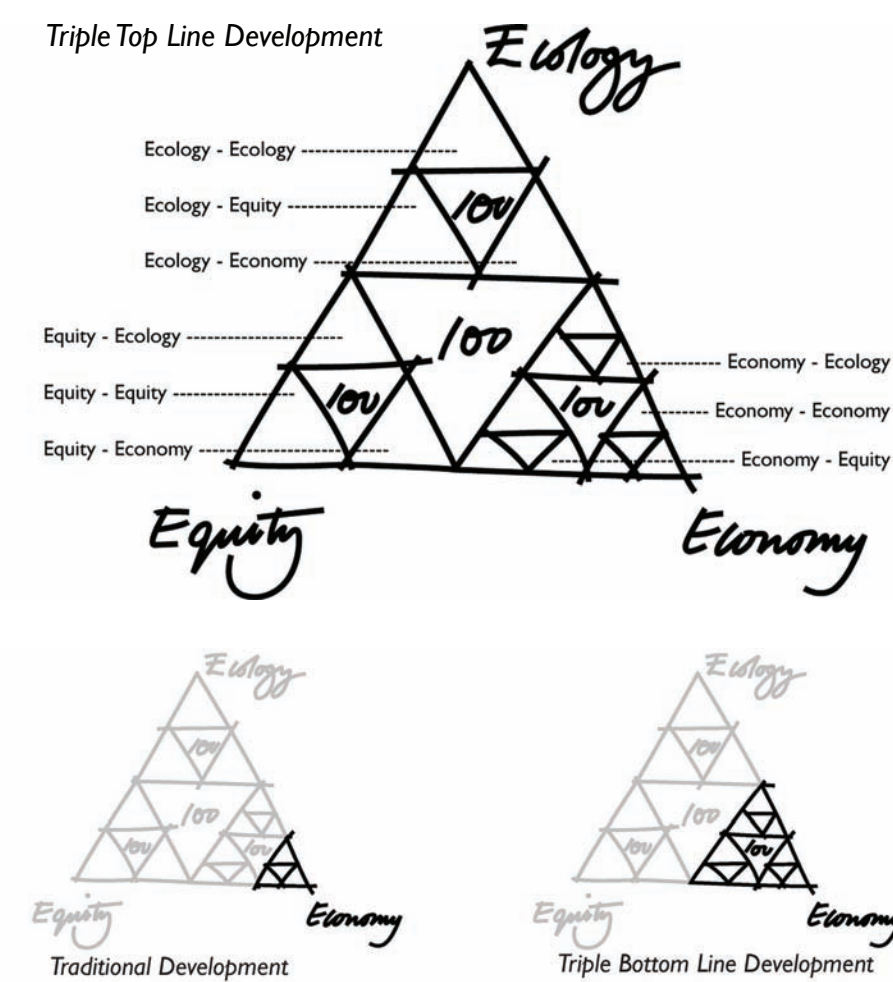
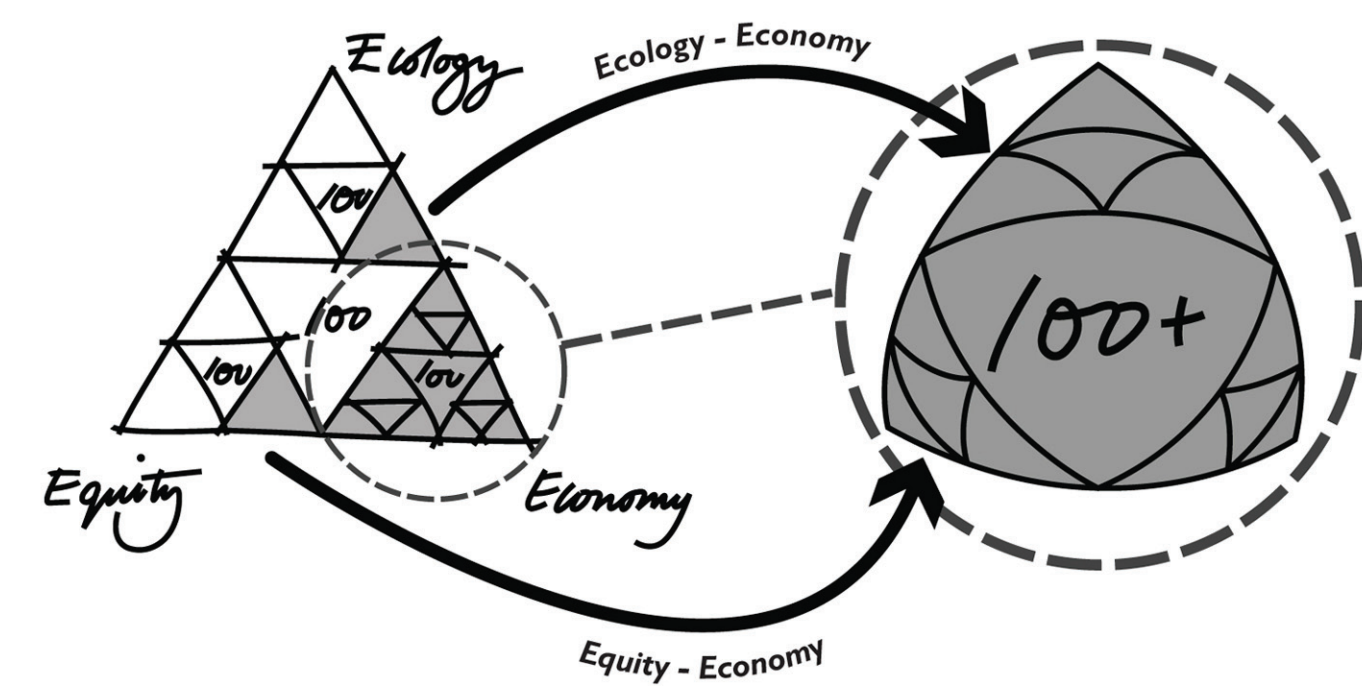


## THESIS ABSTRACT

Triple top line development is a methodology for developing buildings that are not only economic assets, but environmental and social assets, with the understanding that in doing so, there will be a spillover effect among concentrations, resulting in added benefits for each. Architects are trained and educated to design buildings in this manner, but lack the necessary interests and influence to bring triple top line developments to fruition. Architects, in their traditional roles, do not produce buildings; rather they provide a service for developers and owners who do. The developers controlling project financing are legally and ethically entitled to the ultimate design authority, and their interests are often in direct conflict with those of the architects they hire. Developers are strictly concerned with a building's economic performance and will strike down design proposals which do not provide an immediate financial return. This is unfortunate, because ecological and social equity considerations have the potential to not only enhance the economic viability of projects, but create more pleasing environments in the process. These oversights open doors for Architect-Developers to develop their own triple top line projects, regain the ultimate design authority, and profit from the added value their designs bring to buildings and communities.



## THE TRIPLE TOP LINE | SPILLOVER EFFECT

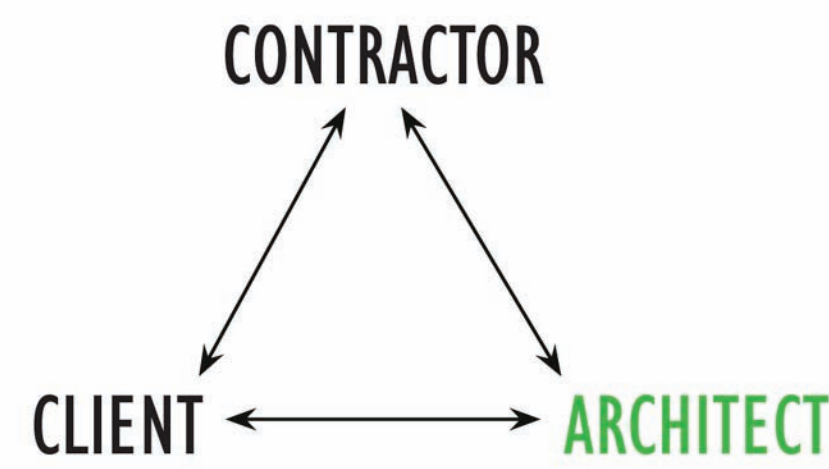


## K-LOFTS PRECEDENT | SAN DIEGO, CA

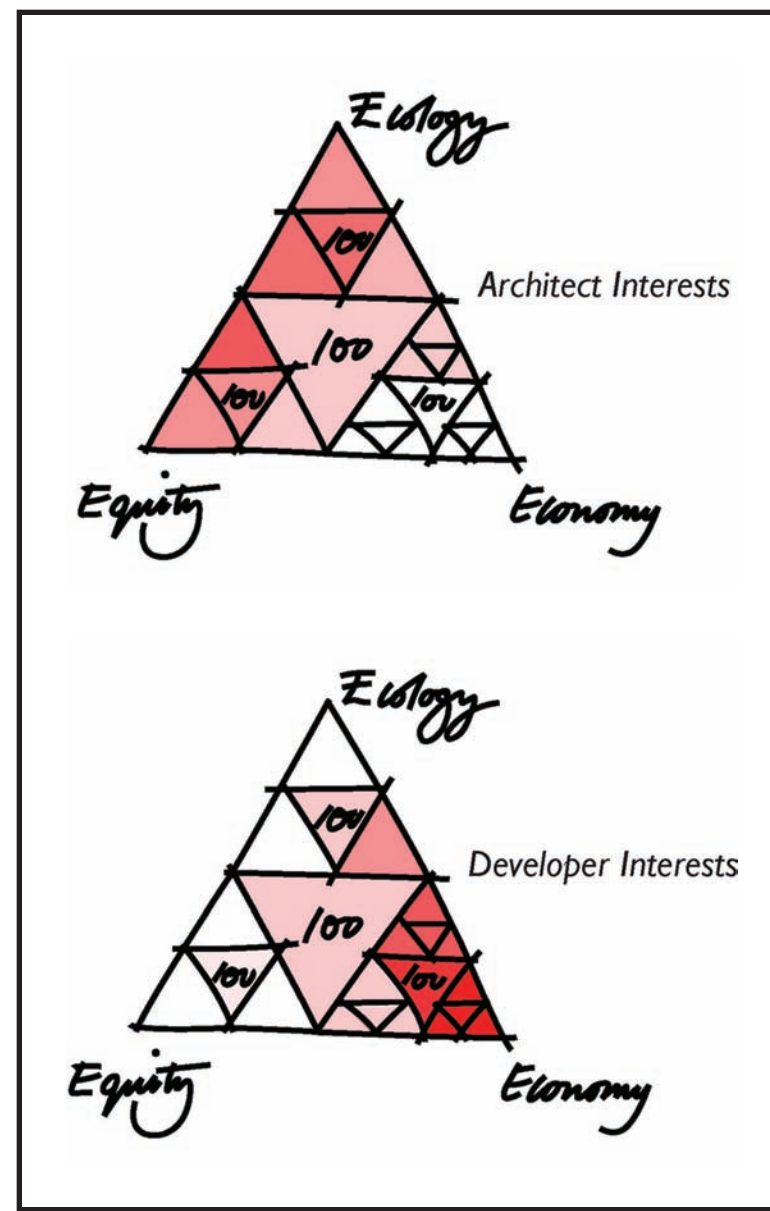
K-Lofts by architect-developer, Jonathan Segal is a multifamily development whose name is derived from its adaptive reuse of a Circle K convenience store. Ecologically, salvaging the existing building reduced material waste and economically, it proved to be \$80,000 cheaper than tearing everything down and building new. Socially, the project sets aside one of its nine units as low-income housing, and in doing so was granted a 'density bonus' allowing for

more units than what was typically allowed by zoning. Economically, the inclusion of low-income housing and subsequent bonus proved to be more profitable than if it had been developed purely as a market rate project. K-Lofts is a triple top line development that benefits both shareholders and stakeholders alike by leveraging the spillover effect to maximize its economic, ecological, and social value. The question then, is why are these types of projects so few and far between?

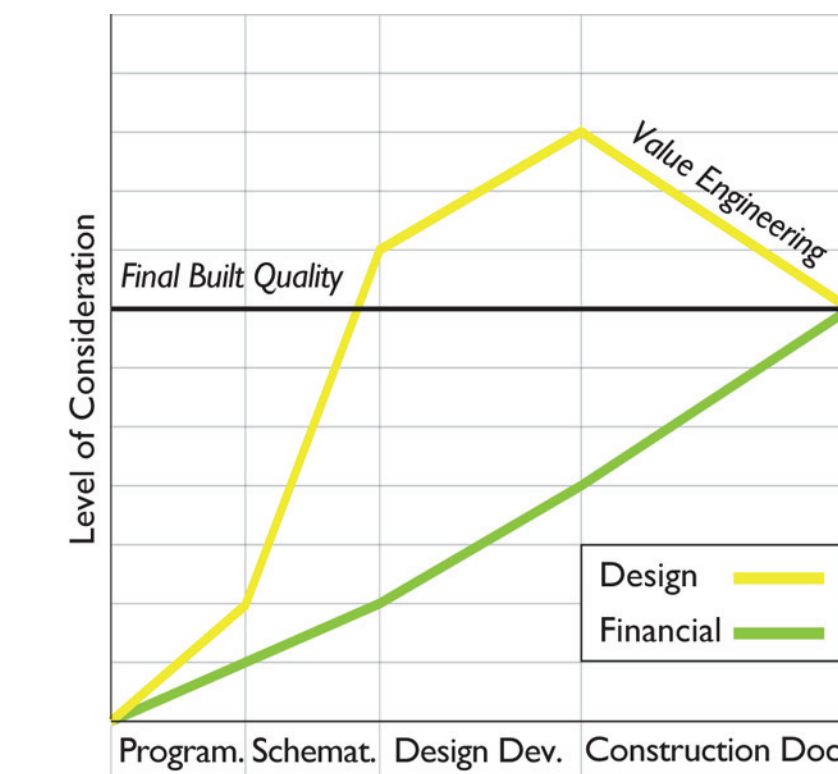
## CONVENTIONAL MODEL | FRAGMENTED DEVELOPMENT



Architects are hired by developers on a service-for-fee basis that often amounts to a percentage of total construction costs. As such, they have no economic interest in the performance of the projects they work on, even if their designs significantly impact the bottom line. Consequently, architects tend to focus more on creating socially, ecologically, and aesthetically intriguing buildings that will serve as marketing tools for future commissions. This motivation is in direct conflict with the interest of developers, who are strictly concerned with making money. Unfortunately for architects, the developer, by virtue of his financial position, is the legal and ethical design authority and his interests will always trump architects'.

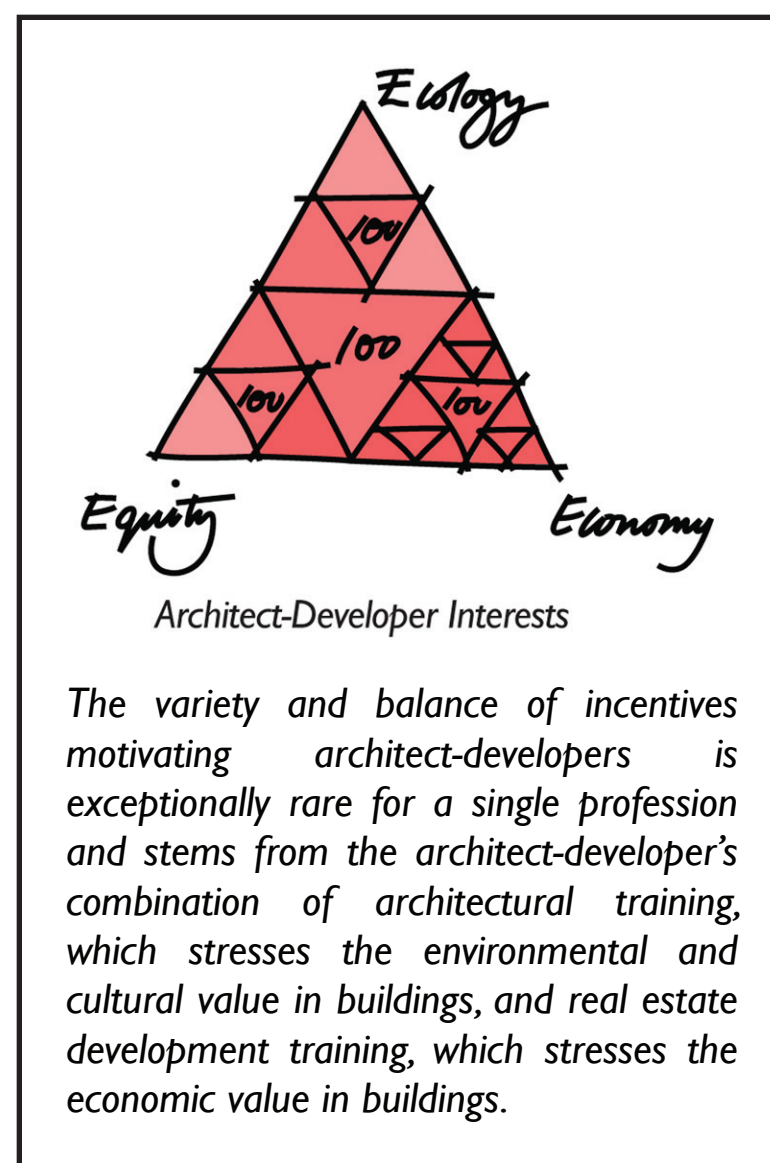
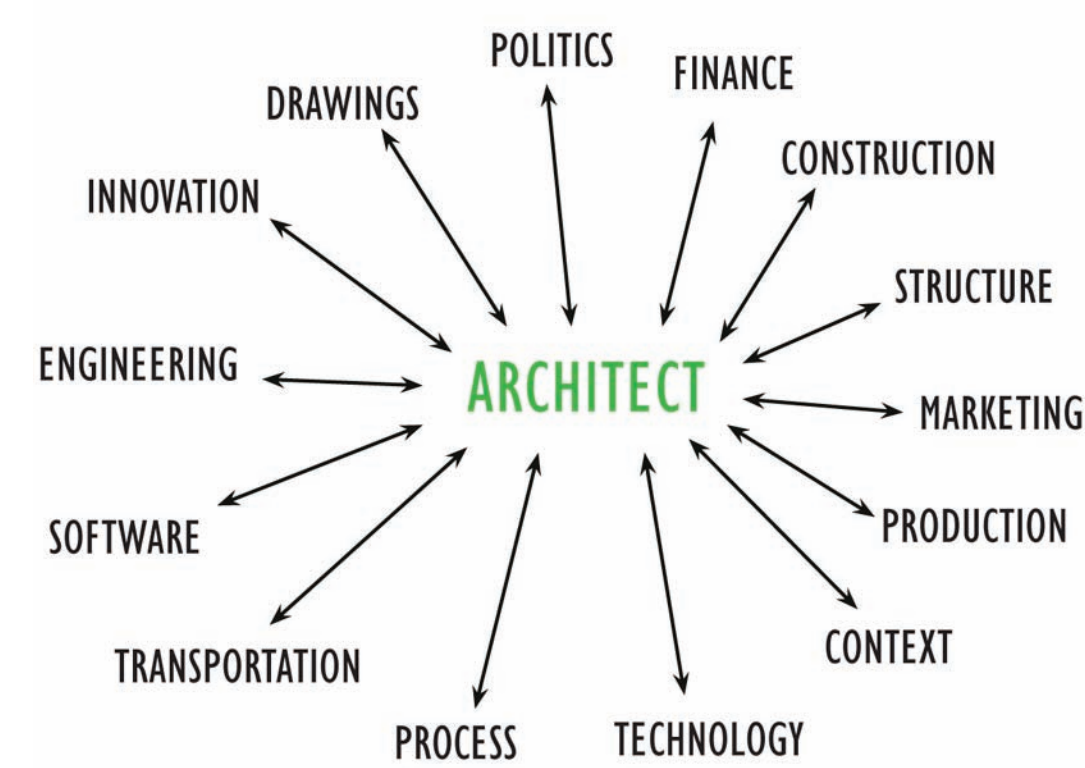


## 'TEAR DOWN' BUILDING PROCESS



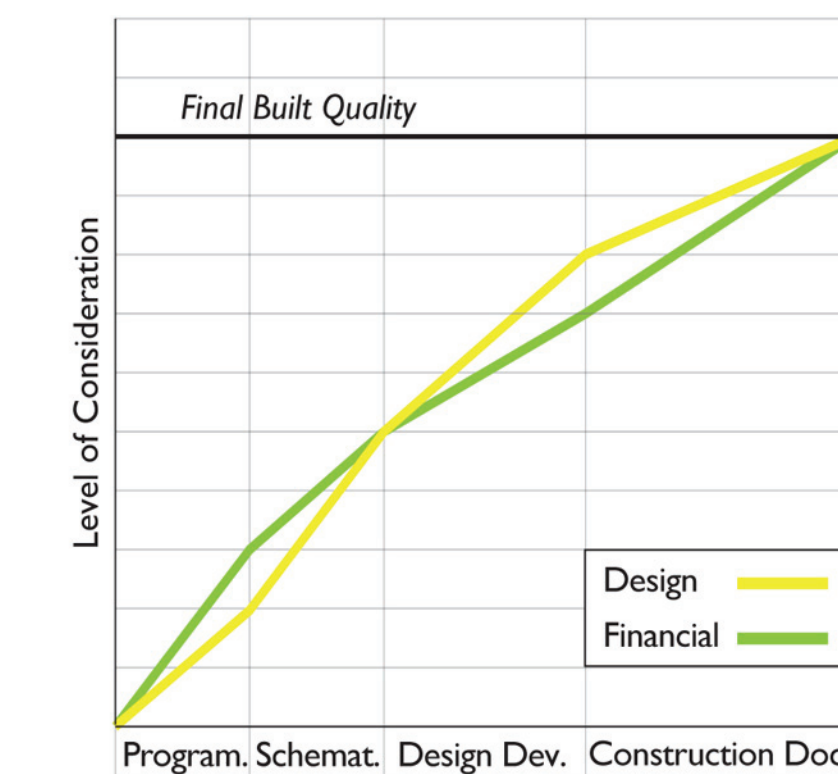
Architects tend to design independent of financial considerations until the project is bid out and found to be significantly over budget. At this point the developer pushes the architect aside and begins recklessly cutting costs in what is known as 'value engineering', often degrading the original design.

## ARCHITECT-DEVELOPER MODEL | INTEGRATED DEVELOPMENT



By controlling project financing, architect-developers regain the ultimate design authority, which effectively integrates development interests, the building process, and the projects themselves, not only benefiting (economic) shareholders, but (social and environmental) stakeholders as well.

## 'BUILD UP' BUILDING PROCESS



Architect-Developers constantly align and realign design decisions with economic considerations throughout the design-develop-build process, which effectively eliminates the need for value engineering, facilitating constant improvement.

## 100 WEST ELDER DEVELOPMENT | ANALYSIS AND PROGRAM

### ARCHITECT AS DEVELOPER | RAMIFICATIONS FOR DESIGN

#### 1. Building Design + Financial Pro Forma

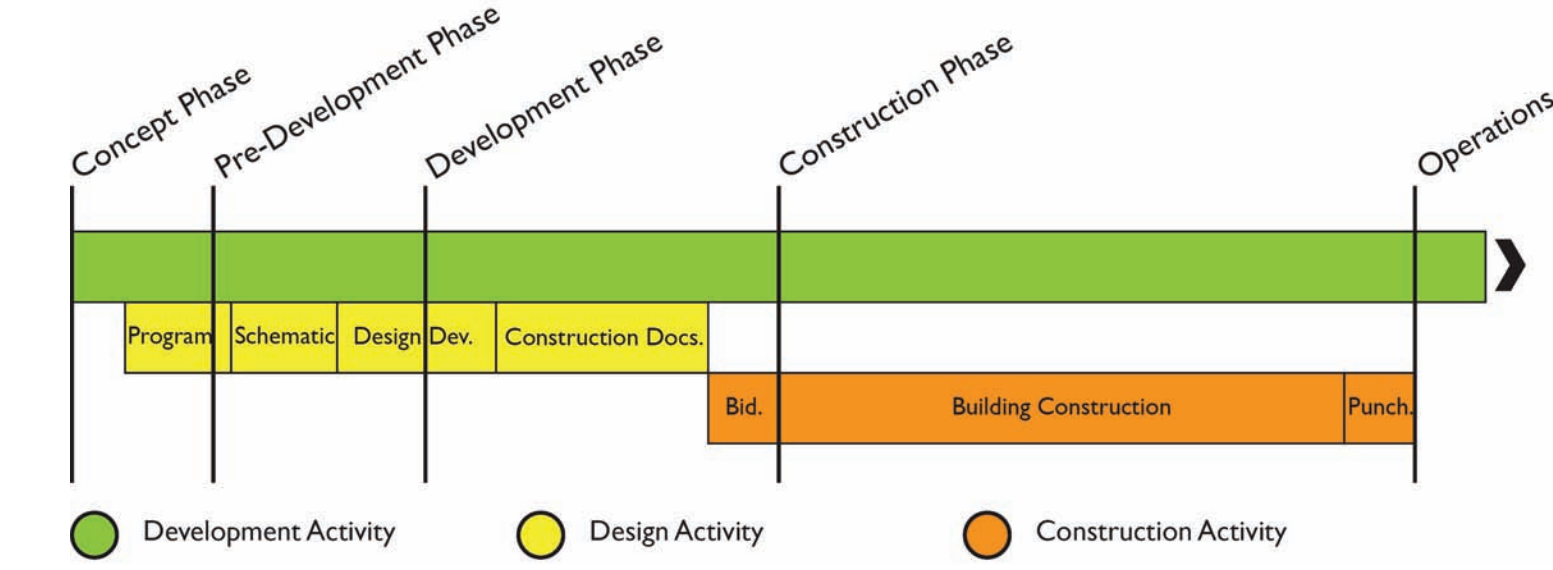
In conjunction with the building design, a financial package including an operating statement, construction cost estimate, and pro forma 'master sheet' will be developed to integrate financial and design considerations.

#### 2. Ultimate Design Authority = No Client

By controlling project financing, architect-developers effectively eliminate the client, giving them complete design freedom. That said, they still must design for a target market to sell their product to and meet the requirements for financing.

#### 3. Increased Scope of Design Work

Architects aren't typically brought on to a project until after a site has been selected and a program has been determined. Architect-developers on the other hand, bear responsibility for these critical up front design decisions.

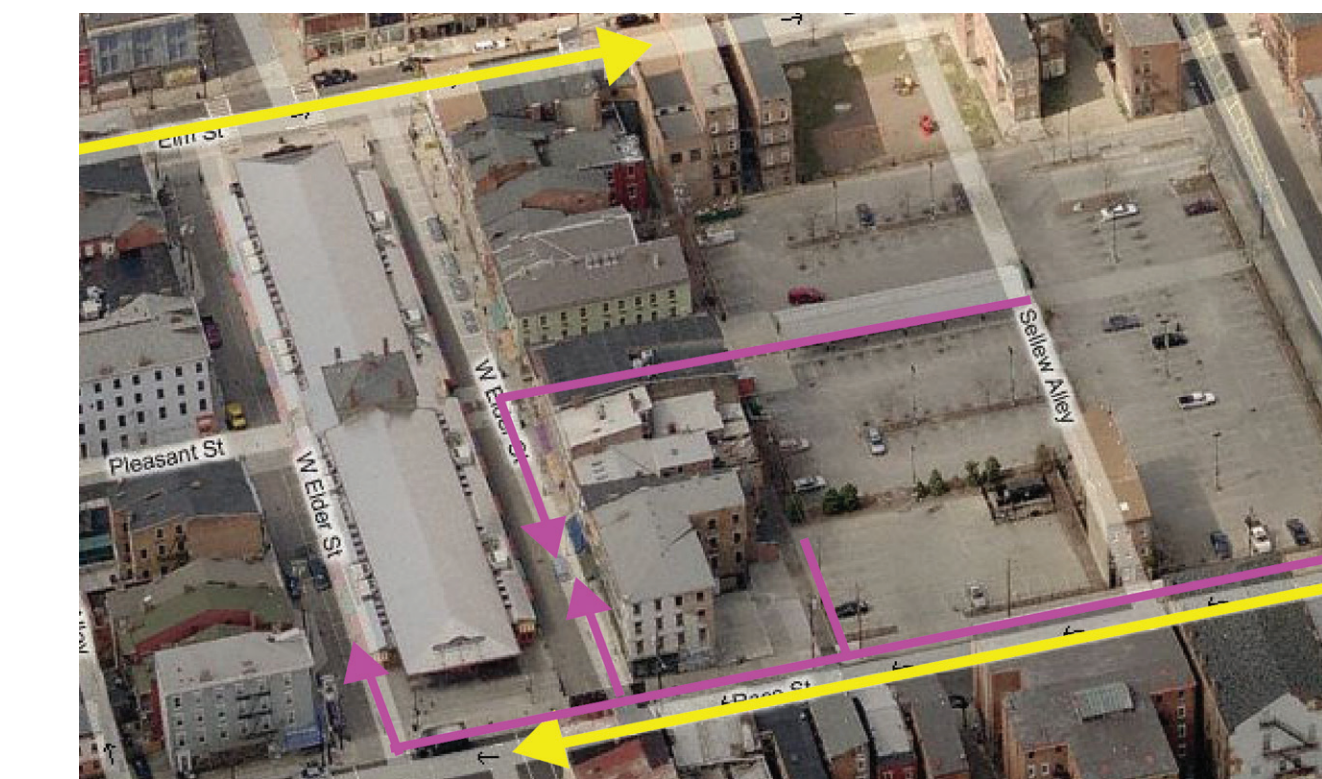
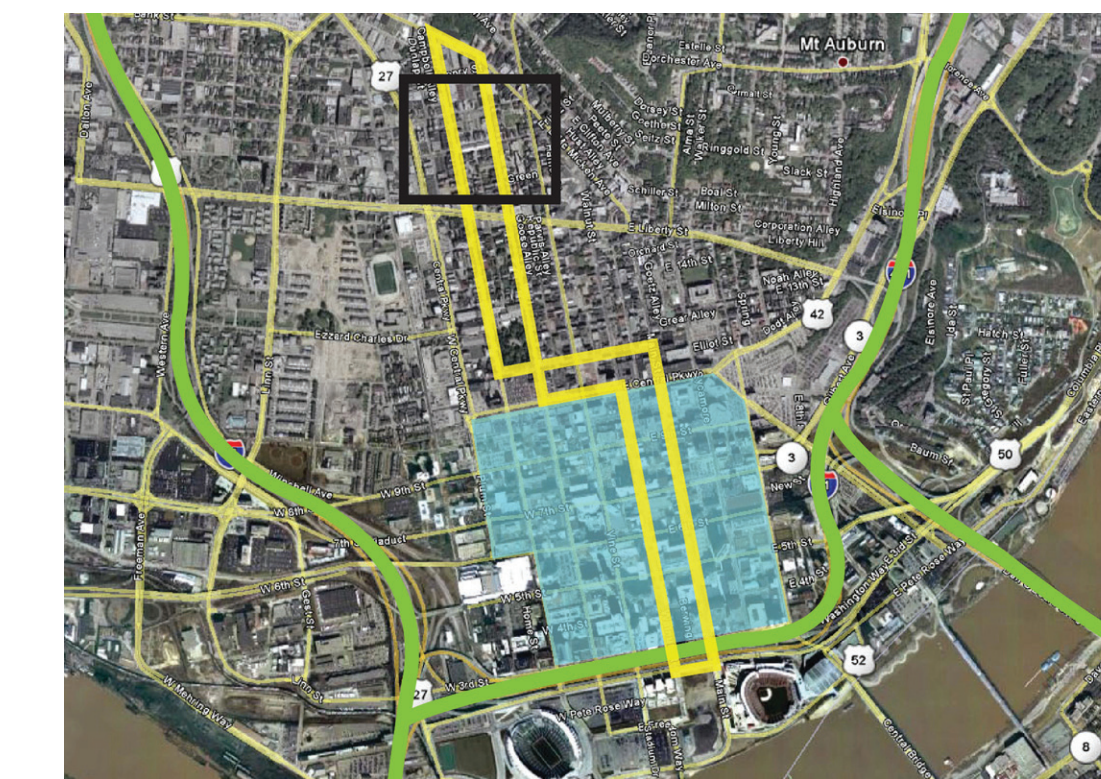
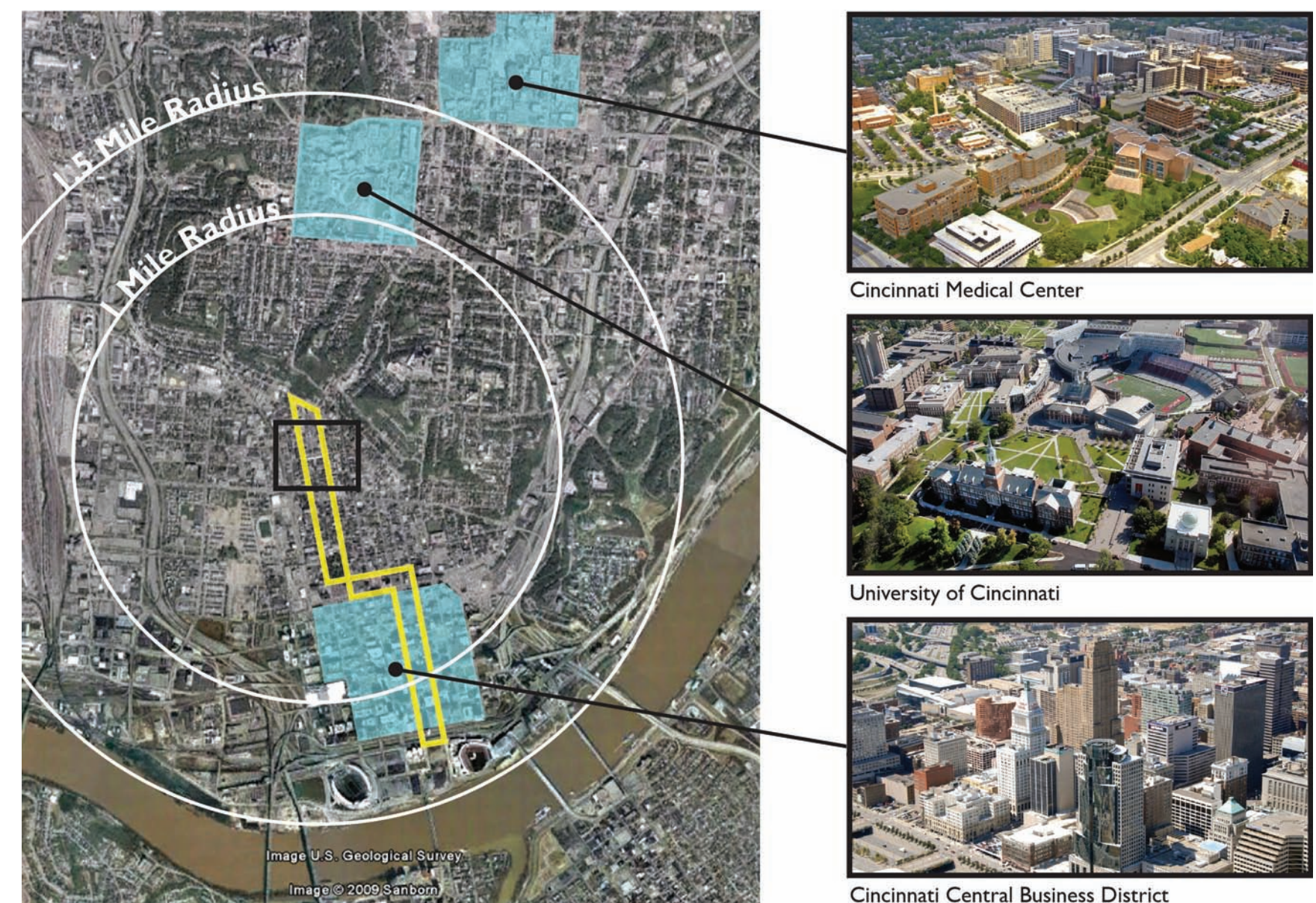


## FINDLAY MARKET | BACKGROUND

Cincinnati's Findlay Market is a compilation of Ohio's oldest surviving municipal market house and its more than twenty adjoining storefronts. It was added to the National Register of Historic Places in 1972 and considered the city's most successful urban gathering space for its unique ability to attract socially, economically, racially, and ethnically diverse crowds in an otherwise segregated municipality. Findlay Market is located in the heart of the Over-the-Rhine neighborhood, whose collection of commercial, residential, religious and civic architecture is considered one of America's largest and most cohesive surviving examples of an urban, nineteenth century community (findlaymarket.org). Over-the-Rhine is recognized as the city's most blighted neighborhood, but public and private investment and development initiatives in recent years have led to a communal renaissance of sorts to which the 100 West Elder project has the opportunity to contribute.



## SITE SELECTION



## SITE SELECTION SYMBOL KEY

- Center of Employment
- Proposed Streetcar Route
- Highway System
- Pedestrian Circulation

The Findlay Market site was primarily selected for its social value as a historical and cultural center, but its proximity to jobs, accessibility, and location in the path of progress also make it worth developing. The 100 West Elder property is situated between Cincinnati's three largest employment centers (the Cincinnati Medical Campus, University of Cincinnati, and Central Business District), is accessible by car, bus, and streetcar, is highly walkable, and in a neighborhood benefiting from an improving infrastructure and building stock.

## 100 WEST ELDER BUILDING



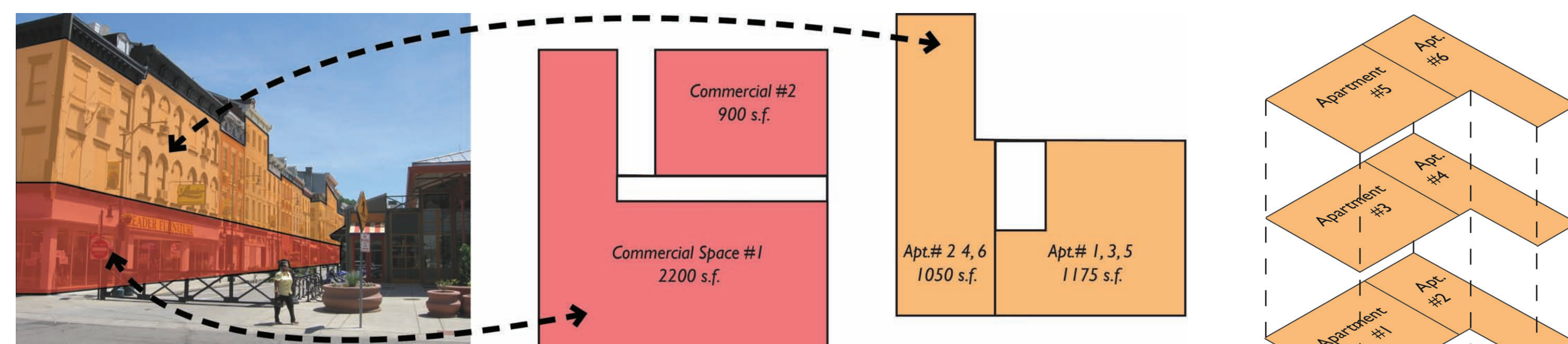
The 100 West Elder building at the northeast corner of Findlay Market is an anchor for the site with a prominent visual presence on the market. Unfortunately, this presence was put into serious jeopardy in 2003 when a previous owner doing renovation work collapsed the building's east wing, severely damaging the structure. Immediately slated for demolition, the building was saved by a local councilman and developer who recognized its significance. They eventually reinforced the project structurally and even added a curtain wall to maintain the new panoramic views of uptown left behind by the collapse.



## L.O.H.A.S. | TARGET MARKET

Based on the factors of location, price point, accessibility, and demographic information for comparable projects in Over-the-Rhine, the target market for the 100 West Elder project is most accurately identified by the term LOHAS Consumer. LOHAS is an acronym for Lifestyles of Health and Sustainability and is a market segment focused on health and fitness, the environment, personal development, and social justice. The LOHAS market segment in 2006 was estimated at \$300 billion, or approximately 30% of the U.S. consumer market, and a study by the Natural Marketing Institute showed that in 2007, 40 million Americans were included within the LOHAS demographic (lohas.com). Findlay Market's proximity to job and entertainment centers, local flavor, cultural diversity, and affordable rents for students and young professionals makes it a desirable location for LOHAS renters and businesses looking to set up shop. That said, the building itself must also facilitate the wants and desires of the LOHAS consumer both programmatically and aesthetically if it is to effectively capture this target market.

## PROGRAM DEVELOPMENT



The 100 West Elder program is comparable to all of the other buildings that line the Findlay Market House in that it features a first floor commercial storefront with levels of residential units above. The three floors of residential space are suitable for two, 2-bedroom, 2-bathroom units each, meaning the program will feature six apartments. The commercial program of the L-shaped footprint left behind following the 2003 collapse is

slightly more than 2000 square feet and capable of supporting a single tenant user. However, the empty pad to the east has the potential to be rebuilt and support a second commercial tenant should that be deemed worthwhile. In this case the potential to add income generating space along Race Street proved desirable, as did the opportunity for the roof to serve as an outdoor communal space for the residential units above.



## 100 WEST ELDER DEVELOPMENT | DESIGN GOALS

### I. FOSTER COMMUNITY

- A - MAINTAIN A CONNECTION TO STREET LIFE
- B - PROVIDE AN OUTDOOR SOCIAL SPACE FOR RESIDENTS
- C - INCORPORATE LOCAL ARTIST WORKS INTO THE BUILDING DESIGN

### 2. CELEBRATE HISTORY

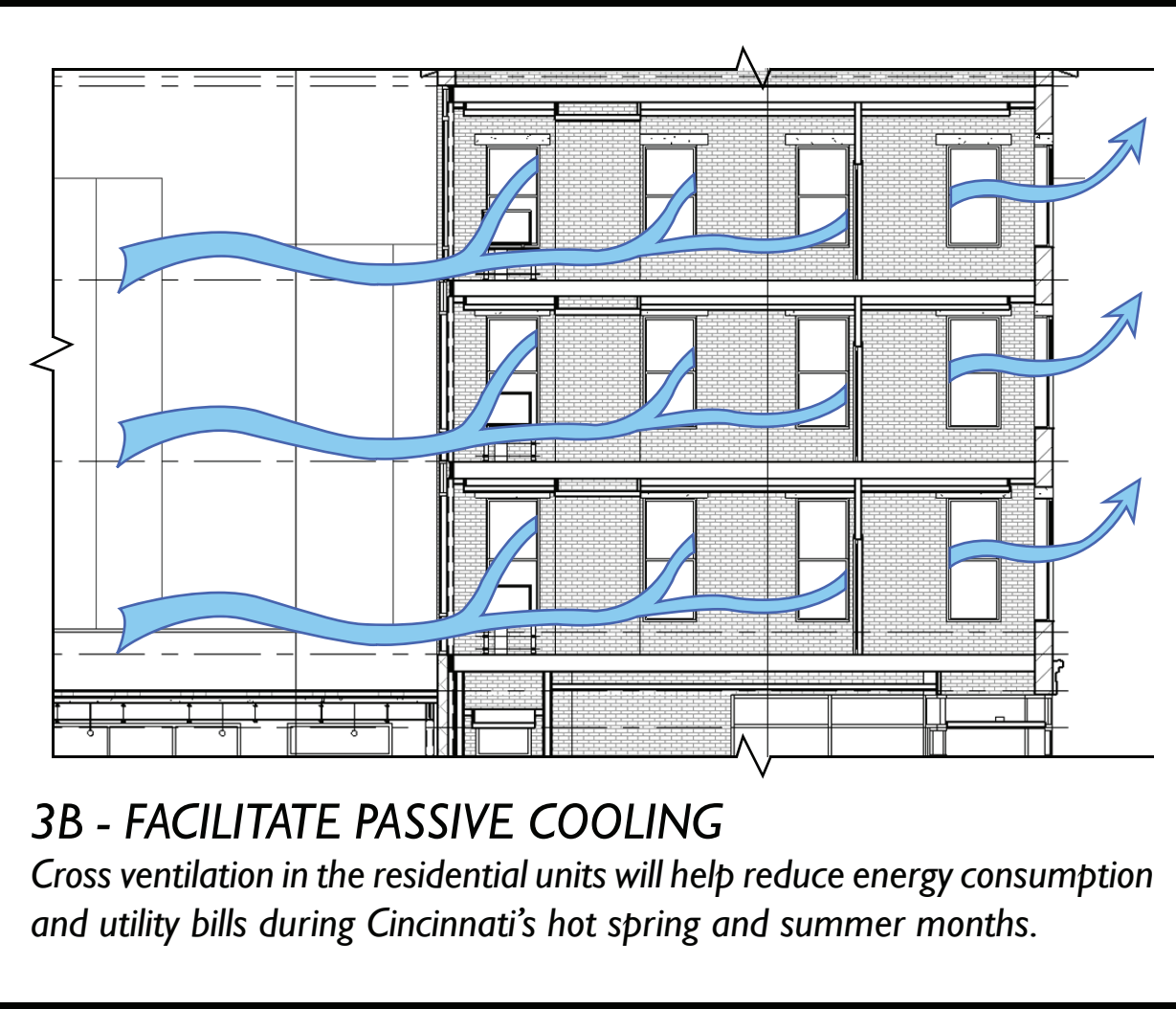
- A - MAINTAIN THE ICONIC IMAGE OF THE FINDLAY MARKET STOREFRONTS
- B - DESIGN THE NEW ADDITION TO SERVE AS A 'TIMEPIECE' UNTO ITSELF
- C - INCORPORATE A 'DERELICTE' AESTHETIC FOR ADAPTIVE REUSE

### 3. LEVERAGE ECOLOGY

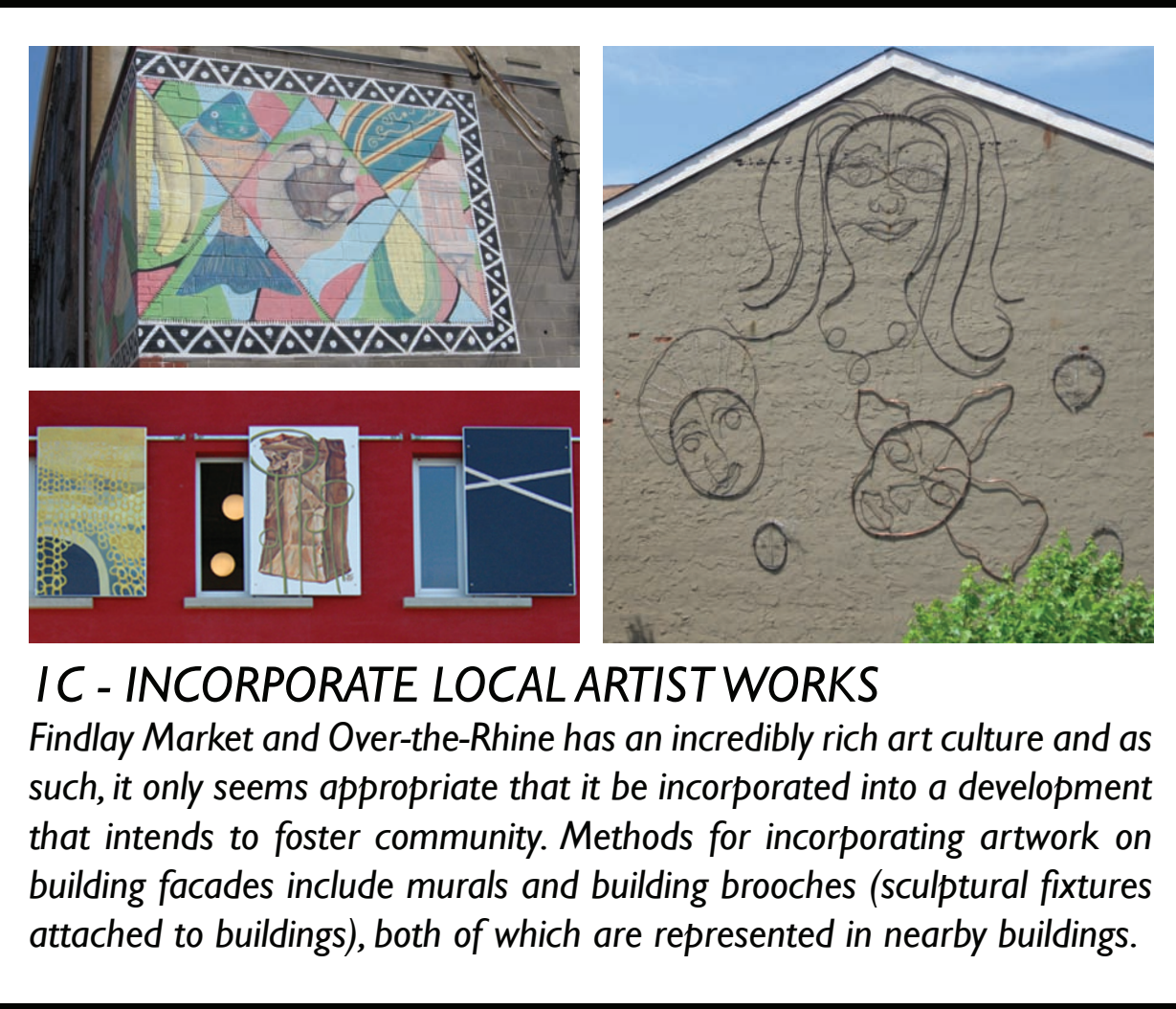
- A - EXPRESS THE ON-SITE RETENTION AND TREATMENT OF STORMWATER RUNOFF
- B - FACILITATE PASSIVE HEATING, COOLING, AND DAYLIGHTING



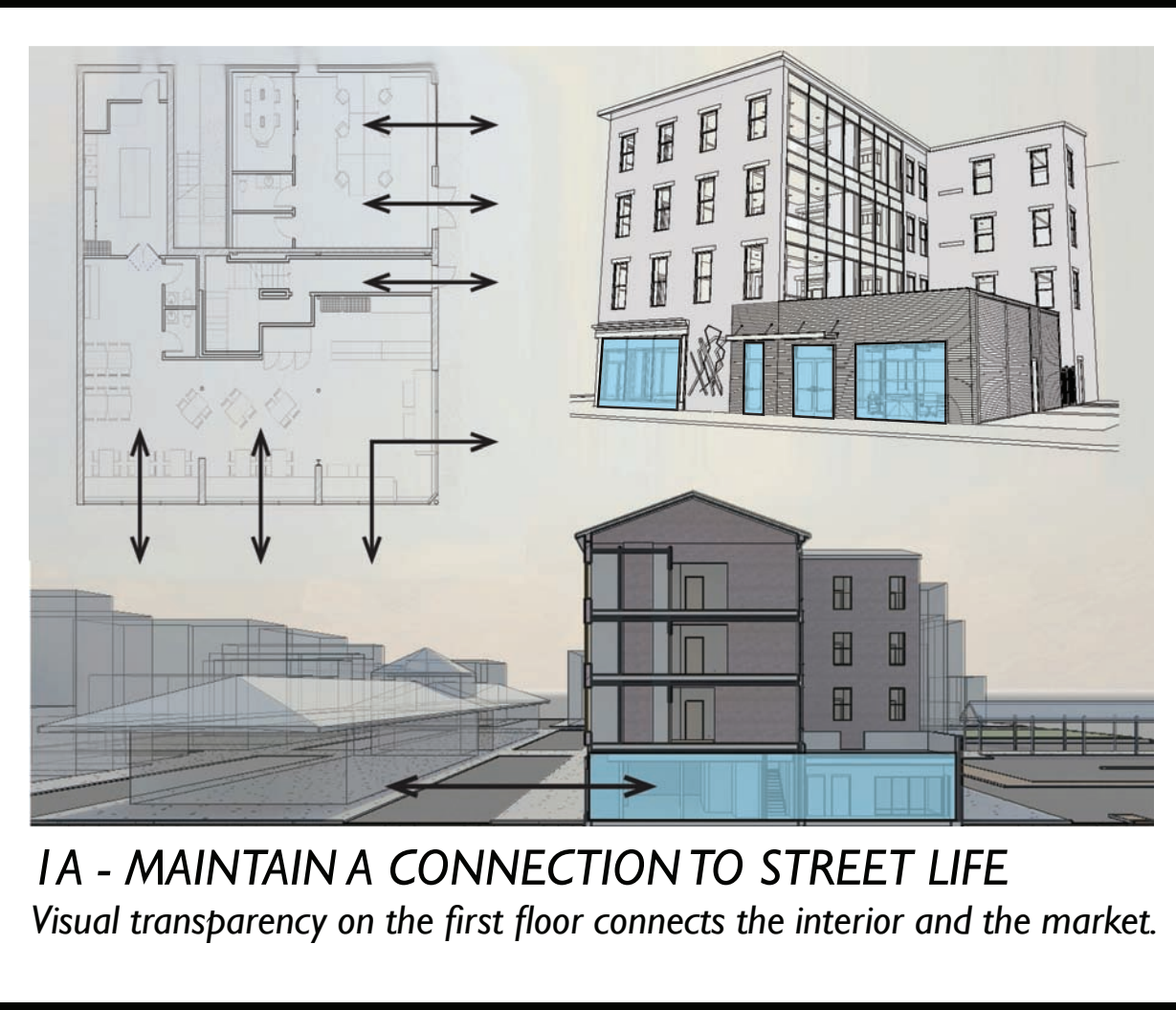
**2A - MAINTAIN ICONIC IMAGE OF FINDLAY MARKET**  
Brightly painted facades lining Elder street reinforce the market's vibrant culture and will be maintained on the southern elevation. That said, the Potemkin village condition will be addressed as the building turns the corner.



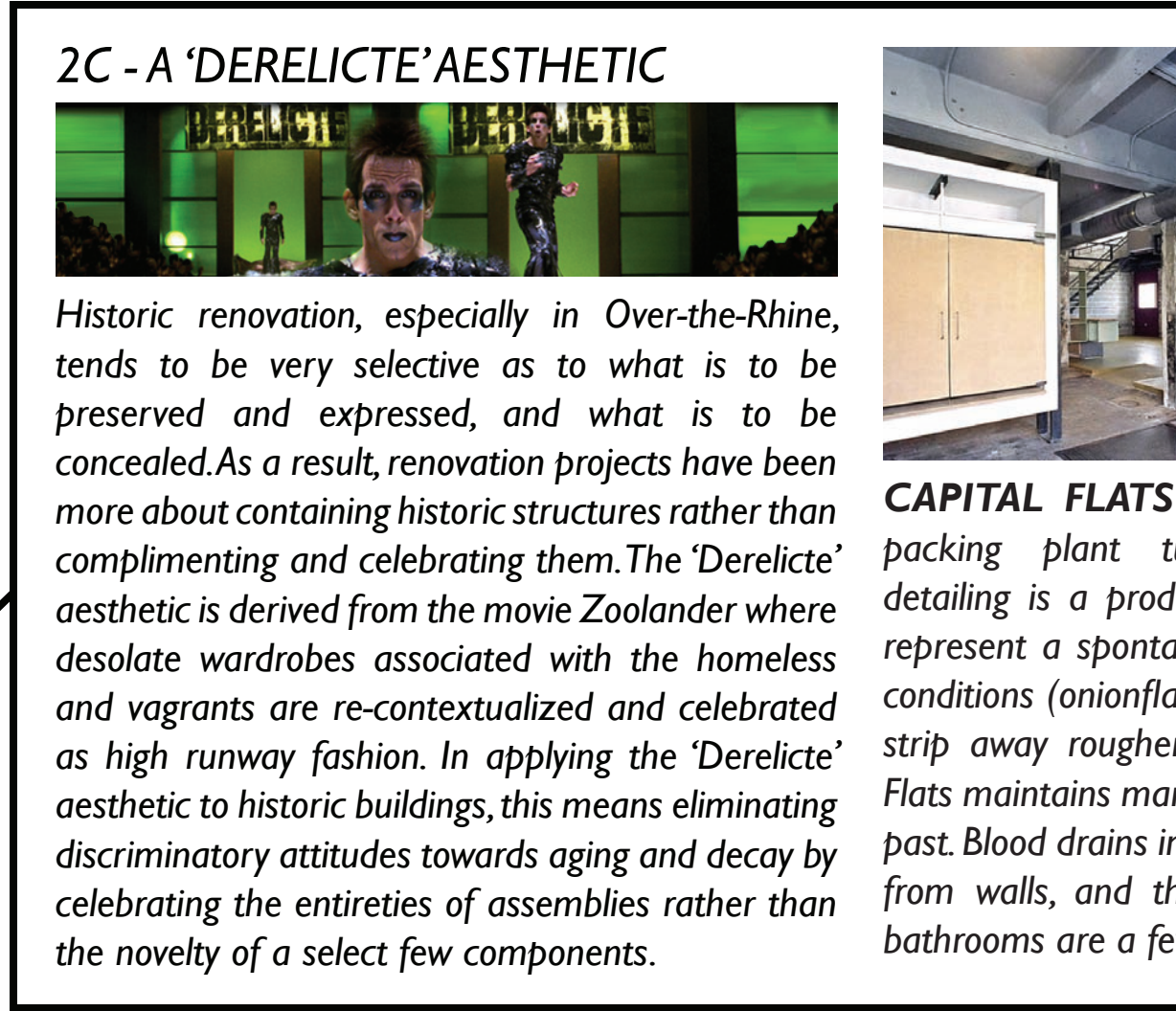
**3B - FACILITATE PASSIVE COOLING**  
Cross ventilation in the residential units will help reduce energy consumption and utility bills during Cincinnati's hot spring and summer months.



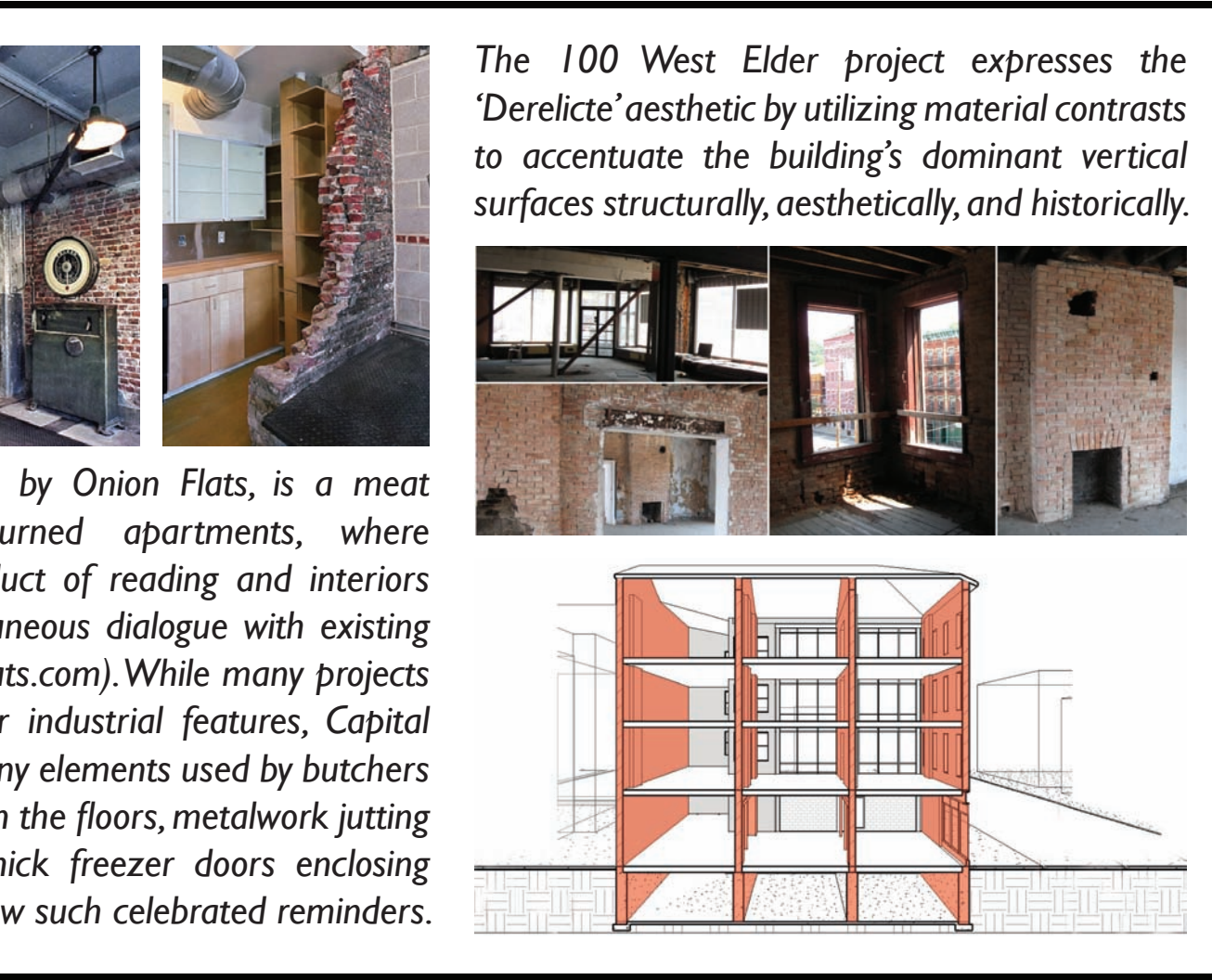
**1C - INCORPORATE LOCAL ARTIST WORKS**  
Findlay Market and Over-the-Rhine has an incredibly rich art culture and as such, it only seems appropriate that it be incorporated into a development that intends to foster community. Methods for incorporating artwork on building facades include murals and building brooches (sculptural fixtures attached to buildings), both of which are represented in nearby buildings.



**1A - MAINTAIN A CONNECTION TO STREET LIFE**  
Visual transparency on the first floor connects the interior and the market.



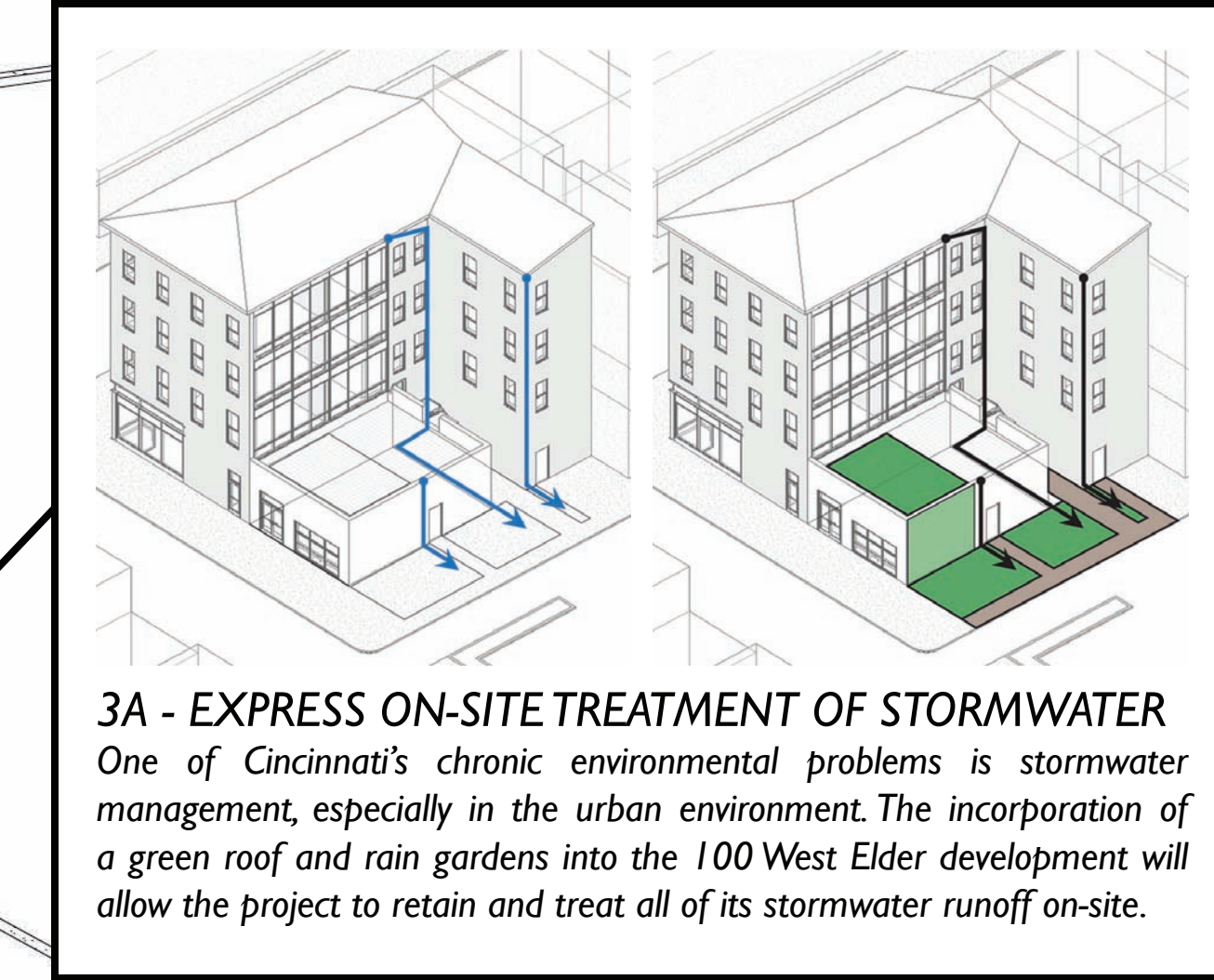
**2C - A 'DERELICTE' AESTHETIC**  
Historic renovation, especially in Over-the-Rhine, tends to be very selective as to what is to be preserved and expressed, and what is to be concealed. As a result, renovation projects have been more about containing historic structures rather than complimenting and celebrating them. The 'Derelict' aesthetic is derived from the movie Zoolander where desolate wardrobes associated with the homeless and vagrants are re-contextualized and celebrated as high runway fashion. In applying the 'Derelict' aesthetic to historic buildings, this means eliminating discriminatory attitudes towards aging and decay by celebrating the entireties of assemblies rather than the novelty of a select few components.



**CAPITAL FLATS** by Onion Flats, is a meat packing plant turned apartments, where detailing is a product of reading and interiors represent a spontaneous dialogue with existing conditions (onionflats.com). While many projects strip away rougher industrial features, Capital Flats maintains many elements used by butchers past. Blood drains in the floors, metalwork jutting from walls, and thick freezer doors enclosing bathrooms are a few such celebrated reminders.



**1B - PROVIDE OUTDOOR SOCIAL SPACE**  
A communal green roof atop the project's new addition will facilitate social interaction amongst 100 West Elder residential tenants, while providing an escape from the hustle and bustle of the market below.



**3A - EXPRESS ON-SITE TREATMENT OF STORMWATER**  
One of Cincinnati's chronic environmental problems is stormwater management, especially in the urban environment. The incorporation of a green roof and rain gardens into the 100 West Elder development will allow the project to retain and treat all of its stormwater runoff on-site.



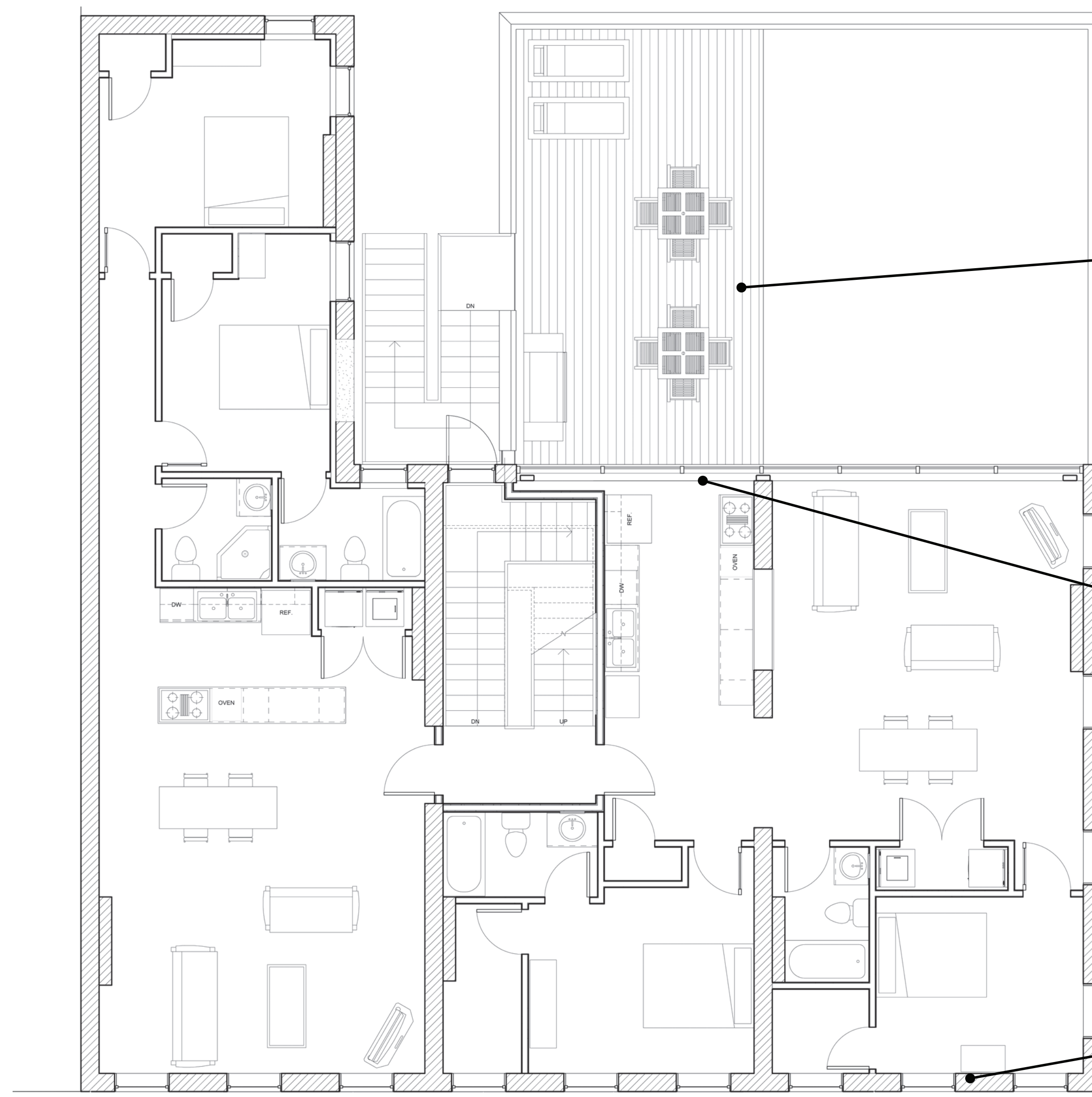
**2B - NEW ADDITION AS A 'TIMEPIECE'**  
New additions to historic buildings typically contrast or mimic the existing structure to which they are attaching. The approach for the 100 West Elder addition is more dynamic in that it utilizes materials that weather over time to express and chronicle its own history as a timepiece.

## 100 WEST ELDER DEVELOPMENT | DESIGN / FINANCIAL CONSIDERATIONS

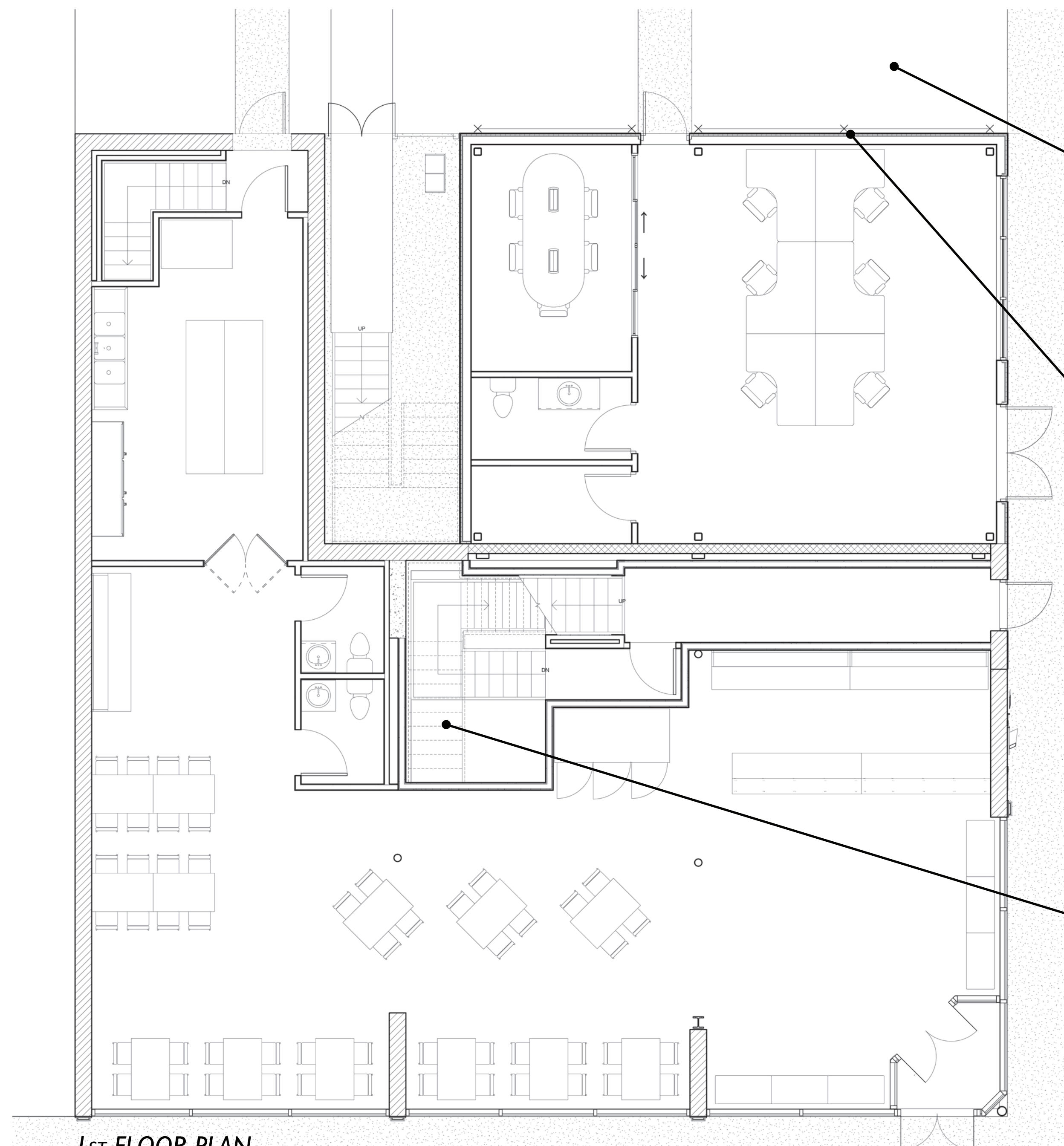
### LEVERAGING, INTEGRATING, AND PRIORITIZING

When approaching projects from an architect-developer standpoint, it becomes clear early on that every design decision is an economic, ecological, and/or social consideration that will add or detract value from each concentration. The challenge then is determining what design decisions will best meet the overall aims of the triple top line. As previously stated, the most effective solutions are those that leverage economic, ecological, and social considerations to create value in other areas of the

fractal triangle, something the 100 West Elder project manages to do successfully on several occasions. Still, there are many times when economic, ecological, and social considerations are unable to be harmonized, requiring one or two values to take priority. In these situations, it is important to view every design gesture within the larger development context, consider how certain moves might compliment or conflict with other decisions made, and to understand what alternatives are available.



2ND, 3RD & 4TH FLOOR PLAN



1ST FLOOR PLAN

**GREEN ROOF**  
Ecology

Equity Economy  
+ Retains stormwater runoff, provides desirable overlook for residents  
- Higher up front costs than alternative roof options  
✓ Selected for value as a social amenity and potential marketing tool.

**CURTAIN WALL**  
Ecology

Equity Economy  
+ Provides scenic views of uptown and abundant daylighting  
- Significant heat loss in the winter months  
✓ Kept in tact for cost reasons and its desirable effect on interior spaces

**EXPOSED BRICK**  
Ecology

Equity Economy  
+ Exposed brick interior celebrates history with minimal up front cost  
- Heat loss concerns  
✓ Brick left exposed in more public areas, but insulated elsewhere for thermal reasons.

**RAIN GARDENS**  
Ecology

Equity Economy  
+ Retains stormwater runoff, lessens infrastructure costs, visually attractive  
✓ Chosen for social, economic, ecological, and aesthetic value as a triple top line design decision.

**METAL CLADDING**  
Ecology

Equity Economy  
+ Recycled content often used in this relatively low cost material that can weather over time.  
- Limited aesthetic appeal  
✓ Selected based on price and precedent usage in nearby buildings

**CIRCULATION**  
Ecology

Equity Economy  
+ Dynamic spatial and material arrangement provides multiple points of entry and expresses 'derelict' aesthetic  
- Less expensive alternatives  
✓ Utilized for its unique humanizing experience.



