

FINE-GRAINED DENSIFICATION  
OF THE WHITEAKER NEIGHBORHOOD

by

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A THESIS

Presented to the Department of Architecture  
and the Robert D. Clark Honors College  
in partial fulfillment of the requirements for the degree of  
Bachelor of Architecture

June 2019

## **An Abstract of the Thesis of**

Zachary Sherrod for the degree of Bachelor of Architecture  
in the Department of Architecture to be taken June 2019

Title: Fine-Grained Densification of the Whiteaker Neighborhood

Approved: \_\_\_\_\_

Howard Davis

With this thesis, I propose a community-centered approach to increase the affordability of a neighborhood across the income spectrum while responding to the needs of existing residents. I begin by making a social and environmental case for densification on a national scale and proceed to investigate the implications of this concept in the context of Eugene, Oregon. I selected the Whiteaker neighborhood in Eugene as the subject of my housing research due to its walkability, progressive zoning, and relatively large at-risk population. To inform my proposal, I collected 30 responses to an online survey and arranged interviews with 16 residents, who I presented with a questionnaire and visual preference survey. I asked about issues they face, their concerns about density, and opportunities for future development nearby. Drawing on these interviews, I explored opportunities for development on the block northwest of the intersection of 5th Ave. and Blair Blvd. I suggest that the fine-grained densification of sites like those I identify in the Whiteaker would make communities more affordable, increase the availability of local jobs, and support local resilience. By visualizing different housing typologies in the context of an existing neighborhood, I hope to bring residents together around a common vision for the development of their communities.

## **Acknowledgements**

I would like to thank Professors Michael Fifield, and Ocean Howell for helping me understand the complex nature of affordable housing and equipping me with strategies for analyzing a complex urban fabric. And I would like to thank Professor Howard Davis for involving me in his research and helping me see housing as one of many important considerations for urban resilience. Each of my advisors have set a stellar example to their students for how architectural research can contribute to healthier communities. I am also deeply grateful for the time and energy the rest of my professors at the University of Oregon have invested in my education to better prepare me to be an effective advocate for those most deserving of excellent design. In the Whiteaker neighborhood, I would like to thank the neighbors, city officials, and members of the Whiteaker Community Council who donated their time to my research. Their insights are at the heart of this project. Closer to home, I would like to thank my family, friends, and fiancé Amy for keeping me sane as I balanced the demands of architecture, the Honors College, and my own wellbeing.

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## Introduction

The basic building block of a stable life in the US is an affordable place to call home. In recent years, however, national trends have threatened the financial security of individuals and families under a wide range of circumstances. With mounting recognition for the current housing crisis, cities seek to increase their housing stock, but the quantity and quality of new development has proven difficult to control. Although the crisis demands urgency, we must not settle for lousy housing without proper access to services, transit, or opportunities for employment. So, new housing should be prioritized in existing neighborhoods. Well-meaning efforts to increase density, however, regularly face opposition from existing residents. In many cities, the location of new development results from a long-standing legal battle between housing advocates and opposition groups in city council meetings and the state legislature. And with each project that is forcibly brought to reality, resistance to development grows. Urgency demands action, but we must proceed with new development in a manner that seeks to unite current and future residents behind a common purpose.

Our communities will be stronger and our initiatives more successful if all parties with a vested interest in a neighborhood realize the potential of community-oriented development to increase affordability across the income spectrum. To begin this project, I first asked *How can neighborhoods reduce their cost of housing?* I found that there is an increasing desire in the U.S. to live in city centers but that conflict between residents and developers is preventing the construction of needed housing. I then asked *How can cities seek to increase density in a manner that is acceptable to current residents?* To answer this question, I set out to define a design process that

would build consensus between existing residents, city officials, and developers to create dignified homes and workplaces for those in need. To this end, I analyzed the nature of the housing crisis across the U.S. Based on this research, I then investigated opportunities for new housing in the Whiteaker neighborhood of Eugene to inform a community-oriented proposal for development that would support local resilience in the years to come. I propose that fine-grained densification favoring diverse forms of infill housing can increase affordability at each step of the housing ladder—effectively preserving neighborhood character while improving affordability for all residents.

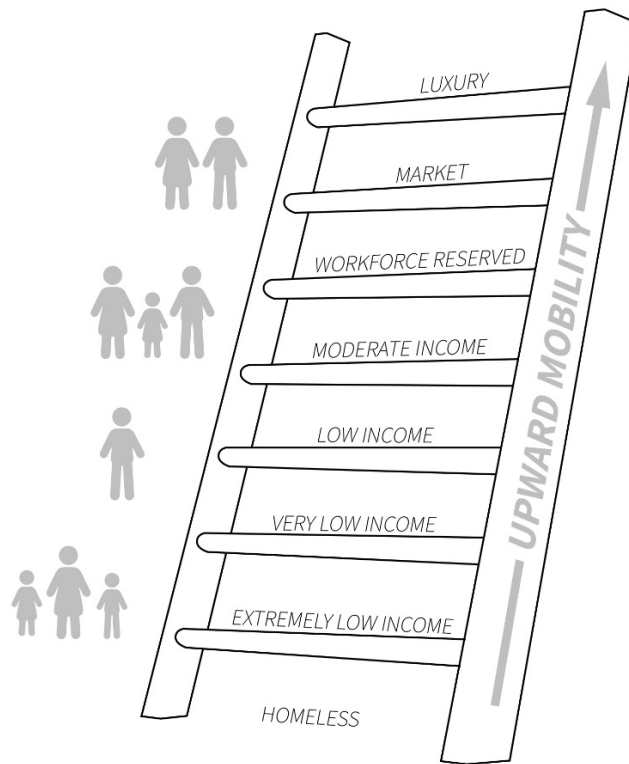


Figure 1: Housing ladder

The “housing ladder” is an analogy for the housing marking, in which a finite number of dwellings are available in each price range. To allow upward mobility, there must be low barriers between steps and enough units at each step to meet demand.

## **Defining the Crisis**

Housing crises result from an inability to control or respond quickly enough to changing market conditions, so our understanding of the need for housing must reach consensus if we are to act effectively on this issue. Relying on the free market is not enough because housing should be provided in a manner that supports the needs and customs of people coming from a diverse range of cultures and communities. It cannot be solved with any one solution because those in need of affordable options range from older folks without reasonable means to downsize, to young couples looking for starter homes—from families living in cramped conditions to homeless folks living on the street. Finding an affordable place to live is often an individual struggle, but the pain of this hardship can be alleviated through collective action. Some countries have developed programs to act effectively on this issue, but most lag behind.

For decades, housing advocates in the U.S. have bemoaned the “housing crisis” of their era, but the crisis today is as urgent as ever. Countless urban and rural communities across the U.S. face rising rents and increasing barriers to homeownership. One result is displacement. In 2018, we had 550,000 people experiencing homelessness, and almost 200,000 were unsheltered (U.S. 2018). Thanks to the many organizations working on this issue, homelessness has declined in the last ten years, but in that time housing insecurity has grown. Since 2008, the number of households paying more than 50 percent of their income on housing has increased by 20 percent, and the number of households “doubled up” with family and friends has increased by 30 percent (“State of Homelessness” 2018). There are many dimensions to this crisis, but at the root of the issue is an undersupply of housing at critical levels of the housing ladder.



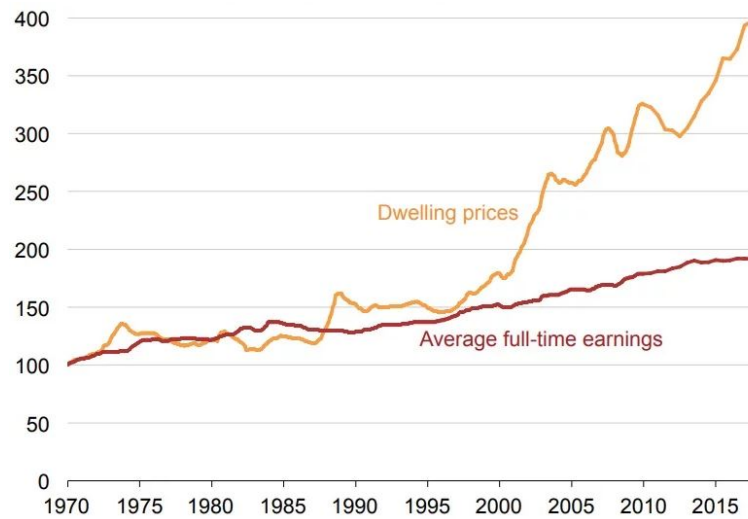


Figure 2: House prices relative to incomes since 1970

This graph indicates that housing costs have grown faster than incomes since the mid-1990s and continue to escalate today (Pash 2018).

Growth has outpaced development in cities across the U.S. and continues to fuel the rise of housing costs. A report from Freddie Mac indicates that the U.S. has experienced a shortfall of approximately 400,000 housing units per year since the 2008 housing crisis (Guggenmos 2017), so the U.S. economy is about 2.5 million housing units short of what is needed to meet long-term demand. On top of that, inflation has outpaced wage growth, so U.S. workers' paychecks are worth less than they were a year ago (Long 2018). Figure 2 shows the growing divide between average earnings and dwelling prices, which impacts people across the spectrum. Many baby boomers have delayed retirement out of necessity and thus have yet to downsize, which has impacted homeownership among millennials. Therefore, people with higher incomes are fueling the rise of rent in saturated housing markets. The National Low-Income Housing Coalition finds that renters in the U.S. must earn a wage of \$22.10 to afford a modest two-bedroom apartment, which is nearly \$15.00 higher than the federal minimum wage

(“Out of Reach” 2018). Even moderate-income renters are now being priced out of housing. Nearly a third of renters working 35 hours or more are cost-burdened (Airgood-Obrycki 2018), and this increased housing expense too often causes people to sacrifice other basic needs. Costs are climbing, basic rights are in jeopardy, and politicians at the local, state, and federal level have a responsibility to act.

### **Efforts to Address the Crisis**

After years of budget cuts, policymakers in Washington have recently begun to increase financing for low-income housing and renters, but our current production is insufficient due to inefficiencies in local, state, and federal policies. With the Consolidated Appropriations Act passed by Congress in March 2018, funding for the Department of Housing and Urban Development (HUD) increased by 10 percent (Bell and Rice 2018). This included allocations for Housing Choice Vouchers, which are a form of Project-Based Rental Assistance that help low-income renters cover their unmet cost of housing. In saturated rental markets, however, people with vouchers struggle to find eligible units because the supply of housing is low and because landlords routinely reject voucher holders in high-opportunity areas (Aranda et al. 2018). Until enough housing becomes available, efforts to assist lowest-income renters will not lower housing costs at each step of the housing ladder, and at worst may inhibit the development of housing in areas of opportunity.

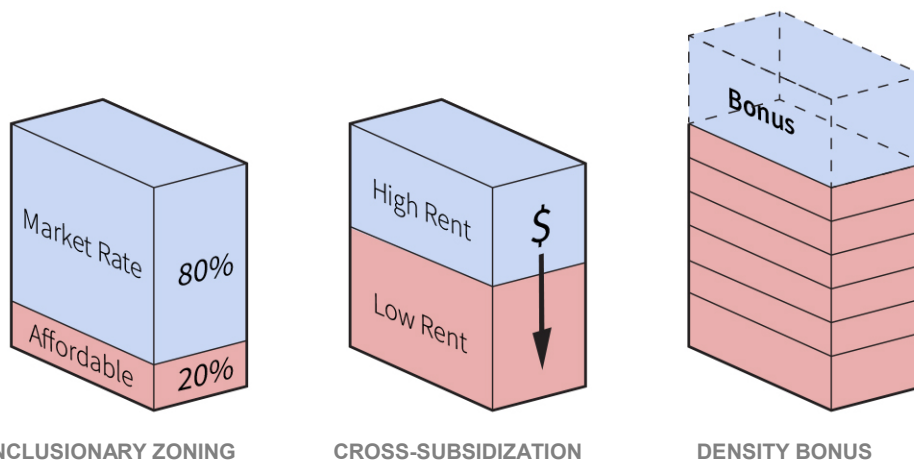


Figure 3: Strategies to support housing affordability

The three strategies depicted above are often used in concert to increase the affordability of units within new developments.

Demand exceeds supply, so we must build more housing, but our efforts are divided between immediate rental assistance and long-term production goals. On February 28, Oregon became the first state in the U.S. to enact statewide rent control and put an annual limit on rent increases of 7 percent (Lane 2019). And in 2017, Portland began enforcing inclusionary zoning, which requires a set percentage of units in all new buildings to be designated “affordable” for low-income renters. Together, these policies impact the profitability of new housing developments. Government subsidies like the CDBG grant and others provided by HUD for developers of affordable housing projects seek to offset the cost imposed by low rents. But at the end of the day, the subsidies currently available will not alone generate enough housing starts to replenish our housing stock. Often, developers are competing for a limited amount of federal funding, and a project may easily be delayed by a year or more if they do not get approved on the first review cycle. So, for a developer to be willing to finance a development that includes affordable housing, there must be enough market-rate units

to “cross-subsidize” the affordable units that satisfy the inclusionary zoning requirement. To this end, many cities offer a “density bonus” for projects that include affordable units. This means that developers may exceed the maximum height allowed by the zoning code to make their development profitable. The problem with these competing requirements and incentives is that current policies favor buildings that maximize the potential of a site, and big buildings cause controversies.



Figure 4: Comparing strategies for big buildings

The image on the left depicts 13<sup>th</sup> and Olive, a five-story building that occupies two blocks in Eugene, OR (Nishimura 2015). On the right is Rowell Brokaw’s illustration for the EWEB Riverfront Master Plan that uses form-based design guidelines (Rowell Brokaw Architects 2014).

Developers seeking approval for large-scale projects often face resistance in existing communities, and the quality of what gets built sets the tone of approval process for following projects. In Eugene for example, the Capstone project 13<sup>th</sup> and Olive has come to dominate housing debates as an example of what city planners and neighborhood groups want to avoid. It has become a rallying cry for opponents of density, even though it was built between downtown Eugene and the University of

Oregon on a site that favors density. The City responded to these concerns with a form-based code for development along the riverfront, but one project with a bad reputation can undermine the approval process for projects of more appropriate design. To avoid long approval processes, developers and city officials may instead seek to build affordable housing outside of city centers. And while housing in such developments may be affordable, displacement undermines resilience. The right to housing must not be treated as a stand-alone right, for its location relative to food, employment centers, transit, and other services has social and environmental implications.

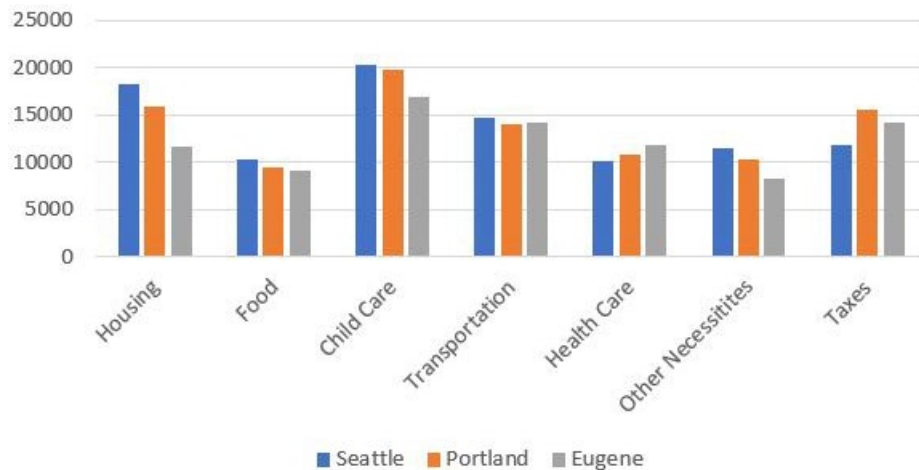


Figure 5: Breakdown of household expenses in the Northwest

This graph shows the breakdown of expenses borne by families of two adults and two children in Seattle, Portland, and Eugene. This data was generated using data from the Economic Policy Institute (“Family Budget Calculator” 2019).

Affordable housing must be provided in a manner and location that does not jeopardize access to other basic rights, so new housing should be built in walkable areas or transit-oriented communities. Food, clothing, childcare, transportation, and medical care all impact a family’s bottom line, and people often end up sacrificing one of their essential needs to pay for another. A recent survey conducted by Enterprise found that

54 percent of renters delay medical care due to costs (Enterprise 2019). And a report by the Urban Institute found that about 40 percent of families struggle to meet at least one basic need, and the most common hardship was food insecurity (Fottrell 2018). The location of housing impacts resident's access to good food, as well as their access to good jobs that pay for basic needs. For example, a single mother who is displaced to the outskirts of a city will not only pay more for her transportation to an employment center, but she will also pay more for childcare because of her extended commute. According to the 2015 ALICE Report, low-income families in Oregon already spend 38 percent of their income on the combined costs of transportation and childcare (United Way 2015), so moving out of the city center for "affordable" housing may not make one's lifestyle more affordable. Major developments like the Holiday Neighborhood in Boulder see enough investment to quickly become walkable communities, but many others strand residents in isolated locations. Moreover, cities that expand outward impact natural habitat and/or farmland, pay more to provide services to communities on the outskirts, and at the very least generate more pollution due to longer commutes. Truly affordable and responsible housing solutions pair people with opportunities for employment, so this calls for the densification of existing neighborhoods.

Increasing the density of already-walkable neighborhoods provides the best opportunities for incoming residents, but new development must also address the rights of existing residents. As mentioned previously, developers of affordable housing often encounter a Not in My Backyard (NIMBY) mentality among local neighborhood groups. These residents express concerns about increased traffic and noise, privacy issues, reduced sunlight in their backyards, lower property values, and an increase in

rentership that could have a negative impact on their community-building efforts. Development of vacant lots may indeed carry some of these impacts, but people's resistance to densification is often rooted in their experience of past failures. New housing projects should seek to achieve an increase in density with minimal disturbance to the existing patterns of life in a neighborhood. And densification can even provide economic benefits to current residents. So, policies should favor housing that strikes an appropriate balance between the needs of incoming and existing residents.

Achieving consensus to densify our communities may seem as impossible as keeping global temperature rise below two degrees Celsius, but it is a related and essential aspiration. So, I set out to understand why people resist new housing projects and how a new approach to development could change people's relationship to housing for the better.

## Housing in Review

In the United States, politicians, developers, city planners, and architects have explored a variety of successful and unsuccessful strategies to finance and build housing over the last century. A common thread, rooted in individualism, racism, and the American dream, is the ideal of the single-family home. This ideal gave birth to suburbia and the proliferation of R-1 zoning, which inherently limits the density and walkability of communities. To effectively address the housing crisis in low-density neighborhoods, the challenge is not only to increase density but also to help existing residents question their ideals, understand societal changes taking place right now, and see the benefits of new patterns of development. Neighborhood groups can either fight new development or seek to influence inevitable changes within their communities.



Figure 6: Rise of single-person households

Source: US Census Bureau; Deloitte University Press. Graph shows number of single-person households in millions and the corresponding percentage of households with a single occupant. (Bachman 2015).



## **Moving Beyond “Single-Family”**

The rise of catalog homes and planned communities in the early 20<sup>th</sup> Century reinforced the ideal of single-family detached homes. Middle-class Americans were enamored by the concept of a house in a garden, so they took to the highways to escape the commotion of industrialized cities, which effectively became a form of segregation. These new landscapes were built for white, middle-class families living an automobile-infused fantasy, but our needs today do not reflect the ideals of the past. For example, the number of single-person households has risen steadily for decades, and most traditional homes are simply too big and too expensive for these households. And with a renewed desire for inner-city living, more and more families would rather see an affordable housing complex built than a new tract of single-family homes far from their place of work. So, there is a renewed desire to urbanize, but undersupply in critical areas continues to fuel suburbanization.

Although cities are increasingly aware of the need to develop new housing, they are not growing fast enough. A recent report from the Pew Research Center found that the population of urban centers has grown 13 percent since 2000, but the population of suburbs has grown 16 percent in that time (Brown 2018). Between 2000 and 2014, five times as many people living in the U.S. moved from urban areas to suburban areas as moved from rural areas. And as shown in Fig. 7 from the Brookings Institute, that trend has only increased in recent years (“High Prices” 2018). Because of international migration and higher birth rates than death rates, city centers have continued to grow, but suburbs are growing faster. Bill Frey of the Brookings Institute attributes this trend to high housing costs rather than a renewed desire for the idealized suburban lifestyle

(Cortright 2018). To move beyond our dependence on cars and suburbs, dense solutions must gain traction in existing neighborhoods. And to meet the needs of evolving demographics, alternative housing typologies must be considered.

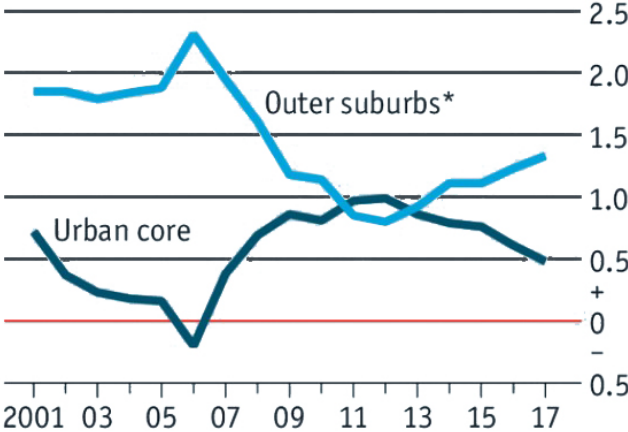


Figure 7: Movement to cities and suburbs

Source: William H. Frey, Brookings Institution. Graph shows population in urban and suburban counties in the U.S. as a percent change on the previous year. The graph indicates that movement to urban cores declined through 2006, saw a resurgence through 2012, and then declined once more (“High Prices” 2018).

Contemporary advocates for density in the U.S. have recognized the need to redefine our approach to development by promoting dense housing in a manner that is more palatable to existing residents. These efforts follow from the work of Clare Cooper Marcus, who listened to residents to develop guidelines that would improve safety and decrease the perceived density of medium density housing. Today, architects and city planners have adopted various terms to refer to housing that accommodates greater density while seeking to preserve quality of life and a residential feel. Public officials in Boulder call it “gentle infill” and Daniel Parolek coined the term “Missing Middle Housing” to refer to low-impact, multi-unit housing types. But this type of housing simply isn’t allowed in the zoning code of most cities. To make way for denser

forms of housing, some cities have begun to upzone to allow higher density. For example, Seattle recently upzoned 27 of its neighborhoods, and Minneapolis went so far as to eliminate single-family zoning and minimum parking requirements entirely. This will allow lots previously zoned for single-family dwellings to accommodate multiple families at a reduced cost. Cities are making way for growth, and Parolek and others seek to show that growth need not come at the expense of the character of existing communities. Nevertheless, there is more to a neighborhood than its look and feel.

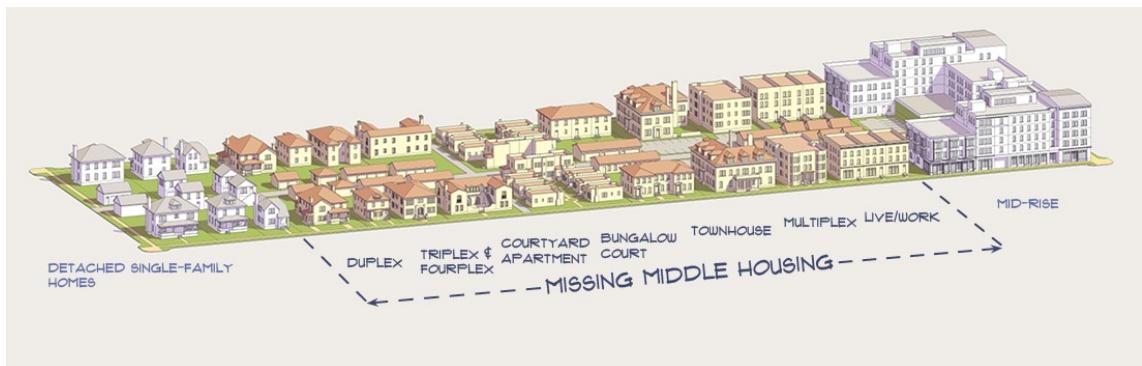


Figure 8: Missing Middle Housing

This is a graphic produced by Daniel Parolek to illustrate the variety of housing types that may constitute “Missing Middle Housing” in cities long saturated with detached single-family dwellings (Opticos 2015).

The risk of focusing our attention exclusively on Missing Middle housing typologies is that we may unintentionally undermine the aspects of communities that are integral to their culture. NIMBYs at times oppose big, ugly buildings, but at other times, they oppose development that seems to indicate gentrification. Gentrification describes the influx of wealth into a community that threatens to push out existing residents and uses. In her recent book, *Naked City*, Sharon Zukin calls to attention the concern that increased demand for housing in “authentic” urban places displaces the working-class

people who made these places authentic to begin with. She claims that New York “lost its soul” because upscale redevelopment of historic neighborhoods resulted in displacement. Gentrification undermined authenticity. So, Zukin calls for the protection of local artists, workers, and small business owners to resist the homogenization brought by upscale apartments and cultural trends like Starbucks. If these residents do not stand to benefit from the popularity of their neighborhood, they will be displaced. And when urban property is sold to the highest bidder, it is not just people who are displaced, but entire modes of living.

A neighborhood owes its identity to the people and buildings that come to define it, as well as the activities and products unique to the place. For example, a neighborhood renown for making bread will no longer be the same if all bakers are forced to move out due to rising prices. An upcoming book from my advisor Howard Davis looks at how urban industry was displaced in the past but has seen a resurgence in recent years. New initiatives that revive old crafts, use new technology in creative ways, or prototype new products have started up and promise to pay better than service jobs. But these initiatives threaten to be pushed out once more if cities do not seek to support local industry. The goods that are produced in a community contribute significantly to the culture of a place, and if developers continue to prioritize market-rate housing, entire districts will lose their local businesses and industrial roots. While we must look at the potential for medium-density housing to improve the affordability of our neighborhoods, we must also provide for the mix of uses that are essential to the vivacity of these neighborhoods.

As I have sought to show in this section, the built fabric of our neighborhoods reflects the values we prioritize during their development. When individualism is prioritized above all else, our landscapes become divided. And when efficiency is prioritized above all else, our landscapes became homogenous. The modern housing crisis asks that we question customs that are rooted in the idealized notion of “home,” but that we maintain values that make for healthy communities. The life of a place goes beyond its buildings, so as we plan for future change we must seek to retain existing residents and foster the diverse uses that made that place special to begin with. Instead of waging a battle to build one big building, we should work with neighborhood groups to create a comprehensive plan for densification that seeks to benefit all stakeholders. I call this process fine-grained densification.

### **Fine-Grained Densification**

Recent contributions to the field of urban design have clarified our understanding of what it takes to design resilient communities, but we lack an effective process for bringing these principles into reality. Theorists like Christopher Alexander and Clare Cooper Marcus described desirable guidelines for housing. And urbanists like Daniel Parolek identified promising housing typologies to apply these guidelines in existing neighborhoods. So why are we not on track to build enough of the housing we need? Because misguided land-use codes and a slow, project-by-project approval process limit the efficiency of new development. To speed up the approval process, states like Oregon have sought to mandate clear and objective standards for new buildings. These standards describe a clear path to new development that respects certain basic principles about good design. While this top-down approach may simplify

the process of new development, it does not necessarily respond to the concerns of residents or allow the most ideal forms of density for a given neighborhood. The most promising examples of densification today often result from the collaboration of neighborhood groups and city officials who come together to overhaul city code and make way for new possibilities.



Figure 9: Examples of ADUs

The left image shows a laneway cottage in Vancouver, BC (“A Charming Laneway Cottage” 2014). And the image on the right shows an ADU in the city of Portland, OR (Cassano-Meyer 2013).

Successful housing initiatives in cities like Vancouver, BC, and Portland, OR have harnessed the popularity of tiny homes to promote gentle forms of density. In 2009, Vancouver passed its “Eco-Density Initiative,” which included allowances for laneway cottages. In the U.S., laneway cottages are referred to as Accessory Dwelling Units (ADUs) and are small single-family homes that typically range from 400 to 1,000 sq. ft. ADUs represent a desirable form of density because they have less of an impact on neighborhood character and existing residents may benefit from bonus income or opportunities for multi-generational living arrangements. When the city of Vancouver

sought to relax regulations on ADUs, effective outreach reduced residents’ concerns because ADUs are a form of “hidden density” that exists out-of-sight but contributes to the affordability of a neighborhood. Within one year, Vancouver had permitted 100 ADUs and as of 2016 had over 25,000 (Bertolet 2016). By contrast, Portland had built less than 600 ADUs by 2016, but this number has grown steadily in the last couple of years because Portland changed its code to eliminate an \$11,000 development fee as well as parking and owner-occupancy requirements. Changes to city code were necessary in both cities to spur the development of ADUs, and other cities have begun to make allowances for tiny homes as well as other dense typologies.

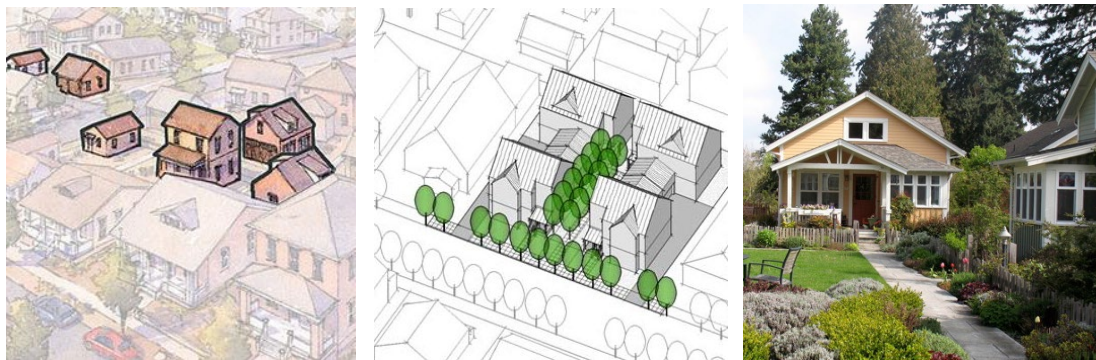


Figure 10: Popular trends in densification

The image on the left describes the small-scale development being pursued in Asheville, North Carolina (Asheville City Source 2018). The center image shows one of the infill housing solutions proposed by the city of Portland (City of Portland 2008). And the right image shows Umatilla Hill designed by Ross Chapin (Brown 2011).

Although ADUs represent a promising way to align the interests of residents and city officials, there is no silver bullet for the housing crisis. Different sites in a neighborhood are better suited for different forms of density, so a variety of solutions for infill housing should be considered that together achieve overall production targets. Density is most humane when it is diverse—inclusive of many users and uses. In 2016,

the city of Asheville, NC began pursuing changes to their zoning regulations to encourage small-scale infill development. In this city of 90,000, residents and city officials came together to overhaul their codes because they wanted to encourage desirable density. They reduced minimum lot dimensions, permitted duplexes in multifamily districts, and allowed additional units on sites larger than the minimum lot dimensions. These zoning changes sought to promote different types of housing, and the city organized a workshop with the Incremental Development Alliance to educate residents about opportunities to make small-scale investments in their own neighborhoods. In this strategy, residents of a neighborhood in-part became their own developers, so they could shape and profit from change accordingly.

Locally-driven densification may occur on a lot-by-lot basis, but it can also exist at a larger scale. Cohousing has grown in popularity in recent years as a model of sharing the cost of construction, common amenities, and green space. This may exist within a single larger building, courtyard housing, or a cottage cluster like the Umatilla Hill Neighborhood designed by Ross Chapin. But infill must at times take an even greater form of density, as Portland has pursued in recent years. In 2008, the city of Portland published the *Infill Design Toolkit* as a guide for medium-density infill development. The guide covers various strategies and case studies for infill, analyzes design policies in Portland's neighborhoods, and puts forth prototypes for dense housing that comply with existing codes. It is a valuable tool for investigating the possibilities that exist at the scale of one or two lots, but it neither questions restrictive codes nor considers possibilities to bring about more fundamental change in a neighborhood.



New medium-density housing typologies have gained popularity because they are seen as a desirable alternative to large-scale development, but I say we should go further. I propose that along with new typologies come new approaches to development that look at how densification occurs at the scale of one or more blocks. We should not ask how to permit an ADU on an alleyway, but how to transform our alleys into vibrant places lined with compact dwellings, workshops, home offices, and the occasional back-alley cafe. Rather than seeing a lot as a potential site for an apartment complex, we should explore how different housing typologies, makerspaces, and micro-retailers on one site can increase the diversity and connectivity of a whole community. And instead of basing every project on a minimum parking requirement, we should look beyond parking at how space will be used to maximum success in the decades to come. New developments should follow key guidelines, like maintaining short frontages of appropriate scale, but these developments should also explore new forms of density that enhance both the culture and character of our neighborhoods. Urban renewal in the past tore down whole blocks to inflict modernist ideals, but fine-grained densification is a way to work with residents to plan for future resilience. This approach calls for city officials and neighborhood groups to pursue bold action in their collective best interest.

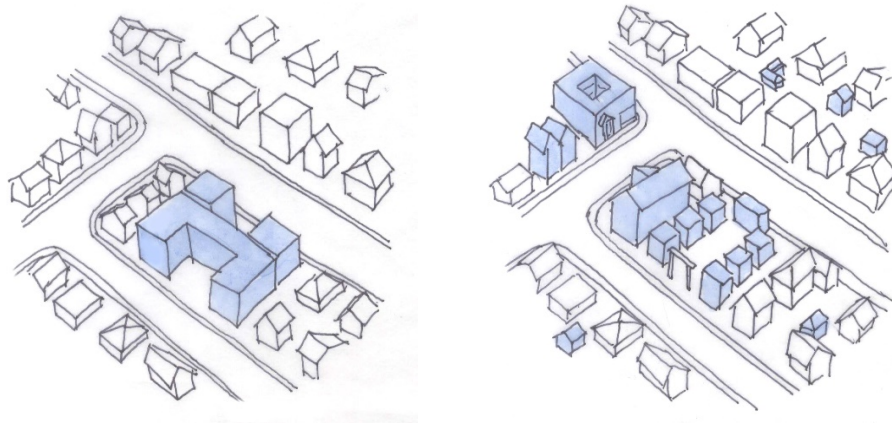


Figure 11: One-off development vs. fine-grained densification

These illustrations show the difference between thinking on a project-by-project basis and pursuing more far-reaching, yet desirable change.

To improve the efficiency of our building culture, we need to bridge the divide between policy makers, developers, and neighborhood groups. I propose that building diverse forms of infill housing in existing neighborhoods would make homes more affordable, preserve key qualities about the place, and reduce people’s overall living expenses. To do this, cities would need to work with residents to map out future change. This collaboration is seen in the neighborhood plans drafted by some cities, but these rarely go so far as to propose how changes in city code could make way for positive growth in the neighborhood. Fine-grained densification could gain traction in communities looking to improve affordability while preserving diversity and neighborhood character. By bringing in all parties early on to explore radical solutions, we will set the stage for the development of places that will remain resilient in the years to come. So, I set out to investigate the process by which the city of Eugene, OR could work with residents of the Whiteaker Neighborhood to pursue fine-grained densification that would contribute to the identity of the neighborhood.

## **Housing in Eugene**

While the housing crisis has attracted the greatest attention in major cities like New York City, Portland, and San Francisco, this trend has reached smaller cities as well. In 2017, Eugene, Oregon was the 2nd-most housing constrained city in the country (Pan 2017), and as described in the *Eugene-Springfield Consolidated Plan*, it is projected to grow by 20 percent in 20 years (City of Eugene 2015). This means that Eugene will need to accommodate approximately 15,000 new homes by 2032. Although affordable development is touted as a primary concern by many city officials and advocacy groups, Eugene remains divided in its efforts to create and preserve affordable space, so stakeholders in the community are now lining up at City Council meetings to influence the fate of affordable housing in Eugene. The council's decisions are important because the strategies they choose will have a long-lasting impact on the character, diversity, and economic development of the city.

### **Status of Eugene Codes**

Much of the recent pressure to address housing issues at a local level has resulted from bills coming out of the Oregon Legislature. Back in 2007, the Legislature passed House Bill 3337, which required Eugene and Springfield to establish separate urban growth boundaries (UGBs), which are city limits intended to prevent urban sprawl, and to plan for growth accordingly. Envision Eugene was created as a community outreach effort to envision goals for future growth. Although one of the seven Pillars of Envision Eugene was to “promote compact urban development and efficient transportation options,” goals to increase density through the production of

affordable housing largely remained an unrealized vision. The city still lacked key tools and typologies to increase affordability. With the passage of Senate Bill 1533 in 2016, the state enabled cities to adopt tools like inclusionary zoning or construction excise taxes. Inclusionary zoning, as I've described, requires a percentage of units in a project to be designated as affordable. And construction excise taxes charge a premium on building permits to finance incentives for developers of affordable housing. Then in 2017, the Oregon Legislature passed Senate Bill 1051, which mandated that cities in Oregon modify their land-use codes to follow Clear and Objectives standards and allow the construction of accessory dwelling units (ADUs) on lots currently occupied by single-family dwellings. And in the past few months, the House committee on Human Services and Housing has been holding work sessions on HB 2001, which would require cities with population greater than 10,000 to allow missing middle housing on lands zoned for single-family dwellings. With the housing crisis escalating and pressure being applied at the state level, the Eugene City Council moved to investigate its options.

In May 2018, Eugene City Council formed the Housing Tools and Strategies (HTS) Working Group to identify barriers to housing affordability, availability, and diversity. Over the course of 7 months, the Working Group collaborated with advocacy groups like Better Housing Together and sought the services of consultants to assess over 80 possible actions before making recommendations on best practices to the City Council in December (City of Eugene 2019). Already this work has catalyzed action to improve Eugene's Clear and Objective standards, which are intended to streamline the permitting and inspection processes for new development on lands in the UGB while

respecting the values of communities. And the Working Group recommended a one-percent construction excise tax (CET) over mandatory inclusionary zoning because it promised to provide dedicated funds to affordable housing projects that would target lowest-income renters. The process for passing this ordinance is currently underway, along with review of possible strategies to protect renters from eviction or rent increases. Nevertheless, the Working Group also recommended code changes that would allow multi-family development along key corridors, more streamlined approval for tiny homes, and the development of ADUs, single-room occupancy, and “missing middle” housing typologies in residential zones, but the Council has not made much progress on these issues.

The land use code in Eugene has some significant barriers to missing middle housing typologies, and certain neighborhoods are more restrictive than others. Although there are some neighborhoods like Jefferson Westside that are zoned R-2 in Eugene, the fact remains that 91 percent of Eugene’s residential land is zoned R-1, in which missing middle typologies are prohibited outright or difficult to get approved (WE CAN 2019). The minimum lot size in most of these neighborhoods is 4,500 square feet, with 50 percent of the lot open, and the minimum lot size for duplexes is 8,000 square feet. The maximum density in R-1 is 14 units per acre, but the average lot size required to build to this density is 3,111 square feet. And other types of missing middle housing like cottage clusters are not currently allowed except as part of a cluster subdivision or planned unit development, which require four or more lots. Without changing the code, Eugene will remain limited in its ability to densify at a fine-grained

scale, and development will instead be concentrated in bigger developments. Therefore, housing advocates are eager to make other options available.

Central to the housing debate in Eugene right now is the issue of ADUs. As mentioned previously, Portland has adopted ADUs as a key component of its housing initiative and done away with most problematic regulatory barriers. In April 2018, Springfield followed suit, but Eugene remains in violation of SB 1051. As a result, current regulations make ADUs difficult to finance and approve in Eugene. In 2018, the Land Use Board of Appeals invalidated Eugene's ADU rules, but the proposal being considered by the Council as recent as February 2019 seeks only bare-minimum compliance with the law. So, advocacy groups like WE CAN are pressuring the Council to pursue more aggressive code changes. WE CAN (Walkable Eugene Citizens Advisory Network) is a group of homeowners and renters who advocate for walkable and affordable neighborhoods in Eugene. They seek to educate citizens in Eugene on the benefits and legality of missing middle housing. In response to the February work session, they criticized the Council for only considering changes to 5 of 19 regulations placed on ADUs. Among the restrictions to be removed are the maximum bedroom limit, owner occupancy requirement, and prohibition on alley access lots, but the Council wants to keep regulations like maximum density, off-street parking minimums, and sloped setback requirements. And the minimum lot size of 4,500 sq. ft. means that subdividing lots is typically only possible in larger subdivisions. Due to these restrictions on ADUs and other missing middle housing typologies, I argue that the residential land supply study conducted by the city in 2012 is a conservative estimate of the possibilities that exist for densification in Eugene.

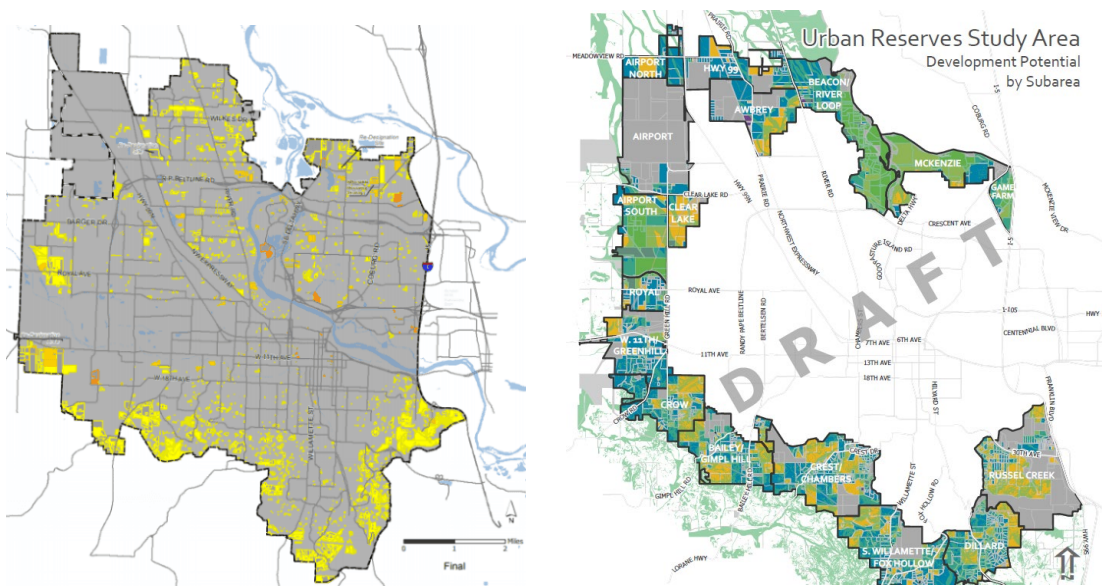


Figure 12: Possible expansion of Eugene’s urban growth boundary (UGB)

The map on the left shows the 2012 Residential Supply Study that considered buildable land in Eugene, but not ADUs or the potential of missing middle housing (Planning and Development Department 2017). The map on the right shows a draft version of Eugene’s urban reserves study (City of Eugene Planning Division 2019).

As bold as the pillars of Envision Eugene are, the City risks taking undesirable actions to accommodate growth. The Oregon Legislature mandates that cities in Oregon conduct regular studies to guarantee that enough buildable land exists within their urban growth boundaries (UGBs) to meet projected growth and to expand as necessary. The residential land supply study shown above led to the 2017 adoption of a Eugene-only UGB which included expansions into the Clear Lake and Santa Clara areas to meet demand for jobs, parks, and schools. While this did not designate residential land on the outskirts of Eugene, the City has initiated urban reserves planning to identify additional land to be absorbed by its UGB. As recent as February 14, the city met with service providers to plan future growth and will soon run calculations on the number of homes that could be accommodated within the urban reserves study area. The most recent

supply study highlights the need to provide additional housing but did not consider potential of ADUs or other forms of missing middle housing currently prohibited by city code. If residents do not come into agreement on acceptable strategies for densification, Eugene will be more likely to expand its UGB to accommodate new housing at the edge of the city, which brings all the consequences of urban sprawl. To illustrate the potential for fine-grained densification, I set out to investigate opportunities for development in the Whiteaker neighborhood as an example of how neighborhoods across Eugene could seek to densify in the years to come.

### **Why the Whit?**

After researching various places in Eugene, including River Road, West University, and the Friendly Area, I found the Whiteaker neighborhood northwest of downtown Eugene to be a promising subject. The Whiteaker is an ideal candidate for a pilot study of fine-grained densification because it has a history of looking beyond city code to shape future growth. In 1994, the neighborhood worked with the city to draft the 1994 Whiteaker Plan, which expressed residents' vision for an affordable, mixed-use neighborhood. The plan was a bold step for its time because it featured a progressive ordinance for a mixed-use special area zone that ultimately proved an effective incubator for the breweries and other businesses operating there today. This plan sought to preserve historic resources while charting a path for future growth, which has resulted in the unique community seen there today.



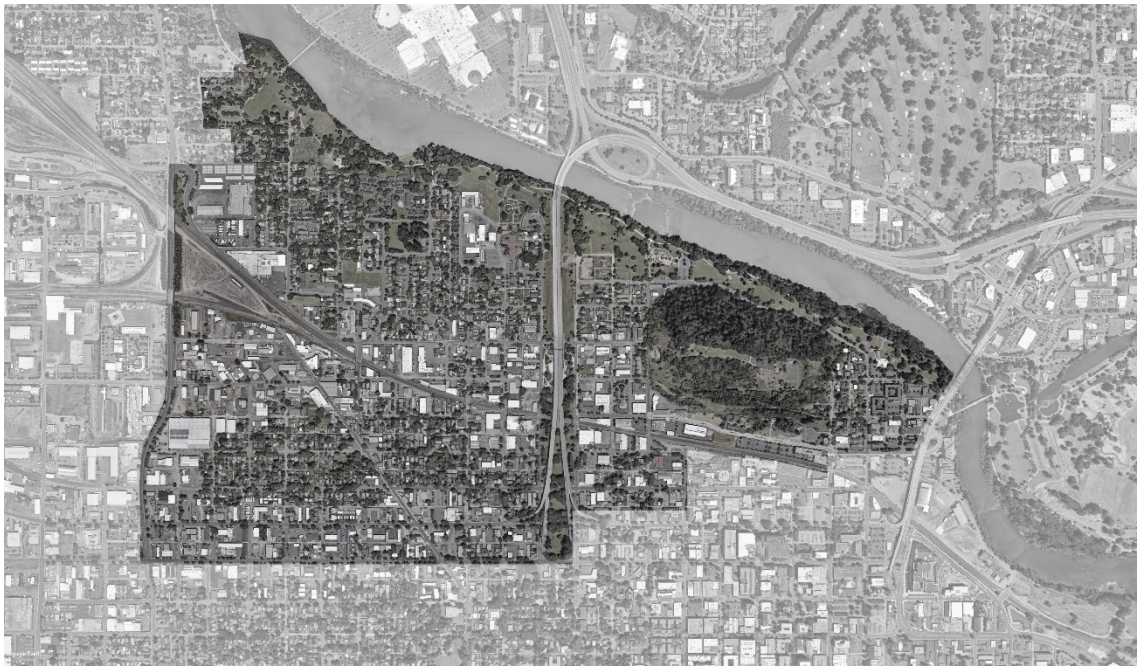


Figure 13: Maps of the Whiteaker neighborhood.

The uppermost image shows the boundaries of the Whiteaker. Map A calls out the green space in the area. Map B shows transit and bus lines. Map C highlights vacant land in the neighborhood. And Map D shows the median household income for different parts of the neighborhood (City of Eugene 2011).



Figure 14: A view of the Whiteaker neighborhood.

This view down an autumnal street in the Whiteaker neighborhood captures the charm and character that residents are so eager to preserve (Anderson 2013).

The Whiteaker is best experienced in-person, but I'll try to capture its character here in writing. This neighborhood of 4,500 people is wedged between downtown Eugene, Skinner's Butte, and the parks along the Willamette River. It has long been a dirty, industrial neighborhood, but that's what people love about it. The grain silo rising above the dense tree canopy has become a symbol of the working-class origins of the neighborhood, and its current character emerged from the contributions of a diverse range of artists and activists over the years who wanted to live an alternative lifestyle in someplace special. Walking down its tree-lined streets shows you that people have spent years designing colorful and creative places to live. As one resident described to me, "there's a charm to the neighborhood, with art and funky houses with lots of vegetation around them." And the diverse and eclectic nature of the place has attracted a diverse and eclectic group of people to live there. As a result, the Whiteaker has

adopted a live-and-let-live philosophy, celebrates differences, and has fostered a tight-knit sense of community. A while back, its reputation for tolerance attracted crime and a controversial group of eco-anarchists, but that has changed in the past couple of decades. Now it is relatively safe and attracts a growing number of visitors to its restaurants and breweries each year—partly because it is accessible to many surrounding neighborhoods. It is within walking distance of downtown, within biking distance of the University, and is relatively well-connected via public transit, so it is an ideal candidate for a study of densification.



Figure 15: Mobility scorecard for the Whiteaker.

These are the mobility ratings of the Whiteaker neighborhood as determined by Walk Score. While public transit is not as accessible as it could be, the neighborhood is extremely walkable and bikeable.

This project comes at an opportune time because many residents of the neighborhood are at risk of being displaced and members of the Whiteaker Community Council are seeking to address rising housing costs. According to Eugene’s last Neighborhood Analysis in 2011, nearly 40 percent of households in the Whiteaker were housing-cost burdened and 30 percent had recently experienced poverty (City of Eugene 2011). While the neighborhood has shown a strong sense of community over the years, rising rents in combination with high rentership threaten its resilience. As of

2000, 81 percent of housing units in the Whiteaker were occupied by renters, 63 percent of residents lived in multi-family housing, and 50 percent of units were one-person households (City of Eugene 2011). And the number of one-person households has likely only grown since that time, given that recent city-wide studies found that single people living alone increased by 21 percent since 2000 and now represent 32 percent of occupied households in Eugene (City of Eugene 2015). As a result, the waiting list for public housing for one-bedroom units totals nearly 1000 individuals with up to a five-year wait time. And two-bedroom applicants, who are usually single, female parents, include over 900 individuals with up to a three-year wait time. There is a significant need for small units, and for the wellbeing of future residents of Eugene, neighbors and public officials should work together to chart a course to desirable density.

The City's resources are currently being directed toward the River Road – Santa Clara Neighborhood Plan, but the City will return to the Whiteaker neighborhood in the next few years to help neighbors revise the 1994 Whiteaker Plan. This is an opportunity to be bold—visionary like the '94 plan was for its era. And the time between now and then can be used to bring neighbors together around a common vision for how to influence and preserve the neighborhood. With my project, I seek to visualize possibilities that help facilitate conversation between neighbors deciding on a collective approach to housing. Developers have recently shown an interest in building big apartment complexes in the area, but it doesn't have to be that way. The Whit is a dense neighborhood that has come to appreciate the walkability inherent with density. Projects like the East Blair Housing Co-op are well-appreciated and serve as a promising example of the benefits of greater density. So, I propose that the neighborhood unite

behind key initiatives, like the push to deregulate missing middle housing, to shape proactive development.



Figure 16: East Blair Housing Co-op

This image shows the primary street face of the East Blair Housing Co-op, which has been owned and operated collectively by residents since 1982 (Spencer 2019).

The Whiteaker will inevitably change, so steps must be taken to ensure that new development increases affordability, introduces new opportunities for work, and enhances the welcoming and eclectic character of the Whit. With this thesis, I set out to explore the process by which community-informed densification might become reality. And the results of my research will continue to inform the development of my terminal studio project in the Whiteaker through June 2019.

## Interview Procedure

Upon selecting the Whiteaker for this study, I began to attend Whiteaker Community Council meetings to learn about the current politics of the neighborhood, and then I sought to interview residents in-depth. I began constructing a visual preference survey based on the hypothesis that people's opinion of densification depends on factors like the grain, scale, and roof-type of new development. And I hoped to use what I learned during my interviews to create guidelines for dense typologies that would mitigate residents' concerns with densification. I first needed participants.

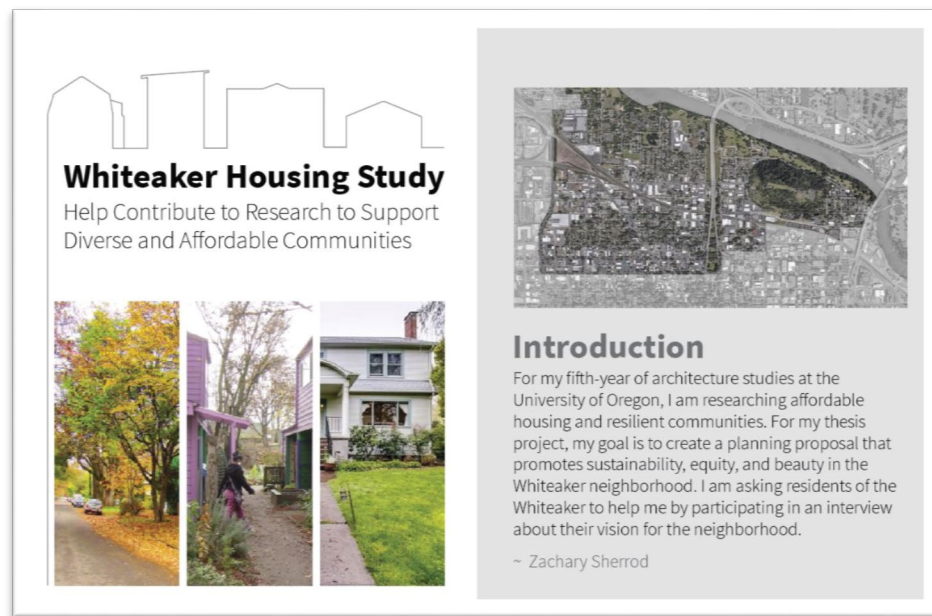


Figure 17: Research pamphlet

This is an image of the pamphlet I distributed to residents at neighborhood meetings.

Once I developed written, online, and visual-preference surveys, I introduced my study at the October 2018 Whiteaker Community Council meeting. At this meeting, I distributed the pamphlets shown above with my contact information. This yielded some interest, but I had to return the following week to request access to their Facebook

page before my outreach began to gain ground. At that point, I posted the pamphlet and a link to an online survey on Facebook. I also sought to diversify my interview pool by going door-to-door in the area around Blair Boulevard to distribute additional pamphlets. To those who opted to share their email, I reached out to ask whether they would be willing to meet for a more in-depth conversation. In total, I conducted interviews with 16 residents and my online survey yielded 16 additional responses. While this limited group could not possibly capture the diversity of perspectives of residents in the Whiteaker, they gave me an opportunity to test the design of my survey.

### **Survey Design**

For this project, I developed a three-part survey. The first part asked for demographic data so that I would be able to put people's responses in-context and gauge the diversity of participants. The second part featured open-ended questions about residents' history in the Whiteaker and their hopes and concerns about future change. Example questions included "What brought you to the neighborhood," "What would you like to have change," and "What would you like to have stay the same?" In response to current issues in the area, I also included questions about ADUs and mixed-use zoning. And the third part of the survey assessed residents' preference for different types of density. To structure this section, I produced 26 illustrations that depicted 13 typologies with either a flat or pitched roof. All illustrations maintained the same, neutral style on a street with similar characteristics as the Whiteaker, and I used the same layers in Photoshop to focus interviewee's attention on changes in grain and scale. The result is a series of images that allowed residents to share their specific concerns about development of varying densities.



Figure 18: Visual preference survey

These are five of the twenty-six images of housing typologies I presented to interviewees to gauge their sentiments regarding density.



During each interview, I sought to be consistent yet allow for elaboration. I met with residents in various locations—on-campus, in living rooms, on front porches, in corporate offices, and in coffee shops. Each interview began with polite introductions, a confirmation of informed consent, and an explanation of the purpose of the research. To encourage residents to share their thoughts openly, I assured them that all quotes would remain anonymous. The demographic portion of the survey was straight-forward, but during the second part, I encouraged more open-ended feedback about their vision for the neighborhood. I then transitioned to the visual preference survey. Flipping through the images one-by-one in a consistent order, I asked residents to rate the desirability of each type of housing on a scale of one to ten—ten being the most desirable. Upon reaching the last image, I presented residents with a full spread of the housing typologies, organized from least dense to most dense, and asked them to pinpoint the limit of their comfort regarding density. I found that my visual preference survey did not lead to a final verdict, but it brought forth useful commentary to inform the design of typologies that would best suit the needs of diverse residents.

### **Demographics**

Analysis of the demographics of my respondents reveals considerable discrepancies between the makeup of the neighborhood and the range of people I interviewed. First off, I had planned on interviewing people across the whole neighborhood but then decided to canvas a smaller area in greater depth. As for the makeup of my respondents, over 80 percent were female, and most were older than the average Whiteaker resident. Moreover, all my interviewees were white, and none were of Hispanic or Latino origin. According to the 2011 Neighborhood Survey of the

Whiteaker, 84 percent of residents are white, and 12 percent are of Hispanic or Latino origin. One resident I interviewed mentioned that many of the Latino families she used to see in the apartment complex near her house had since moved. The number of Latino families in the neighborhood may have changed in recent years, but it is more likely that my method of outreach was biased toward white homeowners.

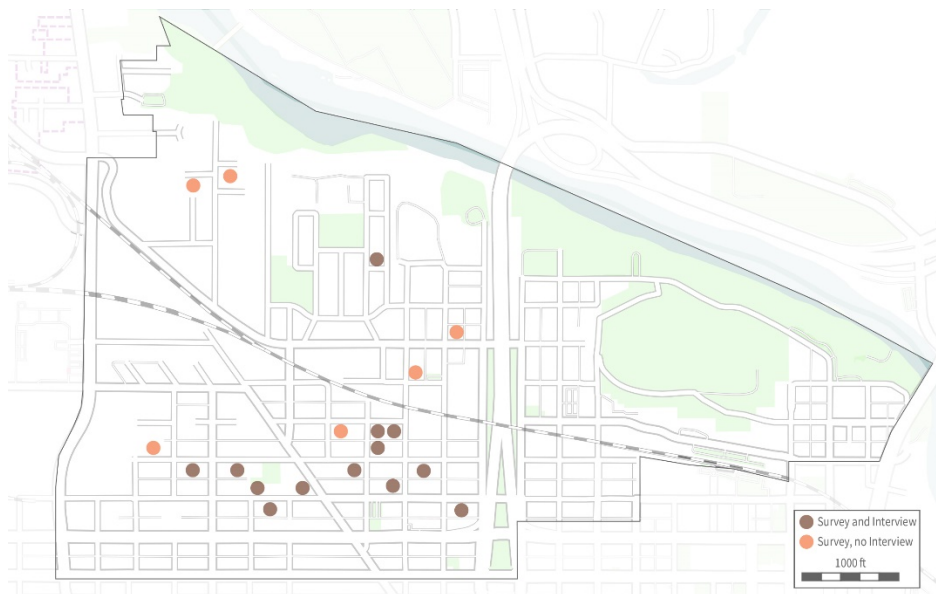


Figure 19: Distribution of respondents

This map shows general locations where each of the residents who responded to my survey live in the Whiteaker Neighborhood.

Nearly 70 percent of the people I interviewed were owners, but 82 percent of the housing units in the Whiteaker are renter-occupied. This discrepancy is most-directly attributed to my outreach patterns. I went door-to-door among the houses of the neighborhood, but not the apartment complexes. Given that only one-in-four renters in the Whiteaker live in single-family detached dwellings, my door-to-door research sorely underrepresented the most vulnerable populations in the Whit. On top of that, my online survey was less likely to reach short-term renters who may not be members of the

Facebook page. All but one of the renters I interviewed had lived in the neighborhood for fewer than ten years. Lastly, half of the households in the Whiteaker have only one resident, but 80 percent of my interviewees lived in a household of two or more. In summary, the demographics of those I interviewed were not representative of the neighborhood. While it would be difficult to find a group of 16 people who are representative of a neighborhood of 4,531 people, future outreach should strive to include more renters and minority populations. I proceed with my analysis knowing there are many more voices to include in future discussions, but that it is my opportunity to respond to the feedback I received.

## **Interview Results**

The results of my interviews fall loosely into two categories: reactions to density and guidelines for new development. Although I did not expect concrete conclusions to result from this process, residents' responses proved useful for defining the issues facing the Whiteaker. These conversations answered some of my research questions and helped set the stage for my terminal studio project.

### **Density**

The dearth of affordable housing in the Whiteaker is no secret to current residents. Everyone I spoke with supported an increase in density for the sake of affordability, but they disagreed over the location and typology of proposed developments. A resident in favor of significant densification explained, "I think there has to be some growth. It needs to be vertical. How intense is the tough decision." Although everyone supports density, not many residents are eager to see anything besides ADUs and duplexes. As one lady expressed, "It's not a question of the number of people. I don't like the idea that new houses or apartment buildings would tower over everything. . . I'm really against building tall, ugly buildings." Her sentiment reflects a general feeling among homeowners in the Whit that you shouldn't cast long shadows unless you are planting big trees. Nevertheless, I found that people were eager to talk about their ideal vision for solving the crisis, and they were willing to sit through my lengthy visual preference survey to test their own comfort limit regarding density.

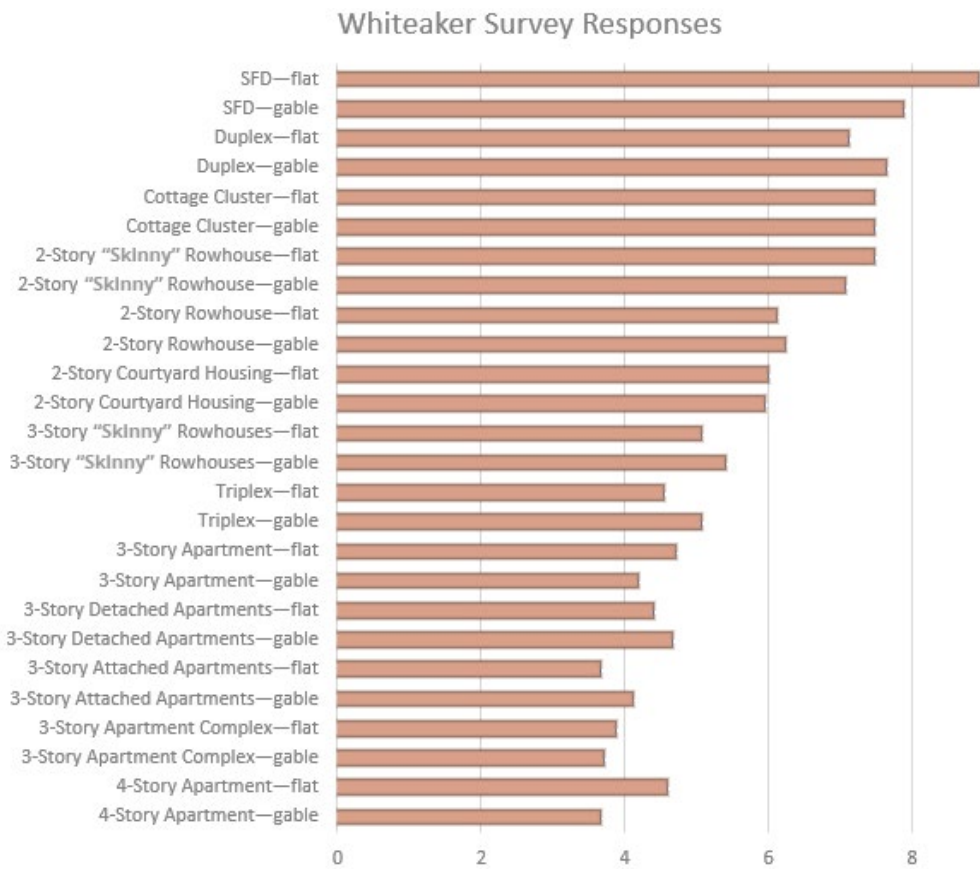


Figure 20: Results of visual preference survey

This chart shows the average ratings residents gave to illustrations in the visual preference survey. A dashed line at the number 5 indicates the middle of the scale, which may be interpreted as “neither good nor bad.”

Based on the visual preference survey results, I found that most of my interviewees favor one- and two-story development on residential side streets. The chart shown above indicates that their preference drops below five on a scale of zero-to-ten for most housing typologies with three or more floors. On an idealized scale, five would be the point at which a person’s reaction could be considered neutral, but this generalization is tenuous given that I did not explicitly tell residents how to interpret the number scale. And due to the order in which the images were presented, certain ratings were skewed. The flat-roof single-family-dwelling came out highest on the survey

likely because it was the first image presented to residents. While the preference ratings do not clearly differentiate between acceptable and unacceptable solutions, they are useful for comparing the relative popularity of different housing typologies. For example, attached two-story rowhouses were deemed more acceptable than detached three-story “skinny” houses, which indicates that height is a more important factor than building frontage at the scale of individual homes. But the four-story apartment was deemed more acceptable than the 3-story apartment complex, which suggests that building frontage is more important at the scale of an apartment building. And whether they preferred flat or gable roofs varied between typologies, but some were adamant that pitched roofs are more appropriate for a Northwest climate. Also noteworthy is that duplexes, two-story “skinny” houses, and single-story cottage clusters performed comparably with one-story single-family dwellings. Although it is interesting to try to read into these ratings, residents’ general comments about density proved more useful.

I was surprised to learn that many residents don’t just oppose big buildings for aesthetic reasons, but mainly because they want to preserve the sense of community in the Whiteaker. I spoke with several people who argued that apartments built on residential blocks would cause homeowners and long-term renters to leave, which would “gut the neighborhood.” Others were more optimistic about tall development but hoped for high-quality buildings that would complement the Whit’s craftsman character with “targeted design that fits in with the aesthetic of the neighborhood.” Both groups agreed that the Whiteaker shouldn’t be crammed with cheap student housing and should seek to preserve the historic houses and buildings in the area. Residents didn’t rank rowhouses very high because they don’t want to see the same typology marching down

a uniform street “like a game of Monopoly.” So, residents tended to support ADUs and the idea that historic houses in the area could remain but be divided into multiple units. In summary, most people expressed concerns about generic apartment buildings and preferred to see unique types of density—a mix of single-family dwellings, duplexes, “skinny” houses, ADUs, and cottage clusters. Nevertheless, this conclusion is based on illustrations that only depict infill in the middle of a block.

During my conversations with residents, several people took issue with the placement of typologies along the block rather than their shape and size. They argued that denser typologies may be more appropriate on a corner lot and/or along a main street. This suggests that my ratings might have been different had I illustrated the typologies in a different lot condition. I spoke with one resident at-length about the importance of building placement. As a proponent of density, she said that taller mixed-use buildings would be appropriate on the ends of the block where they wouldn’t be looking into people’s backyards. And she imagined that multi-story condos could be built as a transition between tall apartments and the historic homes at the heart of the block. She favored this approach because someone “could go through [their] whole life cycle with expansion and contraction within a block like that if it was well designed.” For example, someone could rent an apartment when they are young, move to an entry-level house down the block to start a family, and later downsize to a condo or apartment. All the while, they would be surrounded by a strong community, helping one another with child supervision, care-taking, and emergency response. And she isn’t the only resident wanting to see more diverse housing in the Whit. Many people want to see density, so long as it maintains certain standards.

## **Design Guidelines**

Based on my interviews with residents, I derived guidelines to inform the development of housing that upholds human dignity, regardless of scale or lot size. Most guidelines came directly from conversations with residents, but I included a few complementary guidelines that seemed important for the health of the neighborhood in the years to come. These guidelines are intended to work together to define acceptable boundaries for new development. While none are revolutionary in-and-of themselves, they are essential for the success of housing that will meet the needs of the diverse residents who either now or someday will call the Whiteaker their home.

### *Access Air and Light*

The need for natural air and light is no new discovery. Numerous studies from researchers like Lisa Heschong have found that both daylight and ventilation improve patients' health in hospitals, workers' performance in office buildings, and children's experience in schools. For our health, productivity, and happiness, daylight and ventilation are essential in our living spaces. During interviews, residents expressed their concern that big buildings might block sunlight from their porches, gardens, or living spaces. I also spoke with a resident of one of the apartment buildings in the Whit that only has windows along a public walkway, so she has no access to cross ventilation and must choose between daylight and privacy. Many of the residents of these places suffer from the gloom of closed-blind syndrome because the building they occupy sacrificed their dignity for efficiency. New units should access light and air.





Figure 21: Guidelines for good housing

Each of these guidelines either directly or indirectly summarizes a design principle I derived from my conversations with residents.

### *Set-Back and Build-To*

I did not test this guideline with my survey, but I can clearly imagine the reaction of some residents had I illustrated an apartment building abutting the sidewalk in their neighborhood. But maintaining a build-to line can be just as important as respecting a setback. Several apartment buildings in the Whiteaker were built at the far end of a sea of parking, which feels like a gash in the urban fabric. This line may shift depending on how private or public the street edge wants to be, but it should align closely with that established by adjacent buildings. A related topic discussed during my interviews was the potential for more art and action in the setbacks and rights-of-way in the Whiteaker. Features like the Whiteaker Social Club, which is an existing gathering space in someone's front yard, make dynamic use of otherwise vacant space. A resident suggested that if the city permitted more creative freedom in this space, it would encourage micro-stewardship of the streets. These rights-of-way have also long sustained big leaf maples and other trees that define the character of the neighborhood, but a lot of the old trees are dying because the city topped them in recent decades. Therefore, new trees should be planted that will be resilient in a denser neighborhood.

### *Use a Height Gradient*

This guideline emerged from the conversation I had with a resident about the appropriate place for mixed-use development in the Whit. Bigger buildings should be placed on prominent corners, and buildings toward the center of the block should be smaller. Between these extremes, adjacent buildings should be similar heights. This is a strategy for blending into context, maintaining daylight for existing residents, and reducing privacy concerns for residents of single-family dwellings.

### *Activate Outdoor Space*

As described previously, Clare Cooper Marcus pioneered safe and usable outdoor space in housing developments, and this principle remains highly relevant today. One interviewee stressed that design should make residents feel responsible for their living environment, both inside, outside, and in-between. They explained, “Whether it feels like your space to live in and care for is more important than the actual design of the house.” A front porch is a more desirable asset when it feels secure enough to personalize, and front yards should feel distinct from common green space. Landscaping may serve as a buffer for private space, but designers should also maintain “eyes on the street” in the spirit of Jane Jacobs to ensure security. And although parking is a major concern for residents in Whiteaker, no parking space built today should be considered a permanent feature of the site. Often, parking is the starting point of the design process, but space allocated for cars should serve pedestrians equally well when cars are absent. And the space should ideally be converted to something more useful when our society becomes less auto-centric in the years ahead.

### *Greet the Street*

This pattern emerged from a discussion I had with a resident about how I had drawn the cottage clusters in my visual preference survey. He did not like my illustration because the end units did not face the street, and he felt that they “have a responsibility to guide people inward.” Even when dwellings surround a common green, they should face the street to better connect residents with passersby and improve the safety of the sidewalks.

### *Overlook Public Space*

This guideline is related to “Activate Outdoor Space” and “Greet the Street” but specifically describes how public walkways and private balconies should whenever possible overlook public space. Many residents I spoke with felt that new apartments should not overlook backyards to preserve the privacy of existing residents. One woman shared that she frequently had things stolen from her back porch until she planted vegetation to block the view from adjacent apartments to her backyard. Balconies facing common space also help activate public outdoor space from above.

### *Share Amenities*

This pattern exists to some degree in most apartment buildings, which often share trash facilities, laundry rooms, and at times gym equipment. But why not reach to encourage a co-housing model in more communities? I spoke with former residents of the East Blair Housing Co-Op who said that they saved enough to buy a house by collectively sharing expenses and deciding rent. They also explained that it requires a lot of work on the part of residents to keep such a place running, but that this fosters community. New apartment complexes could be built in such a way that they could transition to a collective model of ownership if a non-profit developer wished to place power in the hands of residents. And residents would save more resources if they shared more resources. To reduce the need for parking spaces, access to collective modes of transportation like bikeshares and carshares could be included with the expense of housing. PeaceHealth has seen great success in Eugene with its blue bicycles. Perhaps Arcimoto, the alternative electric vehicle manufacturer the Whiteaker, could be contracted for a project-based FUV-share (Fun Utility Vehicle Share).

### *Provide Ample Storage*

Storage is a primary concern for any apartment, anywhere, but this storage should be both elegant and functional. I spoke with a resident who relies on a walker to get around, and she was frustrated that so many ADU designs include and necessitate the use of loft storage. Residents who are unable to access this storage on their own must rely on friends and neighbors to help them every time they need to put something in storage or take something out. Creative cabinetry and closets should meet the needs of residents without requiring any acrobatics.

### *Fit for a Queen (Bed)*

While there is a high percentage of single-person households in the Whiteaker, this guideline is important to the flexibility of a unit. The space allocated for a queen bed might not be used for a bed, but it allows residents self-determination of their lifestyle and living arrangements. A bedroom that comfortably fits a queen bed is better for couples and ideally could be rearranged to accommodate two single beds if and when the unit is occupied by a family with two children.

### *Include a Full Kitchen*

Although more and more people in big cities are forgoing kitchens in favor of dining out, the Whiteaker is known for its DIY spirit and kitchens are an important element of independence. Every unit should feature a full kitchen because it encourages a sense of independence and permanence, as well as a healthier diet. I spoke with a resident who did not have a full kitchen and dreamed of the day she could live in a “modest little studio, with a little kitchen, with windows at both ends for ventilation.”

### *Celebrate Nature*

Most of the people I interviewed were homeowners with backyards bigger than the average residential lot. They said they would not want to live someplace without a compelling connection to outdoor space. One resident wanted an apartment with a strong relationship to outdoor space because he likes to “be at home and outside at the same time.” Therefore, all units should open to balconies, terraces, or courtyards with adequate space to sit outside comfortably. And each unit should allow residents to welcome natural sights, sounds, and smells inside whenever they please.

### **Additional Considerations**

Beyond guidelines for the design of dwellings themselves, it is worth summarizing residents’ comments on related issues that have less immediate implications for building form, but still have a big impact on the neighborhood. The primary issues of concern were parking, infrastructure, and homelessness.

### *Parking*

The scarcity of parking in the Whiteaker neighborhood emerged as a common topic of discussion during my interviews. Around 70 percent of my respondents have regular access to an automobile, and many of them struggle to park near their homes because of visitors who go to the Whit for food and beer in the evenings. And inevitably some of them are intoxicated. According to residents and evidenced by experience, these visitors occupy most on-street parking for multiple blocks on either side of Blair and sometimes block driveways or scrape residents’ cars. And because of the historic designation of Blair Boulevard, new businesses don’t have to provide as many parking

spaces as they would elsewhere. To make matters worse, cars are often abandoned, and people park their RVs in the area because of the neighborhood's reputation for tolerance. In response, the Whiteaker Community Council secured three gravel parking lots near Blair for overflow parking, but most visitors don't know to park there. Generally, residents with off-street parking were less concerned about the nightly influx of tourists, but residents who rely on street parking expressed their desire to be able to park their car in a reasonable manner and distance from their homes. While this is a pressing issue, the neighborhood would do well to look beyond parking at how outdoor space could be used to greater benefit when people rely more on walking, biking, transit, and rideshares for their transportation in the years ahead.

### *Infrastructure*

When asked about their vision for new development in the Whiteaker, many residents instead discussed their concerns about infrastructure in the neighborhood. For example, one resident mentioned that an increase in density in the neighborhood should be accompanied by an increase in permeable pavement and methods of proper stormwater management. And while water soaks into the ground, leaves do not. Another resident who relies on a walker but likes to take walks would like to see the streets be swept more frequently because the leaf cover can be a hazard and big piles of leaves eat up precious on-street parking.

Another common thread among residents was a desire for alleys to receive greater attention. Several people said that alleyways should be improved and beautified, with walkable surfaces and stormwater circulation. Already many of the alleys in the area are used by residents walking to Blair Boulevard to shop or eat, but without proper

supervision, they also collect trash, needles, potholes, and abandoned cars. The city could make better use of alleys if they made them more accessible for pedestrians and/or if they promoted rear-access parking, which would reduce the wear-and-tear of sidewalks and preserve the sanctity of the pedestrian realm on main streets.

Lastly, with the advent of navigation software, many more people have been cutting through the Whiteaker on 1st Avenue. This has contributed to a decline in the number of people commuting by bike. Many people originally moved to the neighborhood to commute quickly to work, but fewer choose to bike with each passing year because the arterial roads have become more dangerous. Therefore, residents would like to see streets and intersections be more hospitable to bikes than cars.

### *Homelessness*

Homelessness—the issue that first drew me to this research—is prevalent in the Whiteaker neighborhood and drives a lot of discussion at community meetings. All the people I spoke with expressed compassion for their homeless neighbors but felt that current efforts to provide services are insufficient. People generally feel the area is less safe because of the transient population and would like to see places that accommodate homeless folks with serious mental health issues because without treatment these people tend to “create havoc for the rest of society.” I spoke with two residents who have dealt with home invasions, and cars windows are often broken. One woman shared that her son has become “hobophobic” due to his disturbing encounters with transient people. Moreover, most residents feel like it’s a problem that’s only getting worse.

Unless the City of Eugene mounts a successful campaign against the housing crisis, more and more people will face homelessness. Whenever people are evicted or



outriced from their current house or apartment, there is a chance they will become homeless because they can't find a place to live. One woman I spoke with was homeless for a brief period after the 2008 financial crash. She said, "If we want to have a civilized society, we need to take care of these vulnerable people who have lost everything, like I had done." Residents of the Whit generally agree, but they feel that they are doing more than their fair share to provide social services. They wish to see residents of other neighborhoods step up to share responsibility. For example, The Mission on 1st Avenue feeds 1,000 people a day, but they only house 400, so 600 people disperse into the neighborhood. And a new homeless camp was recently located on Highway 99, which increases traffic through the Whit. This has exacerbated residents' concerns and has heightened people's awareness of the need for greater housing affordability. While residents are not eager to provide additional services, they would like to see more affordable housing. So, I used the feedback I received during my interviews to develop a proposal for fine-grained densification on one block in the neighborhood.

## Pilot Study

During my interviews, I found that residents were eager to discuss future density in relation to specific places they find desirable for development. This expedited the selection of a site for my terminal studio project. Because most of my interviewees live south of the railroad tracks, they primarily discussed the possibility of densification in the area around Blair Boulevard. These conversations led me to select the block containing Scobert Park at the intersection of 5<sup>th</sup> Avenue and Blair Boulevard due to its current shortcomings and potential to support many types of missing middle housing.



Figure 22: Sites for possible densification

The above aerial image calls out three specific sites and/or typical lots mentioned by interviewees as possible areas for densification. I will refer to them by the following: 1. Scobert Park; 2. 4<sup>th</sup> Avenue Alley Lots; 3. 5<sup>th</sup> and Blair Apartments.

### Site Selection

The block I selected for this project is well-suited for a pilot study of fine-grained densification for several reasons. First off, it sits in the historic heart of the Whiteaker, which includes a wide range of restaurants and food retailers like Red Barn Natural Grocery and New Day Bakery. Second, the block is adjacent to “Beermuda

Triangle,” with Ninkasi nearby and Sam Bond’s just across the street. Third, the block is primarily composed of 50’ x 200’ lots with access to rear alleys, so it is ideal for ADUs or subdivision. And lastly, it contains large underutilized lots that residents identified as promising areas for dense development. One of these lots—Scobert Park—lies at the heart of the block and has an opportunity bring the community together but has been too unsafe to serve this purpose in recent years. It is here that I began my investigation into the potential of fine-grained densification to enliven the Whiteaker.

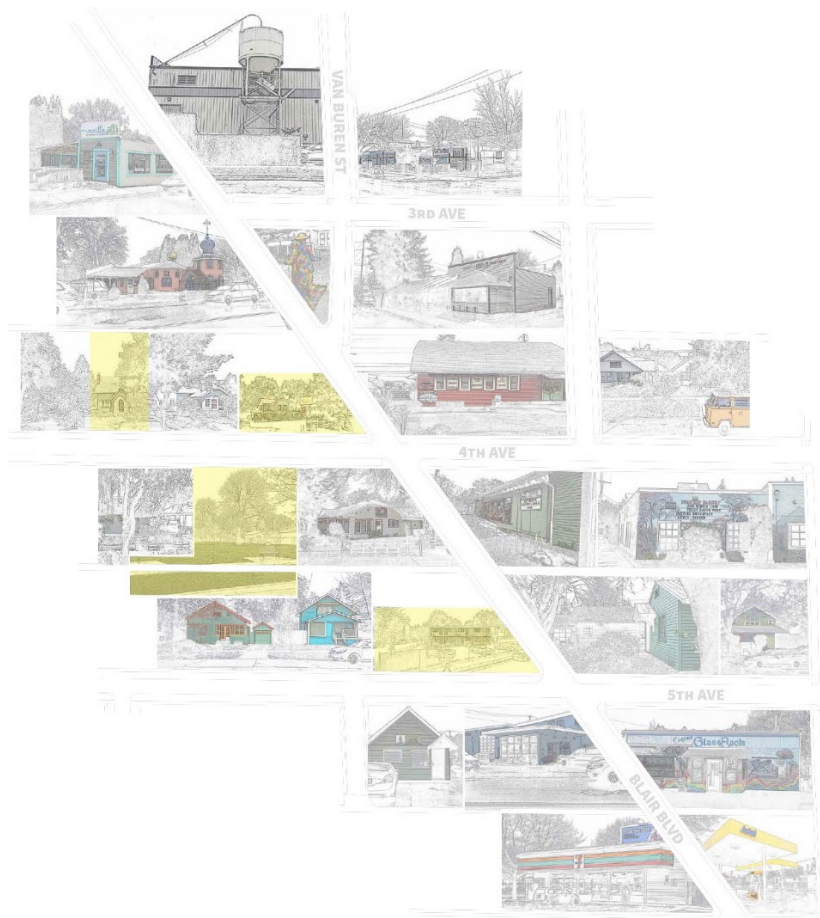


Figure 23: An overview of the building fabric along Blair Boulevard.

This map centered on the intersection of Blair Boulevard and 4<sup>th</sup> Avenue seeks to capture the diverse colors and shapes seen in the building fabric of the Whiteaker.



Figure 24: Entrance to Scobert Garden Park

This is an image of Scobert Park. Much of the area to the left of the frame is currently fenced off due to safety concerns.

### *Scobert Park*

Scobert Garden Park is a pocket park in the Whiteaker that would likely be used by more of the surrounding community if it weren't unsupervised and unsafe. As one of the only public open spaces in the area besides Washington Jefferson Park and the Riverfront, it attracts a sizable population of homeless individuals and illicit activities. Because people are hesitant to bring their children to an area with needles, residents have long considered the park a problem area. Its failure is largely a failure of design. The park is tucked in among the privacy fences of adjacent single-family dwellings, so no one can effectively monitor activities that take place there. In response to safety concerns, the city fenced off the back portion of the park. While this decision protected adjacent homeowners, it did not serve to reclaim the space. So, there is a growing desire to see an intervention that would bring about more permanent change.

Change is coming to the park, but the question is whether it will be enough. The group running the Whiteaker Community Market just moved their weekly Sunday market to the street in front of Scobert Park for the 2019 summer season. They explained that it was better than their previous location—a nearby parking lot—for hosting outdoor activities and staying cool. When I visited the park on May 12, music and yoga were taking place beneath the trees. During market days, the park may once again function as a community space, but throughout the week it is likely that illicit activities will return. Therefore, a more-permanent solution for Scobert Park could be to develop part of the site to bring visibility to the rest of the park. During my interviews, six separate residents identified the park as a promising location for a tiny-house community. They said they would be eager to see a cottage cluster on-site, in which residents could act as stewards of a somewhat smaller parklet. I even spoke with a resident who lives in one of the homes that the city sought to protect with its iron fence, and she said that she would support new development if it preserved green space and didn't violate her privacy. So, I began to consider different possibilities for how this park could be put to better use.

With roughly 1.1 acres, Scobert Park is large enough to accommodate various typologies, but some types of development would be more desirable than others. If the goal was to significantly increase density, the whole park could be developed into a cottage community like those of Ross Chapin or transitional housing like that found in Opportunity Village. But the park is a valuable resource. When the Blair Historic District was designated in 1993, Scobert park was identified as a significant historic site for its association with the rural landscape that used to exist along Blair Boulevard. To

convert the entirety of the park to private use would be to lose a piece of history. Instead, small dwellings could be built on the fenced-off portion of the site while preserving the rest of the park. Under current zoning codes, up to 14 units could be developed, but not without going through an expensive review process to become a planned unit development (PUD). Nevertheless, housing advocates like the group We Can are calling for the inclusion of cottage clusters in the code, which would make the development of Scobert Park more straight-forward.



Figure 25: View down 4<sup>th</sup> Avenue alleyway

This image shows the dead-end condition at the end of 4<sup>th</sup> Avenue alley that prevents these lots from being subdivided or developed with alley-access cottages.

#### *4<sup>th</sup> Avenue Alley Lots*

Near Scobert Park and along 4<sup>th</sup> Avenue Alley are several R-1 lots with backyards well-suited for ADUs. This area has the potential to be a compelling demonstration project for backyard development. Nearly all the residents I spoke with were enthusiastic about the idea of building more ADUs in the Whiteaker. They particularly liked that ADUs benefit homeowners rather than rental agencies, and they

were eager for the flexibility afforded by a second dwelling unit. Several interviewees were quick to mention that ad-hoc homes have been built in the Whit for a long time. For example, one respondent converted her garage into a bedroom 20 years ago and her home has since become a multi-generational household. On the other hand, some respondents expressed concerns. They hoped that each ADU would come with off-street parking, that their privacy would be preserved, that some ADUs would be accessible for people with disabilities, and that these new dwellings would not become Airbnbs that increase the turnover rate of the neighborhood. Nevertheless, ADUs have a lot of support. They represent a promising way for the city to empower its residents to carry out fine-grained densification on their own volition, and 4<sup>th</sup> Avenue Alley would be a great place to lay the groundwork for a demonstration project.

In its present state, 4<sup>th</sup> Avenue Alley is a dead-end corridor lined with tall fences, except for a single alley-access residence, but it has the potential to be a back-alley paradise. The alley is separated from Scobert Park by a single backyard and a toolshed. Due to fire-access codes, the 350' alley cannot support alley-access lots more than 150' from the street without a large turn-around for firetrucks. However, if the city were to compensate the property owner at the end of the alley for the space occupied by his or her toolshed, the alley could be connected to Scobert Park, serve the community market, and make way for ADUs. With this code issue resolved, neighbors would be free to develop the alley into a laneway community like those found in Vancouver, BC. And with broad support, this place could become much more. Besides ADUs, the alley could begin to support a variety of interesting uses, like artists' studios, workshops, public gathering places, or even a back-alley café. It has the potential to become a vital

pedestrian realm. But as I discussed previously, the neighborhood is relying on the City Council of Eugene to deregulate ADUs and make their development more feasible.



Figure 26: View of 5<sup>th</sup> and Blair Apartments

This image shows 5<sup>th</sup> and Blair Apartments behind a sea of parking. Sometimes referred to as “poverty flats” these units lack privacy, decent sunlight, or cross ventilation.

### *5<sup>th</sup> and Blair Apartments*

I conducted my interviews with an interest in infill development on vacant land, but I found that residents also want to see improvements to the “crappy, low-income apartments” that already exist in the neighborhood. Several residents identified the apartment complex at 5th and Blair as a building they would like to see refurbished or replaced. The 5th and Blair Apartments occupy a privileged place at a prominent intersection in the Whiteaker, but the current design does not fulfill its potential. It is sometimes referred to as “poverty flats” because it houses people with great financial need and attracts police activity. I spoke with a resident who moved into a unit there because it was the only eligible apartment for her Section 8 voucher, but she resents its compact 11’ by 14’ dimensions, poor ventilation, low light levels, and lack of privacy.



While the units in this complex may be affordable, the building neither reaches the allowable height nor provides ground-floor commercial space. So, I propose that a new, three-story, mixed-use building on this site would better serve its residents and contribute to walkability and opportunities for employment in the neighborhood.

The obvious concern with this proposal is that displacement would result if a developer suddenly decided to evict tenants to build a new building, but a comprehensive plan for development would seek to mitigate these concerns. To reduce the impact on current residents of the 5<sup>th</sup> and Blair Apartments, the developer should first be required to build elsewhere and offer right of first refusal to tenants of the existing complex. This may be made possible by the railroad quiet zone approved by the Eugene City Council in the spring of 2018 that will eliminate about 70 percent of the overall train horn noise in Eugene by 2021 (City of Eugene 2019). This will in-turn make numerous underutilized sites along the tracks available for federal funding to support the development of new affordable housing. So long as displacement is offset by responsible development practices, there may be an opportunity to rethink bad apartments of the past and build mixed-use housing that will continue to improve the walkability of the Whiteaker and other communities in Eugene. Some interviewees expressed concern that new development would result in zero-lot-line buildings with poorly-maintained landscaping, but mixed-use developments can be fine-grained as well. I envision a new building on this site could enliven Blair Boulevard with a dynamic mix of shops and housing typologies, shaped by the guidelines described previously. Given appropriate scaling of building masses, materials that fit comfortably into their context, and tenants of mixed-income, a mixed-use building at this site could

be a big step toward desirable density that upholds the dignity of low-income residents in the Whiteaker.

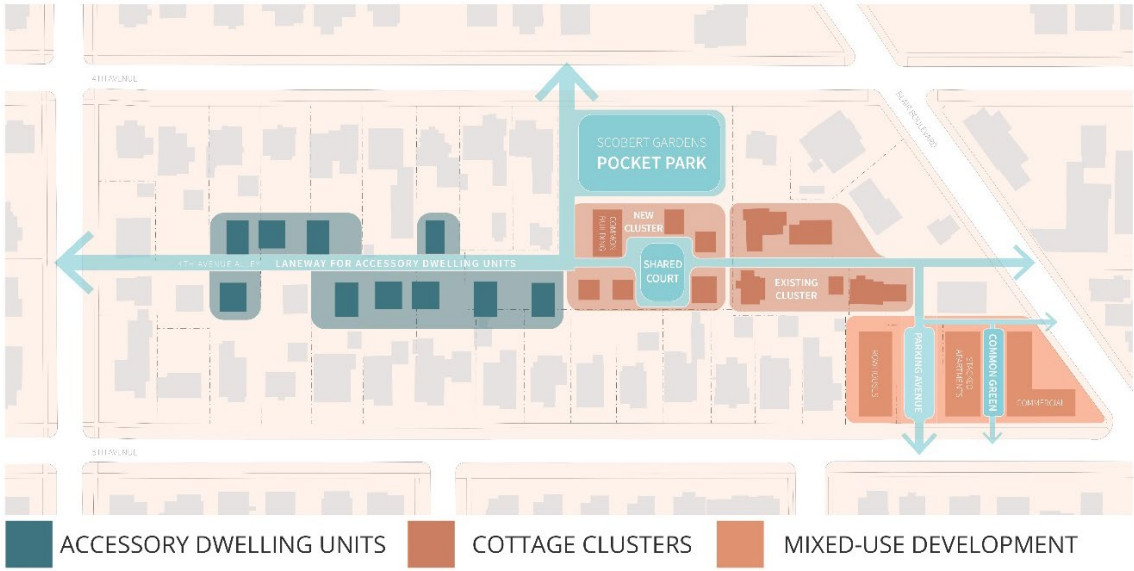


Figure 27: Stitching it all together

This diagram shows my strategy for extending 4<sup>th</sup> Avenue Alley between Polk Street and Blair Boulevard. My proposal includes three typologies: ADUs, cottage clusters, and a mixed-use development.

**Summary of Proposal**

With this study, I sought to explore strategies for increasing the supply of affordable housing in unconventional yet desirable ways through fine-grained densification. There is no one-size-fits-all approach to housing affordability, but diverse typologies in the Whiteaker would allow people to adapt and diversity to grow. ADUs would provide additional income for homeowners and a foothold for low-income renters. Cottage clusters would promote a sense of community among residents. And mixed-use buildings along main streets would build resilience into the fabric of the neighborhood. I propose that connecting 4<sup>th</sup> Avenue Alley with Scobert Park has the potential to stitch together the block with a vibrant alley community. And I propose that

replacing 5<sup>th</sup> and Blair Apartments with a building that better serves the community would set the stage for future development that contributes to the life of the neighborhood. If residents, city officials, and designers come together to consider such possibilities, I believe the Whiteaker has the potential to be a leading example for communities around the nation looking to address the housing crisis while making good places for people.

## Conclusion

The current housing crisis calls on us to work together to achieve long-term solutions, and I contend that the issues uniting us are more important than the traditions keeping us apart. Just last week, the Opportunity Starts at Home campaign released a poll showing that 85 percent of the public believes that “ensuring everyone has a safe, decent, affordable place to live should be a top national priority” (Opportunity Starts at Home 2019). Although support for housing is strong, people tend to disagree about our approach to new development. Arguments about how and where to build have merit on both sides, but for each day we debate and delay action, more people are subjected to unnecessary hardships. The current crisis demands that we question our long-standing ideals about single-family detached homes and consider what will be best for our environment, our communities, and our neighbors in-need.

Solutions to the housing crisis will inevitably look different in different places. In urban centers, affordable development should be tall to bring as many people as possible to the heart of the city while still providing a dignified place for them to live. In outlying neighborhoods, however, the best solutions are often the unconventional types of housing described previously. Gentle infill and missing middle housing typologies may look different than the houses we are used to seeing. And they may not offer as much value to developers as boxy, six-story apartment buildings. But they offer the greatest value to our neighbors and neighborhoods. Well-designed infill housing has the potential to contribute to upward mobility by addressing people’s needs at each step of the housing ladder. So, we should treat this housing crisis as an opportunity to use good development practices to make our communities stronger.

Fine-grained densification of neighborhoods is a path to housing affordability that can preserve and even enhance the livability of our favorite places. I propose that residents of the Whiteaker neighborhood begin meeting now to talk about how they could shape development along their eclectic streets and alleys. And I propose that the City of Eugene meet residents where they stand to learn how best to support good ideas that require code changes to become reality. For with each community strengthened by good design, our efforts to address housing insecurity will become stronger still.

## Appendix A: Glossary

**Accessory dwelling units (ADUs)** are housing units built on lots occupied by existing dwellings that provide invisible density and greater flexibility in living arrangements.

**Bonus density awards** are incentives offered by a city that allow developers to add additional floors in exchange for a certain number or percentage of affordable units.

**Cross-subsidization** is a strategy for financing affordable space using income from high-end rental space in the same building or complex.

**Densification** is the process of increasing the population density of previously-developed land, either by building taller, using more compact dwellings, or subdividing.

**Construction Excise Taxes** are taxes on all new developments that are used to finance affordable development elsewhere.

**Fine-grained densification** is densification that maintains character, preserves existing uses, and adds affordable space into the fabric of an existing neighborhood.

**Gentrification** is the transformation of a historically affordable neighborhood into an upscale neighborhood due to rising demand and an influx of wealthy residents.

**Inclusionary zoning** is a zoning strategy used by cities to mandate that a certain percentage of units in new developments be set aside for low-income tenants.

**Mixed-use** developments feature a mix of residential, commercial, and sometimes industrial spaces, and are made possible by mixed-use zoning codes.

**Sprawl** is the unchecked expansion of a city into undeveloped land on the outskirts of its metro area. It results in habitat destruction, isolated suburbs, and longer commutes.

**Urban growth boundary (UGB)** refers to an outer development limit, used to contain sprawl, encourage density, and protect farmland and habitat.

## Appendix B: Visual Preference Survey



**1** Single-Family Dwelling 4 - 8 u/a



**2** Single-Family Dwelling 4 - 8 u/a



**3** Duplex 8 - 18 u/a



**7** Skinny Houses 8 - 12 u/a



**8** Skinny Houses 8 - 12 u/a



**9** Row House 12 u/a



**13** 3-Story Skinny Houses 12 - 16 u/a



**14** 3-Story Skinny Houses 12 - 16 u/a



**15** Triplex 12 - 16 u/a



**19** 3-Story Apartments 30 u/a



**20** 3-Story Apartments 30 u/a



**21** 3-Story Apartments 30 u/a



**23** 3-Story Apartment Complex 30 u/a



**24** 3-Story Apartment Complex 30 u/a



**25** 4-Story Apartment 32 u/a



**4 Duplex** 8 - 18 u/a



**5 Cottage Cluster** 9 u/a



**6 Cottage Cluster** 9 u/a



**10 Row House** 12 u/a



**11 Courtyard Housing** 14 u/a



**12 Courtyard Housing** 14 u/a



**16 Triplex** 12 - 16 u/a



**17 3-Story Apartment** 24 u/a



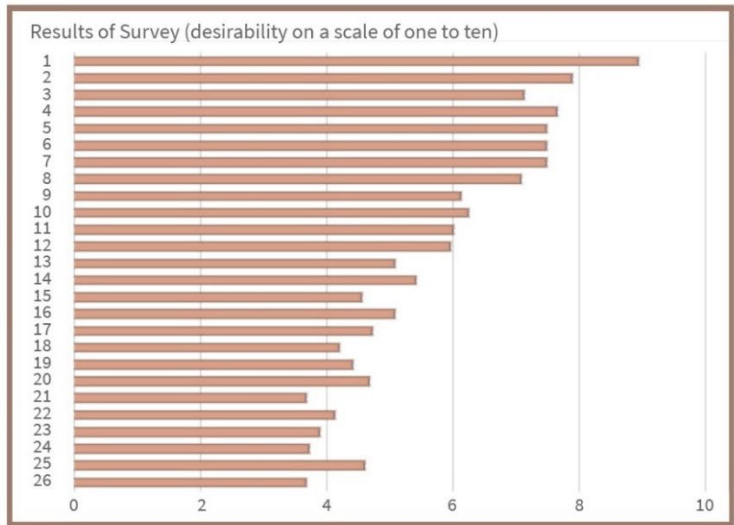
**18 3-Story Apartment** 24 u/a



**22 3-Story Apartments** 30 u/a



**26 4-Story Apartment** 32 u/a





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