URBANbuild 12 www.URBANbuild.tulane.edu
APFC - 4320 Professional Concerns / ATCS – 6320 URBANbuild Technologies
Structure, Coordination and Professional Concerns
Spring 2016 / 2017
Instructors: Byron Mouton and John Tyler Young

Credits APFC 4320 3 credits and ATCS 6320 3 credits

Introduction Construction of URBANbuild Prototype #12 - 1924 Toledano, Central City NOLA

As a continuation of the TSA's URBANbuild Design/Build research program, the fall design studio (DSGN 4100) concentrated on the development of single family dwelling prototypes, and one was chosen for construction. *Neighborhood Housing Services of New Orleans*, a respected *Community Development Corporation (CDC)*, has provided a site for the realization of students' efforts.

Work and research will be conducted at the scale of dwelling and fabrication - focusing on material issues and the coordination of related trades and subcontractors. Eleven projects have already been designed and constructed by the School's URBANbuild program, and students will continue to build upon the lessons learned by those accomplishments.

A two bedroom, two bath home of approximately 1,000 square feet will be constructed. Students will gain 'hands on' experience with materials and architectural systems while also being responsible for the coordination of group efforts; this is an opportunity to develop methods of professional conduct, expectation and responsibility.

Program

As a continuation of research and developments initiated in the URBANbuild design studio (DSGN 4100), design / build activities are carefully coordinated in effort to satisfy the requirements of two courses: (1) APFC - 4320 Professional Concerns and (2) ATCS – 6320 URBANbuild Technologies

Ground breaking will occur January 2017, and construction will occur through the spring semester. The construction team will consist of both 'full time' and 'part time' participants. Construction is to be completed by early May 2017.

Previous design-build projects have relied upon familiar wood framing systems, prefabricated modular assemblies, panelized metal framed systems and energy efficient 'Structural Insulated Panel Systems' (SIPS). This project will rely upon the use of familiar wood framing systems in combination with applied insulation systems. Advising will be provided by various subcontractors and product representatives.

Objectives

These course activities will require each student to demonstrate a range of abilities, and an awareness of important issues and knowledge. The research will allow students to address and solve problems of coordination and construction at varying scales. At the same time, events will continue to emphasize considerations that transcend practicality, such as spatial definition and hierarchy, formal composition, massing, proportion, and other aesthetic and psychological issues.

Course structure

The scheduling and execution of multiple phases of construction will be pursued throughout the semester and critical benchmarks will be established in effort to maintain that schedule. The schedule will require periodic updating and revision; however, the completion date of early May will be maintained.

Construction requirements will build throughout the semester so that each stage of development will be an extension, and sometimes a revision of previous achievements. Only in this way can the desired levels of detail and resolution be achieved by the end of the course. Students will be responsible for all previous sets of requirements at each subsequent stage.

Review

Structured participation will be required in review of construction accomplishments and the consideration of revision. Students will be called upon to critique the work of their peers as well as to present alternative solutions. This interaction will form a part of the semester's grade.

Presentation

At this point in the curriculum it is vital that students be able to communicate proposals and ideas thoroughly and persuasively. This coursework also allows students to recognize their ideas and efforts through the careful execution of fabrication details. Periodically, during the construction process, design developments and alternative options will be required for consideration. It is expected that all proposed options be presented legibly for group discussion and consideration.

Meeting time

8:00 am Monday through Saturday. The length of workdays will vary and end sometime between 5:00 and 6:00 pm. Work on selected Sundays may sometimes be required. Weekly goals will be established, but flexibility will need to be maintained due to delays caused by weather, late material deliveries, or similar events.

The physical work will be demanding at times, but it is critical that students work carefully. It is expected that all work be conducted with safety as a priority. When faced with the option of getting something done fast rather than safely, it is required that students choose to take their time and ask for assistance or guidance.

Course expectations

Students are expected to work regularly and productively in fulfillment of the project schedule. All work will be the product of team efforts, but individual efforts will be recognized through qualities of leadership, collaboration and the initiation of 'problem solving' efforts.

The beginning of the work day, the scheduling of lunch breaks and the conclusion of each work day are to be respected by every 'full time' course participant. Work days may sometimes extend beyond the scheduled hours. Absence for medical reasons or family emergencies should be requested as soon after the event as possible and in advance of project deadlines, and should be supported by proper documentation. It is occasionally necessary to change deadlines and specific requirements. Such changes will be made with as much notice as possible, but may occasionally be made at short notice to ensure the productive continuity of the program. Students should stay in touch with each other to be aware of any such changes.

Safety

In effort to maintain a safe work setting, the construction site is to always be kept as clear as possible. Tools are to be cared for and maintained with the highest level of quality possible; the 'onsite' storage container is to be kept as clear and organized as possible. Instructors will direct the maintenance of site and equipment.

Proper protective footwear is to be worn at all times on site, eye protection is to be worn when operating dangerous equipment of performing dangerous tasks. When construction activities are being conducted overhead, or when working in the proximity of objects that could overturn – students are to wear protective hard hats. Students should always be aware of their surroundings and the activities of others. Do not hesitate to offer assistance or ask for assistance when needed!

Unless a supervised event is coordinated by course instructors, no alcoholic beverages are allowed on site. Standard university policies of acceptable behavior are to be respected. Unsafe or unprofessional behavior will not be tolerated and may lead to immediate course expulsion.

Tools

Each student is to possess and maintain specified tools and equipment of their own; examples of these tools will be provided on the first day of class.

They are to minimally consist of the following:

1. Protective eyewear / Safety hard hat / Steel toe boots
2. Slim form fitting work gloves
3. Tool belt – it is recommended that tool belts outfitted with a standard metal buckle rather than a plastic 'slip and clip' buckle be purchased. The metal buckles are more durable and less likely to fail.
4. Hammer – 20 oz minimum
5. 30' tape measure
6. Utility knife – with replacement blades
7. Small framing square
8. Construction pencils / sharpies
9. Small 'cats claw' pry bar
10. Screw driver – 6 in 1 reversible type

It may not be necessary to carry all tools at all times, but they should be available when needed

Attendance

Attendance at all course sessions, events, and discussions (full duration) is expected, and is assessed in the final course grade. In accordance with School policy, any unavoidable absence should be cleared in advance with the Instructor; three unexcused absences constitute a failure in the course.

Incomplete and Late work

In accordance with School policy, work that is not adequately represented will not be discussed in reviews. Late work will only be accepted with the permission of the Instructor. Late work submitted after the final day of classes is not acceptable without written permission from the Dean. Any late work accepted will be penalized 10% for the first day of lateness, and 5% per day thereafter. (The first day of lateness begins immediately after the deadline, and weekends are counted). Extensions for medical reasons or family emergencies should be requested as soon after the event as possible and in advance of the deadline, and must be supported by adequate documentation.

Photographic documentation

Each student shall maintain photographic documentation of the construction process in effort to describe the progress of construction. Photographic viewpoints are to be established at the onset of construction in anticipation of an 'assembled' series of construction images. All progress photographs should be taken from that same point of view, therefore the initial selection of those points must anticipate the scale of the final product. Both exterior and interior documentation is required.

evaluation criteria

This research will require each student to demonstrate a range of abilities, and understandings, as well as an awareness of important issues. Assignments will be evaluated on the student's success in fulfilling the general objectives of the course, the specific objectives of each phase of construction, and mandatory requirements. Students should note that meeting the letter of the assignment's objectives adequately will not necessarily result in more than a passing grade. While functional and technical aspects of the projects are subject to empirical assessment, qualitative assessment of coursework is subject to the judgment of the Instructor, according to professional and disciplinary standards. A creative and insightful response to assignments will receive a correspondingly higher grade. Perceptual acuity, conceptual refinement, intellectual rigor, and critical judgment will be expected in each student's work; aesthetic and theoretical sophistication are expected to increase over time. Throughout the semester, there will be an emphasis on consistently advancing the quality and clarity of project coordination and physical execution.

course schedule

The construction schedule will require periodic revision.