AFFORDABLE HOUSING AT SPRING GROVE VILLAGE

Spring Grove Village
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Goal(s)

My proposal for affordable housing in Spring Grove Village seeks to create a vibrant, livable neighborhood. Though my proposal is in one sense an exercise at the building scale, I recognize the importance of the neighborhood scale in housing design. For this reason, I have developed my design within the framework of a transit-oriented development (TOD), a project originally proposed in the fall of 2009.

Consistent with the goals from last quarter, the TOD at Spring Grove Village seeks to put an economically and ecologically valuable plot of land to better use. By bringing a light rail and bus connection to the site, it is possible to support a greater diversity of uses and a higher density of development, while simultaneously reducing the ecological footprint of surface parking. The site seems appropriate for transit-oriented development because it is adjacent to existing rail infrastructure, and it is highly visible from Interstate 75. In addition, the site currently enjoys a substantial regional draw from the existing Kroger at Queen City Center.

Existing Conditions vs. Higher Density Development
(author + maps.bing.com)

Housing is an integral part of any successful transit-oriented development. As Hank Dittmar and Gloria Ohland explain in *The New Transit Town: Best Practices in Transit-Oriented Development*, “mixed-income housing helps to create more vibrant TODs, with people coming and going at various times of the day and more people living and working near the transit hub. In turn, mixed-use transit-oriented development can improve housing affordability for people with lower incomes because it can lower their transportation costs.” By providing a wide range of housing options, I hope to attract the diversity and vitality described by Dittmar and Ohland.

At the building scale, I hope to create spaces that are amenable to the diverse crowd that transit-oriented development may support. To gain an understanding of housing’s intricate environmental needs I consider Clare Cooper Marcus and Wendy
Sarkissian’s *Housing as if People Mattered*. I also look to Oscar Newman’s ‘defensible space’ theory for a better understanding of safety and surveillance as it relates to housing design. Architecturally, I would like to incorporate these theories without defaulting to the neo-traditional row house treatment that is typically proposed in New Urbanist, mixed-income housing developments, such as City West.

**Project Description**

My intent to design at multiple scales leads me to a broad, zoomed-out perspective for design inspiration. Continuing an investigation from last quarter, I am interested in creating a design that resonates with the nearby interstate highway. In this case, my design goals mirror those of UT Arlington professor Martin Price, who explains, “if we *position* an architecture with and into the landscape of the highway, and if we *engage* the highway with its linear, curvilinear, rising, and descending contours, and if we *respond* to its pulsating rhythms, its beat, and its speed of motion, we can create a new powerful force of creative expressive energies.”

I follow Price’s advice quite literally, taking a series of site lines from Interstate 75. These lines are in fact radii from the highway’s curving form, extended onto the site to reflect the interstate’s sweeping motion. The location of the lines themselves may be considered an arbitrary decision, but their relationship to one another has significance: the lines are spaced at 88 feet - the distance that a car going 60 MPH travels in one second. Therefore, by taking design cues from these highway contours, I hope to create a subtle rhythm that is perceptible at the scale of the passerby and at the building scale.
My response to the highway is ultimately realized by the skewed orientation of my walk-up apartments, which lie closest to the interstate. Far from being an arbitrary gesture, this reorientation creates several added benefits at the building scale. First, these apartments enjoy an orientation that is closer to true south, thus these units acquire the most auspicious orientation for passive solar strategies. In addition, by disrupting the linear frontage of the walk-up apartments on the street, the mass of the project is broken down. This is in line with Marcus and Sarkissian’s design guidelines, which suggest a “variety in height, shape, trim, and size to create a degree of visual complexity within a recognizable whole.”iii Affordable housing designs that are too rigid and ‘institutional’ are thought to stigmatize lower-income residents. Finally, the reoriented buildings create a variety of interstitial spaces between units. The unique conditions between buildings create the opportunity for a variety of semi-private outdoor spaces.

The space between buildings, thus, becomes an important element to my design. This space, I believe, is the most crucial grounds for social interaction. Drawing from the
research of Oscar Newman, Marcus and Sarkissian explain, “the fewer the doors opening off one corridor, stairway, or balcony, the more people’s privacy and security needs will be met, the more responsible they will feel toward shared facilities, and the more likely they are to make positive social contact with neighbors.” Studies show that it is best to have between three and eight households sharing an entry space. My design would have four to six households sharing these semi-private spaces, comfortably within the suggested amount.

By encouraging positive social interactions between neighbors, my design seeks to fulfill one of the elusive goals of mixed-income housing, the formation of ‘weak ties’ between neighbors. This is believed possible through contact theory; the thought that “people of different backgrounds will be more likely to interact if the two groups have equal-status interactions within a given situation.” In a study at a Seattle HOPE VI project, Rachel Kleit puts contact theory to the test, measuring the potential for mixed-income housing to foster meaningful social interaction. The results of Kleit’s study carry mixed levels of optimism. In one sense, residents were most likely to form relationships with other similar residents. On the other hand, close proximity was seen as a crucial factor in creating social ties. Thus, common neighborly activities such as gardening were found to enable social contact.

My sensitivity to social interactions extends beyond interstitial spaces at the building scale. Marcus and Sarkissian suggest that housing projects be arranged in ‘life cycle clusters’ as “people generally prefer to live close to others of approximately the same age or stage in the life cycle.” I have met this design objective by providing three mid-rise apartment blocks on the eastern side of the housing complex. The mid-rise units are intended to serve the elderly and young households without children (respectively), as these groups tend to prefer this type of housing. Likewise, the walk-up apartments, with private backyards and multiple bedrooms, are primarily geared towards households with children. By clustering these distinct types of housing, it is conceivable that neighborhood ties will form around mutual lifestyle needs and preferences.

The addition of the mid-rise apartments also allows for a clearly-defined residential open space that may be enjoyed by members of the community. By visually corralling open space, the mid-rise apartments serve as a transitional buffer that discourages passersby from entering the residential sphere of the transit-oriented development. This increases the notion of safety and ownership described by Oscar Newman’s defensible space theory. The open space is further articulated by a communal building in the middle, potentially serving as a dining hall or general meeting space. By visually dividing the open space, it becomes possible to differentiate distinct zones within
the space, serving the needs of different household types. This is also a hallmark of the defensible space theory.

The orientation of the walk-up apartments is also informed by the defensible space theory. According to Newman, “residents’ attitudes suggest that they consider this sidewalk and parking area as semipublic, rather than public.”

Thus, street parking can be used as a means to bring the residential ‘sphere of influence’ to the street. Each walk-up apartment fronts the street directly, in some fashion. The spaces of the walk-up apartments are arranged such that outdoor balconies orient either towards or away from the street. With this arrangement, the apartments do not turn away from any particular orientation, thus surveillance is possible in all directions. This is again an important component to neighborhood safety, as described by the defensible space theory.

**Implementation/Funding Strategies**

The provision of affordable housing within transit-oriented development allows for several funding opportunities. The housing itself could apply for federal Low-Income Housing Tax Credit (LIHTC) funding. This incentive awards projects based on occupant income and building costs. The incentive has aided in the development of over 1.2 million housing units and become more efficient over time, in that an increasing amount of the incentive is applied directly to “bricks and mortar,” as opposed to complicated financing networks. The tax-credit program has also proven more financially stable than public housing, a program it effectively usurped.

Ideally, the housing would be handled by a non-profit developer. In general, nonprofits are considered more receptive to the needs of low-income communities. This means that nonprofits are far more likely to provide social services. This is particularly true of community development corporations (CDCs). Often, nonprofits will provide affordable units in neighborhoods that for-profits avoid. While for-profits tend to focus
on single-family development, “nonprofits are more likely to take on the difficult set of
tasks involved in financing and renovating multifamily projects.” Moreover,
onprofits have proven more likely to invest in ‘garden-style’ and or mixed developments –
a more desirable yet more expensive approach. As a result of these more altruistic
endeavors, nonprofits are given priority for a variety of tax incentives. In addition,
onprofits fill in the inevitable gaps left by for-profits. Most scholars of the matter
concur, “The unassisted private housing market generally does not provide for-profit
developers with enough of a profit to build or maintain decent-quality housing that is
affordable to low-income households.” In general, the nonprofit sector tends to express
a genuine interest in improving living conditions for low-income renters.

The remainder of the transit-oriented development would likely be financed by
private interests. The inclusion of light rail is often a strong incentive for private
investment. In order to leverage the potential for increased land value towards equitable
development opportunities, Tax Increment Financing (TIF) may be useful. This funding
option is often used to dampen the effects of gentrification in existing communities that
experience an influx of development. Some TIF funding should be reserved for Spring
Grove Village, to the north of the development, in the event that property taxes raise
significantly. If this is not the case, TIF funding can be redistributed to subsidize
improvements or later phases of the affordable housing on site.

**Precedent Studies**

For inspiration, I looked not to a specific building, but to a type of living. The type of
dense, transit-oriented community that I attempt to create can be found in abundance in
The Netherlands. The Dutch have a history of compact living within tightly-knit,
pedestrian-friendly neighborhoods. When designing my walk-up apartments, I took
inspiration from the Dutch *woonerv*, a residential corridor that employs extensive traffic
calming devices. I look specifically at Ypenburg, a diverse residential community in The
Hague, for a variety of possible *woonerv* arrangements.

Ultimately I opt for a variation of the *woonerv* with two rows of parking set between one-
way traffic lanes. This arrangement allows for a comfortable distance between walk-up
units, while maintaining a fairly intimate streetscape. By locating parking in the middle
of the street, drivers will have an understanding that pedestrians will be coming and
going from cars. This will encourage drivers to slow down, making the road a safer place
for walking and children’s play. Traffic is also minimized by the limited access of the
streets, as none of the residential streets connect to busier arterials.
End Notes

1 Dittmar and Ohland, p. 102.
2 Price, p. 102.
3 Marcus and Sarkissian, p. 55.
5 Kleit, p. 1416.
6 Marcus and Sarkissian, p. 43.
7 Newman, p. 18.
8 Bratt, p. 329.
9 Ibid, p. 335.

Bibliography


