# HARBORING INFRASTRUCTURE



Rotch Design Competition: Phase Two

### **Basis for Design**

The second phase of the 2007 Rotch design competition is dedicated to the development of a building from the point of view of its construction system, materiality, and its details. To this end, we ask you to provisionally suspend spatial or typological biases and generate a building system based on material performance, its means and methods of assembly, and joinery as a prerequisite for its morphological and organizational development.

### The System and its Exceptions

Adopting a material palette, you are to develop a logic of assembly that strategically optimizes a proposed method of construction—IE. pre-fabrication, CNC manufacturing, modular elements, among other techniques—with the idea towards the minimization of on-site fabrication, a higher speed of delivery, and the reduction of trades on the field. With this in mind, you are to develop a unit of fabrication that is the result of integrated thinking—drawing in structural, environmental, and performance criteria and reconciling them a priori, as a multi-disciplinary strategy.

The definition of the system will need to be clarified as a prerequisite for the exercise. At a minimum, you would need to demonstrate a thorough control of the building's syntax and how it propagates—how it turns corners (outside and inside), how it deals with base to wall conditions, wall to coping conditions, how it deals with its context, and the variety of transitional elements that are part and parcel of a building's conventional requirements. In addition, you would need to research a range of apertures—for light, for a view, for passage, for ventilation, or for acoustic transmission—to calibrate the ways in which the system is tolerant of figural punctures, screens, and other impositions. Ultimately, the system should also be investigated for its ability to spatialize and navigate different scales (from building block to room, from room to a public interior, and from the interior to covered outdoor spaces), with an emphasis on establishing an organic relationship between surface and space, interior and exterior, as well as structure and skin.

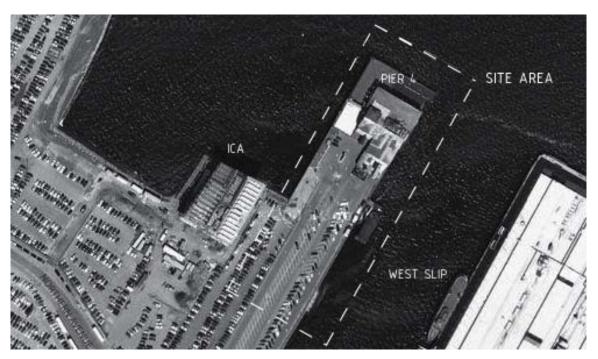
Most importantly, you will need to identify those aspects of a building that will not comply with 'systematic' thinking—anomalies, exceptions, and areas that require a heightened level of authored intervention. It is in these areas where the building may find its location on the site, identify its iconic potential, or acquire its most potent voice—and in turn demonstrate the sophistication of the architect behind it.



#### **Site and Context**

Located in the Boston Harbor, Pier 4 offers a strategic location in its proximity to the newly completed ICA, to Northern Avenue (and its connection to downtown and the World Trade Center) and its axial relationship to the Boston Convention Center. It is in this urbanistic context that the project should speculate on its relationship to the city – the streets, sidewalks, and public spaces, while also generating a prospective relationship to the water as a piece of infrastructure.

Though the site today stands relatively empty, the anticipated growth is staggering and inevitable --for the most part privileging development and the maximum build out possible. For this reason, the public mission of the site as a threshold to the water is even more important in order to publicize the waterfront and maintain a civic promenade extending from downtown through South Boston all the way to the Boston Design Center.





### **Program**

The program offers a variety of 'scales' within which the building system can be researched. It is also devised to incorporate various urbanistic components dealing with infrastructure, urban design, architecture and public interiors. While the program includes certain private components, the public mission of the site should be foregrounded in designing a threshold between the water and ground, whether interior or exterior.

Boat and Ferry Landing
Ferry Dock [6,000 sf] water's edge
Entrance Threshold
Ticket Check
Sheltered Waiting
Exposed Waiting
Private boats allowance

Terminal [4,000 sf] waiting
Outdoor Loggia
Ticket Sales
Café
Viewing Space

Men's Women's Long term Bike Storage + Showers

Public Toilets [800 sf] relief

Pier Lodging [40,000 sf] site sleepers

Lobby Small Rooms [500] ea Large Rooms [750] ea Hostel style [1500] Pool Roof Deck

Restaurant [4,000 sf] eating
Waiting
Dining
Kitchen

Infrastructure [as need] wheels
Bus Stop
Parking 30-45
Drop-off Loop

#### **Deliverables:**

The presentation is limited to five 30"x40" boards that are to be displayed side by side in the horizontal orientation. No models or projects from the boards are permitted although photographs or drawings may be mounted on the boards.

The minimum required documentations for the project are as follows:

Project description: 400 words

Site plan : 1:40"

Plans: 1:1/8" with additional plans at 1: 3/32" or 1: 1/16"

Sections: 1: 1 /4"

Detailed composite drawing 1:1/2" or larger Exploded axonometric of building components

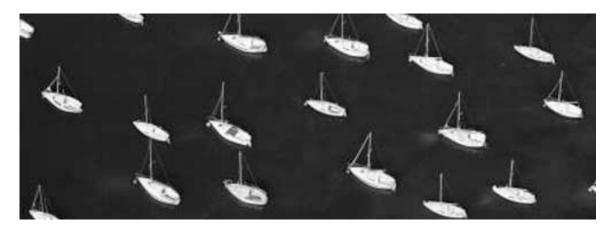
Sectional model at 1:1/2" OR detailed sectional axonometric or perspective

Perspectives or interior and exterior conditions

### **Notes:**

The jury has no preference for electronic renderings or hand drawings

Finalists should be prepared to provide high resolution pdf files of submitted drawings. The Rotch Committee reserves the right to use the drawings for publication.



### **Criteria for Evaluation**

Malleability and Versatility of System: The design should indicate a clear sense of fabrication and construction techniques necessary for its assembly. The result should demonstrate a control of the system that allows for architectural resolution and play. Further the syntax of the design and its operation as building components and public spaces shall be resolved at multiple scales and with various functions.

Contextual Integration: It is crucial to acknowledge the site of the project. The design should indicate an urbanistic approach to understanding the sites greater context within the city of Boston as well as a composed set of the required programmatic uses. The project should investigate its position amongst the urban land(and water)scape and it positioning as a forerunner in the development of the Boston Harbor area.

*Anomalies*: Moments of difference with in the system offer insight into the rules and hierarchy of the system's self inflicted constraints and tolerances. These alterations to the standards set throughout the project shall be strategically used and highlighted to emphasize the overall character of the design.

Clarity of Presentation: In selecting the winning entry, the jury will be looking for quality, completion, clarity and effectiveness of the designs intentions. Crucial to the effectiveness of the system is its ability to be understood by others and the implication that the system could be propagated further on the site, or elsewhere, by an indication of its construction, operations, and hierarchies.

## **Attachments**

The attached drawings are to provide an indication of the sense of scale and context. These documents have been provided by Diller Scofidio + Renfro

- Section of the ICA
- First Floor Plan of the ICA
- Site Plan of the ICA