



Opportunity Through Affordable Housing

Logan Shipman
Environmental Design
University of Colorado Boulder
Undergraduate Honors Thesis

Committee

Betsy Holt Johnson
Thesis Chair
Environmental Design

Abby Hickcox
Outside Member
Honors Program & Geography

Paul Chinowsky
Honors Committee Member
Environmental Design

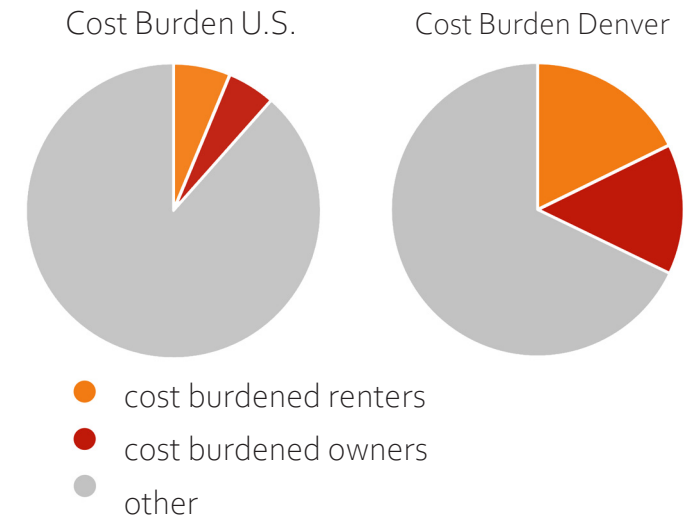
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Abstract

Shelter is one of humankind’s most basic needs. Despite the fact that many recognize housing as a fundamental human right many live without it or in unacceptable living conditions. In the United States where homelessness is viewed as a crime, yet housing ought to be a right, why isn’t more being done to fix this social and economic imbalance? Denver, Colorado, like many cities across the U.S. today, is experiencing great population growth that is predicted to continue. The market value in many neighborhoods is beginning to increase at exponential rates, which is pushing out existing populations. Five Points neighborhood in Denver is surrounded by highly affluent neighborhoods and at risk of gentrification. Gentrification is a threat in many U.S. cities because it changes the demographics of neighborhoods by conforming to a middle class standard, making a once affordable neighborhood unaffordable to certain populations, which often displace existing residents. This neighborhood, as well as many across Denver, is in need of affordable housing--not just economically viable housing, but housing that creates social, economic, and environmental sustainability. Many affordable housing projects fail over time because they neglect

to consider one or all of the above factors. The solution to the outlined problems will be presented as an affordable housing project proposal for the Five Points neighborhood employing progressive ideas to connect affordable housing with opportunity structures that are available to the middle and upper-class by using site-specific information. This model can serve to inspire other affordable housing models throughout the U.S. with modifications for site-specificity.



Introduction

The Universal Declaration of Human Rights recognizes housing as a fundamental human right. Housing is deemed affordable when thirty-percent or less of an income is spent on housing; currently 31.5% of Americans are cost burdened by housing, and there are an estimated 553,742 American citizens without shelter. By 2050, the population of the United States is estimated to surpass 398 million citizens, 68% of who are predicted to live in urban areas (Harvard University, 2019). As urban places become vastly more populated, affordability will become a greater challenge as the disparities between poor and affluent neighborhoods becomes more drastic.

How can affordable housing rise above systematic inequality and not only provide a place to live but provide residents with the amenities and opportunities available to upper and middle class homeowners? Affordable housing is a complex multi-faceted issue that necessitates addressing larger societal problems and understanding complex social issues associated with housing that greatly affect the affordability and access to housing. Systematic inequality in housing is the trend of lower income communities having limited access to services and amenities due to a lack in ability to move out of lower income areas to more affluent neighborhoods connected with greater opportunity structures. This complexity involves many institutions including economics, culture, bureaucracy, and social structures. It is also important to use a historical lens: understanding the past of affordable housing is important to prepare for the future. Using the Five Points Neighborhood as a case study and considering it as existing within a complex system makes this research applicable to help resolve issues of affordability and systematic inequality in cities across the U.S.

Literature Review

History of Affordable Housing:
Issues of housing affordability and cost-burden are not new, but attempted solutions by the U.S. government have historically employed many strategies. Housing affordability first was addressed by the United States Government with the enactment of the Federal Housing Administration Act in 1934. This administration relieved some pressure of affordability with the establishment of mortgage insurance programs. By insuring the loans and reducing the risk for the lender, more Americans

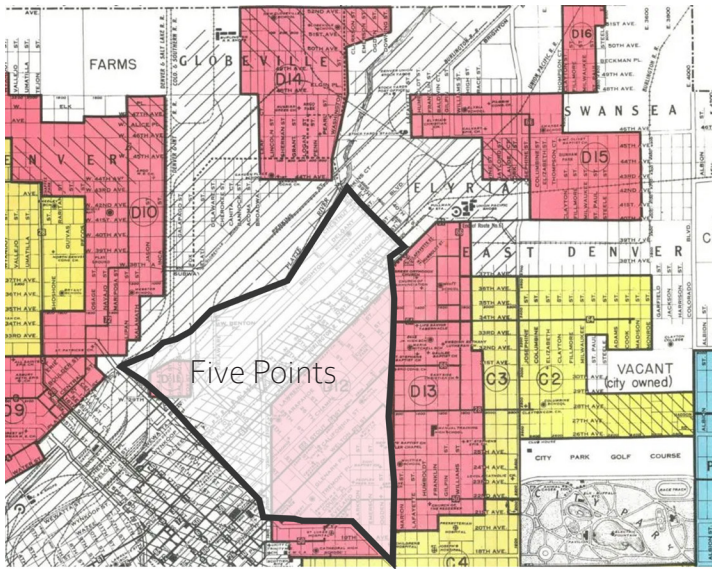
qualified for loans than they otherwise would have. This 80 year process led to a lot of mortgage payments that could not be met, and contributed to the collapse of the housing bubble in 2008. Many of the housing policies created near the 2008 crash set the stage for later crises (Amadeo 2019). People that could qualify for a loan prior to the crash may now be unable to because banks are not handing out loans as freely. In many ways, having stricter requirements to qualify for a loan is good because payments are more likely to be met, which reduces the risk of a housing bubble, but a downside is that it keeps lower-income populations from acquiring loans due to heightened restrictions.

A few years after the Federal Housing Administration was created, Congress passed The U.S. Housing Act in 1937 as part of President Roosevelt’s New Deal. This act created affordable public housing and utilized a new approach to affordable housing in the years immediately after WWII, as ‘white flight’ began and many urban residents took to the suburbs. Public housing rarely provided as much of a return as its initial cost, which made it a poor investment and led to its downfall (Sazama 2000). Large Public housing projects like Pruitt Igoe, built in 1954 in St Louis Missouri, were also riddled with design flaws like dark hallways and poor maintenance that contributed to the public housing structure’s ultimate demise. Living conditions began declining soon after its construction was complete and it became infamously known for its high crime. By the 1970s, public housing in the U.S. was a broadly recognized failure and did not provide answers to the root causes of housing affordability in the United States due to poor social and economic structures.

In 1965, Congress created the Department of Housing and Urban Development, creating a cabinet-level department to address the issue of housing and housing affordability, which is still in operation today. Today, most of the monetary aid distributed by the department goes toward rental assistance programs. The funds are distributed to Public Housing Subsidies to cover the difference in the market rate for housing compared to the thirty-percent target rate for affordability of the income of low-income residents, which was established as the affordable rate for housing by the Brooke Amendment in 1969 (Husock 2015). It was originally twenty-five percent and was later raised to thirty as it is today. The thirty-percent standard, unlike other affordability models, like residual, fails to account for other expenses that vary largely from household to household. The thirty-percent rule, however, does serve to create a baseline understanding of housing affordability that is easily calculated and understandable. Since most of the public funding is distributed to rental assistance programs, rather than to new affordable housing development, Congress created several housing programs to work with private institutions to generate funding to create affordable housing by increasing funds allocated to new development (Holcombe and Powell 2017). Many properties were bought or developed and rented at affordable rates. Since private developers are typically not contractually bound to keep units affordable, over the years many of the projects done by the private sector were sold or rented for higher, unaffordable rates for profit, diminishing the available affordable housing stock.

Affordable housing involves three sectors: public, private, and non-profit. The public sector

of affordable housing consists of the Department of Urban Housing and Development (HUD). This cabinet-level department distributes most of its monetary aid to rental assistance programs. This leaves a gap in new affordable housing stock being added to the market. This is why there has been a rise in non-profits over the past three decades. The non-profit sector has fewer limitations than the public and private allowing them to work more efficiently with fewer restrictions. The increase in work done by non-profits bridges social capital by providing a service the government should be providing (Hays 2002). This takes the burden off of the public sector to add new affordable stock, and helps alleviate problems of affordability.



Inequality in Housing:

Housing not only provides a place to live but also greatly affects the opportunities available to residents (Dwyer 2014, 23). Investing in a home provides an opportunity for economic growth with the resale of the home after a certain amount of time and is “the most important form of family wealth” (Kurz 2004,1). Cost-burdened families are systematically limited in their opportunities with their inability

to afford good housing, because of “broader social and institutional processes of racial-ethnic stratification that advantage some groups over others” (Krivo and Kaufman 2004, 585). Being unable to afford a home prevents cost-burdened populations from ever seeing a return on the investment of a home and does not link them to the same opportunity structures available to the middle and upper class. Even when affordable housing is adequate, which is not often the case, wages are not competitive enough to make up for the wealth disparity that exists between renting a home, which does not build wealth equity, and owning and then selling for potential profit (Thomas 1997). Many of these inequalities came about because of housing policy and how affordable housing is viewed and addressed in the United States.

For example, the Department of Housing and Urban Development has a long history of promoting racialized housing policies and practices, like redlining. Redlining is a process of denying residents of particular community loans because they are deemed to be a high financial risk based on information related to race. This practice of overt racism was banned fifty years ago, yet it still has an effect on minorities and low-income communities. Redlining prevented these communities from being homeowners because the loans were unavailable or too expensive (Jan 2018). This locked these communities into poverty for many decades. In viewing income maps of United States cities today adjacent to a redline map from the 1930s placed side by side, there is a great overlap of low-income communities and redlined communities.

Like many major cities across the United States, the effects of redlining in Denver are very

evident and still persist today, and the Five Points neighborhood is no exception. This neighborhood is historically associated with African American culture; in the 1920’s “90% of Denver’s African American population lived within the bounds of Five Points”(Encyclopedia Staff 2016). Today it is still home to many minority populations, predominantly a Latinx population at 17.58% followed by 10.57% African American population and has a staggering poverty rate of 20.26% (Denver Metro Data, n.d.).

Many scholars have suggested a variety of solutions to address these housing policy structures. Fair housing could result from an independent agency, operating outside of the slow processes within the legislative and executive branches (Silverman and Patterson 2012). Another popular thought proposes giving more power and control to local governments over land use. These local authorities have greater familiarity with the communities they work in providing more realistic solutions than the federal government could, and the federal government could incentivize local governments to create new fair housing developments (Book 2008). With a majority of the current funding being allocated to rental assistance

Sustainability in Affordable Housing :

With heightened awareness of the CO2 footprint of buildings and the built environment, there is greater importance to considering environmental sustainability in new development, including affordable housing projects. Social sustainability is one of the most difficult aspects of environmental sustainability. Many extremely livable communities are not accessible to lower-income groups. Five Points in Denver, a perfect case to explore these

ideas, has walkable streets in close proximity to places of entertainment and food and is near a large public transit hub. The walkability and sustainable design of neighborhoods like this make these neighborhoods very desirable places to live, thus explaining the high market values.

Livability with the absence of equity leads to gentrification, pushing out low income people by increasing desirability and the market value of housing. Even when affordable housing is mandated for development, it is often not accessible to low income people due to a lack of other infrastructure to support the low-income units. Sustainability is only truly successful when equity is considered (Newman 2009). Sustainable living is the future, yet it is a privilege to live a sustainable life when it should be accessible to all. Sustainability improves the living conditions of neighborhoods because it often goes hand in hand with qualities like walkability. These improvements increase the desirability of a neighborhood, which often leads to an increase in the market rate, creating an environment for gentrification to take place.

The economic sustainability of green, designed to minimize energy consumption, affordable housing has many proven benefits. Green infrastructure could be used to create healthier, more stable, and prosperous environments (Dunn 2010). Not only does it improve the living conditions for residents, it also reduces utility costs, keeping the home more affordable far into the future. It could greatly help low-income communities that need these considerations most, but there are often cost barriers in the upfront expense.

Environmental sustainability in a home is a complex issue that has a variety of potential solutions

that are all inherently specific to location to create a long lasting structure that does not inhibit resources for future generations. Achieving environmental sustainability is a balance between the conflicting need to provide a basic shelter and the desire to include considerations of sustainability and livability of the site, especially in affordable housing where funds are limited. The ongoing debate about environmental sustainability in affordable housing is very positive because it only occurs as the product of opposing interests spurring on creative solutions (Arman 2009). Although there is a positive return on investing in “greening” affordable homes, the return is not seen for quite some time, over a decade in some cases. With great demand to supply affordable housing, long term considerations and the money and time invested are often not of the most importance.

Gentrification:

Affordable housing isn’t a solution to gentrification but it can help to reduce its negative effects. Some of the main negative concerns of gentrification are the displacement of existing residents and the dilution of community. As mentioned by Freeman, the gentry has investment elsewhere contributing to the dilution (Freeman 2005). Aside from providing housing to young working upper class adults, they have no further investment in the neighborhoods they are populating. It is often the young population entering the workforce with decent paying jobs that move into more affordable neighborhoods as they are first starting their career. These more affordable neighborhoods become increasingly less affordable with this population influx of young white-collar workers. Hopes of the gentry to work with existing populations for the sake of improving the existing

population draws on a lot of assumptions that one way of life is superior to the other which can be extremely problematic. Some ideas of neighborhood “improvement” are universal while others can be assumed from other cultures but may not match well with the existing cultures.

Five Points neighborhood has a great historical context and is surrounded by affluent neighborhoods and is at risk of gentrification. Denver’s population is growing rapidly, and becoming a very desirable city to live and work in. Located near Union Station and in close proximity to the downtown hub, the location of Five Points is becoming increasingly desirable. The neighborhood was once referred to as “The Harlem of the West,” as home to many fantastic jazz musicians (Denver Metro Data, n.d.). It is historically associated with African American culture, and still is home to many racial and ethnic minorities. To maintain the historical fabric and existing residents of this neighborhood, affordable housing is necessary as wealthier populations and high end apartment complexes are being built in Five Points, raising the market value.

Methods

To propose a progressive affordable housing model for Five Points Neighborhood, four case studies were conducted to better understand what design aspects and ideas can contribute to a sustainable development offering wealth equity. The four case studies were selected from a large group of projects based on their ability to employ a progressive idea in the field of affordable housing and their similarity in size, density, and urban context to Five Points neighborhood in Denver to inspire a realistic site-specific solution. Each case will

be analyzed in the same categories including: project overview, sustainability, integration, amenities, maintenance, and funding. To extrapolate from these categories what is successful, and why, their long-term success, or sustainability, will be analyzed. Sustainability is a broad term, and breaking it down into the three categories: social, environmental, and economic will create a framework to cross-analyze the cases based on their ability to create circularity in their sustainable practices, complete circularity being the most successful and sustainable.

The goal of this research is to analyze how sustainability, considered in the three categories, is most successfully created in order to propose an affordable housing model that expands upon the current bounds of affordable housing with the ability to have broad implications in cities across the U.S. Extrapolating this information from existing projects that have been tested in the real world will allow for the creation of a well-informed solution based upon real phenomena. The proposed affordable housing model is rooted within the context of Five Points neighborhood in Denver to showcase the validity of the presented ideas, but also serves as a model for the future of

Data Analysis

Case 1: Glencove Cleveland, Ohio



Project Overview:

Glencove affordable housing project located in Cleveland, Ohio was once a tavern by the same name. It now consists of six affordable housing units geared towards providing artists with housing in the Waterloo Arts District. Many affordable housing projects aim to provide more than just a house. Amongst the selected case studies, the Glencove project employs some of the most progressive ideas. Residents earn bonus equity every month they pay rent. This money can be retrieved after five years and can be put forth for any investment. Tenants can earn a maximum of \$10,000 over ten years (O'Brien 2015). Along with making timely rent payments, this money can be earned by doing various everyday

maintenance projects, landscape work, or attending residential meetings (O'Brien 2015). The aim of this equity is to provide residents with greater opportunity after living in affordable housing by having the ability to make a down payment on a more permanent residence or renting out an art studio to start a business.

Sustainability:

Renovating an existing building uses substantially fewer resources than building from the ground up. Aside from the great savings on material cost, materials aren't transported to the site, and there is much less time and energy spent on construction. The embodied energy, "the energy consumed by all of the processes of a building," is minimal compared

to a new development (Milne 2013).

Integration:

The renovated tavern fits well into the context of the neighborhood, blending with the urban fabric, because it is of similar size and density. By repurposing the building, the old tavern kept its place within the context of the neighborhood, just with a renewed purpose. By bringing artists together and providing a place to live, their power can then be tapped to bring the community together through art. Camile Maxwell, an assistant director at Northeast Shores Development Corporation, believes, "when people start seeing interesting things in a neighborhood they become more involved," (O'Brien 2015). Not everyone in the neighborhood is an artist, but providing spaces to practice art, like a ceramic studio, provides the option for experimentation. Maxwell also believes that diverse populations have the ability to balance themselves out, and art is a way to bring populations together and positively impact the neighborhood and its residents. The practice of art within the building provides outreach opportunities to the surrounding community.

Amenities:

The two story project consists of two one-bedroom units, and four two-bedroom units. Among common spaces in the interior, there is a studio space for each resident artist to display their work. This space is included in the first floor units, and is downstairs space for the second floor tenants. The site also includes off-street parking for its tenants.

Dave's Market, an affordable local grocery store similar to Safeway, is .3 miles away from the property, a five minute walk according to Google Maps. Aside from the grocery store there are a number of commercial businesses in the area. This

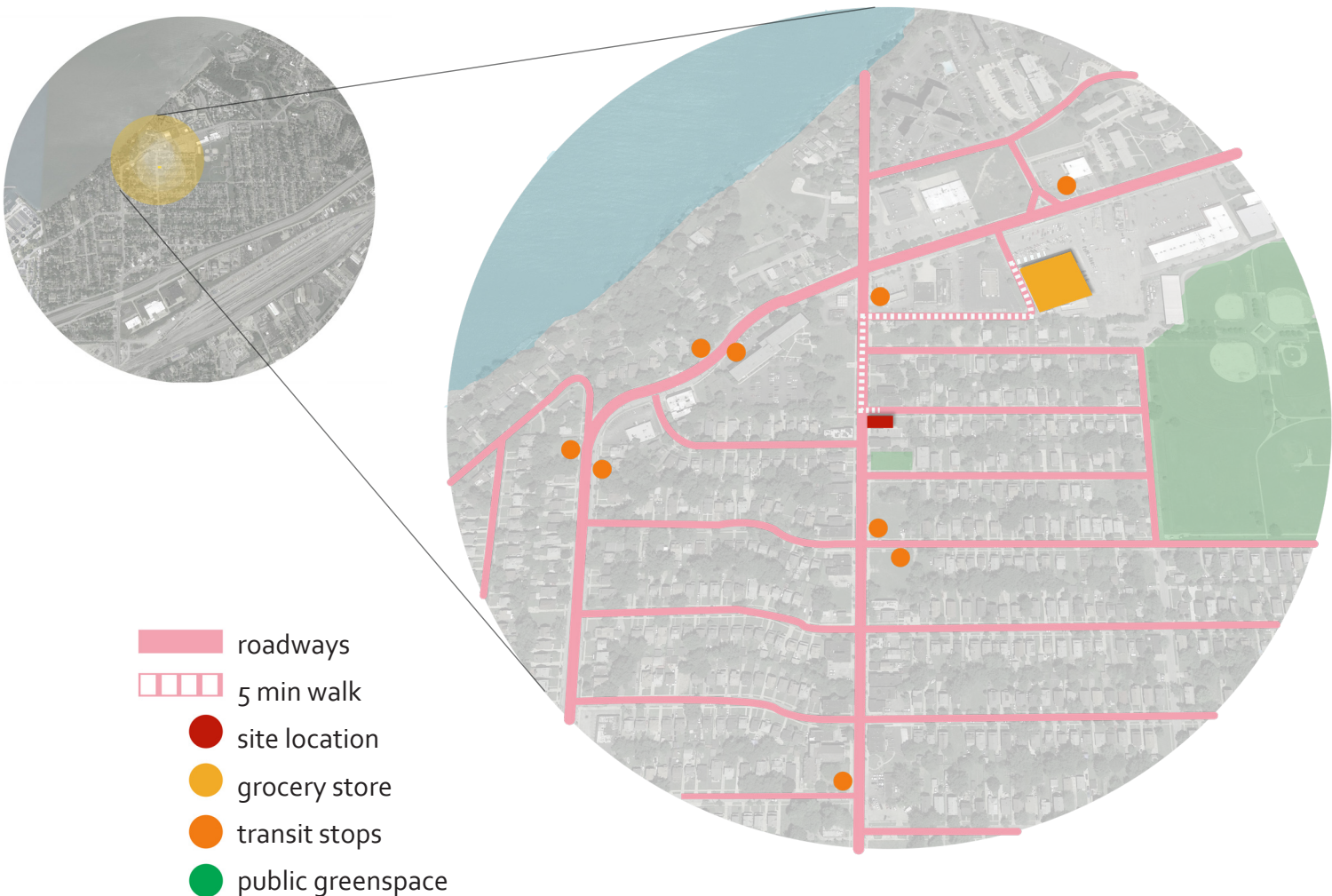
includes a nearby gas station, salon, and a variety of restaurants and other goods and services. Another short distance and walk away is Humphrey Park. The park consists of large open green spaces and several areas for sports activities. The park includes tennis courts, a basketball court, and a baseball field. To access other parts of the city outside of the ten minute walk radius, there are bus stations less than a quarter of a mile North and South of the site that service buses that provide connections to other parts of the city.

Maintenance:

As part of the equity program at Glencove, maintaining common areas is rewarded with equity. This model fosters the belief that every resident is in it together, like a family. Maintaining the building is a shared responsibility that has allowed for the longevity of the shared common spaces for the residents, and provides a model that will sustain the building for many years to come.

Funding:

This project was funded and completed by a non-profit organization. Northeast Shores Development Corporation (NSDC), a non-profit that works to increase home ownership and help entrepreneurs bring their businesses to market, purchased the vacant property for \$52,500. With the renovations, the project's total cost was \$771,000. The NSDC received \$350,000 from the City of Cleveland's Housing Trust Fund. The trust fund consists of resources from HUD, the Community Development Block Grant, and the Home Program, all federally subsidized funds. The project also received support from the Kresge Foundation, a philanthropic private foundation. The affordable rent for one of the units ranges from \$600-\$700 ranging in size from 650-850



square feet (O'Brien 2015). The average rent for an apartment in Cleveland is \$1,091 per month for an average size of 801 square feet (RentCafe, n.d.).

Case 2: Harvest Commons Chicago, Illinois



Project Overview:

Harvest Commons was once a hotel providing temporary housing to newcomers in Chicago, Illinois looking for work. Before it was renovated and renamed Harvest Commons, the Viceroy Hotel lasted from 1963 to the mid 2000s, slowly declining over the years until it ultimately became vacant in 2004 when it was purchased by the city. Later, in 2009, Heartland Housing, a non-profit organization, and First Baptist Church won the proposal and began the renovation process. It now consists of 89 affordable housing units providing a nice place to live for residents who have previously experienced homelessness, those at risk of homelessness, and previously incarcerated women. Dating back to the 1930s, the building is a historic landmark, and was renovated to fit the art deco era in which it was designed and built. Although it fits into the context of architecture from its era it was retrofitted with several more advanced technologies to make the building more environmentally sustainable while maintaining the original facade.

Sustainability:

To further the environmental sustainability of using an existing building and greatly reducing the total embodied energy, Harvest Commons was retrofitted with several energy efficient features. These features further preserve resources and minimize waste. This includes the solar-thermal domestic hot water system, energy-efficient mechanical systems, rain gardens, and a green roof. The green roof, composed of succulents, helps to reduce stormwater runoff. The solar panels on the roof provide fifty percent of the energy to heat water used within the building.

Aside from these physical systems to increase environmental sustainability, the project also exhibits an on-site sustainable architecture program. This program provides an educational opportunity for residents to learn about environmental sustainability, the sustainable systems in play on site, and provides them with fresh and healthy food from the garden on the site adjacent to the project (Heartland Alliance, n.d.). By integrating sustainable design structures with opportunities for residents to interact with them and each other and gain something from the investment in these programs, the project provides social sustainability. This form of sustainability is what will help to prevent the building from falling back into transient populations and high crime, through residents' investment in their home and with the community within. This success isn't coincidental and was heavily designed through various assistance programs and opportunity structures within the site to provide residents with new skills and training to later apply in other job opportunities (Office of Policy Department and Research, n.d.).

Integration:

One of the greater successes of using an existing structure is the buildings already belong to the neighborhood and its historical and cultural context. The art deco style of the facade was maintained and gives the building a sense of place and time within the neighborhood. Consistent with the research according to Jane Jacobs, places that are vacant with shattered windows are more likely to have criminal activity because these features show signs that no one is looking and no one cares (Jacobs 1961). Previously being a high crime site, the building was updated and now reflects a great level of care through its upkeep that has helped to shed the notions of being an unsafe, crime ridden site that is

slowly degrading. Through the renovation, the empty lot adjacent to the building was purchased as well and became a garden. This creates a space outside of the building close to the street for resident interaction, and ultimately for people to keep an eye on activity on the street and on the site. There is a large community park, Union Park, across the street from the site as well. Through the renovation and garden addition, not only was crime reduced in a previously notorious area, it also preserved the historic quality of the building making it a landmark in the neighborhood rather than an eyesore.

Amenities:

Of the six-story-tall building, the first floor is dedicated to administrative offices and services



and the remaining five are dedicated to housing. Of the five floors that are dedicated to housing, the second floor consists of 17 units that are dedicated to recently incarcerated women. These women are assisted by St. Leonard’s First Baptist Church to successfully transfer to independent living. The ministry also operates a small public cafe on the first floor of the building. The cafe is staffed with residents to provide them with practical training. Of the remaining units on the third and higher floors, 80 are reserved for people earning less than sixty-percent of area median income. Whatever is left over, if anything, then becomes available to people earning less than thirty percent of area median income (Office of Policy Development and Research, n.d.).

Housed within the first floor is “an intensive support infrastructure to help residents remain stably housed and provides life-skills training, workforce development programs, and other activities,” (Office of Policy Development and Research, n.d.). Heartland’s Housing affiliates, Heartland Care Services, and Heartland Healthcare provide support ranging from mental health to substance abuse counseling. Also on the first floor is a commercial kitchen staffed with a dietician who works with residents to teach about nutrition and cooking as well as one-on-one nutritional counseling. The sustainable architecture program and cooking classes promote the wellness of residents and healthy living. This program is supported by the 3,500 square foot garden adjacent to the building. The garden contains “raised beds for vegetables, a composting system, fruit trees, and a chicken coop for laying hens,” (Department of Policy and Research, n.d.). The garden provides fresh produce for the cafe and has the potential to one day host a neighborhood farmer’s market.

Maintenance:

Many of the interactive programs in the building require the support of maintenance work from the residents. All of the programs within the building are designed to provide a service to the residents whether it is learning or fresh food so residents benefit from helping to maintain these programs. Aside from the work of the residents, there is a continual supply of investment from the Baptist Church as well as the Heartland programs to continue to support the longevity of the project.

Funding:

The \$22 million dollar project received support from local, state and federal resources. Nearly half of the funding came from a federal low-income housing tax credit equity and another “2.7 million in historic tax credit equity,” (Department of Policy and Research, n.d.). From the state the project received 1.1 million in equity from the Illinois Affordable Housing Tax Credit Program. The city provided 3.9 million in tax increment financing. The remaining funding came from a variety of private investors and Heartland Housing non-profit.

Case 3: Broadway Housing Santa Monica, California



Project Overview:

Broadway Housing project in Santa Monica is a newly constructed development that took over the

site of a vacant senior living complex, aiming to fit within the existing urban fabric by housing residents in small masses that center around a courtyard, versus a larger singular mass which is more typical for affordable housing projects. This was an integral piece of the design process in order to combat political resistance and gain community support. Among the four separate smaller buildings there are thirty-three affordable housing units. The site is adjacent to a diverse range of transportation options and across from a large community park. The project also consists of two community rooms that are often used as classrooms.

Sustainability:

In the design process of the building, several sustainable factors were considered. This includes the use of recycled carpets, a green roof, specialized window frames to prevent solar heat gain, energy efficient systems, and a cistern rainwater collection system in the garden in the central courtyard. By customizing the window frames to have specific overhangs to respond to the sun, none of the units have air conditioning and stay at comfortable temperatures. They stay within a comfortable range throughout the year by permitting more solar heat gain in colder months when the solar angle is lower, and blocking it in summer months when the solar angle is higher reducing the amount of solar heat gain. The green roofs help to insulate the building and also slow stormwater runoff. No air conditioning, minimal heating, and energy efficient systems like “tankless water heaters help to keep utility bills down for tenants, who are responsible for paying for gas to cook, heat water and heat their apartments,” (Goodman 2015).

The four, three-story buildings all center

around a courtyard. This courtyard provides a place for children to run and play safely on-site. Hallways on the exterior of the building that face the courtyard allows for increased interactions of residents by connecting the units through the outdoor space that is overlooking the courtyard. The great visibility of the courtyard from the units provides a feeling of safety because all activity is being monitored by the residents from their units or the exterior circulation. Integration:

Before Broadway Housing took over the one-and-a-half acre site there was a vacant nursing home. Initially the project faced political resistance from the city. It wasn’t until the design was changed to four complexes, each three stories tall, that it was viewed as a positive addition to the city. The smaller complexes spread to each corner of the lot fit into the existing context of the neighborhood structure better than a single, multiple story complex. In the design of the central courtyard, all of the old trees were preserved, which also helped gain support for the project by keeping part of the historical context of the site.

Amenities:

Aside from the outdoor courtyard with a playground, there are two community rooms, a laundry facility, and a computer lab on the interior. The project also sits adjacent to a large community park. The two community rooms are run by the Boys and Girls Club of America, a non-profit organization that provides after school programs for young people (Boys and Girls Club of America, n.d.). When the community rooms are not occupied by the Boys and Girls Club, they are also used as classrooms and community gathering spaces.

The affordable housing site is connected



to many different transportation networks. Most notably is the newer Bergamot station expo. This light rail line connects residents to the heart of the city. The station is .5 mile from the site or an 11 minute walk according to Google Maps. Aside from the light rail, there are many other bus stations that service various other parts of the city, all a short walk from the site. For shorter travels there are bike lanes on all of the adjacent streets. Ralph's, an affordable grocery store, is .5 miles away or a 9 minute walk according to Google Maps.

Maintenance:

Broadway affordable housing has an on-site manager who helps to keep the facility up and running and address any maintenance issues. Residents are in charge of keeping their personal units up to their own standards. The community

spaces like the garden are shared by the residents who therefore share the responsibility of maintaining them (Kevin Daly Architects 2015). Kevin Daly Architects chose many sustainable materials in order to reduce environmental cost but also to keep maintenance simple for residents by choosing materials that are long-lasting and durable (Walker 2013).

Funding:

The thirty-three units are available to populations earning between 30-60% area median income. From 2014-2018 the AMI averaged \$93,865 annually (United States Census Bureau, n.d.). 30-60% AMI earners qualifying for this housing complex earned roughly \$28,159.50- \$58,119 annually. The units on the first floor are three bedroom units and the second and third floor consists of two bedroom

units. This was chosen based off of the market need for these types of units. The rents range from "about \$560-\$1,300 per month," an affordable 30% of income for residents (Kevin Daly Architects 2015). The project received funding from Community Corporation of Santa Monica, a local non-profit. The non-profit creates affordable housing "for people of modest means," focusing on making Santa Monica "more inclusive, caring, and environmentally sustainable city" (Community Corporation of Santa Monica, n.d.).

Case 4: Paseo Verde Philadelphia, Pennsylvania



Project Overview:

Paseo Verde consists of 120 unit mixed income rentals located in North Philadelphia, an "ethnically and economically diverse neighborhood," where there was once an abandoned gas station commonly referred to as an eyesore of the neighborhood (Chung and Galdes 2016). There are one, two, and three bedroom units to accommodate a mixture of incomes and needs of the neighborhood. The main floor houses a health clinic and a community room. The project is less than two miles from the center of downtown, adjacent to a transit hub, and a short walk from Temple University.

Sustainability:

All of the 120 units are LEED, Leadership in Energy and Environmental Design, certified. This is

accomplished by the energy efficient mechanical systems, the blue and green roofs, solar panels, and energy-star rated appliances and fixtures (Chung and Galdes 2016). The units are ranked Leed Platinum, the highest LEED certification which attests to great performance of "energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts" (Boston University, n.d.).

Integration:
The project sits adjacent to a large transportation hub and is a short .2 miles or 4 minute walk away from one corner of the Temple University campus according to Google Maps. In the design process of the project, a public health clinic was added based upon determined need for the service for the whole community's benefit. The site sits to the north of Philadelphia's city center and the adjacent transportation hub offers a lot of easy connections to the city center. This project supplies commuters, students, and families with an affordable place to live. Taking over the vacant gas station lot, the complex aims to bring residents back to Philadelphia, a city experiencing hardship with the abandonment of industries draining the city of residents (Chung and Galdes 2016).

Amenities:

The architects, Jonathan Rose Company, known for affordable housing projects, believe affordable housing is the most successful when it provides more than housing (Sisson 2017). This is evident in the amenities within and around the project. The building sits adjacent to a large transportation hub. On the main level of the project there is a health clinic and a community room. For the residents, there is a central courtyard which is used

for gardening, on-site parking, a fitness center, and bicycle storage. There are several nearby grocery stores. The most affordable option according to reviews on Yelp is Cousin’s Market, a short .3 miles away or a seven minute walk. Even closer to the site is a convenience store, Philadelphia Discount Depot, .2 miles away or a five minute walk according to Google Maps.

Maintenance:

Many affordable housing projects fail over time due to a lack of maintenance. A run down

building leads to issues of higher crime and unwanted activities because it appears the building is not being watched or cared for (Jacobs 1961). Not only does this need to be accounted for in the design of the project, but requires adequate allocation of funding to keep the building in its intended condition and provide safe housing. Issues with maintenance and maintenance staff have already begun a few short years into the existence of the Paseo Verde Project in Philadelphia. There are countless reviews left on Yelp about this affordable project all to a

similar tune of, “this is brand new and already falling apart with useless management,” and “there is no security at all. The doorman leaves around 4pm, so what’s the point of having one at all” (Google Maps, n.d.)?

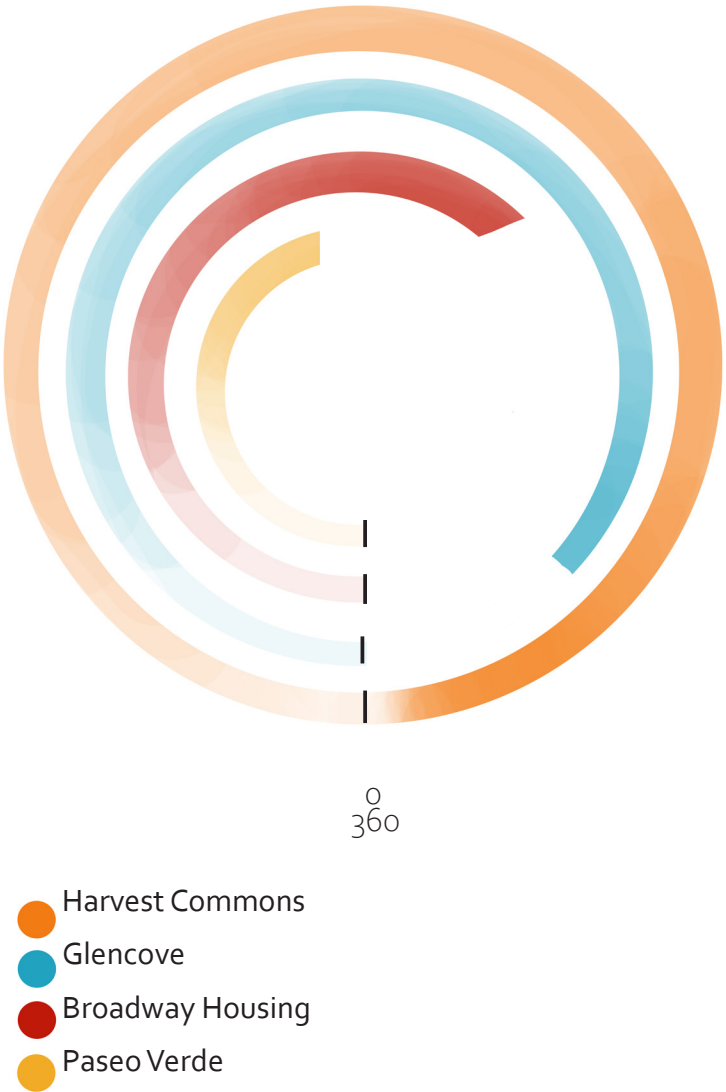
Funding:

The project was executed by the Association of Puerto Ricans on the March (APM) and Jonathan Rose Company. The APM is a group that focuses on community and economic development initially founded due to dissatisfaction of Vietnam War veterans in the lack of public services available to the Puerto Rican Community in North Philadelphia. Together with the Jonathan Rose Company, specializing in affordable housing projects, the partnership acquired funds from the city to develop the Paseo Verde Project (Chung and Galdes 2016). The total project cost was \$47.3 million. APM leveraged funds from both public and private sources. The city of Philadelphia funded \$5.5 million, partial financing from Federal Home Loan Bank of San Francisco, \$520,423 from the Affordable Housing Program, and the rest of the funding was sourced from private investors and contributors (Grecu 2012).

Data Synthesis

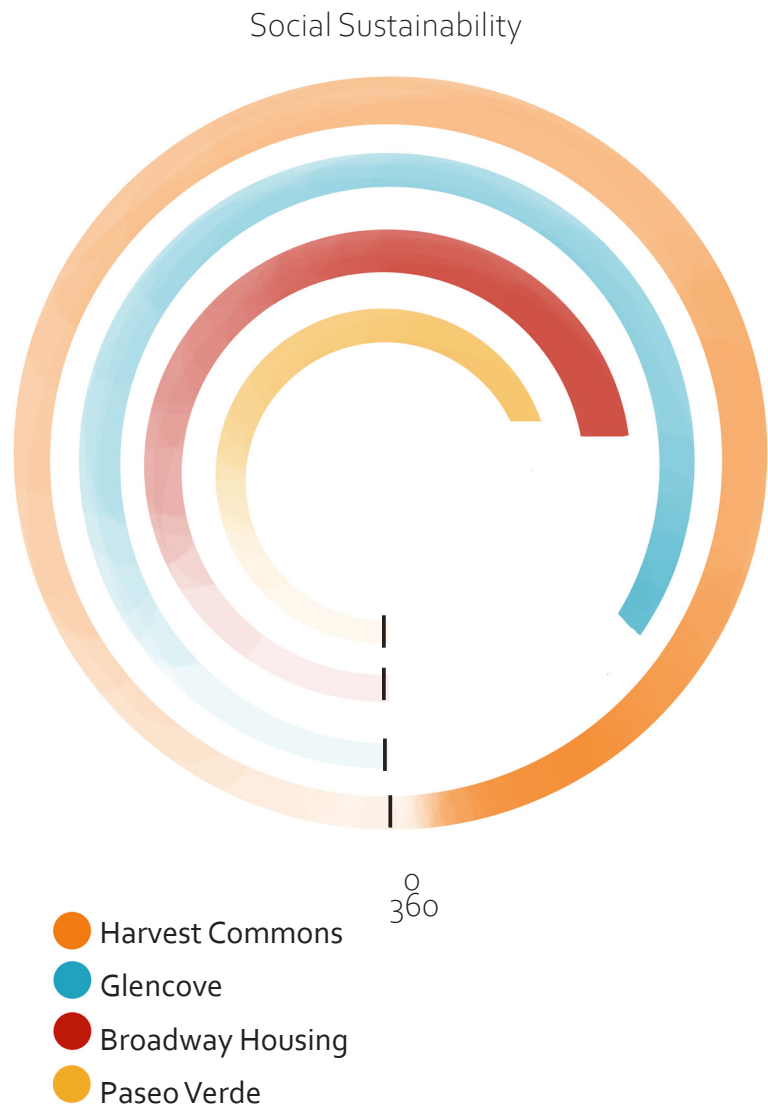
The most successful cases of affordable housing all exhibit a circular cycle, which makes them long lasting and sustainable. This circular model is evident economically, environmentally, and socially. Achieving this revolution can be done in a variety of ways but what goes in must eventually return to the beginning, even if it takes on a different form. Investments, whether they be time or money, must provide some return in order to incentivize and reward. One of the leading factors that causes the

Overall Sustainability



downfall of affordable housing is poor maintenance. Poor maintenance leads to issues of crime and poor living conditions due to a lack of care and responsibility taken to upkeep the property. Many of these factors can be accounted for in the design process of the project beginning with site location, acquiring funding, what type of units are most needed in the area, how many of these units can fit appropriately on the site, designing the building passively to respond to the climatic conditions, and designing for human interaction in ways that benefits the users of the space.





includes spaces to display their work. This complex is geared toward providing housing to artists, to benefit them greatly from having an affordable place to live that supports their work in the arts. To further incentivize the residents to maintain these spaces, there is an opportunity to earn equity. This monetary equity can also be earned by attending community meetings. The non-profit, NSDC, chose to focus its efforts on providing housing to artists because they believed that the community could be better brought together through the arts, and what better way to bring art into the community other than providing housing and studio spaces. Sharing the responsibility creates a family-style atmosphere where responsibility is shared amongst residents with an “in it together” feeling of looking out for one another.

In the second case, Harvest Commons, the garden and cafe provides residents with interaction with other residents and the community, and by participating in these spaces, they get a return on their efforts. From the garden, residents get healthy, fresh food and gardening knowledge, and in the cafe, they gain experience in the food industry to better prepare them for future jobs. Not only do the residents benefit in the ways previously listed, they also benefit from living in a building with communal spaces that are maintained. The once vacant building that now has a public cafe and outdoor gardens is a great benefit to the community in contrast to a vacant building and the prior transient populations.

Harvest Commons also provides housing to previously incarcerated women on the second floor of the project. The Baptist Church works with these women in efforts to better help them adjust back into a normal routine and to rejoin the workforce. This is a far more socially sustainable practice than

releasing these women into other types of housing situations that are subject to transient populations due to their inability to pass restrictive background checks for more permanent housing situations. With the help of the Baptist Church, the transition back into a normal life provides these tenants with the support they need to be a successful and contributing member to society by gaining experience in the cafe at Harvest Commons and then getting jobs throughout the community.

The third case study, Broadway Housing, has two community rooms and a number of other shared spaces, including an outdoor courtyard, playground, and computer lab. There is an on-site manager to deal with larger maintenance issues, but taking care of these shared spaces is a shared responsibility. Classes and after school care are offered in the two community rooms. Residents benefit greatly from the services taking place in the community rooms, and therefore benefit from participating in maintaining them so that the services can continue to be offered.

A few other aspects of the design that make it socially sustainable are the four smaller masses as well as the exterior circulation of the buildings. The choice to create four smaller masses versus one was done to gain support from the community but also blends the project more seamlessly with the urban context of the neighborhood as well as the residences of the surrounding neighborhood. The exterior circulation of the building creates more visibility of the outdoor courtyard as well as to the other units of the project. The sense that someone is looking out creates a safe environment for children to play in the outdoor courtyard as well as more opportunity to see and encounter residents of other

buildings and other floors.

Similar to Harvest Commons, Paseo Verde affordable housing in Philadelphia also houses a public space on the main floor of the project. At Paseo Verde, this public space is a health clinic. Adjacent to the site is a large transportation hub which allows for easy connection to the city and also connects the project with the surrounding community, with heavy foot traffic around the site. This project, like many affordable housing projects, includes a community room used for various activities. Also similar to other affordable housing projects, Paseo Verde is a new project that is already having issues with maintenance and keeping the building in working and good condition. Although there is an on-site manager, unlike the other case studies, there are many reviews left on Yelp complaining about maintenance problems and the lack of response from management to address these problems. These issues with maintenance can be attributed to a lack of social sustainability as well as other factors. Speaking to the social issues, there is a lack in a sense of ownership which leads to the degradation of these types of projects. Without a sense of ownership, issues of maintenance are not properly addressed because there is no responsibility in the day to day maintenance of the space and further no sense of responsibility for them when they are working improperly due to a lack of care. There is also a clear lack of communication between the on-site manager and the residents.

Environmental Sustainability:

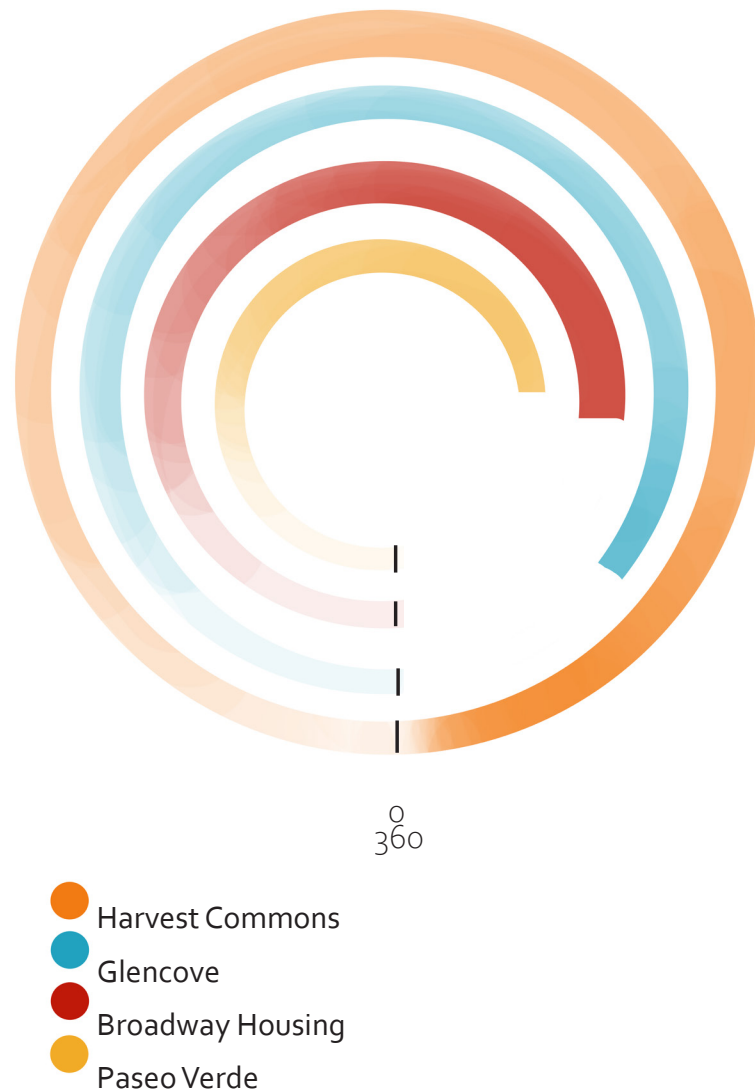
All four case studies show consideration of environmental sustainability to varying degrees in the design of the project. Many of the environmentally sustainable factors help to contribute to

Social Sustainability:

One thing all of the above four case studies have in common is the inclusion of communal spaces for residents to interact with one another. Among them, these spaces take on different forms and functions, but inevitably they accomplish social sustainability through personal benefit by inhabiting the space while also supporting the project, other residents, and the surrounding community.

In the first case, Glencove, there is a community space on the first floor for the tenants of the six-unit complex to share and maintain. Each resident also has access to their own art studio which

Environmental Sustainability



perform better and use less energy. Other considerations during this renovation would further help the energy performance of this building, but are lacking in the renovation. Things like Energy Star appliances, solar panels, and rainwater collection systems could further improve the environmental sustainability of this project. All in all, it is more sustainable than its counterparts due to savings on total embodied energy of transportation and use of new materials.

Similar to Glencove, Harvest Commons is also a retrofitted building. Whereas Glencove lacked environmental consideration in the retrofitting plans, Harvest Commons has this in abundance. This project includes a solar-thermal domestic hot water system that supplies most of the energy needed to heat the water to service the building, updated and efficient mechanical systems, and rain gardens. The on-site sustainable agriculture program teaches tenants how to grow healthy and fresh food in a very sustainable way by growing it on-site where it will be consumed, saving a lot of energy and water in the production and transportation of produce.

In contrast to the first two case studies that are retrofits, Broadway Housing is a new development with a few environmental considerations. The units do not have air conditioning due to strategic window overhangs, use recycled carpets, and have a green roof to slow stormwater runoff which also provides insulation. As part of the neighborhood integration plan, the trees on-site were built around and still remain. Although there are many environmental considerations, none are enough to match recycling an entire building.

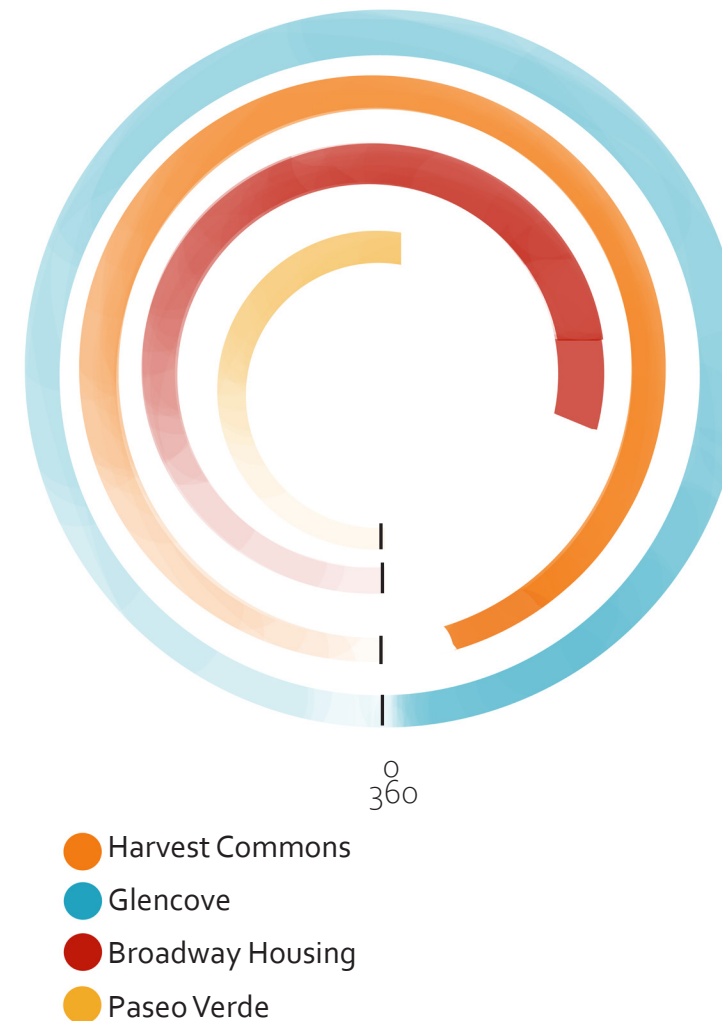
Paseo Verde is also a new development with more consideration for environmentally-friendly design than Broadway Housing. All of the units

economic and social sustainability as well. The three factors are all interdependent with one another, and where one is strong, it helps to strengthen others. Employing energy efficient systems also reduces utility and energy cost long-term which helps to keep cost and upkeep at a more affordable rate.

The first case, Glencove, as a retrofitted building does not include much environmentally sustainable thought in the design process because it was an already existing building. However, using an existing building is, in many ways, far more sustainable than building from the ground up. Newer windows and insulation help this 1920s building to

are LEED certified platinum. The development sits adjacent to a large transportation hub providing more environmentally sustainable ways to access downtown than driving a personal vehicle.

Economic Sustainability



Economic Sustainability:

All affordable housing projects require funding whether it is acquired from public or private sources. Of the above case studies, it is evident that public funding is insufficient, thus requiring the allocation of funds from the private and non-profit sector. The most economically sustainable affordable housing projects give back to the surrounding

community, in one way or another, and create a return on the investment from public or private sources. Providing affordable housing in city centers, generally speaking, contributes to the economy by providing housing for cost-burdened people where they work.

Glencove affordable housing has the most successful economic sustainability amongst the chosen case studies. Building equity over time connects low income housing to similar opportunity structures available to middle income housing by getting a return on the investment of money into a property which is not typical of this housing type. Rehabilitating a vacant building reduces the cost burden an abandoned place has on adjacent property values, higher crime rates, and lost property tax values (Sisson 2017). Glencove also adds to the community by housing artists and providing them a place to live and work and bring art into the community.

Harvest Commons, the second case study, is second to Glencove in economic sustainability. The project is also a reclaimed vacant property. Similar to Glencove, reclaiming a property saves a city money because of lower crime rates, higher property taxes, and increased property value. Harvest Commons, which was once a home to a transient and high crime population, benefits the city by contributing to the surrounding community in a positive way by using a vacant building, creating a public community gathering space, and offering more stable housing to lower income groups. The project also offers opportunities to gain work experience and agricultural knowledge to residents.

There is less to be said for the economic sustainability of Broadway Housing. One of the more

notable attributes that contributes economically are the two classrooms serviced by the Boys and Girls Club. Providing after school care to children with parents who most likely do not have the income for after school care will provide these kids with learning opportunities that they would not otherwise have, providing more tools for a successful future and applicable skills to obtain a job.

Paseo Verde’s most evident economic contribution to the surrounding community is housing the public healthcare center on the first floor of the building. An evident break in the economic cycle of the project is the maintenance problems occurring a few years after the project was built. Although there is an on-site manager, according to tenants’ personal accounts, there are many maintenance problems that go unresolved for long periods of time.

Affordable Housing Model Proposal

Pulling from the most sustainable social, environmental, and economic factors, and considering Five Points neighborhood in Denver, I propose a new type of affordable housing focusing on issues of cost-burden. In essence, the purpose of this model is to create a way for affordable housing to be an investment for private investors as well as for the tenants living in affordable housing development. The goal of this model is to tie affordable housing to opportunity structures that mimic the opportunity structures available to middle and upper class home owners as well as to increase the supply of affordable housing working within the limitations of the available public funding.

In Denver, a staggering 50% of renters are cost burdened by housing (CO Department of Local

Affairs, n.d.). For my proposal, I chose to focus on Denver residents earning less than 30% of median average income. I chose this demographic because it is a population struggling most with housing affordability in Denver and most at risk of becoming homeless, some of whom are living below the poverty line.

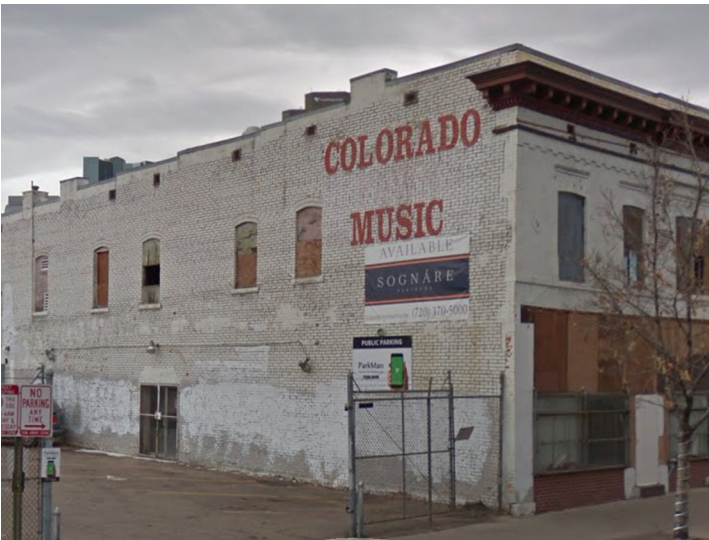
Modeling after Harvest Commons and Glencove case studies, I propose taking advantage of existing buildings and retrofitting them into affordable housing with social, environmental, and economically sustainable conditions. For the purpose of my proposal, I selected a building adjacent to a vacant lot at the corner of 22nd and Larimer in Five Points neighborhood to best exhibit my ideas within the existing conditions of a neighborhood with a strong historical context and at risk of being gentrified. This property, located at 2200 Larimer Street, was built in 1904 by Frederick Carl Elbery, a well-known Denver architect. Before prohibition, the building contained a bar that later converted to a pool hall that sold soft drinks during the prohibition. The building was available and vacant until 2018 when it was purchased by a developer for \$8 million (Business Den, n.d.). The city of Denver rejected the developer’s demolition proposal due to its historical designation (Bryant 2019). Buildings such as this one in Five Points have a historical context, sit vacant for a number of years, and are often purchased by developers to be cleared or reconstructed into high end apartment complexes or commercial spaces contributing to issues of gentrification and displacement.

The site is in a great location near a Max Market, a small grocery store a short 4 minute walk. King Soopers, a larger grocer, is a 15 minute walk. There are also many nearby transit stops, including

Union Station, a large transit hub for the city. Cities like Denver need to be more proactive in preserving these historic buildings and acquiring these vacant spaces with prime locations having access to many amenities and creating affordable housing to preserve the existing neighborhood, buildings, and populations.

I propose the building be retrofitted into an affordable housing complex with a public music-themed cafe on the ground floor facing Larimer Street with an outdoor garden and patio space adjacent to the building where there is currently a small parking lot.

Before Image



Social Sustainability:

Five Points was once a redlined neighborhood, but even though the practice of redlining was banned because it is a racialized practice, the effects are still evident today with the lack of opportunity to build equity. Wealthier populations that could move to the further outer bounds of Denver did, causing a large population drop in Five Points from “25,000 in 1950 to 8,000 in 1990,” (Encyclopedia Staff 2016). This led to the degradation of the neighborhood as vacancy increased along with higher crime rates.

For the sake of urban renewal several blocks of the neighborhood were wiped out and replaced with luxury condos, like Curtis Parks Homes and parking lots (Encyclopedia Staff 2016). Urban renewal efforts in the neighborhood have widened the wealth gap in the neighborhood and taken away from the historical context. Restoring an existing building dating back to when the neighborhood was in its prime will help to preserve the historical context of the neighborhood versus clearing it out and replacing it with large luxury apartments that have no consideration for the history of the neighborhood.

Adding affordable housing units to the housing stock will keep the existing population within the bounds of Five Points. The large gaps in wealth evident in the neighborhood create a lot of opportunity for displacement and gentrification. Adding affordable housing stock to the neighborhood will help to keep the existing populations within the bounds of Five Points. In order for a neighborhood to exhibit social sustainability it needs to “meet the needs of current and future residents and contribute to a high quality of life,” (Eizenberg and Jabareen 2017). Affordable housing will help keep some existing residents within the neighborhood and increase the income they have for other expenses besides housing.

Similar to all four case studies, it is important to include a communal space for the residents to interact and provide a space also for various activities to take place. This space will be a community room that will have a storage closet with tables and chairs so it can be used as a classroom, conference room, or as a studio with an open floor to allow for a wide range of activities and programming. As discovered in the analysis of the case studies, there needs to be

a benefit for residents from these places in order to incentivize the maintenance of the space.

Pulling from ideas included in Harvest Commons, the proposal includes a public music-themed cafe on the ground level facing Larimer. This addition not only adds to the social sustainability but is in tone with the historical context of the retail windows on the front of the building facing Larimer

and the jazz history of Five Points Neighborhood, which was once referred to as the “Harlem of the West” (Denver Metro Data, n.d.). The cafe provides a place for residents to interact with members from the community as well as to gain practical work experience that can then be applied to other jobs within the community.



Environmental Sustainability:

Buildings in the United States account for 40% of total energy usage (US Department of Energy 2008). Current trends in design are showing a much higher focus for sustainable design; however these projects take a very long time, upwards of several decades, to pay back the energy use and carbon emissions to reach a net-zero impact. There are many studies that support retrofitting a building to be more sustainable in comparison to new construction even with heightened awareness for sustainable elements and design (Hughes 2012). It needs to be a case by case approach to determine the cost versus benefit of retrofitting an existing

building, but typically the cost of retrofitting an existing building is less than building new. Using an existing building mitigates purchasing new materials, their cost and production, as well as transportation to the site.

To add to the environmental sustainability of retrofitting an existing building, energy saving considerations can still be added. This could include installing new windows, Energy-Star appliances, adding insulation, or many other forms of improvement deemed most helpful in energy analysis of the existing building. These improvements are not too costly and could greatly help with the energy costs and savings of the building.



- Affordable Units
- Market Rate Units
- Public Cafe
- Community Room
- Greenspace

Economic Sustainability:

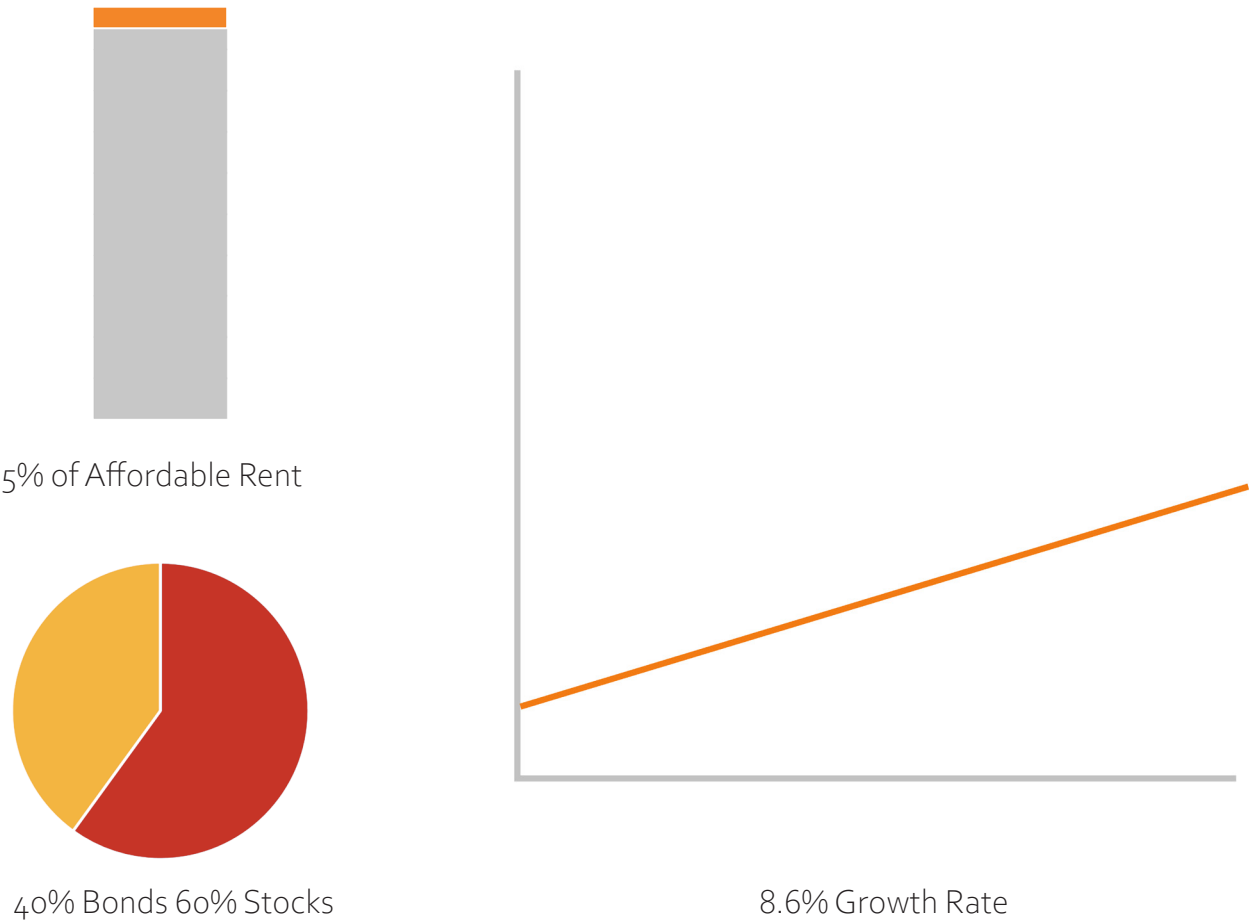
In order to achieve economic sustainability, I propose a new model for affordable housing funding and investments. The state of Colorado has \$24.5 million per year dedicated for housing development grants and receives “\$13.5 annually in federal funds for affordable housing,” (Rubino 2019). This is the equivalent to creating 2,800 units of affordable housing per year which isn’t enough to match the demand for affordable housing (Rubino 2019). To attempt to increase funding for affordable housing, 10% of the units of an affordable housing development should be rented at the market rate to better incentivize private investors to invest in an affordable housing development, a safe investment. Many affordable housing projects as discovered in the various case studies do not receive enough public funding to cover the cost of the project. Creating a better incentive for private investors can begin to fill the gap between available funding and the cost of affordable housing projects. Acquiring investments from as many different public, private, and nonprofit sectors increases the amount of money and people that want to support a successful affordable housing project. The investment of people and money in this type of project is key in fostering its success because with large sums of money involved the investors want to see the project through and get a return on their investment, ensuring the project’s longevity.

To create economic sustainability for the tenants, I propose 5% of the tenants affordable rent is put into an “Equity Tomorrow Fund,” a portfolio investment, to gain equity over time. It is important this investment has a higher rate of return than the current 2.25% year to year inflation rate so that the funds are actually growing and not losing

value or remaining stagnant (Stat Bureau 2020). This fund would grow over time with additional investments being made each month, increasing the total investment. This is done to better match the economic opportunity of affordable housing with middle and upper income housing which has historically been at an advantage with mortgage interest deduction for homeowners (Pimplaskar 2018). This money could be accessed after five years and be put forth for a more permanent housing situation down payment but the fund is not limited to this singular purpose. In order to actually accumulate equity with time, much like the case study of Glencove, the funds can be accessed after five years or can continue to grow with more time.

The affordable rent rate will be based on Denver at large to better represent the average wealth of the city for inclusivity versus looking at Five Points specifically, which has a significantly higher area median income. The AMI of Denver is \$68,377, people who earn less than 30% of AMI earn \$20,513.10 or less a year. In order to offer units at an affordable rate, populations earning 30% or less than AMI should spend an affordable amount, 30% of income, of \$6,153.93 on housing each year. This means rent for an affordable unit should cost \$512.83 per month.

Setting aside 5% of this affordable rent would accumulate to \$307.70 per year in initial investment, not accounting for the return rate. Over five years the amount invested by the resident would accumulate to \$1,538.438, once again not factoring in the return on the investment. Investing the funds in a portfolio investment, 60% stocks and 40% bonds, is one of the safer investments with a high rate of return averaging at 8.6% annually



(Vanguard, n.d.). Based on the average return rate for this specific portfolio investment, residents after five years of investing 5% of affordable rent per month can expect to have accumulated wealth with an investment beating the year to year return rate by roughly 6.35% higher, and can retrieve the funds after five years or can continue to invest and build more equity over a longer period of time. This money would be invested and managed by an economic team consisting of a financial office doing pro-bono work for the affordable housing complex and its residents. To ensure maintenance issues do not lead to the eventual degradation of the project, as part of the economic model I propose 1.5% of the total project

funding is set aside for maintenance, an important project cost that should have allocated funds. Similar to the 5% investment of affordable rent, this money would also be managed by the economic team and placed into a very safe investment consisting of stocks, bonds, and certificates of deposit to ensure it is not losing value over time and can continue to grow in value to support the project for many years. Ultimately, the economic team will make investments according to the state of the market with the goal of keeping the money safe while creating wealth with the affordable rent investment and maintenance funds. This economic team will be sourced from a financial office doing pro-bono work.

After Image



Conclusion

Affordable housing is a complex and widely discussed topic. Housing in general is a complex and diverse topic that requires a historic evaluation to better understand the current state of housing in US cities and the policies and social structures that still affect it today. Areas of low income remain relatively in the same location and the same populations remain at low income due to the effects of systematic inequality and reduced opportunity structures. In designing affordable housing, it needs to provide more than just a home to better match the opportunities available to upper and middle class to allow for residents of this housing type to, with time, move on to other housing types. The ability of an affordable housing project to connect residents to these opportunity structures is dependent on the designed social, environmental, and economic sustainability of the project. To design these conditions the project needs to offer a public space, community space, the opportunity to build wealth over time,

and to most importantly fit within the existing urban context by understanding the history of the neighborhood and the site.

The affordable housing model proposal using the Five Points neighborhood in Denver as a case can serve as inspiration for broader application of the model in cities across the U.S. The model proposes the use of vacant buildings in cities, which in some cities there is a staggering supply of, to increase the stock of affordable housing and to also increase the wealth of the city by increasing surrounding home values and contributing property tax. This application would need to be case by case to determine the cost benefit analysis, but serves as a positive contribution where vacant buildings are prevalent.

The economic proposal, based off of data points for Denver's AMI and the city and states available public funding, can easily have broad implications in any U.S. city with slight adjustments made based upon site-specific information related

to AMI and available public funding. The proposal tackles the widespread issue of a lack of public funding for affordable housing projects and the lack of opportunity structures linked to affordable housing. The proposal therefore can help inform new solutions to increase affordable housing stock in cities as well as to increase opportunities available to residents through the building of equity.

The public space on the ground floor can offer a variety of services, a cafe being the proposal for Five Points based upon analysis of nearby goods and services, could be a small market, pharmacy, retail space or any other public good or service based upon the determined need within the community for the proposed affordable housing project in other U.S. cities. This space builds social sustainability by providing work experience and wages to residents. The skills, learned through the job opportunity, can then be applied to other jobs of similar type throughout the community of the project location.

Through providing opportunity in affordable housing, the goal is to have residents move on to other housing types after several years of building equity. Moving out of affordable housing into more permanent housing types breaks the trend of low income populations remaining in the same area long term due to reduced opportunity structures available to cost-burdened populations. Linking this housing type with wealth creation systems available to middle and upper-class populations connects this disadvantaged housing type to its advantaged counterpart. This affordable housing model aims to combat issues of systematic inequality and propose new, progressive ideas and expand the larger body of work in affordable housing.

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