

Challenging Glass 4



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Engaging transparency to empower community

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ABSTRACT: This paper describes a participatory development strategy used to inform architectural design in which the façade's structural glazing becomes a broader metaphor for community empowerment. When residents learned of a plan to build speculative housing, they tapped architects to assist them in pooling resources and expertise in order to buy the land and build a project they felt would be more congruent with the scale and character of their neighborhood. In order to finance this development, forty-two long-time residents all living within a few blocks of the project put their own homes up for collateral. Unlike gentrification, this new model of community development assures all profits stay within the neighborhood. More importantly, neighbors willing to invest in their communities are investing in themselves and the belief they can act critically and strategically to restructure a world they cannot completely remake.

1 INTRODUCTION

The case study presented here describes a design process in which the traditional roles of both the architect and client have been contested. Participatory development strategies are employed here that not only empower community but also deliver a built environment that reflects the values and mores of that community. (Figure 1)

We collectively created a unique participatory model of practice with the neighbors of Curtis Park in Denver, Colorado. A five-minute walk from Denver's central business district, the area is one of the city's oldest neighborhoods. It is also one of the most economically and racially diverse. Its tree-lined streets include Victorian mansions, Italianate rowhomes, and quaint Queen Anne bungalows that have survived the destructive tendencies of American urban revitalization.

Once envisioned as a primary connector to the Denver Airport, Curtis Park has remained zoned a high-density growth corridor despite the relocation of the airport twenty years ago. This zoning so close to downtown makes the neighborhood ripe for redevelopment. Despite the existence of a few limited historic districts, long-time committed neighbors are constantly on the watch for gentrifying developers looking to build large-scale projects on consolidated lots made possible by razing historic buildings.

When residents learned of a plan to build a 16-unit apartment building on an empty lot between two historic single-family homes, they began to seek an opportunity to operate within the market forces that were luring investment to their neighborhood. They sought to provide an example of a viable real estate development while protecting the neighborhood's historic character.



Figure 1. Merchants Row Brownstones.

2 COMMUNITY ENGAGEMENT

Recognizing that only those people affected by an environment have any right to its determination, this group of neighbors set out to design and construct an infill project they felt to be more congruent with the scale and character of their neighborhood.

Ethnically and economically diverse, residents were brought together by concerns about the future of their neighborhood. Members of the group include an attorney, accountant, city planner, historian, real estate broker, teacher, and several members of the building trades. Truly crowdsourced, forty-two long-time residents all living within a few blocks of the site put their own homes up for collateral in order to secure a construction loan for \$2.5 million.

While none had development experience, the architects drew on the collective knowledge and resources to establish a pro forma, acquire the land, secure financing, select professional engineers and contractors, and ultimately construct the project. The group appreciates all these processes as components of community building. We helped the group form a limited liability company (LLC) that purchased the land and set up shares to be acquired for as little as \$5,000 to allow as many people as possible to participate (Figure 2).



Figure 2. Community groundbreaking.

3 PARTICIPATION

Large open-meeting design workshops were facilitated in order to arrive at a project with which the group felt comfortable. Operating out of a neighborhood storefront shared with a coffee shop, the architect's office became a central meeting place for both the project and the community. Citizen-investors stopped by incessantly to view progress and the need to provide real-time renderings of design updates and the impact on the cost model necessitated an integrated approach using Building Information Modeling (BIM). (Figure 3,4) The group, while laypeople, expected the intricacies of the project to be communicated visually in an accessible way. They also needed to have the project's formal information translated into cost and schedule ramifications.

One might believe the use of advanced BIM software would alienate the stakeholder group, however, we found the opposite to be the case. It was the use of the BIM model as an information-centric construct that allowed dialogue to occur. We were able to move beyond token participation towards a dialogical practice that engendered empowerment. It is knowledge that allows for the transformation from silent investor to active participant. The willingness to invest in one's own neighborhood reflects a willingness to invest in oneself and the belief that these actions can allow one to act strategically and critically to restructure a world one cannot wholly remake.



Figures 3 and 4. Building Information Model.

4 MERCHANTS ROW BROWNSTONES

Facilitating town hall style meetings, this dialogue resulted in a \$2.5 million 6-unit multifamily housing development modeled after a row home prototype common to the neighborhood. The group named the project Merchants Row Brownstones. Sensitive to context, the group prioritized the relationship of form, mass, and scale to the surrounding architecture. Raised entry stoops all face the street with glass canopies that mimic the cable-stayed canopy of the adjacent 1890's structures. (Figure 5) The first floor elevation set at 5'-4" allows for inhabitants to engage the passerby at the sidewalk while maintaining a comfortable separation between the public and private realms.



Figure 5. Entry glass canopy.

As the section illustrates (Figure 6), this strategy does not allow for the ceiling height required for a garage and thus units step up around a three-story lightwell that allows daylight to penetrate deep into the units. (Figure 7) This alleviates the challenge of bringing light into long interior units where side windows are typically not possible.



Figure 6. Champa Street Section.

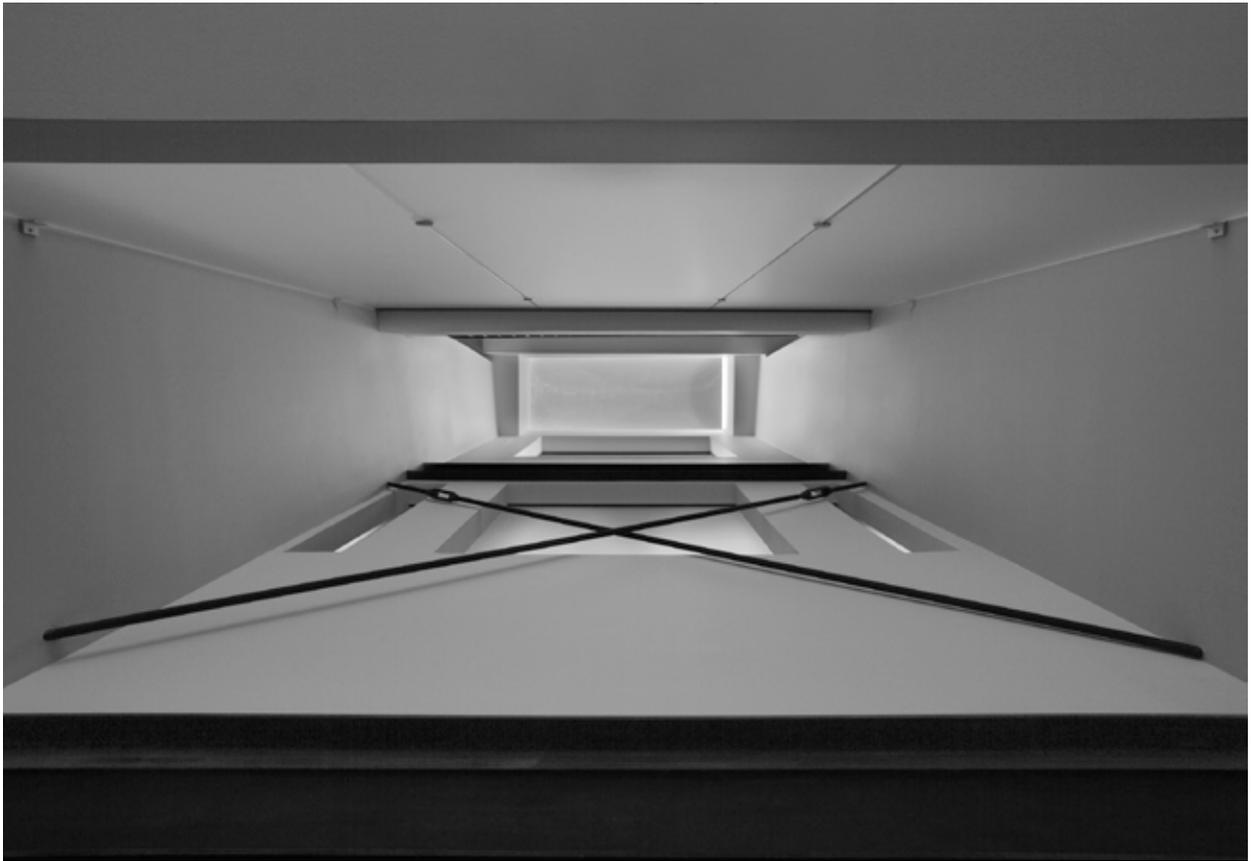


Figure 7. Three-story lightwell.

The group struggles with issues of gentrification. While the land costs drive a certain product, it was important to the group that the project be configured in such a way that it could resist the homogenizing mechanisms of gentrification. Walk-out basements are marketed as “flex-space” perfect for a home office in order to side-step parking requirements, but are easily configured into an affordable rental unit or granny flat.

It was important to the group that critical design concepts not be compromised by misguided zoning regulations or too stringent design guidelines. The carefully labeled “flex-space” is a case in point. Another procedural nuance that offered ‘resistance’ to the regulation of the built environment and was critical to the project’s success was the categorization of the units as Attached-Single-Family. Not only did this reduce professional liability associated with condominium developments, but also allowed the group to avoid the creation of a homeowner’s association. One requirement of this classification is that each unit must maintain its own lateral bracing; that is, should one unit’s lateral bracing be compromised, adjacent units must maintain their own lateral stability. This is made present in the design by exposing the steel cross bracing in the three-story lightwells.

5 STRUCTURAL GLAZING

Of course, the primary feature of the exterior is a reinterpretation of the historic bay window: a three-story structural glazing system. Despite historic district guidelines that require punched windows in a solid field, the group was able to convince the Historic District Review Board that the pattern of frosted and clear glass configured in the proportions of window openings in the neighborhood met the intent of the guidelines. Stepped out from the façade, side windows at the bay frame views to downtown while the translucent bays glow to activate the street with vitality at night. (Figure 8, 9) In keeping with the Do-It-Yourself nature of the development process, the glazing system employs extremely simple standard construction detailing to achieve the glass bay (Figures 10, 11, 12, 13, 14).



Figures 8 and 9. Glass bays at night.

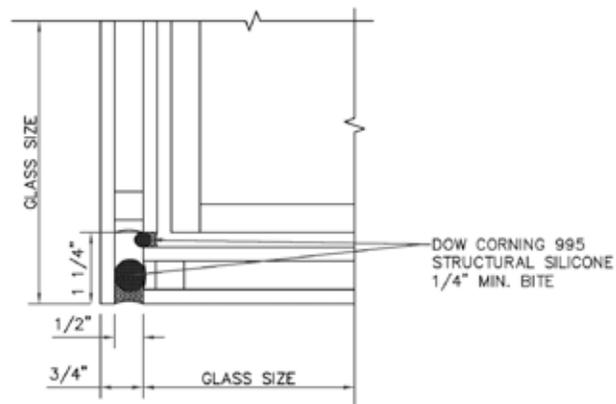


Figure 10. Glass corner detail.

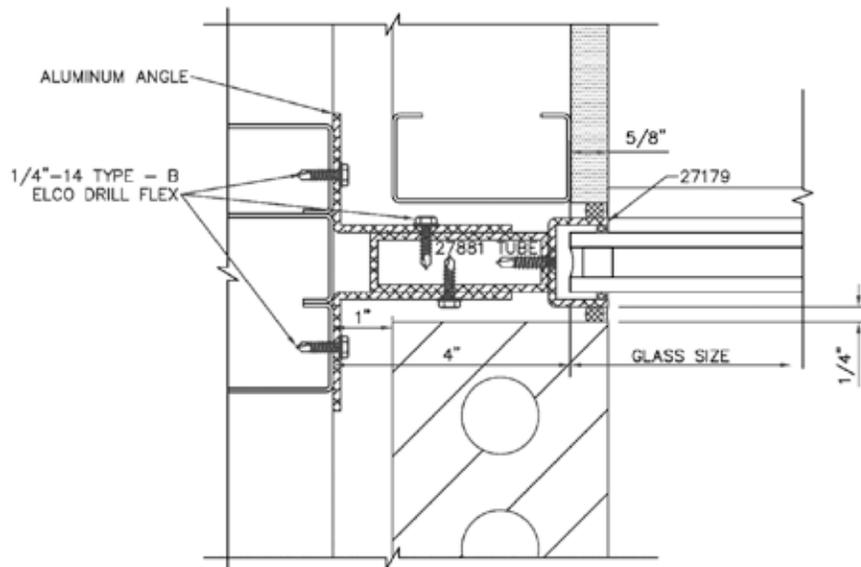


Figure 11. Jamb detail.

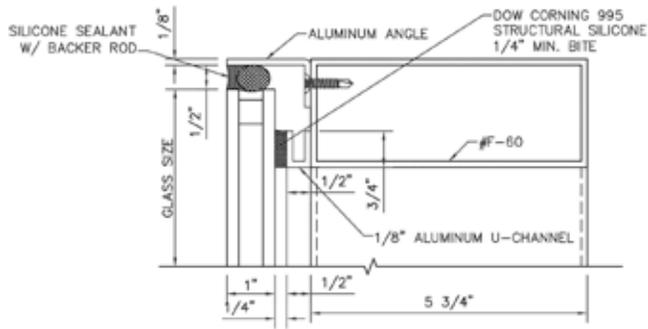


Figure 12. Head detail.

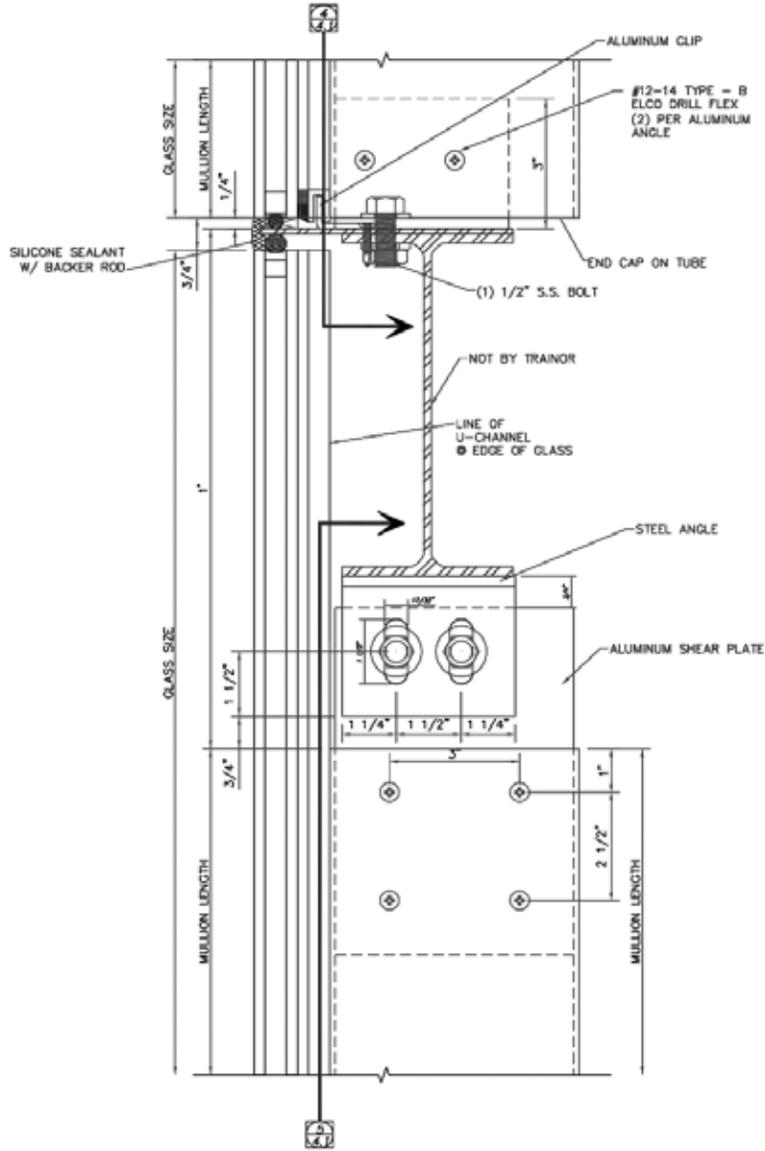


Figure 13. Horizontal joint detail.

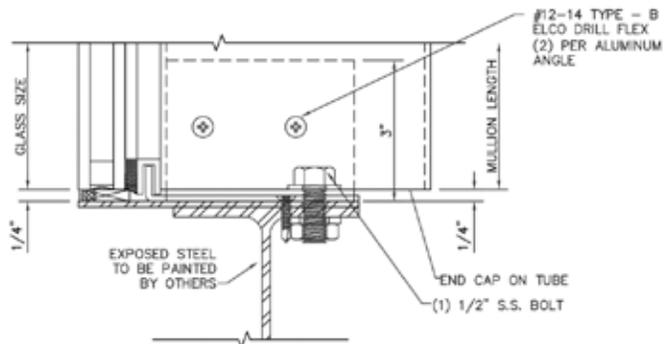


Figure 14. Sill detail.

Convincing the group to challenge the literal reading of the historic district design guidelines was no small accomplishment given that many of the investors have an affinity for historic preservation that borders on militant. Also significant is the fact that many of the neighbors had been involved with originally establishing the historic district.

The glass bays have an undeniable temporality to them. They not only define space and mediate light but also reflect back the neighborhood context. They allow volumes to change throughout the day and the varying translucency allows the glass to seemingly exist in various states of solidity simultaneously. The varying depth of space inside the units also allows the bystander to glimpse into the units but views are distorted and blurred as the light changes.

6 CONCLUSION

The project sold out before the completion of construction at prices well above what is typical for the neighborhood. This was a win-win for the investors; not only did they see a healthy return on investment, their own property values were driven up as well. Unlike gentrification where return on investment leaves the neighborhood, all profit stayed within a few blocks of the project. This model of community empowerment, from making very difficult decisions regarding profit versus density to working within a political system, generates a sense of pride and accomplishment as they watch the structure taking shape. The sense of community is enhanced by a common focus on this enterprise shaped with their own hands and ideas.

While the process presented here aspires to empower a community through a participatory design, it does not fully engage issues of inclusion and poverty. It admittedly succumbs to existing market forces and invites meaningful participation only for a price. However, it is perhaps only working within this system that allows for an incremental reordering to occur. The design and construction process is but a fleeting moment in the life of a building, but the buildings themselves remain as clear territorial demarcations of community. And, while the scale of the community intervention shown here is small, the participants move on and away from this process changed forever from passive occupants of a built environment to citizens armed with the knowledge and resources to act upon the world.