

CRE/MIT School of Architecture and Planning
Spring, 2020

4.254J/11.303J Real Estate Development Studio

Monday, Wednesday 2:30-5:30 PM (plus workshops, and field trips, see schedule), Room 10-485

Kairos Shen, Lecturer in Real Estate Development
James Doolin, Lecturer in Real Estate Development
Christopher Whittier, Finance TA
Minkoo Kang, Design TA

Objectives

This subject provides students with skills and experience in synthesizing mixed-use real estate development projects. It addresses the interaction among design, finance, market and public policy factors. As potential developers, or participants in the development process, students need to understand: *steps* in conceiving a project, what is *good design* in the private sector, how to make it *financially viable*, and how to *synthesize a project* from multiple constraints. The course is based on the philosophy that real estate development is a creative process. Students are encouraged to *innovate* as they synthesize all aspects of a project.

The subject is oriented to students who have already taken Real Estate Products and Real Estate Finance, although these are not prerequisites. We will also accept a limited number of additional students who bring skills in architecture, city planning, urban design or other disciplines related to real estate. This policy reflects the reality that development is a team effort requiring multiple disciplines. In the past, students from many backgrounds have benefited from, and contributed greatly to the class.

At the end, we expect students to submit a professional proposal for development that reflects their ingenuity and progress across the term.

Format

Real Estate Development (4.254j/11.303j) is a studio. This means we will learn mainly by doing. In a series of exercises, students will be presented with typical development issues that they must evaluate and respond to in the process of synthesizing a project. The exercises require decisions about:

- *Site and context* -- Recognizing real estate development opportunities and constraints inherent in a given location.
- *Development program* -- Arriving at a use, or mix of uses that best responds to the site, market, and public policy constraints.
- *Project design* – Creating a site organization, urban form, image, and collection of places that maximizes benefits to the project and its surrounding community
- *Economic feasibility* – Designing a project works financially over time, managing risk while maximizing opportunities for future value creation.

The exercises will be supplemented by lectures, skills workshops, and field trips. These will provide background information, as well as exposure to the design and development process. Written material relating to each exercise, studio seminars, and case studies will be posted on the course Stellar web site. Workshops on Monday evenings provide instruction and practice in key skill areas.

Organization

The semester will be divided into two parts:

- In part 1, we will take a close look at the anatomy of a mixed-use real estate project by **re-engineering an existing development**, considering its physical, programmatic and financial elements. Using case examples in Boston and New York, student teams will be challenged to understand what makes the project work (or not) and then to recommend changes that would enhance its value across several dimensions. Changes may involve redesign, expansion, mix-of-use, marketing, or income generation strategies. Students will select cases for study from among those suggested by the instructors, or may propose their own. (3.5 weeks)
- In part 2, students will use the knowledge they have gained to prepare a professional **development proposal for a mixed-use project**. Multidisciplinary development teams will respond to a “Request for Proposals” for development. We will begin by developing information about the site, its context, and regulatory constraints, as well as markets for industrial, residential, commercial, and hotel uses. We will synthesize a development proposal in a series of steps that narrow down options, emphasizing the creation of value through innovation in real estate product types, design, finance, or technology. Teams will be expected to produce a professional quality proposal that covers all aspects of the project – design, program, finance, market, entitlement strategy, and deal structure. The proposals will be presented to a panel of real estate and design professionals for their review. (10 weeks)

Project Description

Our project this term is located along the **Fort Point Channel in South Boston** in an area historically known as **The 100 Acres** (a major landfill in the 19th century). The area includes the Gillette Company’s major manufacturing facility, GE’s new World Headquarters, significant 19th century warehouses, and parking and maintenance yards owned by the US Postal Service. The area is adjacent to the Convention Center, subway stops on the Red Line, South Station, and two interstate highways, and is located 10 minutes from Logan airport. Despite these advantages, of the 100 Acres, 28 of them remain open and as yet undeveloped, even as the rest of South Boston has seen tremendous growth. In 2019, however, there were a series of significant land transactions within the 100A that anticipate significant development in the near future. The Boston Planning and Development Agency (BPDA) is interested in leveraging this strong real estate market to develop a publically oriented, mixed-use waterfront district. Teams will be asked to identify and assemble parcels of approximately 5 Acres for development, to prepare a program acceptable to powerful stakeholders, and design an attractive, financially feasible project.

Requirements

Much of the learning in this subject will come from interactions with fellow students and with the faculty. **Participation in studio sessions, field trips, and workshops is required, unless otherwise noted.** Teams will have assigned desks in 10-485, and work on the exercises should be done in the studio to the degree possible.

Each team member will be required to prepare a self-evaluation, and to evaluate the contribution of other members of their team to required products. Final grades for the subject will be determined as follows:

- Class participation and "teamwork" 25%
- Assignment 1: De-engineering 25%
- Assignment 2a: 100 Acres site, market, strategies 10%
- Assignment 2b: Physical / financial plan 10%
- Assignment 2c: Final Development Proposal 30%

Faculty

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Christopher Whittier
Teaching Assistant, Finance

Minkoo Kang
Teaching Assistant, Design

Room 10-485

You will have a work place in 10-485 for use during the semester. It is your personal responsibility to ensure that no damage occurs to the furniture or equipment provided for use during the semester. **No cutting, drawing, gluing, or other work should take place directly on tabletops in the studio.** Please see the design TA about use of proper cutting surfaces. Spray paint is prohibited. The seminar room table must not be used for studio work.

Everyone is responsible for security in the space. The rear door will be closed and locked at all times. The front door will be locked and alarmed after 5:00. All students in the class will have key card access to the space.

MIT Notes

Disabilities. If you have a documented disability, or any other problem you think may affect your ability to perform in class, please see the instructor early in the semester so that arrangements may be made to accommodate you.

Academic Integrity. Plagiarism and cheating are not acceptable. Never (1) turn in an assignment that is not your own work, or products that do not include your own work as part of team assignment (2) turn in an assignment for this class that you previously turned in for another class, or (3) cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension. Please see the instructor if you have any questions about what constitutes plagiarism.