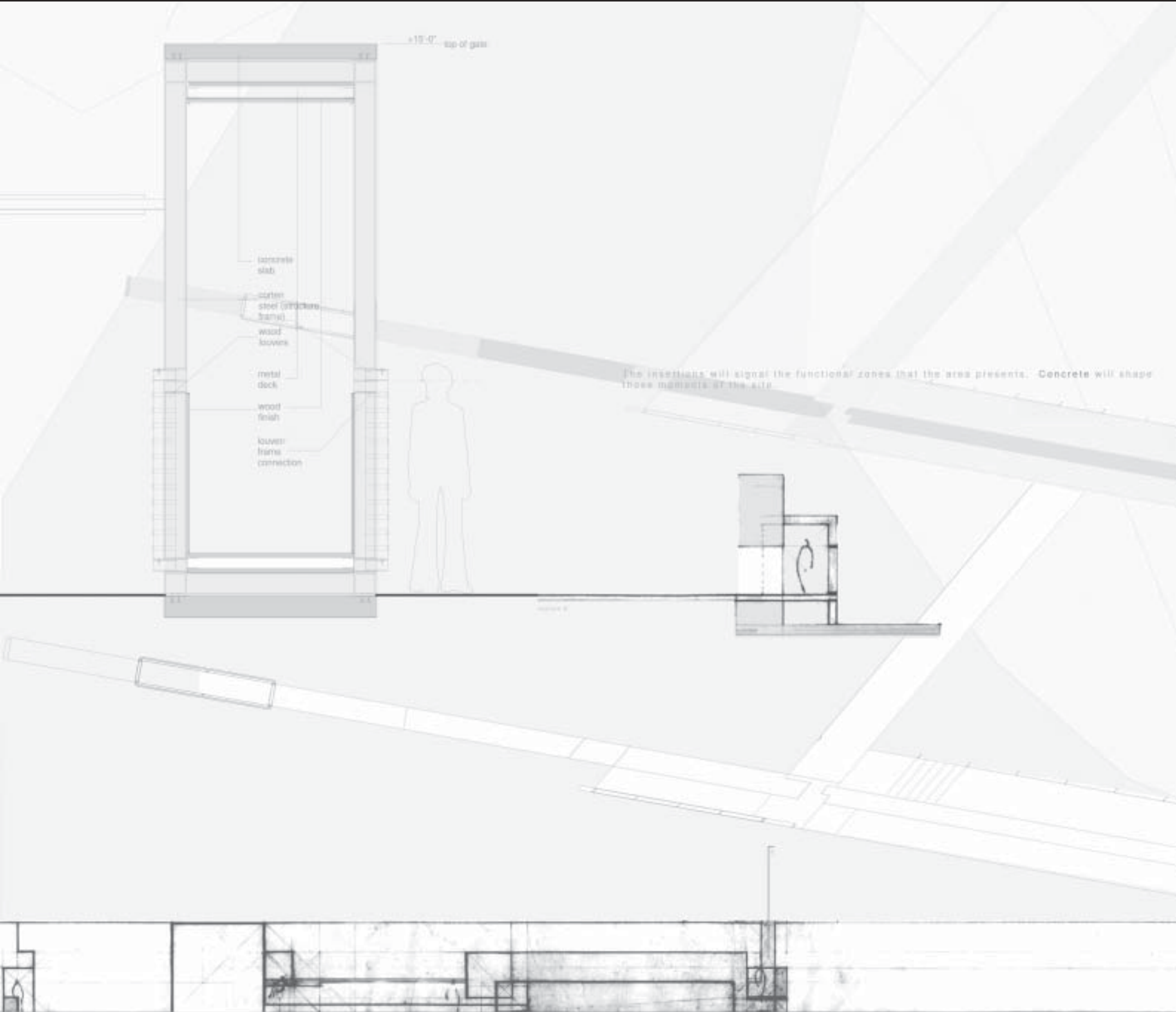
The Gate

The Gate, located at the west end of the site, serves as the formal access to the project. It attaches to the Path and connects to the Tower.





The Gate:
Axonometric & model

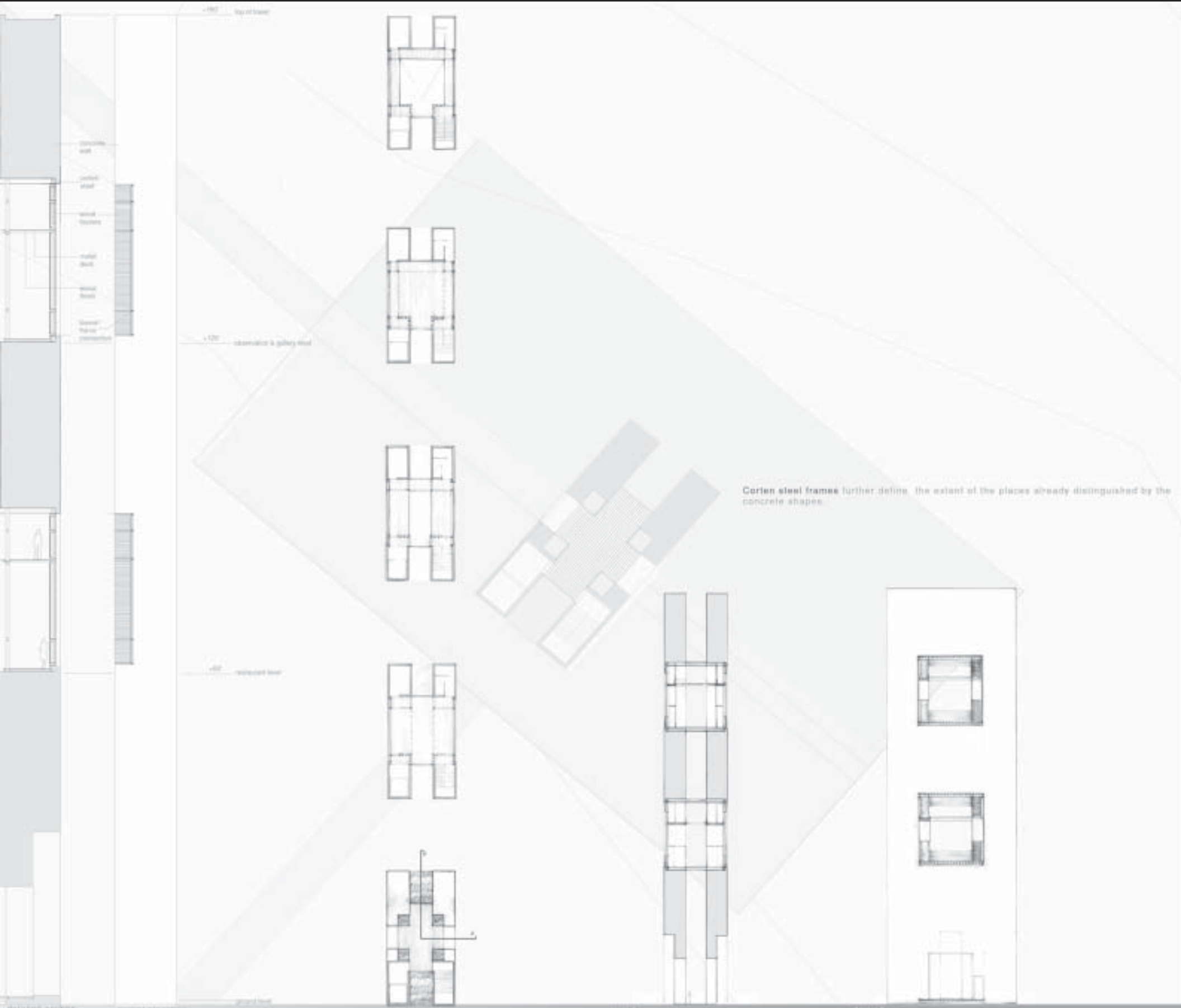


The Gate:
Plan, Section & elevation

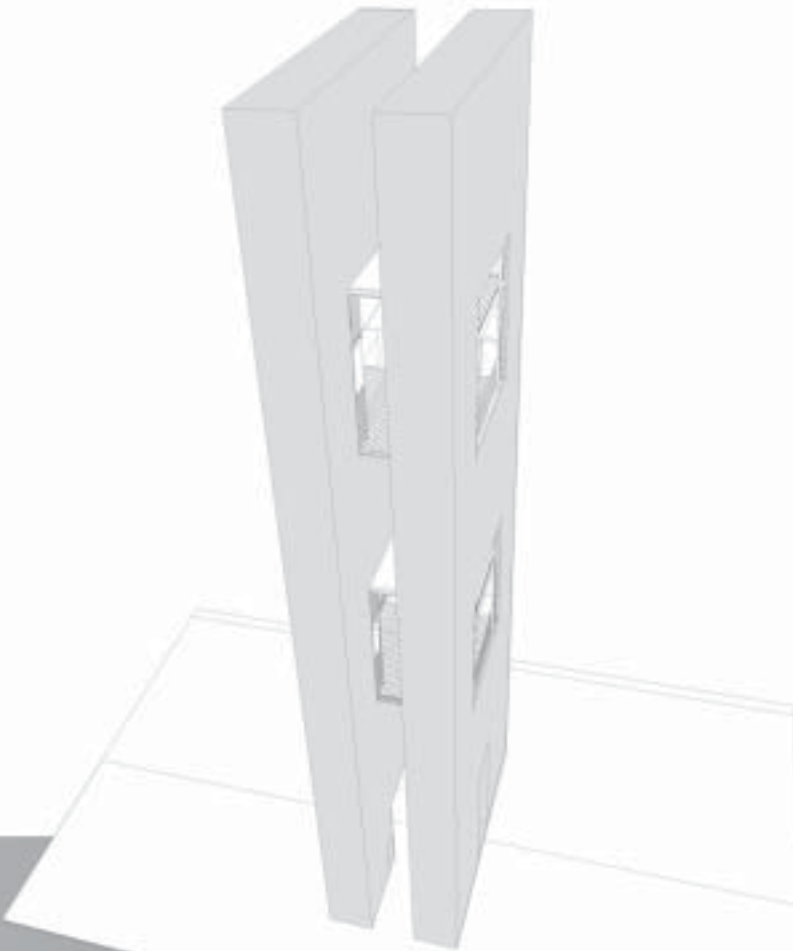
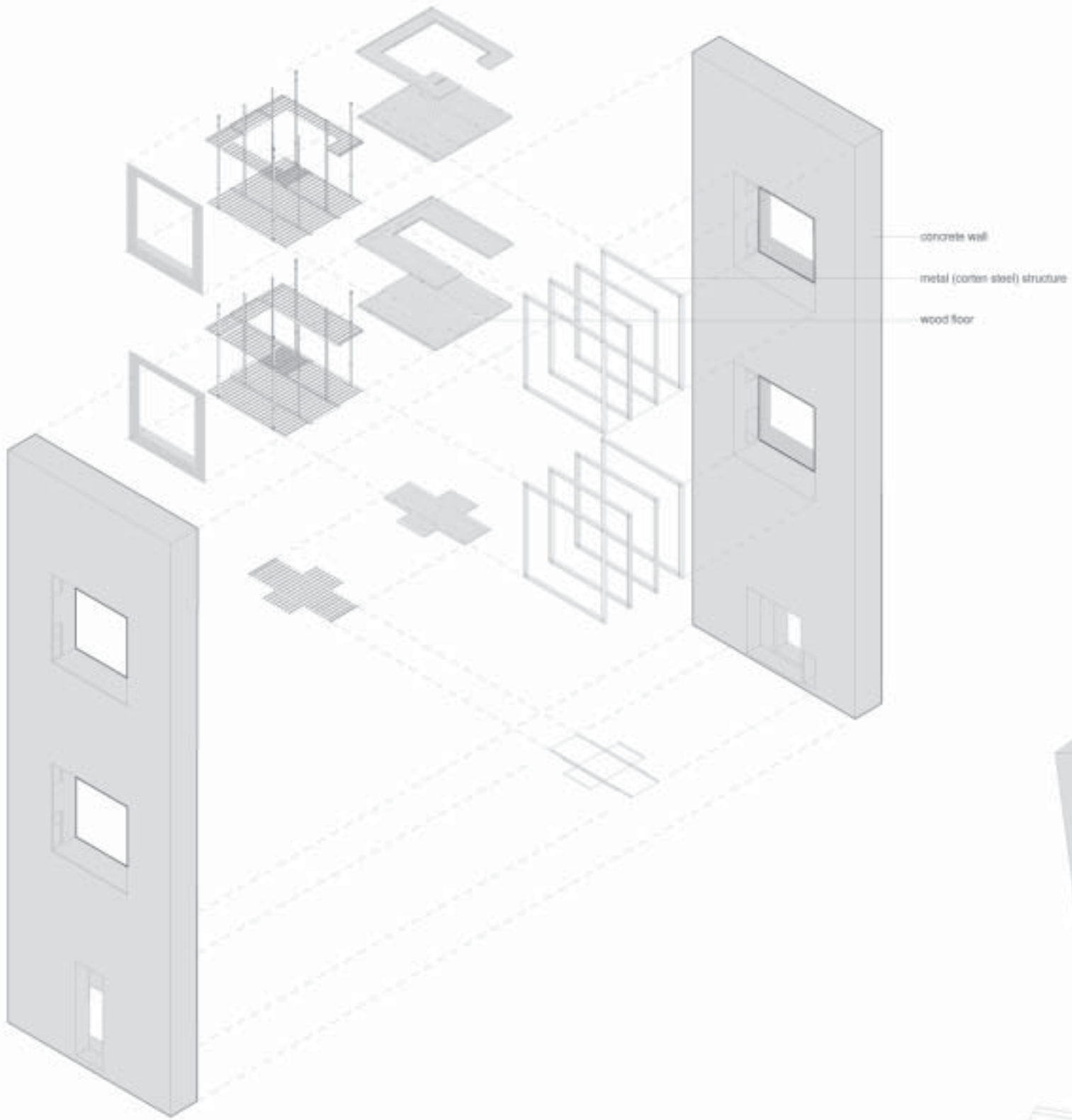
The Tower

The Tower serves as a focal point in the area and denotes the west outskirts of the existing urban fabric. While providing an observation deck, it holds the program for cultural and social activities.





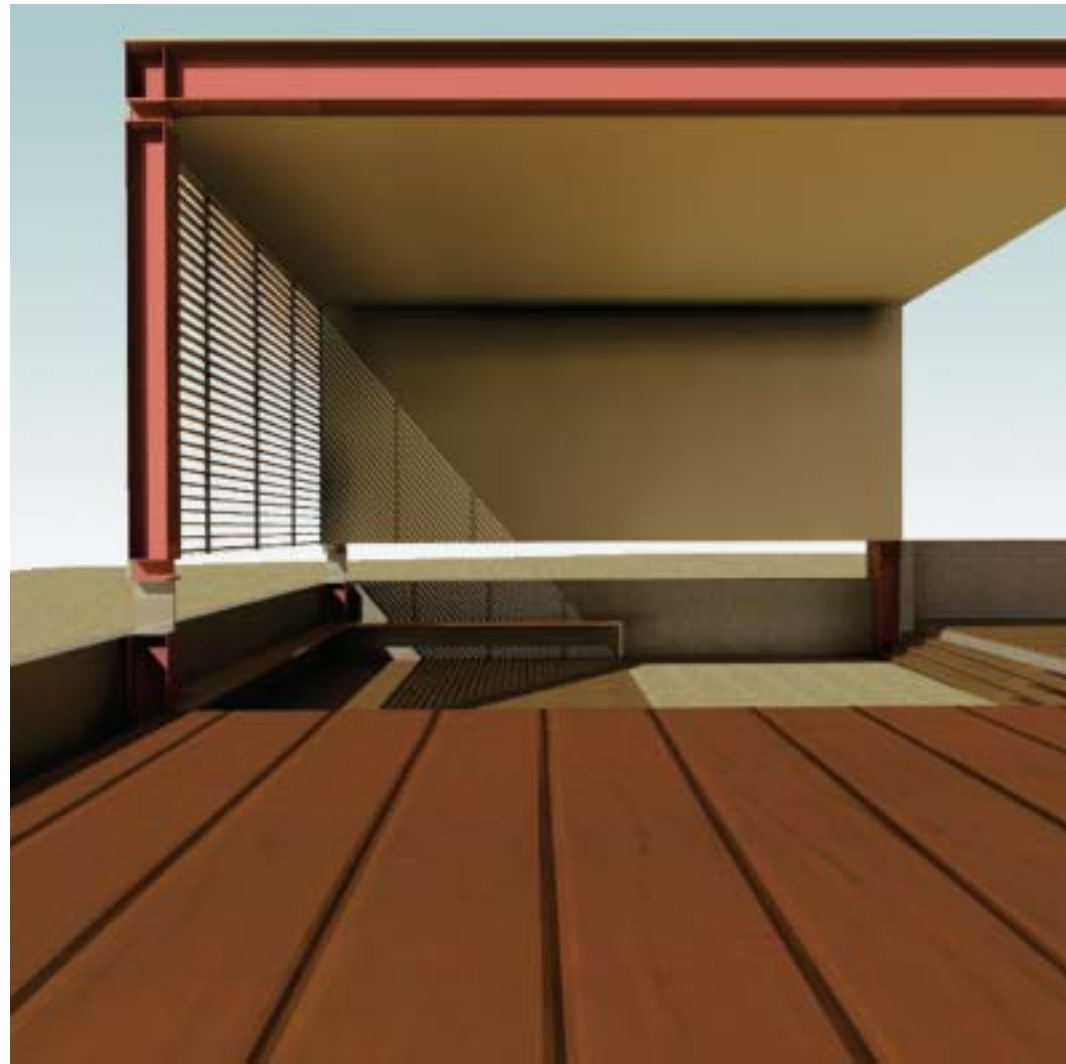
The Tower:
Axonometric & model

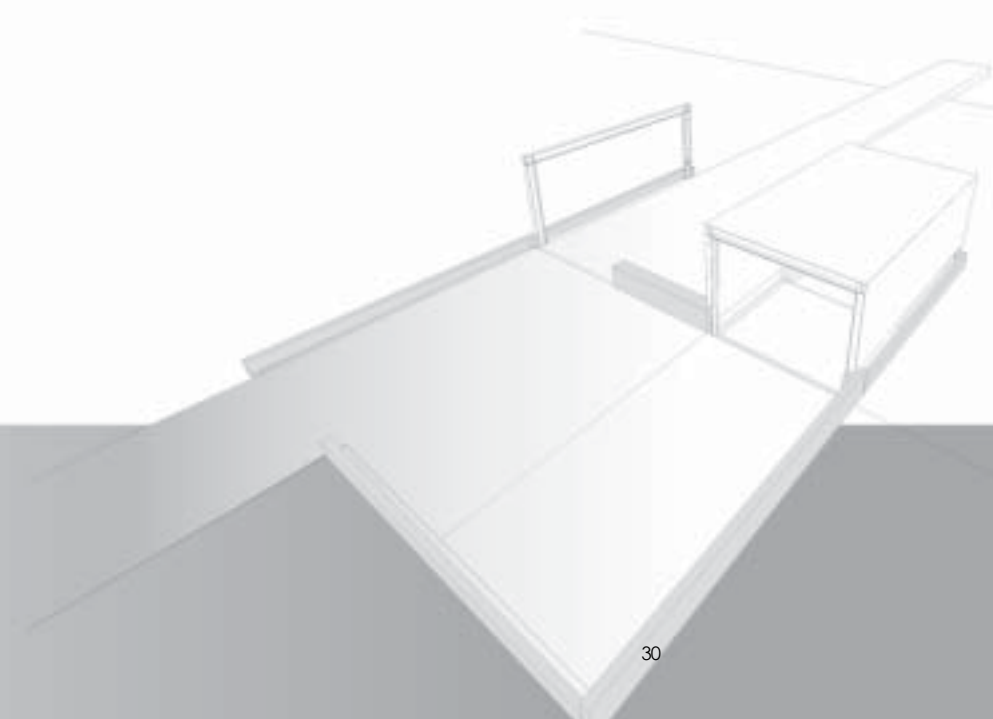
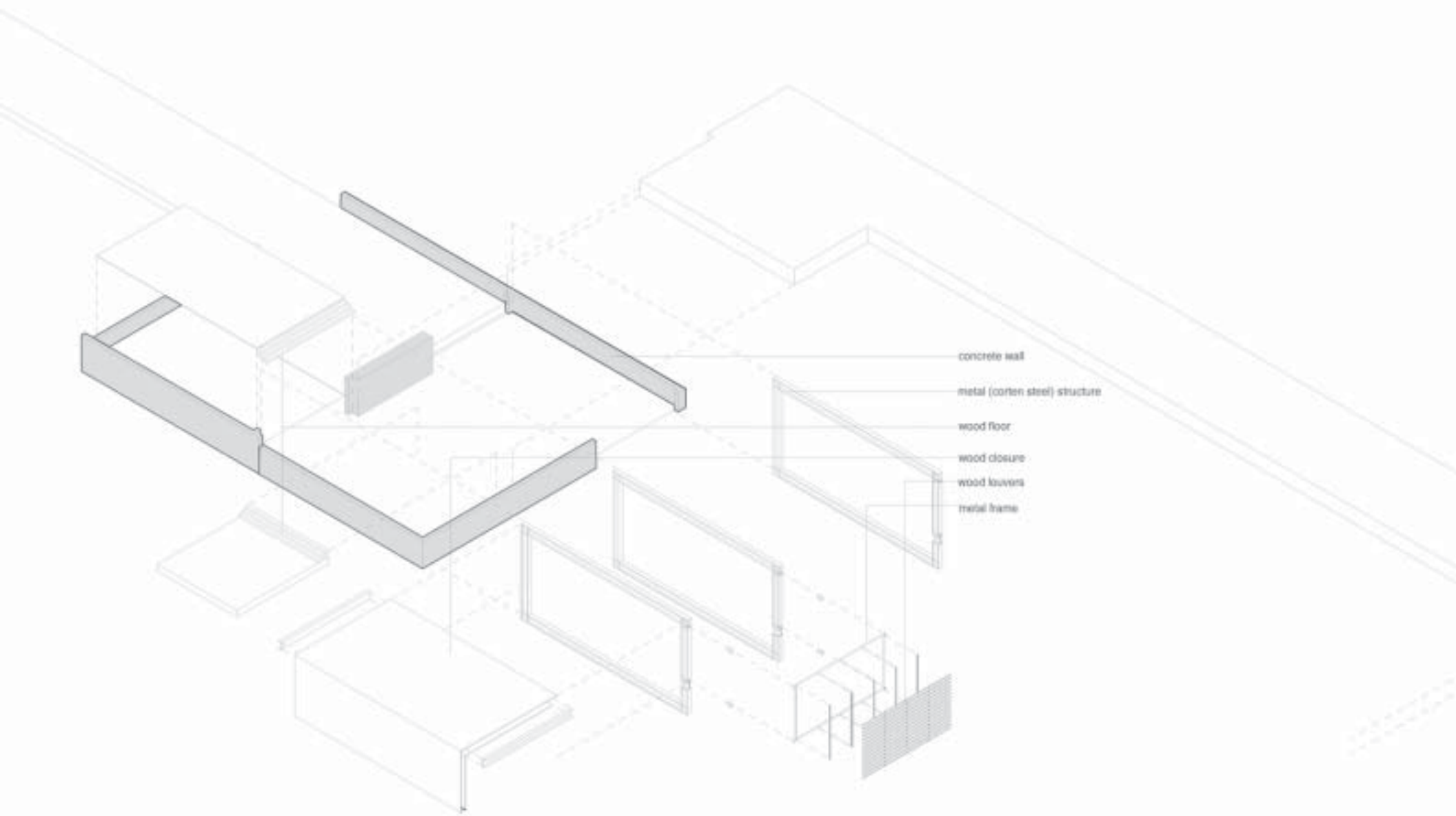


The Tower:
Plan, section & elevation

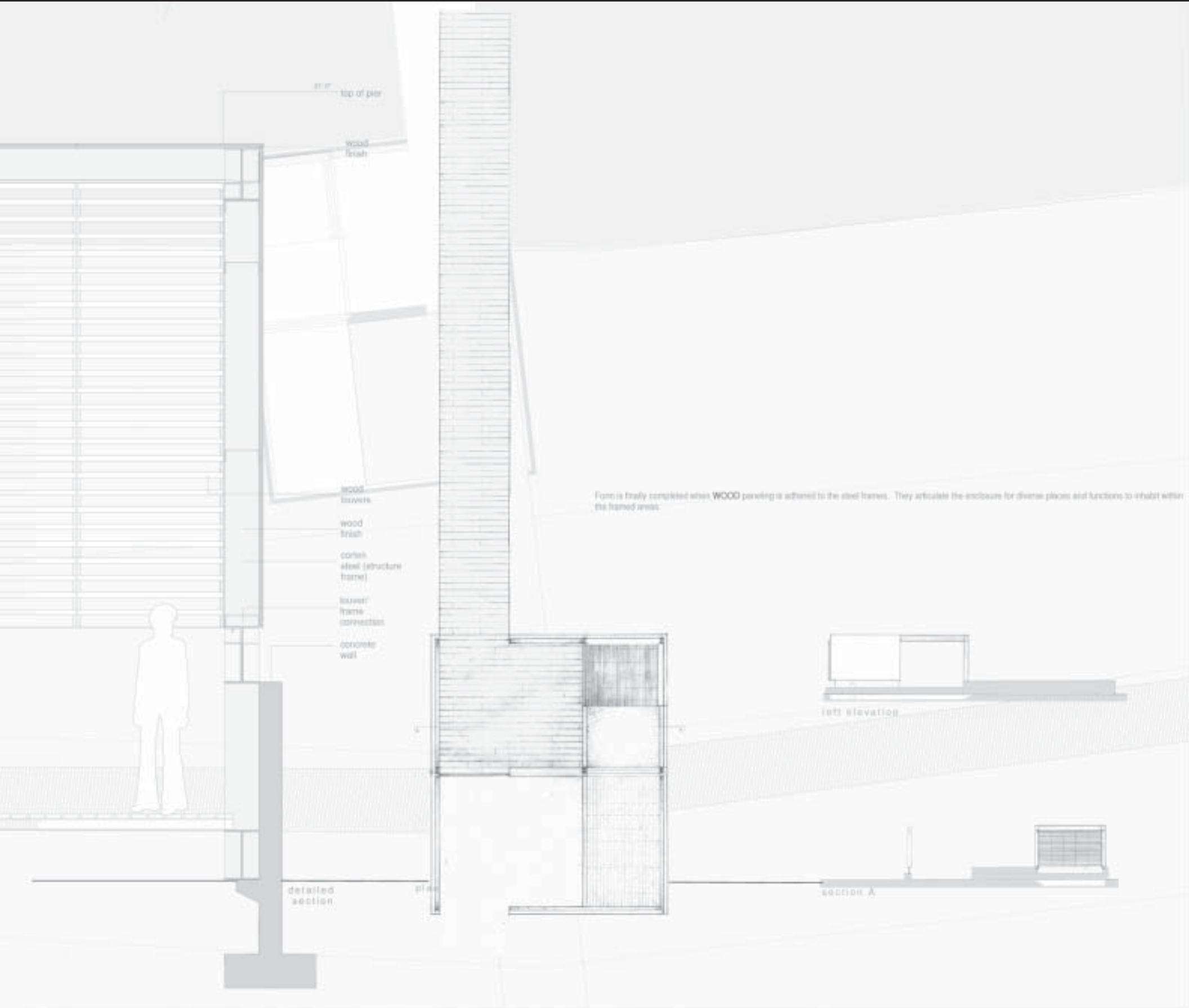
The Pier

The Piers works as an extension of the roads that penetrate the urban fabric. They strengthen the road's perpendicular axis to the site and connect the beach area and the project to the existing area.





The Pier:
Axonometric & model

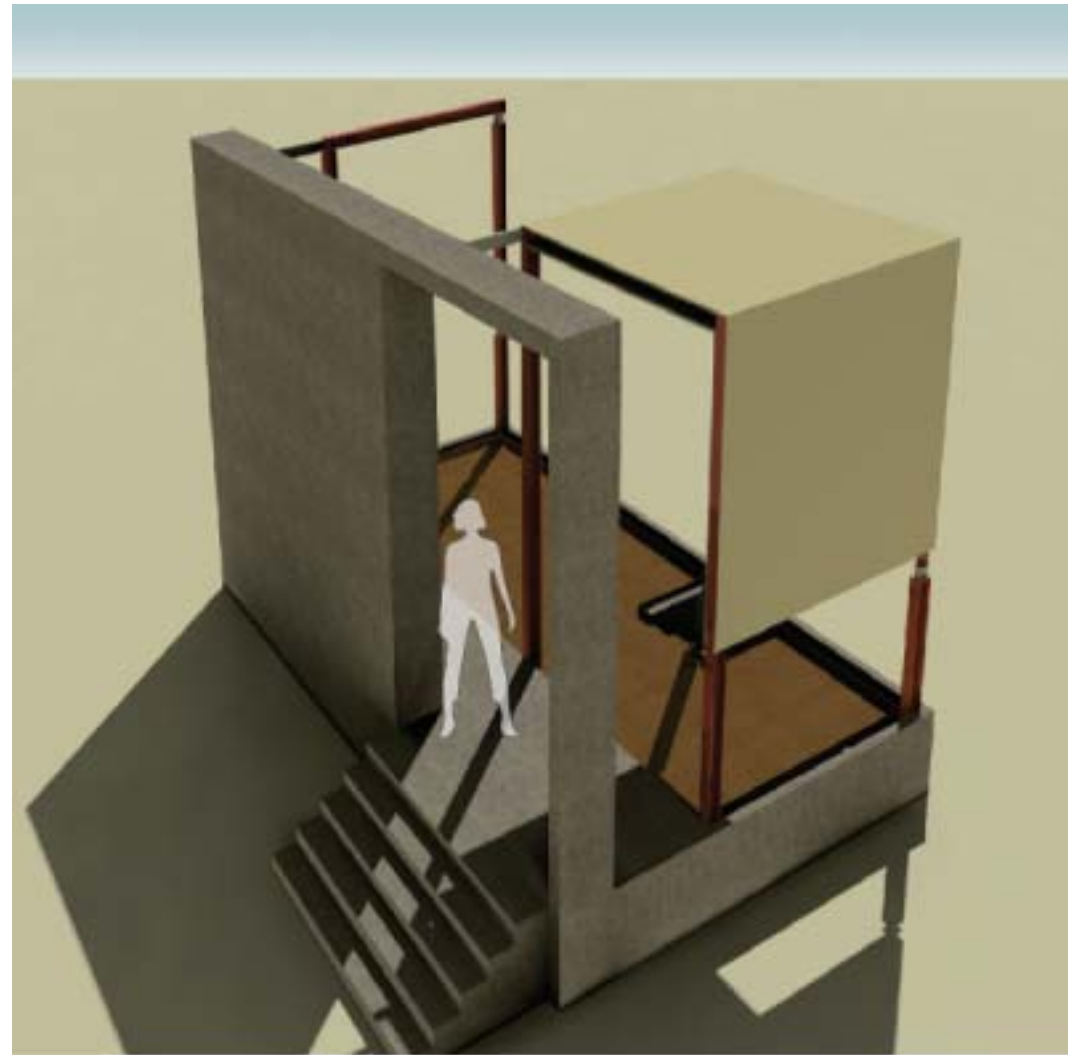


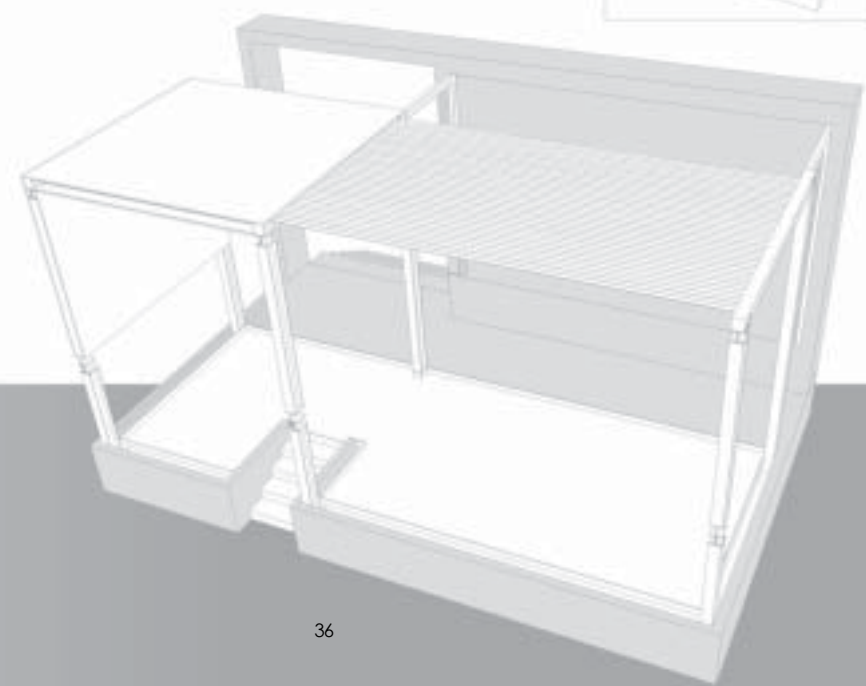
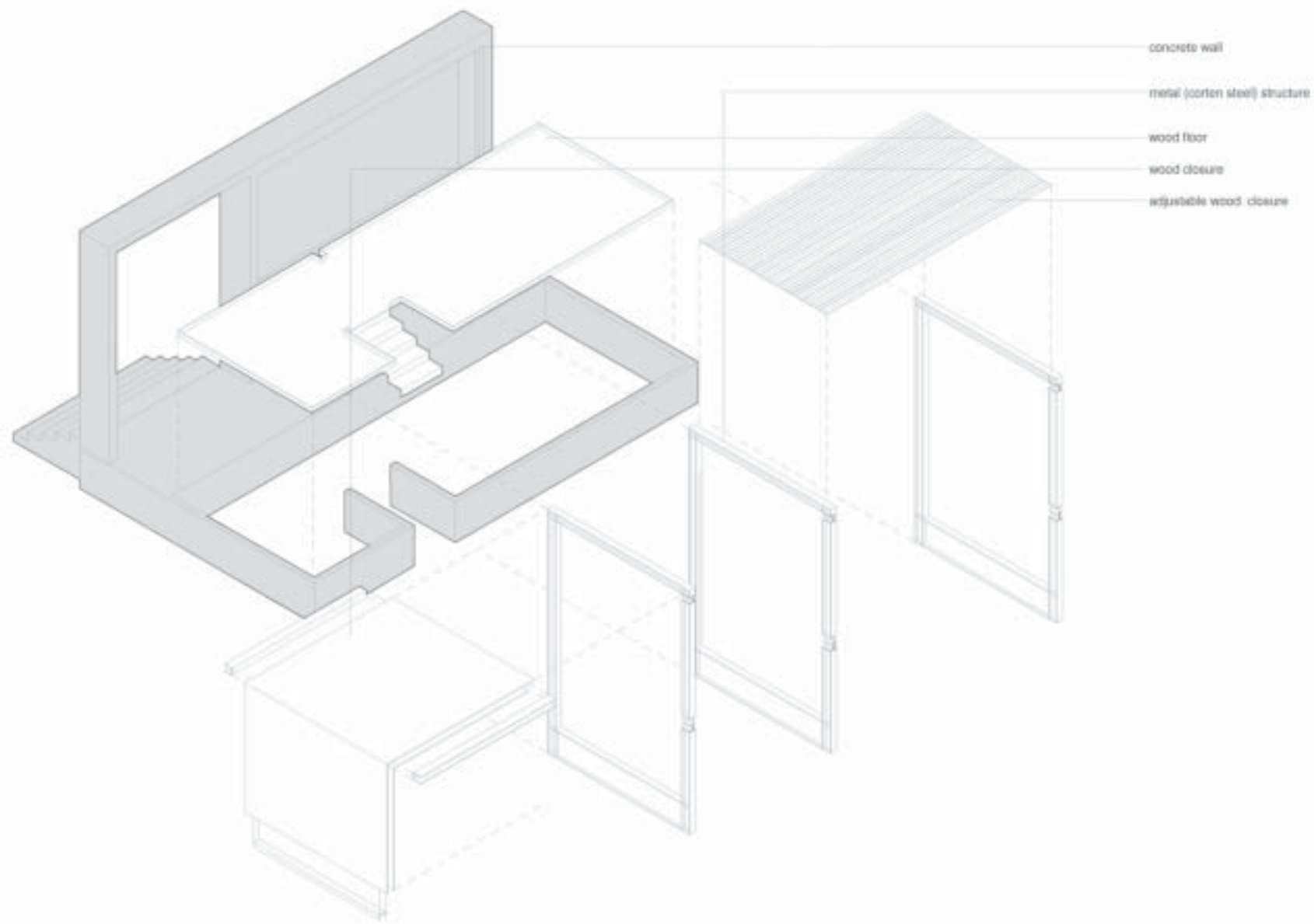
The Pier:
Plan, section & elevation

The Concessions - Type A -

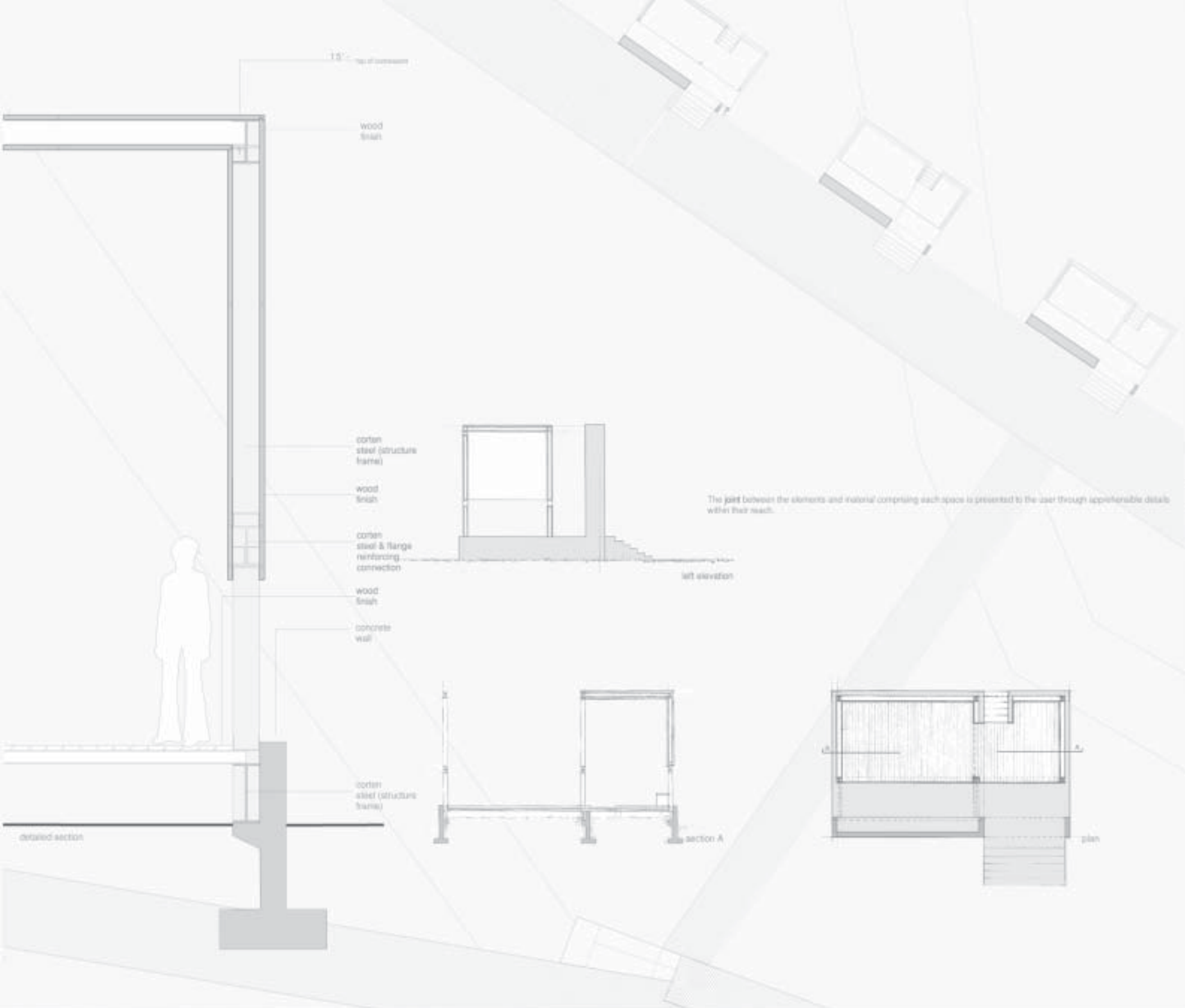
The concessions are multi-use spaces that extend along the entire site. Intentionally they were arranged repeatedly through the project to sustain the tangible presence of the project. In addition, they activate the zone by complimenting the existing recreational and institutional areas adjacent to the project.

There are three types of concessions, varying on their degree enclosure. Type A offers the least enclosed alternative. The wood panels enclose one of its lateral and top sides. The retractable wood screen, a movable element articulating space, creates a sun shade when drawn to the top.





The Concession - Type A - :
Axonometric & model

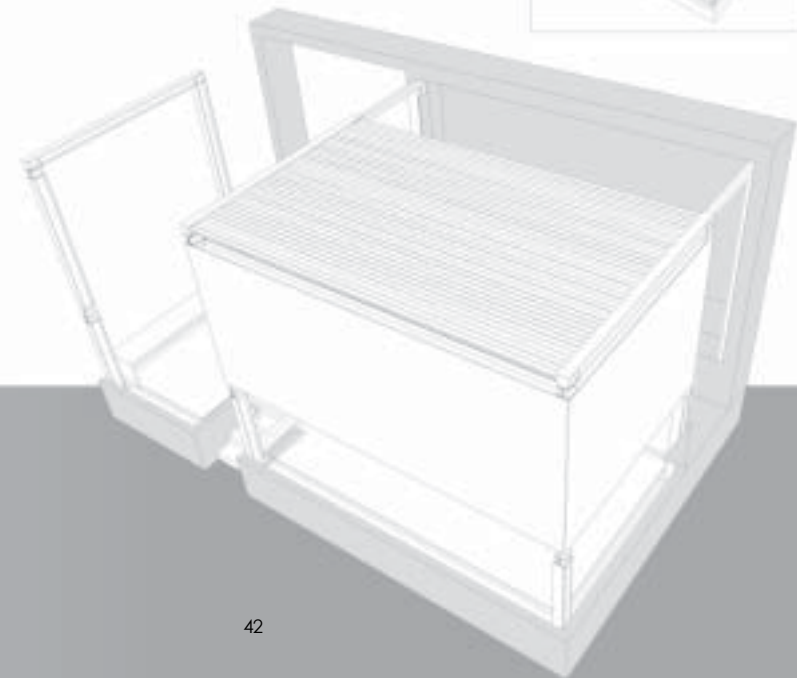
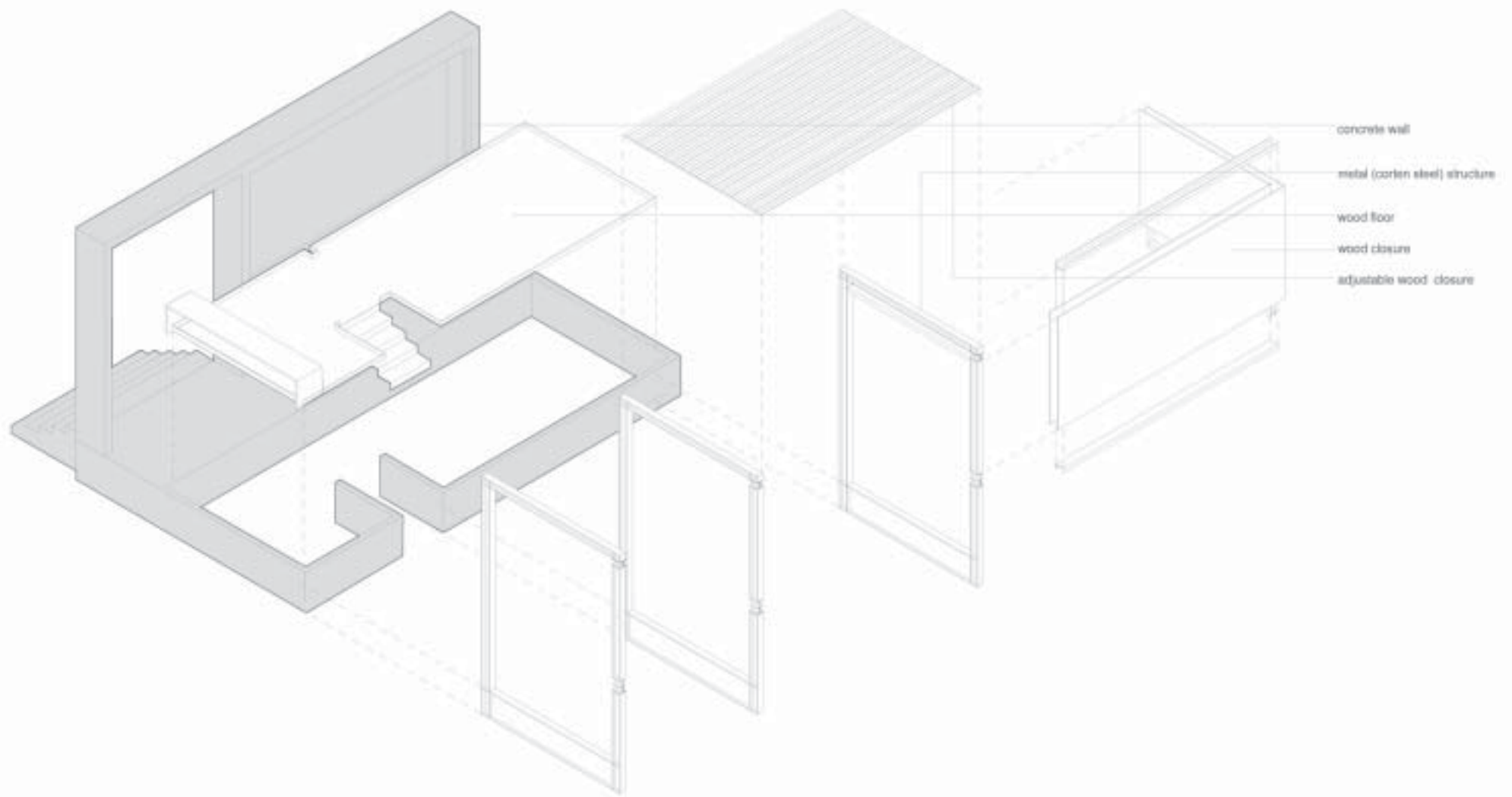


The Concession - Type A - :
Plan, section & elevation

The Concessions - Type B -

The Type B offers a multi-use space, a balanced amount of openness and enclosure. The wood panels enclose two of its lateral sides.





The Concession - Type B - :
Axonometric & model

top of concession
10'0"

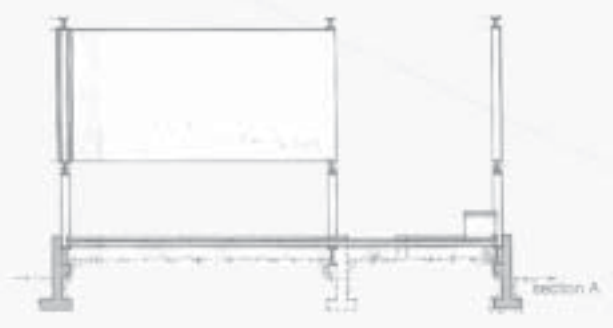
concrete
steel (structure
frame)
concrete
steel & large
reinforcing
connection
wood
finish
concrete
steel (structure
frame)
concrete
wall



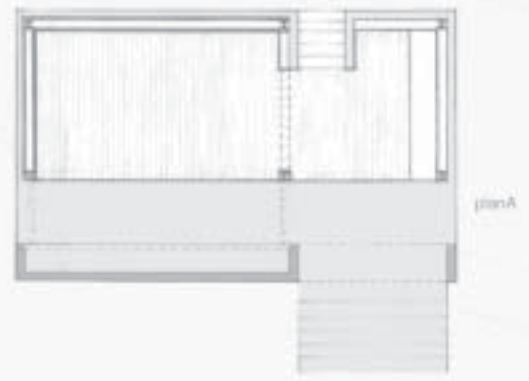
detailed section



left elevation



section A



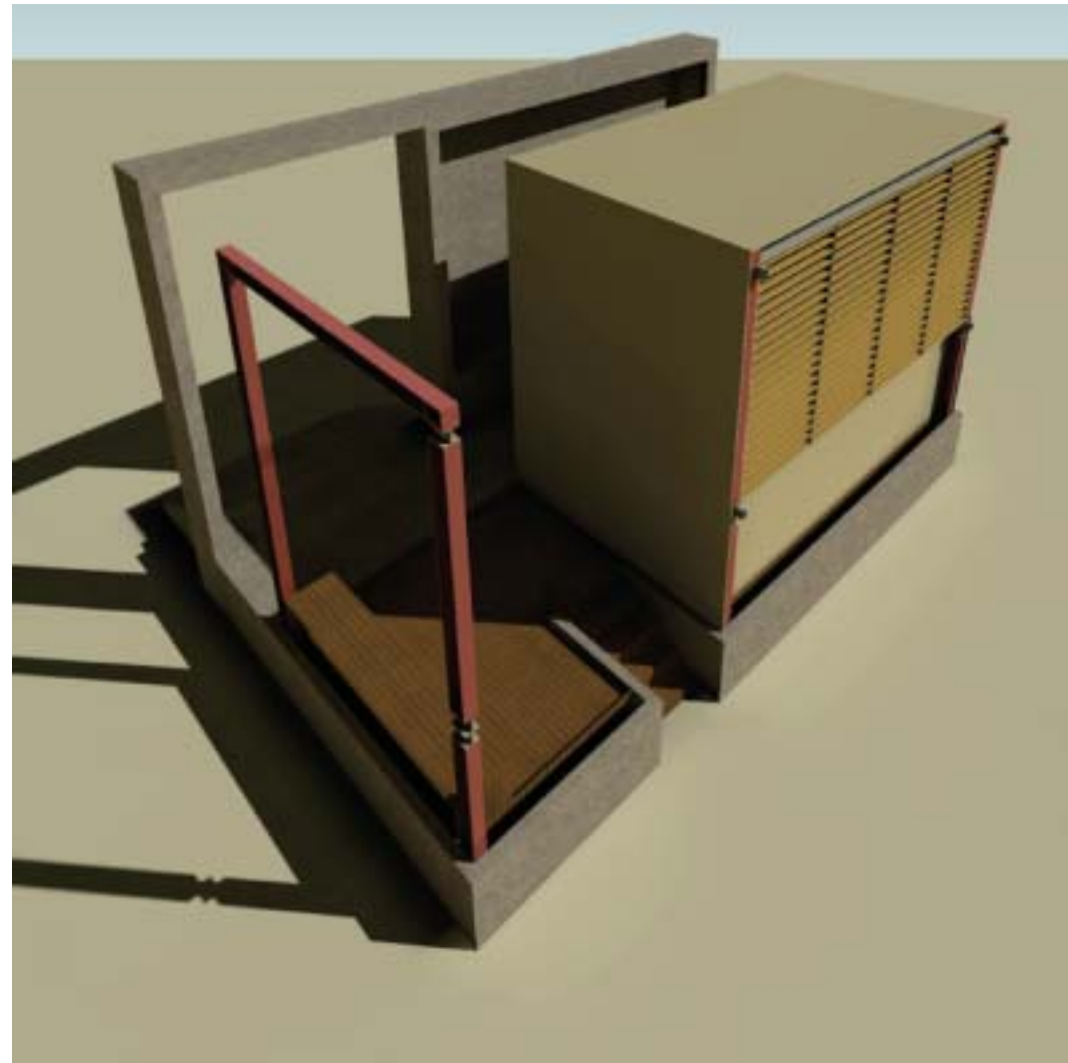
plan A

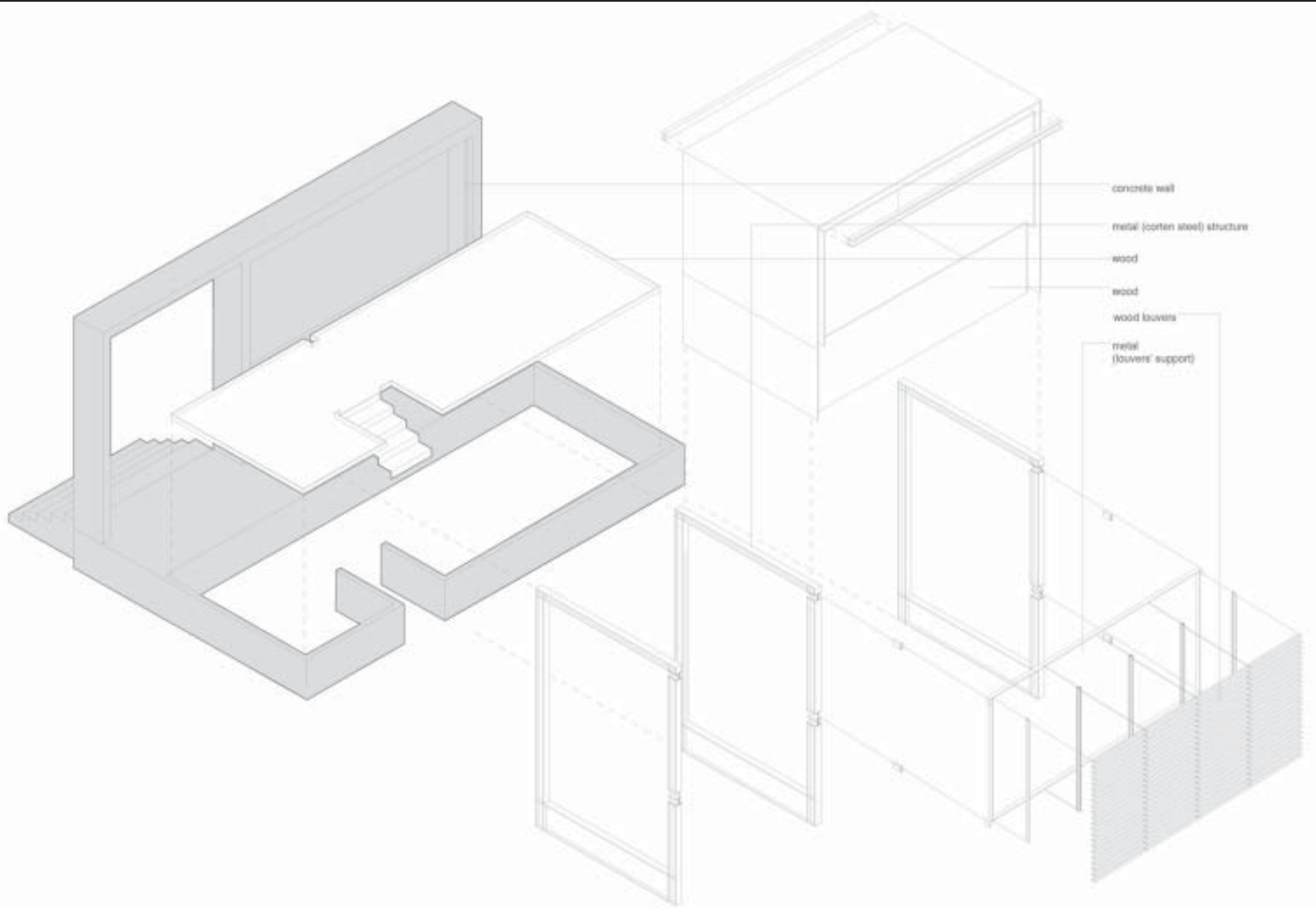
The series of parts as a whole is finally understood with the substance of a place

The Concession - Type B - :
Plan, section & elevation

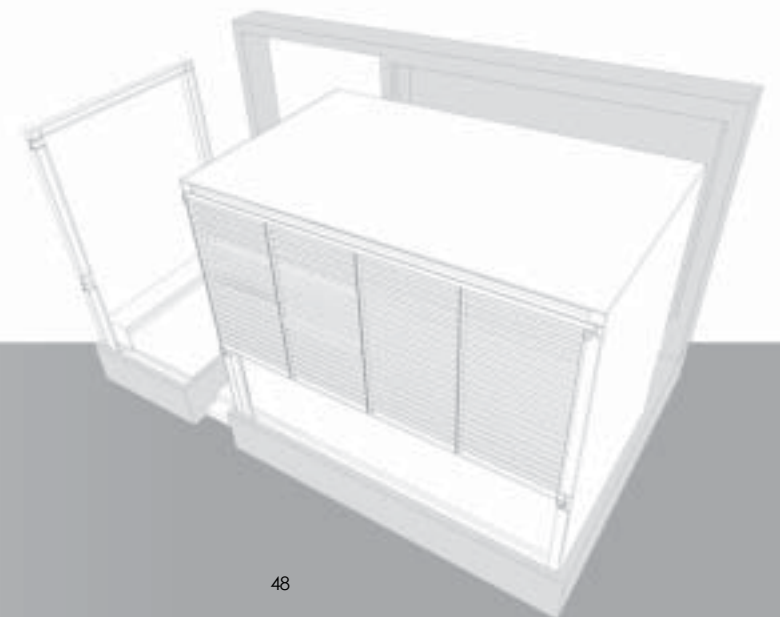
The Concessions - Type C -

This alternative has the highest degree of enclosure among the three concessions. The wood paneling encloses three of its lateral sides.



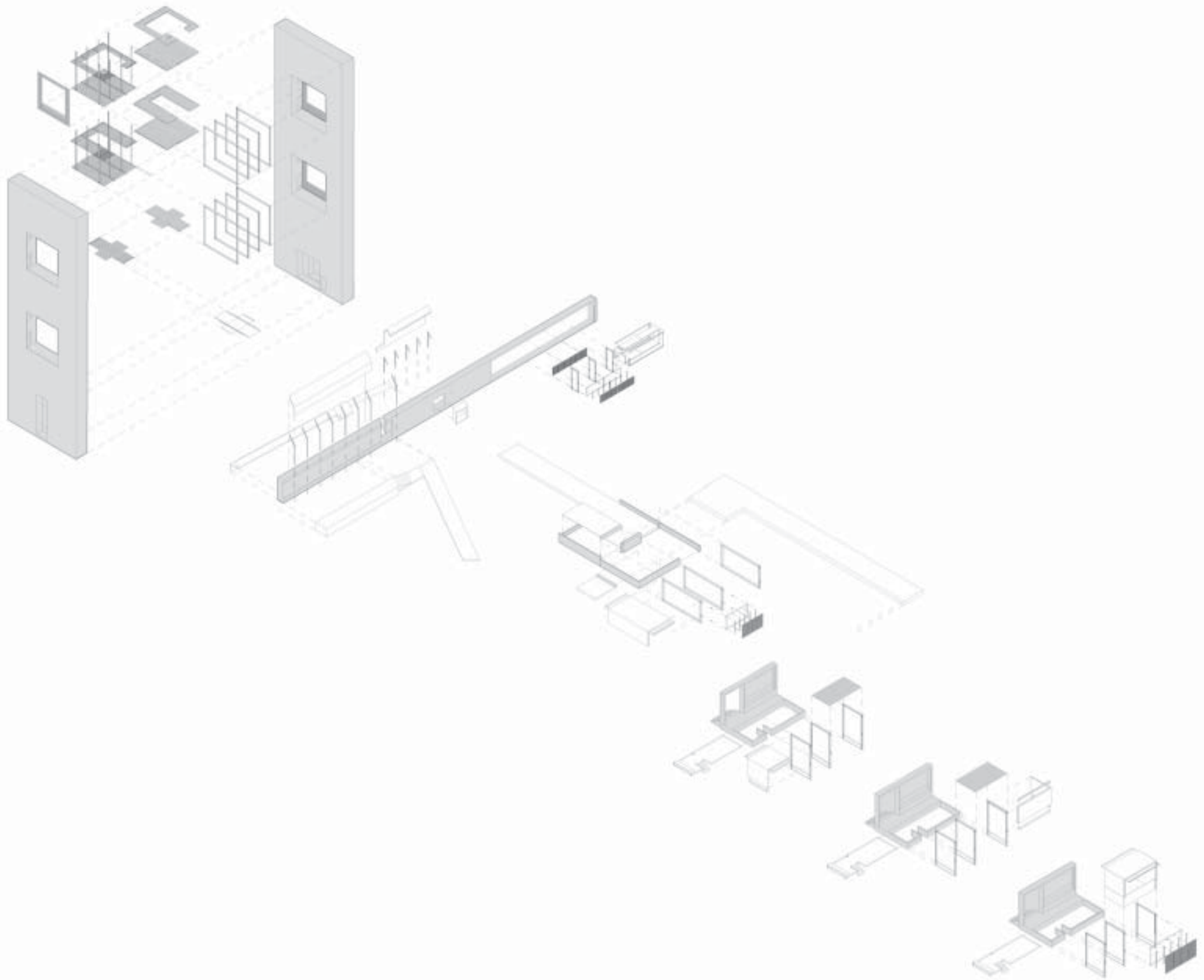


The Concession - Type C - : *концесія | Type C*
 Axonometric & model





The Concession - Type C - :
Plan, section & elevation



The Whole

Having an image of all the elements together make clear and percivable the character of the whole.

A 100% 100% 100%

Conclusion



The findings of this thesis are about architecture and its design process. Defining the nature of each element, concept, even decisions, led to the roots of what defines Architecture. These inquiries rendered the project with a deep search of the factors that initiate an architectural project. Through this research it was acknowledged that the design process could have a starting and an ending point but its findings inform every stage of its development.

The Urban Detail is an area that engages totally with the needs of the surroundings. The intention was, more than fixing a problem or implanting a new object, to extend from, complement, and become a part of the existing fabric. The elements introduced in the area, like the tower, became visually strong and made it visually apprehensible from a distance. The presence of these elements made tangible what previously was an invisible remnant of the urban fabric. They bring together institutional, recreational and residential areas by means of one common element, the Whole, that borders and connects the entire area.

Analogous to having parts defining a Whole, this design endured constant redefinition resulting from the detailed study of the elements comprising the project. Thus, the remark of it being both diachronic and synchronic. The most influential decisions came together halfway through the design process. Understanding this process gave a wider perspective of the definition of space; the factors that define it and how it becomes Architecture.

Vita

Hector J. Ralat-Sotomayor

Education

- 2001 Master of Architecture
Virginia Polytechnic Institute & State University
College of Architecture & Urban Studies
Blacksburg, Virginia
- 1998 Bachelor Degree - Environmental Design
School of Architecture
University of Puerto Rico
Río Piedras, Puerto Rico
- 1996 Europe summer study program
Spain & Italy