

Twin Peaks: Forging New Collaborations in the Design of Affordable Housing

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Forging new territory and new collaborations is a constant negotiation in the world of affordable housing. For the City of Syracuse Habitat for Humanity chapter, the common outcome is to take what is donated which can easily lead to sub-par standards of construction. But two years ago, Habitat approached Assistant Professors at Syracuse University to design a single family house with better quality, durable materials and more sustainable construction methods. New collaborations within the community established two Habitat houses as a catalyst for a “Living Classroom,” that brings together architects, engineers, local trades, and volunteers to redefine methods of construction and collaboration for affordable single family housing. We collaborated with the local MCAA chapter (Mason Contractors Association of America), to find new design potential using CMU as the structural material in the two residential homes.

The conceptual goals of the project were based on having to design the house with a combination of CMU and typical stick frame details. The merging of two materials not commonly intertwined in residential construction became a benefit to the design by introducing strategies that negotiate the materials in productive ways. For example, there is ‘fat’ trim negotiating the residential wood windows and the CMU for ease of replacement window installation. Also, Dryvit is applied in colored checkered patterns on the facade to hide future patch work (if it becomes discolored or damaged). Lastly, jigs are used to cut intricate patterns in the hardie board siding to bring a unique quality to a ‘banal’ storage space in the front facade. The paint is applied to create an ombre affect to make the front entry appear taller and bring more prominence to the street facade.

TWIN PEAKS

FORGING NEW COLLABORATIONS IN THE DESIGN OF AFFORDABLE HOUSING

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EXTERIOR RENDERING WITH GUY AND JAMES HANDE BOARD ORNAMENTAL FACADE



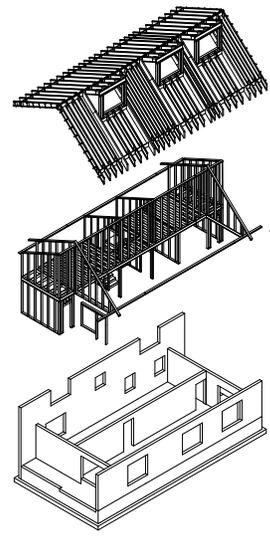
HOUSES CURRENTLY UNDER CONSTRUCTION

SIDE ELEVATIONS - HOUSE 1
THE ELEVATIONS REVEAL THE CHECKERBOARD PATTERNING OF BRICK TO DISGUISE FUTURE CHANGES / CHANGE / PATCHWORK FROM THE FACADE

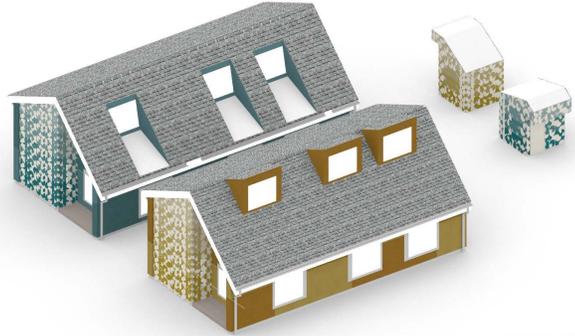
SIDE ELEVATIONS - HOUSE 2

FRONT AND BACK ELEVATIONS

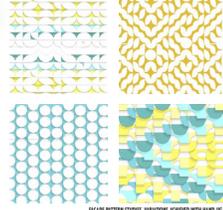
JIG CONSTRUCTION, INTERCHANGEABLE ELEMENTS FOR WOOD FACADE PATTERN
THEY ALLOW EASY AND PROMPTNESS TO THE HOUSES



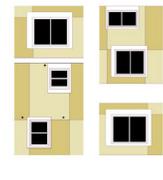
ROOF FRAMING
INTERIOR AND PORCH FRAMING
CMU LOAD BEARING DETAILS



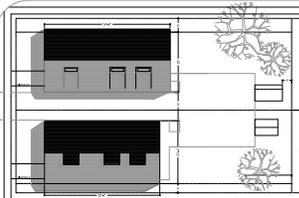
AXONOMETRIC OF HOUSES AND SHEDS



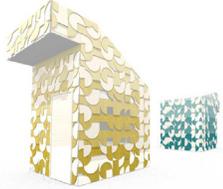
FACADE PATTERN SWATCHES, MARKINGS ACHIEVED WITH HAND JIGS



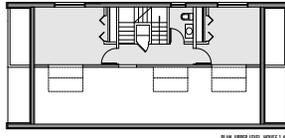
NEGOTIATING CMU OPENINGS VS. RESIDENTIAL WOOD WINDOW WITH OFFSET 'FAT' TRIM DETAILS, WINDOWS CAN BE EASILY REMOVED WITHOUT DISRUPTING CMU SYSTEM



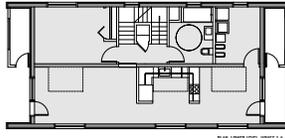
FLOOR PLAN OF TWO HOUSES AND MINI-BARN BACKYARD SHEDS



WITH AN GARDEN SHEDS



PLAN, UPPER LEVEL, HOUSE 1 & 2



PLAN, LOWER LEVEL, HOUSE 1 & 2



INTERIOR LIVING SPACE, UNDER CONSTRUCTION, HOUSE 1



INTERIOR LIVING SPACE, UNDER CONSTRUCTION, HOUSE 2