

Ferrous Park: Fabricating Urbanism

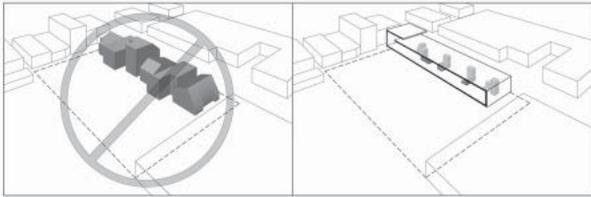
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COLLECTIVE URBANISM

A winning entry to the Ferrous Park International Housing Competition, this project seeks to create a cohesive addition to Kansas City's urban environment that simultaneously embraces the improvisational character of the post-industrial Crossroads Arts District. The project is as much about built form (buildings, gates, sculptures) as it is about urban space (alleyways, streets, park). The interdependent nature of these realms is critical to the success of Ferrous Park. Responding to the call for prefabricated housing to be designed by a group of architects selected by competition,

our proposal offers an alternative approach to collaboration. We also propose a redefinition of prefabrication from the unitary scale of the dwelling unit to that of the flexible component within the established frame. This project is the result of a collaborative effort between 4 distinct firms from diverse locations: Min | Day (Omaha & San Francisco); el dorado, inc. (Kansas City); Marlon Blackwell Architect (Fayetteville); and FACE Design (New York).



NO: FORCED DISSONANCE YES: COHESIVE DIFFERENCE

Our proposal sets out to define this framework for collaboration by pre-selecting a group of architects with a range of experience, skills and an inherent compatibility. Through our work together we have established a shared understanding that includes the following: the importance of urban planning specifically for this neighborhood (adopt a framework); an approach to articulate the specific qualities of this site (define edges); an effective approach to prefabrication that generates diversity out of economic production methods (embrace repetition); and a strategy for long-term sustainable development (tread lightly). We have established a method of collaboration that addresses the site and the program holistically. This approach strategically accommodates the owner’s involvement in the next phase of development.

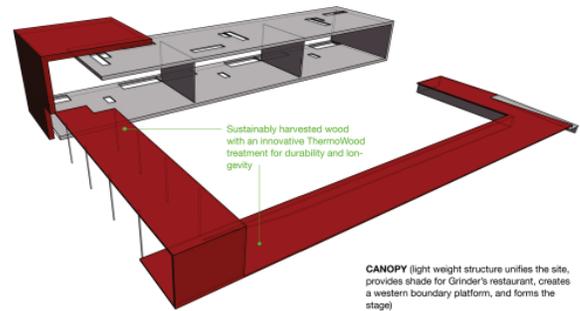


ADOPT A FRAMEWORK

Collaboration generates diversity within the city. It also generates dialogue that results in a shared clarity about the essential issues impacting this project – innovation, social awareness, cost effectiveness and sustainability. Our proposal is a catalyst suggesting a pattern for future develop-

ment in the Crossroads with Ferrous Park serving as a model. Through community involvement the collaboration will expand, broadening its dialogue and further honing an understanding of shared values.

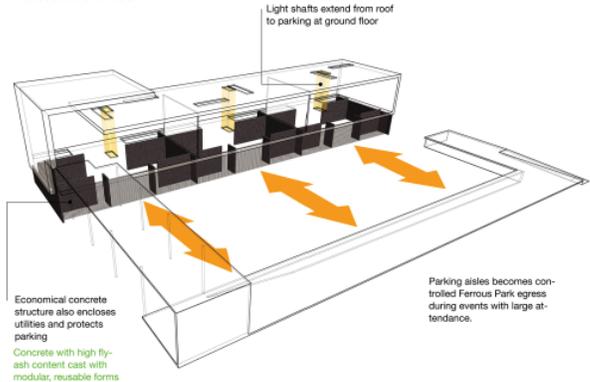
FRAME (shared, economical concrete-clad shell provides primary structure and organizes shared utilities for all dwelling units)



DEFINE EDGES

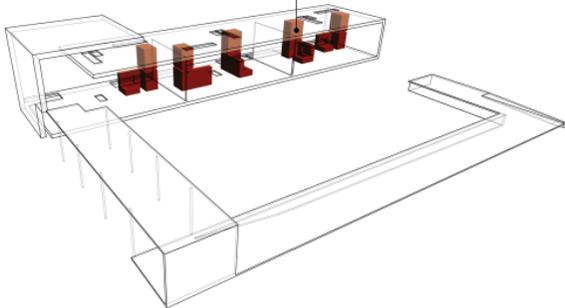
Ferrous Park is a combination of built form and urban space. By defining the boundary between these two realms we articulate specific qualities of this site. Oriented along Locust Street, the building is lifted one floor to allow street level visual connection with Ferrous Park and to provide air circulation. As the Park is the venue for increasingly popular events, the boundary is a clear necessity. The ground floor space becomes a porous boundary between private and public space and can easily be converted from parking to studio or commercial space as the inhabitants wish.

POROUS GROUND FLOOR



Balconies on the west side of the building connect inhabitants with the park. A custom “accordion” louver system allows individuals to modulate the visual connection to the park and control west sunlight. Rooftop space becomes a private extension of Ferrous Park and a place for power generation. A canopy extends the language of the building across the north edge of the park to define entry and to provide shelter for ticket booths, restrooms, entry gates and outdoor seating for an adjacent restaurant. A platform along the west alleyway offers a structured place for artwork, defining this important edge. Artwork then becomes an integral component of the experience of the park while at the same time leaving the heart of Ferrous Park unencumbered for performances and other public events.

PREFABRICATED KITCHEN/BATH CORE ELEMENTS

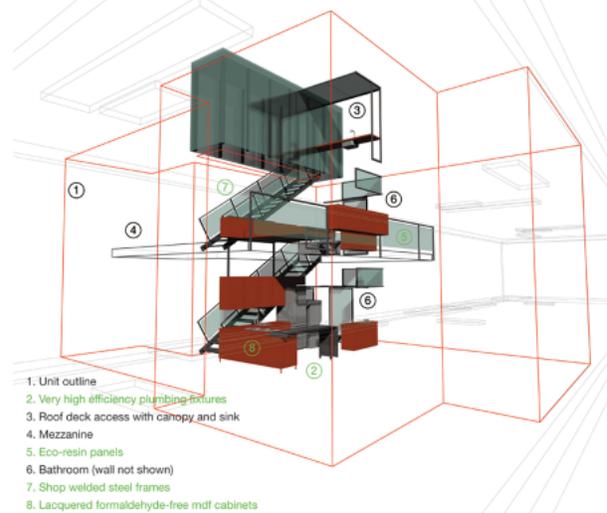


EMBRACE REPETITION

By identifying specific building elements for prefabrication the project offers a viable strategy for achieving variety without sacrificing cost efficiency. Working as a group of critical practitioners, we have arrived at a hybrid model of modularization and selective prefabrication to set the stage for methods of construction that are innovative, environmentally sustainable and economical. We propose a combination of conventional, cost-effective modular methods of construction with innovative materials and prefabricated medium-scaled elements. Conventional methods such as cast-in-place concrete foundations, footings, utility cores and primary structure for the edges of the “frame”, bar joists or engineered lumber for floor and roof framing provide the ability to gain square footage and volume most efficiently. These systems

combined with modular wall cladding (pre-cast concrete and structural insulated wall panels with factory-applied finishes) create enclosure while limiting on-site labor time and thus reducing cost. We individuate each unit through the arrangement and customization of prefabricated building elements such as unit kitchens, staircases, bathrooms and façade treatments (curtain walls and sunshades). These are items that can be fabricated by the design team in our own shops, thus quality, cost, and sustainable materials and practices can be effectively controlled.

PREFABRICATED CORE ELEMENTS (Kitchen, Bathrooms, Stairs, Bedroom)
Environmentally preferable materials (low voc paints, fsc certified wood, high-recycled content)



TREAD LIGHTLY

Environmentally sustainable design and construction is a core value held in our team and our proposal approaches this complex topic in three ways. 1. The project incorporates “green” materials and construction practices. Wherever possible we have incorporated sustainably produced products and materials that promote a healthy indoor environment. Prefabrication of elements and the use of modular components allow us to control and limit construction waste while at the same time constructing a building to high aesthetic and performance tolerances. 2. The proposal incorporates both passive design for low-energy consumption (operable shading devices, super-insulated wall panels, thermal mass in each unit and green roofs) and active systems for energy pro-

duction (photo-voltaics, a shared ground-source heat pump system, and the option for solar hot water). 3. By focusing on the Crossroads and emphasizing the local production of building elements and components our project works to “sustain” a thriving community. A preliminary calculation using the US Green Building Council’s new LEED-H rating system for homes suggests that the project could earn a “gold” certification, the second highest.

URBAN FLUX

The team’s tri-faceted approach – adopting an urban framework to structure collaboration and community interaction, defining the nature of edges to better understand the site and embracing repetition in production to achieve cost effective, innovative and sustainable architecture – offers a flexibly architecture for the ebbs and flows of urban life in this vibrant city environment. The proposal ultimately succeeded in both meeting and redefining the goals of the competition. The project was selected as a winner, albeit one of a group of winners (thus nullifying our argument against “forced dissonance”), but the owner failed to negotiate contracts with the architects and to date the project has not proceeded.

