

THE PHENOMENOLOGY OF PLACE :

A BOAT MAKING AND EDUCATIONAL FACILITY IN THE PORT OF LOS ANGELES

by

Bernardo Terán II

A Thesis submitted to the Honors College

In Partial Fulfillment of the Bachelor of Architecture degree

with Honors in

ARCHITECTURE

THE UNIVERSITY OF ARIZONA

MAY 2015

Approved by:



**Susannah Dickinson, RA
Assistant Professor, School of Architecture**

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MAY 06, 2015

HONORS COLLEGE THESIS APPLICATION

THE PHENOMENOLOGY OF PLACE : A Boat Making and Educational Facility in the Port of Los Angeles

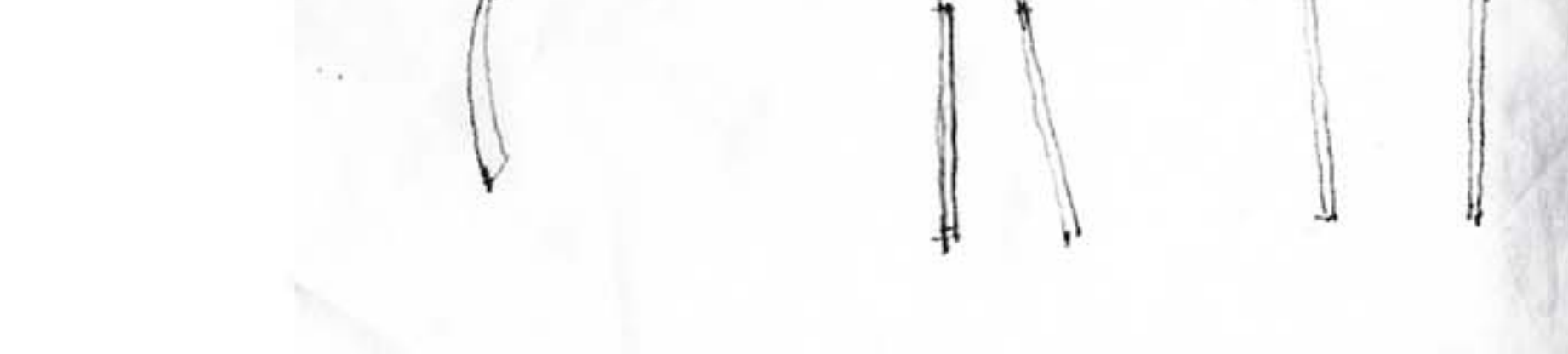
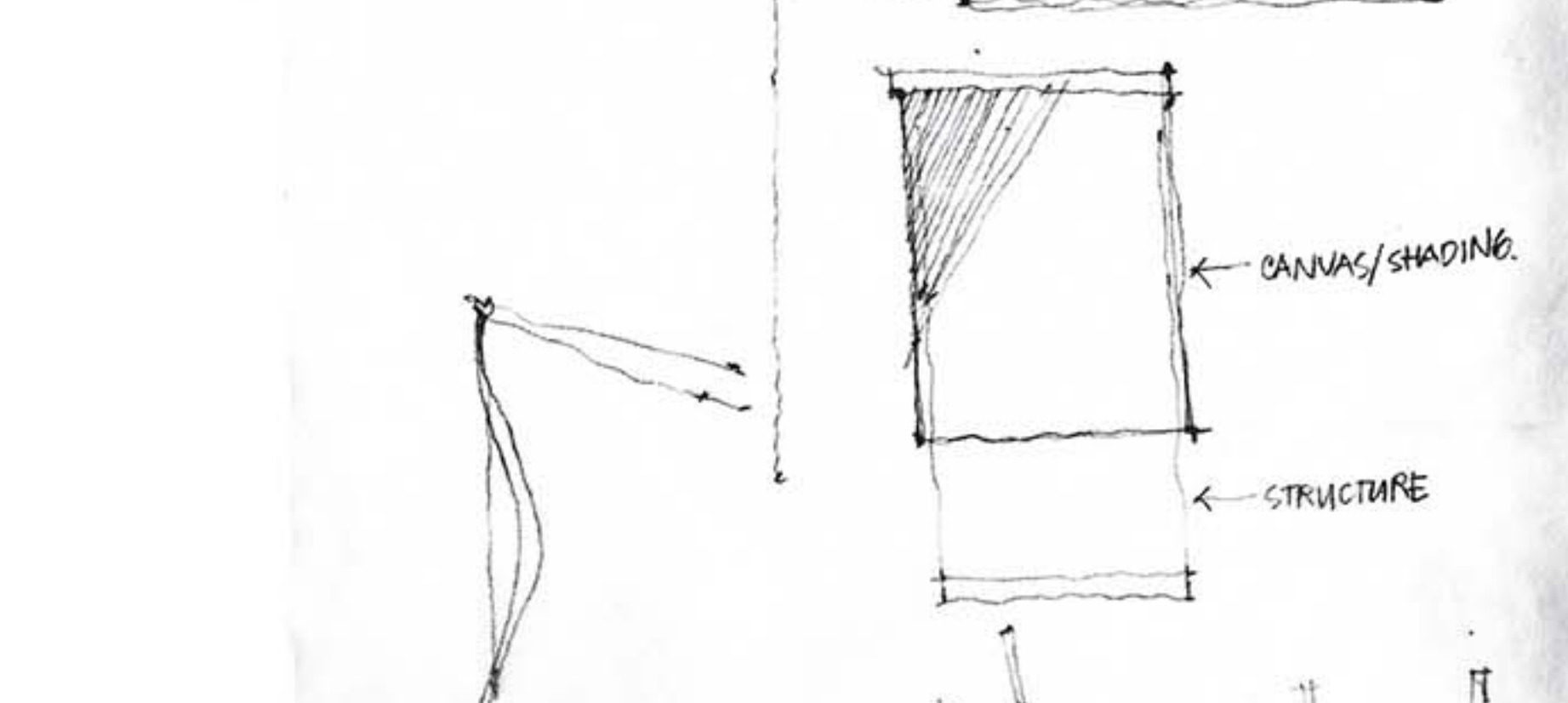
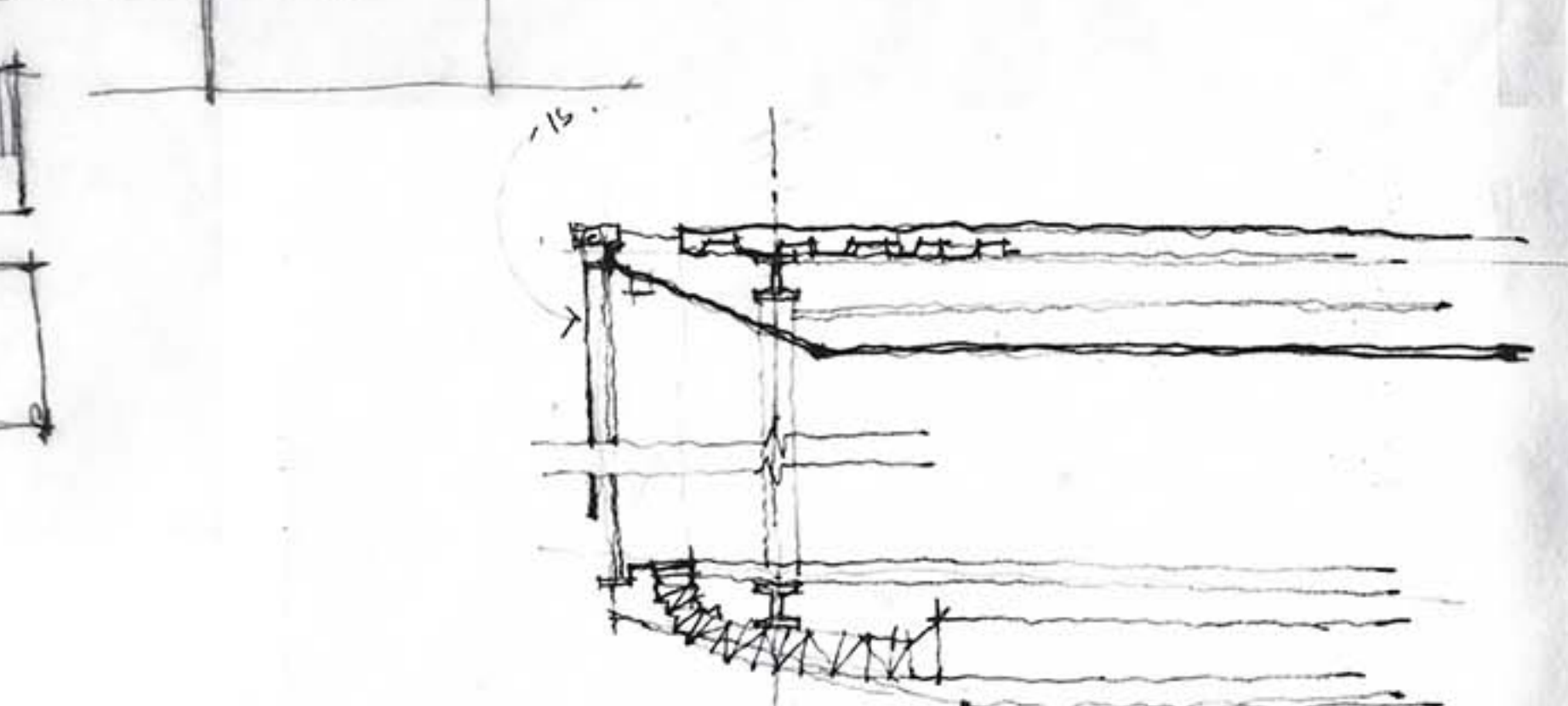
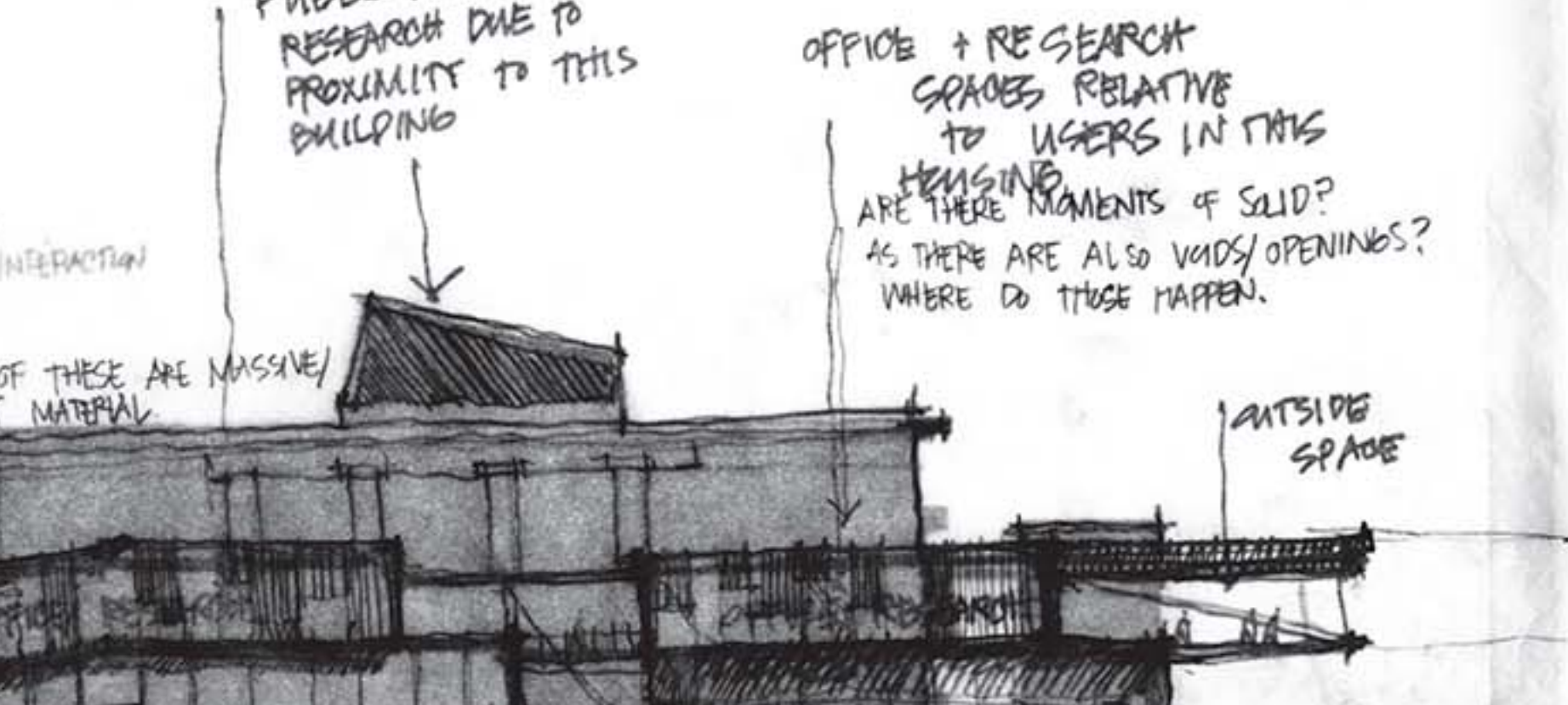
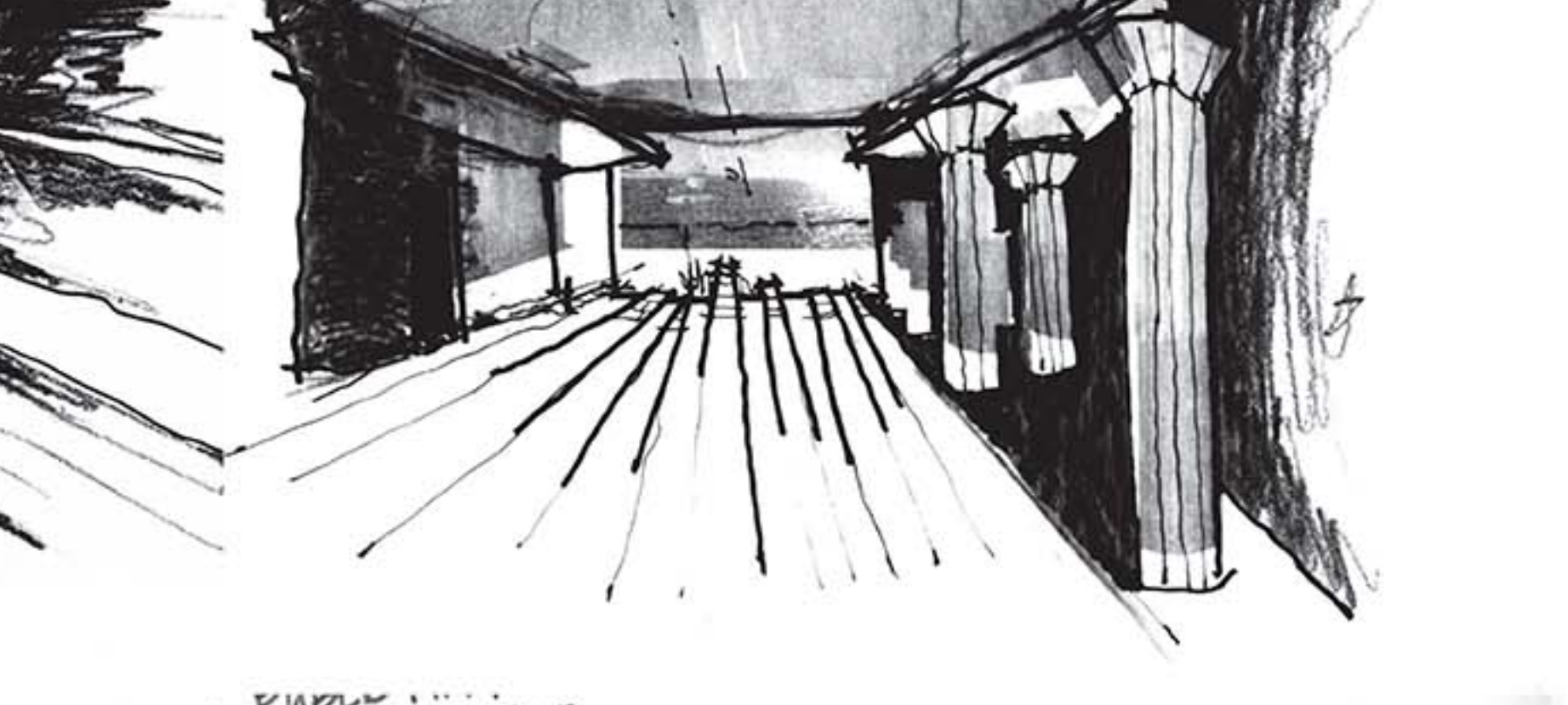
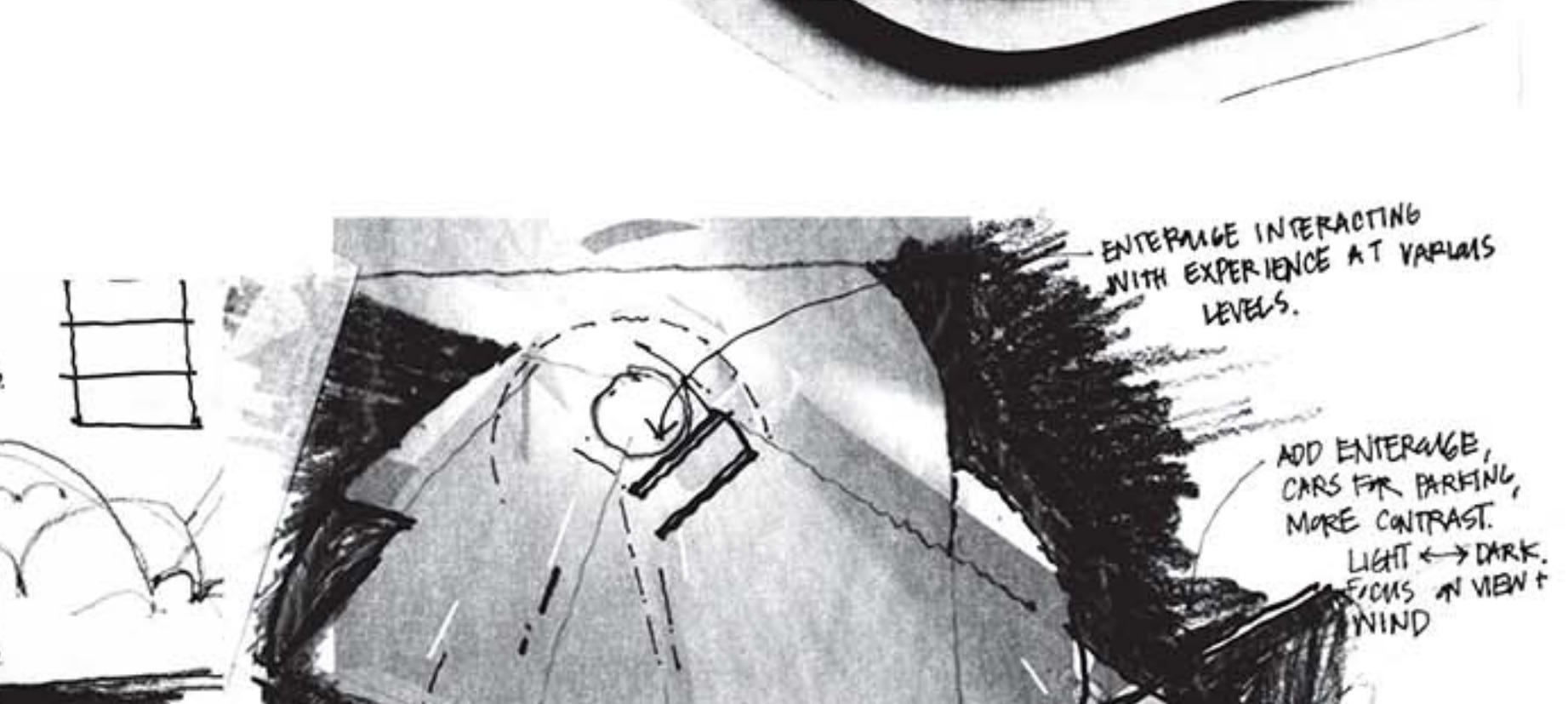
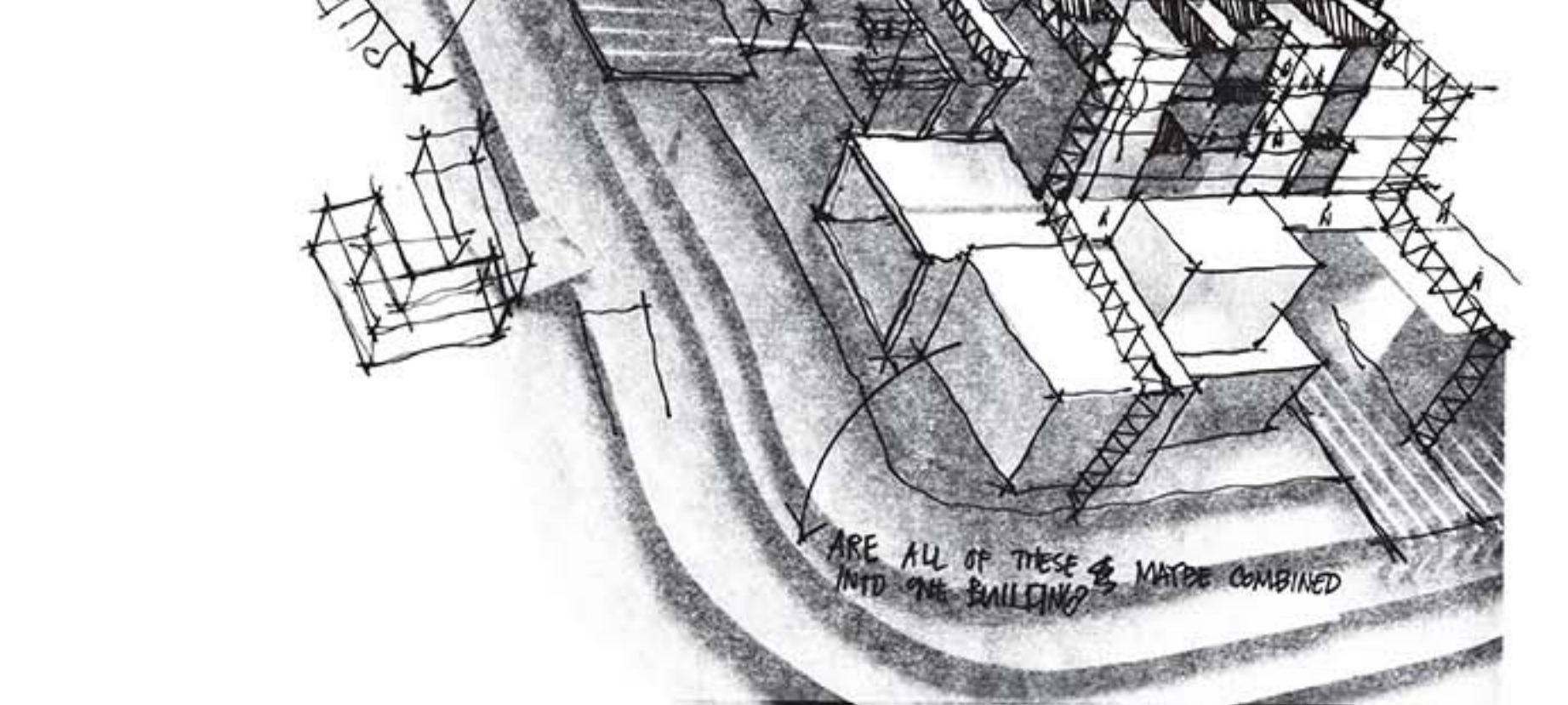
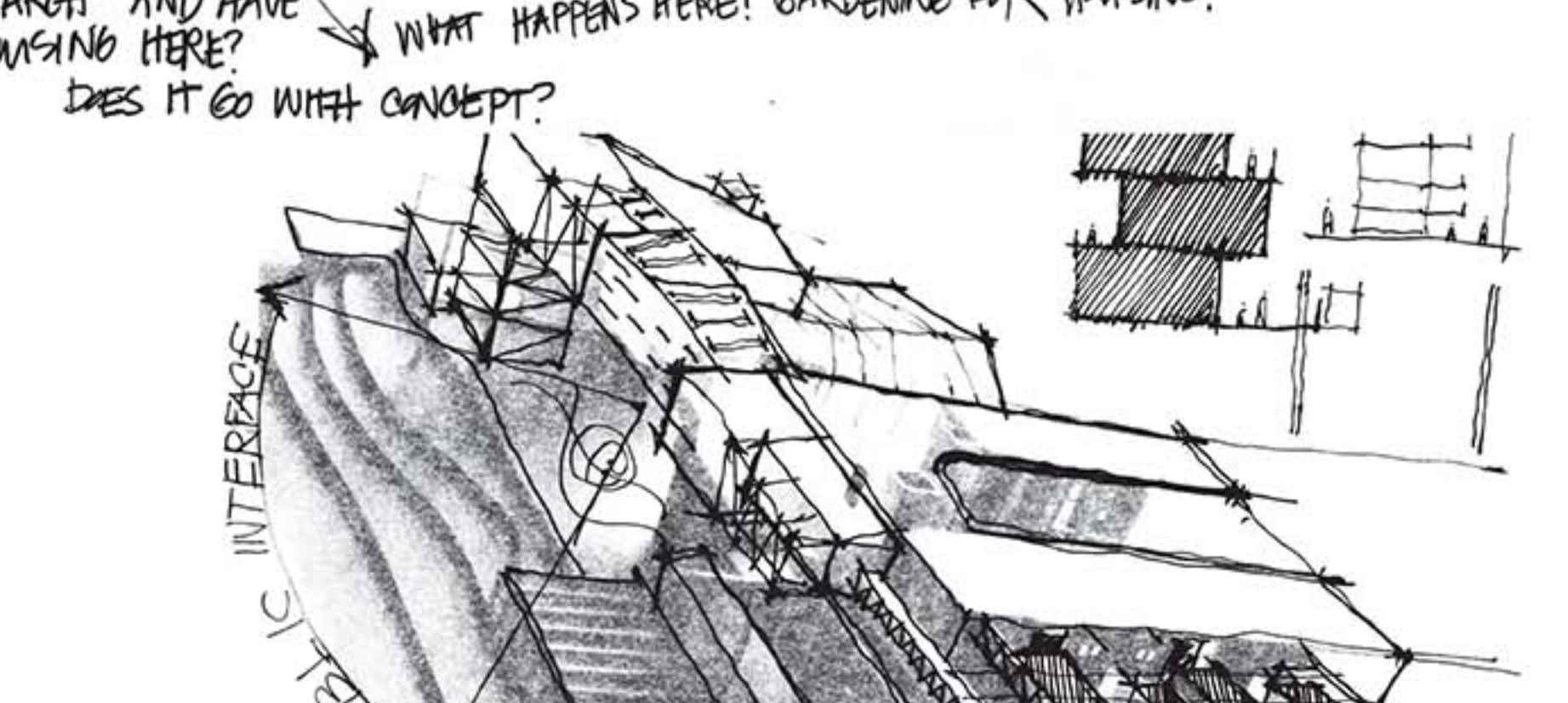
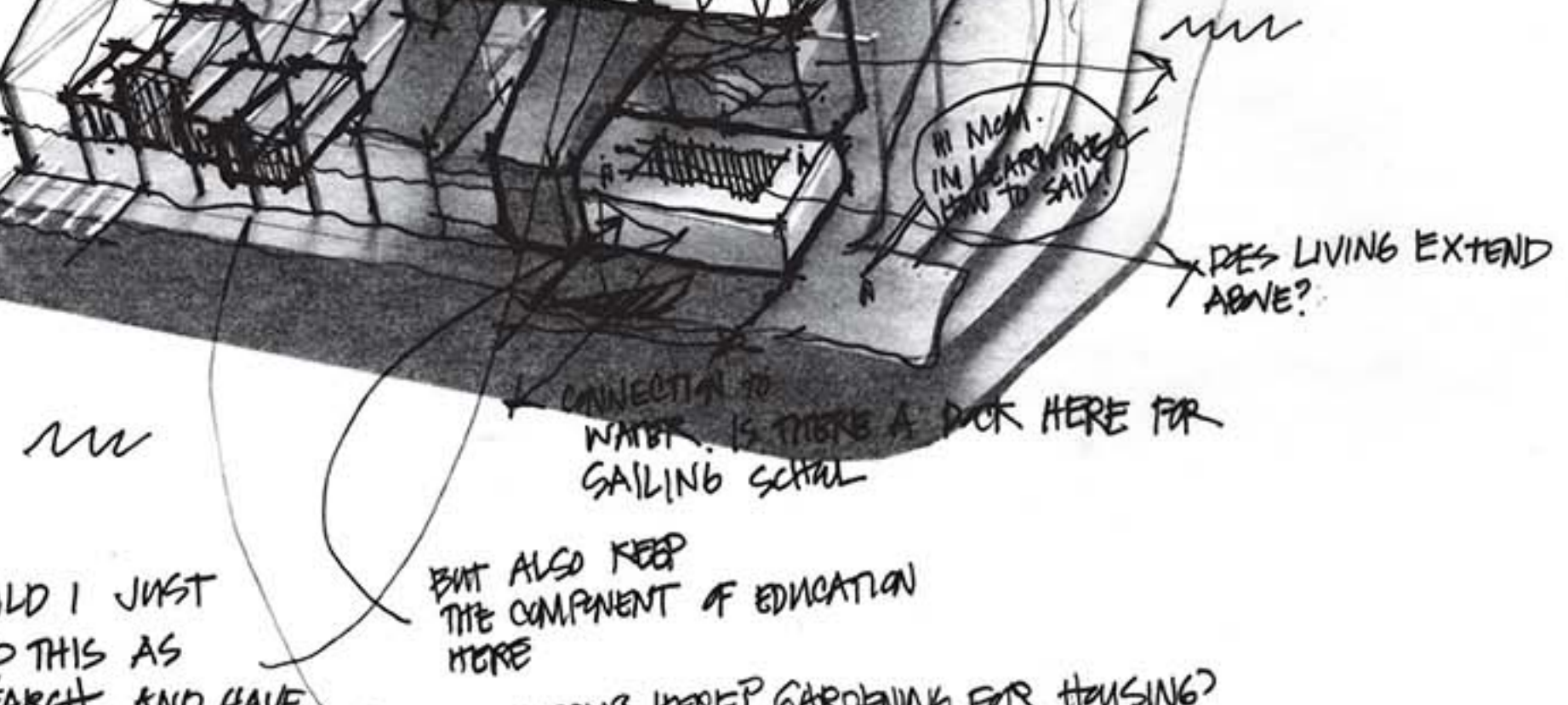
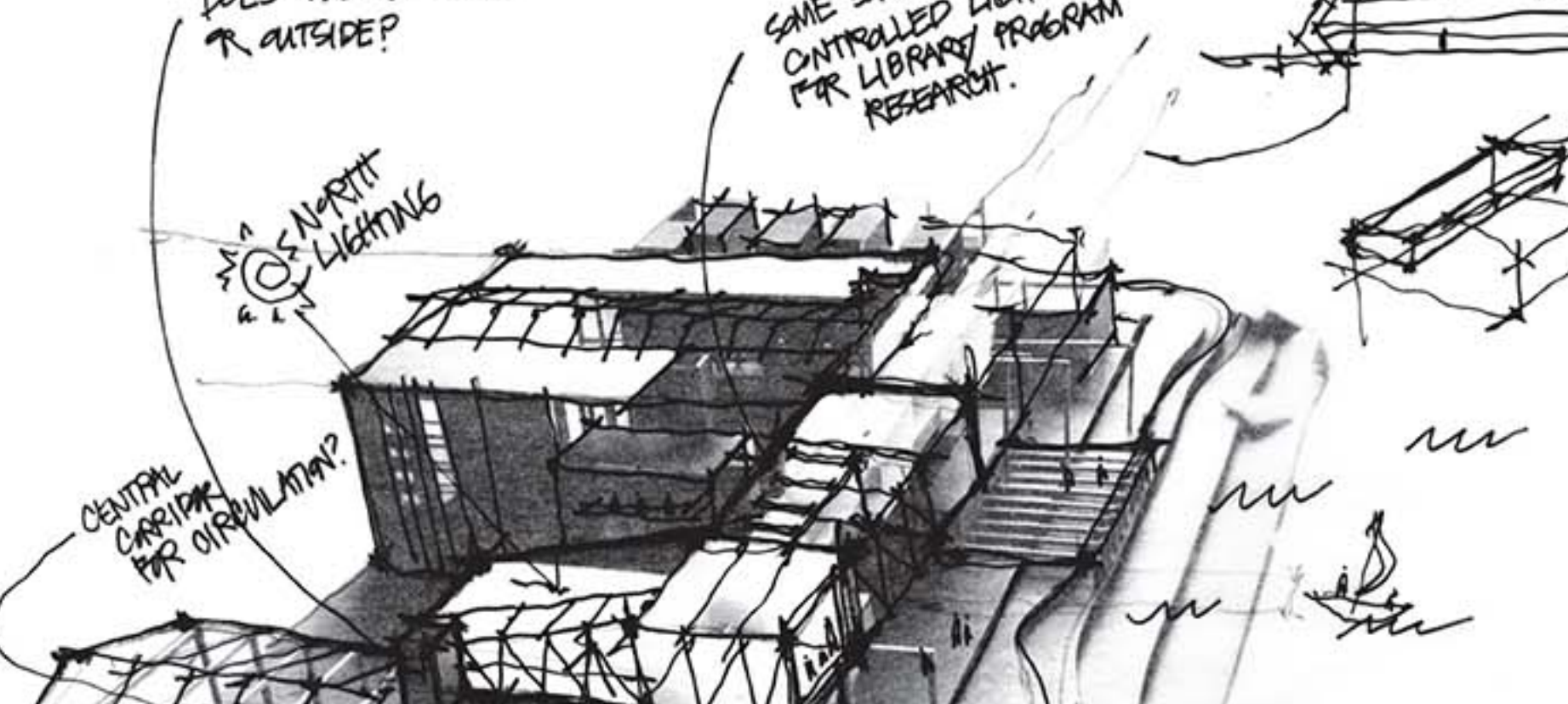
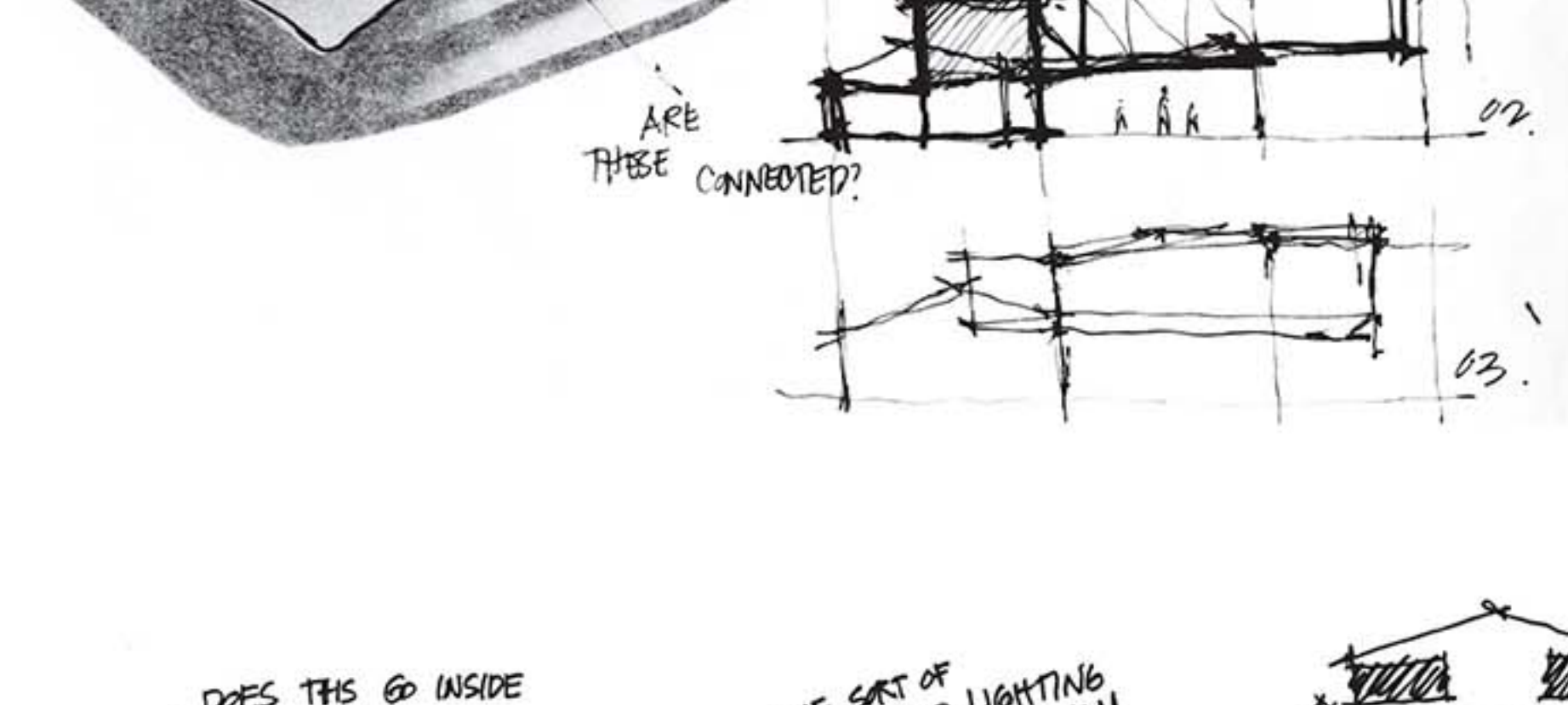
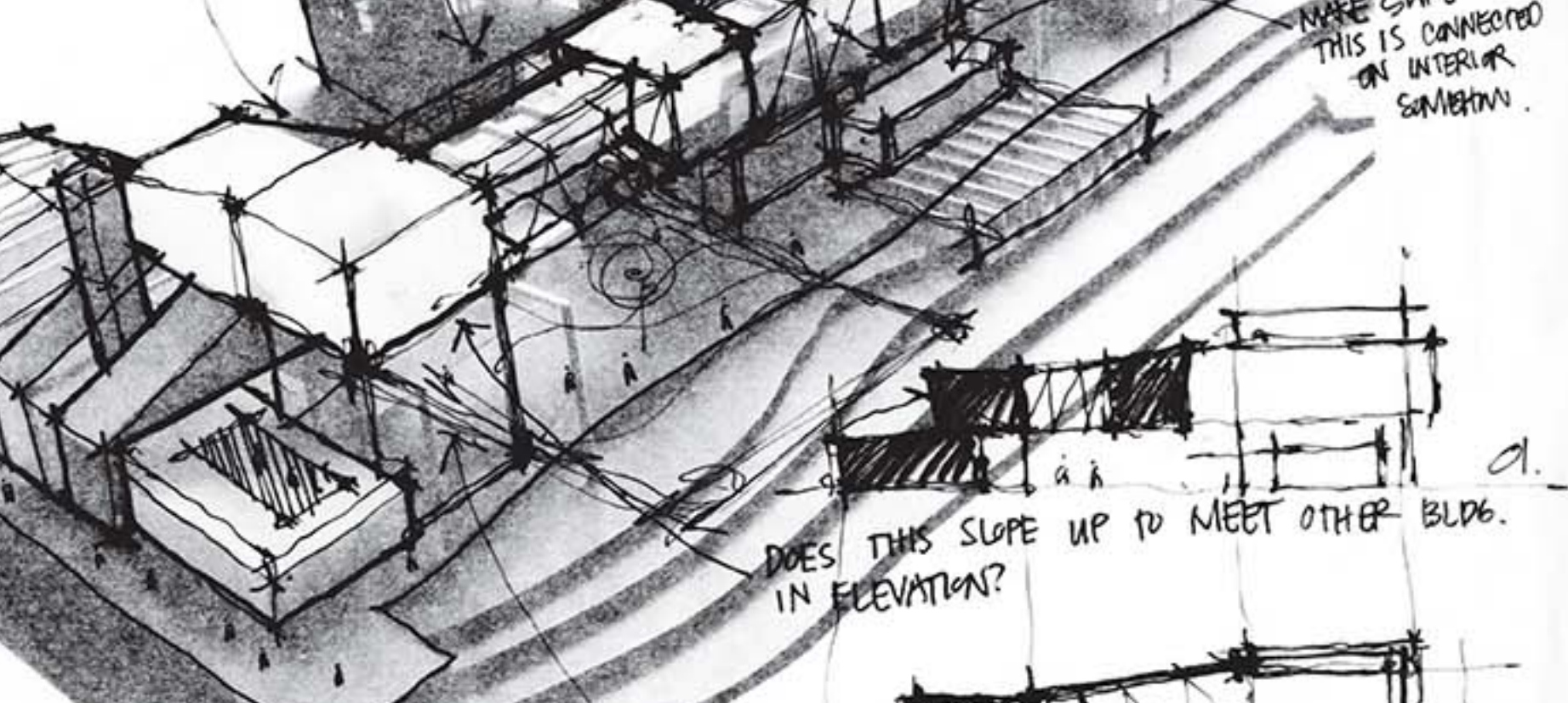
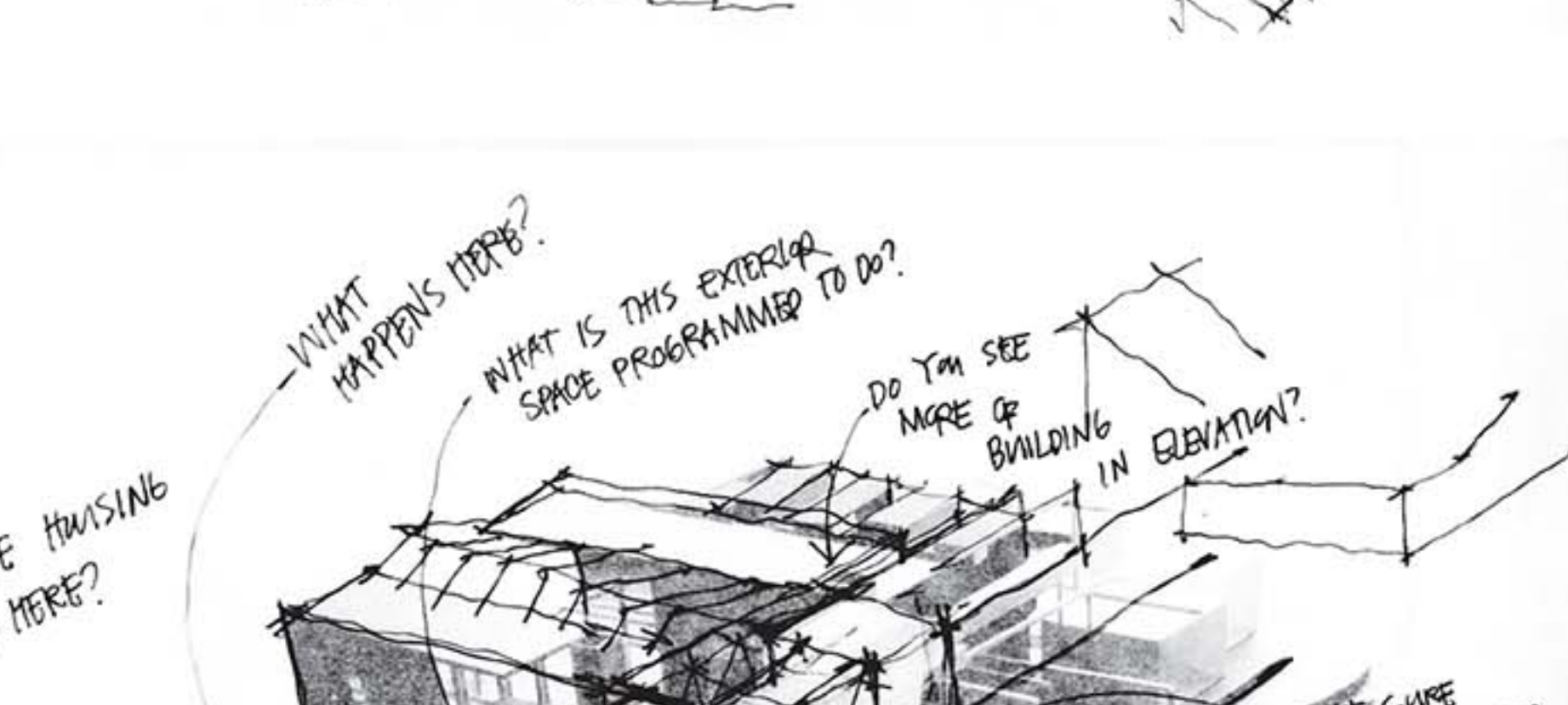
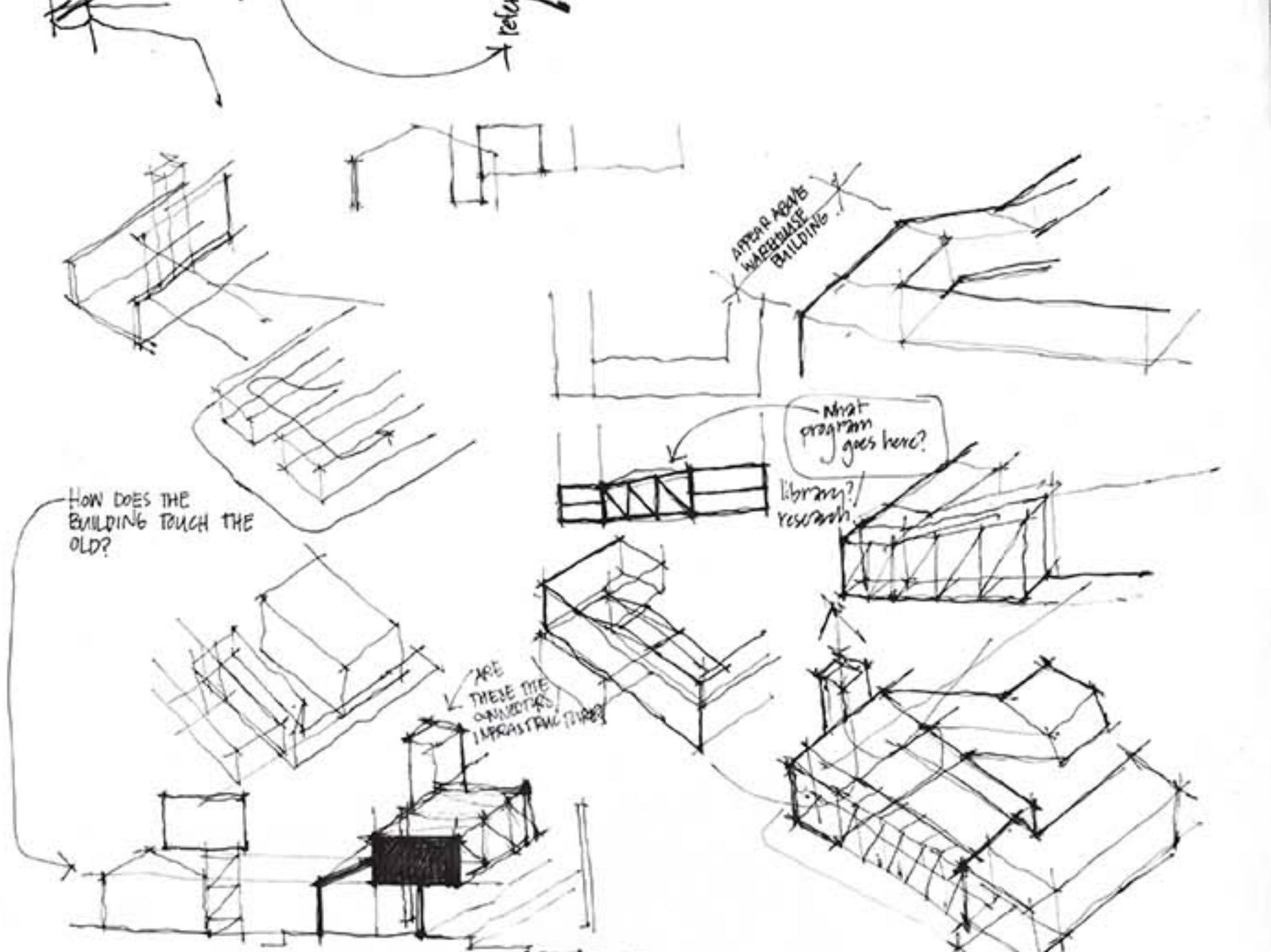
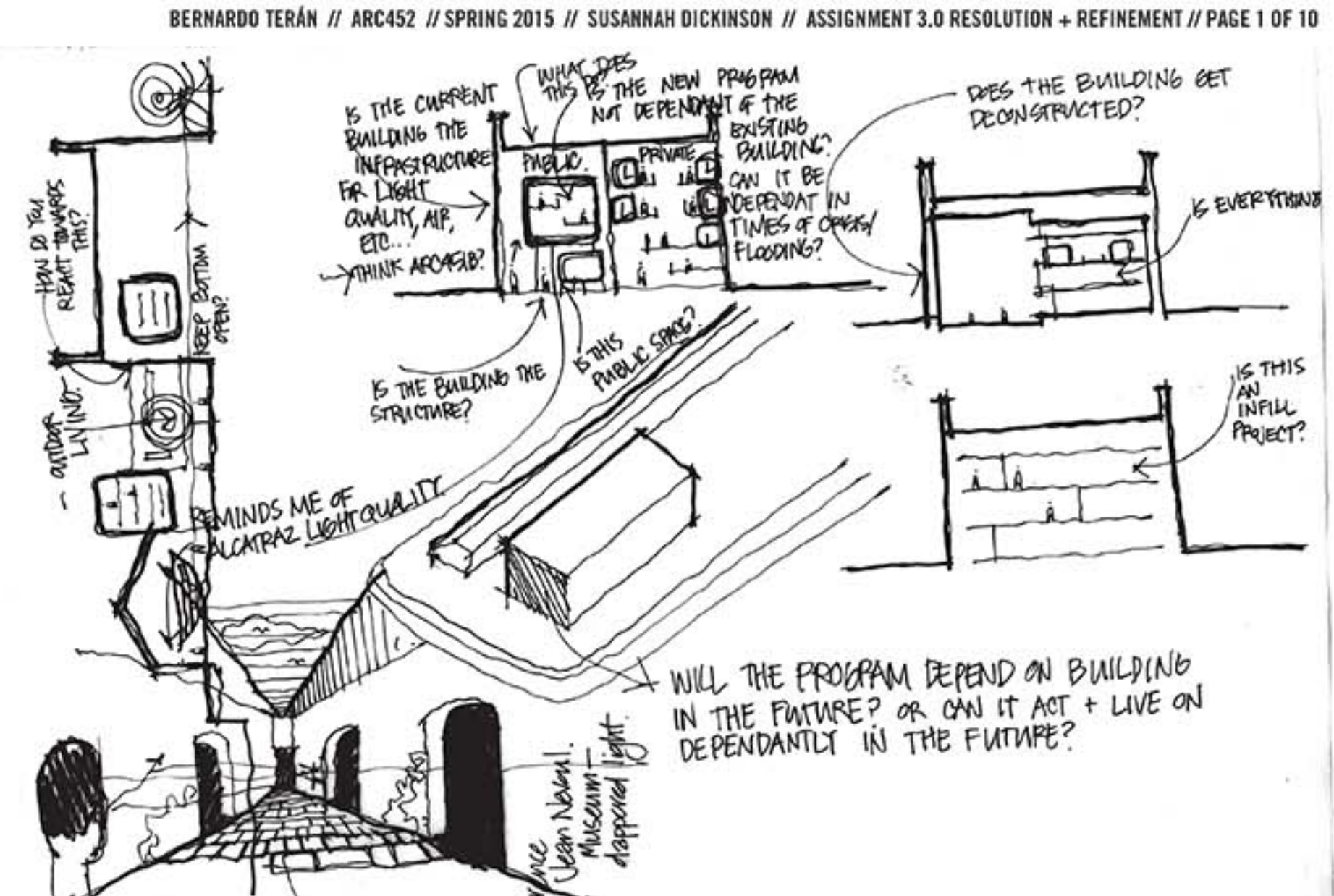
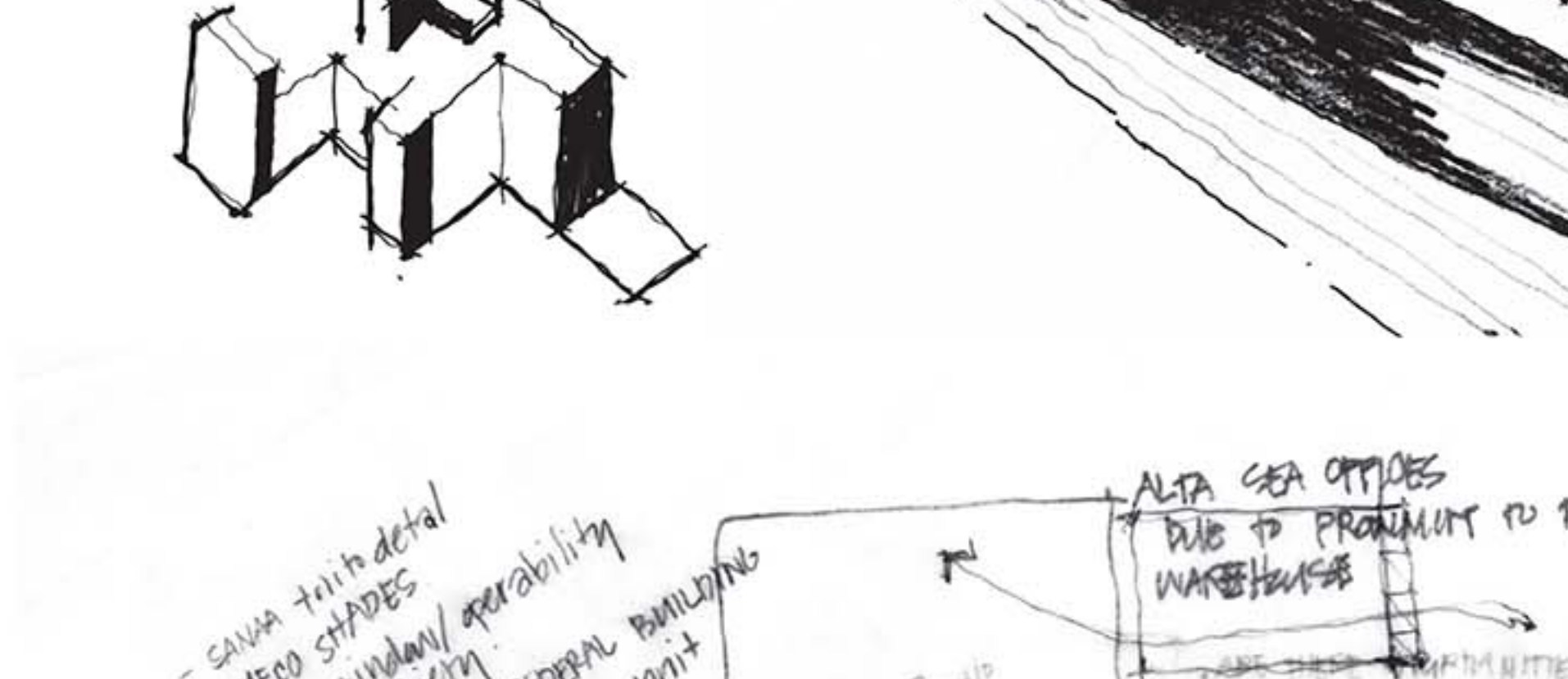
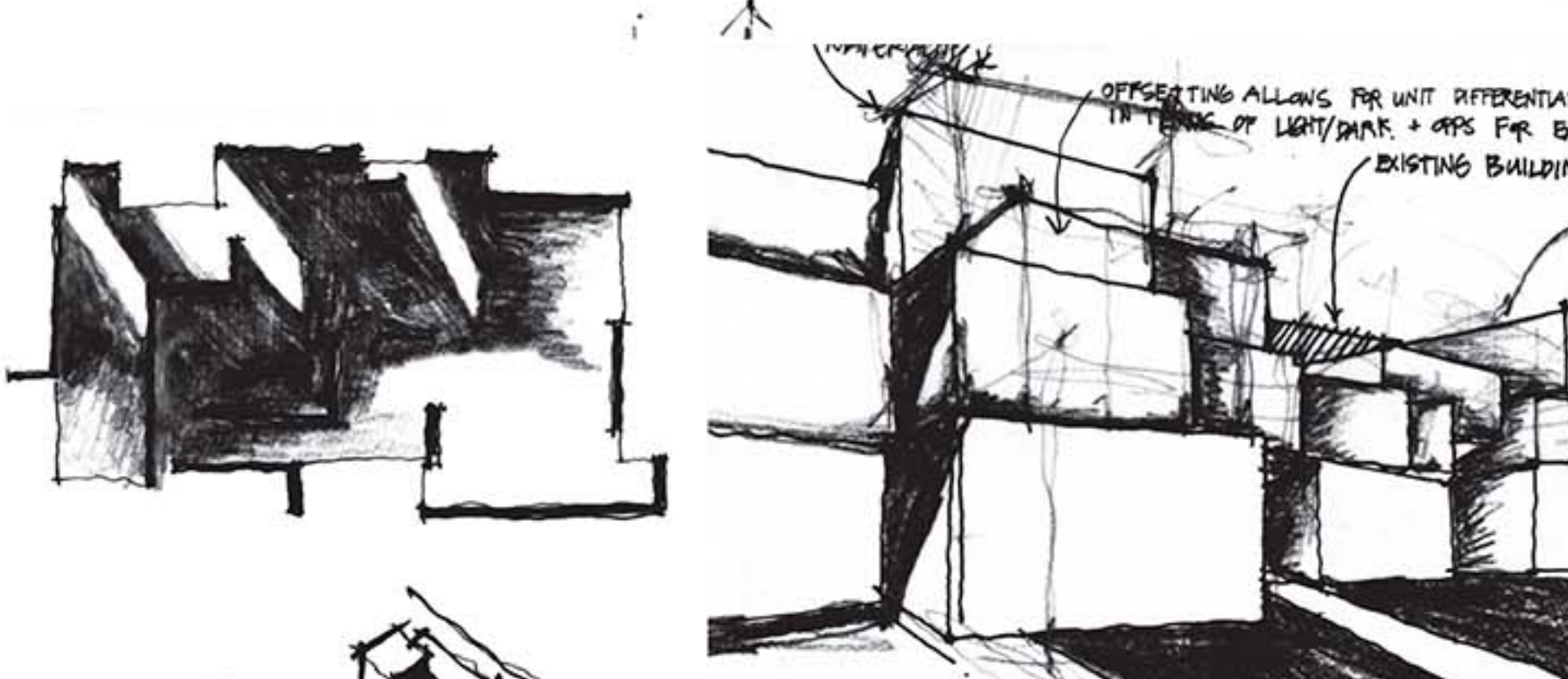
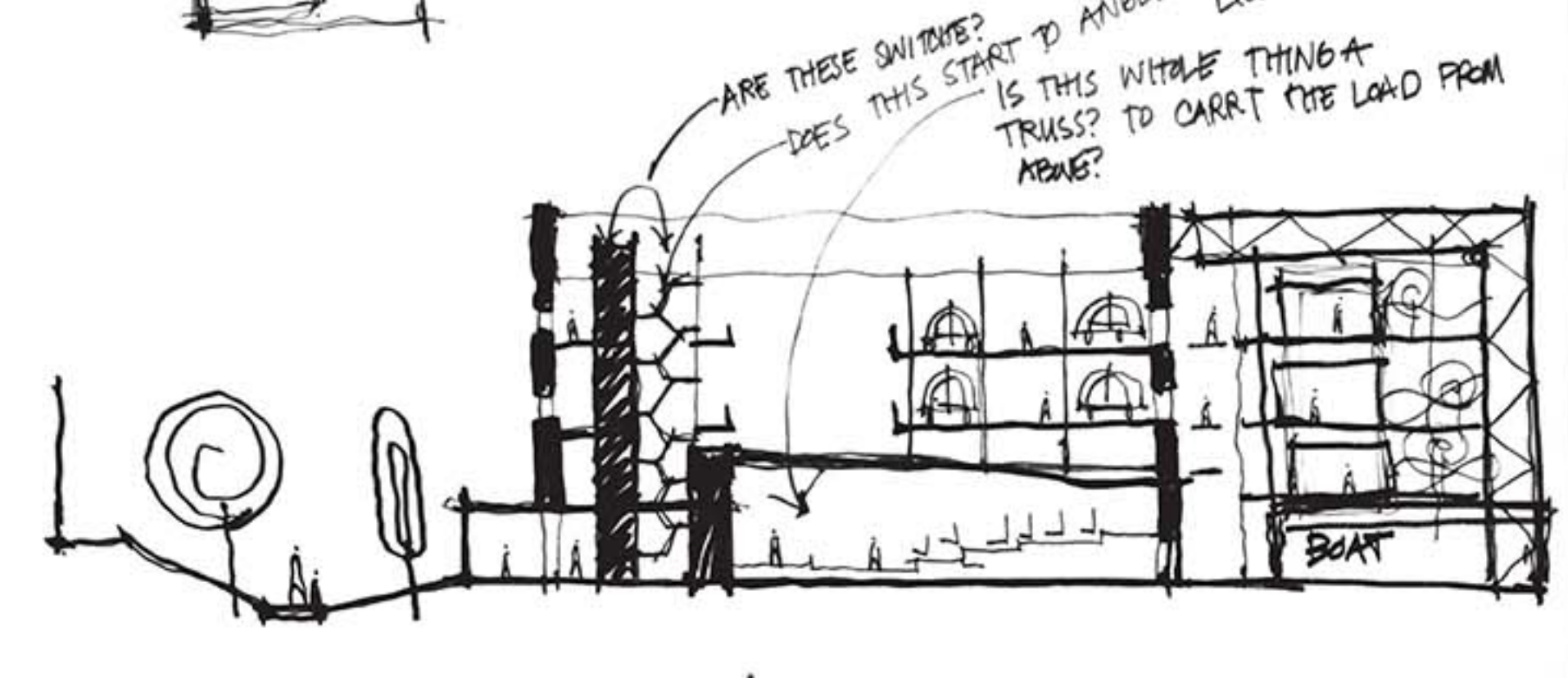
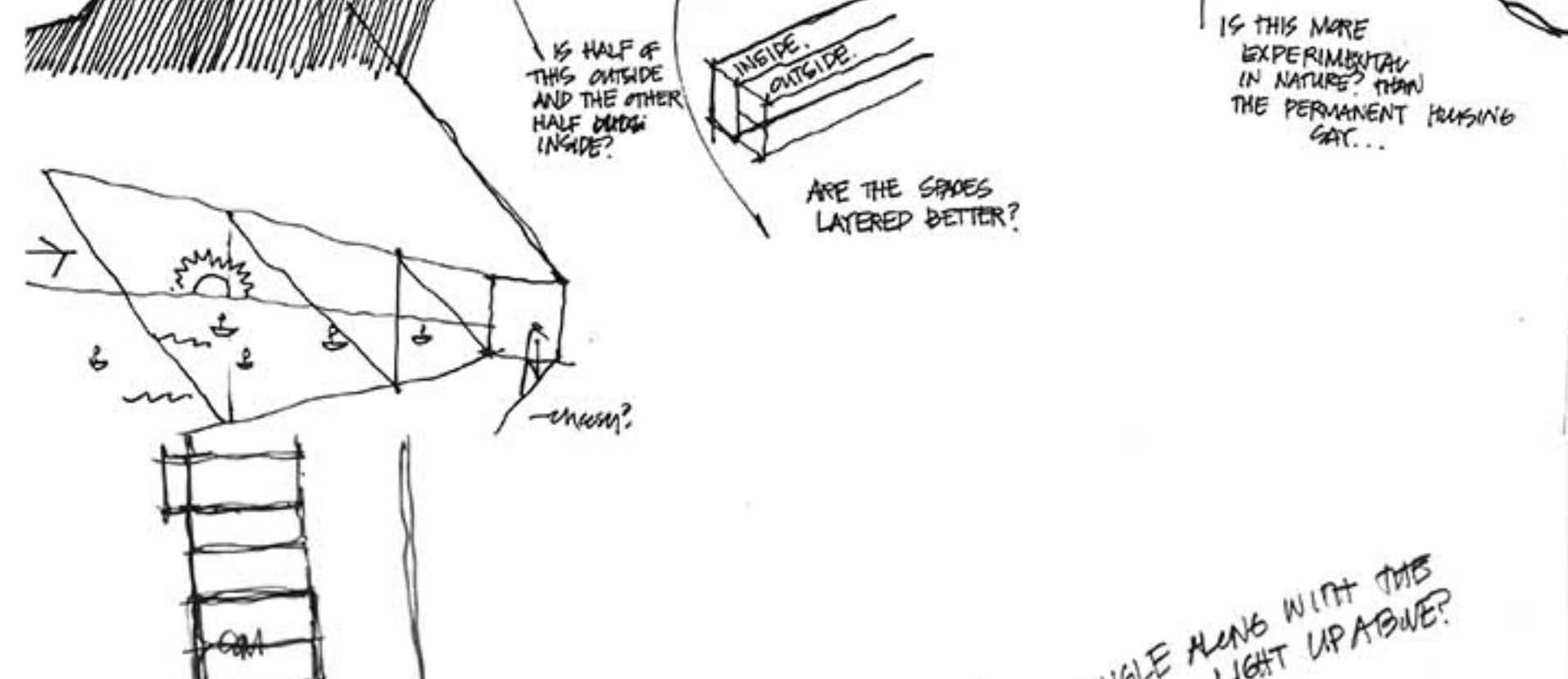
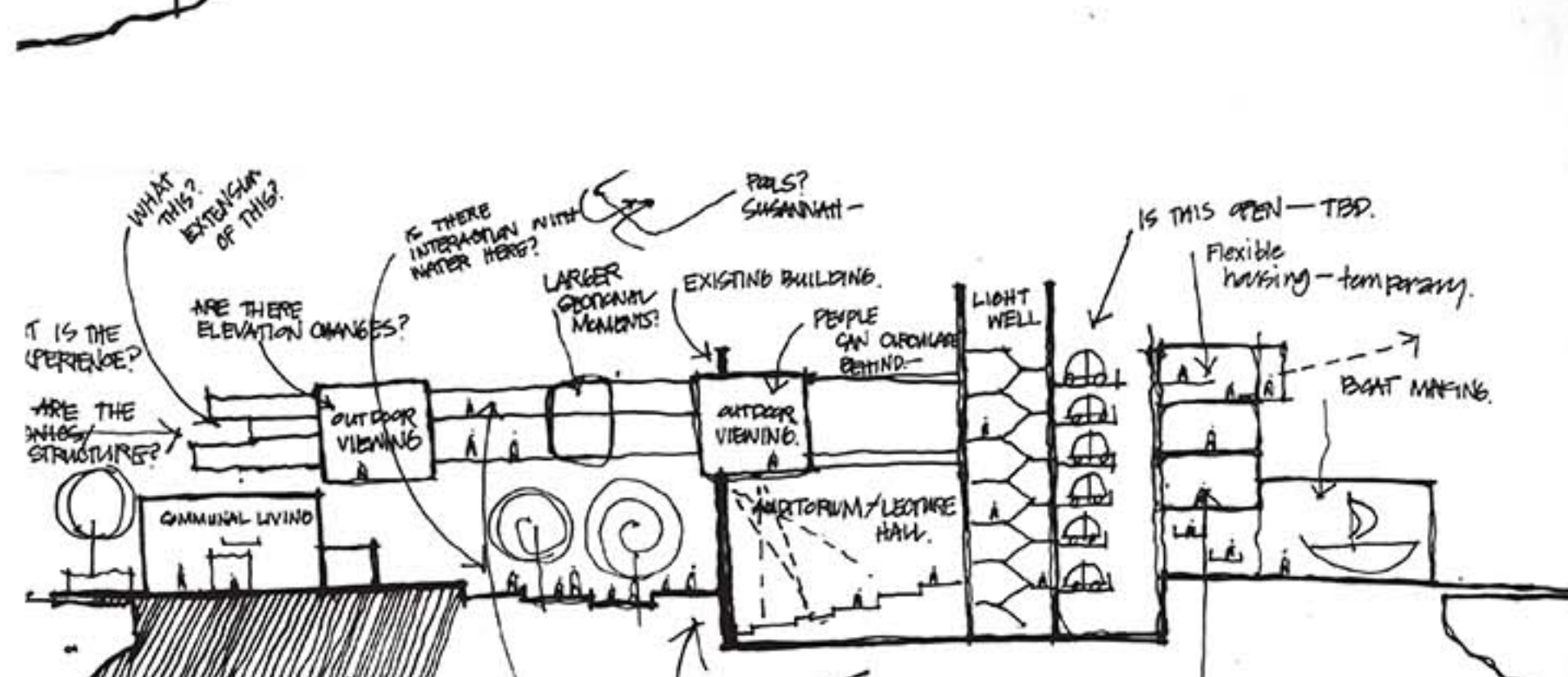
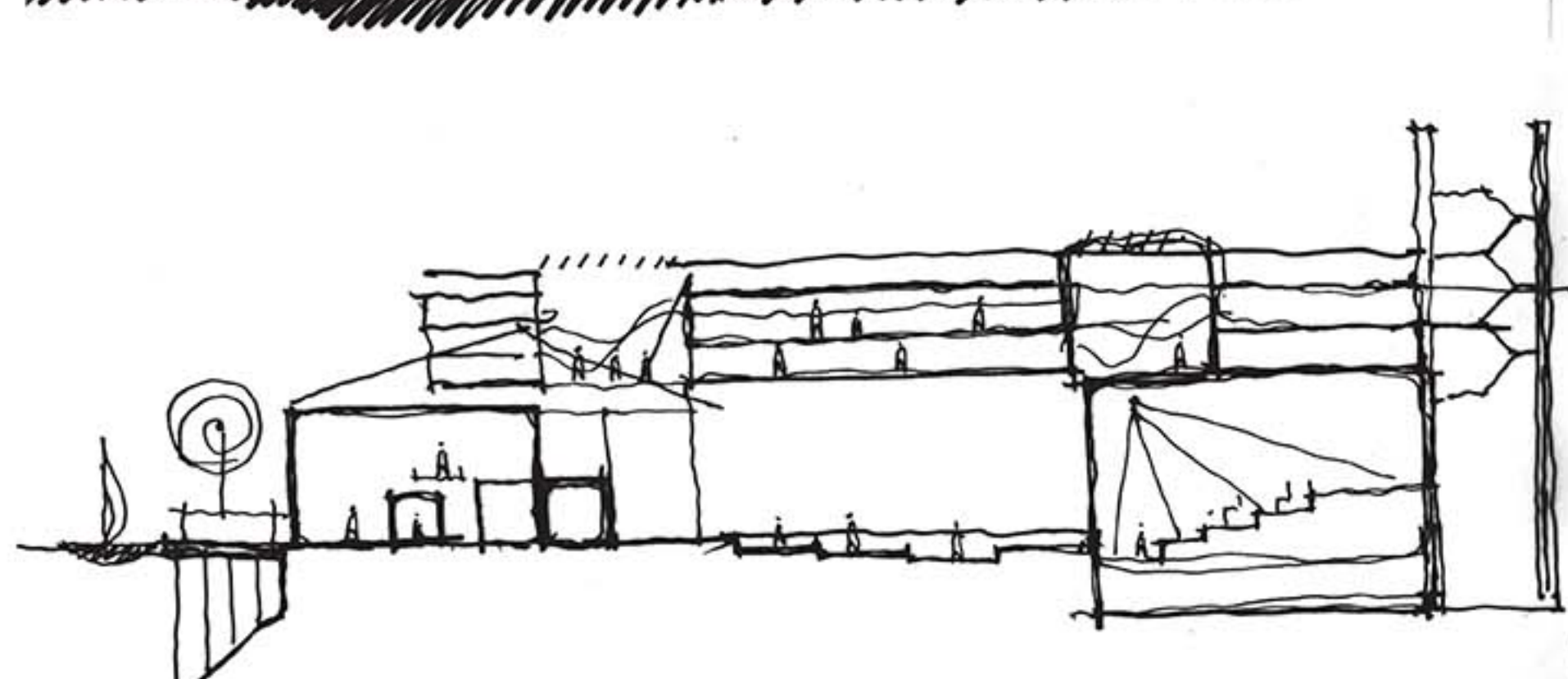
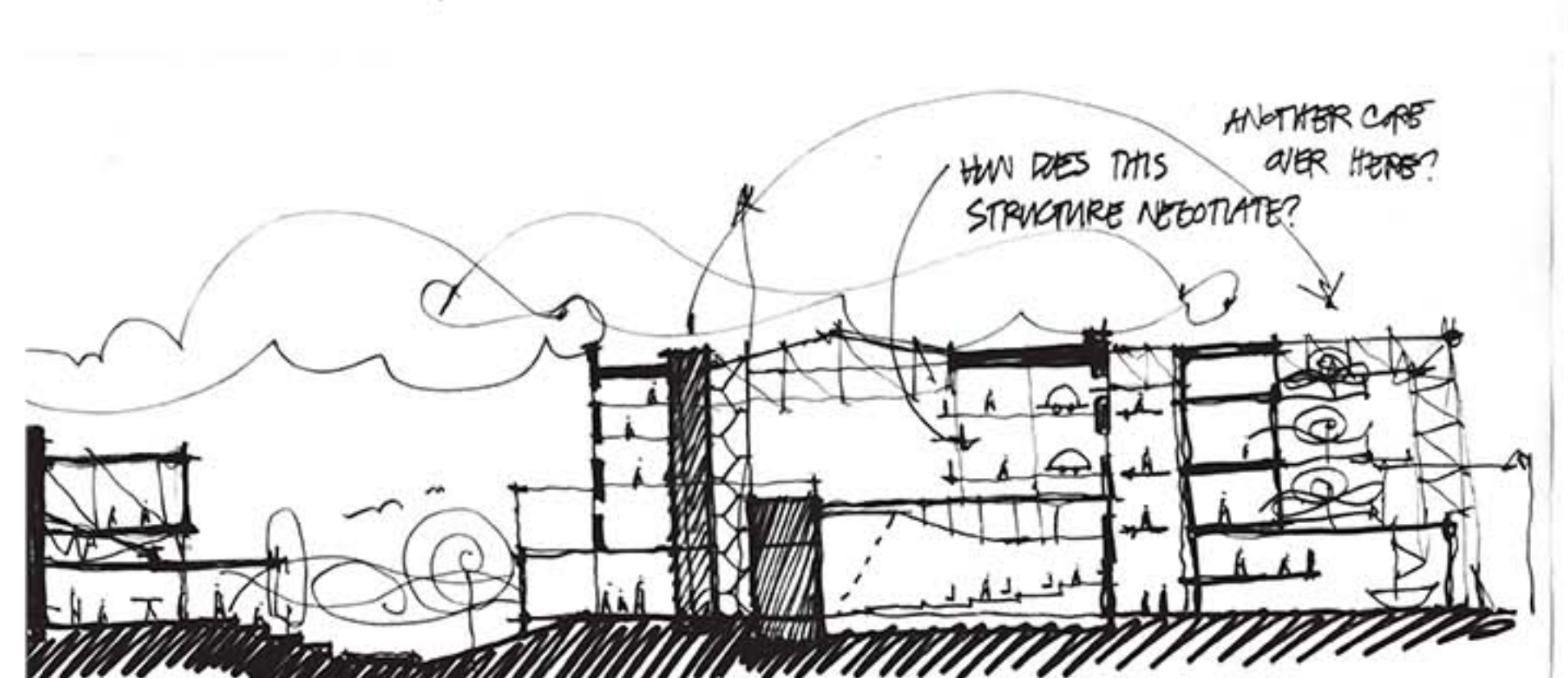
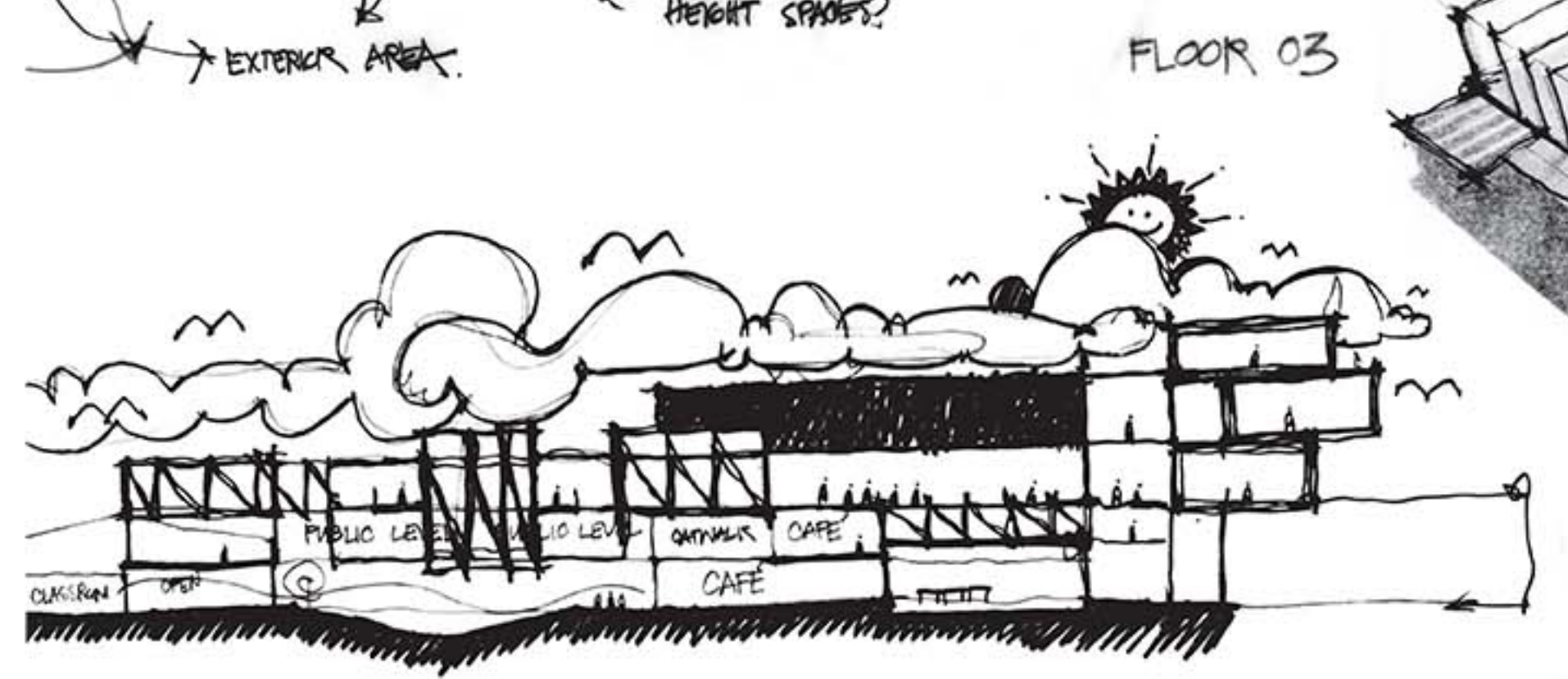
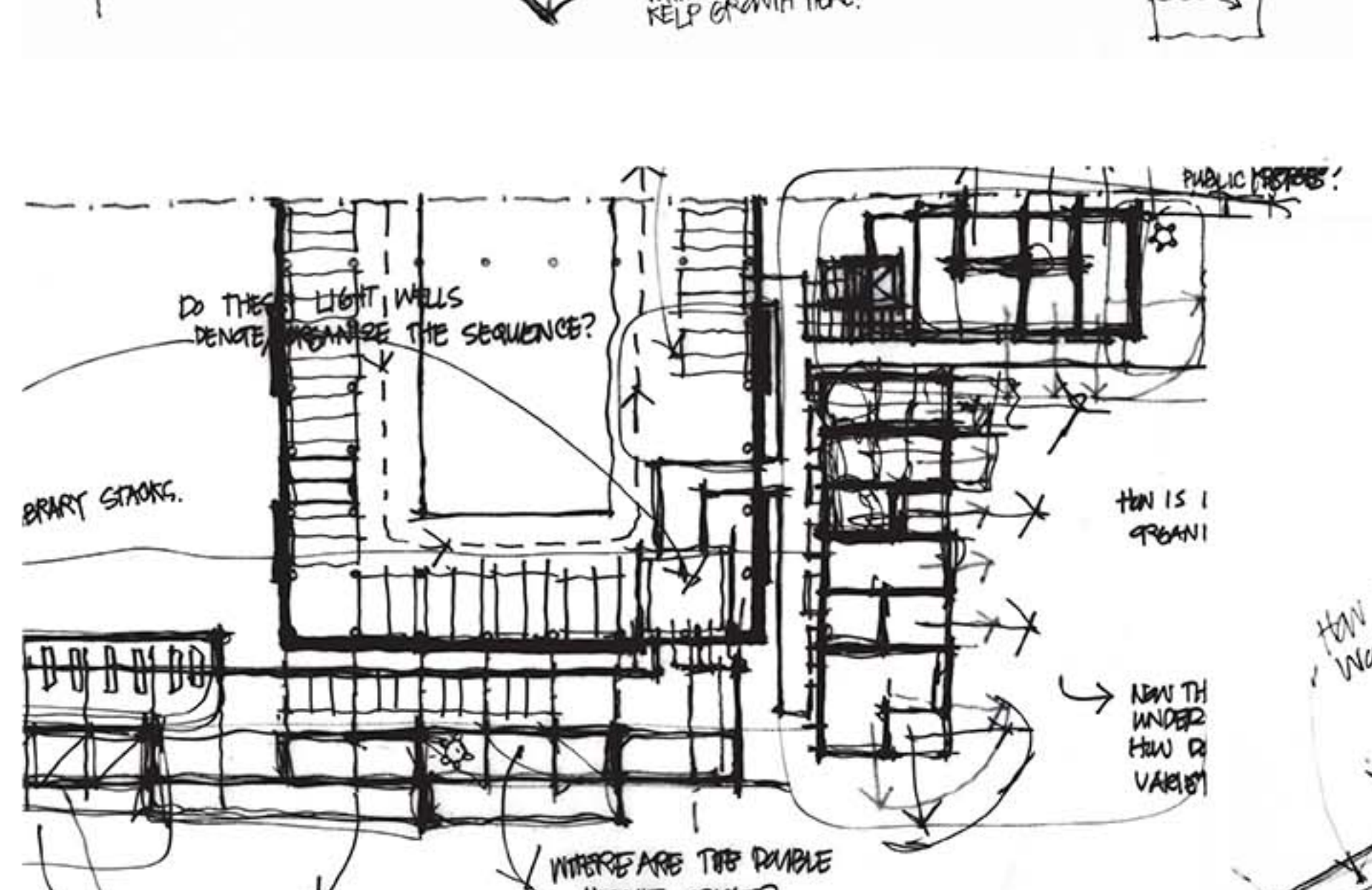
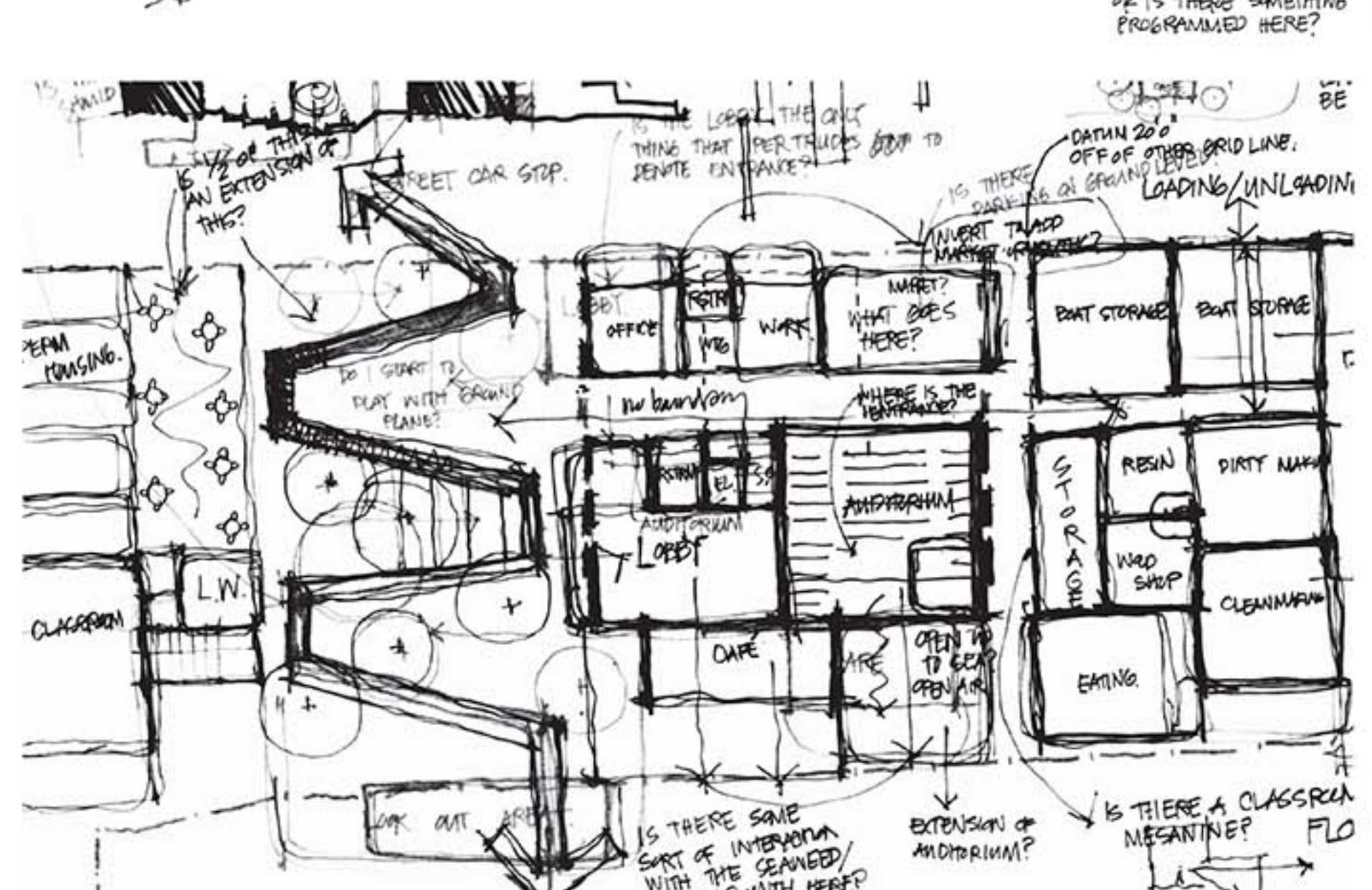
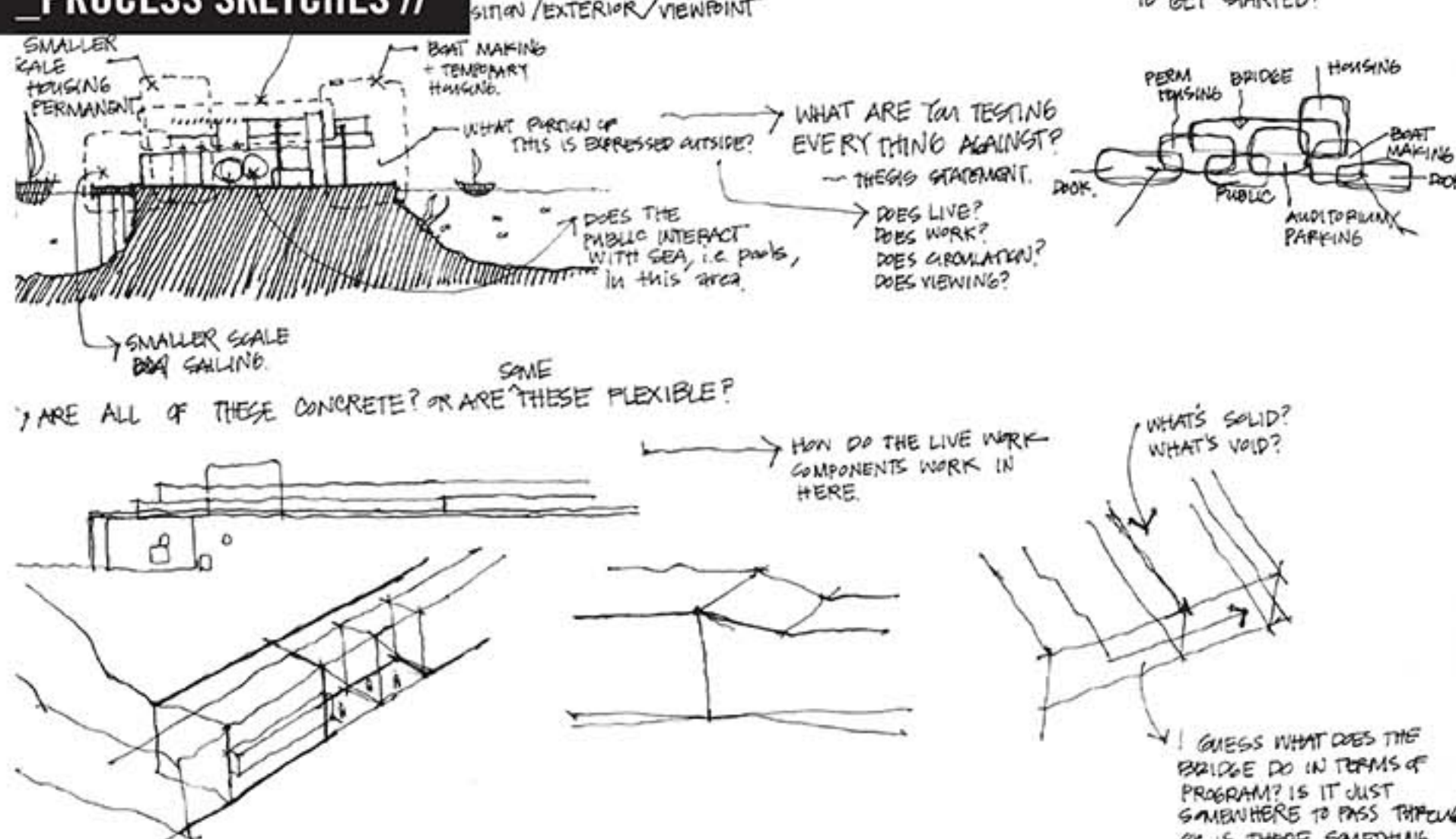
This Architecture thesis proposal explores issues related to place-making and connection of local phenomenological aspects to the human. The program of the project was developed in order to reflect this, with it being composed of four different blocks : housing, education and research, public use, and boat making. The specific phenomena of light, wind and water are the organizing principles that drive the project, aiming to better connect the desolate site and users to these unique qualities. The site of this proposal is in the Port of Los Angeles, a contrasting place that is known for it's transient nature and man-made environment.

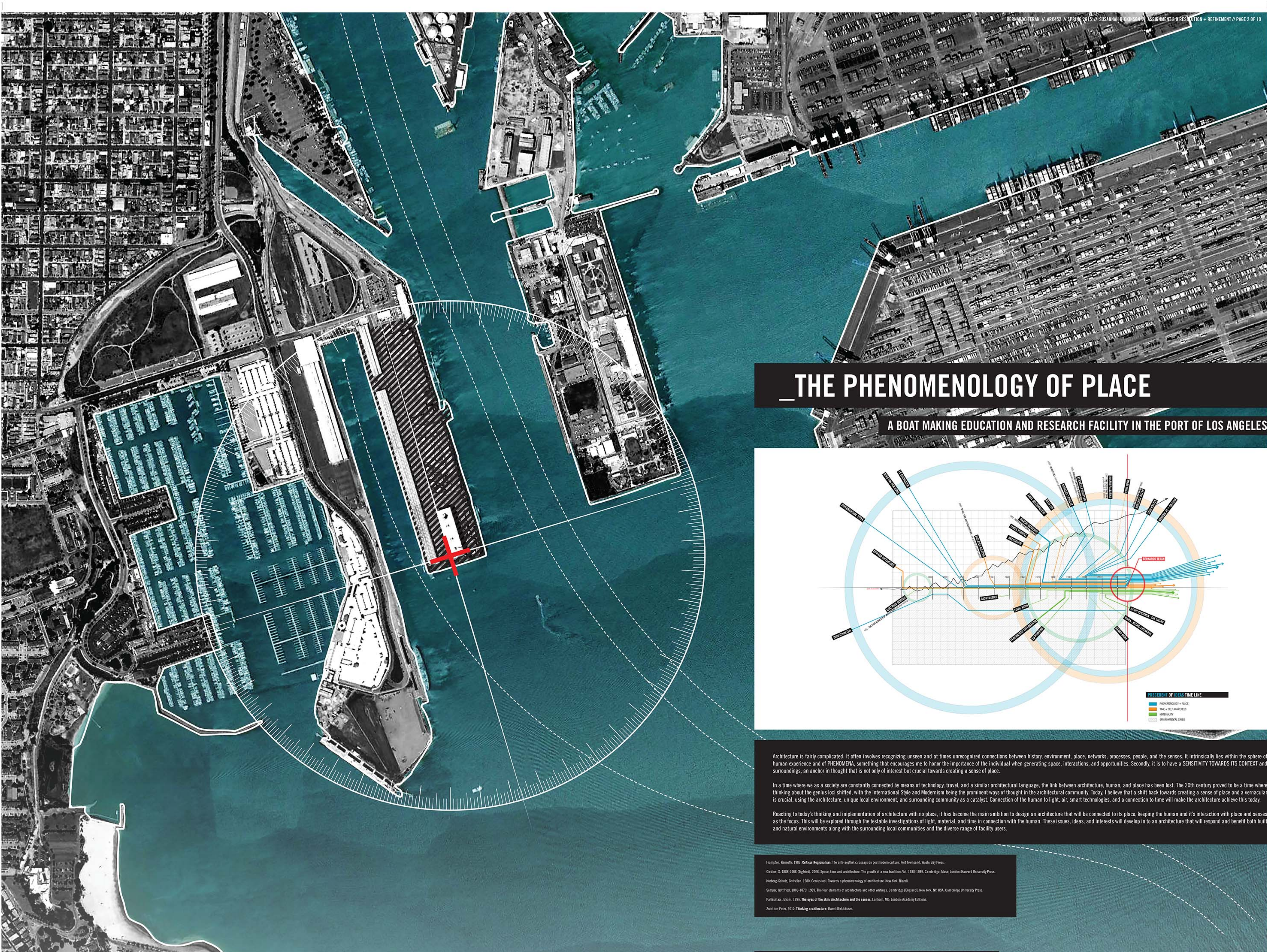
Reacting to today's thinking and implementation of architecture with no place, it has become the main ambition to design an architecture that will be connected to its place, keeping the human and it's interaction with place and senses as the focus. This will be explored through the testable investigations of light, material, and time in connection with the human. These issues, ideas, and interests will develop in to an architecture that will respond and benefit both built and natural environments along with the surrounding local communities and the diverse range of facility users.

PROCESS SKETCHES //

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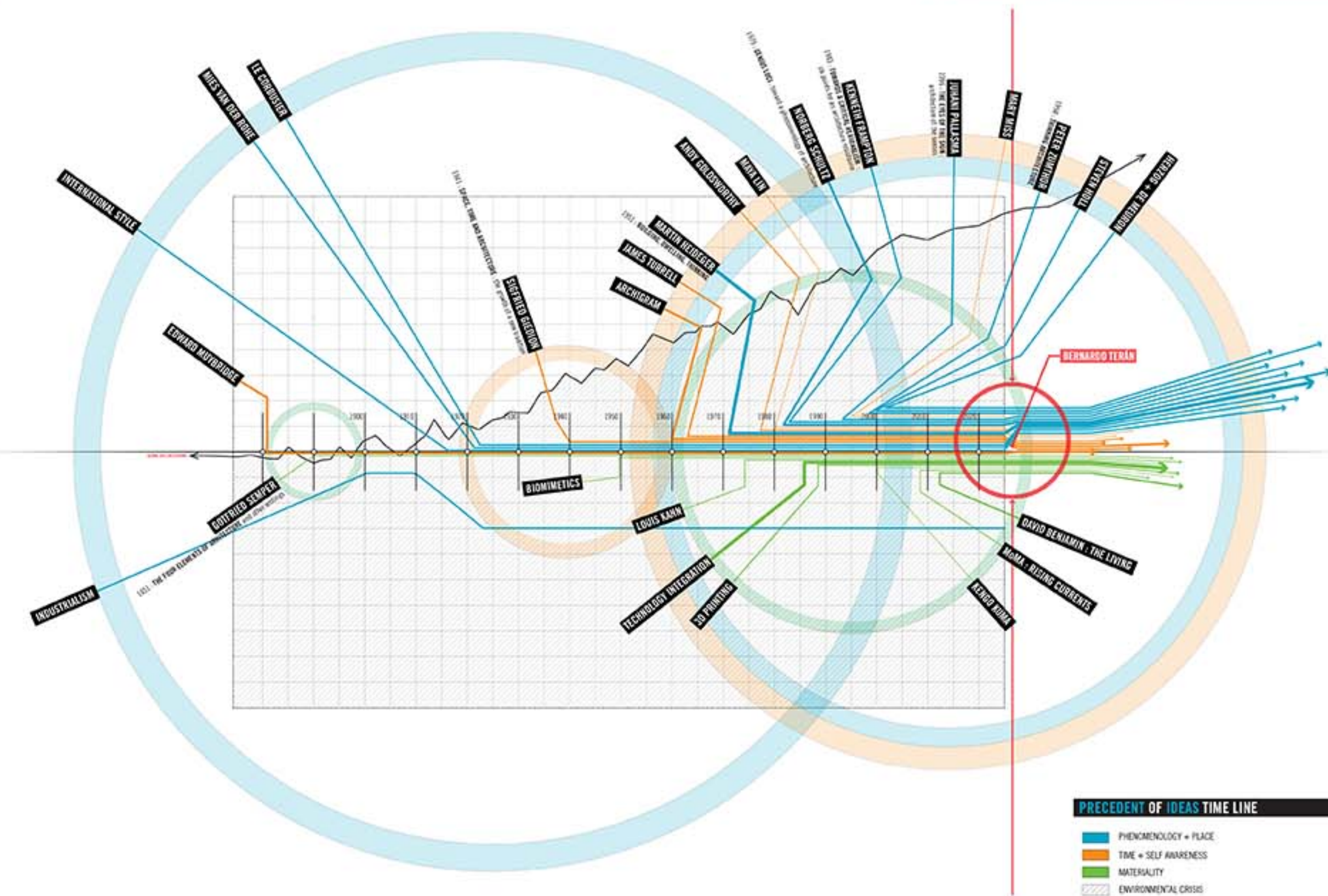
SHOULD I JUST CUT A
SECTION THROUGH MY M
TO GET STARTED?





THE PHENOMENOLOGY OF PLACE

A BOAT MAKING EDUCATION AND RESEARCH FACILITY IN THE PORT OF LOS ANGELES



Architecture is fairly complicated. It often involves recognizing unseen and at times unrecognized connections between history, environment, place, networks, processes, people, and the senses. It intrinsically lies within the sphere of human experience and of PHENOMENA, something that encourages me to honor the individual when generating space, interactions, and opportunities. Secondly, it is to have a SENSITIVITY TOWARDS ITS CONTEXT and surroundings, an anchor in thought that is not only of interest but crucial towards creating a sense of place.

In a time where we as a society are constantly connected by means of technology, travel, and a similar architectural language, the link between architecture, human, and place has been lost. The 20th century proved to be a time where thinking about the genius loci shifted, with the International Style and Modernism being the prominent ways of thought in the architectural community. Today, I believe that a shift back towards creating a sense of place and a vernacular is crucial: using the architecture, unique local environment, and surrounding community as a catalyst. Connection of the human to light, air, smart technologies, and a connection to time will make the architecture achieve this today.

Reacting to today's thinking and implementation of architecture with no place, it has become the main ambition to design an architecture that will be connected to its place, keeping the human and its interaction with place and senses as the focus. This will be explored through the testable investigations of light, material, and time in connection with the human. These issues, ideas, and interests will develop into an architecture that will respond and benefit both built and natural environments along with the surrounding local communities and the diverse range of facility users.

Frangipani, Kenneth. 1992. *Critical Regionalism: The anti-aesthetic: Essays on postmodern culture*. Port Townsend, Wash: Bay Press.

Gotro, S. 1988-1994. *Digitized: 2000*. Space, time and architecture: The growth of a new tradition. Vol. 1510-1515. Cambridge, Mass: London: Harvard University Press.

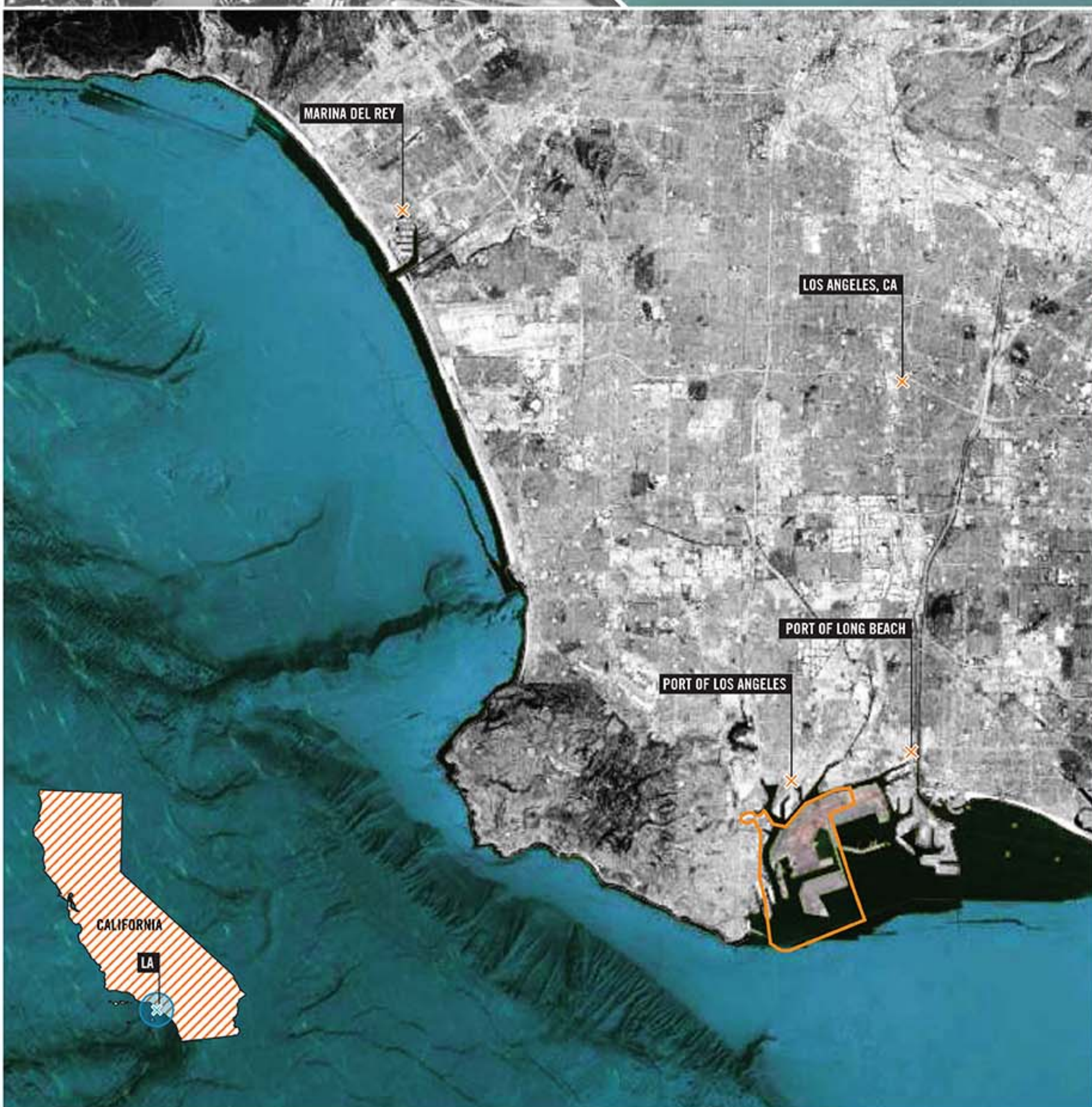
McDermid, Stephen. 1983. *Genesis lost: Towards a phenomenology of architecture*. New York: Rizzoli.

Sompor, Geoffrey. 1982-1870. 1989. *The four elements of architecture and other writings*. Cambridge (England), New York, NY, USA: Cambridge University Press.

Pallasmaa, Juhani. 1996. *The eyes of the skin: Architecture and the senses*. London, MA: London: Academy Edition.

Architect. Press. 2020. *Thinking Architecture*. Basel: Birkhäuser.

_EXISTING SITE PLAN // PORT OF LOS ANGELES DOCK NO. 001



_GREATER CONTEXT // LOS ANGELES, CALIFORNIA



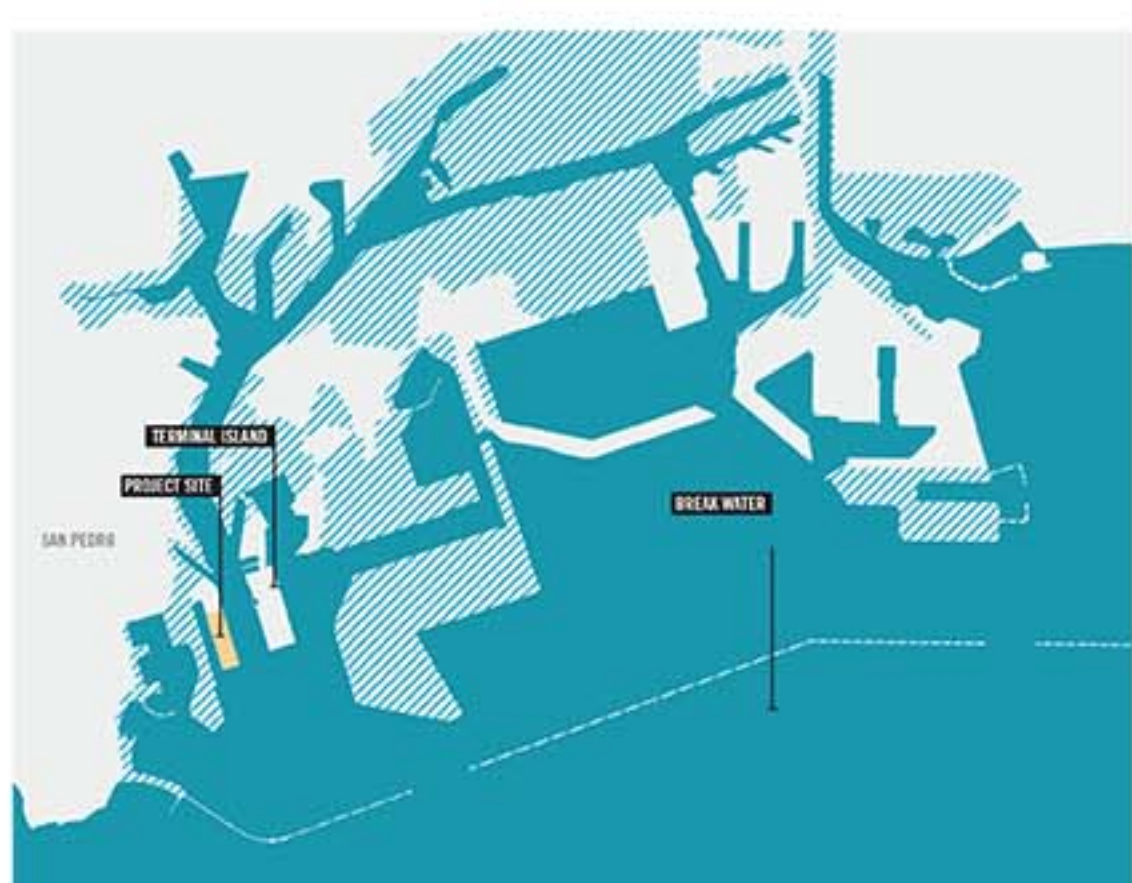
PORT OF LOS ANGELES : 1872
The Port of Los Angeles was originally composed of Marshes along the entire Los Angeles River Basin- making this an area of rich sediments and accretions.



PORT OF LOS ANGELES: 2014
Rattlesnake Island was used as a starting point for the Port's development and growth, with most of the man-made islands spanning away from this area. Dead Man's Island was completely removed from the area.

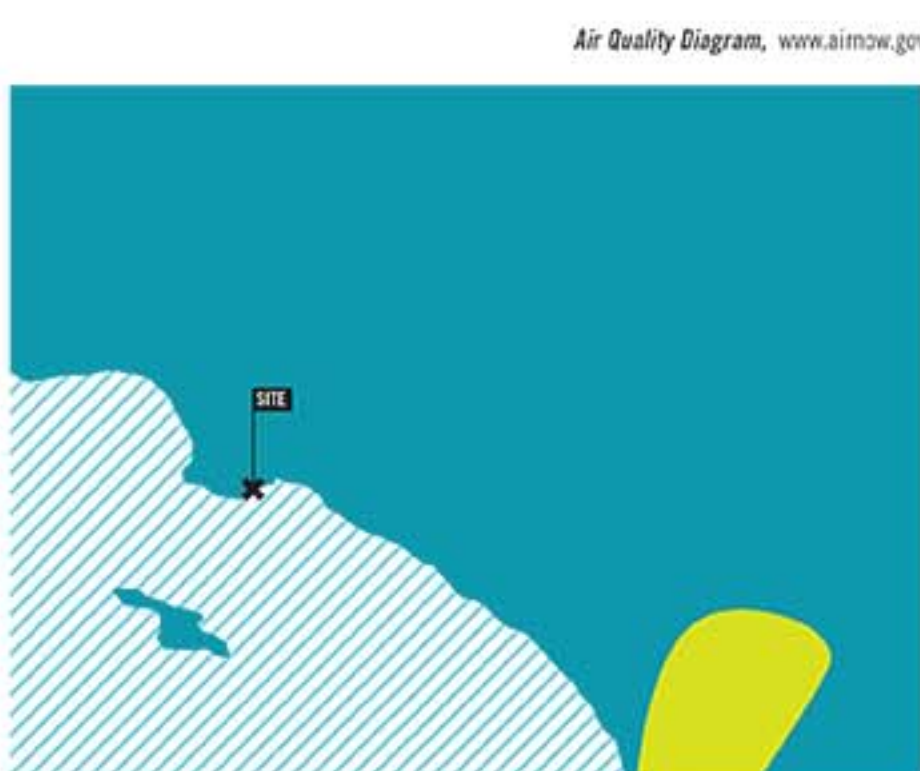


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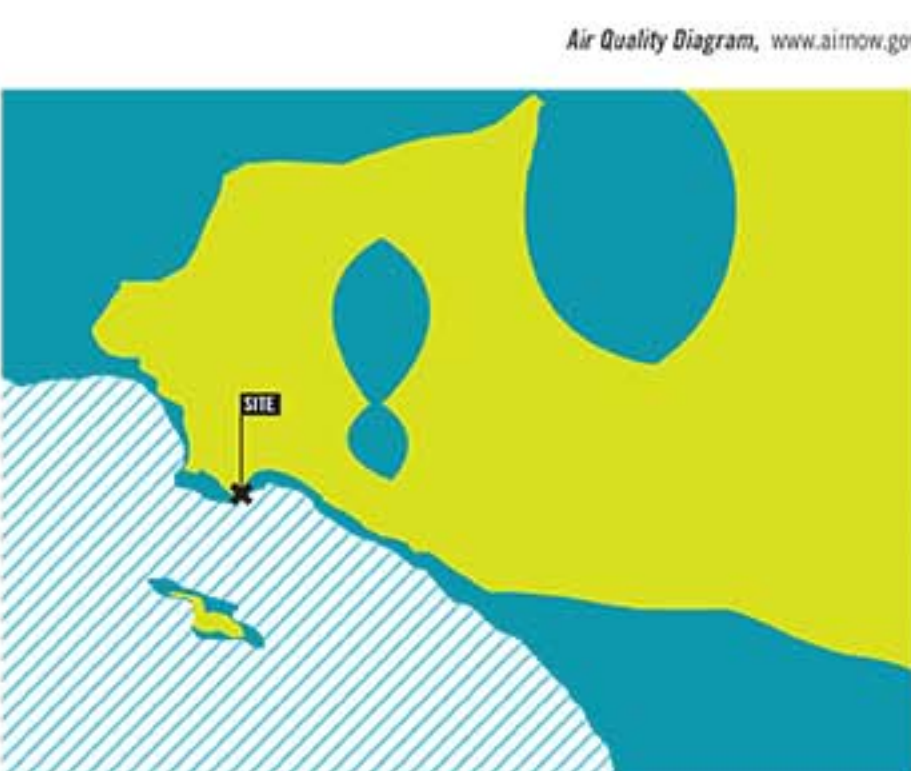


PORT OF LOS ANGELES: 2060
Most of the Port of Los Angeles is expected to be under three feet of water by 2060 bringing the issue of flood resistant or flood accepting designs in to question. The Captains Project site is not expected to flood in 2060.

PORT OF LOS ANGELES // CHANGE OVER TIME



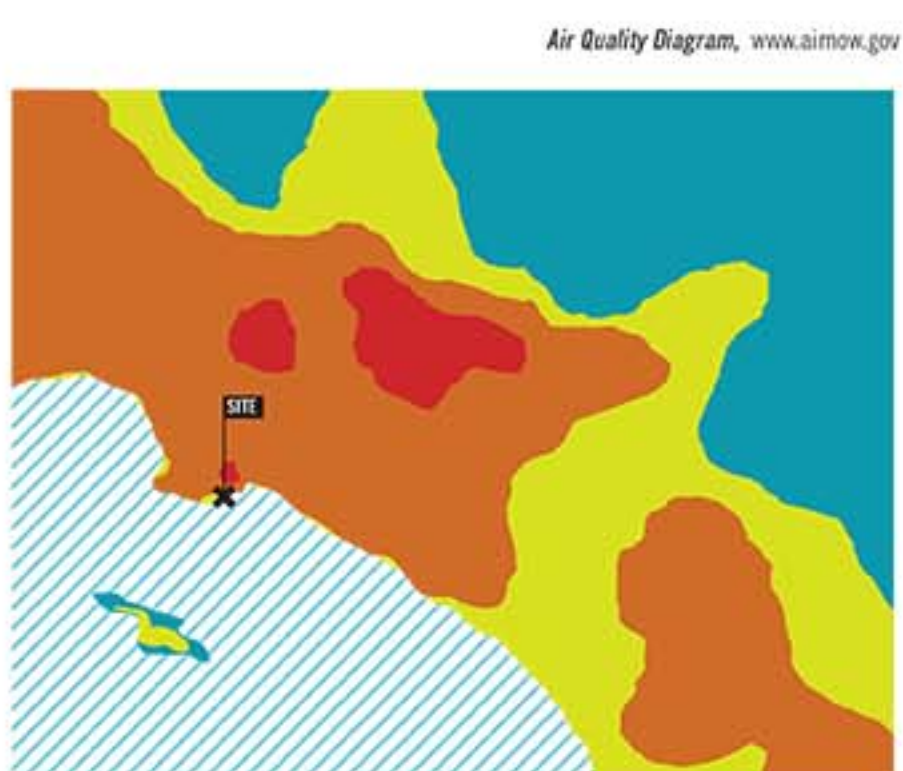
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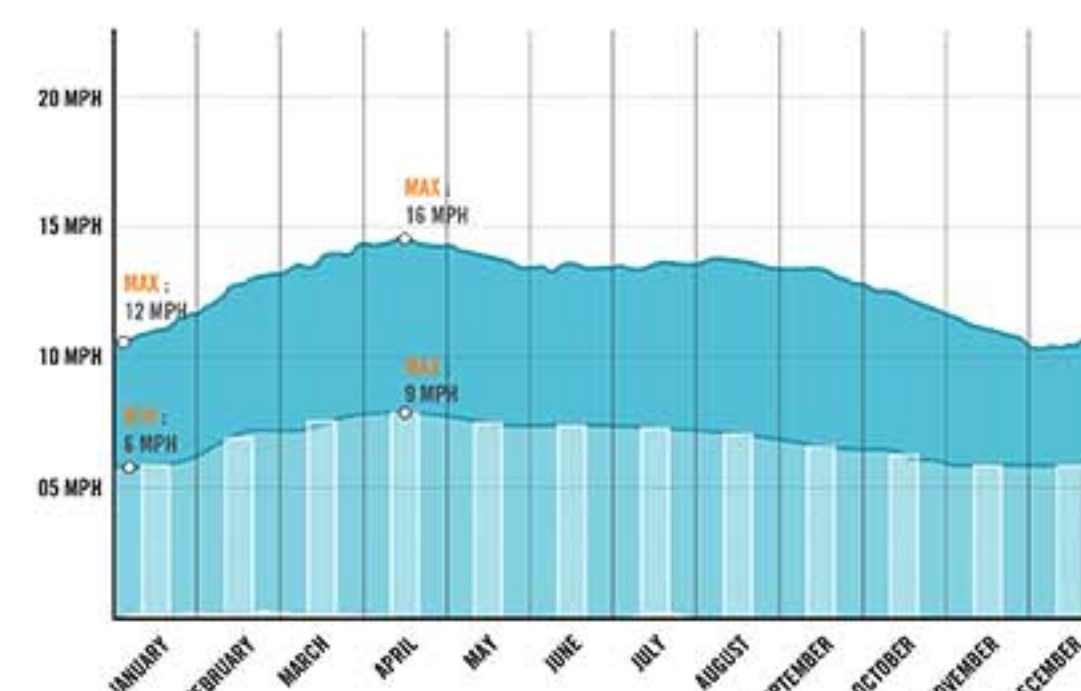
AIR QUALITY : MARCH 2014



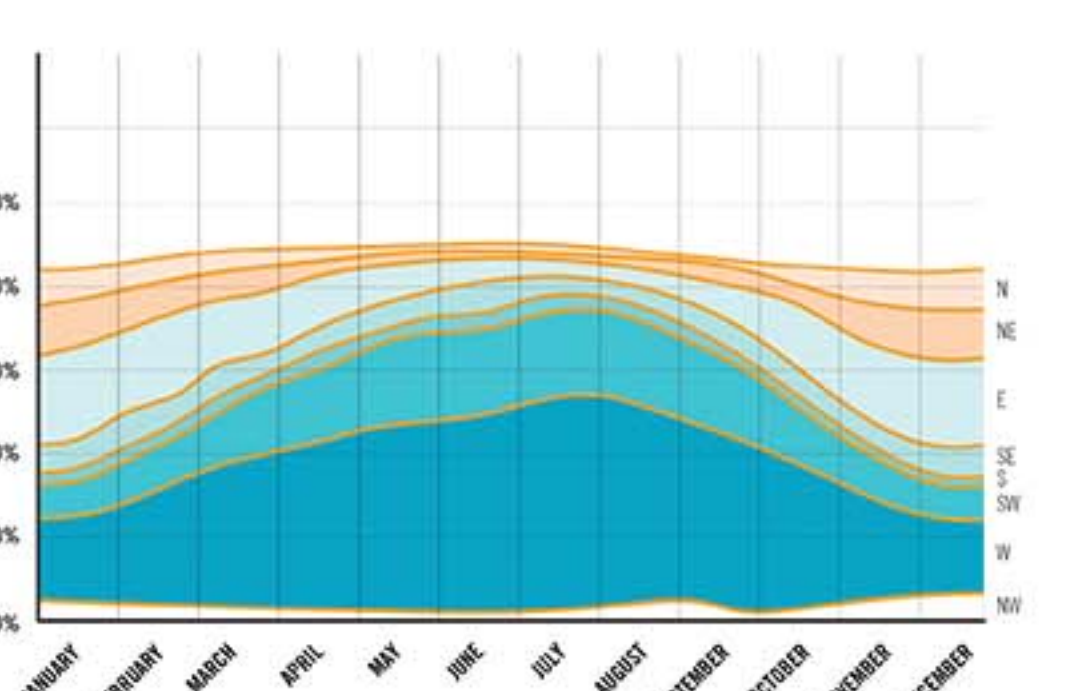
AIR QUALITY : MAY 2014



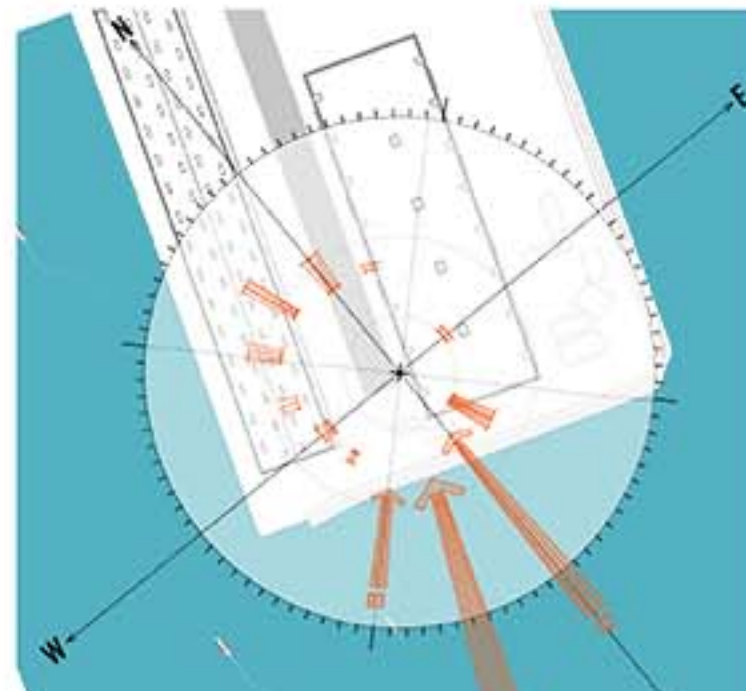
AIR QUALITY : OCTOBER 2014



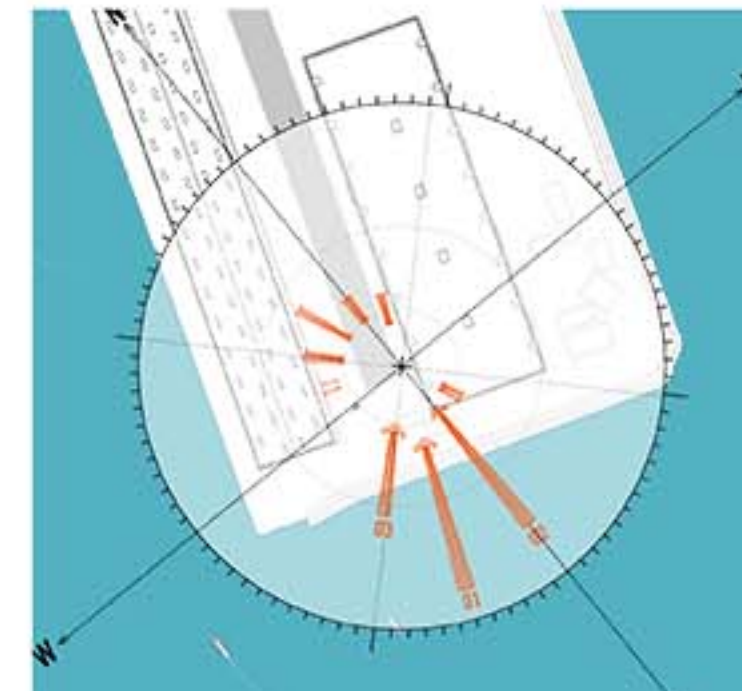
WIND SPEED // LOS ANGELES CALIFORNIA



WIND DIRECTION // LOS ANGELES CALIFORNIA

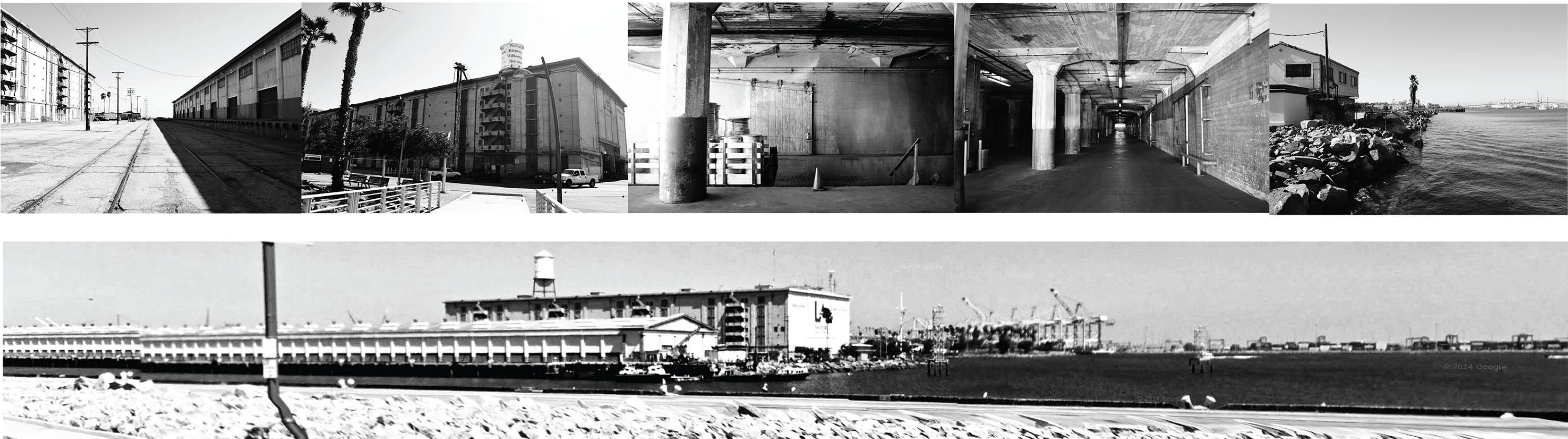


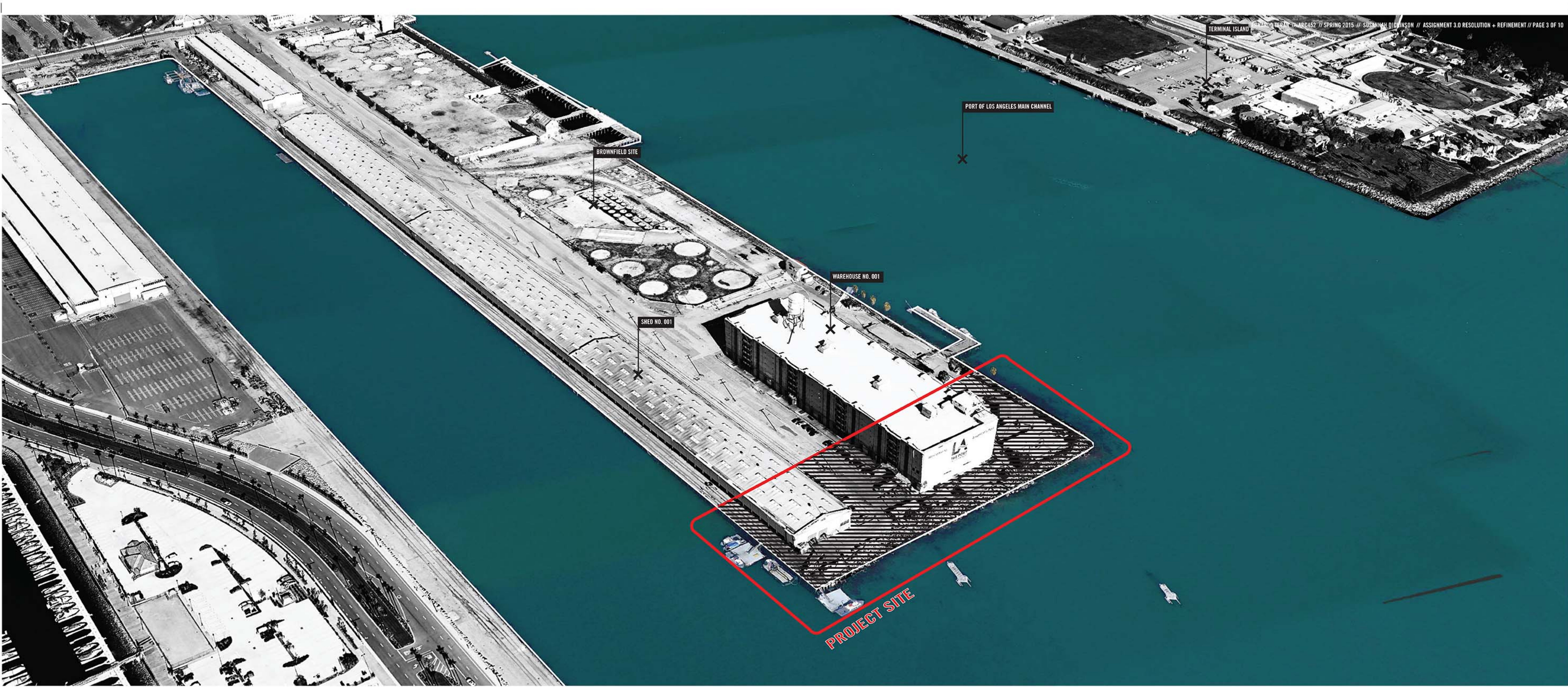
WIND DIRECTION // SUMMER



WIND DIRECTION // WINTER

EXISTING SITE GRAIN + QUALITIES





_EXISTING SITE AERIAL PERSPECTIVE



FUTURE DEVELOPMENT PLAN - DOCK NO. 1

The proposed master plan for this project's specific site, Port of Los Angeles Dock No. 1, is planned to be completed in 3 phases. The first phase would include an educational complex, composed of laboratories and classrooms, and a marina interpretive center. The second phase, planned on a brownfield site, is meant for governmental research. The third phase is still unclear and includes Historic Warehouse No. 1.



AERIAL FUTURE DEVELOPMENT PLAN - DOCK NO. 1

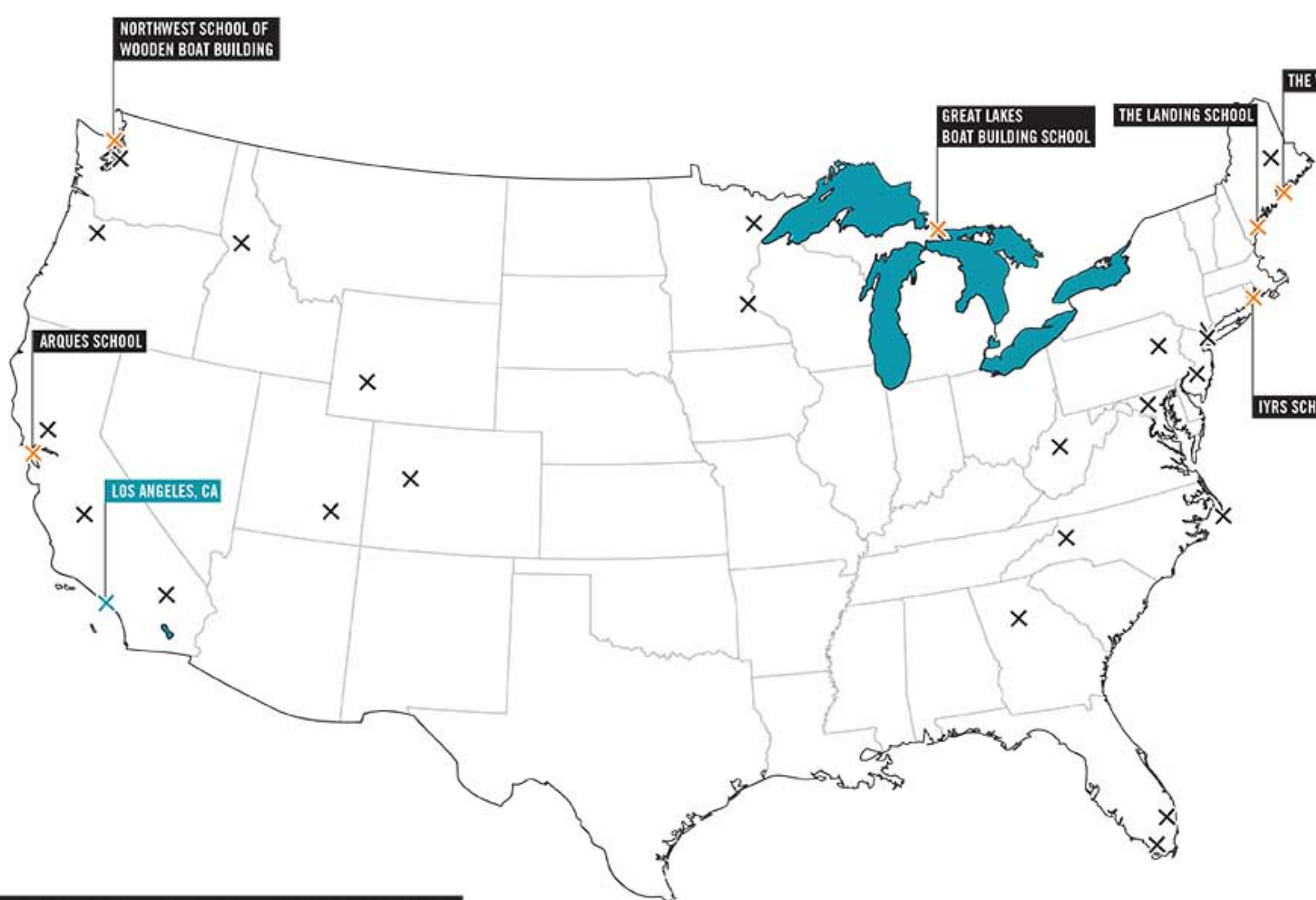
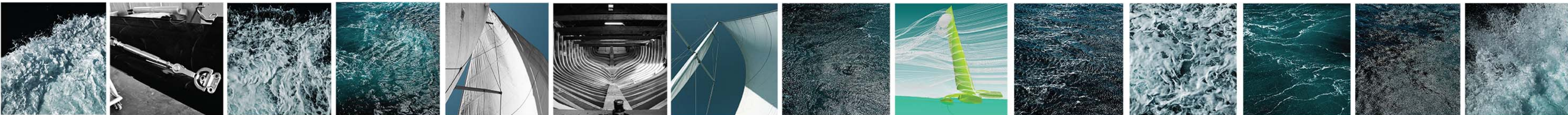
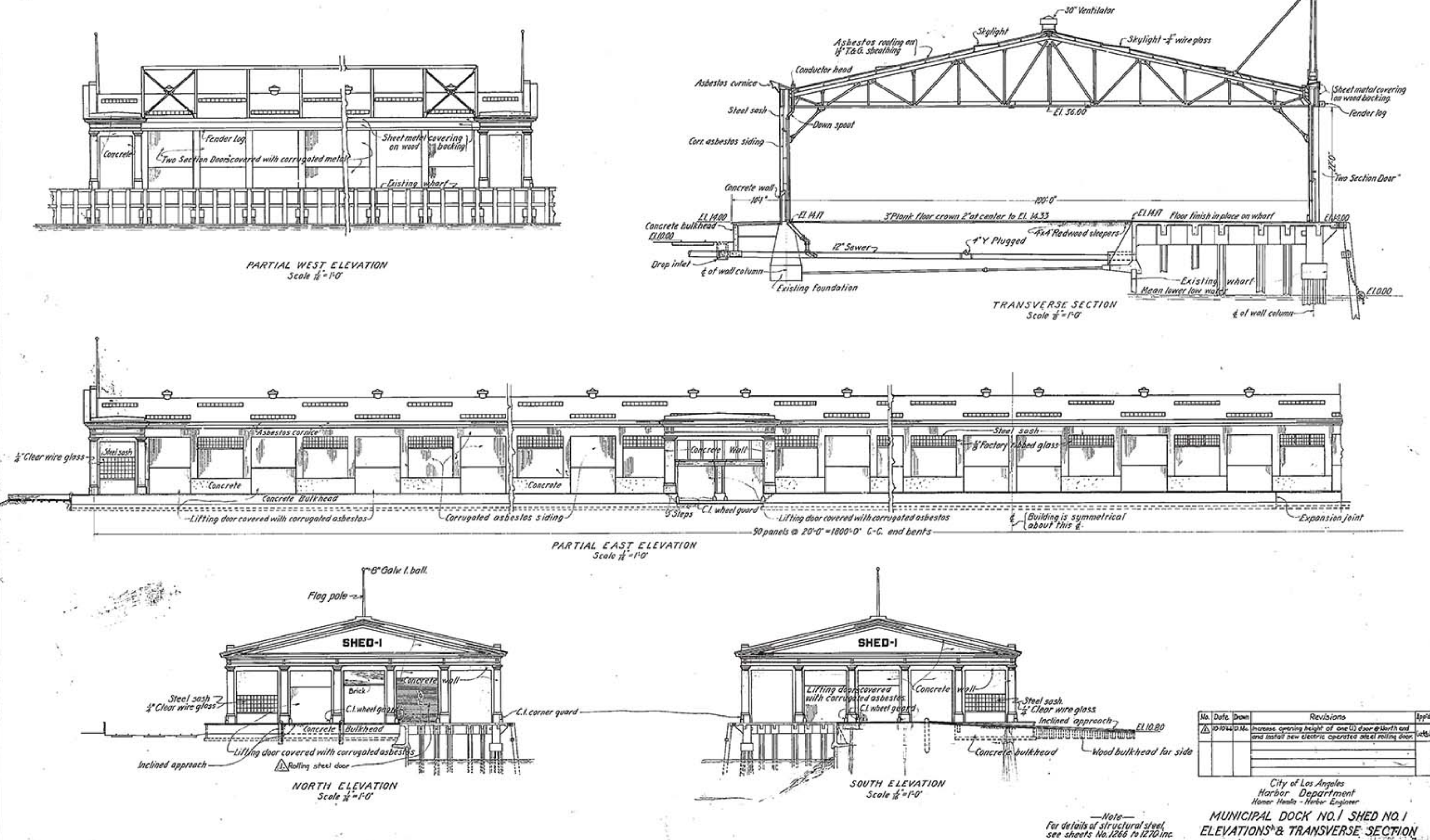
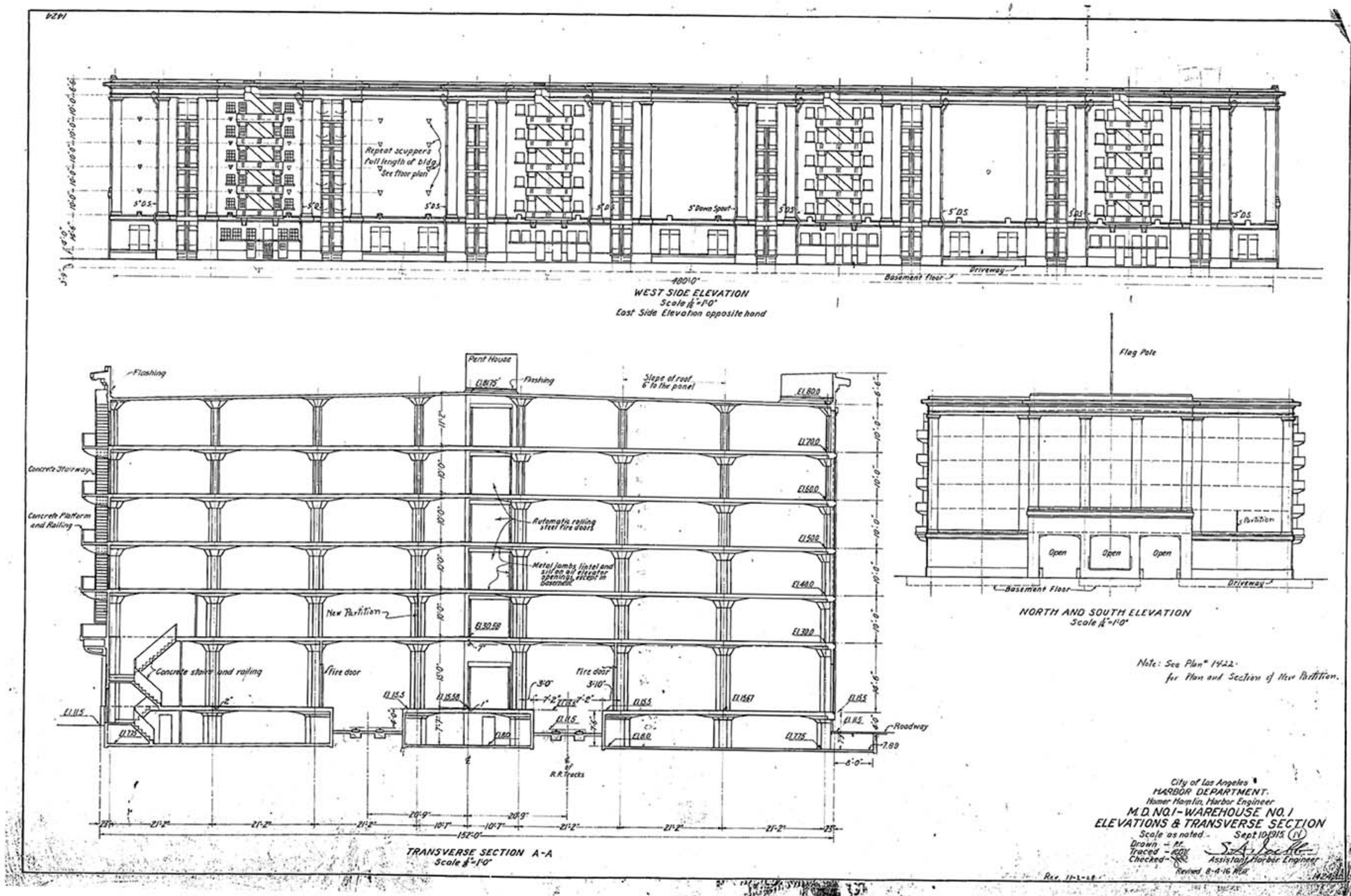
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DOCK NO. 1 RESEARCH INSTITUTE

The proposed research center on Port of Los Angeles Dock No. 1 is meant to both be the public face and center for marine research.

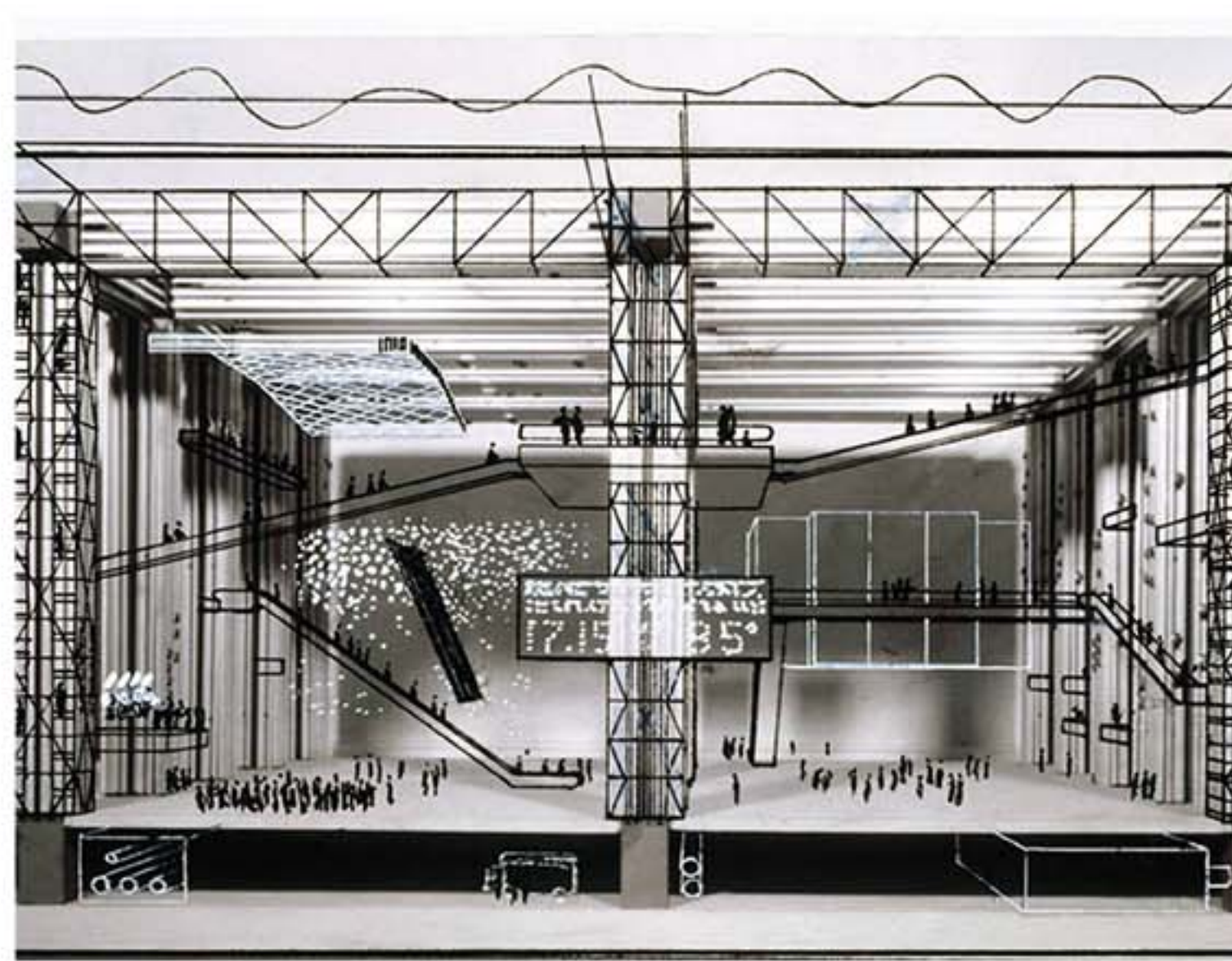
_EXISTING BUILDING DRAWINGS



_RELEVANT PROJECT PRECEDENTS



_SPLITTING temporary
Gordon Matta-Clark, 1974
Englewood, New Jersey
art-place



_FUN PALACE unbuilt
Cedric Price, 1964
London, England
user defined work environment



_CRUSOE HOUSE unbuilt
Dellekamp Arquitectos, 2010
Biedra San Lagunes, Mexico
vacation house

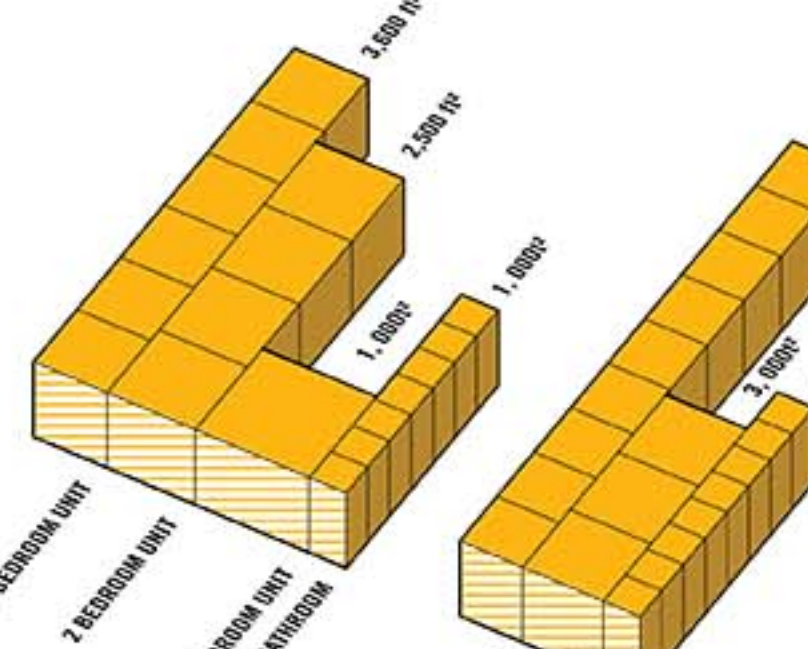
FACILITY + ORGANIZATIONAL GOALS :

With the Internet being an integral part of our daily lives, maker culture within our society has increased and changed the way we look at innovation, making, and collaboration. The maker culture has become dispersed in millions of do-it-yourself projects and basement workshops, where men and women have sought the wholeness and joy they cannot find on the job or at home. Besides this, maker spaces and culture in general have aided in the start-up boom. Taking note of the site's history and future institutional and research focused goals of the Port of Los Angeles the facility aims to take the concept and act of making in to today. The main goals of the facility are as follows:

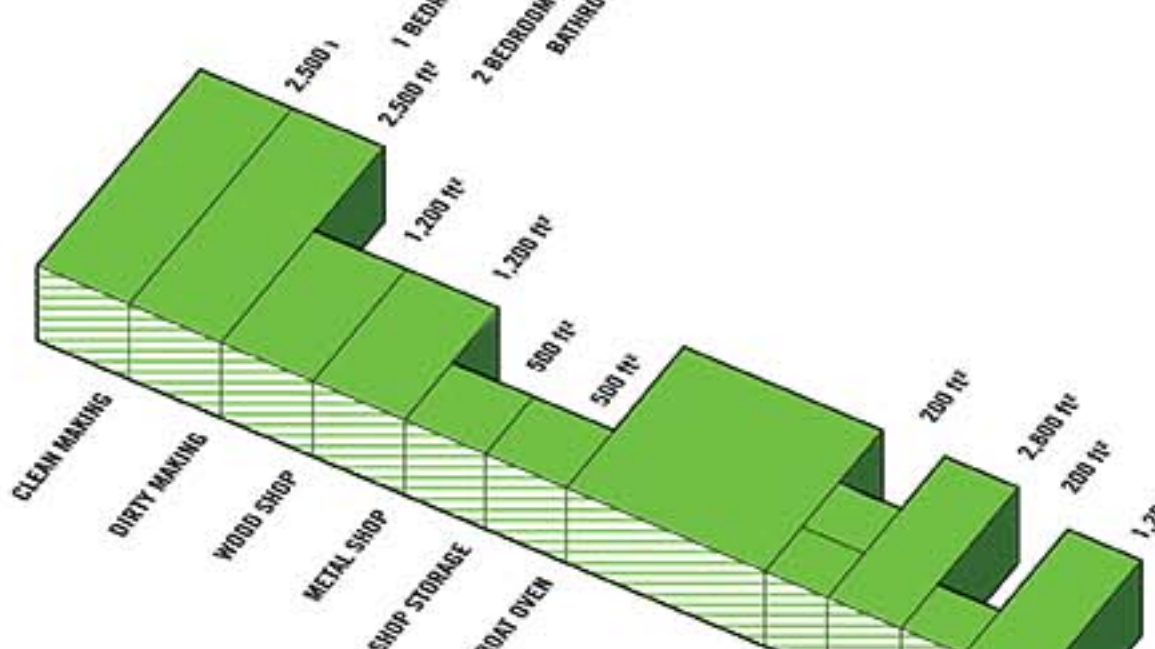
- Give the users a sense of **MAKER EMPOWERMENT**—a sensitivity to the designed dimension of objects and systems, along with the inclination and capacity to shape one's world through building, tinkering, re-designing, or hacking
- **EMPOWER** people to shift from being passive consumers of their world, something that the Port of Los Angeles is a beacon for, to being active producers, collaborators, and contributor's to tomorrow's world.
- Provide a space that gives a sense of self empowerment and collaboration among the students and residents of the facility. Along with this, provide a space that enables innovation in material and technology sciences through the use of cutting edge tools, programs, and techniques.
- Provide a live-work community for the users, where living and working are synonymous and interrelated. Aside from this, the facility will provide temporary and permanent housing options for the users.

_FACILITY PROGRAM

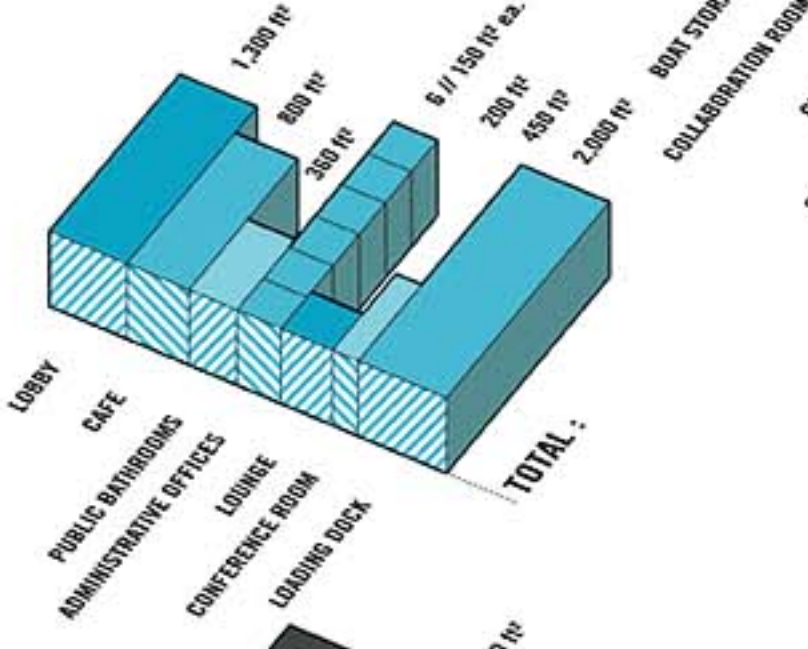
PERMANENT HOUSING



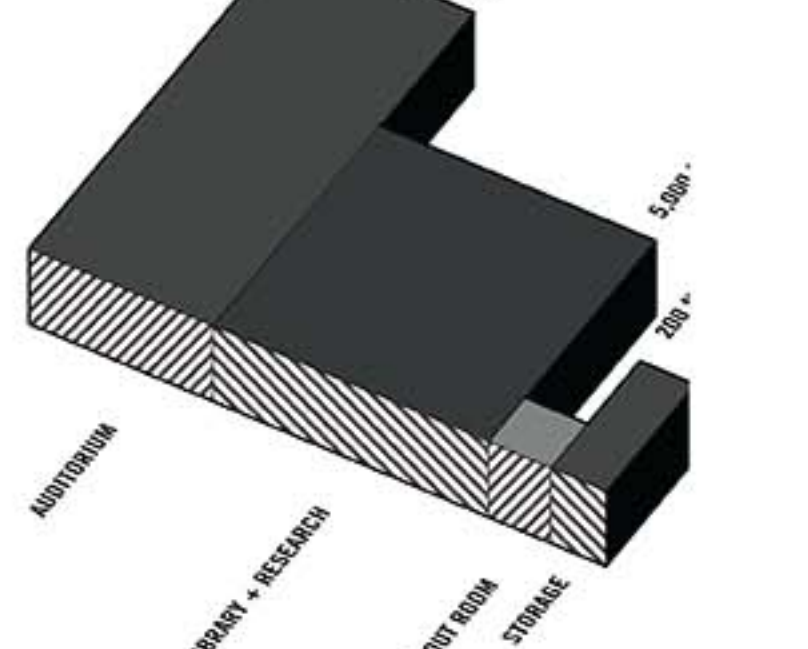
BOAT MAKING



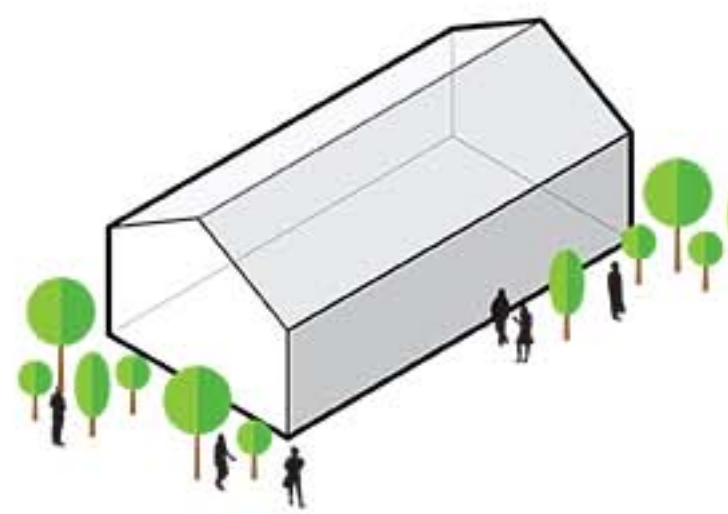
PUBLIC FUNCTIONS



RESEARCH + EDUCATION



_FACILITY USERS



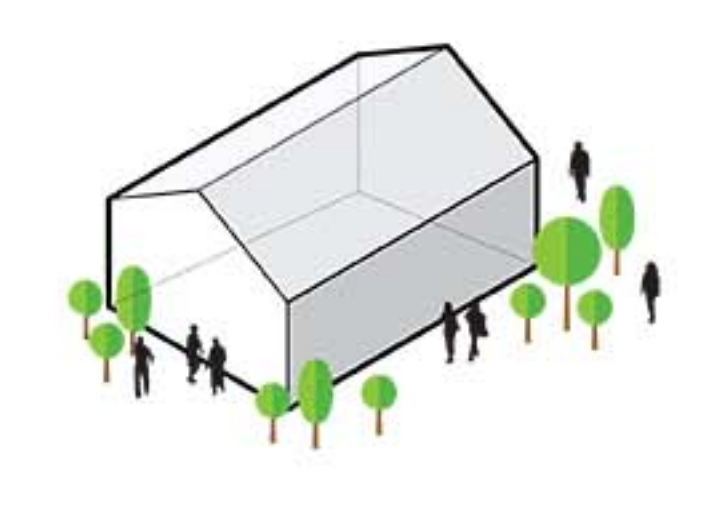
_PERMANENT RESIDENTS : RESEARCH

Being in to account the building program and the proposed master plan, permanent residents in the form of researchers and academics will take part in the proposed housing. These will be people who will both be using the boat making and research facilities in the proposed project and in the wharf master plan.



_TEMPORARY RESIDENTS : STUDENTS

Students attending the boat making school and possibly conducting research in the facilities present on the wharf will be temporary residents of the facility. Students will have housing throughout the school year and have the option of residing in the same units during breaks and summer time.



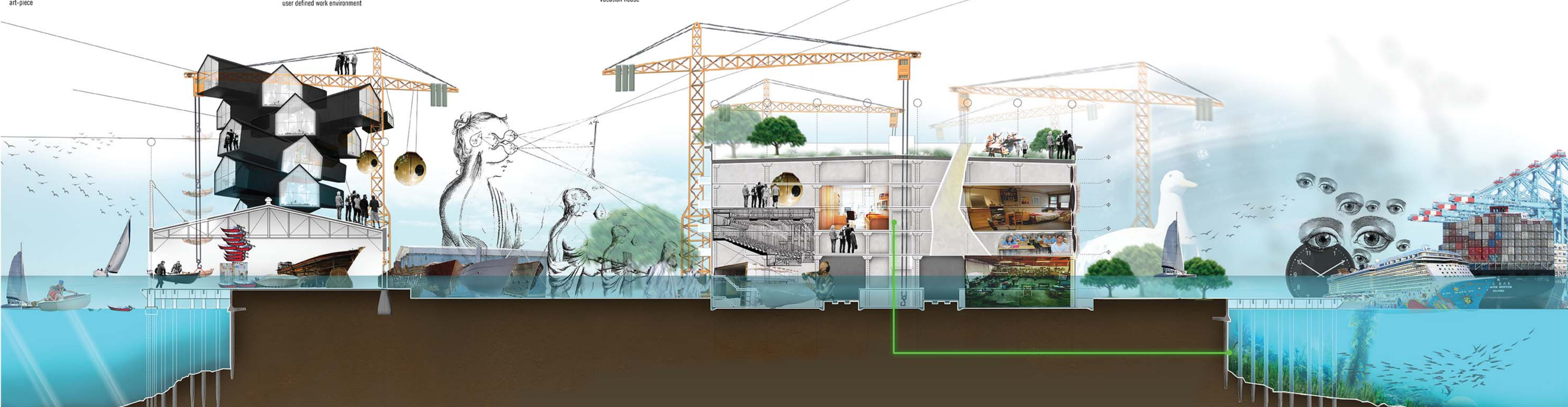
_PERMANENT RESIDENTS : MARINA USERS

Due to the Port of Los Angeles increasing it's recreational opportunities and desiring a more diverse group of individuals to inhabit the area between San Pedro and the more industrial portion of the port, marina users and greater San Pedro inhabitants are considered as one of the permanent users.



_TEMPORARY RESIDENTS : EDUCATORS + EMPLOYEES

A boat making school requires individuals who have mastered the craft of boat making. The temporary residents will mainly use the boat making and research facilities. Any supporting staff also have the option to reside on the facility grounds.





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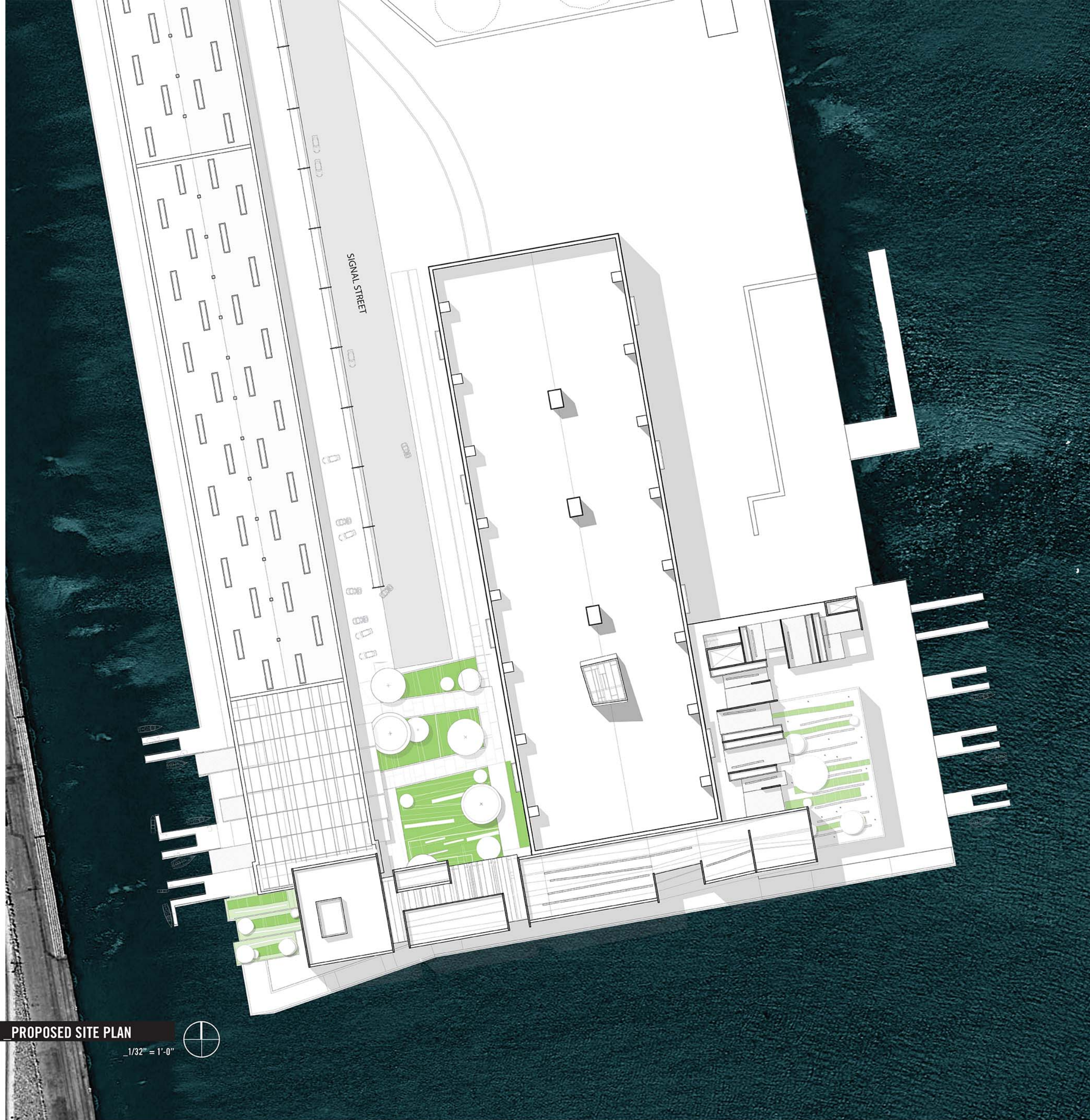


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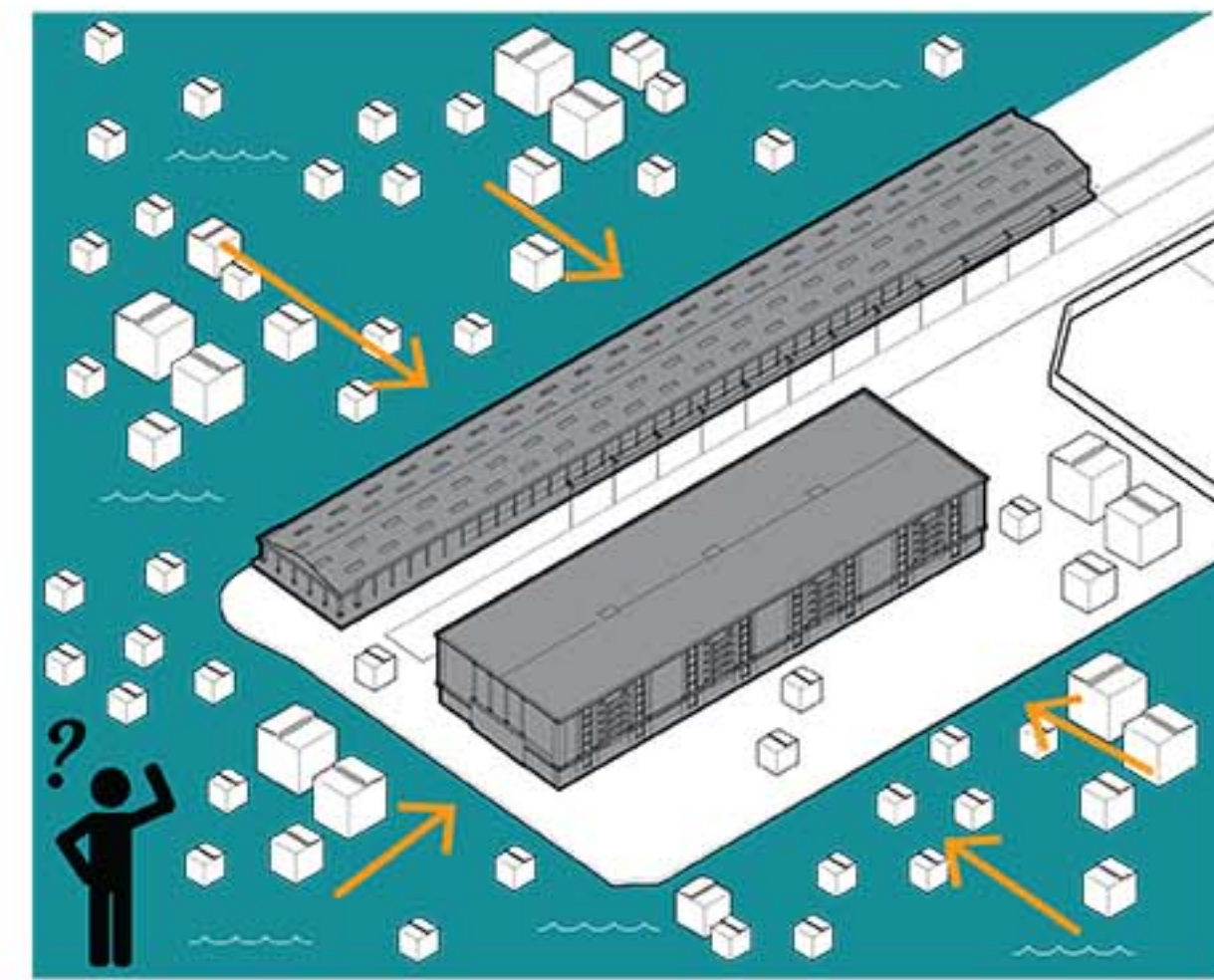
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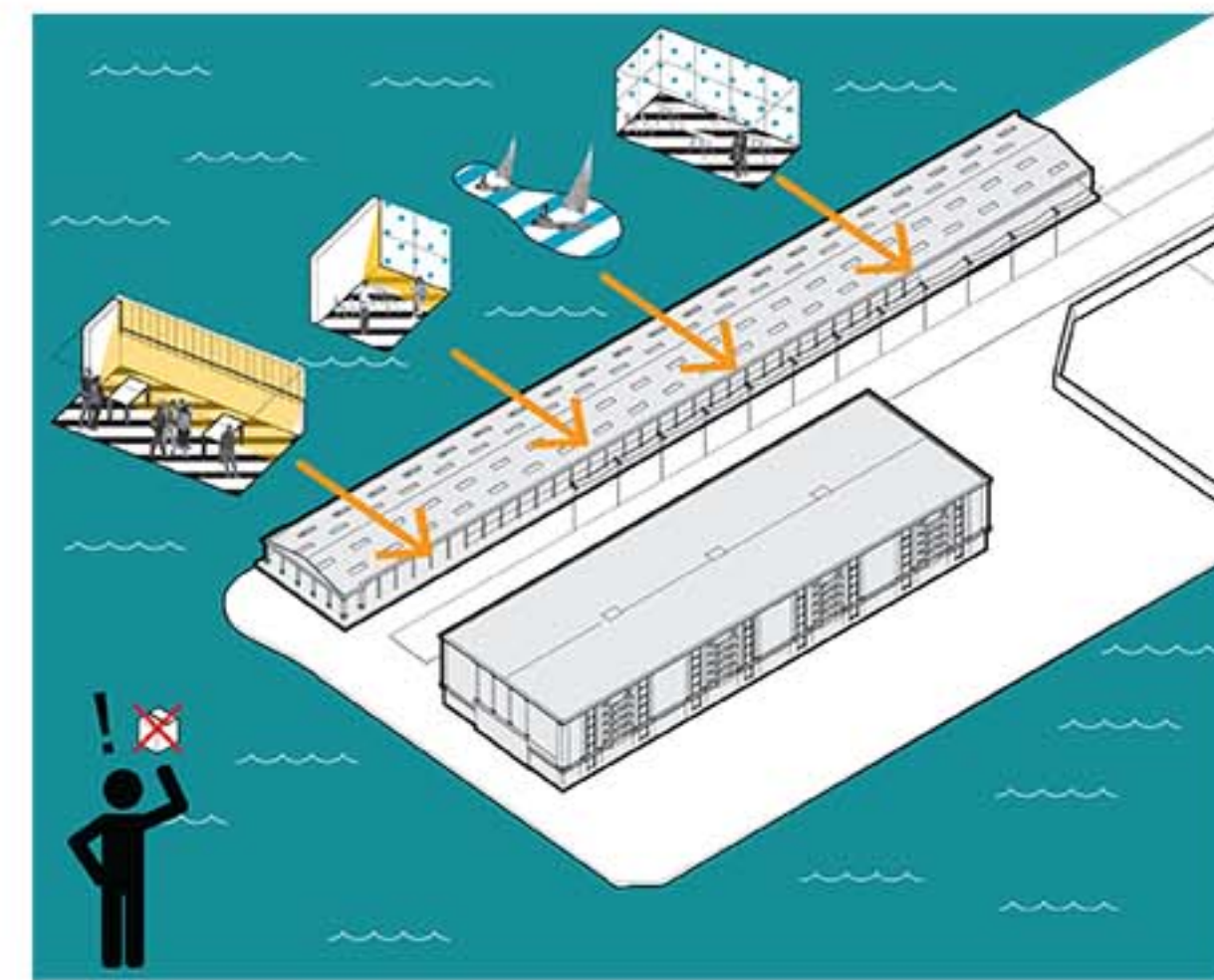
PROPOSED SITE PLAN
1/32" = 1'-0"

PARTI DIAGRAMS



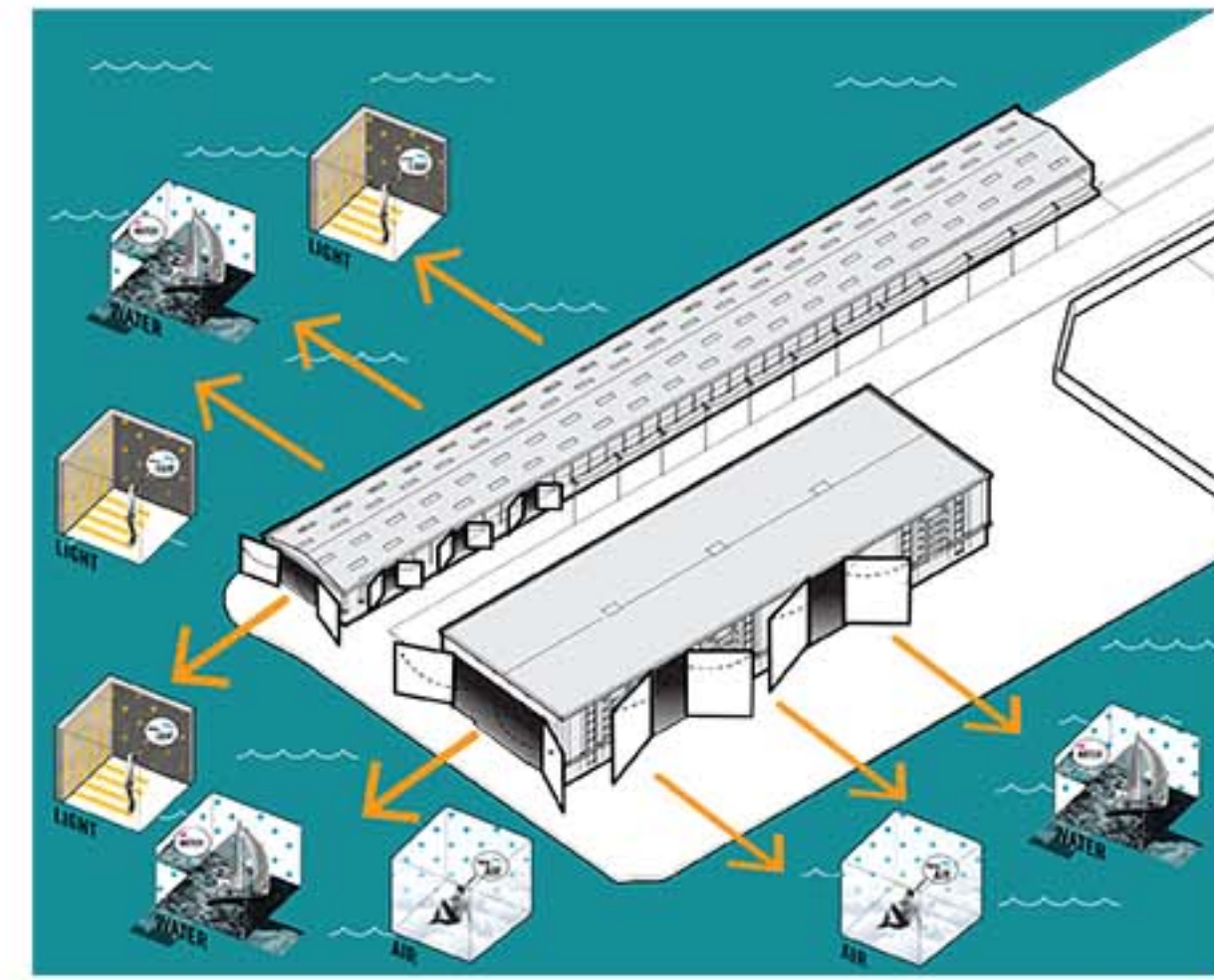
001. TRADITIONAL WAREHOUSE TYPOLOGY

The traditional use of the warehouse typology in the Port of Los Angeles, as with the existing buildings on the site, is the storage of objects making the architecture specific and only specific to the objects themselves.



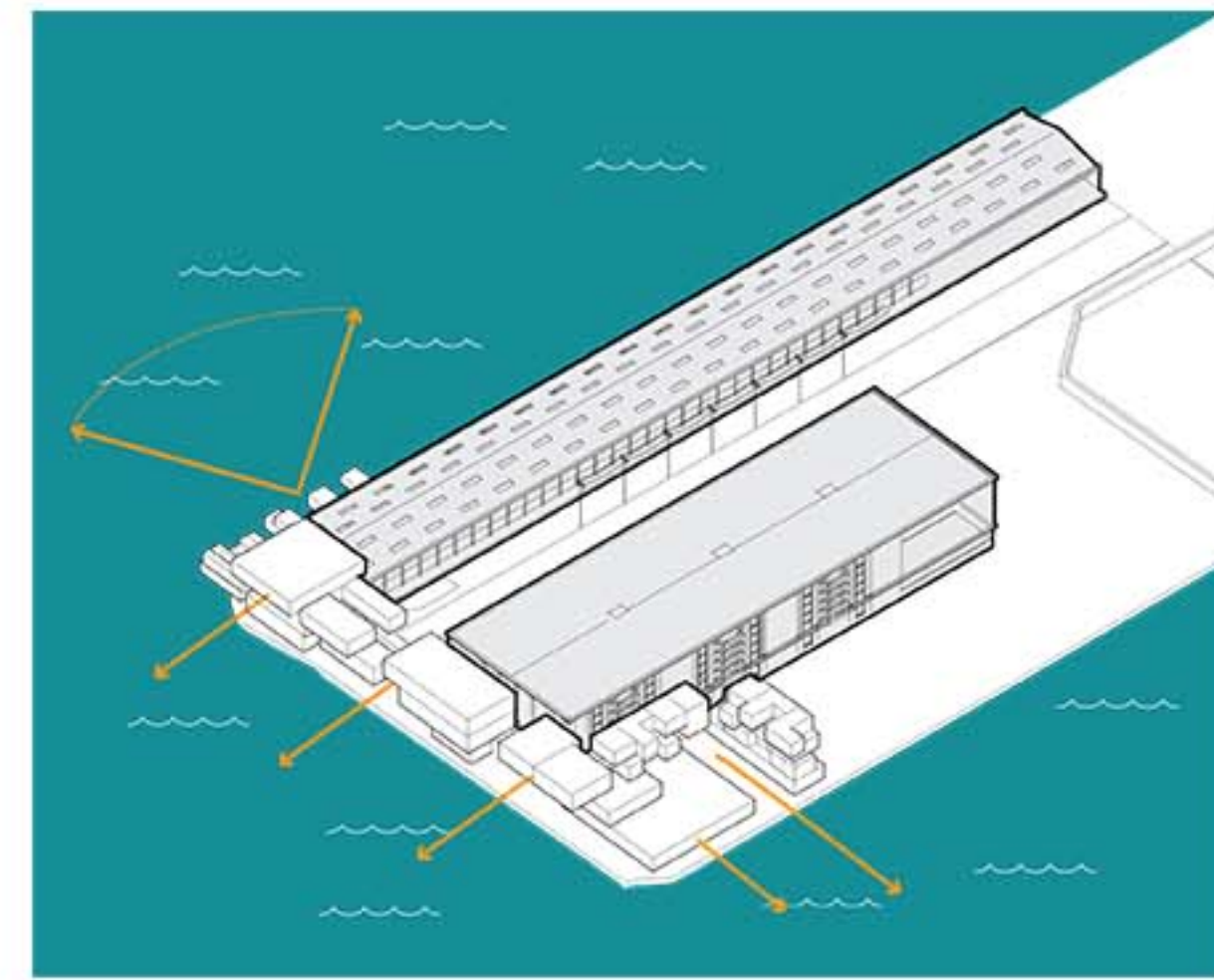
002. WAREHOUSE BUILDING TODAY

Implementing the four program types of boat making, education, public use, and housing leads way for the re interpretation of the warehouse typology, making it specific to humans. Thinking about the phenomenology of place in the context of the two warehouse buildings becomes the premise for the architectural project.



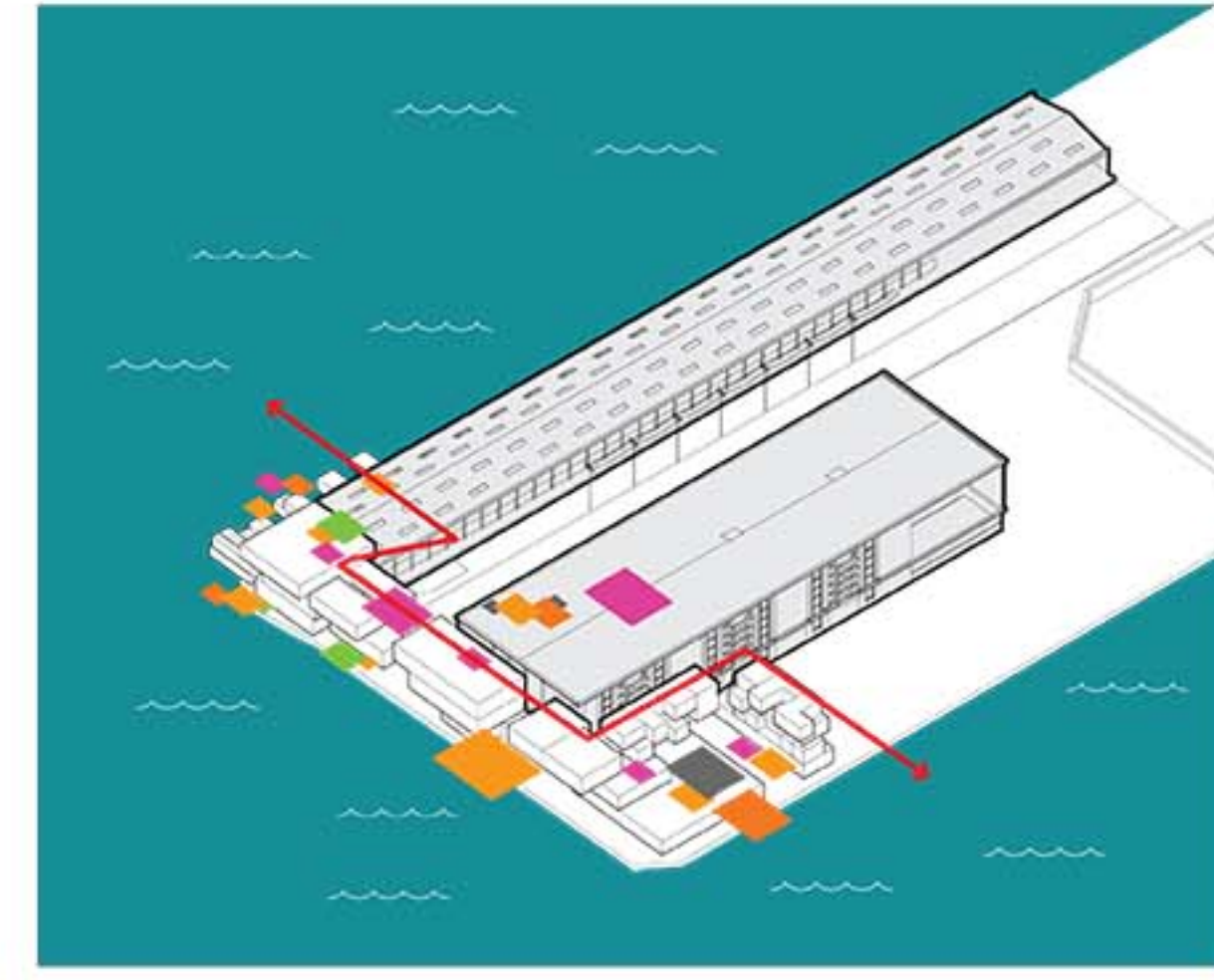
003. OPENING UP TO THE ELEMENTS

The three elements of WIND, WATER, AND AIR, were narrowed down for the exploration of the project, looking at the variety of program's connection to these elements. The scheme developed to become one where the architecture opens up to these elements, having a connection to the specific phenomena not a complete detachment as typically seen with warehouse buildings of the time.



004. PROGRAM PLACEMENT

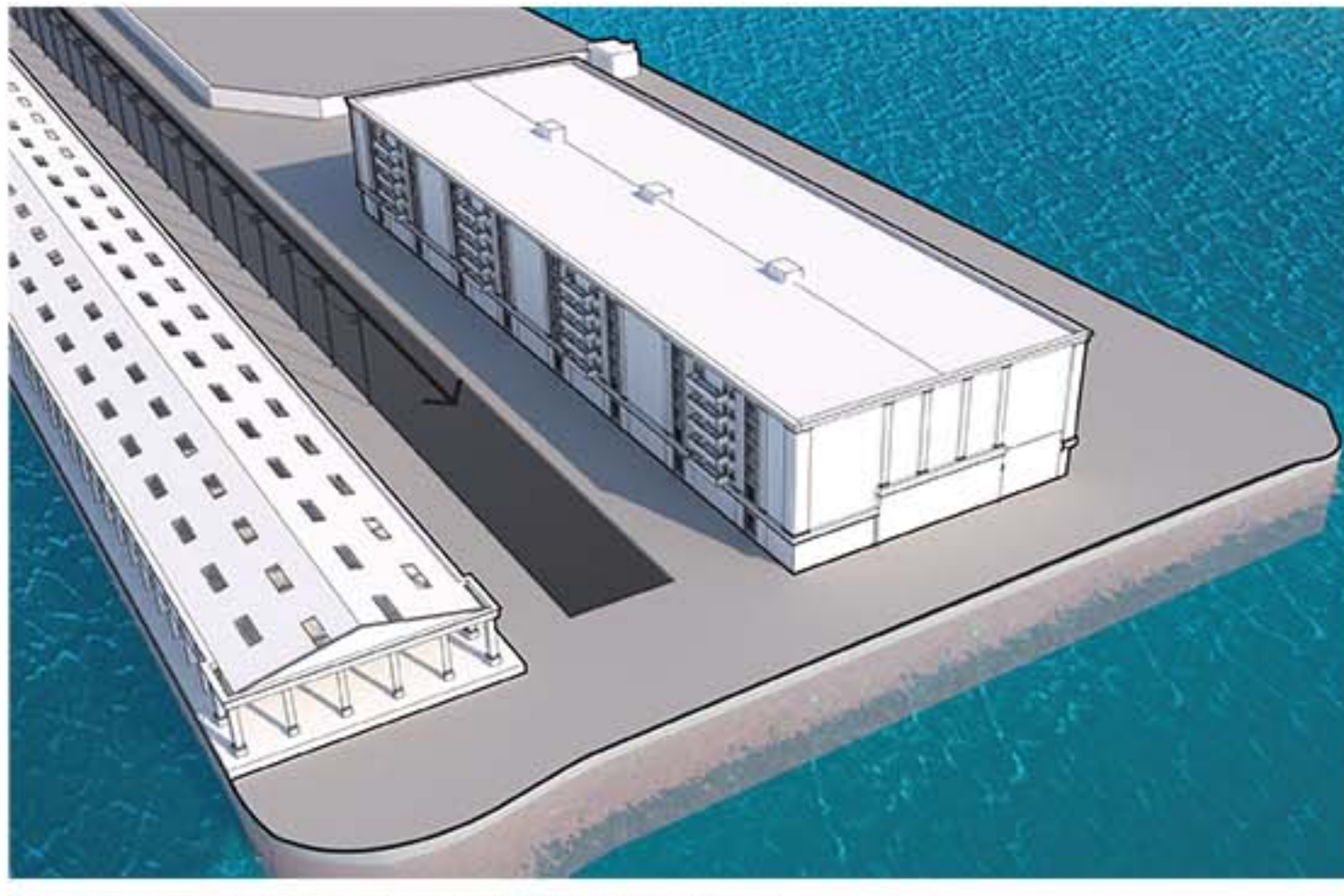
Program massing placed on site relative to the conclusions of initial diagrams, exposing the smaller scale permanent housing to the smaller scale channel, having the temporary housing and boat making connected to the main channel, and having the educational component of the program span between both sides — allowing for a continuous experience of the site.



005. PIXELATION OF PHENOMENA + EXPERIENCE

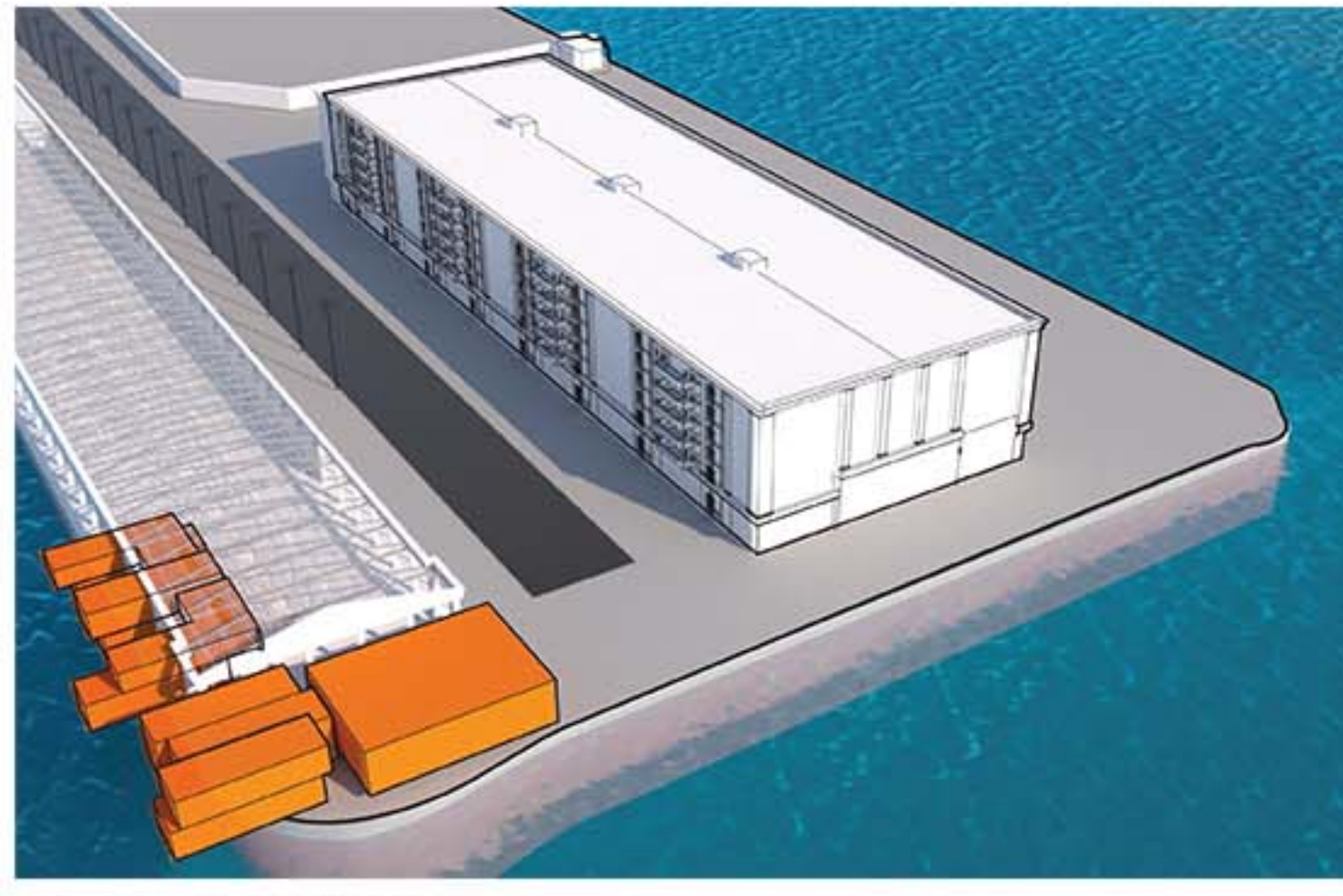
The scheme allows for specific connection to specific elements relative to the program, giving priority to some over others. The aggregated and porous scheme allows for a pixelation of different phenomenological experiences of either wind, water or air.

PROGRAM SEQUENCE



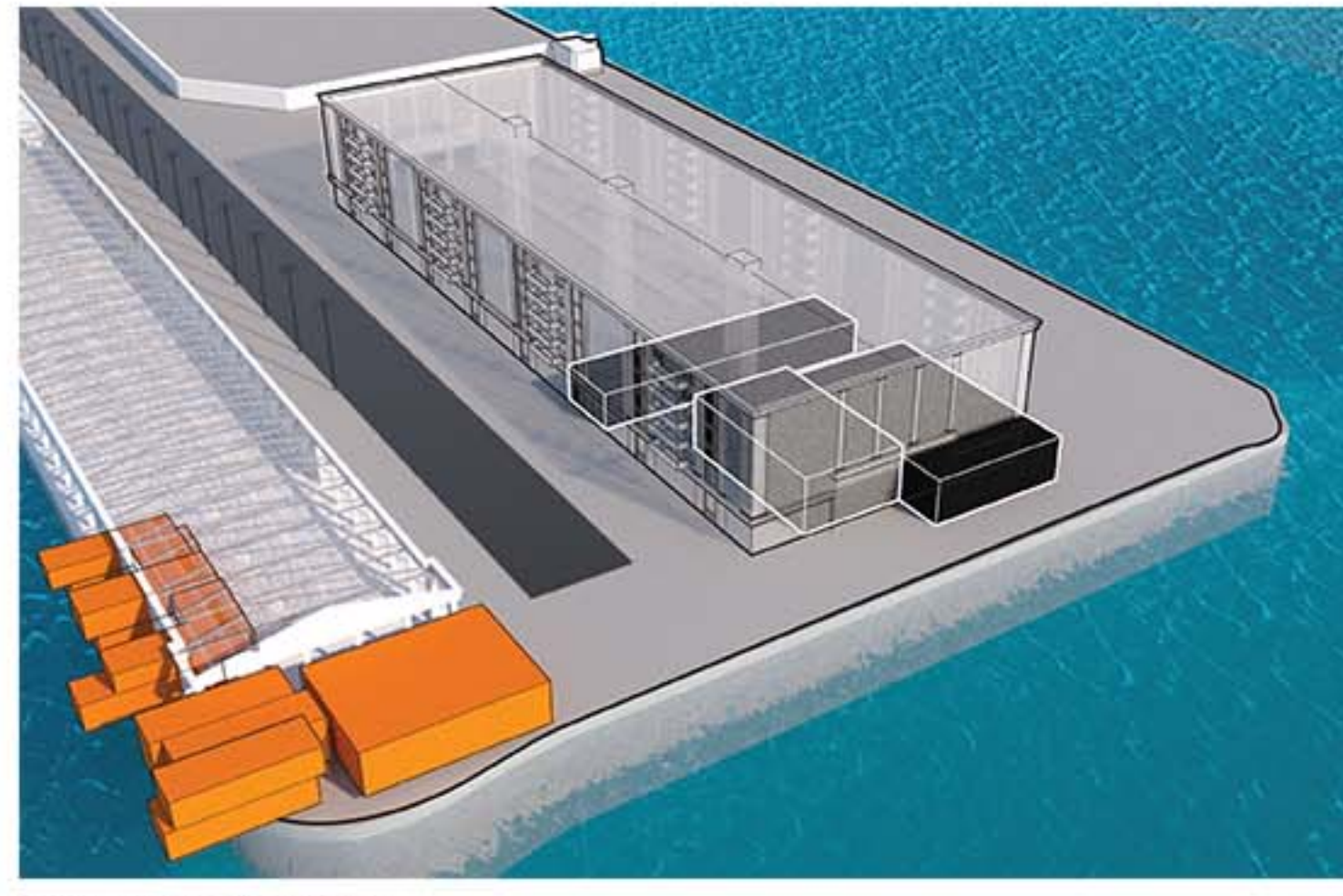
001. EXISTING PORT OF LOS ANGELES SITE // 2015

The existing peninsula condition consists of two warehouse buildings separated by Signal Street — a street that was historically used for rail and electricity when the berth was first used. The site is surrounded by water on three sides.



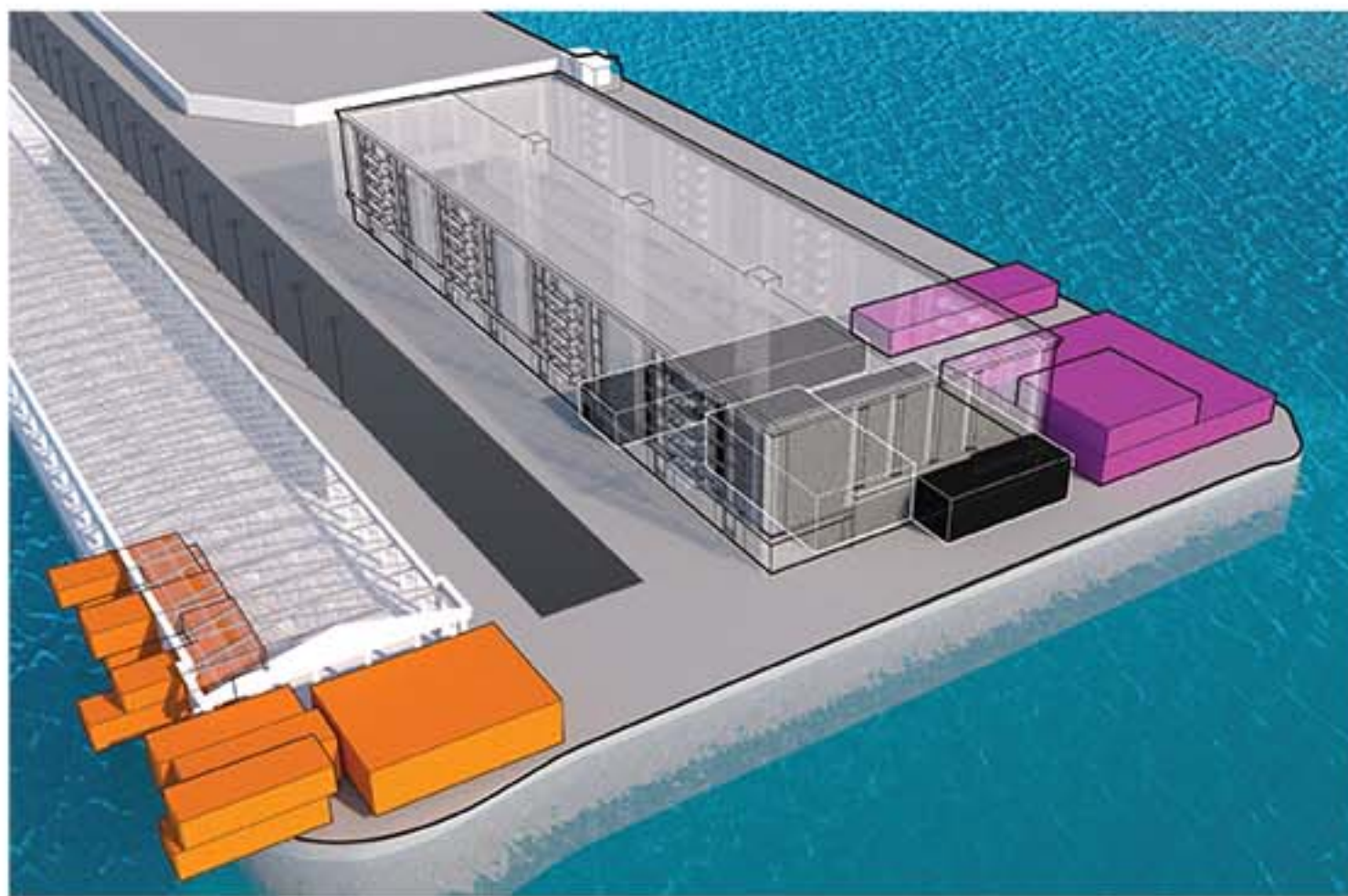
002. TEMPORARY HOUSING

Smaller scale temporary housing is placed in the smaller scale Warehouse due to its experiential qualities near the water and its proximity to more of the residential neighborhoods of San Pedro. These housing units respect the building grid by being placed in between them.



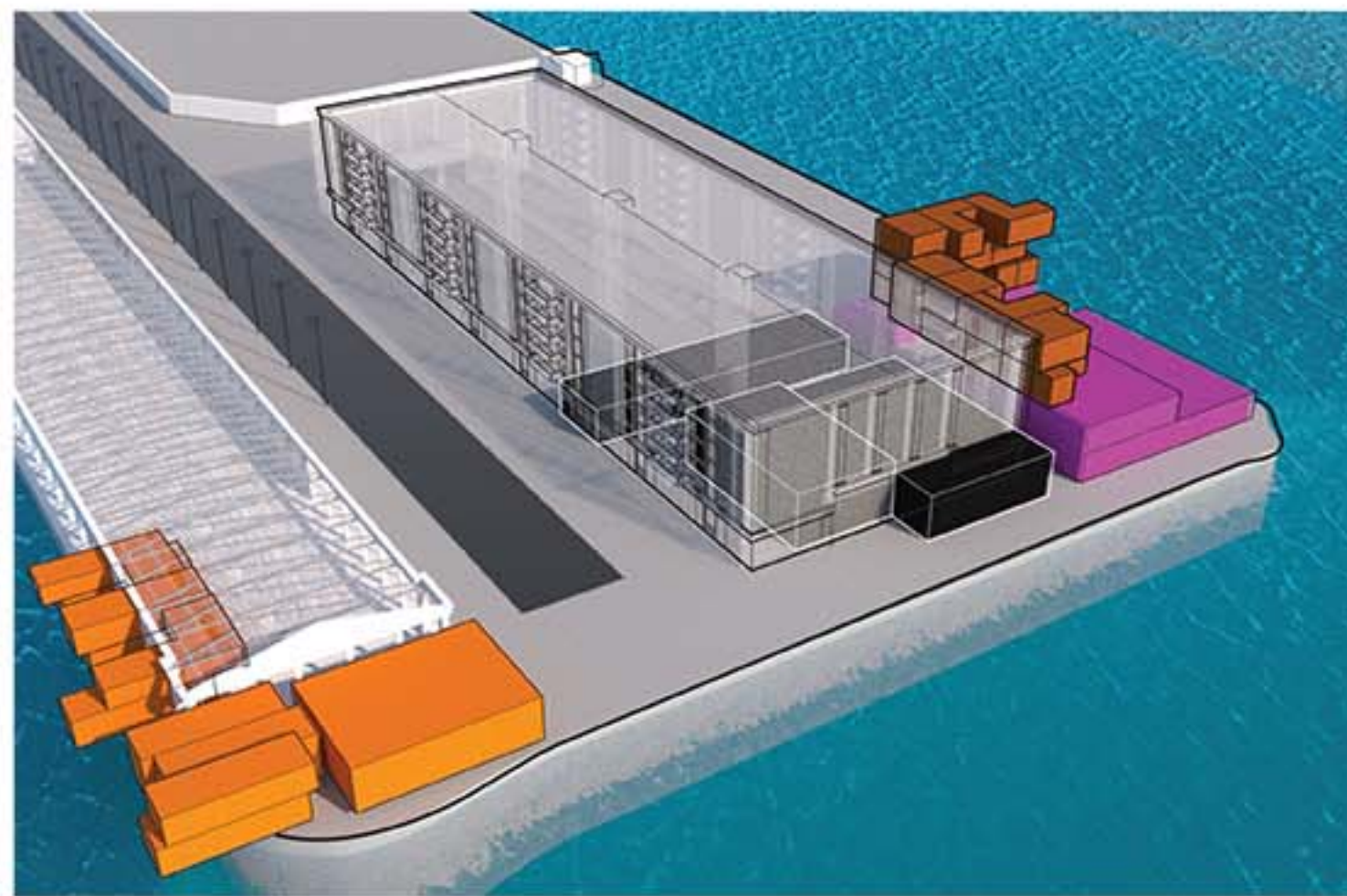
003. PUBLIC PROGRAM

Due to not needing a direct connection to any of the three phenomenological aspects relevant to the project, most public programs were placed within the first floor of the Warehouse No. 1 building. The program however does have moments where it is connected to light as in the Lobby and also to the wind and water, as in the case with the auditorium which opens up to the Pacific Ocean directly.



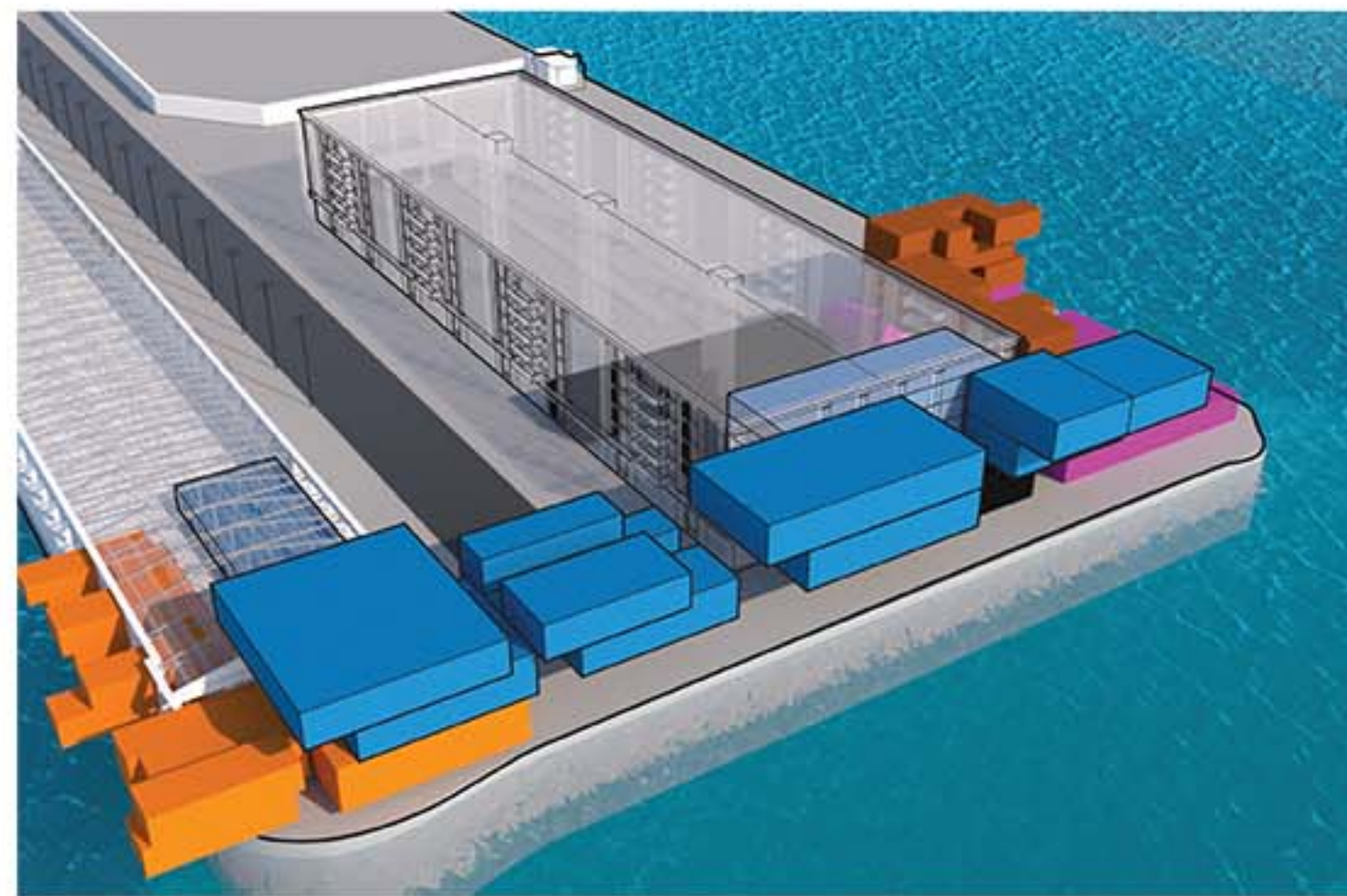
004. BOAT MAKING PROGRAM

The boat making program is placed directly adjacent to the main channel, allowing for industrial visibility of the students and for interaction with the main channel.



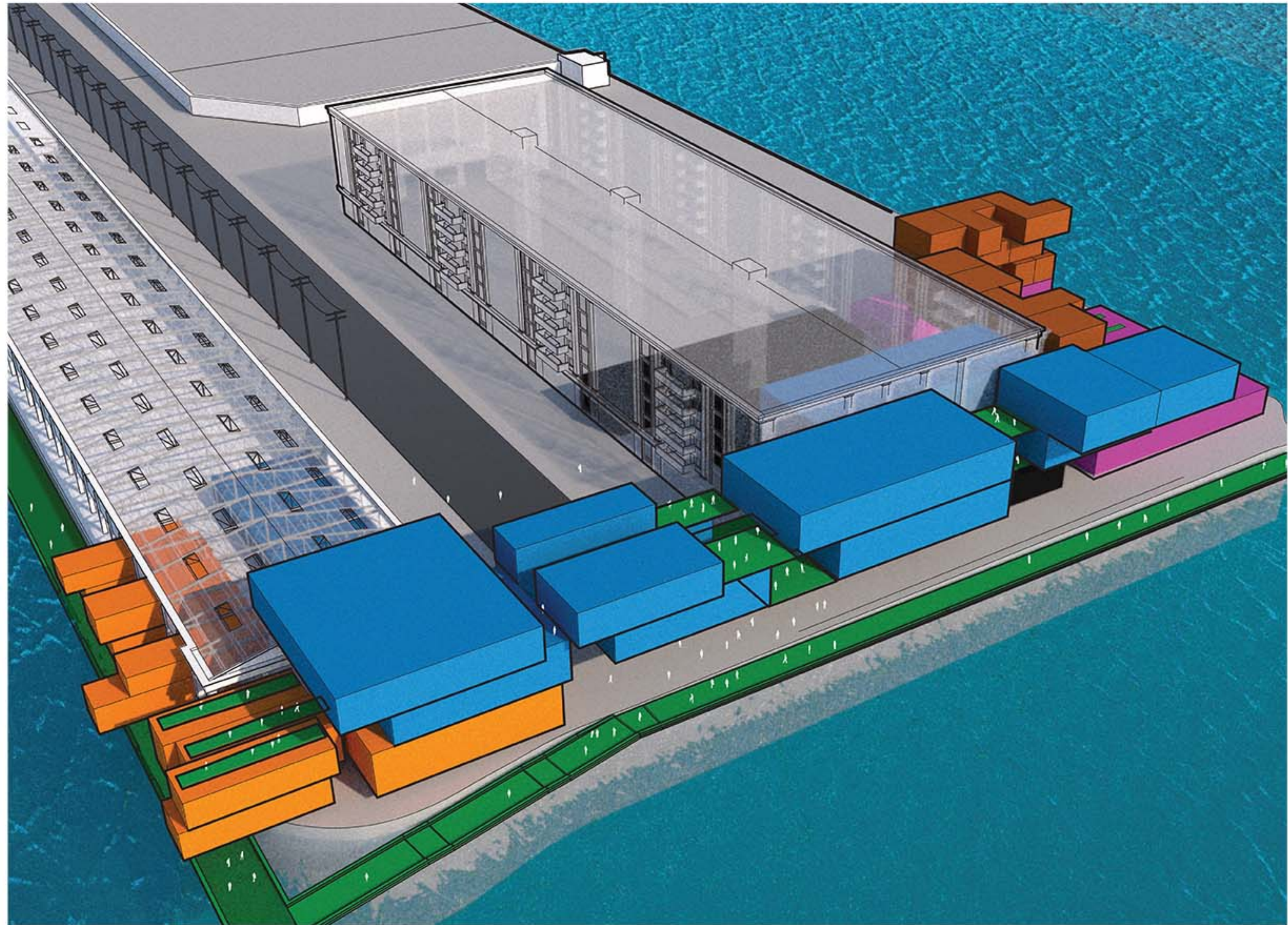
005. TEMPORARY HOUSING

Due to the direct interaction of the people using the boat making facility, temporary housing is placed directly adjacent/above this, allowing for maximum visibility of the ocean and the main channel but also for the opportunity of passive strategies to allow wind to enter the units.



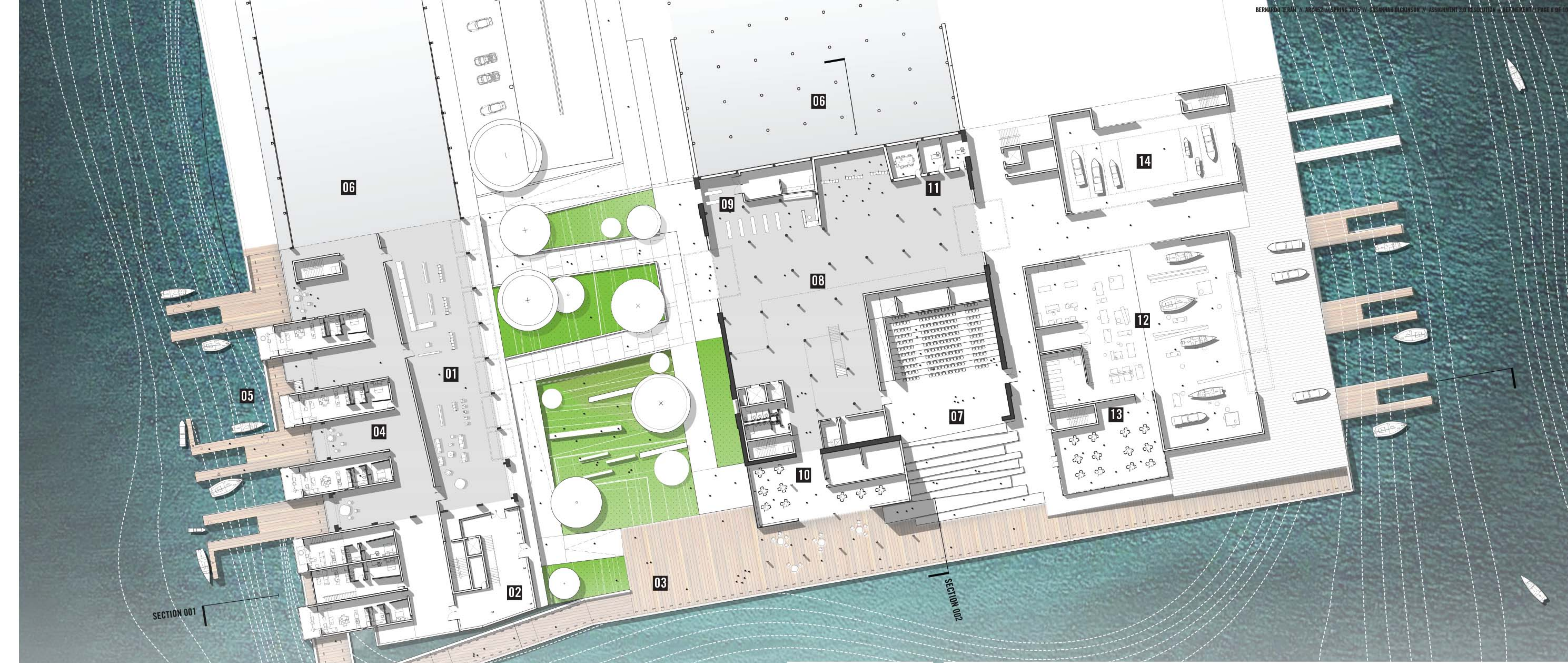
006. EDUCATION + RESEARCH PROGRAM

Education and Research programs connect both parts of the program, allowing for use from either side but also for allowing a maximum experience of the site, specifically the Pacific Ocean view.



007. PUBLIC INTEGRATION

The public is meant to inhabit the project at multiple levels, from the docks almost at ocean level to the outdoor viewing areas adjacent to the education and research rooms.



_FLOOR PLAN 001

_1/16" = 1'-0"



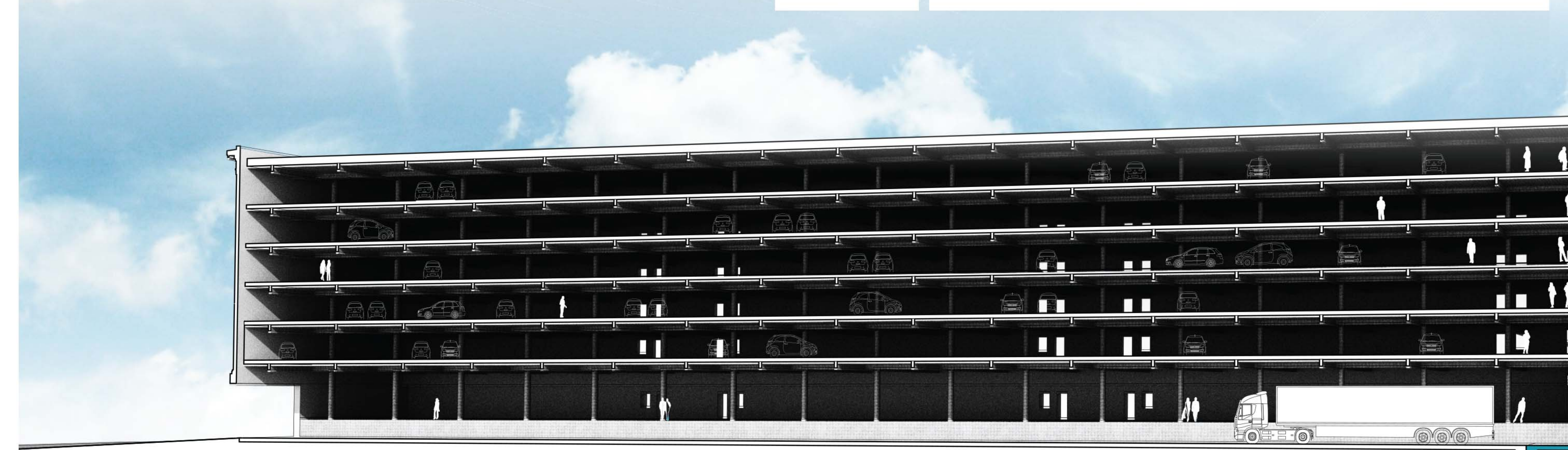
_FLOOR PLAN KEY

- 01. INTERPRETIVE CENTER
- 02. HOUSING + BRIDGE LOBBY
- 03. OCEAN FRONT BOARDWALK
- 04. PERMANENT HOUSING
- 05. RESIDENT DOCK
- 06. EXISTING BUILDING BEYOND
- 07. AUDITORIUM
- 08. LOBBY
- 09. MARKET
- 10. CAFE
- 11. OFFICES
- 12. BOAT BUILDING + MAKING
- 13. STUDENT LOUNGE
- 14. BOAT STORAGE

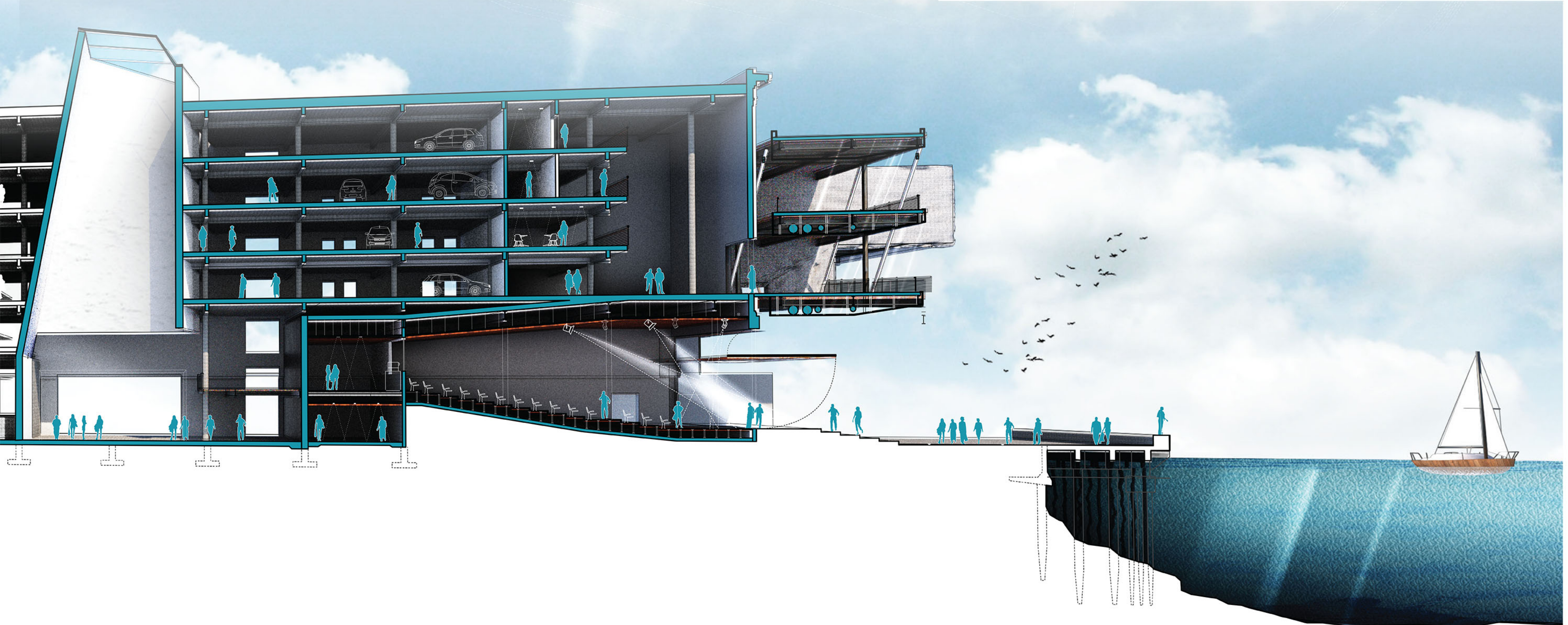
_CIRCULATION TO USE FLOOR 001

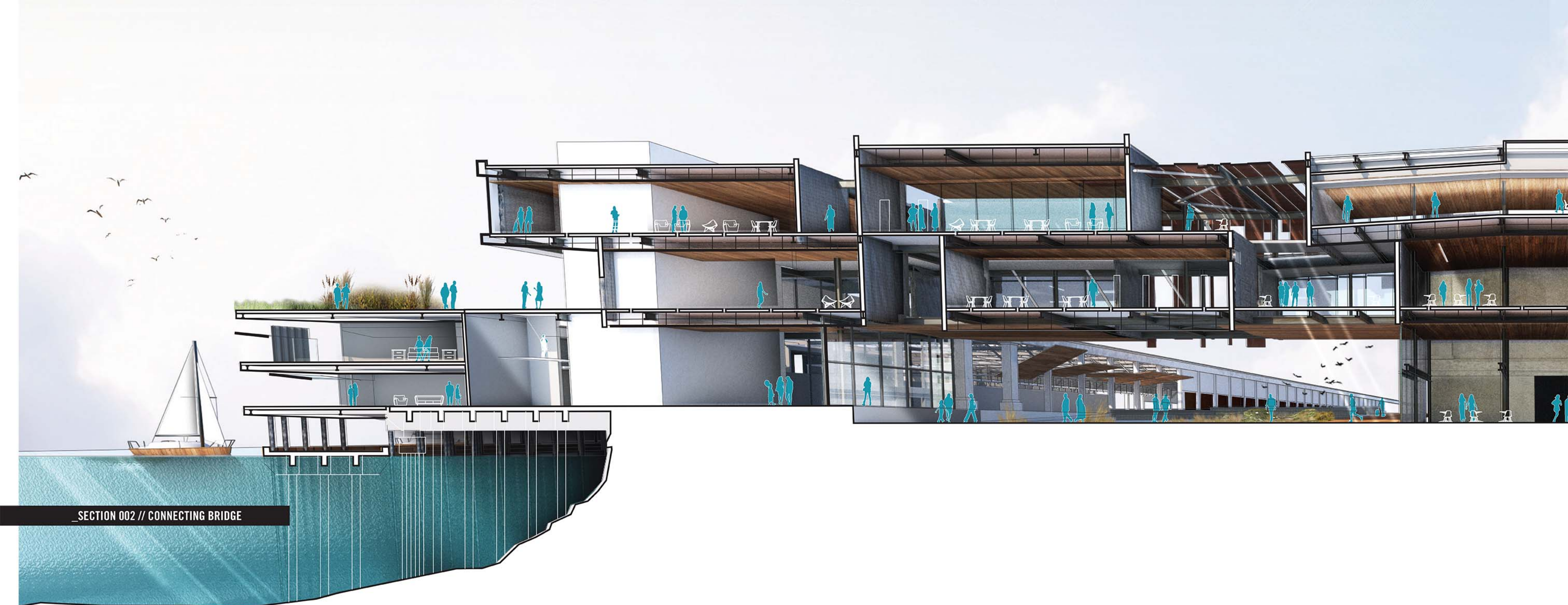


- BOAT MAKING PROGRAM
- PUBLIC USE
- EDUCATIONAL PROGRAM
- HOUSING
- MECHANICAL CORES



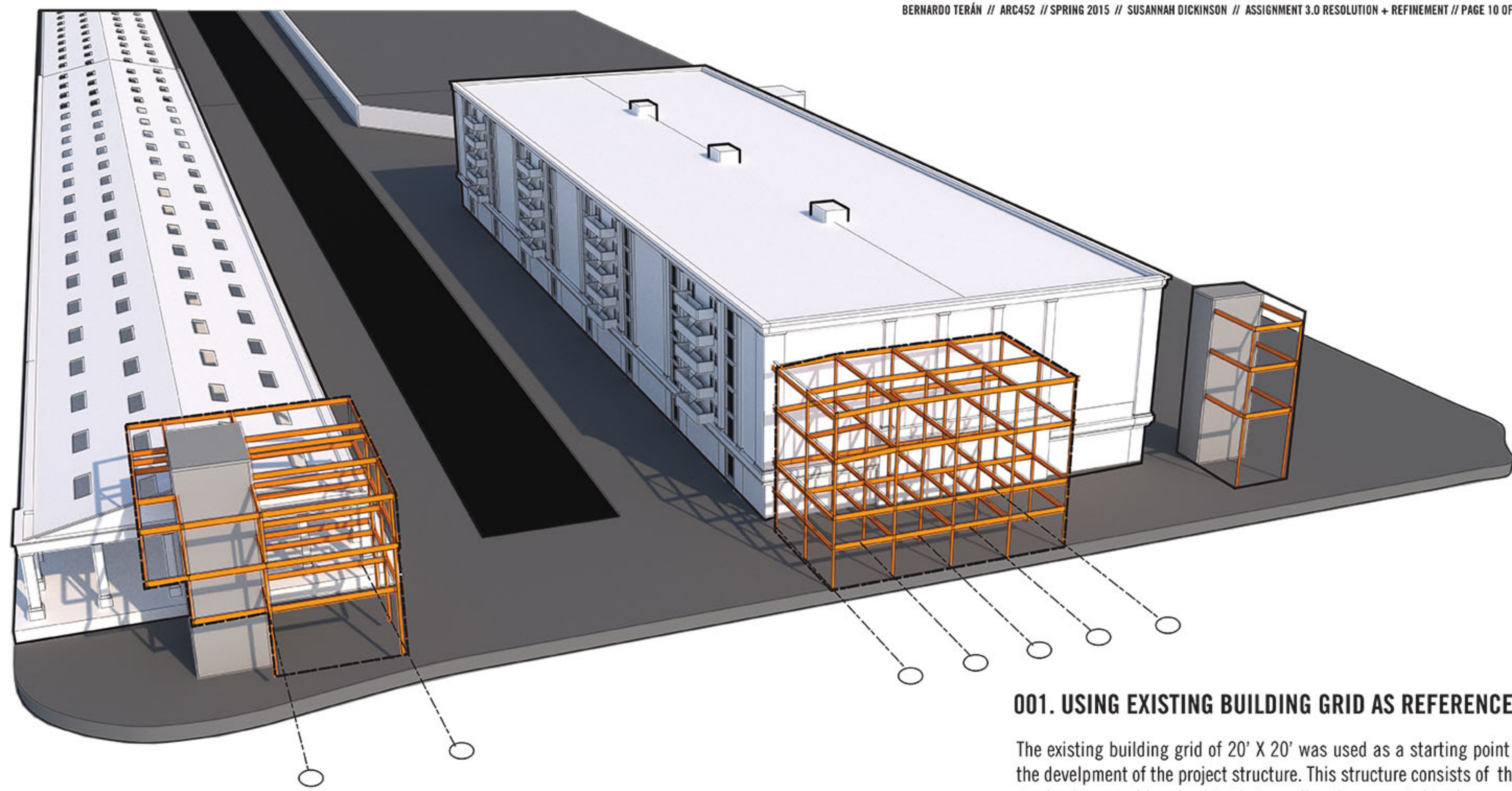
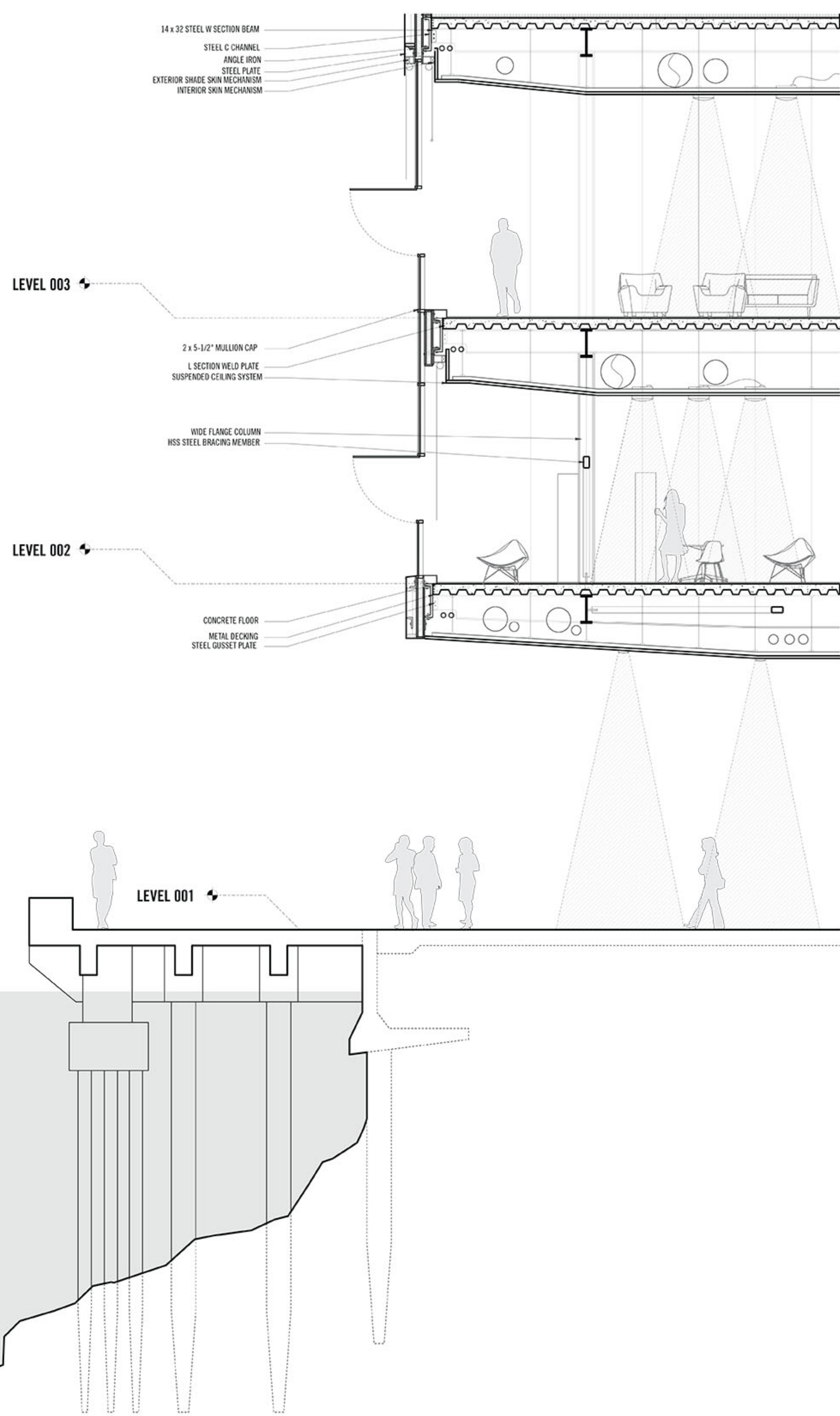
_SECTION 002 // WAREHOUSE NO. 001 + NEW INTERVENTION



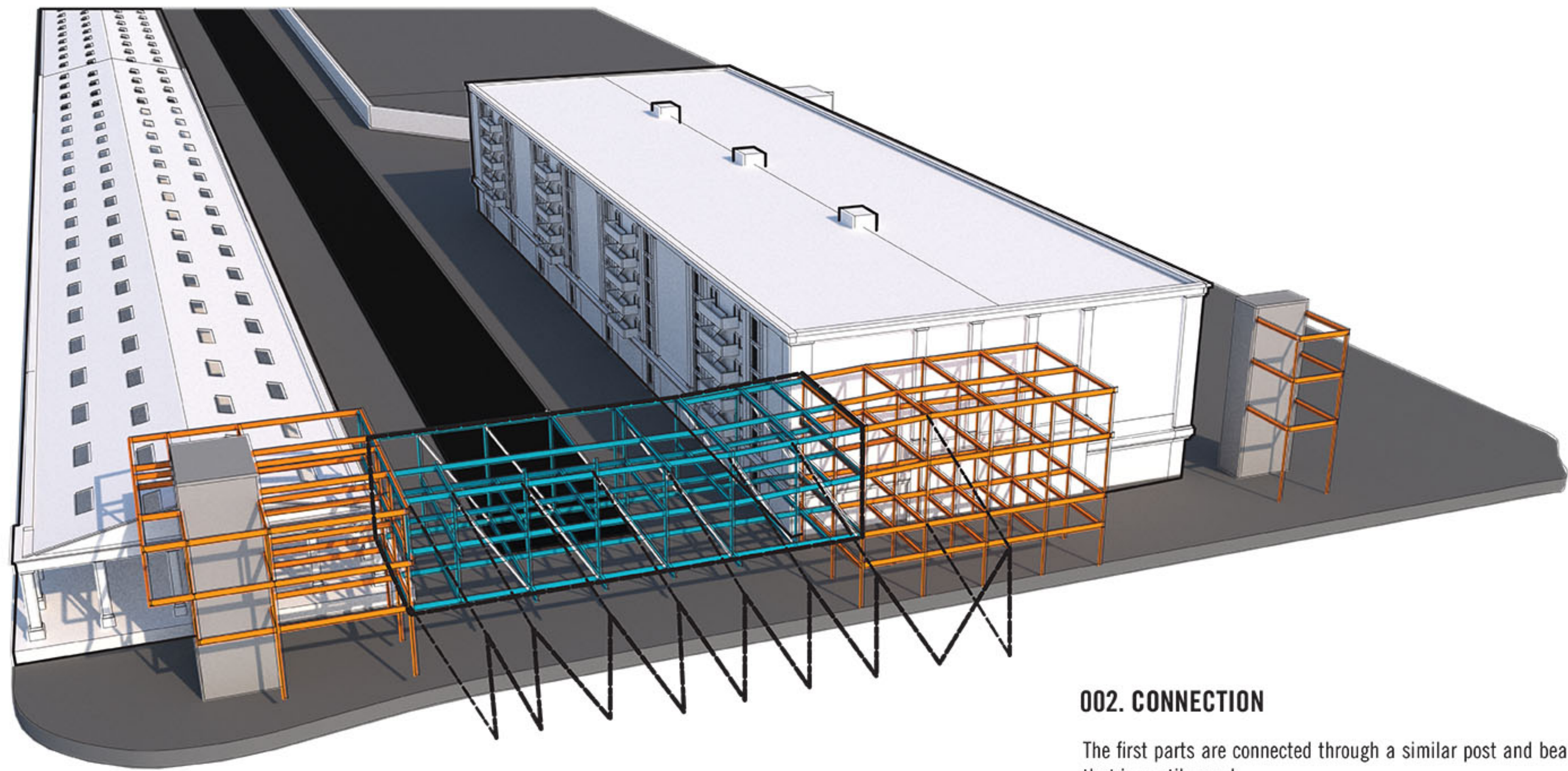




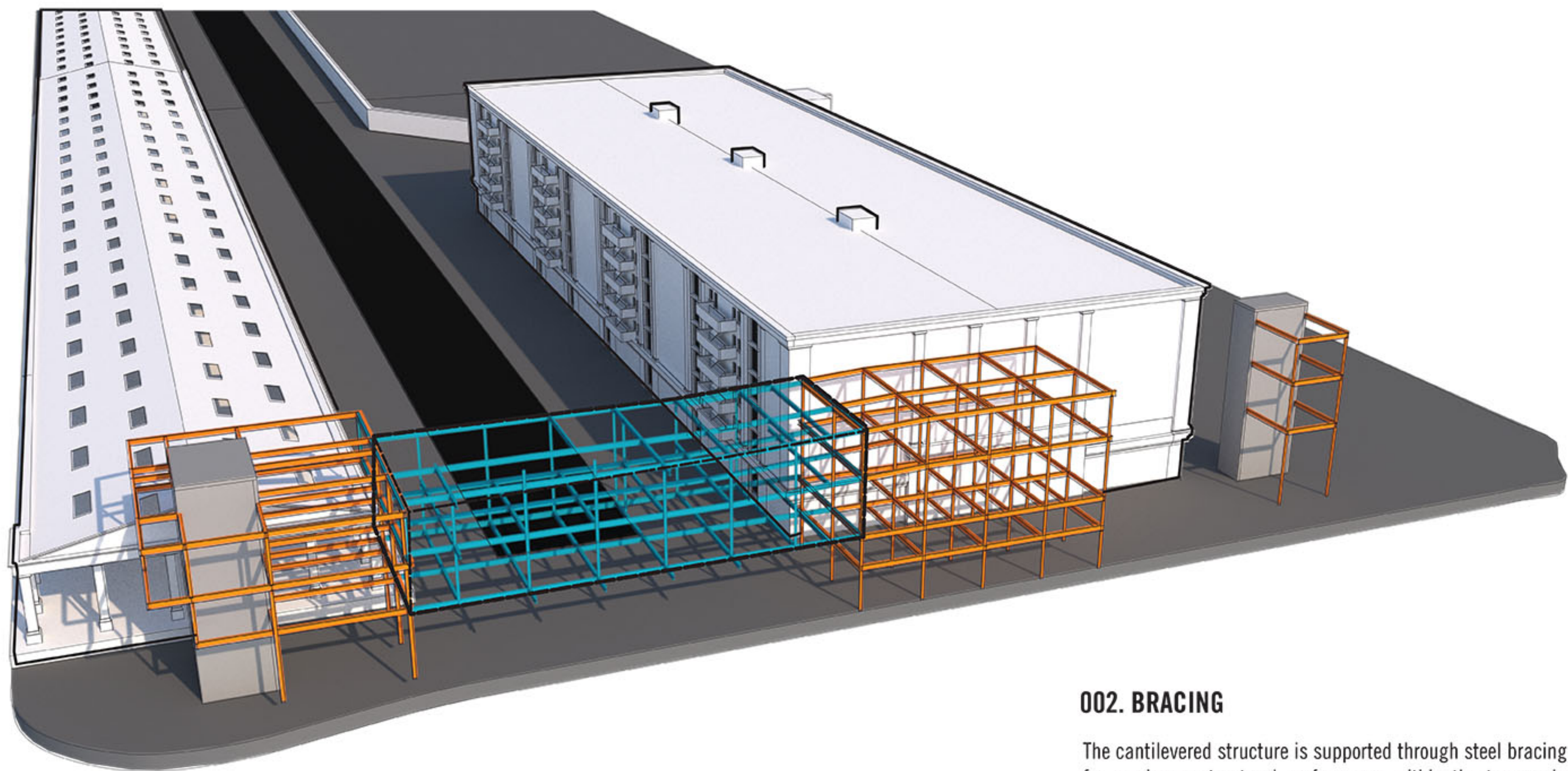
_PERMANENT HOUSING // EXTERIOR



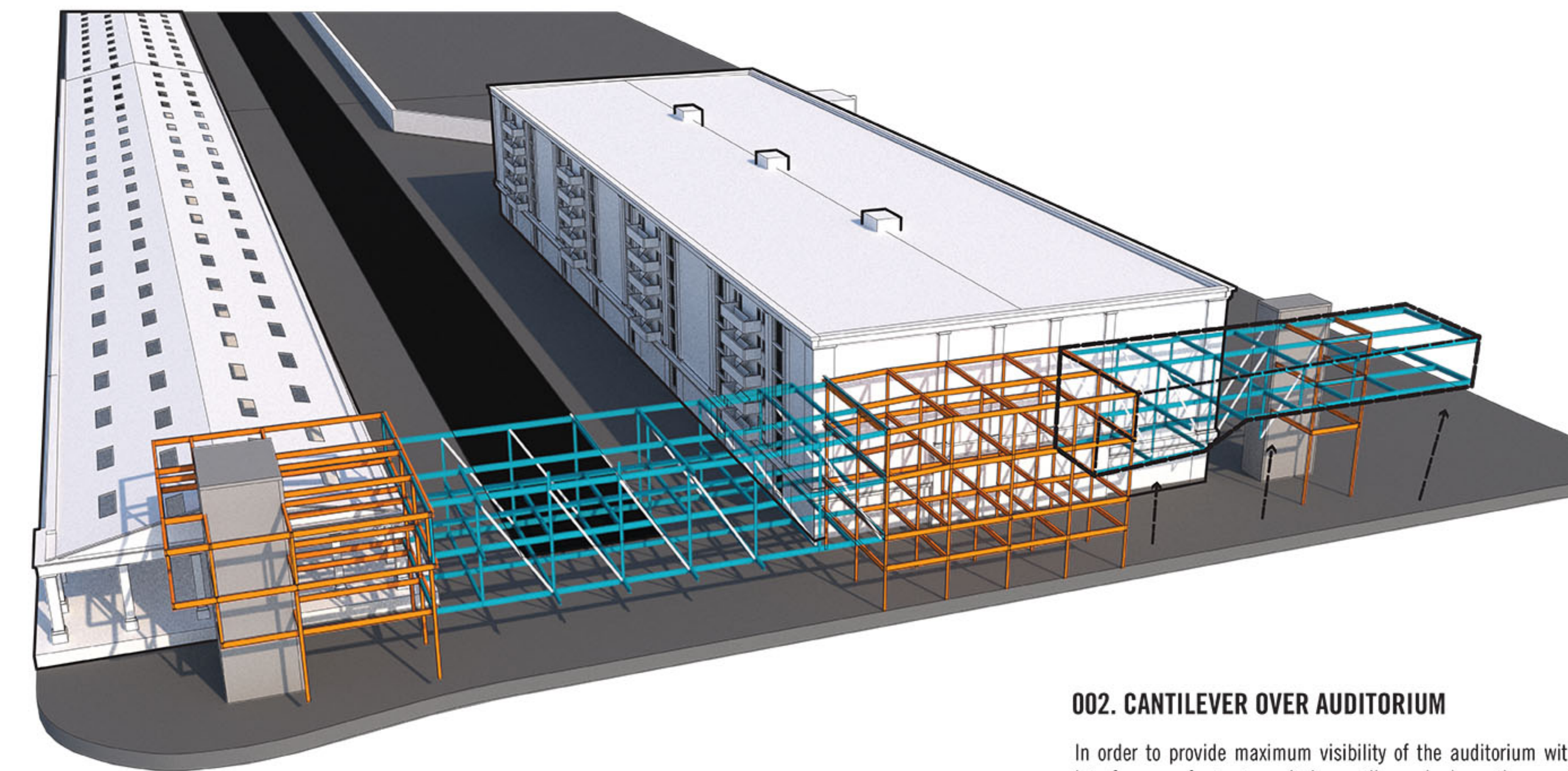
001. USING EXISTING BUILDING GRID AS REFERENCE
The existing building grid of 20' X 20' was used as a starting point for the development of the project structure. This structure consists of three steel column and beam parts that are directly connected to the ground.



002. CONNECTION
The first parts are connected through a similar post and beam system that is cantilevered.



002. BRACING
The cantilevered structure is supported through steel bracing, allowing for maximum structural performance within the two anchors of the structural system.



002. CANTILEVER OVER AUDITORIUM
In order to provide maximum visibility of the auditorium without the interference of structure, it is cantilevered above the opening. The structure is then anchored for a second time near a structural egress core.

_EGRESS AND PROGRAM ACCESSIBILITY



_FLOOR 001

_FLOOR 002



_FLOOR 003

_FLOOR 004



_PUBLIC EXTERIOR // VIEW TOWARDS SOUTH