Manifesto: HIGH DENSITY / HIGH POWER

This project will consider the newly mayor-endorsed initiative to renew the South Boston waterfront and the Fort Point district as the "Innovation District" by introducing a new residential project onto an existing dry-dock in Boston HarborThis project will attempt to revitalize the existing context by providing a new, iconic center for living while experimenting with newly invented residential typologies designed for the up-and-coming, highly-educated tech-generation. The project design will attempt to inventively and creatively combat the existing discrepancies between entry-level job income and Boston residential costs (including both rent and living expenses); it is this newly existing, generational discrepancy which has resulted in the current commuter communities as younger employees are unable to afford to live in the Boston.

The project will continue to consider basic contextual Bostonian waterfront architectural typologies and traditions including the town-house style residences of greater Boston, while providing a new urban center for living and working for those who have recently-entered the work force. Existing contextual fabrics will be recognized, respected and preserved, while introducing a new overlapping, cohesive plan for the area: this project will serve as this plan's source.

The project will act upon two, very realistic and economic concepts for organization and programming:

1 A New Efficient Housing Typology
+↑Efficiency (in sqft/resident) = +↑ Density = +↑Income $ = +↑Profit $
→ +↑Density = +↓Cost (Rent)

The higher the rate of efficiency (not including already optimized communal circulation) per resident, the greater the possible density and the greater potential for income and profit. This results in providing a baseline of income, exceeding the necessary baseline density (number of residents), resulting in a lower minimum necessary rent per resident.

A new form of living efficiency must be studied. The economics of density has already begun to transform living environments in cities like Honk Kong, Bangkok and Shanghai; cities in which such extreme densities have limited the available area per resident.

Howeverif such density (perhaps not to such an extreme) is intentionally designed, and controlled, it provides an opportunity and a potential to create economically feasible (for both contractor/developer and resident) low-priced housing.

2. A New Mixed-Use Typology:
+↑ % Commercial Program = +↑ Commercial Cost (Rent) = +↑Profit $
→ = +↓ % Residential Program
AND +↓Residential Cost (Rent)

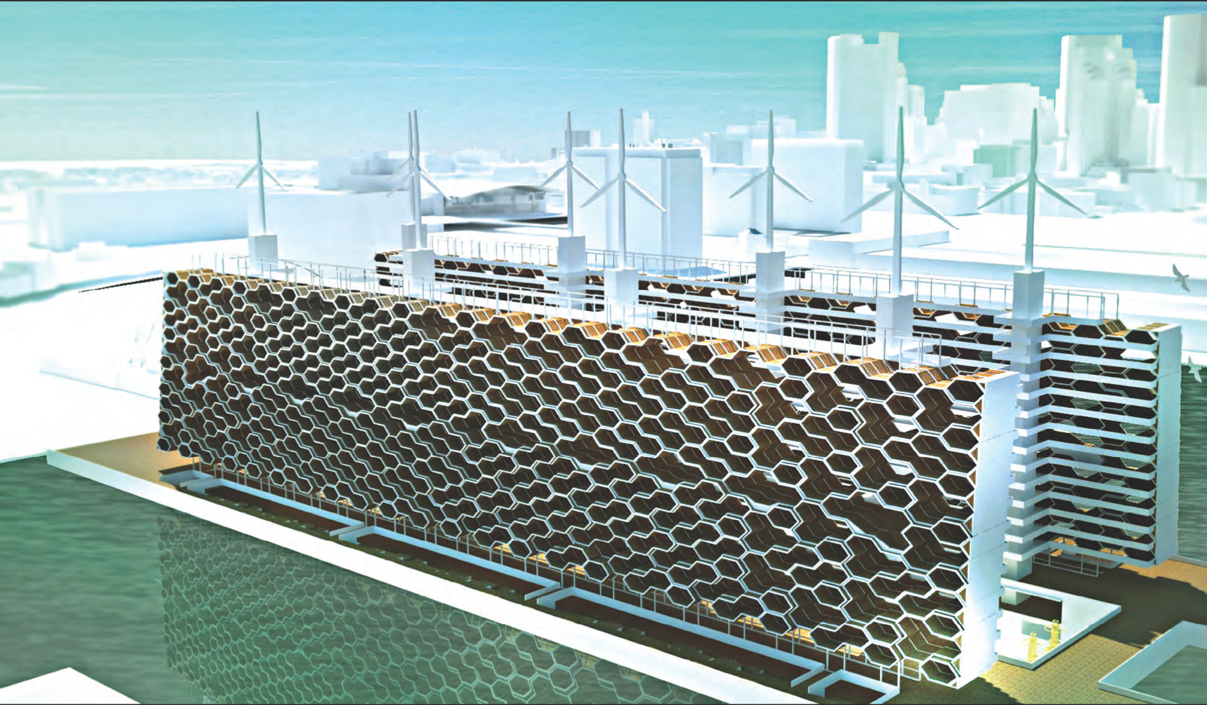
The concept of a mixed-use typology or a 'profit subsidized' typology is not new or imaginative. When taken down to its bare essentials, the project aims to incorporate a larger percentage (than typical in a residential scheme) of commercial program (a larger sqft) at a high-level rent in order to compensate for the lower-level residential rents. This design is often used when the site provides a larger than necessary sqft for the intended residences and therefore a larger potential for profit by leasing unused or vacant space to commercial or industrial ventures (although these spaces must be designed for such intended use or for extreme flexibility).

Howeverif one were to modify the intended 'subsidy' by substituting a less detrimental program, one which would have less of an impact on the project and its image as a whole (both physical and conceptual, and which would utilize less useable sqft (useable for residential density), a near-perfect median equation for both profit, subsidy and density could be found.

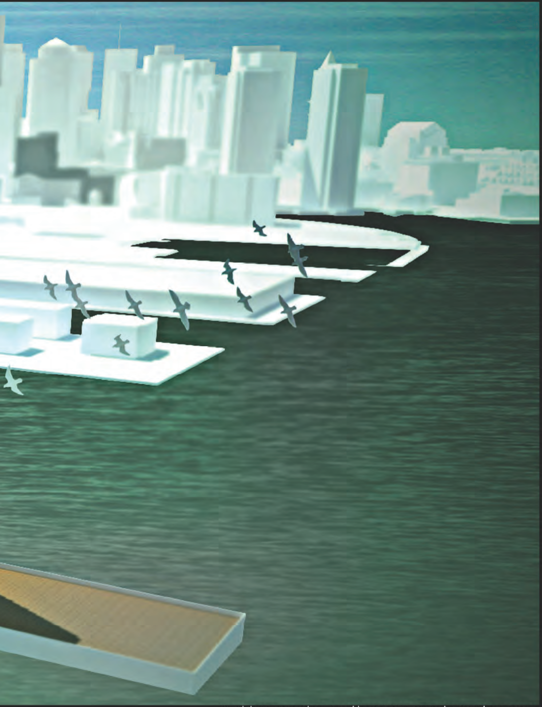
The particulars of the site in South Boston Harbor and the conceptual aspects of the project and the newly formed innovation district all lend themselves towards a not previously attempted endeavor:

The dense, efficient, residential complex will be built around an embedded, eco-friendly (and resident friendly) green, renewable energy plant which utilizes solar, coastal hydro and wind power (all designed as part of the 'typical' residential experience) in order to lower residential costs by providing energy to the residents as well as generating enough excess energy to subsidize the complex by selling energy back to the city of Boston. These technologies will be embedded and designed to utilize previously unusable areas on the project site, allowing optimum residential programmatic density and ensuring maximum profit and minimum residential costs.

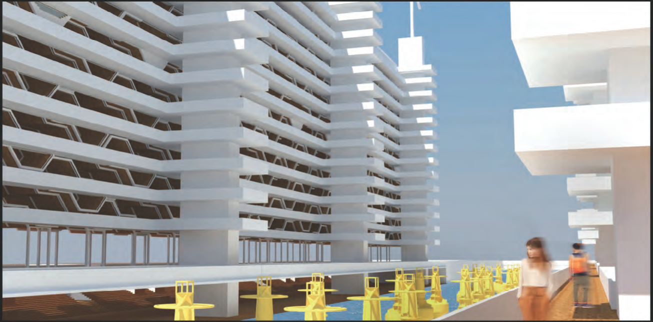
HIGH DENSITY - HIG



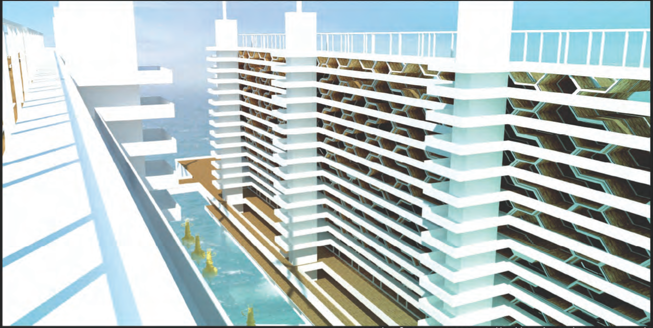
H POWER



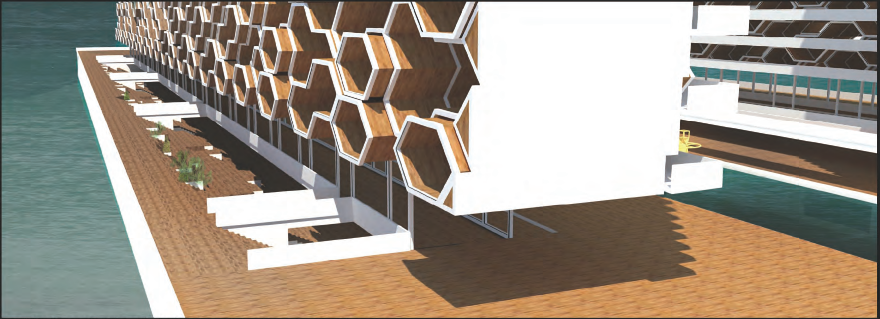
Aerial Perspective - Looking NW towards North Boston



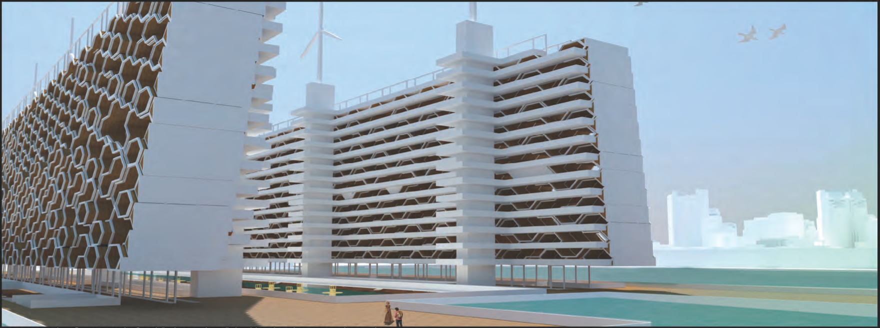
Boardwalk Perspective



Perspective from Upper Level looking down into Dry Dock

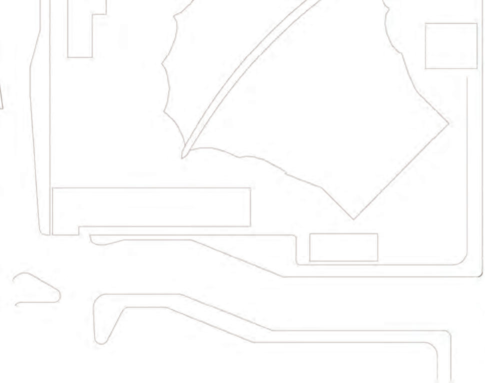


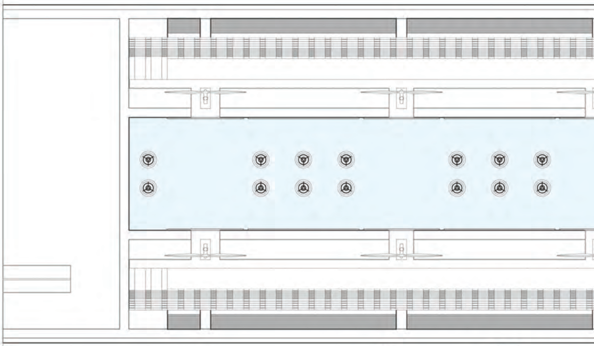
Aerial Perspective along dock showing sub-level entry and public space.

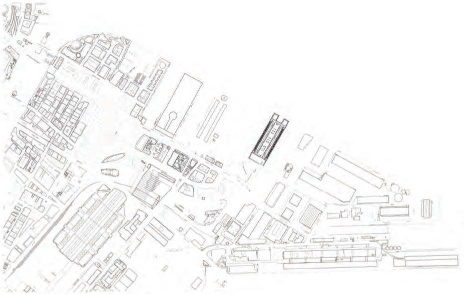


Perspective from end of public boardwalk looking back towards project.

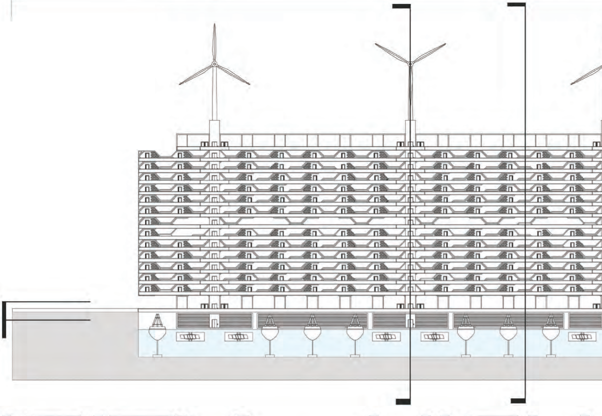
MARK IOVIENO
GRAD STUDIO ARCH 515.04
HOUSING TYPOLOGY STUDY - BOSTON WATERFRONT
"INNOVATION DISTRICT"



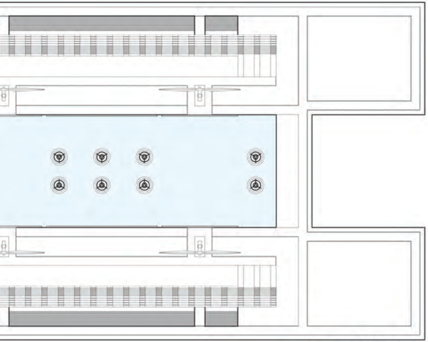




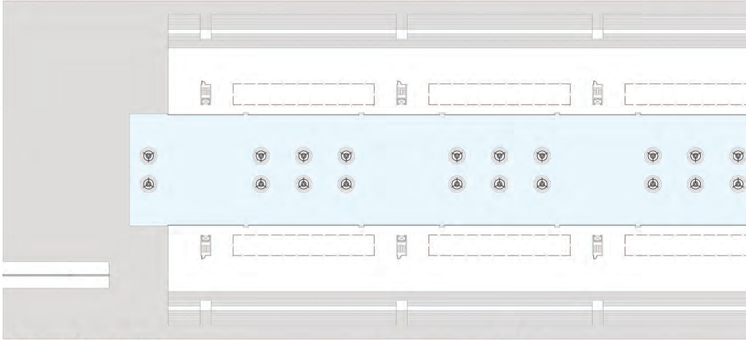
Siteplan at 1:500 Scale



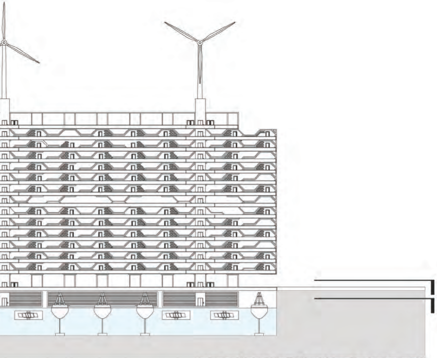
HIGH DENSITY - HIGH



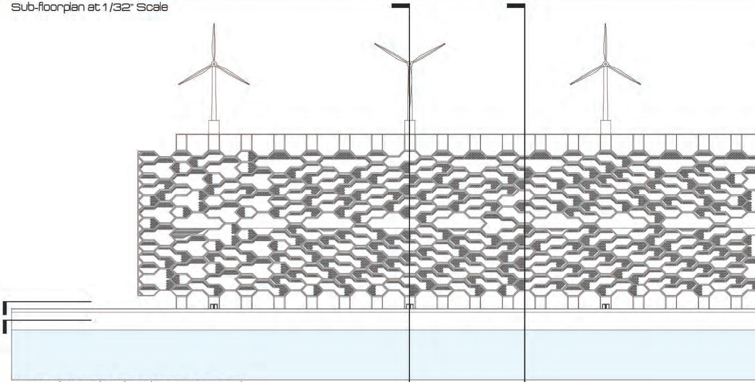
Siteplan at 1/32" Scale



Sub-floorplan at 1/32" Scale

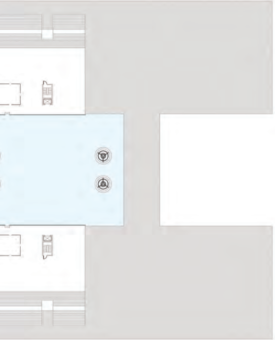


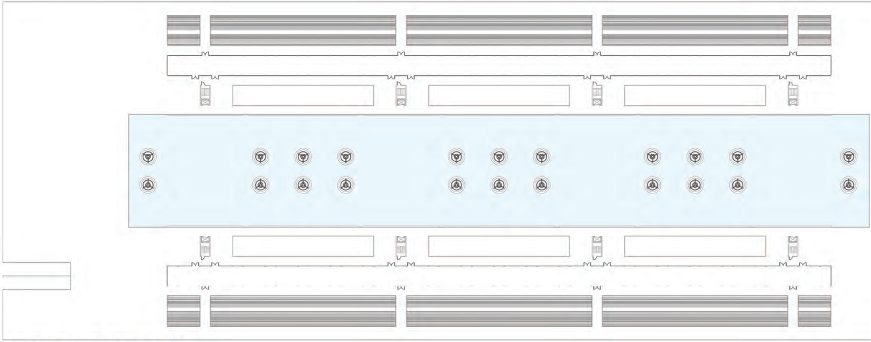
Dry Dock Interior Elevation at 1/32" Scale



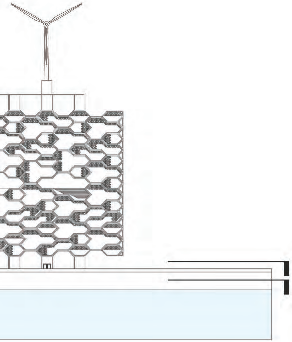
Dry Dock Exterior Elevation at 1/32" Scale

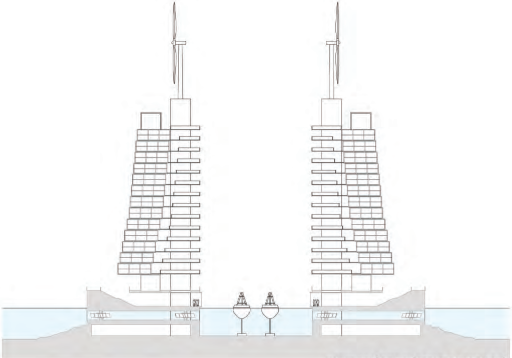
POWER



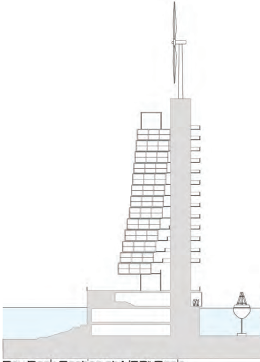


Ground-floorplan at 1/32" Scale

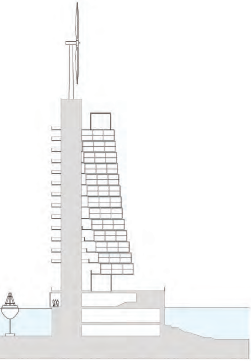


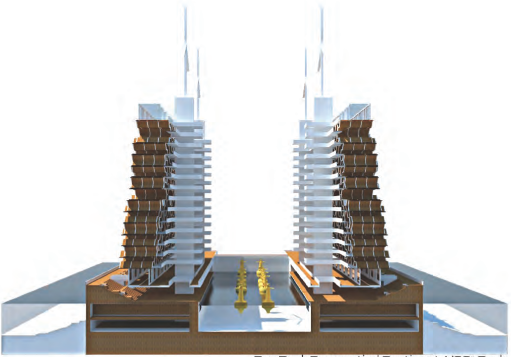


Dry Dock Section at 1/32" Scale



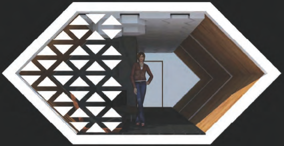
Dry Dock Section at 1/32" Scale



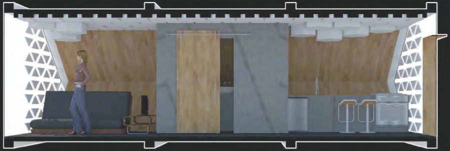


Dry Dock Perspectival Section at 1/32" Scale

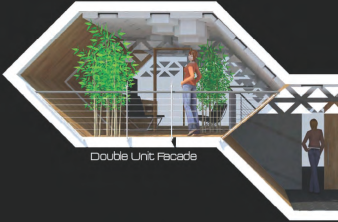
MARK IOVIENO
GRAD STUDIO ARCH 515.04
HOUSING TYPOLOGY STUDY - BOSTON WATERFRONT
"INNOVATION DISTRICT"



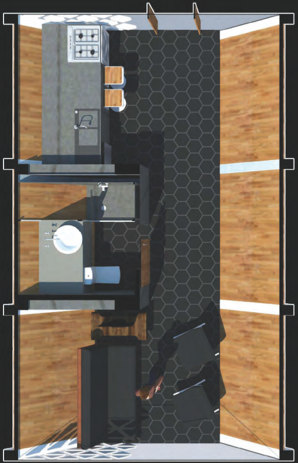
Single Unit Facade



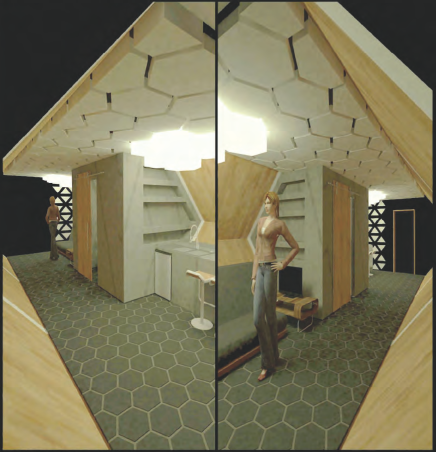
Single Unit Section



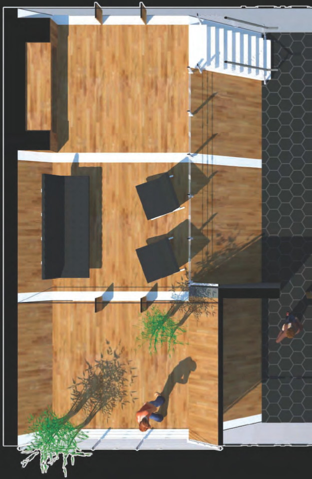
Double Unit Facade



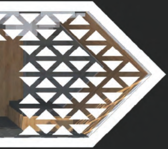
Single Unit Plan

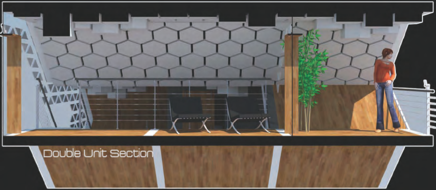


Single Unit Perspectives



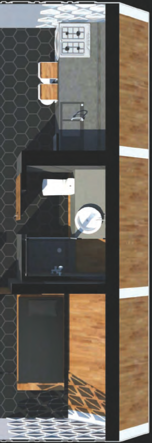
HIGH DENSITY - HIGH P



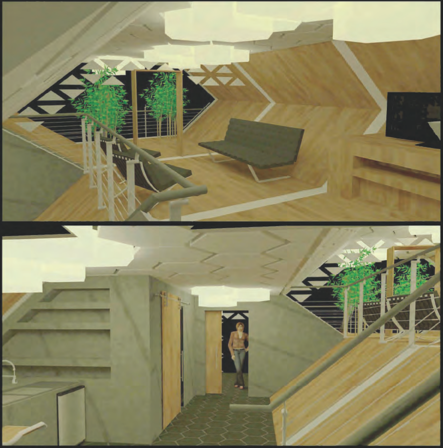


Double Unit Section

Triple

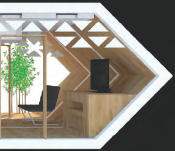


Double Unit Plan

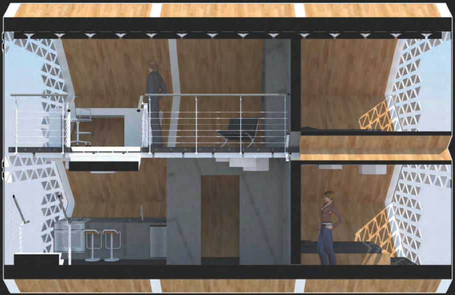


Double Unit Perspectives

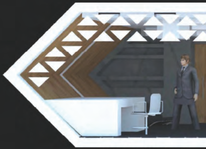
OWER



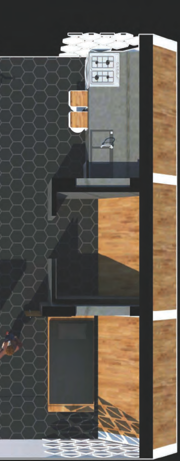
Unit Facade



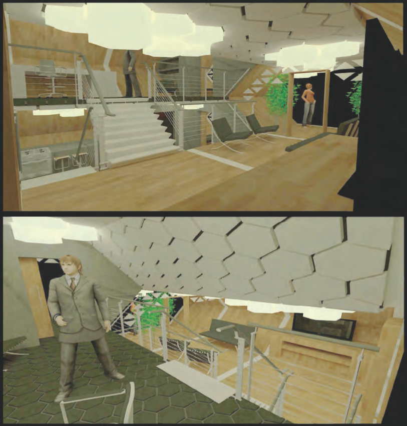
Triple Unit Section



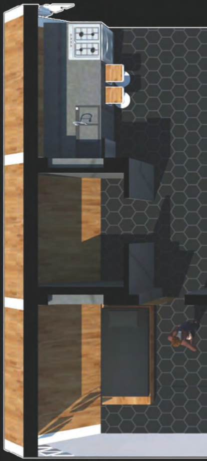
Quad Unit Facade



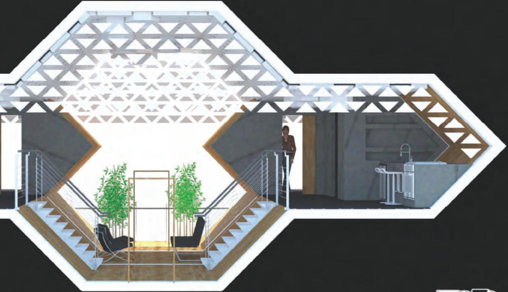
Triple Unit Plan

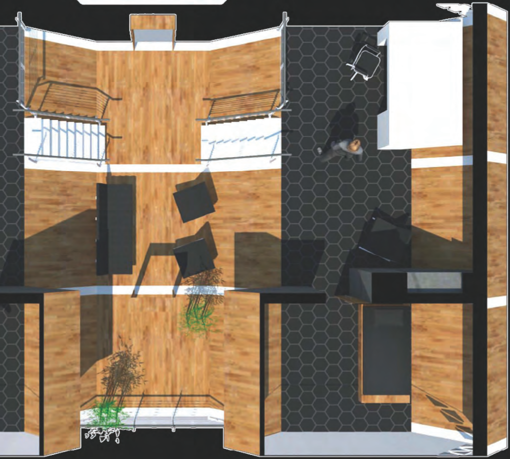


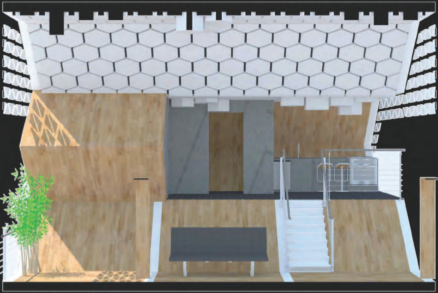
Triple Unit Perspectives



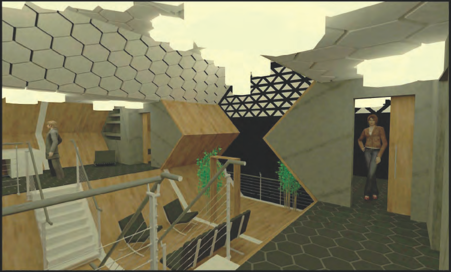
Quad Unit Plan







Quad Unit Section



Quad Unit Perspective

MARK IOVIENO
GRAD STUDIO ARCH 515.04
HOUSING TYPOLOGY STUDY - BOSTON WATERFRONT
"INNOVATION DISTRICT"