

XL - M - XS

A Farmer's Market Building at Hazelwood Green Semester 1 of a Yearlong Design/ Build Studio

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QUESTIONS

According to the USDA National Farmers Market Directory, “the number of markets in the U.S. has grown dramatically between 1994 and 2019, from roughly 1,755 to over 8,700 markets, an astounding 397 percent increase.”¹ Farmer’s markets have the potential to positively re-configure national, local and regional food eco-systems, to mitigate the effects of food deserts and to improve social and economic justice. A well integrated facility can create community identity and become a much needed social gathering place for a neighborhood.

_How would a new farmer’s market facility impact the proposed development at Hazelwood Green (HG) and the Greater Hazelwood neighborhood?

_Can a well integrated building advance the sustainability, resilience and innovation goals of HG?

PROMPT

Farmer’s Market buildings have a long tradition around the world and today present a unique challenge for architects. Their design spans the domains of urban design, public space making, neighborhood revitalization, social planning and the food eco-system, in addition to the critical issues of sustainability and resilience. The fall semester of the 4th year in the B.Arch program is focused on issues of building integration. This studio will consider the broader community and urban questions but be laser focused on the issues of building integration. The current generation of market buildings tend to provide greater spatial flexibility than in previous eras to not only support the basic marketing functions but also to support the community - from to performance to gardening. Minimizing internal vertical supports is a good strategy for spatial flexibility, so our form finding concepts will be developed as vector-active or form-active structural concepts to create clear spans integrating efficiency, elegance and economy. Further, our environmental concepts will be focused on maximizing passive conditioning and our constructability concepts will be based on Design for Disassembly (DfD).

The “XS” pavilion will form the basis of the campus Design/ Build Studio in Spring 2023

CONTEXT

The project site is a 178 acre former industrial site known as Hazelwood Green situated along the Monongahela River. In the early 2000’s, Almono LP assembled multiple abandoned industrial properties in the Greater Hazelwood neighborhood to have greater control in creating and implementing a comprehensive redevelopment strategy for the site. According to their website, “Hazelwood Green is envisioned as a model for the transformative redevelopment of an urban brown field into a center of innovation that fuels Pittsburgh’s new economy while remaining grounded in the principles of sustainability, equity, and inclusive economic opportunity.” To the greatest extent possible, we will follow the 30 August 2018 Hazelwood Green Preliminary Land Development Plan.



Hazelwood Green Preliminary Land Development Plan
Image Copyright: Depiction LLC 2018

(1) Albright, Kathryn Clarke. *Exploring the Architecture of Place in America's Farmers Markets*. Cincinnati, Ohio: University of Cincinnati Press, 2020.



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Team Structure

Assuming twelve students, we will divide into four three-person teams. The suggested team responsibilities are one person each as project manager for XL, M and XS and one person each as project manager for structure, enclosure and MEP. The project managers are ultimately responsible making team assignments and producing the deliverables.

Field Trips

- _East Liberty Farmers Market, Pittsburgh, PA (Saturdays 600-am-1200pm)
- _Main Street Farmers Market, Washington PA (Thursday’s 300-600pm)
- _West Side Market (43,560 ft²), Ohio City, Cleveland, OH
- _Lancaster Central Market (87,120 ft²), Lancaster, PA
- And maybe the:
 - _Reading Terminal Market (78,000 ft²), Philadelphia, PA



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PROGRAM

The specific project for this studio is the design of a 50,000 sf farmer’s market on Block 48 (1.81 acres, 78,847 sf) at Hazelwood Green. We will consider the German concept of “Haus in Haus” by designing the “XL” market building as the outer “Haus” and the “M” services building and the “XS” pavilions as the inner “Häuser”.

Program:

- XL - 30,000 sf enclosed farmers market with clear span structure (“Haus”)
- M - 3,000 sf enclosed services building (toilets, mechanical, office, cold storage) (“Haus in Haus”)
- XS - 300 sf open-air, pavilion-like prototypes for seating, eating, conversation, etc (“Object in Haus”)

Work Products:

ArchiCAD BIM, multiple form finding models, environmental testing models and einz-zu-einz prototypes of important details.

LEARNING OUTCOMES

The following criteria will be used to evaluate student work in this studio:

- _Aesthetics: The degree to which the proposed building responds to formal issues as articulated in this and prior design studios.
- _Experience: The degree to which the design uses a thoughtful narrative and carefully articulated spaces to create meaningful experiences for the user.
- _Structure, Enclosure & Materials: The degree to which the set of selected building materials, components and systems and their proposed implementation are appropriate to the intended occupancy, articulate the desired architectural order, and satisfy the physical design requirements.
- _Environment: The degree to which the design integrates passive and active strategies to achieve triple bottom line performance.
- _Constructability: The degree to which the proposed building is informed and developed in response to an understanding of the processes of construction.
- _Presentation: The clarity, craft and completeness of the presentation(s).

Upon successful completion of this studio, you should be able to accomplish the following learning objectives:

- _translate a program into a building design that responds to user requirements
- _demonstrate the form making implications of structural systems
- _demonstrate the energetic implications of materials selection, enclosure systems and building form
- _integrate multiple systems to achieve elegance, efficiency and economy in design
- _ability to determine the best way to test and measure performance of systems
- _develop criteria for evaluating multiple design alternatives
- _draw technical documentation for the project using the conventions of architectural representation