

CREATING A SUSTAINABLE AFFORDABLE HOMES PROGRAM:
CASE STUDY OF THE MUELLER REDEVELOPMENT PROJECT
IN AUSTIN, TEXAS

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Abstract

New Urbanism is a design strategy that has emerged over the last 30 years with the focus on how to best preserve, design, develop and restore our regions, cities, and neighborhoods. Although certain principles of New Urbanism have translated successfully into modern developments, there are still critiques on the failure of New Urbanism of achieving its stated principles of creating neighborhoods that are diverse in income. The city of Austin, Texas is facing a similar problem in lack of affordability as one of the fastest growing cities in the nation with rapidly rising property values and a median family income (M.F.I.) level that is well above the national average (Way et al., 4). The city is experiencing an increased demand for housing, particularly affordable housing in East Austin where gentrification is rapidly displacing families who can no longer afford to live in their homes (Jankowski, 1). Therefore, when the city of Austin began to approach redeveloping the Robert Mueller Municipal airport in the 1990s, a collective effort ensued between the City and the Community to create a plan for the site. A vision was created for a district that “would be a model for responsible urban redevelopment” with “Diversity and Affordability” being listed as one of key goals of the plan to be achieved by public-private partnerships between the master developer - Catellus Development, the City of Austin, Mueller homebuilders and apartment developers, and non-profit community organizations to provide at least 25% of Mueller’s for-sale and for-rent units to prospective residents at a reduced cost through Mueller’s affordable homes program (The Plan, Mueller Austin). The purpose of this case study will be to understand how public-private partnerships, inclusionary zoning, and community participation are being used to achieve sustainable, mixed-income housing at the Mueller redevelopment project which is a New Urbanist infill development site. At this stage in the research, mixed-income housing refers to a development that is comprised of housing units with differing levels of affordability with both market-rate homes and homes made available to low-income residents below the market rate (Mixed-Income Housing and the HOME

Program, HUD). This research will consist of an extensive literature review on the history and trends of affordability in both New Urbanist and Infill developments, along with analyzing secondary sources such as meeting minutes and public reports related to the affordability problem in Austin along with the structure and implementation of the Mueller affordable homes program. As the city of Austin continues to grow, it will be important for future developers to have a vision for creative, inclusive neighborhoods that can meet the demands of those from a diverse range of backgrounds.

Introduction

Austin, Texas is one of the fastest growing cities in the nation with rapidly increasing property values and a median family income (M.F.I.) level that is well above the national average (Way et al., 4). These trends have led to an increased demand for housing, particularly affordable housing in East Austin where gentrification is rapidly displacing families who can no longer afford to live in their homes (Jankowski, 2). Therefore, when the city of Austin began to approach redeveloping the Robert Mueller Municipal airport, a task force was created to gather community input and create a plan for the site. This task force established a vision of creating a district that “would be a model for responsible urban redevelopment - an alternative to land consumption and automobile dependent development patterns throughout the region that could influence the form and pattern of growth within Austin” (The Plan, Mueller Austin). One of the six key goals listed in the Mueller redevelopment plan was “Diversity and Affordability” which would be achieved by public-private partnerships between the master developer - Catellus Development, the City of Austin, along with Mueller homebuilders and multi-family developers to provide at least 25% of Mueller’s for-sale and for-rent units to prospective residents at a reduced cost through Mueller’s affordable homes program (The Plan, Mueller Austin). The purpose of this case study will be to understand how public-private partnerships, inclusionary zoning, and community participation are being used to achieve sustainable, mixed-income housing at the Mueller redevelopment project. At this stage in the research, mixed-income housing refers to a development that is comprised of housing units with differing levels of affordability with both market-rate homes and homes made available to low-income residents below the market rate (Mixed-Income Housing and the HOME Program, HUD). As the city of Austin continues to grow, it will be important for future developers to have a vision for creative inclusive neighborhoods that can meet the demands of those from a diverse range of backgrounds. By identifying how the Mueller affordable homes program utilized an extensive community-driven, formulation process to create the vision for

Mueller, along with how an elaborate network of public-private partnerships are being used to implement the program we can begin to have a better understanding how to create mixed-income housing in a booming urban area like Austin.

To complete this research, I first conducted a thorough literature review of cases studies and academic literature relating to affordable and mixed-income housing and how it can be achieved in New Urbanist developments and gentrifying neighborhoods. Through this research I found that over the last 50 years, the tactics of creating of affordable housing have drastically shifted to a method of “mixed-income” housing that creates communities with a diversity of incomes. New urbanism, which is where the principles of the Mueller redevelopment plan originate from, often proclaims its dedication to including affordable housing in its developments but this is often not the case. Often, the homes in the development are originally sold at an affordable rate but as time goes on the value of the appreciate to an unaffordable level. Therefore, new tactics are necessary to create affordable housing in these communities that will be sustainable and useful to future families. The Mueller redevelopment plan is comprised of a group of stakeholders that are dedicated to creating a sustainable affordable homes program in Mueller that will serve the displaced residents around Austin. The research will include an analysis of how these stakeholders are working to achieve this goal along with a comparison of the tactics being used now to tactics used in the past to understand how the strong the potential is for the program to continue to serve low-income families in Mueller for years to come.

To address what is being done at the Mueller program, I will analyze how the Mueller development integrates more affordable housing choices and how the actors involved with the Mueller development are working to achieve the goals for the Mueller affordable homes program. It is no secret that the City of Austin and Catellus are proud of their achievements at the Mueller project which can be seen through a very transparent process for ensuring accountability among those involved. This makes information available from semi-annual status reports to monthly meeting agendas and other publications outlining the structure and processes for the Mueller

affordable homes program. By completing this research, I plan to present a case study that outlines how a mixed-income housing program can be achieved in the heart of a city as booming and expensive as Austin, Tx. Because the Mueller property was originally city owned, the city has had a vested interest in the project and has shown strong leadership to create the conditions necessary for establishing and sustaining an affordable homes program at Mueller.

This research will analyze how the actors involved with the program created transparency and accountability to ensure the success of the program.

Background research has identified three major strategies attached to Mueller affordable housing program which are public-private partnerships, inclusionary zoning, and community participation. Therefore, I plan to identify how the Mueller affordable homes program uses these strategies together to achieve the goals of program. I will attempt to address how this program works, while outlining the successes and failures of the program in regard to achieving the goals of the program. I will use the perspectives of relevant stakeholders through interviews to understand how the program operates along with how it works to achieve sustainable design. Research has shown that New Urbanist developments have struggled to provide affordable housing for extended periods, if providing affordable housing out all. Therefore, this report will analyze how the program is working to create a program that will provide homes to families for years to come. This will include addressing how the Mueller plan aligns with the goals of government organizations such as the city of Austin and the Department for Housing and Urban Development. Before diving into the Mueller plan, it will be important to explain why affordable housing is experiencing a nationwide shortage and how what has been and is being done at New Urbanist developments to incorporate mixed income housing then comparing that to the Mueller Plan & how the city of Austin is working with public and private partners to counteract the affordable housing and gentrification that is being experienced within East Austin in the communities surrounding Mueller. This analysis will help illustrate the possibilities and importance for creating an affordable homes program that is sustainable and will last for years to

come. Additional questions will be addressed but the primary focus will be on addressing how a variety of strategies are being used to achieve the goals of the Mueller Affordable Homes program.

CH 1: Review of Literature

Defining New Urbanism

Over the last 30 years, the design style known as New Urbanism has emerged as a part of a movement that is focused on how to best preserve, design, develop, and restore our regions, cities and neighborhoods (CNU). New Urbanist developments can be found across the country taking many forms while occupying land in both urban and suburban areas (Larsen, 396). It is ironic that, despite its emphasis on the ‘new’, the design of New Urbanism resembles a more traditional neighborhood design as one might find in an old European village or pre-war U.S. small town with homes and businesses clustered together.

The Congress for New Urbanism, which was founded in 1993, represents professionals from a broad range of disciplines including architecture, urban design, planning, development, transportation, civil engineering and community activism (CNU). The *Charter of the New Urbanism* advocates for communities that are diverse in use and population while utilizing design strategies for pedestrian and transit, and automobile traffic. New Urbanist believe that cities and towns should be shaped by accessible public spaces and community institutions. All of this is to be accomplished while using a style of architecture and landscape design that celebrates the local history, climate, ecology and building practice (The Charter, CNU).

This particular study is concerned with the principles listed in the *Charter of the New Urbanism* in regard to the provision of housing that states “Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an

authentic community” (The Charter, CNU). Scholarly literature over the last few decades has looked extensively at this principle while addressing the success of New Urbanist development in incorporating a variety of housing. In theory, New Urbanism offers a *potential* setting in which smaller housing units such as apartment and townhomes can be made affordable to those with moderate or low incomes so that they can be integrated into the community. There is increasing evidence to show that by creating this diversity amongst residents, there will be improved living environments and access to new opportunities for these low- and moderate-income families (Jacobs 133).

Raj Chetty and Nathaniel Hendren provide quasi-experimental evidence that neighborhoods affect intergenerational mobility through childhood exposure effects. In particular, their analysis reveals the positive outcomes for children whose families move to a better neighborhood by comparing their lives to the outcomes of the children already living there. This research is done as a component of a larger project of examining the effects of tax expenditures on the budget deficit and economic activity through the National Bureau of Economic Research. Chetty and Hendren ask the question of to what extent are children’s economic opportunities shaped by the neighborhoods in which they grew up? (Chetty & Hendren, 1) To do this, they compare the outcomes of children at different ages who move to better or worse areas to identify the rate at which the outcomes of children who move converge to those of the permanent residents in the community through a long-term study that follows the children through early adulthood. Their findings reveal that first and foremost, place matters. Children who move at earlier ages to areas where prior residents have higher income earn more themselves as adults (Chetty & Hendren, 22). It is also found that time matters as every year of exposure to the better

year contributes to a higher income in adulthood. It is also important to note that each year of childhood matters equally as the benefits of growing up in a better neighborhood extend well beyond early childhood. This research provides a unique analysis in comparison to previous analyses on why experiments such as the Moving to Opportunity (MTO) Experiment failed to identify significant effects of moving to a better neighborhood on neighborhood outcomes (Chetty & Henderen, 5). This analysis provides data on the long-term outcomes of younger children which was previously unavailable. The findings reveal the importance of place-focused approaches to improving economic mobility to either improve areas that have low levels of mobility or helping families move to higher opportunity areas. Making this decision on the policy solution to produce these outcomes requires analyzing the casual effect of neighborhoods to understand what makes areas better than others. In regard to this study, this research reveals the importance of incorporating affordable housing into New Urbanist developments to create the opportunities that these low-income families need.

However, it is not uncommon for city planning schemes to experience failure, and New Urbanism is no exception. Along with difficulties associated with the calls for mass transit, regional planning, and neighborhood-scale retail, perhaps the most notable failure is including housing for a mix of incomes (Johnson & Talen, 584). This has set the base for numerous critiques of New Urbanism in that it is failing to meet the promise of addressing concentrated poverty by leveraging community design to create more socially diverse neighborhoods (Johnson & Talen, 583). There is a large perception that New Urbanist communities are designed to be affluent communities with a lack of inclusiveness which violates the principles for diversity listed in the *Charter of the New*

Urbanism thus damaging the legitimacy of the movement as a whole. There is a divide in these developments in the provision of affordable housing which some being “affordable by default” through city requirements or those that are “affordable by intent,” at least in terms of the marketing approach. (Talen, 499). The following sections will explain how the history of the provision of affordable housing has led to this perception of New Urbanism and what can be done to create diversity and affordability in New Urbanist communities.

New Urbanism and Gentrification

Suburbanization emerged as a dominant land use trend in 1950s for more affluent populations due to many factors including the ascendancy of the automobile and creation of the Interstate highway program together with Federal loan programs to provide housing for returning veterans and baby-boomers looking to start a family (Duany et al., 7). This led to the consequent spread of low-density urban development has resulted in the creation of decentralized, multi-centered, ‘inside-out’ cities (Knox, 65). This sprawl is not a healthy form of growth as it tends not to pay for itself financially and consumes land at an alarming rate while simultaneously creating extreme traffic problems and exacerbating social inequity and isolation (Duany et al., 4). It is to note that the movement of families into these suburban communities was termed “white flight” as federal policies and guidelines for funding such as redlining, restricted the opportunity for people of color to move into these communities. Redlining was the process by which mortgage providers and insurance companies marked areas of disinvestment on the map which were seen as areas that would not receive the cost reduction benefits that suburban households would. These families were thus left in inner-city city neighborhoods that

now experienced a catastrophic loss in tax revenues which led to deteriorating neighborhoods with few opportunities for low-income residents to improve their situations. This prompted action from the federal government to use “urban renewal” which today is looked back at as a government program used for acquiring, demolishing, and replacing buildings deemed slums in an effort to revitalize these deteriorating communities. However, this is not necessarily accurate as “urban redevelopment” used this process as a part of the Housing Act of 1949 whereas “urban renewal” came with the Housing Act of 1954 and instead focused on enforcement of building codes and rehabilitation of substandard housing while providing affordable housing through private housing instead of public housing (Hoffman, 14). By the end of the 1950s, the community grassroots efforts that focused on rehabilitation and helped to create this strategy were fading into the background and the focus on providing suitable housing for low income families lost traction. The notion that cities needed to revitalize inner-city areas in order to retain middle- and upper- class residents and reverse the spread of blight continued on however this began to take form through selective private development with developers more focused on profit than affordable housing. The program did not truly eliminate public housing as it was intended to do in response to “urban redevelopment” however Congress continued to fund a portion of the public housing program which prevented expansion in order to house the increasing amount of low-income families being displaced by government clearance programs and the influx of private investment. Because of this, politicians in major cities saw the continued need for public housing because they did not think that private investment would flow into the inner-city ghettos (Hoffman, 25). The nature of “Urban Renewal” became blurred in the following years as

the need for public housing was acknowledged while land clearance still continued in inner-city neighborhoods regardless of whether or not public housing would be created to house to dislocated low-income families. In this light, “Urban Renewal” now became seen as negro removal in the eyes of critics who fought for the eventual termination of the program in 1974 by congress which then instituted wide-ranging block grants that left decisions on urban improvement in the hands of local governments. The Housing Act of 1974 established the Section 8 Voucher Program that would allow private interests to build, own, and manage housing intended for the poor with no limits on profit thus transferring the responsibility to provide suitable affordable housing from government to private interest who may not share the same passion for the purpose of affordable housing (Hoffman, 26). These “social movements” as termed by the government led to term “gentrification” gaining a negative context with an association to provision of affordable housing becoming increasingly privatized (Hetzler et al., 2). Gentrification is the process in which poor and working-class neighborhoods in the inner city that once experienced disinvestment and a middle-class exodus are now being refurbished with private capital and middle-class homebuyers and renters (Smith, 32).

Neil Smith outlines three waves of gentrification in American history. The first wave during the 1950s to 1970s represented central city revitalization through state investment on the basis that an improved city center would be best for everybody (38). This was not the case. As previously stated, this is when gentrification gained its negative context as a highly classist and racist process that gives no regard to working class and minority families. The second wave began in the 1970s and continued into the 1990s. Throughout this time, the practice of block busting and land clearance continued in

disinvested neighborhoods when private developers saw an opportunity and were able to remove the redline barriers to create projects that would begin transforming the community which expanded the rent gap in these communities. The rent gap is difference between the potential ground rent level and actual rent capture under the present land use which led to the filtering out and displacement of low income families to create room for more middle- and upper- class individuals (Smith 67). This second wave represents more of a setup for the third wave as this period is marked by the critiquing of the government for obstructing the economy's "natural" tendencies towards recovery as gentrification became more of "free-market" practice in urban, economic and policy restructuring (Smith, 39). The third wave which began in the 1990s, is represented in Smith's view by the marriage of New Urbanism and gentrification. He notes two immediate consequences, the first being that cities are being forced into an era of global city-to-city competition for capital while striving to become a "world city" and second, individuals are forced to compete in the free market (Hetzler et al., 4). In this context, the city must now sell itself to the highest bidder and development no longer becomes focused around industry. Instead, cities now propose policies and ordinances that will promote this free-market gentrification while giving less regard to the inequality and uneven development that is taking place across cities. To associate New Urbanism with gentrification in this context can lead to long debate about the success and failure of the affordability initiatives outlined in the Charter for New Urbanism. This third wave is also tied to the shift to more neoliberal development policy which Smith asserts is focused on "the best and highest use" of land while utilizing mixed-use zoning and property-led economic development with no regard for the existing community and its residents (Smith, 438). To

combat this trend, it is essential that the existing residents, the ones who create the community development reports that represent their goals and desires for the neighborhood communities, have their voices heard from those involved with development projects including city officials and private developers. One particular victim of redevelopment projects is inner-city neighborhoods with unique ethnic character which attracts those wealthier individuals who are moving back into the cities to experience this life. However, the result is that this culture is formed by the long-time residents who are usually low-income and minority groups who will eventually be displaced out of their community. The new residents desire a true cultural character to their community but ignore the fact that this culture was created by the experiences and problems associated with an ethnic past of minority groups (Hetzler et al., 9). Altogether, in the context of Smith's view of gentrification, New Urbanist projects are being used to attract new business, high income residents and tourism to boost the economy and clean up areas deemed unworthy with no regard for low-income projects which is occurring in response to a neoliberal shift and privatization of the housing market.

In 2017, the United Nations Human Rights Council presented a special report focused on the "financialization of housing" and its impact on the right of the individual to an adequate standard of living without discrimination. The "financialization of housing" refers to the structural change in housing and financial markets and global investment as a result of a neo-liberal shift towards the deregulation of housing (Farha, 3). Corporate finance has turned housing into a commodity where the markets respond to the needs of the investors rather than needs of the community. This ensures that investors speculative needs are met and that their return on investment will come quickly. In the

United States, this financialization of housing is reflected in the federal governments movement toward decentralization which limits government funding for lower income families (Krumholtz, 51). The report illustrates that the dominant impact of wealth and private investment in the housing market create the “economics of inequality” where cities experience spatial inequality and segregation.

The concerns of the United Nations committee resemble the conditions that Neil Smith’s identifies as characteristics of the “Revanchist City” that emerged along systematic uneven development. In this city, there is a vicious reaction against minorities, the working class, homeless people, the unemployed, women, gays, lesbians and immigrants (Smith, 211). If Smith is correct about his portrayal of the American City, then planners and developers must shift their focus to creating areas that incorporate people of all backgrounds because diversity is inevitable (Toker, 11). By the year 2050, it is expected that Whites will no longer be the majority population in America representing about 45% of the total population meaning that cities will only become more diverse which means that there must be a focus on how diversity will be spatially distributed across the city (Wade). The United Nations Human Rights council addresses the right to adequate housing as a right to a place to live in dignity and security (Farha, 11). Therefore, to keep capital flowing back into the city without continuing the tendency of uneven development, the many actors involved with New Urbanism must work to combat the effects of uneven development and instead focus on generating diversity in their communities with equal opportunity and mobility for all residents. Public and private sector partnerships that are formed to create New Urbanist projects must collaborate to combat Smith’s “Revanchist City” by understanding the goals of the existing community

members to ensure their role in the development process while also ensuring that the project will include a degree of affordable housing that will be sustainable long-term.

Cities now are constantly working to reinvent their image to large firms and companies to show that the city is thriving both economically and socially. To do this, urban megaprojects, waterfront projects and flagship buildings along with other major development projects have been used to attract attention, foster distinctiveness and provide instantly recognizable images as part of culture-led regeneration strategies aimed at rebranding cities or urban quarters (Grubbauer, 337). Although these projects often are beneficial for cities in gaining additional revenue, it is important for city planners and developers to observe the negative effects on the residents of these areas where new regeneration projects occur. Smith states that the language of revitalization, recycling, upgrading and renaissance suggests that affected neighborhoods were somehow devitalized or culturally moribund prior to gentrification (Smith, 32). Policy makers in cities where this regeneration occurs stress that economic development would bring shared benefits to new and existing residents, but the results overwhelmingly favored the arriving residents at the expense of the displaced (Tierney & Petty, 440). At the root of gentrification, socio-economic differentiation creates the conditions necessary for redevelopment to occur as the use value of neighborhoods continues to decline. But if this redevelopment continually relocates poorer residents, then they will continue to be “increasingly segregated – spatially, socially and culturally from the rest of the population and, because of their limited economic resources and lack of political clout, they tend to be neglected by both private enterprise and municipal governments when it comes to the provision and location of services and amenities” (Knox, 64). Gentrification

creates a vicious cycle of homelessness and poverty that are important social issues that can affect the value and function of communities. However, the destruction and gentrification of low income and minority communities contributes to homelessness and poverty while simultaneously improving the aesthetic and financial qualities of these areas. As Jane Jacobs states, the Winners in the competition for space that emerge most profitable in a locality will be repeated and repeated, crowing out and overwhelming less profitable forms of use and people (243)

Although the link between gentrification and New Urbanism has been drawn and there are facts that can back up that claim, there is reason for optimism. A variety of practices have emerged over the last two centuries to adapt to Smith's "Free Market" urban environment that are being continually analyzed to create the best communities possible. Studies have shown that developers often lack the knowledge and understanding of integrating affordable housing into communities (Johnson & Talen, 603). Therefore, it is important that New Urbanist and City planners analyze case studies of successful New Urbanist developments that are able to create communities with integrated affordable housing and relay that information to other developers, city officials, and community activists in order to create a more successful consistent product in New Urbanist developments. In particular, this literature will concentrate on the larger urban infill New Urbanist developments. Infill development is very popular in eyes of New Urbanist due to its ability to combat urban sprawl and address sensitivity to environmental issues while stimulating economic development all while creating a community that is compact, walkable with a variety of building uses. These large "Urban Megaprojects" as Grubbauer terms, can have a profound effect on the city and as previously stated can

often be linked with gentrification. Although these projects intend for smaller units to be more affordable, as the project becomes larger or the location more desirable, housing of any type becomes less affordable (Rowley & Phibbs, 7). In better areas, even one-bedroom units can be well out of the price range for low and moderate incomes in many cities.

By analyzing a variety of tools and models that have been well-researched such as public-private partnerships, inclusionary zoning, and community participation, along with the emergence of financial mechanisms such as the Low Income Housing Tax Credit program, I intend to identify how these tools can be applied to an urban-infill development and what is necessary to create a community with a variety of incomes, even if the project is highly attractive to wealthier families and individuals.

Housing Potential with Infill Development

It has become obvious that planning the U.S. has become increasingly postmodern in the context of economic development and selling the city with the involvement of the private sector to create a more marketable urban aesthetic. In the mid 1990s, the congress for New Urbanism created the Inner City Task force that worked with the department for Housing & Urban Development along with local communities to gain a stronger perspective of how to recreate urban areas with New Urbanism. The identified a variety of essential strategies to the process which were “community development, economic opportunity for local business, diversity of housing types and costs, infill that strategically safeguards existing structures to conserve social fabric, mixed-use development, safety and civic engagement, and emulation of local architectural character” (Larsen, 797) New urbanist believe that these strategies can be

incorporated into infill development which will help conserve environmental resources, increase economic investment, enrich the social fabric while simultaneously reclaiming marginal and abandoned areas (Leccesse & McCormick, VII). The literature on New Urbanist infill development has tended to focus more on specific programs rather than analyzing the concept as a broader revitalization strategy, however the concept can provide a unique opportunity for responding to the affordable housing shortage in cities.

Rowlet and Phibbs offer a thorough analysis of how to achieve affordability through urban infill development by creating a panel of over 50 public and private sector professionals which allowed the authors to essentially create a dialogue over a range of suggestion put forth by the industry who work to increase housing supply on Urban Infill development sites. The final report is a compilation of the expert opinions as opposed to academic exploration of the issue which provides with real answers to the development problem. The lack of supply for adequate and affordable housing is an issue that has continually plagued American cities and still exist to this day (Krumholz, 50). Although policy makers have worked to solve the problem, their efforts have often failed due to a lack of fundamental understanding about the nature of housing supply, and the relationship between land and housing supply. The purpose of this study is to analyze the challenges of increasing housing supply through infill development. Although the report is focused on Australian cities, the findings support much of the existing literature on how to increase housing supply and the inclusion of affordable housing into new urban infill developments in American cities.

Infill development can be broken down into two main categories, Brownfield sites which refers to large scale, previously developed sites, and greyfield sites which can be

defined as under-utilized property assets located in urban areas and often taken form in precinct scale development rather than piecemeal infill. These projects offer the opportunity for new housing typologies such as low-rise high-density development, new partnerships that involve community participation, and new modes of constructing the built environment of the future (Rowley & Phibbs, 66). The focus of this section is to analyze how a more affordable housing supply can become incorporated into these greyfield development projects. The authors identify a variety of barriers to creating these infill developments including higher construction costs, difficulties preparing land for construction, delays in securing finance, a lengthy planning and development assessment process, securing legal titles, and community opposition (Rowley & Phibbs, 10). For Greyfield development in particular, Newton et al., identify major impediments including assembling adequate land, financial disincentives that exist for current landowner considering redevelopment, extensive municipal codes and restrictions to certain types of development, and a lack of good quality demonstration projects that visualize the benefits to the individuals in these communities. With all of these challenges, the authors sought to use the investigative panel to identify ways to overcome hurdles and create a more successful model for development on greyfield sites. These areas include urban policy, urban renewal organization, construction and labor force innovations, and proactive community engagement (Rowley and Phibbs, 13).

To increase opportunities for infill development, government entities can assemble land parcels and task itself with the development approval process in partnership with private sector partners. These partnerships can be created when the government entity offers alternative funding arrangements or development incentives to

attract private sector developers. The development industry delivers housing in return for profit therefore it is essential that alternative solutions be utilized to increase the willingness of the developer to take on a project. If revenue does not exceed total cost by a margin sufficient to provide the developer with adequate compensation for risk involved, the development will not occur (Rowley and Phibbs, 22). In all actuality, the fact that the provision of affordable housing depends on a viable proforma for a developer may not be the true answer to providing the social necessity. But regardless, this is nature of the system in place and as long as it remains, political leaders must work with their community and establish goals to direct the profit-driven development as best it can. Although developers may cite political processes as a hurdle in the development process, that simply reinforces the need for public-private partnerships to work through hurdles in the process. Doing this can not only help the city achieve its goal with an inclusion of affordable housing but also provide increased certainty for the developer through strict timelines and clear contribution requirements to avoid delays in the construction process (Rowley and Phibbs, 29).

In regard to incorporation of affordable housing onto these sites, Rowley and Phibbs found that policy intervention would be needed because the land values within infill areas that offer good transportation links are simply too high to allow for the incorporation of affordable to low-moderate income groups. The price of the resulting homes in the development will be key to the demand of the homes and developers should be incentivized to provide a range of housing options at differing price points. To achieve this, community housing associations can parent with private sector developers to provide significant quantities of shared equity units on infill sites (Deitrick & Ellis, 428). The

community housing sector has a vital role in the supply of diverse housing therefore it is essential that this sector is properly resourced to enable competition with the private sector for the acquisition of infill sites. These organizations are often not for profit meaning that they don't require the level of return that private sector developers do. This is what allows them to offer a different product to the market and maintain the supply of affordable units by managing these units over time. The success of these organizations requires the government to be proactive to ensure that land is developed in a such a way to produce a diverse housing options (Larsen, 811). This can be achieved by using public land to subsidize the development of affordable housing (Rowley and Phibbs, 39). Overall, there needs to be strong leadership at the highest levels of government to promote the benefits of infill development not only to the developers, but to the community as well. The term "affordable housing" can be attached with a negative connotation therefore the benefits of such development should be fully transparent to reduce fear.

Kristin Larsen provides an example of the impact of how New Urbanism can be applied to infill projects in inner-city neighborhoods in a case study of Orlando, FL where the city adopted a traditional neighborhood development code in line with the principles for New Urbanism. Cities across the country are also using this tool to effectively incorporate New Urbanist design interventions into plans and land development codes as traditional city guidelines which can encourage New Urbanist developers to build in the city. After studying Orlando for over a decade, Larsen found success in both small and large neighborhood revitalization infill projects throughout the city and that these guidelines can be flexible to adapt to the different challenges that

individual neighborhoods place. However, she did also find that the success varied depending on different local conditions in the communities. In the more economically distressed areas, she found that the impacts of desegregation are still being felt with rampant poverty and disinvestment plaguing the crime ridden streets. Whereas in more economically stabilized areas, the New Urbanists tool were more successfully integrated. Regardless, she makes it clear that in both areas, people-based equity goals are essential and require a comprehensive, and proactive planning process that is inclusive and offers incentives for riskier development projects (Larsen, 811). Therefore, Larsen suggests drafting a ‘unified vision and plan’ based on local context with the input of the community, to control property and better direct redevelopment while empowering the residents and property owners to ensure social equity (Larsen 811). If the city has available public land, it is essential that it undertakes a comprehensive, proactive planning process that incorporates community participation to create certain performance standards from the private sector such as setting a level of inclusion for affordable housing in new residential projects. This strategy goes against the suggestions from Rowlet and Phibbs, however it is important to note that their findings come from the perspective of the developer mindset which has different motivations from a city. However, as long as the funding for public housing remains insufficient, private capital will be needed which means public-private partnerships must be created and structured in a way to give the developer the profits they seek while allowing the goals set by the city and community to be achieved.

Sabina Deitrick and Cliff Ellis believe that New Urbanism should be studied more by community development planners because it provides clearly defined, practical design

principles that are especially appropriate for affordable infill projects in central cities (Deitrick & Ellis, 427). They believe that New Urbanism offers benefits to studying urban design and using it to improve the quality, durability, marketability and community acceptance of inner-city revitalization efforts. By studying 6 different New Urbanist urban infill projects in Pittsburgh, they found that success can be achieved through complicated partnerships which could leverage public funds with private capital and foundational support from non-profits or Community Development Corporations (CDC). The lessons drawn from these projects show that a strong community planning process is essential and should precede and form the foundation of a project's design. There must also be respect for the existing urban fabric and use structural design elements to reflect the local character. In order to reduce the need for the automobile, streets should be created and extended in a pedestrian-oriented manner. Public, private, and semi-private space must be clearly defined to provide a stronger sense of security for residents and a clear orientation of space for visitors. Lastly, these developments should be built at urban densities while still offering desirable amenities such as private courtyards and secured parking. Altogether, Deitrick and Ellis believe that New Urbanism, is well suited for urban infill projects due to its adaptability to social conditions. Regardless, the success of the project starts with a participatory planning process of residents and community-based organizations that set financial, social, and architectural guidelines for the new development. Beyond setting these goals, the aspect of good design for the communities is also essential as it helps to create places of enduring quality capable of attracting residents and business owners to reinvest generation after generation (Deitrick and Ellis, 440). One other potential benefit of creating strong public-private partnerships that have a

sense for a shared mission and genuine collaboration is the opportunity for the city to also include Green building requirements in the development process. Overall, these partnerships create situations in which those involved can work to use resources at their disposal to accomplish their respective development goals on infill development sites.

Altogether the authors believe that New Urbanism can offer a unique opportunity due its ability adapt to current social conditions while incorporating creative design. The projects can prove successful when they emerge from a participatory planning process that has been designed to meet numerous financial, social and architectural requirements. They believe that the principles outlined by New Urbanist are particularly valuable to urban infill projects which have to respond to preexisting neighborhood conditions and resident preferences. But by utilizing New Urbanism which stresses good design, inner-city areas can turn into an everyday environment “that is safe, healthy, hospitable and beautiful; that has good pedestrian and transit connections; and that offers housing opportunities for people of different incomes, ages, and family compositions” (Deitrick & Ellis, 439). The design of these New Urbanist infill projects matters because that is where the long-term sustainability of the projects comes from by being able to attract residents and business owners for generations to come.

Incorporating Mixed-Income Housing

Mixed-Income housing has become an increasingly popular trend in American Cities as a means of revitalizing urban areas and transforming public housing (Bohl, 801). The concept of income mixing has been previously touched on in the discussion of affordability in New Urbanist and Infill developments. One of the primary rationales for mixed-income development is that it could be a way to reverse decades of racial and

socioeconomic segregation in America (Joseph, 374). However, until we can develop a stronger understanding of how mixed-income housing can work, the vision of mixed-income housing will continue to rely on the dissatisfaction with the previous attempts of low-income housing. The benefits of mixed-income housing are still becoming known as the long-term impacts on the residents of mixed-income communities are still being unraveled but as mentioned earlier, Chetty and Henderen believe they have created a framework for analyzing this and found that the impacts of children moving to better neighborhoods does have a positive impact on the future opportunities. Regardless, the mixed-income philosophy is battling against time as public sector budgets are decreasing and the demand for urban affordable housing is increasing (Joseph, 375). When analyzing mixed-income housing in a New Urbanist infill housing development, it is essential to understand the difference between satisfying basic housing needs and how housing creates an opportunity for the resident to live a more successful, happy life (Delgado & Troyer, 27).

Although many New Urbanist developments fail in regard to creating a socially diverse neighborhood, some projects have still managed to include units that are affordable to lower-income households. However, it is important to note that developers may have been required to do so by local governments and have succeeded by combining available government programs, creating partnerships with nonprofits, and by using utilizing innovative design solutions (Johnson & Talen, 584). The roots of New Urbanist ideology can be traced to work of Jane Jacobs who is known for her work against gentrification in New York City. Jacobs notes that the diversity generated in city is due to the fact that people are so close together bringing a variety of tastes, skills, needs, and

ideas to a more compact area that will foster more interaction among residents. In regard to mixed-income housing and New Urbanism, the compact design style of New Urbanist neighborhoods offers the compact neighborhood that Jacobs visualizes, however there are many hurdles that developers must overcome in the financing of these developments to truly create a diverse community attracting residents from all walks of life. In her city neighborhood, the positive impacts that come from having a diverse neighborhood create a circuit for stimulating more diversity (Jacobs, 145). In order to create diversity, Jacobs believes that cities and neighborhoods must be more compact with shorter blocks and streets that create a denser population of residents and workers that serve a variety of functions (Jacobs, 150). Diversity does not have a defined image. City areas with flourishing diversity “sprout strange and unpredictable uses and peculiar scenes” but these are not necessarily negative (Jacobs, 238). This is what should happen, a mix of variety creating a sense of uniqueness that residents will be proud of. According to Jacobs, if the problems associated with a lack of diversity are to be fixed, then the main responsibility of city planning and design should be to develop public policies to complement cities that are congenial places for this great range of unofficial plans, ideas and opportunities from diversity to flourish along with public enterprises (Jacobs, 241). There is no single solution to create diversity and affordability in American cities because every city is different. Solving the problem is not something one entity can do alone. But by understanding how public policies can be matched with elaborate public-private partnerships to leverage funds and resources, then perhaps a model can emerge for the do’s and don’ts of affordability.

Before analyzing the failure of New Urbanism to incorporate affordability, it is important to consider the regulatory barriers in the eyes of the developers that can increase the cost and decrease the likelihood of affordable housing developments being built. The purpose of outlining barriers is not to defend the developer for the lack of inclusion in their developments, but to understand what kind of obstacles that public-private partnerships must learn to overcome in order to create sustainable affordability in development projects moving forward. Micheal Schill identifies five major types of regulatory barriers that can have an effect on the development process. The first barrier is building codes which set minimum standards that developers must meet when constructing housing. Often these codes result in a higher quality of housing that would lead to an increased construction and sale price of the unit (Schill, 408). The next barrier is environmental regulation which has expanded rapidly over the last few decades and can lead to higher costs and decreased supply of affordable housing for two reasons. First the required environmental impact assessment can be very costly and secondly, the results of the assessment can lead to lawsuits from neighbors and environmental activists who challenge the findings of the assessment. The third barrier identified is zoning and land use which creates additional requirements for developers that may increase the cost of land. Schill states that “To the extent that land use regulations successfully protect against negative externalities, housing process will go up because of increased demand” (Schill, 408). The author is essentially explaining that if zoning and land use regulations require a higher standard of development with increased amenities, then the units will see a higher demand from higher income families which decreases the supply of affordable units in the development. Following that, the author identifies impact fees as the next

barrier which are used to promote efficient development by requiring developers or consumers of new housing to absorb the marginal cost of the development to the municipality while also shifting the financial burden away from the existing residents. Lastly, administrative costs prove to be one of the biggest barriers to development as the costs of regulations can be multiplied as a result of inefficient and duplicative government administrative processes (Schill, 410). Essentially the author is explaining that as regulations become more complex, then the frequency of contact between the developers and government will lead to an increased opportunity for politics to intervene in the process which will lengthen the time to both gain approval for the project and complete the project. Schill provides us with a good framework of what the barriers are and begins to show the cost-benefit analysis of these barriers which may allow those involved with affordable housing to influence policy changes to stimulate more affordable housing. This analysis fails to acknowledge why these different regulatory barriers were instituted in the first place and why they may need be necessary to ensure the provision housing that is properly funded and managed. High-rise public housing has been remembered for its lack of funding and oversight while being developed in marginalized areas which would eventually lead to its demise. So, the focus of the research is not on the need to remove regulatory barriers, but to understand what they are and how they can be overcome with the use of comprehensive planning and public-private partnerships.

The failure of New Urbanism to incorporate affordability is truly a missed opportunity because it has been shown that by embedding low-income housing in mixed-income communities, low-income households will have the potential to live in an

improved living environment with increased access to opportunities for low-income households (Johnson & Talen, 586). New urbanist developers argue that affordability is a casualty of forces out of their control such as financing challenges, market dynamics, soaring construction costs, community resistance to affordable housing, and diminishing sources of public subsidy. However, the prospect alone of creating mixed-income housing in the context of walkable, mixed-use, communities provides ample opportunity for low- and moderate- income families that planners and developers can no longer ignore. Johnson and Talen report on the findings of a nationwide survey of New Urbanist developers to identify the different means used by developers to create a broad range of housing options in their developments. Their intent was to determine the what and how of affordability in New Urbanism by focusing asking about the degree of affordable units in New Urbanist developments and whether or not these were rental or ownership units. They also asked how affordability could be ensured, what other services or programs were offered, and what role did nonprofits and government play in the process.

The results of the survey found that the main reasons affordable units were included in New Urbanist developments was to fill a community need, to receive financial incentive, or because they were required to do so (Johnson & Talen, 592). The main reasons why developers excluded affordable units was because they found it as an “inappropriate mix” for the development and that the project requirements were too expensive for the inclusion of affordable units. Survey results showed that from those that included affordable units in their development, that either federal, state, or local programs were used to achieve affordability. Many also cited the contributions of nonprofits to the development of their communities (Johnson & Talen, 597). Using the results of the

survey, Johnson and Talen were able to analyze how affordability can be accomplished in New Urbanist developments.

Some of the most significant federal resources include the Low-Income Housing Tax Credit (LIHTC), HOPE VI and Community Development Block Grant program funds, HOME funds along with various state and local financing incentives. The administering authority of these funds can vary from the Department of Housing & Urban Development to local governments and housing finance agencies (HFAs) which provide the funding for Low Income Housing Tax Credits with oversight of the IRS. The involvement of IRS in oversight of the LIHTC program helps ensure that those who receive funds will be compliant with all rules and regulations throughout the compliance period. There are also other incentives such as land grants, tax abatements, brownfield cleanup, lower fees and an expedited cleanup process that can encourage developers to engage in affordable housing (ULI, 11). There are often compliance period requirements attached to these funding sources but there are questions that remain on what will happen to the affordable housing once it out of the compliance period. This is why developers and city officials who are partnering to create mixed-income housing in new developments must explore and engage with opportunities that can ensure that the housing stock can remain affordable for years to come.

Kirk McClure explains that the Low-Income Housing Tax Credit (LIHTC) has been successful in generating rental units that are more affordable to low- or moderate-income families however the program has been critiqued for its complexity and for what some view as unfair contributions to investors beyond what is required to make the development happen (272). The LITHC program was created in response to the Tax

Reform Act of 1986 to create a process in which both for-profit and nonprofit entities would present proposals requesting tax credits to incentivize the construction of subsidized affordable housing. These proposals are analyzed by state housing agencies and funds are allocated based on the proposals ability to meet and exceed the standards outlined in the program and based on the demonstrated need by the developer for additional financial resources in order to make the project financially feasible (279).

State and Local programs offer a variety of services such as zoning or density bonuses, lower impact fees and building code amendments, and expedited permitting to improve profitability for developers. There are also first-time home-buyer programs, rent subsidies, housing trust funds and tax credits to increase affordability for residents. The most frequently used programs in these developments were infrastructure contributions for developers and first-time home buyer programs for residents (Johnson & Talen, 598). Beyond these government and nonprofit partnerships, there are still design strategies such as size adjustments, quality of materials, lower energy or maintenance costs, and inclusion of accessory units that could be used to increase affordability. It is important to address that few of the developers made any exterior distinctions between market-rate and below market-rate units (599).

Johnson and Talen also probed into what other amenities were offered to low- and moderate- income families in these New Urbanist developments. They found that about half of the developers included certain amenities and services because of the inclusion of these households. These services included child-related services, professional growth services, community management and involvement facilities, along with services for satisfying daily needs (Johnson & Talen, 598). Even more of these developments

incorporate programs to maintain long-term affordability for these units through mechanisms such as long-term deed restrictions or leases, pricing restrictions, regulatory agreements with resale recapture provisions for 30 years giving the right to first offer for repurchasing the unit, limited home appreciation and required income qualifications. Some developers also cited the role of nonprofits in achieving long-term affordability through nonprofit ownership, development, or management.

The results of this survey also shown us that New Urbanist developers may be open to the idea of partnering with nonprofits and/or taking advantage of various government subsidies, but they may lack the knowledge of how to engage in such activity. This is why it is essential for federal, state, and local governments to not only provide a broad range of incentives for these units, but to also provide outreach for developers to learn. The authors propose that perhaps the Congress of New Urbanism could institute development standards or a certification system that insists on inclusion of affordable units for a project to be allowed to call itself New Urbanist. They also suggest a more in-depth educational outreach to developers about the need to include below-market rate units. Regardless, it will be essential that proponents of New Urbanism become fully engaged with available affordable housing advocates, strategies and funding sources to make maximal use of the programs and strategies that exist outside of the public sector. This will also require that information is continually collected on these mixed-income New Urbanist projects to learn more about how they are structured and what tools they are using to create more socially diverse communities.

Talen furthers her research in later years by using a statistical analysis including Area Median Income, data on two salary level for a given area which were median

teacher salary and median institutional coo salary. These metrics allowed for purchasing Power to be determined by estimations from income/salary data using the FHA mortgage calculator. The income information was gathered in order to determine the relative cost of entry into a New Urbanist development (Talen, 495). Talen found that in these New Urbanist projects assessed there were four interrelated reasons that allowed for the inclusion of affordable housing in New Urbanist development, density, land cost, small units, and construction efficiencies (499). Many New Urbanist see design-based affordability in their developments as a potential strategy for success, however this may not be able to solve the problems such as long-term affordability (Deitrick & Ellis, 427). This design strategy involves the use of cost-effective building materials, efficiencies that reduce energy costs, the lessening of regulatory burdens and the use of smaller lot sizes to generate more walkable and urban neighborhoods (491). New Urbanist follow this affordable by design strategy because it has worked in some situations, but it is not solving the problem. New Urbanist developers have not faced the reality that their developments are failing to achieve their vision of diversity. Talen states that “New Urbanism has now reached the point where it strains credibility to continue pushing design-only strategies” (508). New Urbanism still contains a realm of possibility for building affordable, well-serviced, diverse, walkable communities but to do so, New Urbanist must be willing to pursue a multi-pronged strategy composed of good location, creative financing, innovation, government support coupled with the original design practices to create stronger communities. By creating this communities, New Urbanist and public planners will have new information to provide through case studies to show those that may fear either cost of constructing affordable or mixed-income housing or

those that fear the inclusion of low-income families, that there is an opportunity for something greater through creating diverse neighborhoods.

Creating Diversity in New Urbanist Developments

During the early history of New Urbanism in the 1990s, inner-city revitalization surged often while embracing the New Urbanist traditional neighborhoods design taking shape through traditional neighborhood development ordinances passed by cities focused on facilitating growth. As we now know, the early history of New Urbanism showed a more elitist design strategy that failed at incorporating a diversity of incomes (Ross, 9). Since that time, countless case studies and research papers have been published on what tools can be used to create a diversity of incomes in New Urbanist developments. From the beginning, New Urbanism has been a marketing success story which is why the smaller units that were originally intended for workforce housing, often appreciate do value high above the market rate due to the desirability of the location. Throughout the history of New Urbanism, developers have continually made the mistake of trying to simply address affordability by creating a mix of housing types but as Ross states, increased density with smaller housing units does not equal affordability unless a certain percentage of those units are reserved for lower income families, with long term land use restriction agreement to ensure these units stay affordable for time to come (10). This can be achieved through a land use regulation that requires a certain number of affordable units to be built along with market rate units in a development. This regulation is known as Inclusionary Zoning. This term was coined into response to the term “Exclusionary Zoning” which relates to the suburban style development with large lot subdivisions that

have minimum square footage requirements that make it difficult to incorporate affordable housing. These ordinances often lead to the exclusion of specific socio-economic classes from living in these communities. Ross identifies the key ingredient in an inclusionary zoning ordinance for a large scale and New Urbanist community would-be long-term affordability and administration (11). It is essential that a period of long-term affordability accompany the unit to avoid appreciation. Long term administration then becomes necessary typically on behalf of the local government or nonprofit to manage the site and ensure that it continues to serve low to moderate income families (Ross, 12). There is a unique opportunity for the large-scale private developers to become committed to producing and preserving affordable housing in exchange for land development flexibility and increased profitability. However, local governments must continue to ensure that these developments include housing for the working-class citizens who cannot afford the quality of life that higher income families have, which is incorporating these lower income families into these communities can provide new opportunities for an enhanced living experience (Ohm & Sitkowski, 863).

Ohm and Sitkowski elaborate further on the capabilities of inclusionary zoning by analyzing the link between how local ordinances can promote New Urbanism along with how local ordinances can promote affordable housing. The authors explain that the purpose for inclusionary zoning ordinances has a strong correlation with principles of New Urbanism in that both seek to provide “a range of housing choices for families of all income levels” (863). Critics of New Urbanist Infill projects have claimed that although there is no direct displacement, these projects have a significant impact on the surrounding area leading to gentrification and displacement of low income individuals

(Hetzler et al.,13). Fortunately, Inclusionary zoning establishes a requirement for affordable units to help replace units that may be lost due to the development of the project. Inclusionary Zoning is a direct tool for the local government to promote affordable housing however it is one such tool. There are countless ordinances based off of public interest that can disturb the development process. Therefore, local governments must promote affordable housing in a way that gathers public support so that when Inclusionary ordinances and New Urbanist ordinances collide, the result will hold developers more accountable to the standard of affordable housing they are expected to deliver.

Bento et al., conducted a multivariate statistical analysis of housing starts, prices, and sizes in multiple California cities that elected to use inclusionary zoning policies between 1988 and 2005 based on the perception that inclusionary zoning acts a tax on housing construction that leads to decreased supply of housing at every price while raising housing prices and slowing the construction process. This leads to their belief that that inclusionary zoning policies could potentially further exacerbate the affordable housing problem that policies were made to address (439). Therefore, these authors conducted this analysis to determine the effects of inclusionary zoning policies on single-family housing prices, single- and multi- family housing starts and the size of single-family housing units during the study period. This analysis does not analyze the effects of inclusionary zoning on affordable housing specifically, however the contributions made by the authors provided valuable input on the housing market impact when inclusionary zoning is implemented. By using a variety of primary data sources to gather housing statistics in California, the authors found that jurisdictions using inclusionary zoning

policies found an increased share of multifamily housing units, an increased price for single-family housing, and a decreased size for single-family housing units (Bento et al., 438). More specifically, findings show that in booming housing markets, inclusionary zoning policies did not necessarily slow the rate of housing production, but they cause an increase in housing price and a decrease in housing size (Bento et al., 450). When developers engage in construction when inclusionary zoning policies are present, they may raise the price on market-price units to compensate for the cost of discounted units. This means that the price of market-rate housing increases and production of such housing decreases. The authors also provide a variety of features to inclusionary programs that can impact the changes to the existing housing market. These features are the size and types of developments subject to policy, the percent of units that must be affordable, the depth and duration of price discounts, and incentives or allowances offered in compensation. Although the authors do not focus on the incorporation of affordable housing to these policies, they outline major impacts associated with inclusionary zoning that can drastically change a housing market when a new development is incorporated, especially a large New Urbanist infill development. Therefore, it is essential for all involved with the development of affordable housing in these developments to understand what inclusionary zoning can offer and what the impacts of such policies can be.

In 2007, the Urban Land Institute which represents itself as a grouping of professionals that seek to provide leadership in the responsible use of land and in creating sustainable communities, released its ten principles to developing affordable housing. The purpose of including these steps in this section is not to say that these are the final

answer, but rather to contribute to the discussion with the perspective of professionals in the field of what must be done to create sustainable affordable housing. These professionals identified a variety of factors that led to housing crisis in the late 1990s and early 2000s. The factors included explosive appreciation of housing process, less support for affordable housing due to decreased federal programs and funding, and the expiration of affordable units to become market-rate units (ULI, 3). There is also a local community opposition to the idea of building multi-family affordable housing because of their connotation of the words “affordable housing”. These reasons provide the purpose for why the Urban Land Institute team hopes to provide a better understanding of what it takes to make affordable housing happen. The first step explains the importance of strong leadership in educating other and facilitating the lengthy development process that may occur when constructing affordable housing. The next step is building community support and trust by having a fair and open planning and design process that is fully transparent and allows all parties to be heard and builds a foundation of partnership and shared goals in the community before decisions are made and implemented (ULI, 6). This can be accomplished by providing detailed drawing and information’s regarding the development, and by holding events such as community workshops and open houses to create dialogue regarding the project. This means that it will be important for those promoting the project to fully illustrate the benefits to affordable housing in that it can have a direct positive effect on a community’s economic health (ULI, 6). Next, it is essential to have a thorough understanding of the different government and nonprofit funding methods such as low-income housing tax credits and other housing subsidies that can be used to create an affordable housing development.

The next step outlined by the Urban Land institute plans of experts relates to the 2nd step in the fact that it is essential to understand your community, but it also outlines the importance of completing a market study to help verify and quantify demand and allow for greater leverage in underwriting the development and gaining public support. The 5th step outlines the vision of a successful partnership that provides benefits to both partners, with the pairing creating an entity that is stronger together. By working with non-profit, developers are essentially able to “buy” talent and experience that is relevant to affordable housing and the project at hand (ULI, 16). Creating a successful partnership will lead to a stronger consensus on the community vision with the coordination of public and private stakeholders along with the community. By setting the vision early on, the partnership will then have more success at acquiring the necessary financing along with leveraging public agencies to potentially assist with the project. When creating the vision, it is important to select an appropriate site that can foster sustainable, long-term affordability. It is essential that affordable housing be located near appropriate retail, daycare, high-quality schools, recreational opportunity, and office and commercial spaces so that the residents can have a closer proximity to work, increased neighborhood amenities, stronger quality of education, and a better sense of perceived safety (ULI, 18). It is also important to note that in this step the workshop participants iterate that affordable housing production should be an important component of infill and revitalization strategies (ULI, 18). Next, the panel illustrates the importance of diversity and how neighborhood revitalization that utilizes public investment can be a potential way of preserving balance communities. They also believe that the introduction of mixed-income housing can start the process of linking diversity, affordability and

balance. To accomplish diversity, they believe that it is essential to focus on building communities and neighborhoods, not projects and developments (ULI, 22). By using good design, there can be a stronger sense of community that provides for a stronger sense of comfort for the residents which can then enhance their sense of pride in the community (Deitrick & Ellis 439). To provide a successful project, community participation will be key in order to gain a stronger feel for the exact needs of the community. The panel reminds the reader that although the project is temporarily the developers undertaking, that they are still building permanent homes and communities which is why it is essential for them to “design without gates and fences” (ULI, 27). This means connecting the already existing, surrounding neighborhoods to the project development to stage to create a smooth integration of the new development. The partnerships of private developers, public officials, and non-profit professional must also work to incorporate programs that encourage home-ownership and facilitate the transition from renting to owning along with building wealth. The Urban Land Institute suggests utilizing financial literacy classes that educate the low-income residents living in the affordable units on the process and expectations of home-ownership. Lastly, the panel of experts explains the essential need for creating longevity in these programs. Although sustainable development can be seen as high-quality development, that does not mean that it has to be high-cost development (ULI, 27). They find that sustainable affordable housing can promote economic vitality and foster environmental integrity while encouraging a sense of community that will last for generations to come. Sustainable affordable housing may have more expensive upfront costs; however, developers can

mitigate this with long-term savings acquired from using specific building materials or amenities to create a more energy efficient home.

Historically, many believed that the key to affordability was making houses accessible to lower income groups by offering cost reductions with no regard to the urban environment or socio-cultural consideration. Therefore, Delgado and Troyer provide a model developed through a “methodological pluralism” that tied together a literature review, case study in Guayaquil-Ecuador and a simulation model with data gathered from primary sources such as publications and informal interviews with relevant stakeholders to development along with secondary sources such as international reports. The purpose of the study was to identify “a more comprehensive, integrated and trans-disciplinary approach regarding affordability” that will connect fields such as housing, economics, social and cultural issues along with addressing housing preferences, and quality of the housing unit. This approach allows the authors to develop a simulation that they hope developers and final housing users can use to achieve their expectations by incorporation additional value to housing (Delgado & Troyer, 28). This methodological pluralism was essential to the researchers as it allowed them to base the method off of what people say they would do as opposed to what they are observed to do. Although the purpose of this model is to help developers and individuals identify ideal housing options, it does not however directly address solving the affordability problem. However, the methodological pluralism research tactic that was utilized resembles the structure of this study and demonstrates the advantages that it can offer in my analysis of how to create mixed-income housing in a New Urbanist infill development.

Before moving into an analysis of the Mueller Redevelopment Project, I would like to explain a perspective that help illustrates the power dynamics in public-private partnerships. Lawrence Vale also provides a very useful concept that can help us visualize the relationship between the variety of actors involved in the New Urbanist infill development process and assess the structure of community empowerment. He explains a metaphor that compares the entities of development to star constellations to create the “governance constellations” (Vale, 3). The purpose of this comparison is to spatially represent these entities or stars, to show whose presence is able to shine most brightly during the development process. This allows us to analyze how and why different types of actors are able to gain varying amounts of power when it comes to establishing the process for remaking public housing in a given city. The four actors he identifies are the private sector or The Big Developer, the public Sector or Publica Major, the not-for-profit sector (Nonprofitus) and lastly the community sectors or plebs (Vale, 3). In the text, he breaks these four main sectors into eighteen different components that play roles in urban governance when analyzing the HOPE VI program which stands for Housing Opportunities for People Everywhere. Although this program may not be as involved with urban infill development, it has often been tied to New Urbanist developments. HOPE VI is financially structured to leverage public grant money to leverage and attract private sector funding to produce some degree of affordable housing in a particular development. When creating the model, Vale reasoned that “the universe of potential players may be the same but, in each specific case, some shine forth much more brightly than others (9). He is essentially saying that when we look to the universe, we should so many stars (representing the 18 components in the HOPE VI process) and

these stars link to form constellations. By connecting these brightest points, we become able to visualize the operative diagram of power relations that exist at each individual project. More specifically, he explains that the model is used to “visualize the power dynamics of *policy implementation* under particular local conditions” meaning that these constellations can reflect on the policy-making character of a city (Vale, 13). The governance constellations which could be linked to other terms such as a growth machine or political arrangement, can also represent a single point in time (Vale, 14). He essentially is trying to teach the reader that these such moments can share a traceable structure that has existed over time, but it is also important to note that these moments are highly differentiated. But by breaking it down to individual constellations, we can then observe the actions of a player in the specific context of that city to better understand the particular power dynamic for that city.

Every development will experience differences in the development process, but the actors involved remain relatively the same. Although developers may view the regulatory barriers that exist in different cities as hurdles that need to go, that is unrealistic as these barriers have instituted in response to past problems. Therefore, public-private partnerships become essential in the provision of mixed-income housing in Infill New Urbanist developments and Mueller provides a great example of this with a complicated network of partners that come together to leverage funding and resources for an affordable-home program that is sustainable and serves as a model for future projects in the future.

The purpose of this literature review was to outline the inefficiencies in the provision of affordable housing and how those involved with constructing this housing

have adapted to the privatization of the affordable housing market. The purpose was also to introduce New Urbanism and explain how these developments have failed to incorporate affordability. To accomplish its goals for including a diversity of incomes and housing styles, these projects will have to demonstrate dynamic partnerships that include the community to create a vision for a development that all involved will be proud of. These partnerships are necessary in accordance with policies such as inclusionary zoning to ensure that portions of new developments are made available to low-income families for years to come. The Mueller Redevelopment project is a New Urbanist development in the rapidly gentrifying East Austin community which would lead many to assume that the program lacks affordability and in the case of market-rate units, it does. However, the development includes an affordable homes program that embodies the goals of New Urbanism which is why Mueller is an excellent example to study how a sustainable affordable homes program can be created and implemented in a large New Urbanist infill community.

CH 2: The Mueller Project

The History of Mueller

The Mueller Redevelopment Projects rests on the site of the former Robert Mueller Municipal Airport and is located just 3 miles away from the City of Austin's Central Business District. The airport was officially opened in 1936 and was used as the primary airport for the Capital of Texas until 1999. In 1971, as the airport became increasingly landlocked by residential development, citizens and city leaders began to identify the need for a new Austin airport. So, in 1976, a study commissioned by the City of Austin identified the Bergstrom Air force Base as the best site for a new Austin Airport (History of Mueller, Mueller Austin). As the city began to experience more rapid growth in the 1980s, the airports location became a liability as it negatively affected economic conditions in the surrounding neighborhoods which were already suffering from being isolated from the Austin CBD by Interstate 35 with the majority of new development in city occurring westward. The rapid growth in Austin, particularly on the western side of the city, led to the need for a larger, more modernized airport. Therefore, when talk of airport expansion began, surrounding residents immediately began grassroots efforts by forming the Citizens for Airport Relocation (C.A.R.E) and came forward with a demand to relocate the airport to protect the surrounding neighborhoods while redeveloping the site to create a new community that will enhance the economic conditions in this part of the city. The Mueller project is unique in the fact that community involvement has been a key feature from the start. These residents promoted a vision for redeveloping the 700-acre site into a sustainable, diverse and affordable community to help revitalize East Austin (The Plan, Mueller Austin).

The City of Austin filed a request for joint use of the Bergstrom Air Force Base to the United States Air Force in 1976 but this proposal was denied in 1978 when the Air Force cited that this would be too disruptive to the base's operations. Then in 1991, when the Air Force Base Realignment and Closure Commission selected Bergstrom airport for closure, the City was given approval to redevelop the site for civilian usage. The opportunity was now in place and in 1993, voters in the City of Austin approved the bond to build a new airport on the Bergstrom site by a 2-1 margin. Upon approval of this plan, the City launched a public planning process to expand outreach and engage citizens in the creation of a Master plan for the land, which was owned by the City of Austin. To facilitate the Mueller Development project, the city hired Pam Hefner who I had the opportunity to interview to gain her perspective from working as the primary project manager for the City of Austin for over 20. Hefner explained that to assist with creating this plan, the City also contracted ROMA Design Group to assist with developing the Master plan while still ensuring that the process is community driven with citizen participation and engagement at the forefront. Using ROMA Design group, the city's consultant, and the input gained from countless community meetings, the city was able to craft the Robert Mueller Municipal Airport (RMMA) Master Plan which was adopted in 2000. The City also appointed the Robert Mueller Municipal Airport Plan Implementation Advisory Committee in 2000 which would be tasked with advising the city council on all issues and activity involving the Mueller redevelopment project to ensure accountability for meeting the goals that would be outlined in RMMA Master Plan.

The redevelopment of the Mueller airport offers a unique opportunity to demonstrate the City of Austin's commitment to Smart Growth and fulfill the vision of nearby residents for a compact, mixed-use community (Adams & Gerard, 33). There were 6 primary goals outlined in this Master Plan which were (The Plan, Mueller Austin):

- I. Fiscal Responsibility
- II. Economic Development
- III. East Austin Revitalization
- IV. Compatibility with Surrounding Neighborhoods
- V. Diversity
- VI. Sustainability

The focus of the research is to assess how the actors involved with Mueller are working to achieve these goals, in particular the goal for diversity, through the Mueller affordable homes program. Following the creation of the RMMA plan, the city began the process of gathering funds to build the development as the primary developer. However, city planners soon realized that the property value of the existing site was \$60 million higher than the funding gathered as the initial plan to use state funds fell through when the legislature changed its decision regarding funding assistance for the site. Hefner explained that now the only way the city could now complete the project was to engage with a third-party developer to help gather the funds necessary to construct the development. At this point, the city launched a 2-step qualification process for identifying a potential partner that would help redevelop the vacant property under parameters set by the City and the community. This process led to 2 finalists being identified which were the Lennar Corporation and the Catellus development group (Breyer, 2001). Catellus was particularly interested in the project because of how much outreach and community

involvement had already been established by the city which made them more willing to fund the additional \$60 million needed to complete the development (Hefner, 2019). So, in 2002, the City of Austin selected Catellus as the master developer and began negotiations on the RMMA Master Development Agreement. The master development in agreement was signed between the City of Austin and Catellus in 2004 which governs the redevelopment process for Mueller. Another major event in the history of Mueller came in 2003 when Seton and the City of Austin committed to building the Dell Children's Medical Center of Central Texas on the site of the Mueller redevelopment project giving the city immediate support and providing more confidence in achieving the goals of the RMMA Development agreement. This is because of the guarantee for jobs and the stronger attraction for other new businesses to locate at Mueller.

The first homes at Mueller were made available in 2007 which is also when the Mueller Central information center opened, and the RMMA plan could now show tangible results for showing how the Mueller affordable homes program will work. Upon completion, the community is expected to be built out with 5,900 housing units, 4.3 million square feet of commercial space and 140 acres of green space. The following sections will assess how Mueller is achieving its goals for housing affordability through the Mueller affordable homes program along with an explanation on how this program was created and what the requirements for the program are.

Designing the Mueller Community

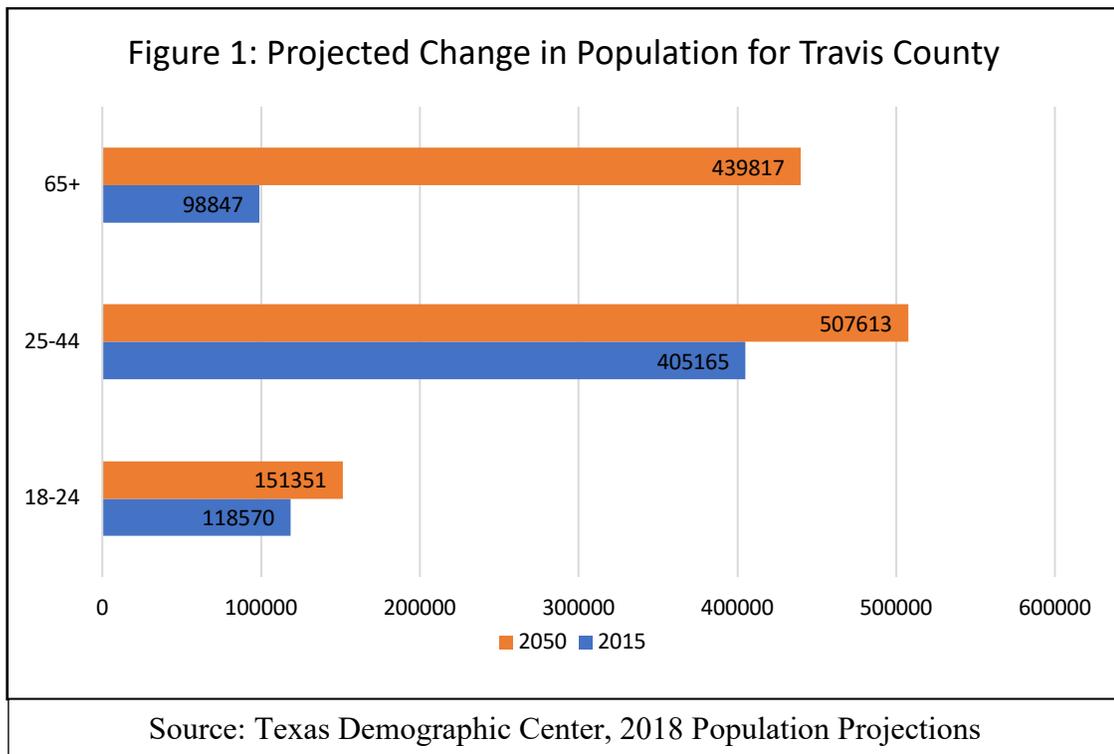
The design of the Mueller Redevelopment project is an example of an Urban Infill New Urbanist development. The vision for the development states that Mueller will be an interactive, mixed-use community that will serve as a model for responsible urban

development by offering compact pedestrian-oriented streets (The Plan, Mueller Austin). During the early design stages for the Mueller redevelopment plan, the city elected to use the Traditional Neighborhood District ordinance which calls for mixed-use, compact development that is sensitive to the environment and facilitates the efficient use of services. The city ordinance characterizes a Traditional neighborhood district by a variety of design elements including a variety of housing types, jobs and shopping services and public facilities that are interwoven within the neighborhood in close proximity. The neighborhood is to be limited in size and oriented to a network of interconnecting, pedestrian friendly streets. These neighborhoods also include squares, plazas, parks and greenbelts that are integrated into the community and dedicated to the collective social activity, recreation and visual enjoyment of the populace. These parks along with civic buildings should be integrated into the community to serve as focal points for the community identity. Using these characteristics among other related to orientation of private space to public space and the compatibility of architectural styles, the city outlines various requirements for a community to become a Traditional neighborhood district. Primarily, there is a clear requirement to include at least one neighborhood center that serves as a focal point to the community containing retail, commercial, civic and public services to meet the daily needs of the community (Chapter 25, Austin Municipal Code). There must also be at least one mixed residential area that provides a variety of housing types. Beyond these two requirements is the need for open space, density being concentrated in the center of neighborhood, pedestrian-oriented streets, and ample civic uses for the community. The characteristics of a Traditional Neighborhood District relate closely to the design strategies used in New Urbanist developments.

In the literature review, the critiques were made clear of how New Urbanism has failed to be inclusive and leads to high property values that exclude low- and moderate-incomes. This could very well be the same fate for the Mueller development, but through public-private partnerships and inclusionary zoning requirements, Mueller has created an affordable homes program that is generating long term sustainability for the development. This is an important critique to remember and the true success of the Mueller program in regard to this will not be known completely until years after the development is built out. Regardless, the design strategies of New Urbanism can create conditions that make it more favorable to provide affordable housing in coordination with an elaborate network of public-private partnerships working together to ensure these conditions are being utilized effectively.

A key component of New Urbanist developments, especially in these urban infill projects, is the significant reduction of single-family lot sizes. Increased affordability can be achieved when builders use more cost-effective building materials while still meeting the Austin Green Book Energy standards that can lead to reduced energy and utility costs for the future resident. The most important factor for achieving affordability is the use of these smaller lot sizes to create smaller homes which are more affordable by nature. These homes also offer unique opportunities for low-income seniors and those with disabilities who need smaller, single-story homes. There are still social hurdles that New Urbanist may have to overcome in these developments when selling smaller homes but in the case of Mueller, the demand for smaller homes and units is huge as senior population and young adult population continue to skyrocket in the city. Using population estimates from the Texas Demographic Center, the population of young adult between the ages of

18-44 is projected to grow about 26% between 2015 and 2050 whereas the senior population in Travis County is projected to grow by over 340% (Texas Data Center, 2018). The chart below displays the population recorded in Travis County in 2015 for the respective age groups along with the population projections for 2050.



Based on these estimates, there is a clear need for a variety of housing types as the populations may not be as interested in large, single-family suburban lots. Especially the families and individuals in these age groups who cannot afford to make the transition to those more expensive homes. They need smaller, more affordable homes which is what Mueller is striving to provide. To accomplish this, four primary single-family designs are being used to provide affordable for-sale housing which are Garden homes, yard homes, row homes and Mueller House condos.

The Mueller Design book which was originally created in 2000 and then adopted and revised by Catellus in 2004 who continue to modify the book to this day to respond to changes in design strategies, outlines how the homes are to be created and includes an accessibility requirement for all units built to have space for a ramp to be built in the future. By placing these homes in such a compact area with ample shared public space, the residents are able to interact on a daily basis regardless of income or background as the requirement for the affordable units to be dispersed and indistinguishable helps produce a true mixed-income community. Although some New Urbanist believe that affordability can be achieved solely by design, this is not the case. That is not to take away value from affordability by design which is an essential component in reducing costs to make a more viable proforma to encourage development. Regardless, creating a truly affordable mixed-income community requires combining design with a variety of financing tools and planning tools along with a strong network of connected and dedicated public-private partnerships that coordinate how to achieve the stated goals for the development.

Creating a Sustainable Affordable Homes Program

In 2004, at the time of the contractual agreement for Mueller, the city of Austin also passed Resolution NO. 041202-59, which outlines the requirement for Catellus to create an affordable housing program which is included in the Mueller Development Requirement. In this resolution, the City of Austin calls for at least 25% of the homes in the Mueller Development to be affordable which is projected to be 1550 units total. Specifically, affordable for-sale units are those available at 80% of below of the Median Family Income (MFI) in Austin. For-Rent units are to be offered at and below the 60%

MFI in Austin. These affordable units are to be dispersed throughout the development while remaining indistinguishable from market rate units.

The resolution explains that Catellus & the City will continue a dialogue on how to best achieve this goal with different tools. Catellus will also be committed to working with Austin Housing Finance Corporation (AHFC) to help achieve greater affordability beyond the requirements. Beyond the AHFC, Catellus will also explore the opportunity for third-party partnerships to help build the affordable units. Altogether, the RMMA Plan Implementation Advisory Commission, the Community development commission, other community housing associations, the Real Estate Council of Austin, and other builder/real-estate organizations are to be included in the discussion of implementing affordability at Mueller. The City approved the following City program that are to be used as part of the Mueller Affordable Homes Program (Resolution NO. 041202-59, City of Austin):

- I. Tax Credits for Single- or Multi- Family development
- II. Special Needs Housing Grants
- III. Cooperative Housing Models for homeownership that serve families between 50-65% median family income and rental housing that serves families at or below 50% median family income
- IV. Down Payment assistance
- V. Mortgage Credit Certificates
- VI. Rental Housing Development Assistance
- VII. Bond Financing
- VIII. Housing Trust Fund, S.M.A.R.T. Housing Capital Improvement funds or other federal resources of funding included in the City of Austin Consolidated Plan which Mueller has been added to.

Beyond the requirements for 80% MFI for units being sold and 60% MFI for units being rented, Catellus is also responsible using diligent, good faith efforts to identify models for home-ownership that serves occupants at 50-60% MFI and rental units that can be retained at or below 50% MFI. There must also be programs targeted at special needs populations including elderly and severely disabled individuals. The City also asked Mueller to look at creative models for equity generation systems to qualify families in the affordable units and also for creating legal entities such as land trust models that can hold and manage affordable units for an extended duration of time. To ensure accountability for this program, Catellus must report semi-annually to the City of Austin's Community Development Commission. The following sections will analyze what these public-private partnerships look like and how the roles for the program are dispersed. I will also explain the different financial and planning tools being used to operate the program. But before that, it is important to look at where the requirements for Mueller Affordable Homes Plan originated from.

S.M.A.R.T. Housing

Potential residents interested in living in the Mueller affordable homes program will work with builders and also go through an application process to income-qualify and meet eligibility criteria established by the City of Austin's S.M.A.R.T. Housing Program. This policy initiative was created to stimulate the production of low- and moderate-income housing that is also compliant with the City of Austin's Green Building standard. The goals of this initiative are to provide waivers of development fees to those who meet these guidelines, use public resources to leverage private investment, stimulate development on vacant lots, promote the use of existing city infrastructure and explore

the creation of alternative funding sources to help encourage builders to produce affordable units (S.M.A.R.T. Housing, City of Austin).

In return for creating affordable units with these guidelines, developers may receive fee waivers for development fees and an expedited review process with the city which allows developers to save countless time and money. The initiative also identifies the AHFC as the lead agency to foster partnerships to develop, finance, rehabilitate, relocate and operate S.M.A.R.T. Housing in the City of Austin. The Neighborhood Housing and Community Development Department (NHCD) as the lead agency on housing policy issues and the single point of contact to facilitate S.M.A.R.T. Housing developments (S.M.A.R.T. Housing, City of Austin).

The S.M.A.R.T acronym stands for Safe, Mixed-Income, Accessible, Reasonably Priced and Transit Oriented. Safe means that building is compliant with the cities land development and building codes. Mixed-income means that at least 10% of the units will be reasonably-priced which is where the for-sale 80% MFI requirement and for-rent 60% MFI requirements for the Mueller affordable homes program originate from. The initiative also establishes a 5-year affordability requirement for rental units and a 1-year affordability requirement for home ownership units. Accessibility refers to the federal government, Texas legislature, and the Austin City Council standards that provide for people who mobility-impaired, hearing-impaired, visually-impaired or those who have been diagnosed with AIDS to have access to housing that is accessible in regard to their disability. Multi-family unit site plans more specifically must be reviewed for compliance with accessibility, transit-oriented and green building standards by the city of Austin prior to building permit approval (S.M.A.R.T. Housing, City of Austin). Transit-

oriented means that units must be within a quarter mile of a bus stop or half mile for single family units or the developers must work with S.M.A.R.T. housing staff to create a plan for providing alternative access to transit for seniors or those with disabilities. The City of Austin adopted the Design Standards and Mixed-use ordinance in 2007 which allows for Vertical Mixed-Use building to utilize dimensional and parking standards to ease the burden on the developer. The requirements for owner-occupied units are that at least 5% of residential units be reserved for families at or below 80% MFI with an additional 5% being reserved for those at or below 100% MFI along with an affordability requirement of 99-years from the date of Certificate of Occupancy. Rental units must include at least 10% of units made available at or below 80% MFI with the option for a neighborhood to request that the requirement be reduced to 60% MFI with an affordability duration requirement of at least 40 years from date of certification of occupancy. The City of Austin S.M.A.R.T. Housing staff will review all applications from builders and potential residents to ensure the program goals are being met.

The use of Public-Private Partnerships

The Mueller development has been recognized for its ability to utilize public-private partnerships to achieve success in the development (Awards, Mueller Austin). To create a successful and sustainable affordable homes program, it is essential that partners have a system in place to ensure accountability without hindering the effectiveness of the plan for the program. The Mueller Development agreement is primarily a partnership between the City of Austin, Catellus, and the community however there are many more players involved with the success of the Mueller Affordable homes program including Community Wheelhouse, affordable home builders & multifamily developers, the

Mueller Foundation, ROMA Design group, Austin Housing Finance Corporation(AFHC), and the Neighborhood Housing and Community Development Department (NHCD). Each of these players has had a specific role at some point in the history of the Mueller development to help ensure accountability that the goals established at very beginning are still being met to this day.

Prior to the inclusion of Catellus into the Mueller redevelopment plan, the city partnered with ROMA Design group which is essentially an architecture firm that served as the city's consultants during the Mueller Plan formulation process. They used feedback from the city and community to help create a plan that would meet the goals outlined through countless community meetings. Their work made the project attractive for Catellus who felt that much of the preliminary, and sometimes controversial community outreach work had already been done. It is important to note that community involvement did not stop then. To date, Catellus alone has held over 200 outreach meetings, events and workshops to ensure that every step of new development has the support of the new residents in Mueller and the surrounding community. Community Wheelhouse is non-profit organization made up of housing specialists and advocates who manage the affordable homes program and ensure income qualification for homebuyers and renters. The organization provides planning and program services to other non-profit organizations, public entities and private developers involved in public-private partnerships. They work to ensure that communities maximize the ability to secure long-term affordability and provide residents new opportunities for jobs.

The need to maintain affordability long-term affordability particularly for for-sale units, led to Catellus creating the Mueller Foundation to help meet the stated affordability

and community goals for the development. The Mueller Foundation is a 501c (3) non-profit corporation that is a donor-advised fund of the Austin Community Foundation. Funds for the foundation come from fees on builders, community assessment fees, and shared equity proceeds on affordable housing sales to sustain and continue to support the program. The affordable homes program is set up so that when a homebuyer enters the program, they will make a down payment as required by a lender and commit to mortgages based on the sales price of the home. Then, when they sell the home, they may be able to recover their investment on the down payment and principal paid on the home along with defined appreciation on the investment (Hefner, 2019). Then, the Mueller foundation which has a soft second lien on the house, will have the right to repurchase the home and resale it to another qualified home buyer. By utilizing the Mueller Foundation, the program is able to place a family in a home and give them the potential for gain on their investment while also ensuring that the benefits created by the Mueller affordable home program partners allow the foundation to serve more families. Beyond these organization, there are a handful of local homebuilders and multifamily developers that are engaged with the program and work to acquire additional funding sources to build these affordable units. The Mueller Foundation offers a variety of community benefits in regard to affordability, quality education, and sustainable neighborhoods (About Us, Mueller Foundation). For affordability, the Mueller Foundation uses the Mueller Shared Appreciation Housing program while focusing on sustainable affordability and personal/family financial education. For education, the focus rests on providing pre- and after- school youth programs, mentoring and tutoring, career, college and workforce preparation About Us, Mueller Foundation). There has been over

\$100,000 in grant funds used to support local elementary schools through the Campfire which helps students at Maplewood and Blanton Elementary schools and then to the Creative Action Project which funds learning through the Arts at Maplewood and Blanton Elementary (Progress, Mueller Foundation). Lastly, to help with sustainable neighborhoods, the Mueller Foundation focuses on using natural resources, providing more recreation and natural area space and on creating diverse and sustainable communities.

In regard to the affordable home program implementation compliance, Catellus is responsible builder for pricing, design, product types, and program requirements. The City of Austin Economic Development Department (EDD) along with the Neighborhood Housing and Community Development department (NHCD) oversee Catellus for the requirements outlined in the Mueller Development Agreement through semi-annual reporting and annual development audits. The City of Austin S.M.A.R.T. Housing staff and NHCD oversee income qualifications and rent compliance for the program. Lastly, the Mueller Foundation and Texas Department of Savings & Mortgage Lending oversee the program administrator which is Community Wheelhouse. Community Wheelhouse assists with the marketing & outreach, education & credit counseling and screening buyers (Weiss, 2018).

In regard to oversight for development implementation, the responsibilities can be found in the Mueller Affordable Housing Update presentation from September of 2018 given by Kelly Weiss, the President of Community Wheelhouse. She outlines that Catellus is responsible for overseeing builder via contract obligations including pricing, location, product types and length of affordability. The Design book created by Catellus

outlines building design requirements. The Austin Energy Green Book outlines the green standards for building requirements. To meet the long-term strategy & implantation goals, the Mueller Foundation oversees strategy and program administration. A certified public accountant conducts an annual audit of the Mueller Foundation. The Austin Community Foundation oversees the fund management for the Mueller Foundation.

Altogether, Mueller is not only example of a community-led vision coming to fruition, but it is also an example of how strong public-private partnerships can lead to new opportunities to essentially experiment with different types of tools such as design strategies or financial tools that can be useful for not only creating, but sustaining affordable housing at Mueller. Mueller is also unique in its size and location and because of the fact that it was publicly control land, the City of Austin had a vested interest in ensuring that all community needs are met (Hefner, 2019)

Financial tools and Planning Mechanisms

In the early stages of project when creating the pro forma for the Affordable Homes program, there were many challenges experienced by the players involved. However, this affordability goal was a component that came from the community which carried heavy value. We see through the creation of the RMMA Implementation Advisory committee which serves as a voice to the people, that the City of Austin cared deeply about the community's vision for the Mueller development. In fact, during the process of finding a master builder, the City of Austin listed the affordability component as a key responsibility in the original request for qualifications. Therefore, when creating

the pro forma, it required the actors involved to take all little bit less while constantly working to find new solutions to help stimulate affordability (Hefner, 2019).

The pro forma being referred to does not just refer to the affordable housing program alone, but the development as a whole. When the partnership was created between the City and Catellus, the City agreed to cover the estimated \$265 million in infrastructure costs for Mueller and the city also holds ownership of the land until a builder has been contracted which helps Catellus reduce costs. The City Council of Austin set Mueller as a Tax Increment Reinvestment Zone (TIRZs) which is a special zone used to attract new investment into the area. These zones help finance the costs of redevelopment by leveraging tax increments for securing bond debt and covering initial capital costs. Essentially, throughout the development, the taxing on land that occurs may be used to pay back the initial costs of development. Taxes attributable to new improvements during the development process are set-aside into a fund finance public improvement within the boundaries of the zone.

Mueller is also a Planned Unit Development which is used for larger development projects that will stay under unified control throughout the duration of the project. This tool provides greater design flexibility for development proposed within the PUD. Use of a PUD should result in development superior to that which would occur conventional zoning regulations and it is appropriate when the PUD will enhance the natural environment while encouraging high quality and innovative design all while ensuring adequate public facilities and services for the development (Planned Unit Development, City of Austin). PUD's use discretionary review which is very different from conventional by-right zoning review because it requires negotiation and collaboration

between the developers, the municipality, and often the community. It is important not to discard By-Right regulations as these automatically allow a project to move forward once a developer complies with the development requirements which can avoid delays created by discretionary review (Mandelker). Regardless, in the formulation of a PUD code, the city must carefully identify what type of PUD they want to achieve and tailor the standards outlined in the ordinance accordingly. PUD's are tricky because they require extra effort on the part of the city to ensure minimal risk for the developer while addressing municipal and citizen needs. When done right PUD's can help create urban infill projects with mixed uses that municipalities can approve to achieve targeted objectives such as natural resource preservation, sustainable development and affordable housing (Mandelker). In the case of Mueller, becoming a PUD provided relief from over 100 municipal codes and policies in the City of Austin and outlines a transparent standard and creates accountability between the many actors involved with the Mueller Redevelopment project.

One of the most prevalent tools used for financing the affordable homes program at Mueller is the use of Low-Income Housing Tax Credits (LIHTC). This is a form of financing that creates a partnership between the city and developer of the affordable unit developer. The program was created in 1986 under the Tax Reform Act and was made permanent in 1993 by the federal government and is controlled by the IRS to give state budget authorities the ability to issue tax credits for the acquisition, rehabilitation, or construction of rental housing targeted at low-income households. State and local agencies are given the ability to issue up to \$8 billion in tax credits to help subsidize the costs for developments that have at least 16 units and are made available to families and

individuals between 30% and 80% MFI. The allocation of these funds is at the discretion of the state and local agencies who will award funds that allow for lower rents and operating costs by giving developers usable equity that will have smaller debt against taxes. State and local agencies can target LIHTC applicants that are located near transit, work to provide access to services including education and civic components, all while including a minimum percentage of market rate and affordable units (SAQ, Texas Department for Community & Housing Affairs). The State Qualified Allocation (SAQ) plan serves as a road map for state agencies to assign points to projects based on certain criteria to help determine the best places to allocate funds. In regard to Mueller, the inclusion of various parks and greenspace, transit routes, hospital, grocery store, and elementary school along with the involvement of community organizations and non-profits makes Mueller an attractive project for these tax credits. The process of acquiring these funds is highly competitive and extremely technical, therefore it is essential that the developer and all actors involved are organized and efficient. The inclusion of partnerships with non-profit developers can also ease the process as these are often comprised of professionals who are very familiar with not only the LIHTC program, but also various other local funding streams to help make viable pro-formas.

The use of Community Land Trusts (CLT) has become a major factor in the success of the Mueller affordable homes program. Community Land Trusts are nonprofit organizations that are governed by a board of CLT residents, community residents and public representatives that work to provide community assets along with permanent affordable homes that allow for successful homeownership with lower income families for generations to come. By having this board serve as a dual owner of the property on a

long-term lease helps ensure permanent affordability for the home. Using this tool allows for the preservation of the affordable housing stock at Mueller with an adaptable framework that allows for it to be used to cover affordable homeownership, rental and commercial opportunities (Austin Community Land Trust Report, HUD Exchange). By housing a low-income family in the homes, they become exempt from the rapidly increasing property taxes that are being experienced throughout East Austin (Way et al, 8). The exemption stems from a variety of policy changes such as HB 525 which allows for CLT real property to be tax exempt from state taxes except education and then municipalities and counties will also have to ability to provide exemption to the property. It is important to note the negative costs impact that the City of Austin experiences from this tool as it loses tax revenue (Austin Community Land Trust Report, HUD Exchange). However, by creating the Mueller Foundation set up as a non-profit organization in perpetuity, the affordable homes program is able to help solve the tax issue and provide sustainable affordability that allows for low-income families to live in these homes and save funds for their future (Community Land Trust Report, HUD Exchange).

By having an elaborate network of connected partners involved with the program, the Mueller affordable homes program is able to try different tools and strategies to find the best way to achieve the goals of long-term affordability.

Where the Program Stands Today

The successes of the Mueller have been well documented with the development receiving various awards for its park, architecture, and sustainability. In 2015, Mueller received the Department for Housing & Urban Development Secretary's Opportunity & Empowerment award which recognizes plans or programs that have been in effect for at

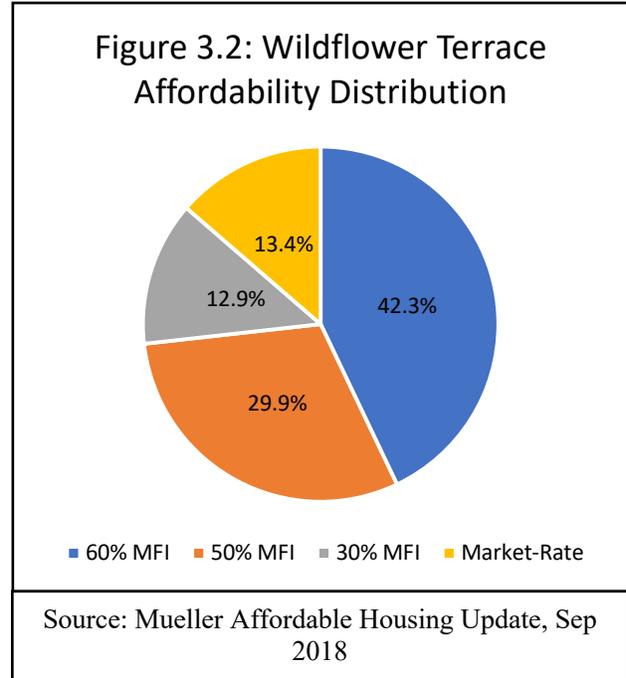
least 3 years and improve the quality of life for low- and moderate- income community residents. There is an emphasis on how creative housing, economic development and private investments have been used in accordance with a comprehensive community plan to empower the community. The press release for the award states that the Mueller is an example of community-led vision over coming challenges to become a compact, mixed-use community. Mueller was recognized for three primary reasons based on the fact that it is an example of enduring public-private partnerships, it addressed regulations that hindered or prevented compact development and it included a diversity of housing types. It is no secret that many are looking to Mueller for inspiration and ideas of how to create these kinds of public-private partnerships and leverage funds to create affordability. It is also no secret that those involved with the program are very proud of Mueller and what they have been able to accomplish so far but know that the fight for affordability will rage on as property taxes continue to rise and create new obstacles for the affordable homes program.

The pride in Mueller that is shared by the many players involved with the program can be reiterated through the accountability that is shared between all involved. A major component of this accountability takes shape through a transparent process with semi-annual reports being required by Catellus to show the results of the affordable homes program. Fortunately, these results have been made available and provide an outlook on how the program is doing so far. It is important to note that although the development is not yet built out, the majority of the development has been constructed and the affordable homes program is in action to achieve the affordability requirements outlined in the RMMA development agreement.

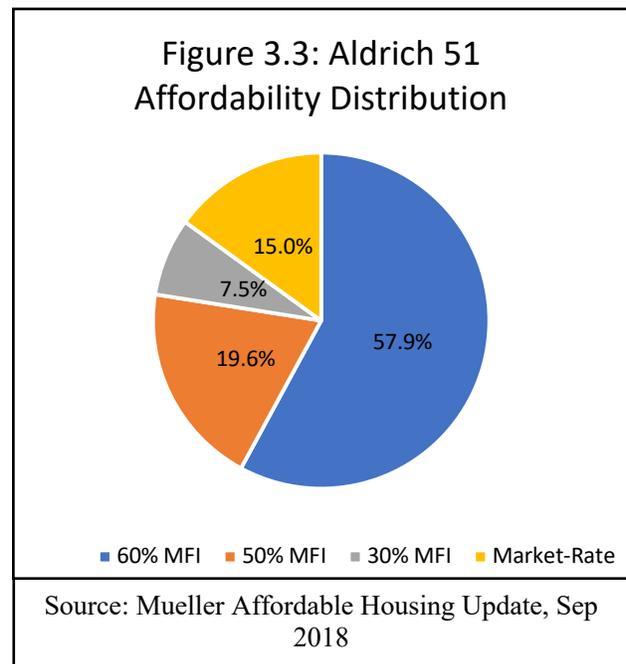
As of May 31st, 2018, 547 of the 2,024 for-sale homes contracted are affordable, which is about 27% of the units. Out of the 2,113 for-rent units contracted, 701 or about 33% are affordable. In total, 1,248 of the 4,137 or 30% of the units at Mueller are affordable (Weiss, 2018). It is important to note that these percentages can fluctuate as new sections of homes are built. There are also an additional 59 for-sale homes that were contracted for households earning 80-120% MFI. The Mueller development agreement requires that affordable for-sale units must be made available to families at or below 80%. This status report shows that Mueller currently serves families from 50 – 80% MFI in the for-sale units (Weiss, 2018). The for-rent requirement is at or below 60% MFI and Mueller currently services individuals and families in for-rent units at 30-60% MFI. Beyond these requirements, Mueller also works to target moderate income households by offering for-sale units up to 120% MFI and for-rent units up to 80% MFI. As stated earlier, although the development is not complete, these measures show that the Mueller affordable homes program is achieving success with slightly over 1200 of the projected 1550 total affordable units already in place. The program is also not only creating the affordable units but sustaining the affordability beyond the RMMA development agreement requirement. The for-sale requirement was 5 years, but the homes are currently including 50-99 year affordability periods. The for-rent requirement was for 1 year, but the multifamily developments are committed to long-term affordability with having individual goals.

To date, there are two multi-family developments built out exclusively for affordable housing. These developments were created through a partnership DMA Companies, a multi-family developer that specialize in creating affordable and accessible

housing. The first was Wildflower Terrace, which began leasing in 2012, primarily serves those that are 55+ who earn 60% or below the Austin MFI with some units reserved for extremely low income. This project includes nearly 200 units along with other common senior community amenities such as a fitness center, library, activity rooms, art studio and

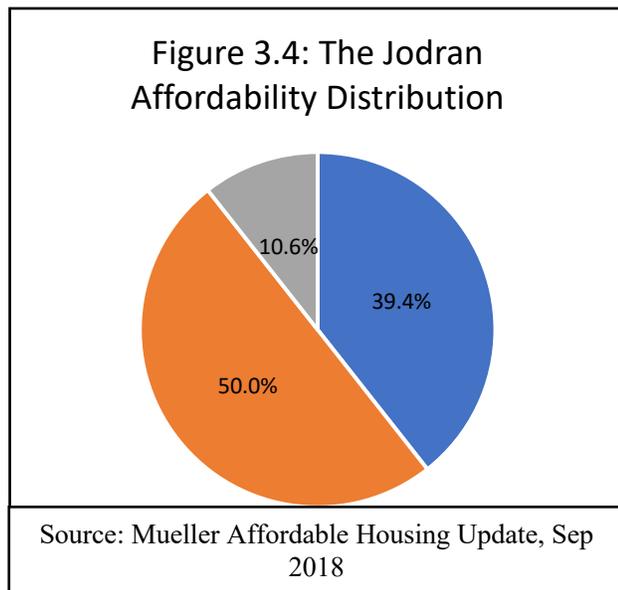


even several live/work spaces for entrepreneurial seniors who still have their own businesses and are not ready for retirement. This is an essential consideration as many seniors are beginning to work longer and stay active well into their senior years. Among the units at Wildflower Terrace, 85 units are made available at 60% MFI, 60 are made available at 50% MFI, 26 are made available at 30% MFI and 27 are made available at Market-rate prices. The fact that the number of units offered at 30% MFI and market-rate is a testament to the dedication to providing affordability in Mueller housing developments. Figure 3.2 shows the percentage distribution of



units based on price at Wildflower Terrace. The primary unit style at Wildflower terrace is 1-2-bedroom units from 705-1,079 square feet. The next affordable multi-family unit built was also created in part due to a partnership with DMA companies. Aldrich 51 which was began leasing in 2018, offers 240 units to predominately working families and individuals that are primarily employed at nearby service and retail businesses. These units range from studio apartments at 524 square feet to 3-bedroom units that go up to 1,223 square feet. Among the units at Aldrich 51, 139 units are made available at 60% MFI, 47 are made available at 50% MFI, 18 are made available at 30% MFI and 36 are made available at Market-rate prices. Figure 3.3 shows the percentage distribution of units at this development by affordability level. Aldrich 51 does a good job of providing affordable work-force housing with the majority of the developments being available at the 60% MFI level. Both Aldrich 51 and Wildflower Terrace were created by DMA Companies which continues to assist with the property management, with an affordability period of 99 years.

The next affordable multi-family unit is currently under-consturction and will only offer affordable units. The Jordan, which is being created through a partnership with Foundation Communités, a non-profit multi-family developer is expected to begin leasing by the end of 2019. This development will house 132 total units with 52 being



available at 60% MFI, 66 units at 50% MFI, and 14 units at 30% MFI but these units are technically supportive housing that will be made available to families coming out of homelessness. The units will range from 1-3 bedrooms with sizes ranging from 524 to 1,223 square feet. The Jordan will also feature a community center that will offer free education, financial stability and health programs for the residents. The Jordan is an excellent example of partnering with a non-profit developer to assist with leveraging funds to create the development as this specific project is being created by 1.5 million in state funding through housing tax credits and an additional 4 million from the City of Austin through 2013 housing bonds passed by voters in the Austin. There is an affordability of 40 years and the project will be managed by Foundation Communities, an organization that utilizes a sustainable non-profit model with an environmental commitment while being powered by volunteers to help provide support programs and education.

Altogether, these projects show how partnerships can be created by various entities to leverage resources and create developments that are truly affordable and will remain affordable. Although these are the only multi-family units that focus primarily on affordability, there are still various other multi-family developments that offer affordable units. ALMI at Mueller is a new complex that offers 15% of its units at 60% MFI or below. Sync at Mueller offers 10% of its units at 60% MFI or below and lastly, Mosaic at Mueller which also offers 10% of its units at 60% MFI or below. All of these multi-family units are built to be compliant with Austin Green Energy standards with ALMI at Mueller and Aldrich 51 both achieving Gold LEED Standard certification.

Moving forward, those involved with the Mueller Affordable Homes program will continue to focus on creating long-term affordability while reaching lower-income families using both 4% and 9% LIHTC developments. There will also be a focus on broadening the offering of affordable units by creating an additional 100 for-sale units made available up to 120% MFI which will not be included in the 25% affordability requirement. There will also be increased rental opportunities made available up to 80% MFI. In order to avoid gentrification, it will be essential to continue to add more jobs and affordable housing in order to bring more services and businesses closer together. Bringing together more diverse residents and workers can help turn the Mueller community into its own ecosystem while also providing services to the surrounding neighborhoods.

CH 3: Analysis of the Mueller Affordable Homes Program

There are 6 primary goals for affordable homeownership through the Mueller affordable program that were outlined in the September 2018 Affordable Housing Update (Weiss). The first is to retain as many units as possible for as long as possible. By utilizing a Community Land Trust model, the Mueller Foundation is able to accomplish this goal by retaining the ability to repurchase homes once a qualified income family leaves the home. This ensures an endless loop of affordability within the for-sale units for years to come. The multifamily developers that have partnered with Catellus and the City of Austin also established affordability requirements for their units for time periods well beyond the 1-year requirement listed in the Mueller development agreement in regard to affordable for-rent units. By guaranteeing that these units will remain affordable well beyond the time requirement listed in the MDA, the actors are also able to achieve the second goal which is to ensure that housing remains affordable. The third goal is to ensure a geographic dispersion of affordable homes which is being accomplished by homebuilders and multi-family developers that use the design guidelines listed in the Mueller design book to create affordable units that are indistinguishable and interspersed. The fourth goal is to ensure a variety of product types remain affordable. As stated for the first two goals, the actors involved with both for-sale and for-rent affordable housing have set affordability requirements that stretch far beyond the 5-year and 1-year

requirements listed in the MDA for both for-sale and for-rent units respectively. The fifth goal is ensuring the success of homeowners in the program. By including Community Wheelhouse in the network of partnerships associated with the Mueller affordable homes program, residents in these units are given access to various educational and workforce training opportunities along with credit counseling to help ensure the success for these residents in accessing new opportunities. The non-profit developer Foundation Communities also will offer countless educational and training opportunities to help the residents achieve success. The last goal is ensuring sustainability and quality of the program over the long-term. A major focus of program has been the consideration of what will happen in “life after Catellus” which is why the Mueller Foundation was created to support and fund long-term community goals for Mueller with an emphasis on affordable housing (Hefner, 2019). The Mueller Foundation has accomplished creating a method for repurchasing and reselling affordable units that become available as income qualified families move to new places, even relocating to market-rate homes in the Mueller development. The Mueller Foundation must consider the long-term maintenance of upkeep of the homes because as the development gets older, homes will get damaged. Because of this, the Mueller Foundation has the ability to release a limited number of units that would not make for appropriate living conditions for future families (Hefner, 2019). The Mueller Foundation is also voluntarily participating in an Urban Institute Study to track the long-term impacts of the affordable homes program (Weiss, 2018).

Catellus and the City of Austin believe they have created a place where new development ideas and practices can be used and learned from as they continue to seek longer and deeper affordability for the units. They believe that this is a successful model

that confirms that neighborhoods can achieve their big dreams with effective planning, partnership and execution. Today, the Mueller Community reflects the initial vision first stated over 30 years ago: “To create a sustainable, diverse, affordable community that could spur economic development, be compatible with the surrounding neighborhoods, be fiscally responsible and help revitalize East Austin (The Plan, Mueller Austin). There is also a conscious effort to share the lessons learned from Mueller in hopes cities can use this prototype to encourage future growth. Catellus has held 2 summits with the first focusing on how to create an affordable homes program and the second focusing on creating affordability by design. Hefner, the lead project manager, understands that people are very hungry for the knowledge on how to replicate this kind of project and she has worked extensively to take calls and lead tours of groups from all over the county with people eager to learn about the project. While she knows Mueller can’t be replicated exactly, she knows that there are pieces that can be taken away and applied to cities of all shapes and sizes. She believes that Mueller is a classic situation where everybody is getting what need from the project making it a win for the city, the community and the developer (Hefner, 2019). However, Hefner, along with others involved with the Mueller affordable homes program know that the work is far from over. The gentrification issue in East Austin continues on and property taxes are continuing to increase at a rate of about 2% per year (Hefner, 2019). Work must continue to manage the community land trust model although this is not a complete solution for housing affordability. With the help of non-profit organizations, affordable unit developers must continue to seek and achieve 4% and 9% low income housing tax credits. There must also be continued state advocacy for legislative reform to help create the conditions necessary for implementing

this kind of affordable homes program. Local efforts must also continue to provide continued affordability and combat gentrification in East Austin. To do this, Hefner stresses the importance of creating more jobs and affordable housing in Mueller while continuing to bring more services and businesses closer together to create diversity and avoid the trends of gentrification.

Perhaps the most important lesson that can be taken away from Mueller is the role of the community throughout the process. Using a community design process allows for a unique environment for community members and designers to learn from each other when trying to understand the facts surrounding the current conditions for the site and the collective vision for the future. When Catellus joined in on the Mueller project, they were quite impressed with how much outreach had already been which made their job much easier. Catellus has also continued this mission for community empowerment as it has held over 200 community meetings and workshops to ensure that the community has a voice in every phase of development. The creation of the RMMA Implementation Advisory committee also creates transparency by allowing community members and professionals on the committee to ensure accountability from Catellus and other actors involved that the goals of community are being met. Planners and developers carry the responsibility of providing services that will answer to people's needs. Unfortunately, they do not have tools to test how well a product or service works as there are too many changing variables from community to community including culture, background, context, the natural setting, people's choices at any time and other factors that determine how well a public space or building functions (Toker, 11). Therefore, it is essential that participatory planning be create a clear definition of the community problems at the

outset to identify the goals for the development and keep the many number of players involved with the development focused on what must be done to achieve these goals. Mueller has been a community-driven effort from the beginning and will continue to value the input from community members to ensure that Mueller can be a feature of Austin that people are able to use and be proud of. The Mueller planning and development process is delivering a community vision and proving to be a national model for affordable housing, sustainability, and compact development, as well as the public engagement process where citizens have a say in what happens with city assets (Hefner, 2019).

Conclusion

In this paper, I first addressed the problem with the provision of affordable housing following the suburban sprawl that left inner-city neighborhoods deteriorated and devitalized. The provision of affordable housing became privatized in response to the failures of public housing projects that failed to better the lives of low-income residents. In recent years, the practice of income mixing has expanded to create communities that are diverse in population and building style. This goal falls in line with the vision for New Urbanists that seek to create diverse communities that will offer a range of opportunities for its residents. Unfortunately, New Urbanism is often critiqued for becoming exclusive neighborhoods with home prices well above the rate of affordability for low- to moderate- income projects.

The Mueller redevelopment project offers unique case study for understanding how community participation along with inclusionary zoning and an elaborate network of public-private partnerships comprised of the City of Austin, Catellus and countless other non-profit organizations and experts that have come together to create an affordable homes program that will help combat the rapid gentrification being experienced in the East Austin communities surrounding Austin. Mueller also provides an example of how affordability can be achieved and sustaining in a New Urbanist development. The second chapter outlines how the Mueller development incorporates more affordable housing choices through requirements for both homeownership and rental opportunities in the Mueller Development Agreement. This paper also analyzes how the actors involved with

the Mueller development are working to achieve the goals of the Mueller affordable homes program and create “an interactive, mixed-use community that will be a model for responsible urban development, offering a compact pedestrian-oriented alternative to the land-consumptive and automobile-dependent development patterns that could influence the form and pattern of growth within Austin” (Weiss, 2018).

The intent of this analysis was to better understand how the program was created and structured to achieve the goals for affordability at Mueller. Moving forward, future analysis of Mueller will need to be conducted on the success of the program as it approaches full build out to better understand the impact on the residents who have been a beneficiary of the Mueller affordable homes program. Other areas of analysis could also include expanding on the role of the community in creating and managing the Mueller development process or analyzing the specific financial tools such as the Community Land Trust model to further understand how it is being used to create sustainable, long-term affordability for Mueller for years to come. The hope now is that the reader understands the importance of public-private partnerships and strong leaderships from actors involved to bring a community vision to life and provide sustainable affordability to create a truly diverse community of both people and buildings.

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