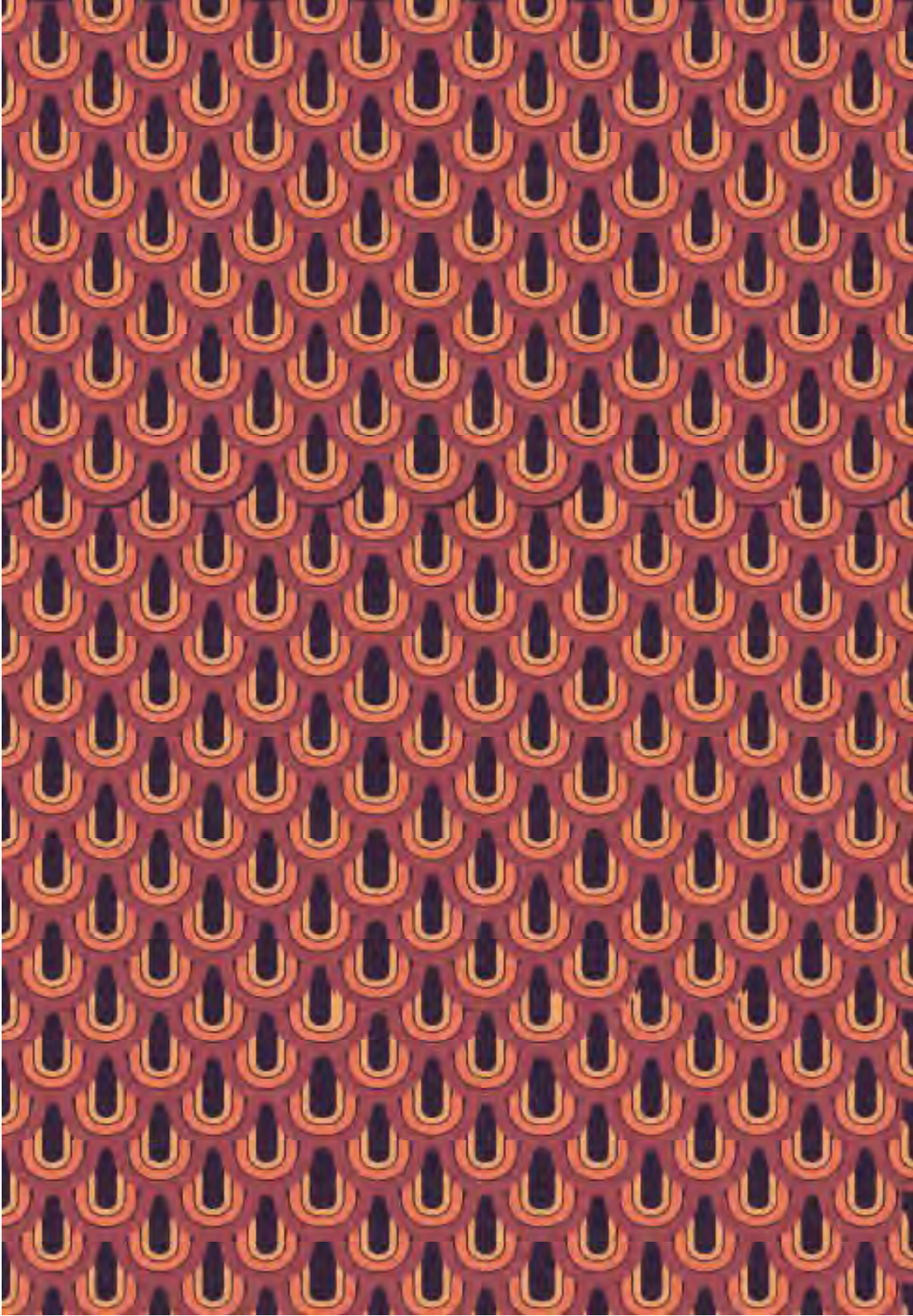




# PLACE FOR THE AGING



DETROIT MERCY SOA, 2018-2019  
ARCHITECTURE MASTERS THESIS

MATTHEW LELLI

# ABSTRACT

I will be researching the demographic transformation of our era, aging population. The research will investigate how the growing elderly population will cause an increased demand for senior living; and how to effectively design cities and communities to evolve with the changing population. Designing an appropriate solution requires an understanding of the current cultural trends, such as, a society driven culture centered around exclusion.

Elderly adults are often seen as a social service need and not as a part of society that requires community planning. The housing market is driven by buyers who are healthy and have financial stability. American culture holds a lack of respect for the elderly population. Recent polls show that elderly people do have a desire to age in place; however, studies have shown that for many people, aging within an urban environment is healthier and a more ethical solution.



# 1

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## **AGING**

Aging in America  
Baby boomers  
Demographic Transition  
Suburbia and Retirement  
Displacement

# 2

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## **DIMENSIONS**

Social  
Health  
Economical  
Environment  
Psychological

# 3

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## **PLACE**

Sketch Problem 02  
Inclusive Communities  
Aging in Place

# 4

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## **USER**

House Hold Structure  
Narration Variation  
Pros & Cons

# 5

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## **INTERGEN**

Minimal levels  
Anticipated growth  
Visual barrier  
Rentable space  
Centralized tasks  
Transition spaces  
Natural lighting  
Flex spaces  
Case study

# 6

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## **SITE**

WoodBridge  
Detroit Master Plan  
House Type

# 7

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## **DESIGN**

Site Plan  
Floor Plans  
Elevations  
Sections  
Illustration



# ag-ing

/ˈɑːʒɪŋɡ/

**The process of becoming older, a process that is genetically determined and environmentally modulated.<sup>1</sup>**



# 1 AGING

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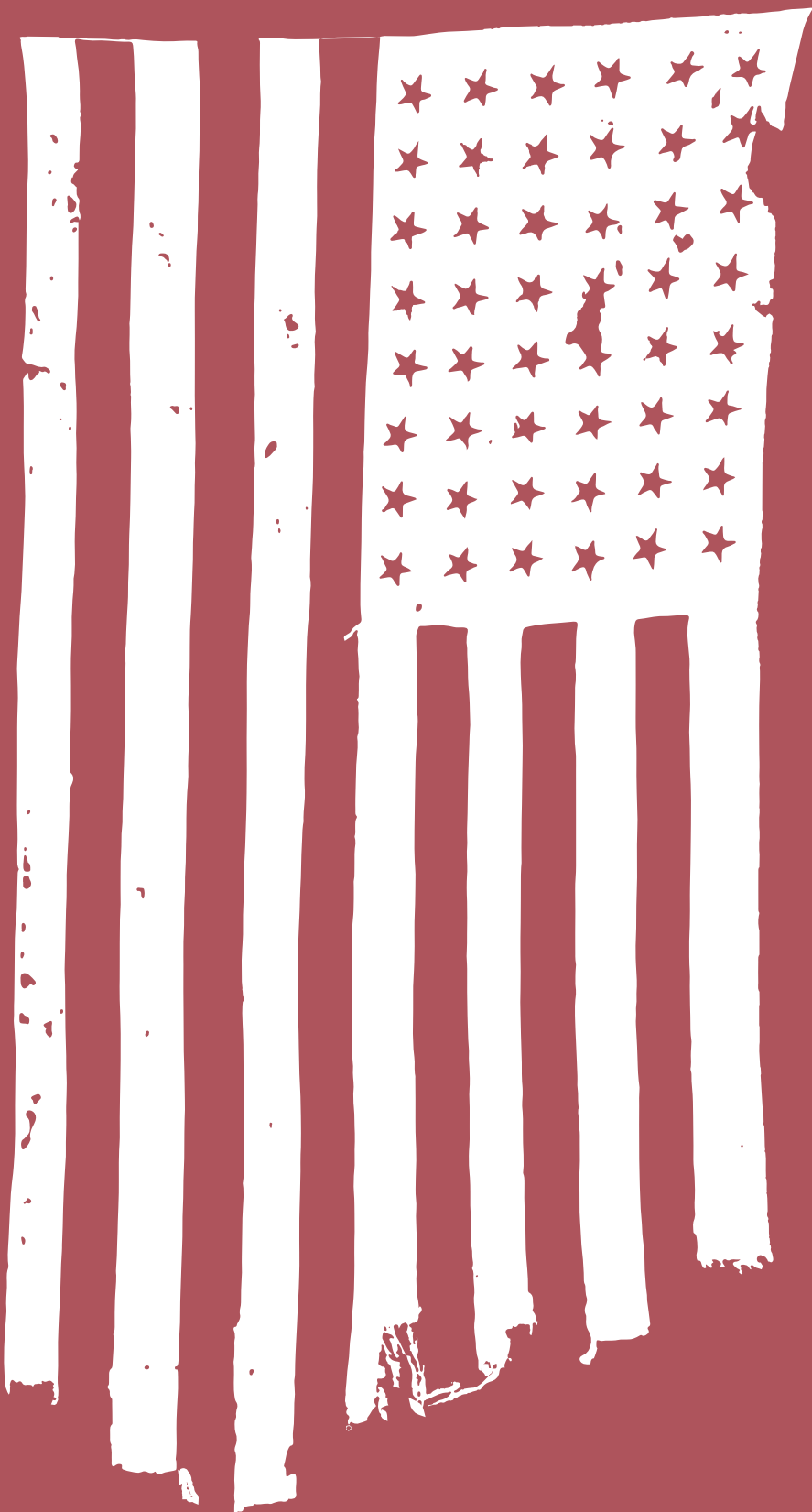
AGING IN AMERICA

BABYBOOMERS

DEMOGRAPHIC TRANSITION THEORY

SUBURBIA & RETIREMENT

DISPLACEMENT



# AGING IN AMERICA

A century ago Americans lived in houses and communities that were inclusive of people all ages and programs of inclusion were not needed. However, present day America has created a culture of exclusion for the aging population. As people begin to live longer and the age gap increased those at both ends are looked at differently. School became required, laws on child labor became enforced. Those aging Americans received social security and medical care allowing for many to retire. Although much of this is beneficial to a society, the natural order became destabilized and generations became isolated. Elderly adults are seen as a social service and their needs are were not factored

into community planning. The housing market is driven by buyers who are healthy and have financial stability. America's overall culture holds a lack of respect for elderly population and has created an age segregation. Why should anyone care about Age Segregations? According to I Need You, You Need Me: The Young, The Old, and What We Can Achieve Together, a report from Generations United & the Eisner found that age segregations creates a foundation for ageism, social solidarity, perpetuates ideologies of homogenous communities, poor use of taxpayer money, and denies old and young crucial opportunities to learn from and help one another.

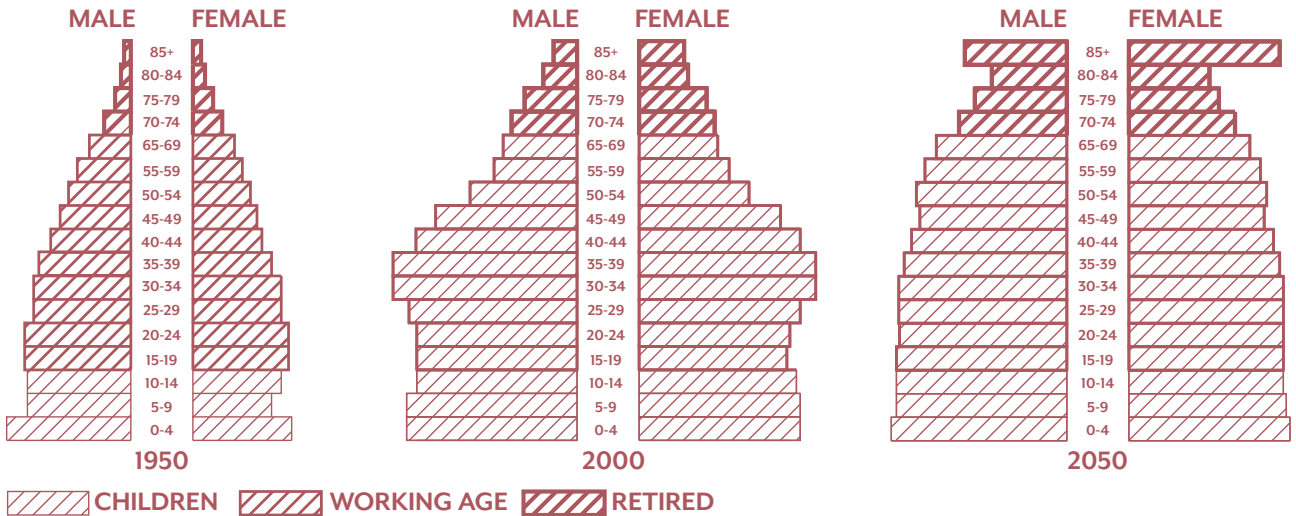
# BABYBOOMERS

One of the most considerable demographic trends in the United States, is the growth of the aging demographic. Those born between years 1946-1964 are part of the Baby Boomer Generation, a generation identified by a large increase in births following World War II. Although the United States had decades to design solutions for this dilemma, they have made no adjustments to the current built environment. According to the World Health Organization (WHO), the social environment is one of the many key detriments in maintaining an autonomous, meaningful lifelong aging process. The Baby Boomers coming of age in the 1960's and 1970's were on the forefront of social change in those years, including the later

stages of the Civil Rights Movement, the protest of the Vietnam War, and the second wave of the feminist movement. It might even be said that those movements gained momentum because of the sheer size of the Baby Boomer Generation, whose shared concerns and life experiences as an age cohort, exerted an influence on American culture proportional to their number. As they age, the ratio of retired Americans compared to working Americans will increase significantly, placing considerable tension on social security, hospitals, and other government agencies designed to aid the elderly. The U.S. Census Bureau estimates that by the year 2030 one in five Americans will be over the age of 65. Furthermore,

the birth rate in the United States is currently at an all-time low, of just 12.5 live births per thousand population, and by the year 2056 Americans aged 65 or older will outnumber those under the age of 18.<sup>2</sup>

## UNITED STATES: DEMOGRAPHIC PYRAMIDS POPULATION (NUMBER)



Source: US Census Bureau, international Database

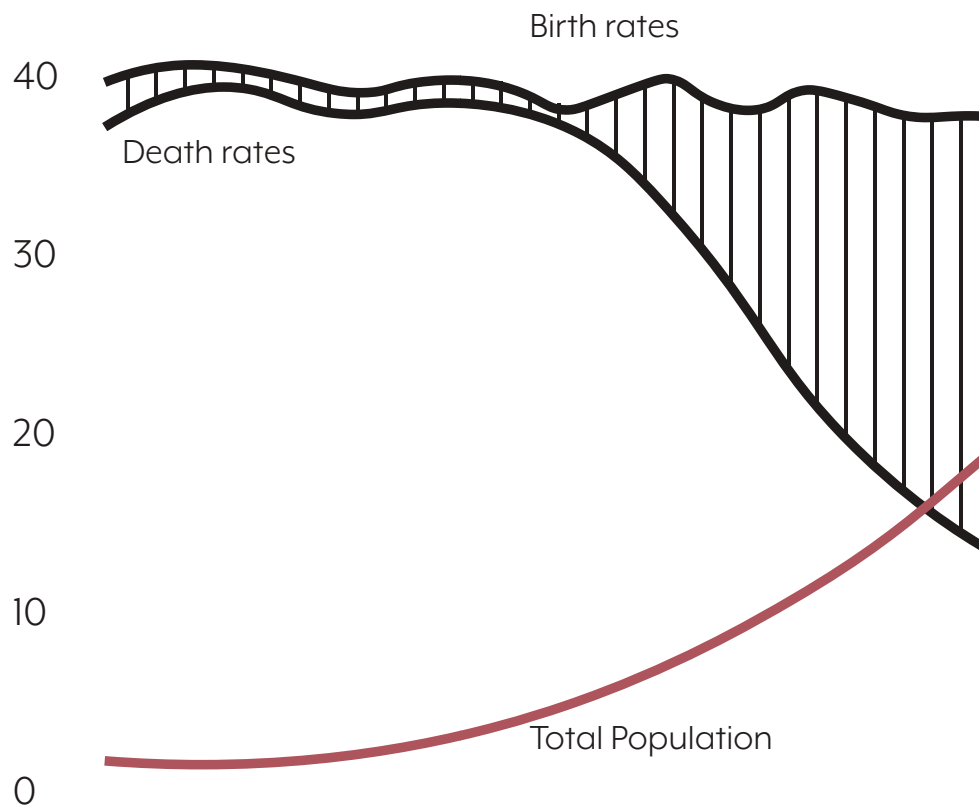
# DEMOGRAPHIC TRANSITION THEORY

## STAGE 01

The first stage of the demographic transition model is known as the pre-industrial stage. The last society in stage one of the demographic transition model was during the 18th century which was a low population growth rate due to high birth rate and high death rates. This creates an instable total population because both the birth rates and death rates varied year to year. The high birth rates of this stage were a result of a society that was reliant on agriculture and manual labor, this created an incentive for people to have larger families. High birth rates could also be a response to the high death rates as societies instinctually found ways to maintain adequate levels of population. Another reason for high birth rates was a low survival rate of infants, this contributed to the large death rate; typical for a society with inadequate medical care and poor sanitation. The impacts created by social, environmental, and political decisions play a larger role than typical due to the variability of birth and death rates.

## STAGE 02

The Demographic Transition Model defined by the quickly decreasing death rates while the birth rates remain the same. This will cause an increase in the country's population, due to a higher birth to death ratio, not because the birth rate is rising. The decreasing death rates is a result of overall health care improvements, specifically access to pediatric care, ensuring an improved longevity within the nation. Along with the improved health care, increased education, technology advances (regarding food production) and sanitation also work to decrease the death rates.



### STAGE 03

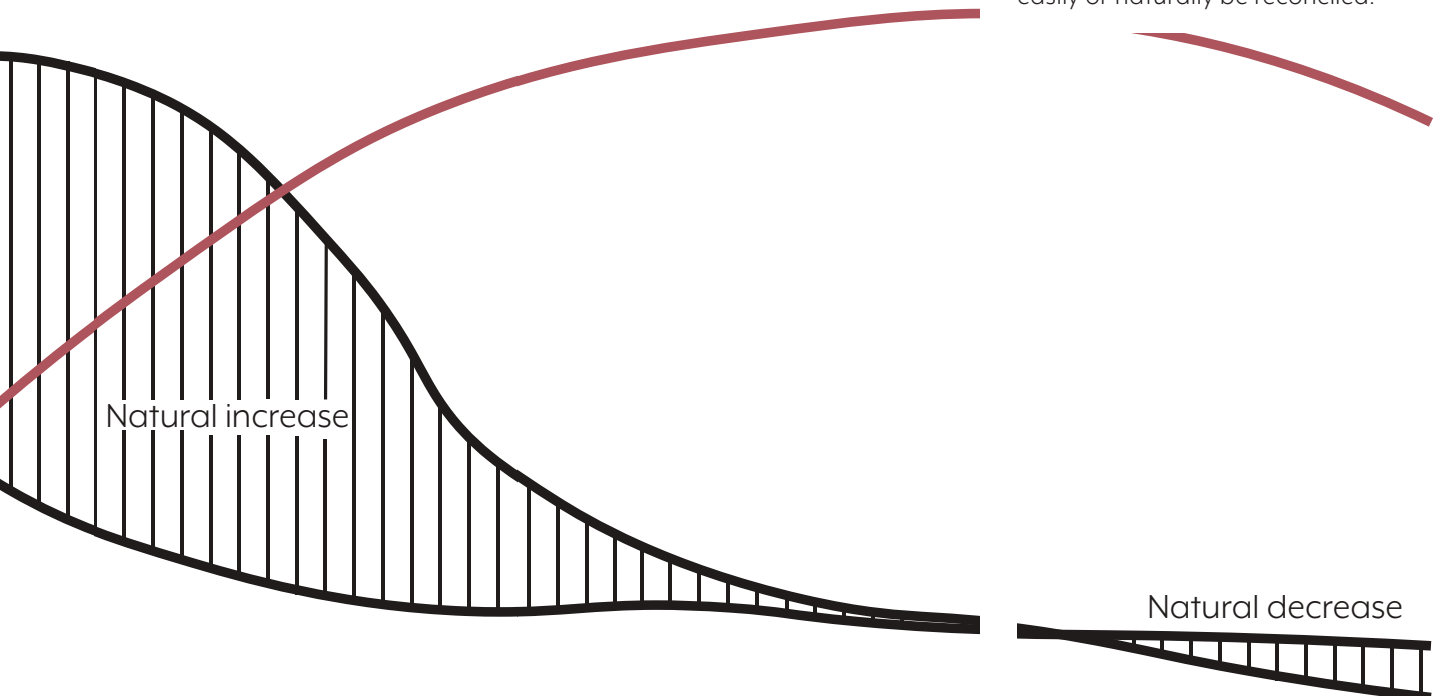
Improved economies create low birth rates and low death rates. Other enablers to lower birth and death rates were women's rights, access to contraception, and improved quality of education. Due to the nature of the influencers, each country's state (of stage three) varies in quality and the time frame in which stage three starts and how long they remain in this stage. Drew Grover a researcher in human geography further explains the differences between how the stage 3 period is different from country to country. He says "one country goes through rapid transitions where the birth rate plummets by more than 40%, while others maintain a much more gradual decline. The rate of decline is dependent upon the economic and social factors at play. The quicker gains are made in areas such as education and gender equality, the faster birth rates decline. Lower birth rates combined with low death rates slow the pace of total population growth of countries in Stage three. Though slow, total population growth will continue until birth rates are lowered to or below replacement level (total fertility rate at 2.1 births per woman)." (Grover, D. (2018, November 05).

### STAGE 04

Total population begins to stabilize regarding overall growth. This is contributed to both low birth and low death rate. Societies in stage four have been known to have strong economies, highly educated citizens, increased quality and quantity of health care, as well as decreased residents in rural areas and an increased population among the urban environments, as well as increased employment for women. These factors influence society. Total fertility rate decreases until the population total growth achieves replacement level. Compared to decades past, those who have made it to stage four have smaller family sizes, larger and strong economies, and advanced society. Regardless of low birth and low death rates, countries in stage four have large overall populations which is essentially the result of allowing society to progress throughout the first three stages. Stage four also supports a bit of inconsistent rates allowing for this stage to be most ideal for societies. Countries found in this stage: Argentina, Australia, Canada, China

### STAGE 05

The final stage of the demographic transition model is stage five, a stage that not enough countries have made it to in order to fully understand the effects and trends that this stage will have for the rest of the societies. However, from the few countries that have made it, we are seeing a declining overall population, resulting from death rates raising and birth rates declining. Although this seems to be problematic to the previous momentum, it will take a few generations for the societies to feel the negative effect. An aging citizenry takes place leading to an overall lower total population. Biological and political influence have impacts on birth rates having negative effects on fertility rates with severity differing country to country. One of the most detrimental examples of political interferences is China's child policy implemented in 1979. This policy not only declined the birth rates but created an imbalance in the gender demographic which is a consequence that will continue to lower birth rates. These political decisions have created a demographic challenge that will not easily or naturally be reconciled.

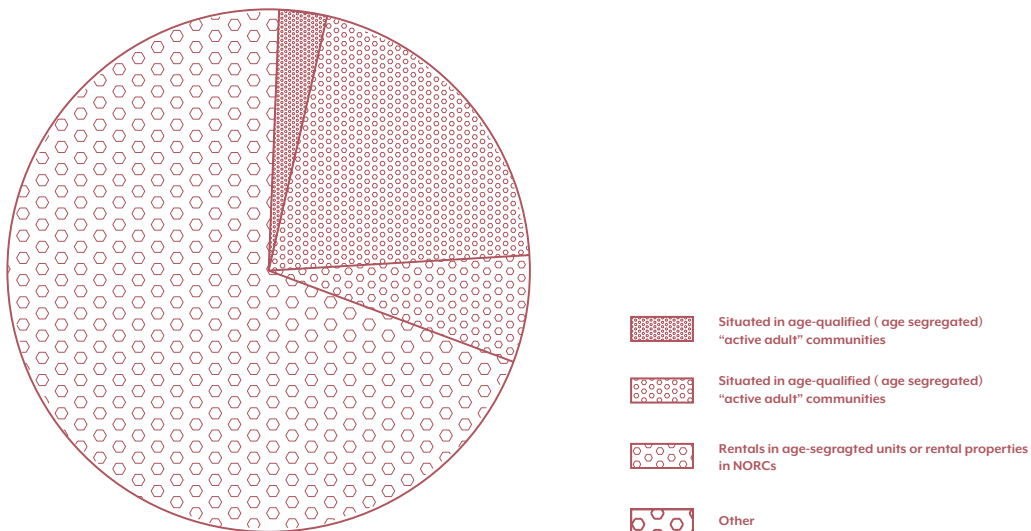


# SUBURBIA & RETIREMENT

Suburbia formed in the post war era. Many Americans left the city and moved into the suburbs, made possible by the GI bill benefit that guaranteed home loans. The suburbs became possible due to techniques of mass production, making it possible to build homes faster and cheaper than ever before. Using an assembly line system, the construction firm Levitt and Sons built three giant "Levittown" suburbs in New York, New Jersey, and Pennsylvania. Due to low prices and veterans' benefits, more Americans could afford to own homes.

Retirement developed during the 1880 – 1980 in developing countries. Labor force participation rates for males 65 years or older plunged from approximately eighty to twenty five percent in the United States and from approximately seventy-five to ten percent in the United Kingdom. It is also a result of other factors such as changing social acceptability and desirability of retirement.

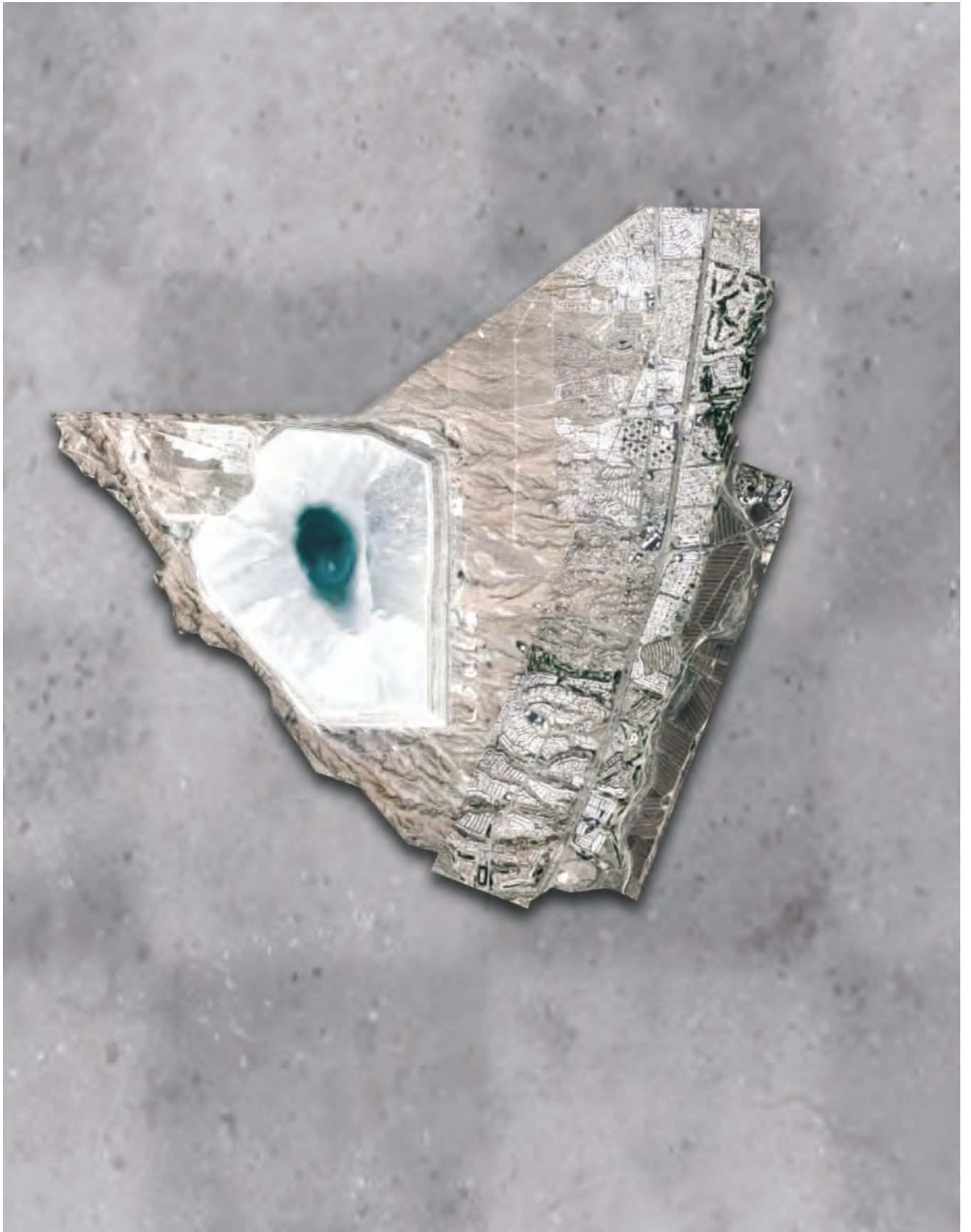
## HOUSING UNITS FOR THOSE 55 YEARS OF AGE IN THE UNITED STATES 2009







Collage art expressing displacement and isolation of Green Valley Retirement community from a geographical perspective. 01







Collage art expressing displacement and isolation of Green Valley Retirement community from a geographical perspective. 03

Collage art expressing displacement and isolation of Green Valley Retirement community from a geographical perspective. 03



# 2 DIMENSIONS

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Social  
Economic  
Health  
Psychological







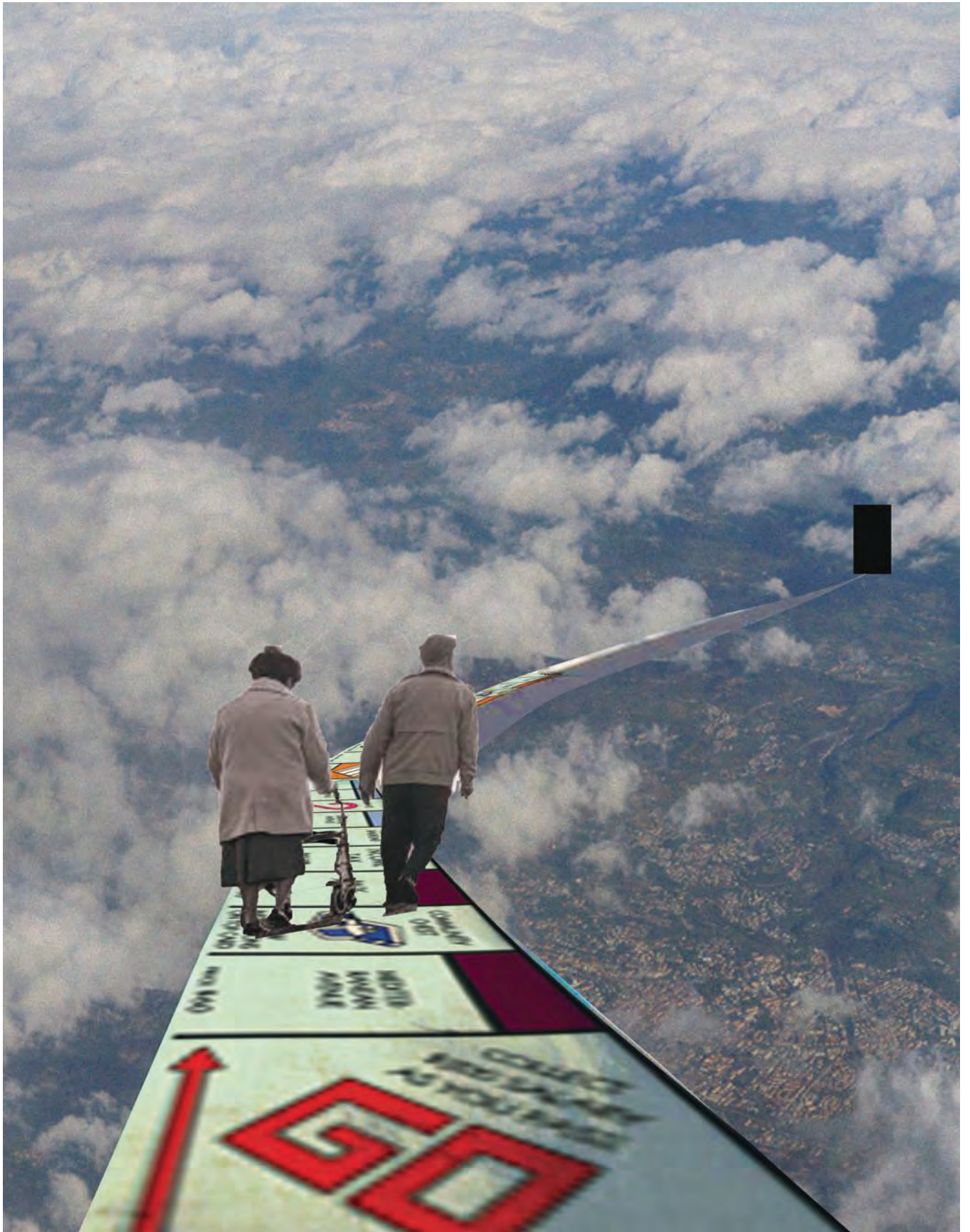




# SOCIAL

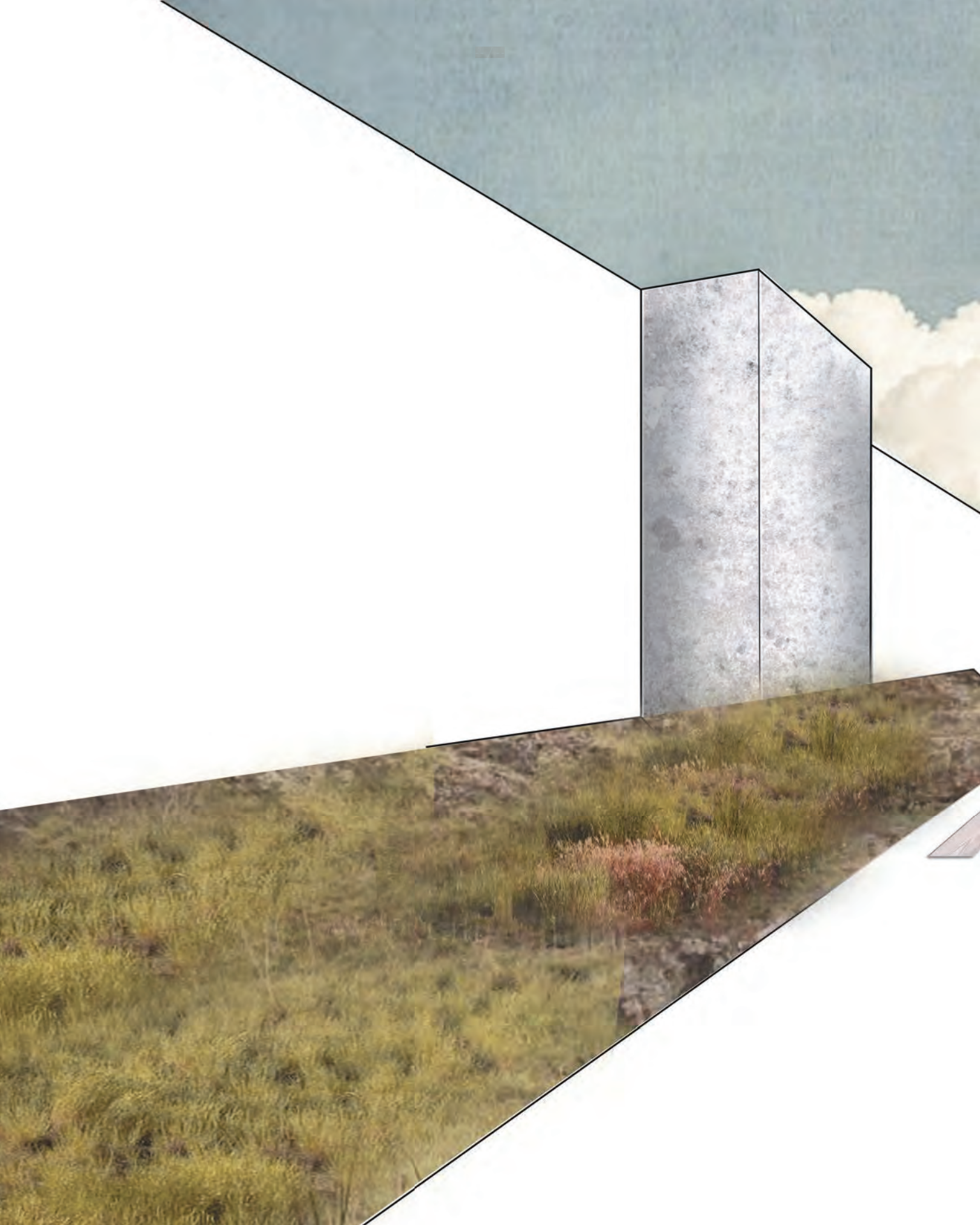
We as human beings are social. Social connectivity is a necessary part of life, especially among the older demographic. As we age the quality of each social connection becomes increasingly more important. For the aging demographic, strong social networks contribute to healthy aging. Those amongst the aging population that have strong social ties have a strong correlation to lower levels of stress, lower levels of depression along with a plethora of other health benefits ultimately resulting in delayed mortality rates. Despite understanding the importance of social connectivity, many of those within the aging demographic struggle with social exclusion. The exclusion of elderly people in society is a theoretical concern of social gerontology. Although the elderly demographic may seem like the victim, social exclusion is imposed by both young and old demographics. This is caused by societal constructs such as residential segregation in retirement, residential segregation in retirement communities and other age homogenous settings, along with an exclusion from specific markets. This results because of decreased purchasing power (Phillipson, 2007). The societal solution would be implementing social inclusion. According to the World Health Organization (WHO), the social environment is one of the many key detriments in maintaining an autonomous, meaningful lifelong aging process. The social influence is made up of relationships, networks, and support groups that an individual has and the strength of each relationship. The quantity of quality relationships an individual possesses has been linked directly to a decline in physical and mental health. One study, conducted by Teresa Seeman from the University of

California and Eileen Crimmins from the University of Southern California, was able to link social characteristics of both individuals and communities to differences in both morbidity and mortality risks. Evidence is presented linking three broad aspects of the social environment to health: the network of personal social relationships within which most of us live our lives, individual socioeconomic status (SES), and community-level social characteristics. The research showed that those with more quality social ties had lower mortality rates than the rest; and amongst those who showed low social ties, morbidity was most frequently related to cardiovascular disease, with attention to coronary heart disease (CHD) and stroke. They also presented the biopsychosocial model which illustrates the relationships between the different influences that impact social aging. Another study conducted illustrates the associations among age, social support, stress and amygdala volume. More perceived stress is associated with larger amygdala volume while those with more support had lower amygdala volumes. Aside from the general discomfort of being stressed, it also has physical implications: lowered immune systems, heart problems, digestive issues, dental problems, vision and hearing loss, digestive issues, and dental issues.



# ECONOMICAL

The economy will affect how individuals age and the aging population cause implications for the current economy. Statistically, those who are more financially stable have fewer chronic diseases and maintain more function throughout the aging process. However, many who fall within the aging demographic experience an increase in health care expenses, creating a challenge for those aging to stay financially stable. The aging population will affect household's savings, investment demands, financial market asset prices and returns. The economic influence of aging impacts, not only the individual, but the economy itself. As the individual ages, medical expenses increase. Many of the aging population insurance policies cannot fully cover their expense and as a result they are forced to use out of pocket money. A study was conducted showing the relationship between those financially stable with few chronic diseases compared to those who were not financially stable. The demographic age transitions force a shift in the current economic structure.

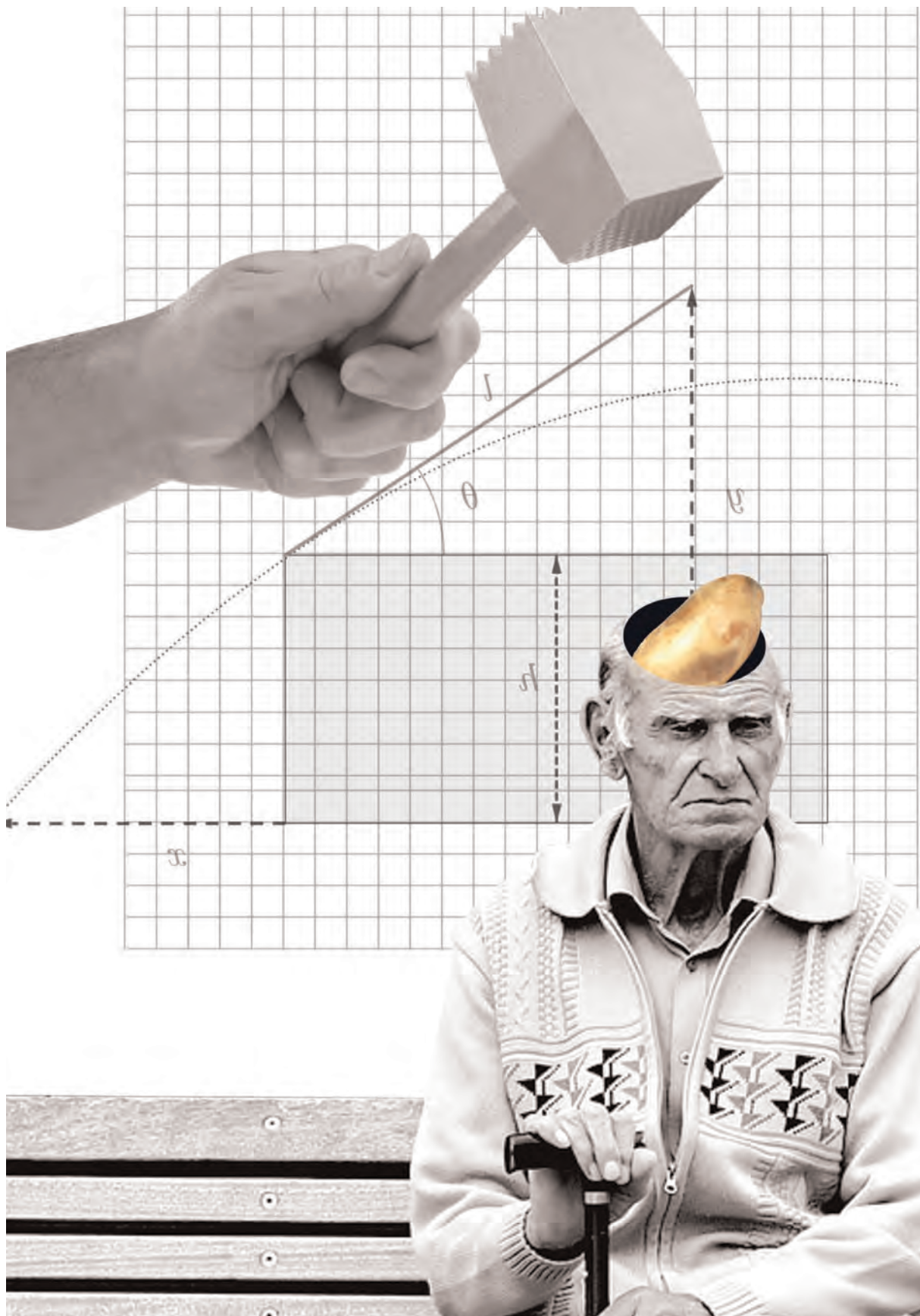






## PSYCHOLOGICAL

Erik Erikson was a German-American development psychologist and psychoanalyst. His studies showed that those who could overcome despair and maintain one's ego integrity developed a sense of wisdom. However, it's rare for an individual to achieve this highest form of integrity. It's unlikely for a person to be able to make it through life without questioning if they had made the right choices in life. The aging of adults is explained through two main theories: Disengagement Theory and Activity Theory. Disengagement Theory describes a mutual withdrawal, members of the aging demographic willingly slow down by retiring. Retirement is a transition that is accepted and encouraged by society. Advocates of this theory state that withdrawing from society benefits both the individual and society. Activity Theory addresses aging in the opposite manner, seeing a connection between keeping engaged in society and aging well. Those in favor of the Activity Theory claim that social withdrawal runs against traditional American principles. Neither of these models have been proven better than the other. The process of aging is vastly different and unique to the individual and thus everyone will respond to aging differently. It seems that those who lived active lives as younger adults will continue as they age, and those who were not active will most likely become disengaged as they age. Regardless of the response, an individual will take while on their aging journey, a strong family support is necessary to ensure a healthy aging process.



## HEALTH

The health of the individual can create vastly unique and different definitions of aging. Along with the individual's unique health concerns is the decreasing health that all who age will experience. One of the most common health related changes seen is the mobility of the individual. The efficacy of mobility largely relies on the strength of muscles. Musculoskeletal function peaks early in adulthood and declines as we continue to age. Aside from mobility, grip strength is attributed to aging, the severity of strength is caused by a mix of genetics and early life factors, such as nutrition. Aging is also associated with significant changes in bones and joints. With age, bone mass, or density, tends to fall, particularly among postmenopausal women. This can progress to a point where the risk of fracture is significantly increased (a condition known as osteoporosis)



# 3 PLACE

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SUBURBAN DWELLER | URBAN DWELLER | URBAN RETURN  
BRIDGEWATER INTERVIEWS SUMMARIES  
BRIDGEWATER INTERVIEW CONCLUSION  
AGING IN PLACE





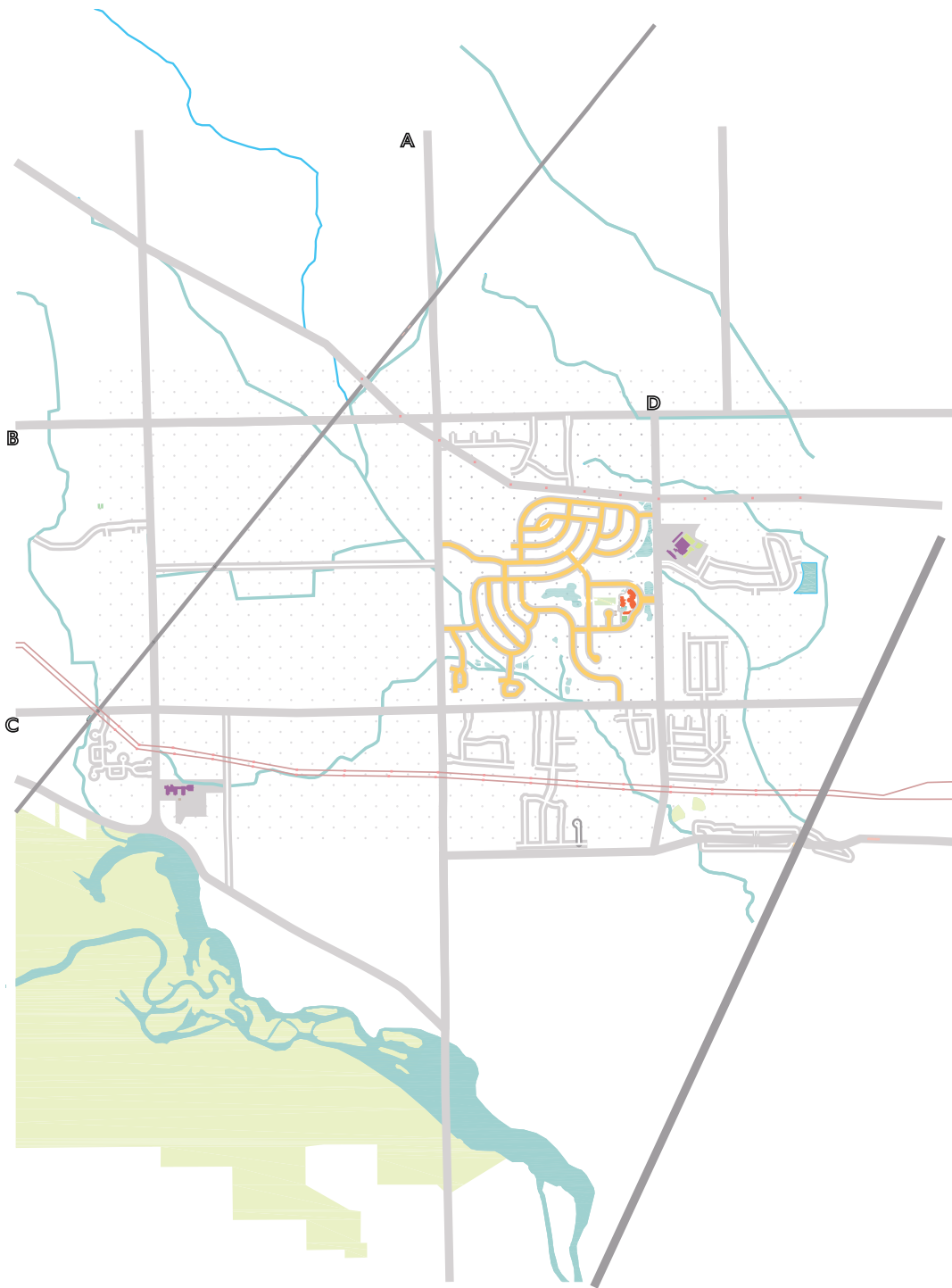
Source: PulteGroup, Inc



Source: PulteGroup, Inc

## Suburban Dweller | Urban Dweller | Urban

A research project was performed to explore the concept of isolation from a personal interview with two males and two females from Bridgewater Retirement Community. The intention was to understand the connection between the aging person and the community relative to displacement and social level. Based on the ageism and geographical location, the hypothesis was that the aging population would have a negative feeling about the Bridgewater Retirement Community.



— CABLE CARS — STREETS — ROADS — HIGHWAYS

24315 Bridgewater Way, Brownstown, Michigan 48134:

A. INSKTER ROAD B. WEST ROAD C. VAN HORN ROAD D. ARSENAL ROAD

PARKS
  BOCCÉ BALL GREENS
  TENNIS COURT
  COMMUNITY
  LODGE & COMMUNITY CENTER
  SCHOOL
  WATER





Ray previously lived in Trenton, Michigan. He moved to the Bridgewater Retirement Community with his wife 12 years ago. Ray never had intentions to move out of his neighborhood in Trenton, Michigan. Aside from a few elements they were content with the neighborhood. However, when Bridgewater Retirement Community opened up, Ray and his wife couldn't pass up the opportunities they offered. Ray enjoys the community and amenities offered at Bridgewater. He participates in many of the activities. Ray sees himself remaining in Bridgewater as he continues to age.



Chris previously lived in Wyandotte, Michigan. She moved to the Bridgewater Retirement Community due to her husband's medical needs. They decided on Bridgewater because they offered the ranch style homes. Although Bridgewater offers many community amenities, Chris and her husband don't participate in many of them. They occupy their time with visiting their grandchildren. Chris sees herself remaining in Bridgewater as she continues to age.



Ed previously lived in Dearborn, Michigan. He moved to Bridgewater four years ago with his significant other. Ed doesn't enjoy the lifestyle of Bridgewater compared to his old way of living in Dearborn; but the suburb lifestyle is exactly what his significant other was looking for in her retirement. Ed feels that the Bridgewater homes are too uniform and after a while the community becomes mundane. Ed doesn't participate in community activities because he is introverted and enjoys his alone time. Ed doesn't miss the city, he feels Detroit is an unwelcoming place and has no intention of visiting.



Dottie previously lived in a suburb of Massachusetts. Her son forced her to move near him in Michigan. Dottie's son chose the Bridgewater Retirement Community and although she was not happy with his decision, she agreed. Dottie was happy with her Massachusetts community and felt an emotional connection to her old home. Dottie struggled to connect with people at the Bridgewater Retirement Community for the first year. She eventually made friends and now enjoys all of Bridgewater amenities and activities offered. Dottie sees herself remaining in Bridgewater as she continues to age.

URBAN RETURNER

RAY

SUBURBAN DWELLER



SUBURBAN DWELLER

CHRIS



DOTTIE

SUBURBAN DWELLER



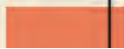
ED

SUBURBAN DWELLER



URBAN RETURNER

URBAN DWELLER



## **BRIDGEWATER INTERVIEW CONCLUSION**

Homogenous Community.

Residents enjoy not having to plan events.

Residents are happy about the lack of diversity.

Residents feel they will not need any more help as they age.



## AGING IN PLACE

Aging demographics and the way in which our urban environments adapt are important social trends that have the ability to change the way we all live and interact within the built environment. The results of the “2017 Aging in the Cities Survey” opposed predetermined ideologies about aging. The survey showed that most contemporized city dwellers want to remain within the community throughout the aging

process, unlike previous generations. With rapid growth of the aging demographic and the intention to remain within the urban communities, cities are going to have to find ways to adapt and evolve with society in order to create a functioning urban environment. The survey found the typical urban dweller wants to remain in place as they age. Seven out of ten city dwellers (and eight out of ten Baby Boomers) want

to live in their current city when they are 80+ years old (2017 Aging in Cities Survey). The majority of those who said they wanted to age in place wanted the city amenities for their 80-year-old self. Eighty four percent of those people listed diverse population as top criteria. Of those surveyed, the majority chose high quality health care as their number one priority, when determining where they wanted to live. The

Baby Boomer Generation listed health care, public transportation, and proximity to family as top three priorities. Although upcoming seniors plan and want to live in the city, they feel that current aging urban dwellers need more options for senior housing, memory care and health care. Sixty percent of the urban dwellers believe it is easier to meet people in a city, making the social aspect of the urban environment



another key amenity with eight out of ten urban dwellers wanting to make new friends at the age of 80+, and nearly six in ten want time for romance and to have an active sex life at that age. Another key component of city living is the potential for public transportation. This is due to the loss of mobility at 80+ years old which is a concern for eighty four percent. City life also offers the chance for employment, giving

a sense of purpose and fulfillment as they age. One in five urban dwellers expect to feel a sense of purpose from full or part time work at age 80+. Although the majority declare they want to age in place, the livability of each city is ranked differently and ultimately decides if it will be possible to remain in place. Cities with maintained parks and good public transportation rank higher than those with safe

neighborhoods or senior engagement programs. People are living longer with more functional lives, making those in their 70's and 80's the fastest growing segment of the population. The number of people age 65 and over will increase by thirty-seven million or nearly fifty percent by the year 2040 in the U.S., and the number of 80-year-olds will represent seven percent of the population compared to four percent in the year

2012, according to the U.S. Census Bureau. City and urban environments are economic engines, innovation hubs, filled with public spaces and neighborhoods of diversity.



# 4 USER

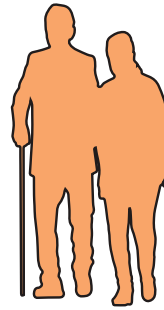
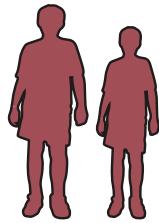
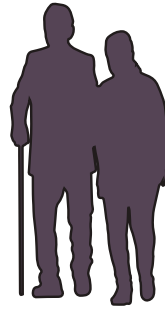
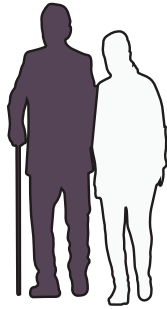
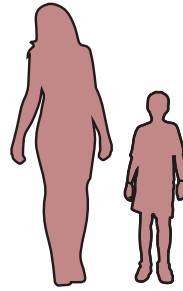
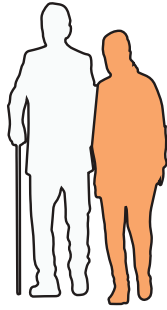
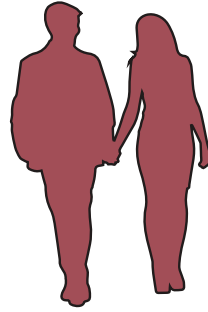
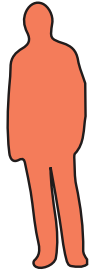
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USER TRENDS

NUCLEAR FAMILY HOUSEHOLD TRANSITION

POST NUCLEAR FAMILY HOUSEHOLD TRANSITION

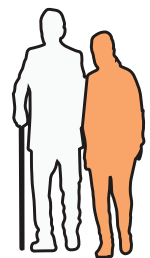
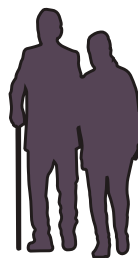
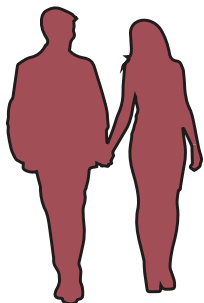
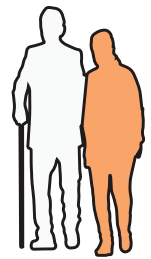
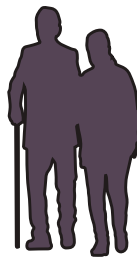
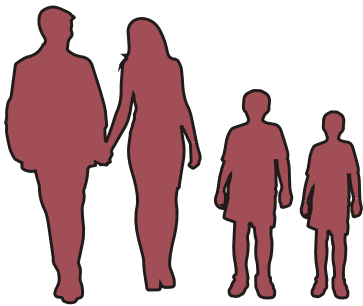
NARRATION 1 AND 2



# USER TRENDS

Despite improvements in the United States economy, a record 64 million people or 20% of the United States population live within an intergenerational household. This is most common amongst Asian and Hispanic households, although these household structures are growing amongst all racial groups. These household types are defined by adult generation, grandparents and grandchildren younger than 25. In 1950 these households saw a decline to 21 percent and dropped farther down to 12 percent in 1980. Intergenerational living has seen a sharp increase in 2009 and has since slowed but still maintains a consistent growth. Pews research offers answers to why many households are shifting to intergenerational living styles. Within the research they found trends related to: financial and economic factors, urban density, family dynamic change, longevity of life, millennials returning home, increased immigration population, and a shift in family structure from nuclear family to a post nuclear family. Property value in major downtown areas are rising and so is the urban density making it difficult for people looking to move into the city. Young professionals are also utilizing older generations to assist in child care. Williamson Williamson architects found this problem when working on their project Grange Triple Double. Their client was a young professional couple with a child who was planning to move into an intergenerational household with their parents. This allowed for the retired parents to watch the grandchildren as both parents pursued their careers. They also managed to afford a home in a city that is quickly becoming unaffordable to young families. America's increasing diverse immigrant populations also contributes to the shift in household

structure. Pews research showed Asian and Hispanic being most common to live in an intergenerational household. 28% of the Asian and 25% of the Hispanic households where intergenerational, which has increased within the last couple years. The increase in intergenerational household illustrates how our traditional nuclear family structure has shifted. The research gathered from Pew shows intergenerational living being at a high in the 1950s and low in the 1980s suggesting that the post nuclear family is structured like an American household of the 50's. D'Vera Cohn, a Pew writer and editor who co-authored on the multigenerational living report, says in an interview with curbed "if you examine the rates of older people living with their adult children, it appeared to be even more common; in the early 1900s, more than half of elderly men and women had moved back in with their kids."

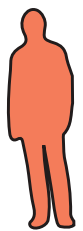
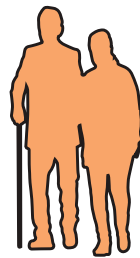
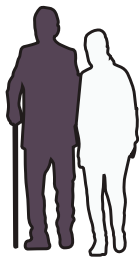
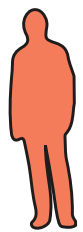
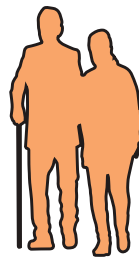
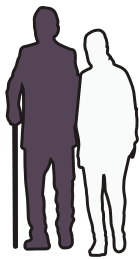
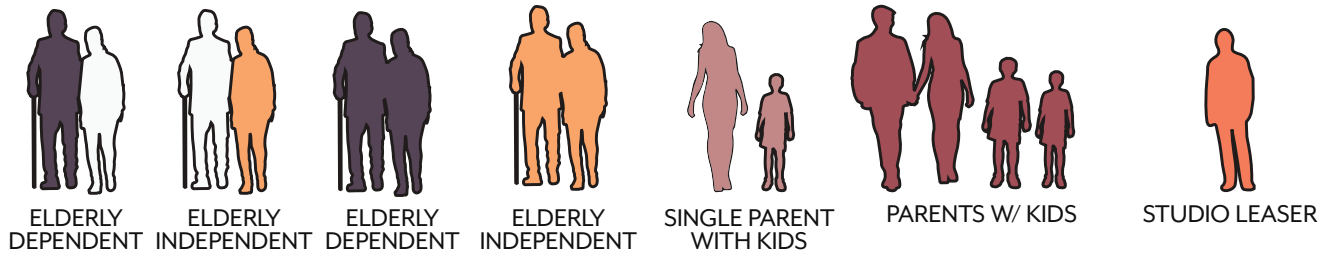




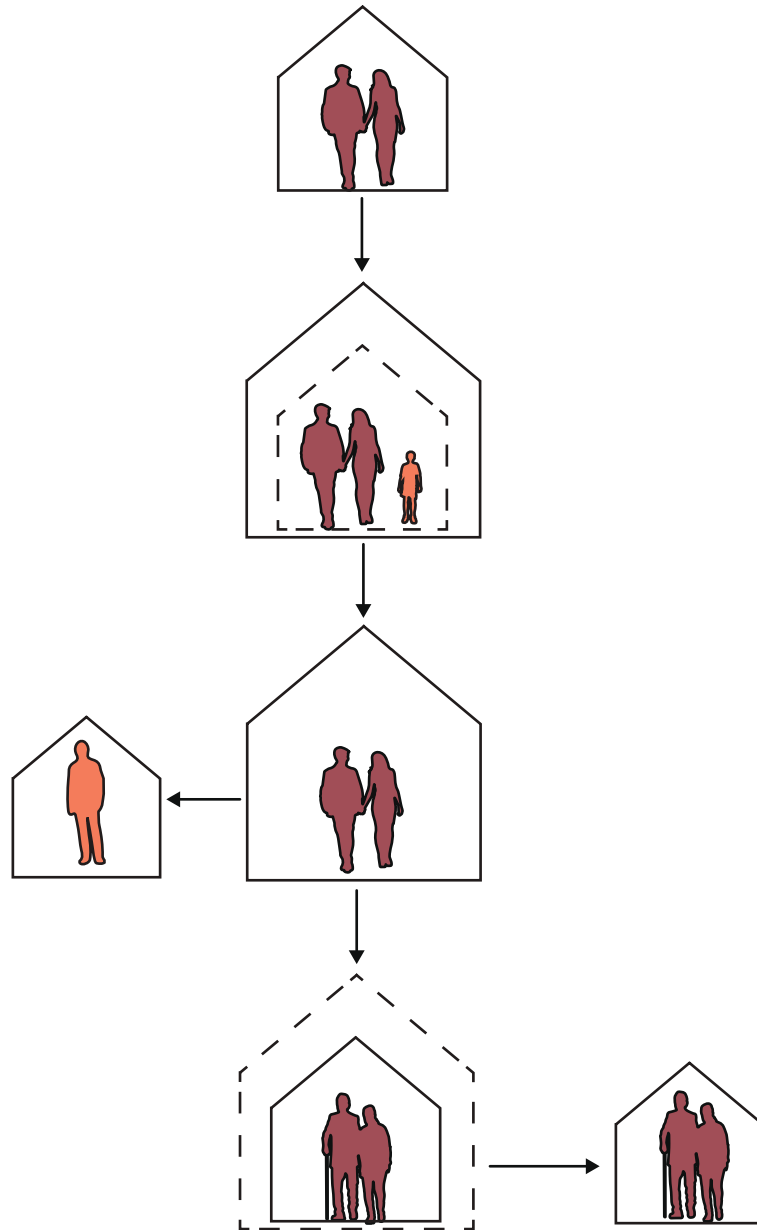
Source:Williamson Williamson



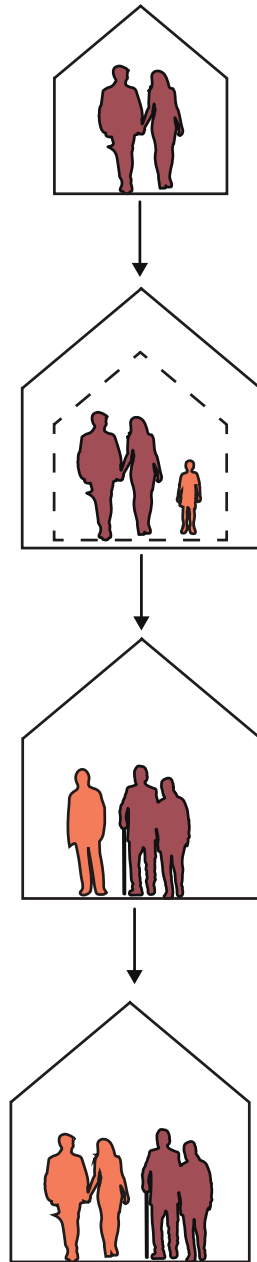
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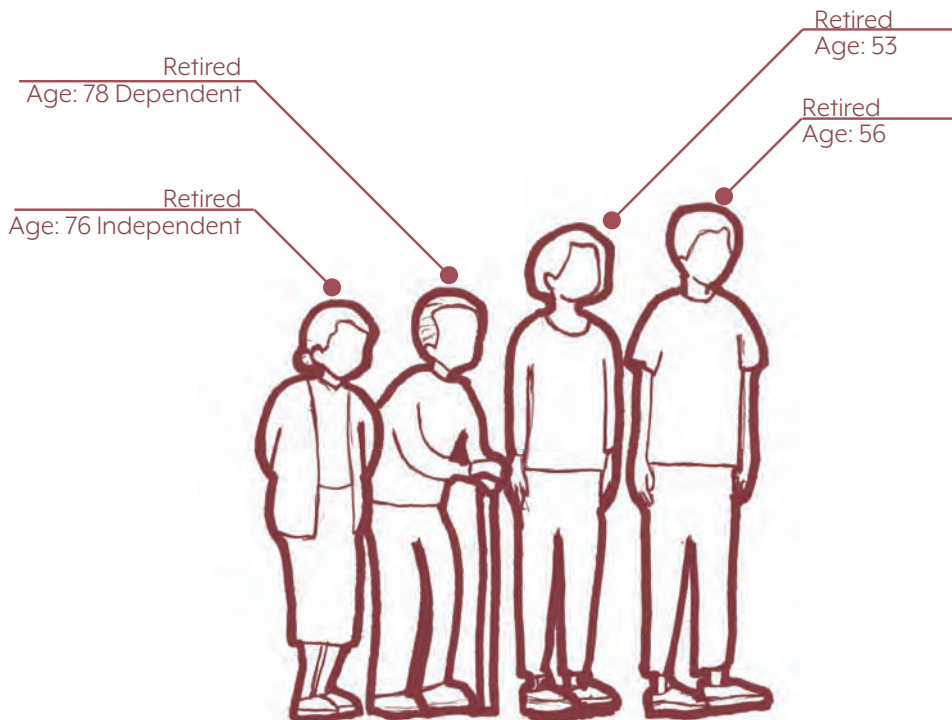


# NUCLEAR FAMILY HOUSEHOLD TRANSITION

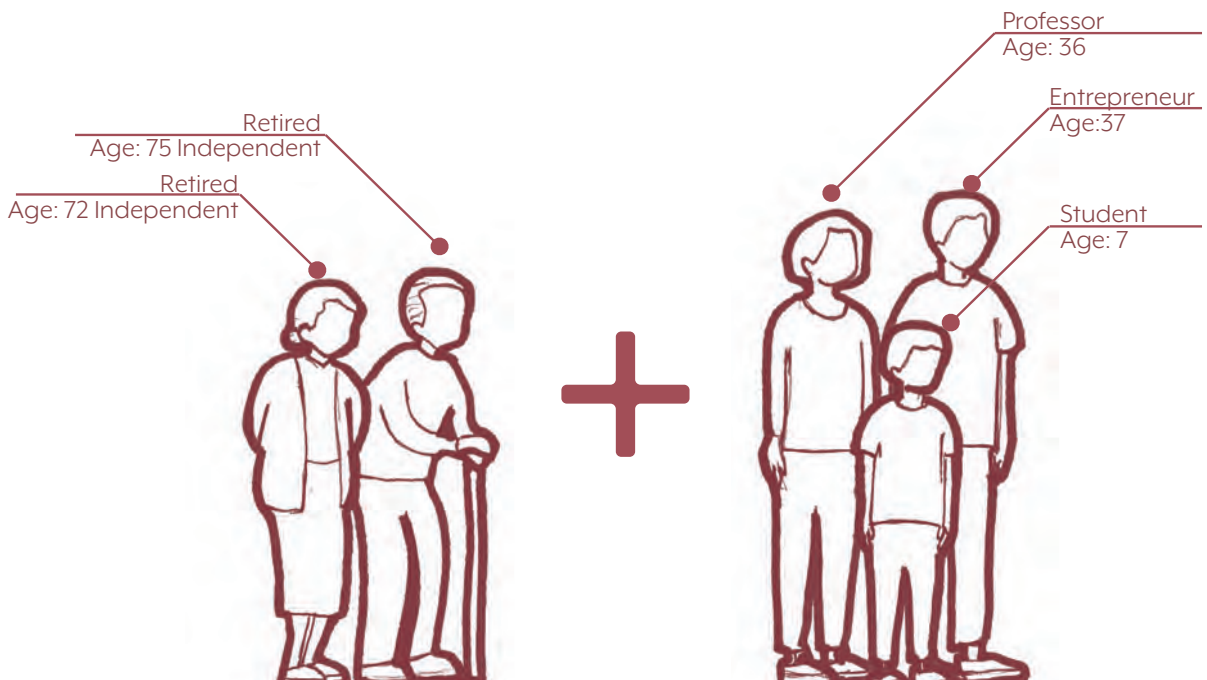


# POST NUCLEAR FAMILY HOUSEHOLD TRANSITION





**NARRATIVE ONE**



## NARRATIVE TWO



# 5 INTERGENERATIONAL

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MINIMAL LEVELS

ANTICIPATED GROWTH

VISUAL BARRIER

RENTABLE SPACE

CENTRALIZED TASKS

TRANSITION SPACES

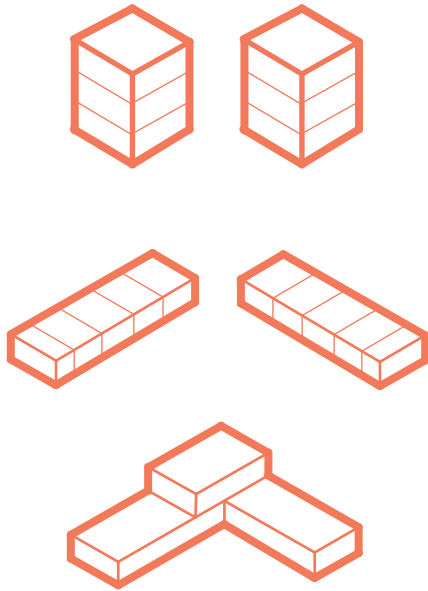
NATURAL LIGHTING

FLEX SPACES

ARCHITECTURE CASE STUDIES

FURNITURE DESIGN CASE STUDY



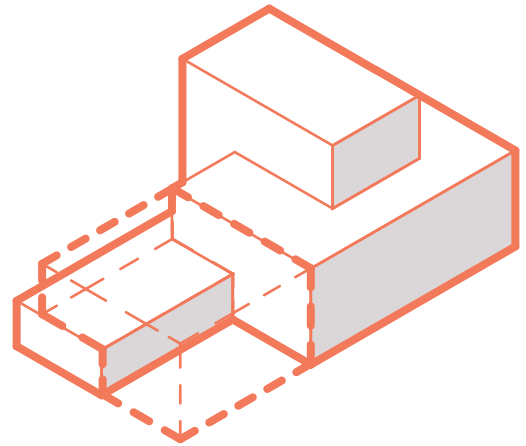


## MINIMAL LEVELS

Open access to the home is one of the most important considerations, when designing for multiple generations. Designing horizontally and utilizing minimal levels can help ensure the spaces will be accessible for everyone in the residents. The first floor should include a complete dwelling with shared living spaces.



House on Ancaster Creek Williamson  
 Intergenerational dwelling design for a family and their aging parents. The architect designed the space as two separate residences, each formed into a linear form that contained the entire program of the homes. Each Linear form sit perpendicular to each other, creating courtyard and landscaping.



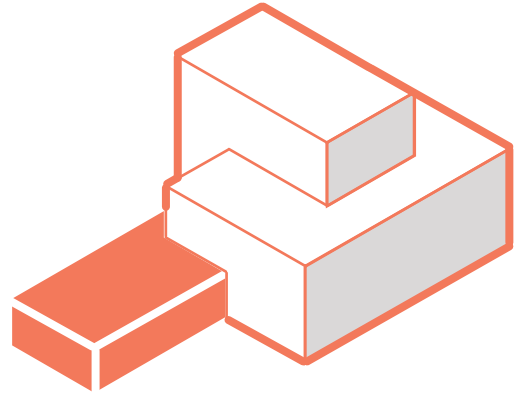
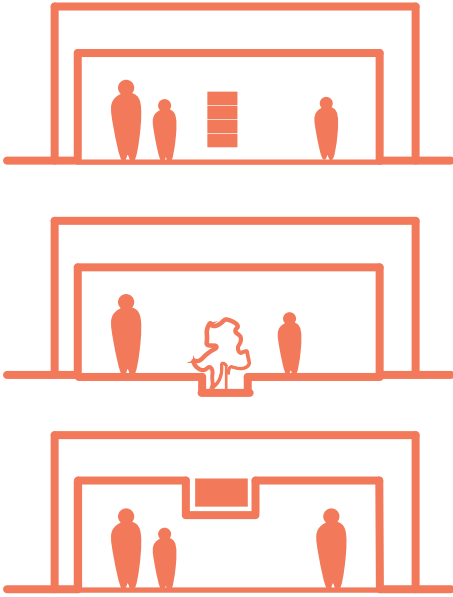
## ANTICIPATED GROWTH

Design the home to evolve as the needs of the users shift and change with age.



### GRANGE TRIPLE DOUBLE Williamson Williamson

Intergenerational dwelling design model that can be configured in many ways. One of the options allows for separate apartment to be built on the first floor, as well as additions vertically.



## VISUAL BARRIERS

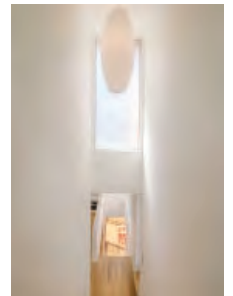
Creating barriers that visual divide the space but don't completely isolate the users from each other. This can be accomplished by bookshelves, low walls, drop ceilings, houseplants or other furnishings.



**SLIDING BOOKSHELF.**  
PKMN ARCHITECTURE  
Bookshelf's where design to shift back and forth creating different spaces in the in between space.

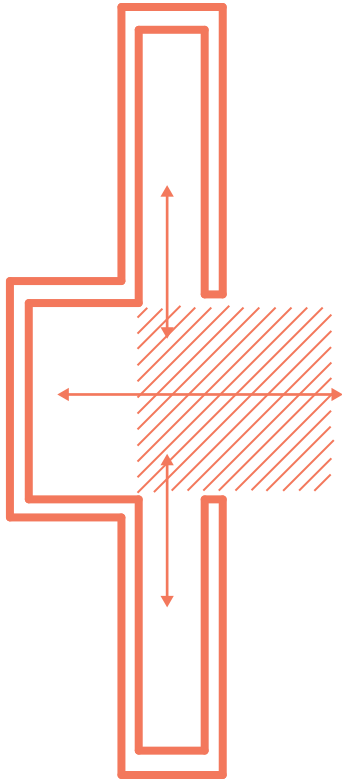
## RENTABLE SPACE

Design a separate space for a portion of the home to be rented, for extra income to help assist with any economical difficulties.



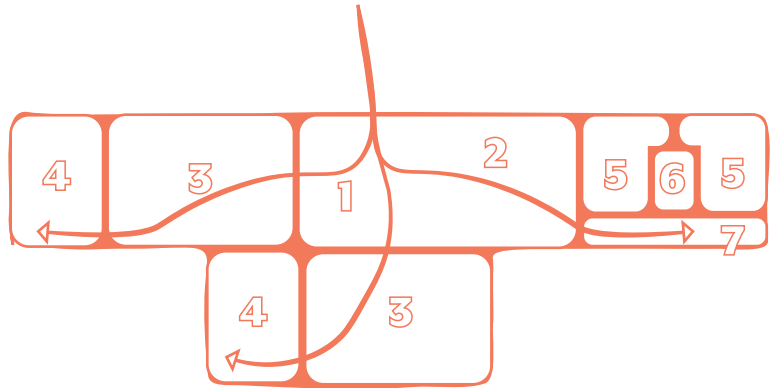
**GRANGE TRIPLE DOUBLE**  
Williamson  
Williamson

Intergenerational dwelling design model that can be configured in many ways. One of the options allows for separate apartment to be built on the first floor and rented.



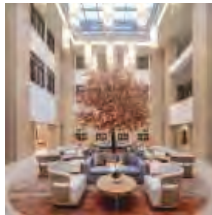
## CENTRALIZED TASKS

Spatial organization that allows tasks such as laundry, cooking, trash, and other day to day chores to be centralized to ensure convenient access.



## TRANSITION SPACES

Utilizing corridors and other transition spaces to create intergeneration connections by designing hall-ways with seating/built in furniture to allow for overlapping spaces within the home.



Centre for the Elderly Shanghai Tianhua. The design is an elderly healthcare facility that utilizes the central core for a sharable space as well as the main circulation hub. This allows for easy wayfinding and visual connectivity among the users.



Dengshikou Hutong Residence  
B.L.U.E. Architecture  
Residential design that is utilizing all the space possible. Transforming corridors into social spaces allowing for programs to overlap within the home.

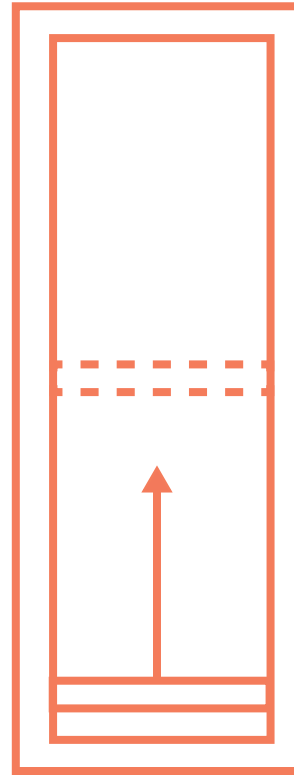


## NATURAL LIGHTING

Allowing for as much daylight as possible to enter in different spaces of the home. Utilizing void spaces to allow light to pass through all levels of the home. The void space will also offer visual and audio connection.



The house was conceived as two distinct residences, each formed into a linear bar containing the full program of a home. The bars sit perpendicular to each other, creating a landscaped courtyard..



## FLEX SPACES

A component of intergenerational designs is its ability to offer spaces that have multiple functions or allow multiple preferences within any one space. Spaces should be designed in a way that can allow easy transformation into another space. Design large spaces with partition wall that allow the space to be divided with two separate programs. Shared spaces, like kitchens should be designed and place in a way that allows access to space without disrupting others.



The house was conceived as two distinct residences, each formed into a linear bar containing the full program of a home. The bars sit perpendicular to each other, creating a landscaped courtyard setback from the street, and stack at the corner.

# BRIDGE HOUSE

Höweler + Yoon

VA, UNITED STATES

The Bridge House addresses the condition of views and the wooded landscape. It is composed of three volumetric elements: the bedroom volume, the living volume, and a bar of bedrooms that spans between the first two. The space at the ground floor between the volumes is enclosed with glass and will house entrance and living areas. The void between volumes frames views of the landscape, but also allows the landscape to slide through the house- allowing the inside and outside to blur. The composition of rectilinear elements allows each to remain legible, while producing a fourth implied volume between them. The fourth space is an "outdoor" room, momentarily "held" between the others and extending out into the landscape.

*(Text Provided by the architect)*



# CHARLES HOUSE

Austin Maynard

Kew, Australia

The clients wanted a house they could live in for at least 25 years. A home that would grow with the family, anticipating and accommodating different needs of each stage. That could adapt to their young children's requirements as they grew into adulthood, and where they could comfortably accommodate grandparents in the near future. They asked for a practical, low maintenance house and garden, filled with light and water features and blurred distinctions between the indoors and outdoors.

*(Text Provided by the architect)*



# GRANGE TRIPLE DOUBLE

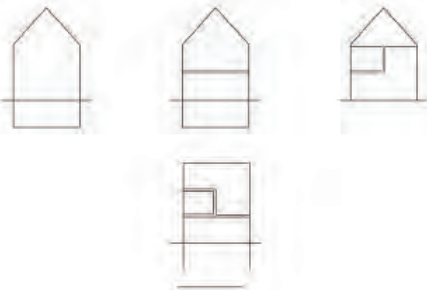
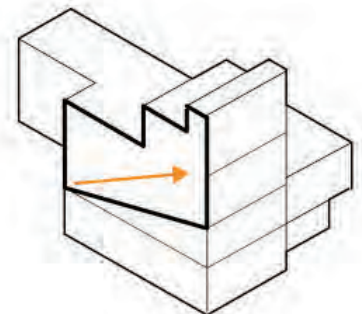
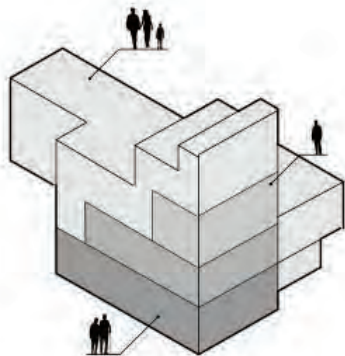
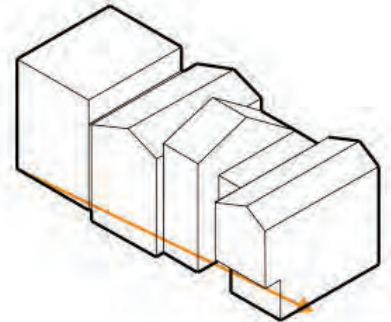
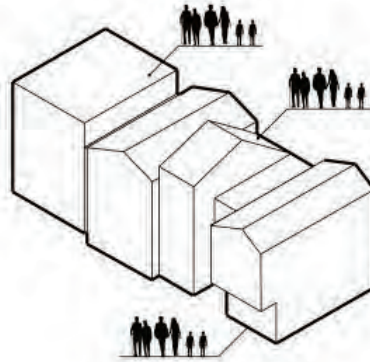
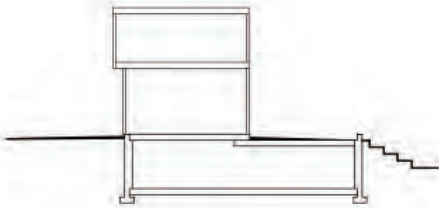
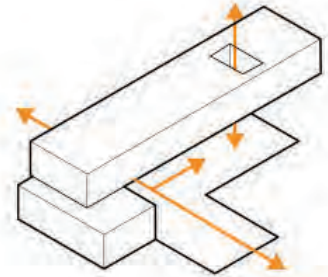
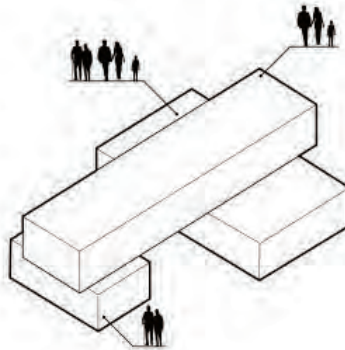
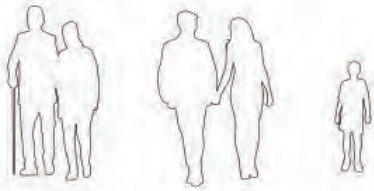
WILLIAMSON CHONG

Ontario, Canada

This project begins with the blending of two households into one. A professional couple with a young son sells their small one-bedroom condominium; The grandparents downsize after becoming empty nesters. Together, they construct a scenario for living that allows for autonomy while mutually benefitting from the close connection this family has. The grandparents adore looking after their young grandchild and embrace the security of being looked after as they age. The professional couple is afforded a single family home in a city that is rapidly becoming unaffordable to young families. Ground floor and basement rental units which are typical in this neighbourhood given its proximity to the University, allow the family to maximize built form in a city that has ever increasing land values and construction

*(Text Provided by the architect)*









# HIGHCHAIR

MAARTJE STEENKAMP

The Chair is designed to evolve and become shorter as the child grows taller.



# DO HIT CHAIR

MARJIN VAN DER POLL

The chair is designed to be manipulated and to be altered as the user sees fit..



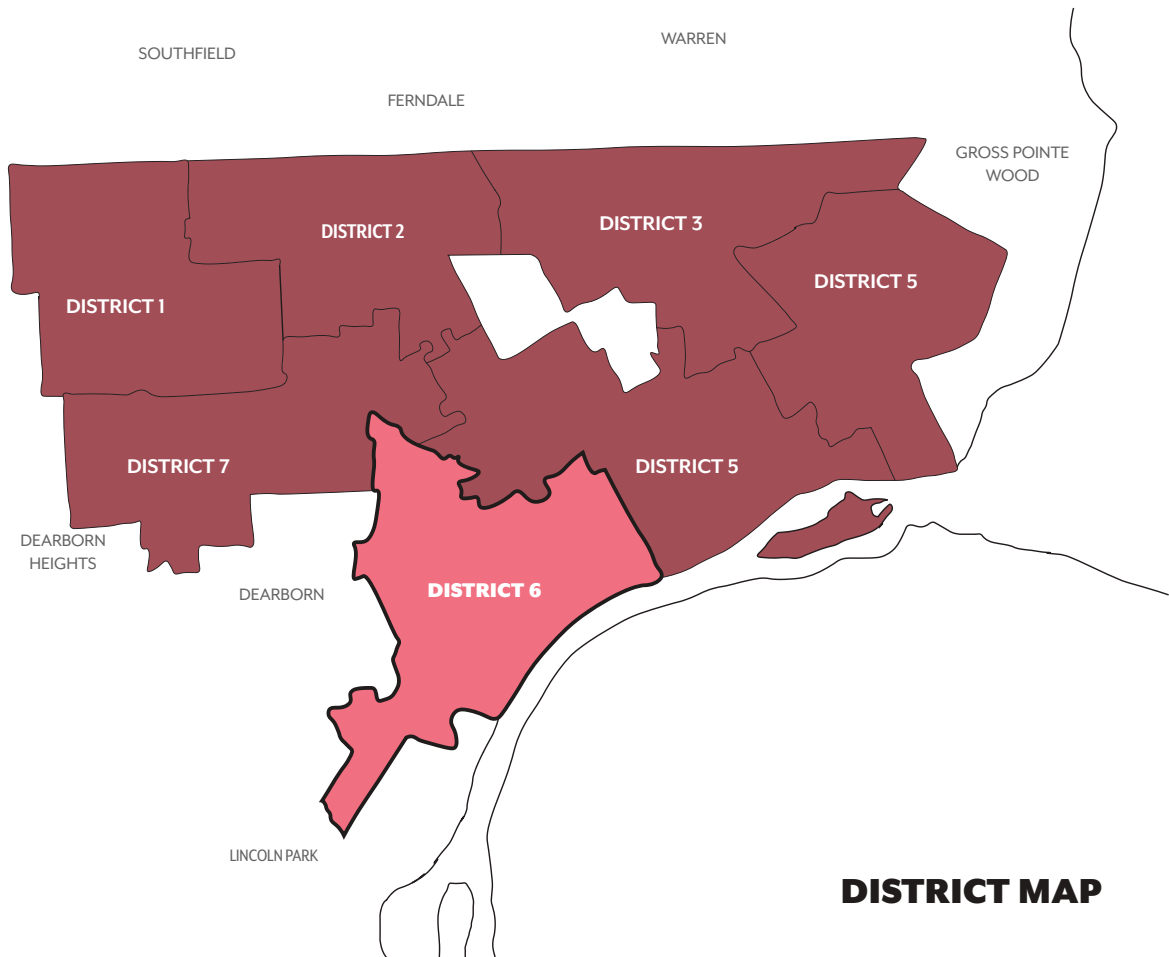


# 6 SITE

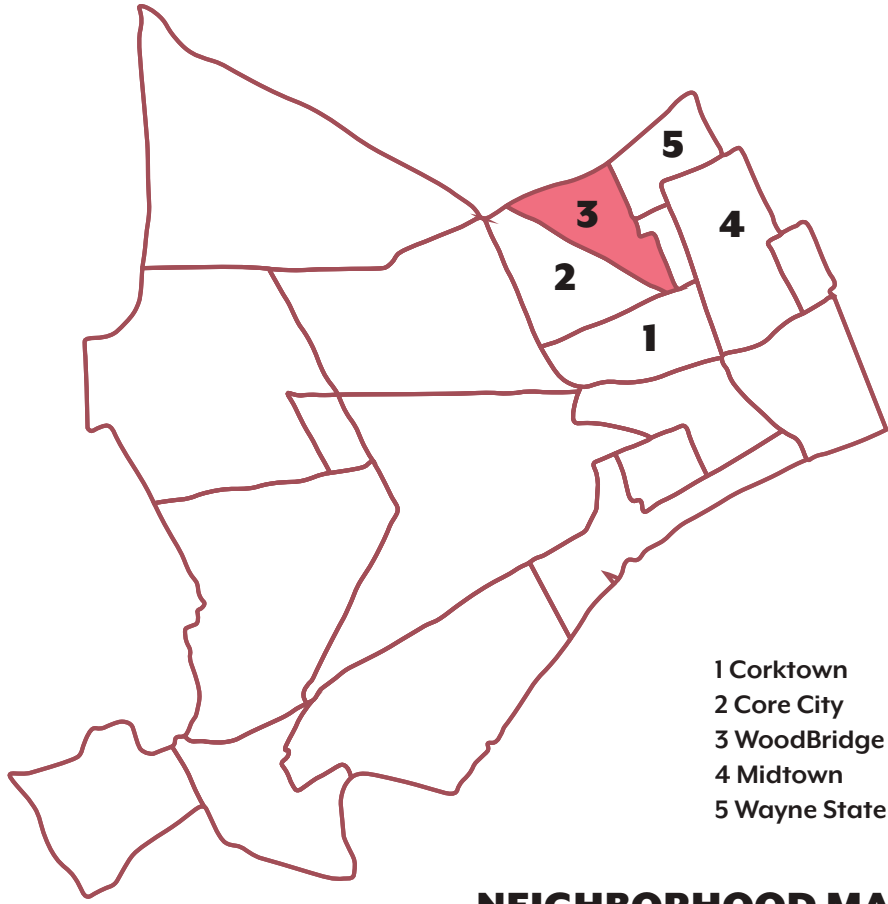
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DISTRICT MAP  
NEIGHBORHOOD MAP  
WOODBIDGE CONTEXT MAP  
WOODBIDGE WALK SCORE  
DEMOGRAPHICS  
DETROIT MASTER PLAN GOALS





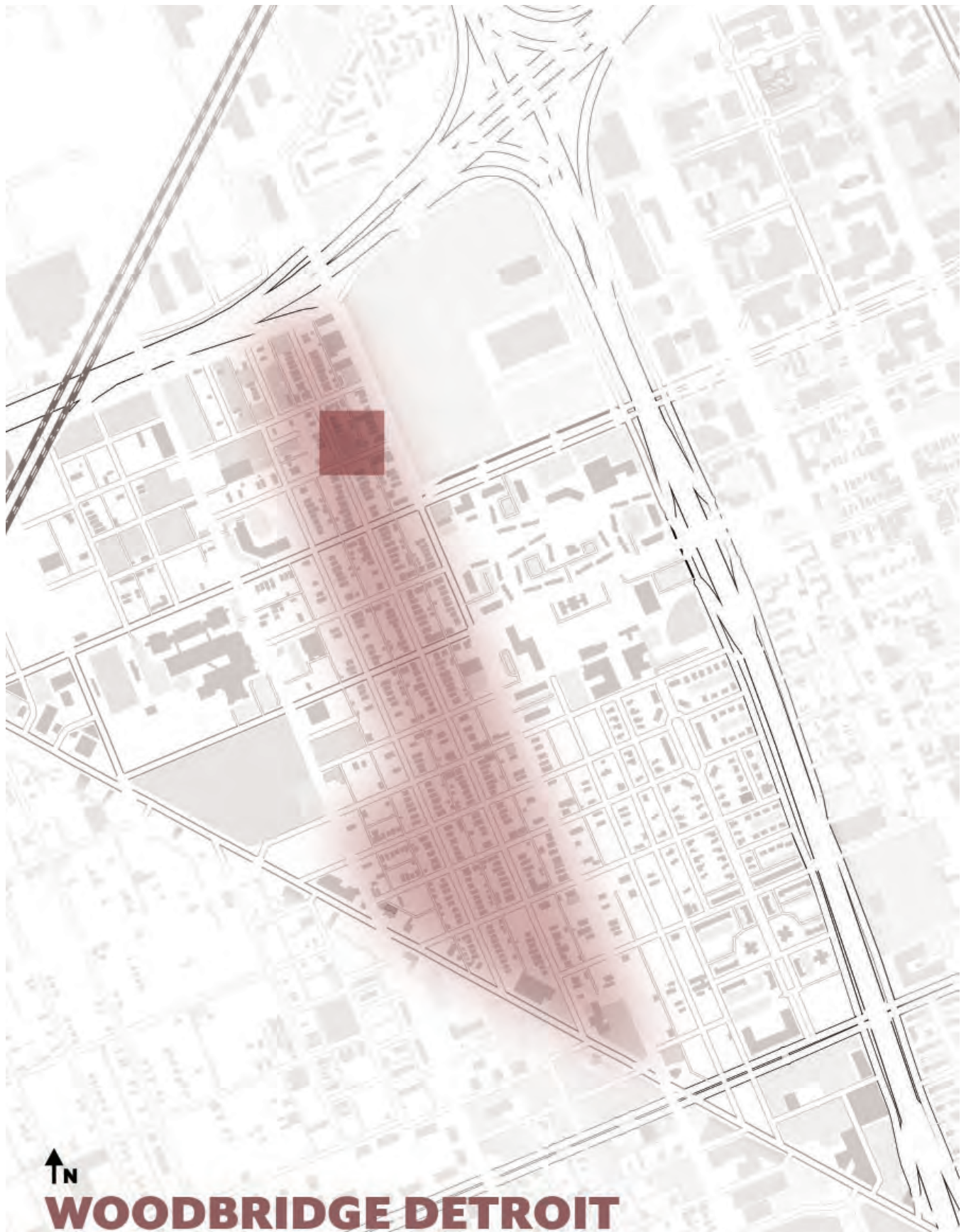
**DISTRICT MAP**



- 1 Corktown
- 2 Core City
- 3 WoodBridge
- 4 Midtown
- 5 Wayne State

**NEIGHBORHOOD MAP**

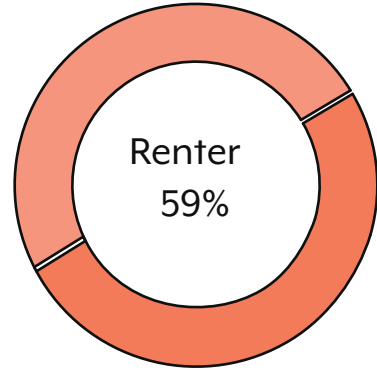




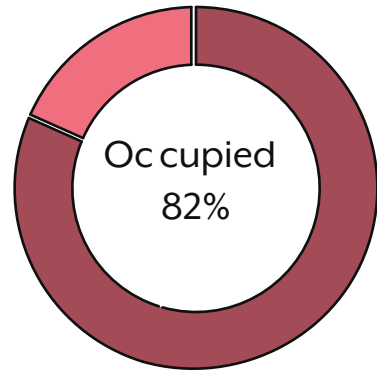
**WOODBRIDGE DETROIT**



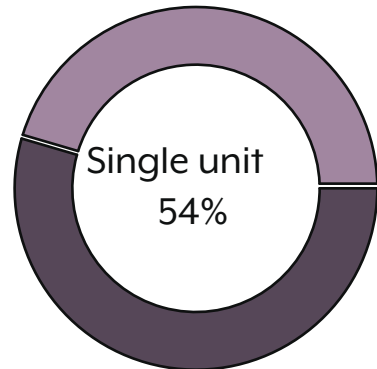
- Owner occupied
- Renter occupied



- Occupied
- Vacant



- Single unit
- Multi-unit

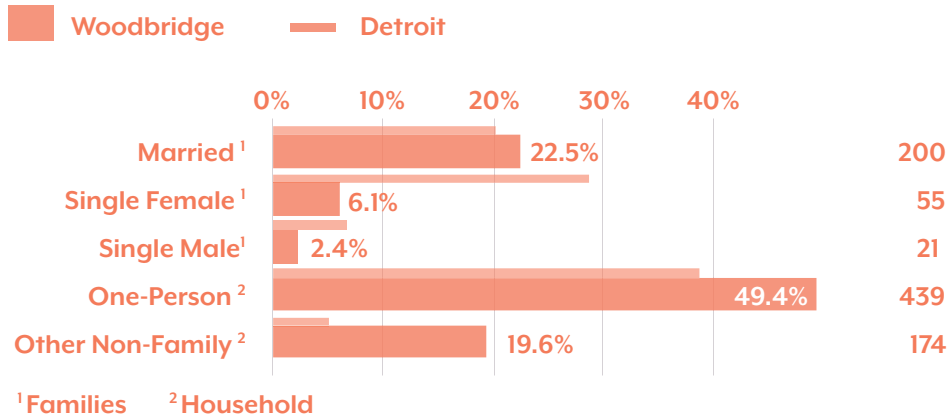


# DEMOGRAPHICS

## HOUSEHOLD TYPES

Percentage of households

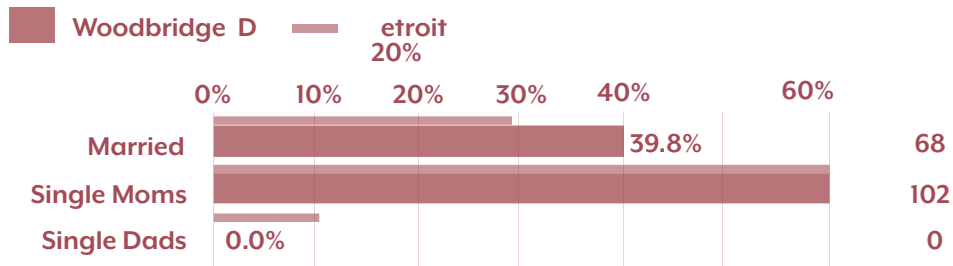
Scope: households in Detroit and Woodbridge



## FAMILY HOUSEHOLD TYPES

Percentage of family households with children under the age of 18

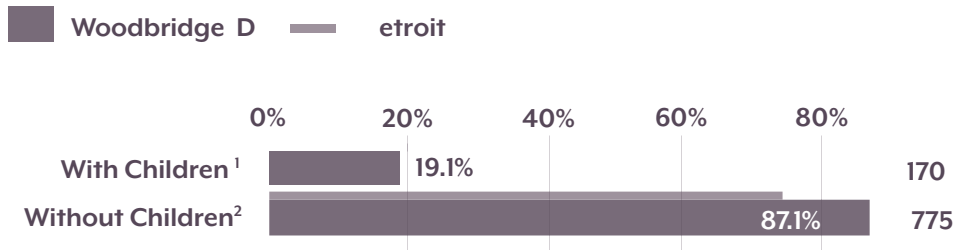
Scope: households in Detroit and Woodbridge



## FAMILIES WITH CHILDREN

Percentage of households

Scope: households in Detroit and Woodbridge



<sup>1</sup>with own children under the age of 18 in the household

<sup>2</sup>without own children under the age of 18 in the household



**NEIGHBORHOOD RESIDENTIAL TYPOLOGY**

# DETROIT MASTER PLAN GOALS

## Neighborhoods and Housing

Issue: Whole blocks of housing have been abandoned and demolished near the Jeffries Homes (at Martin Luther King Drive and the Lodge Freeway) and in other portions of the community. The Woodbridge neighborhood (northwest of Grand River and Trumbull) is area's most stable.

GOAL 1: Reinforce sound neighborhoods.

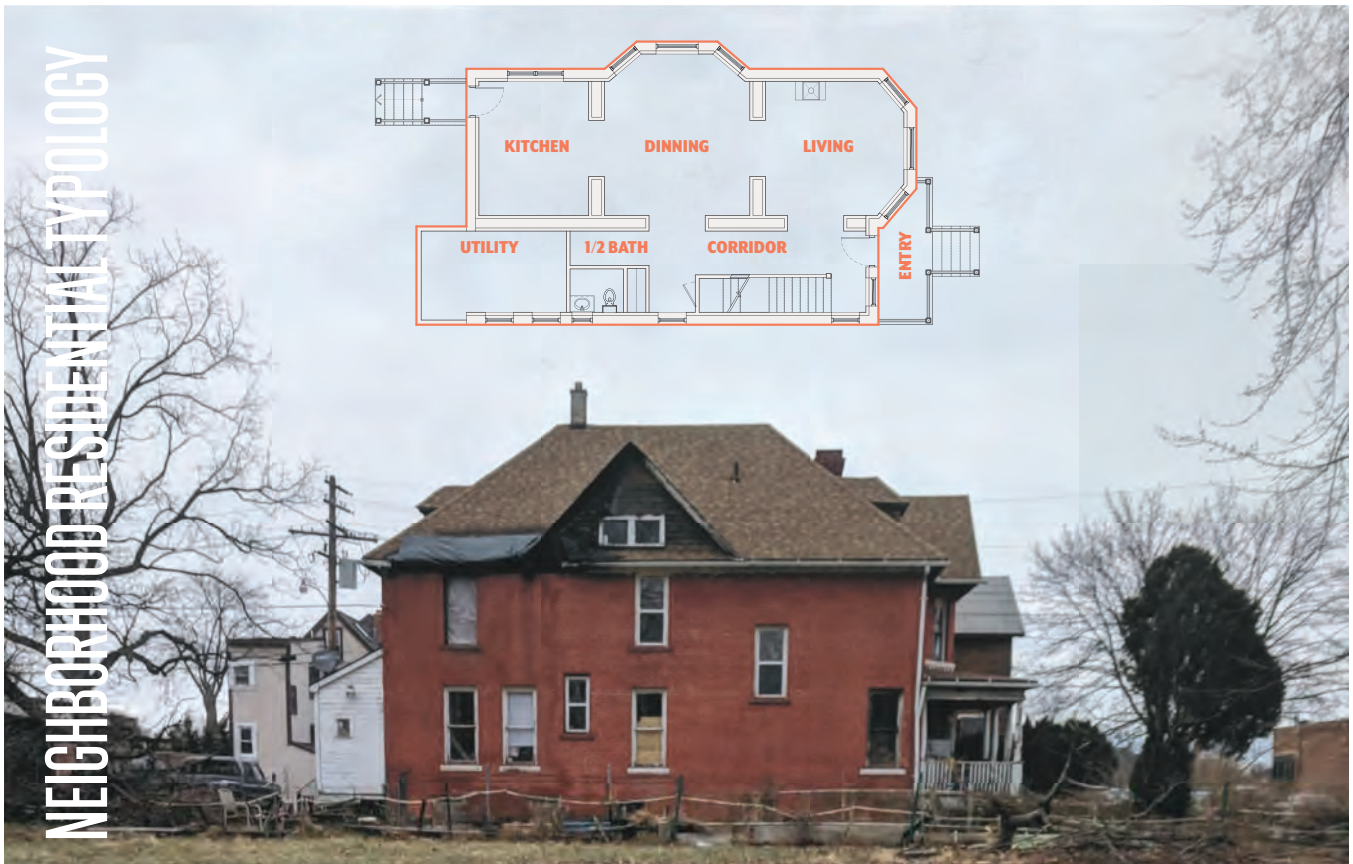
Policy 1.1: Maintain the stability of the Woodbridge neighborhood through home repair programs and scattered-site infill development of similar scale and character to the existing housing stock.

GOAL 2: Revitalize neighborhoods with poor housing conditions.

Policy 2.1: Target the area southwest of Grand River for construction of affordable and market rate single family homes and townhouses in a manner consistent with the scale and character of the existing housing stock.

GOAL 3: Increase residential density.

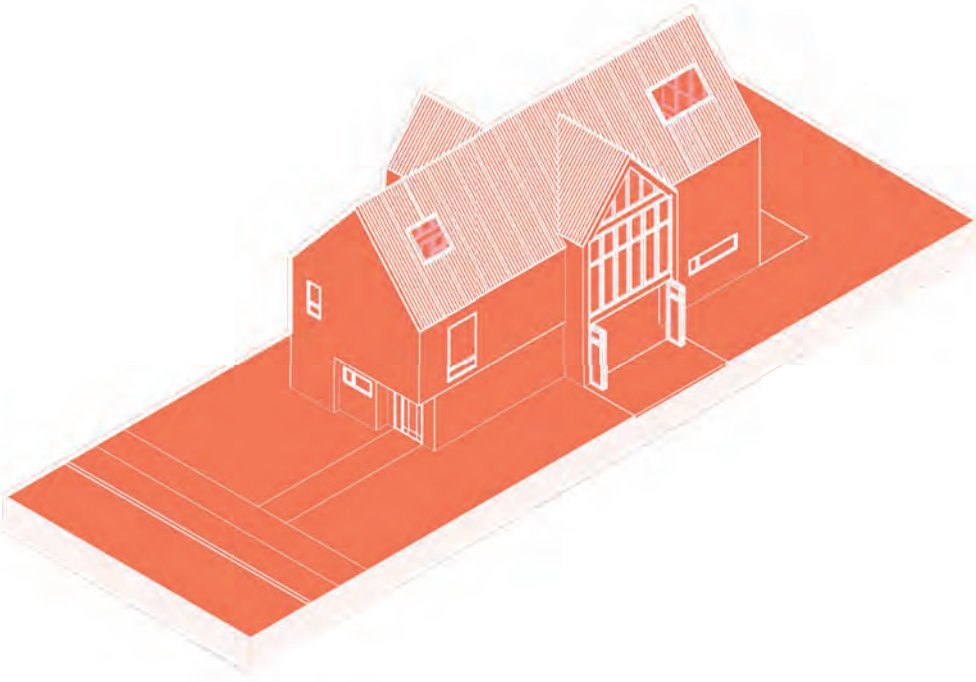
Policy 3.1: Redevelop Grand River with mixed-use development, including high-density residential.



# 7 DESIGN

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SITE PLAN  
AXON  
FLOOR ONE  
FLOOR TWO  
FLOOR THREE  
TRANSVERSE ELEVATION  
LONGITUDINAL ELEVATION  
CONCLUSION

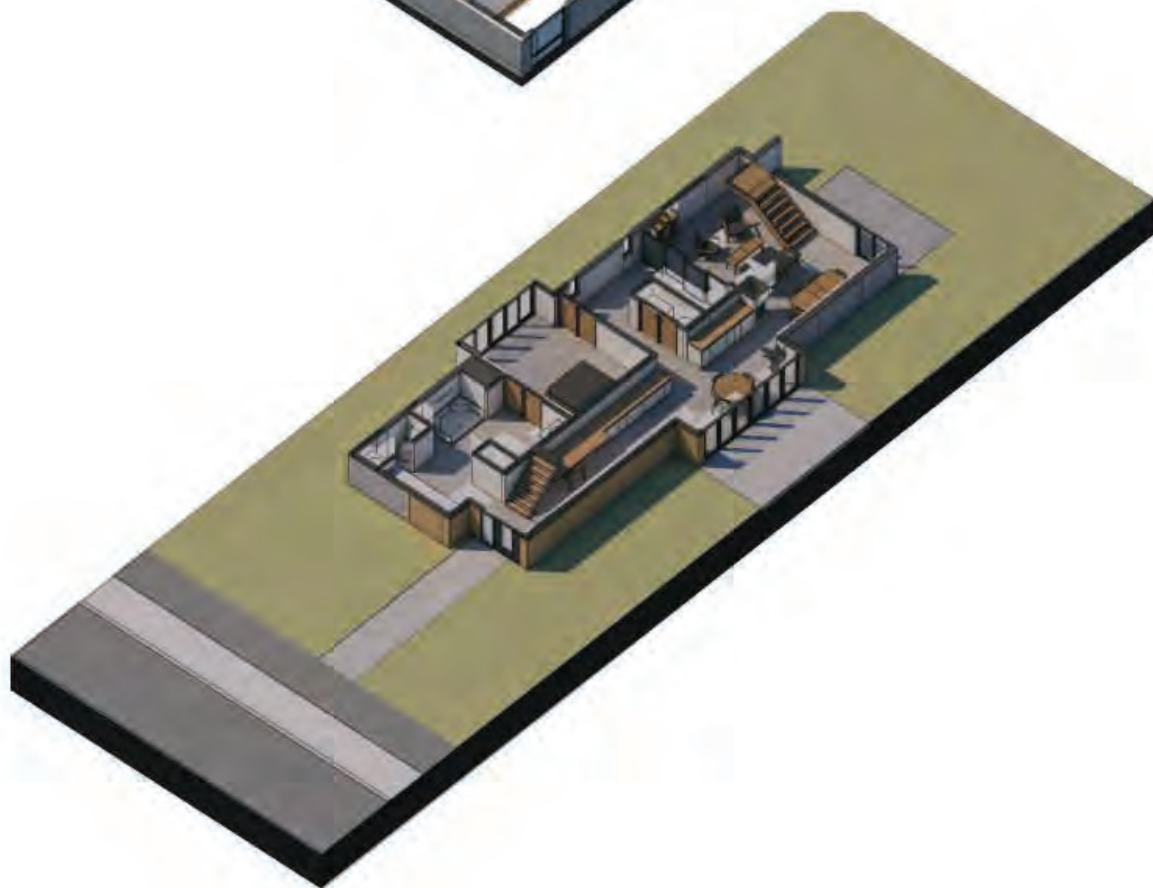
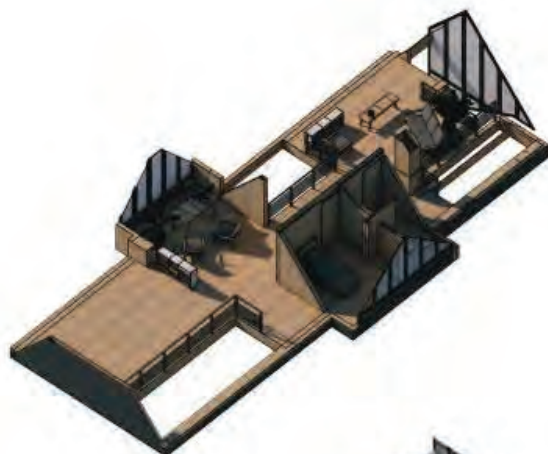




# SITE PLAN



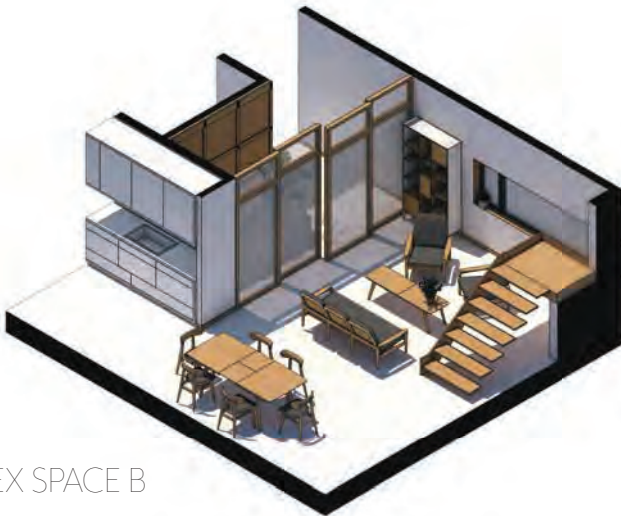
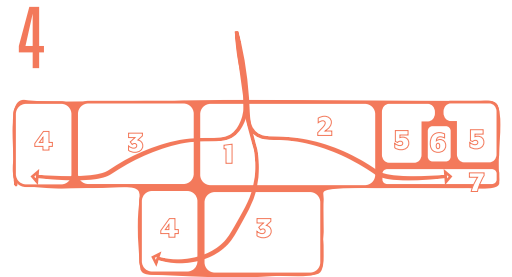
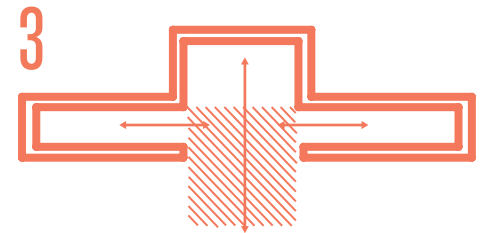
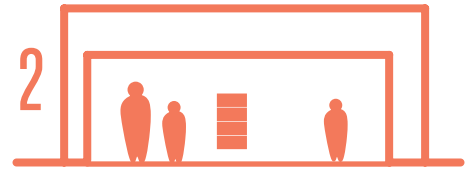
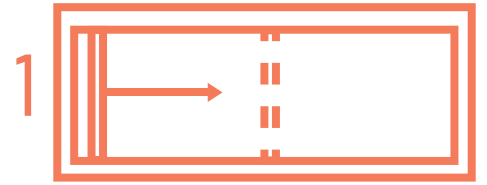
# AXONOMETRIC





FLEX SPACE A

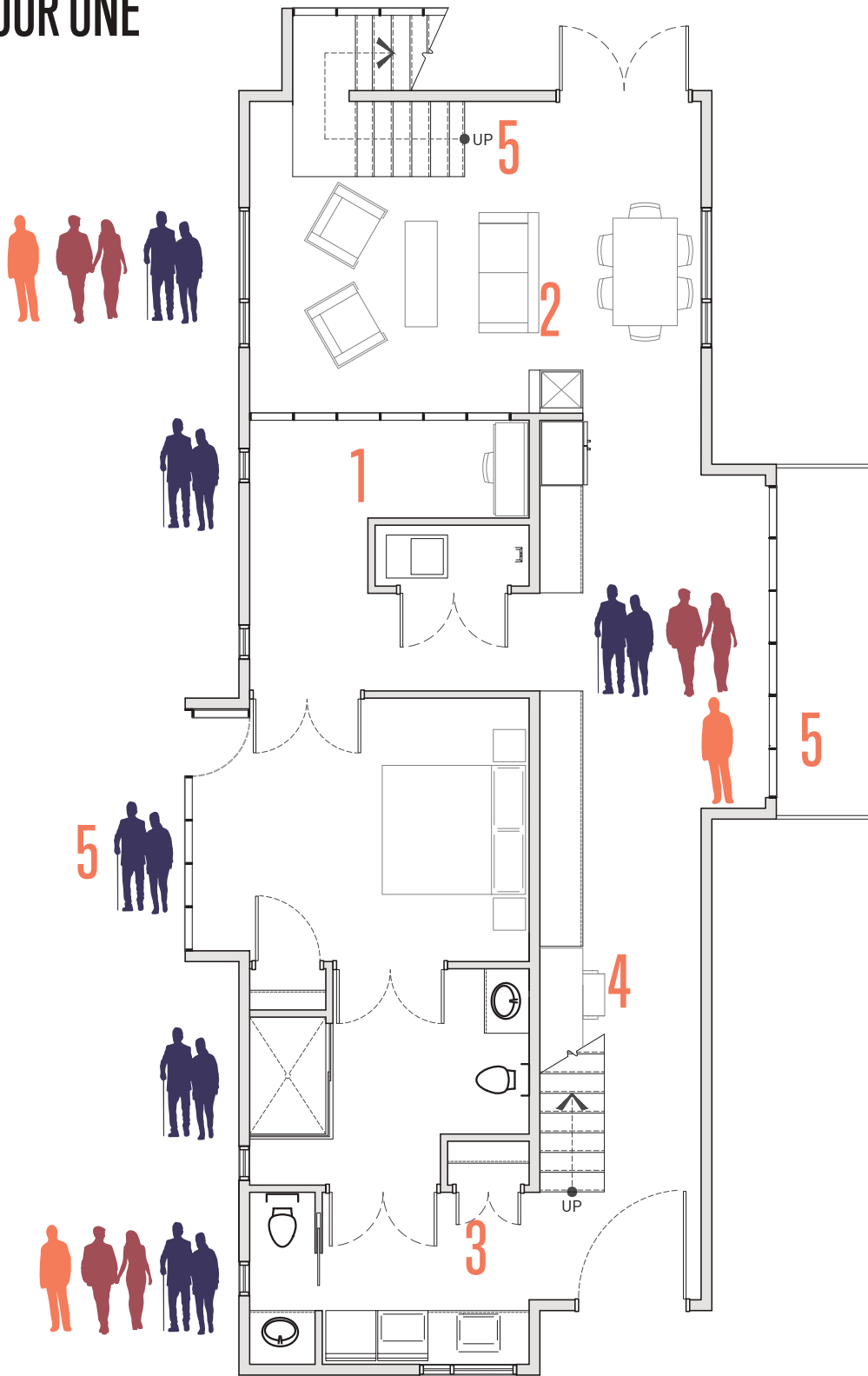
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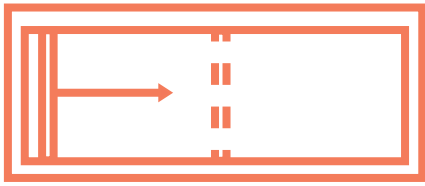


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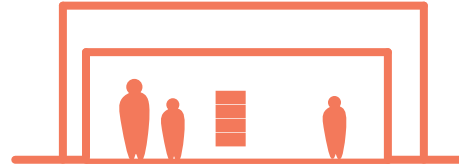
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# FLOOR ONE





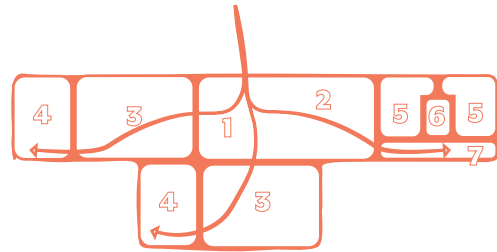
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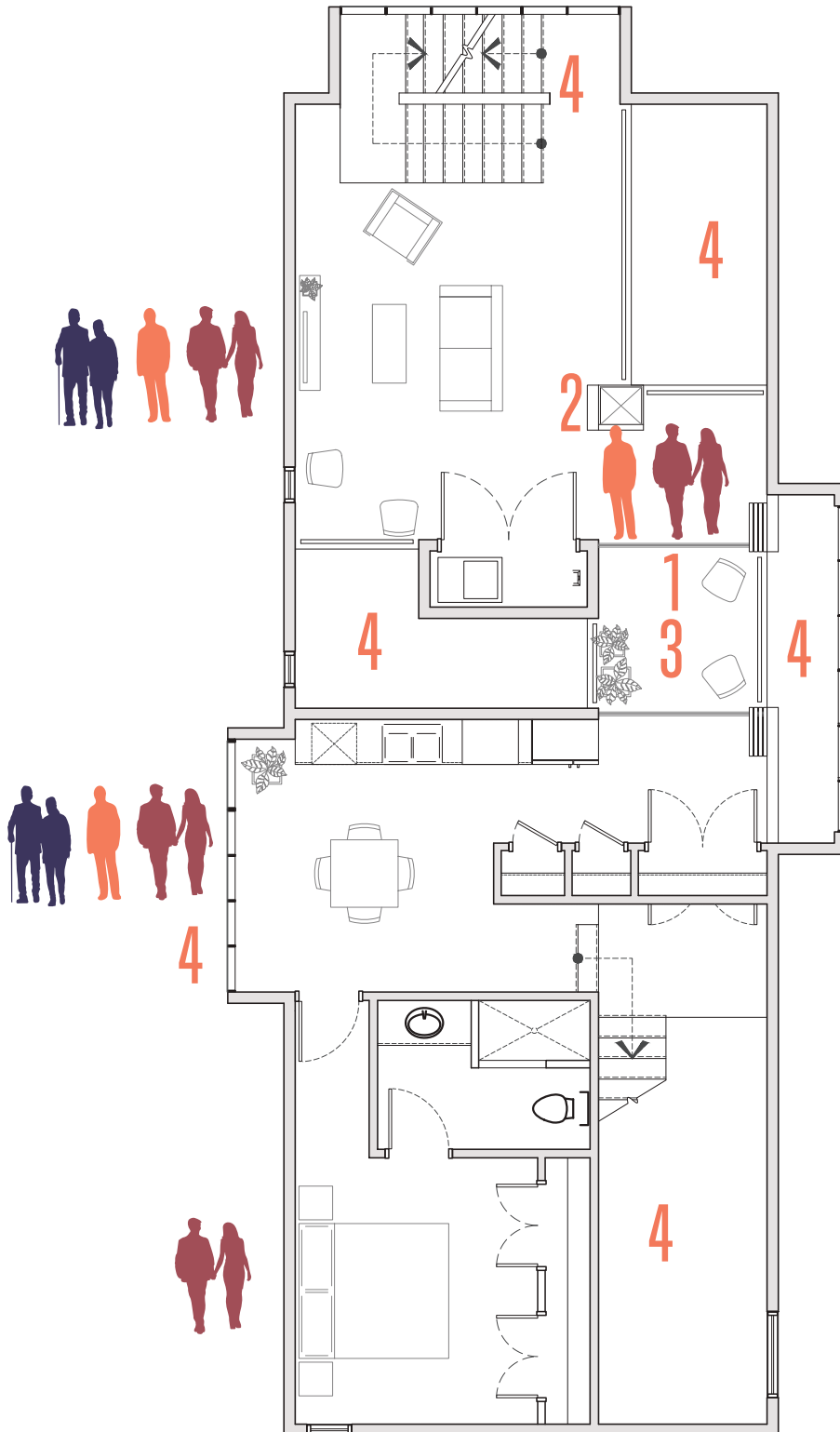


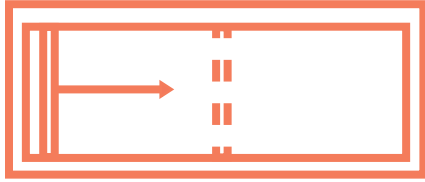
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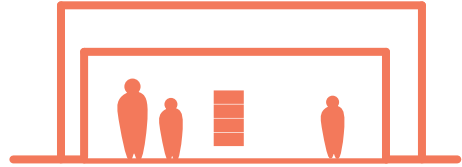
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# FLOOR TWO





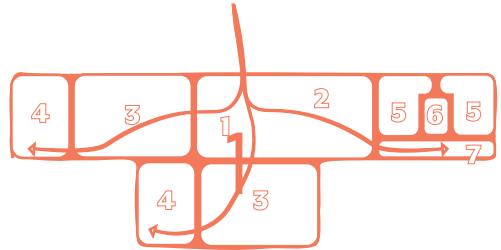
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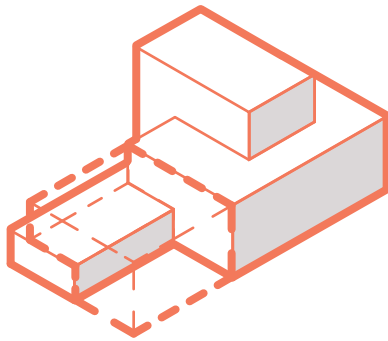
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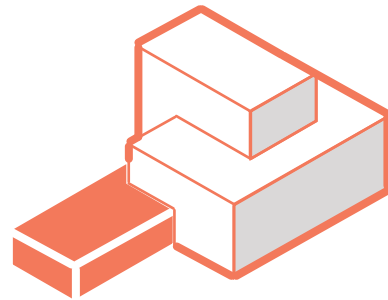
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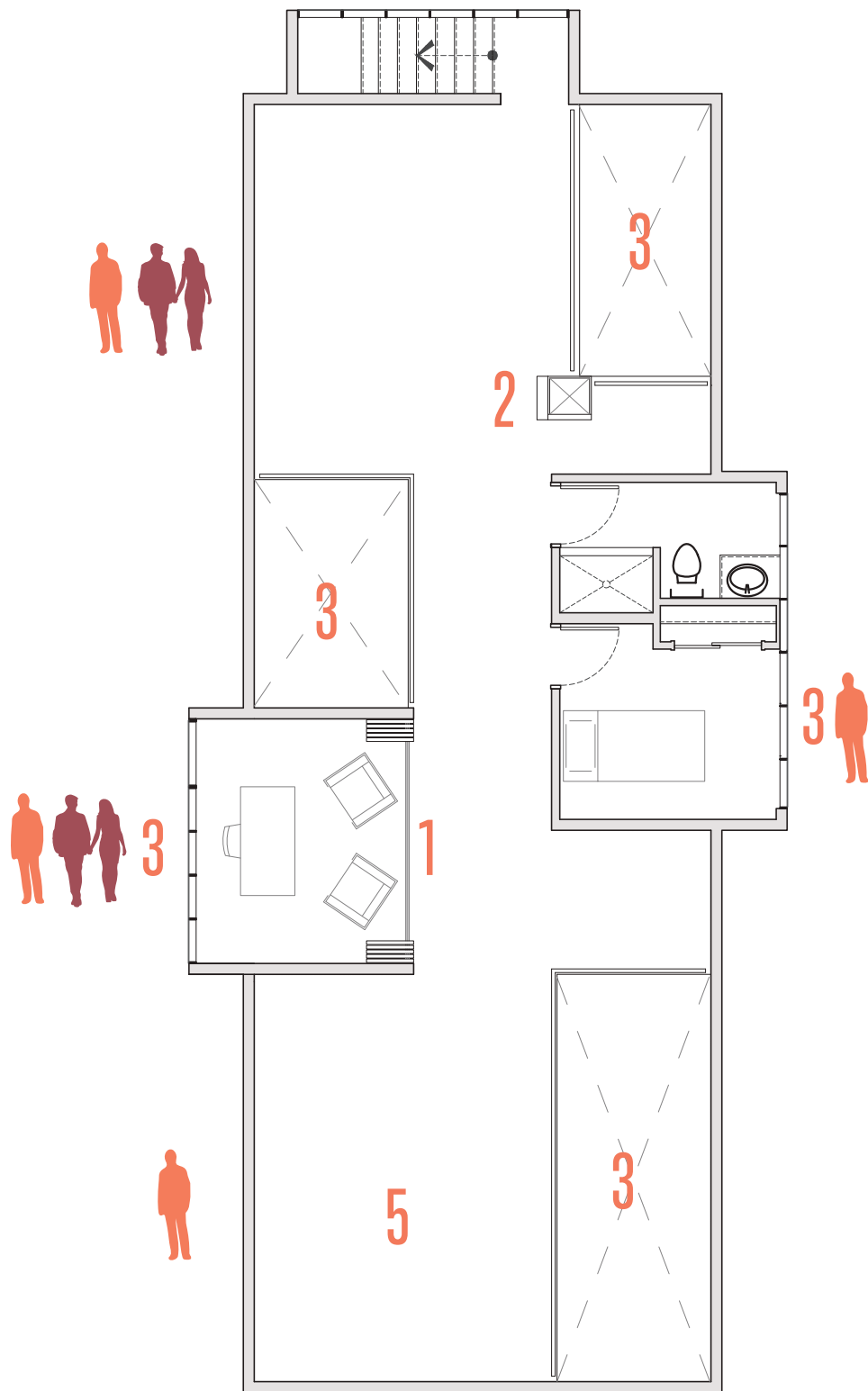


5



6

# FLOOR THREE







**TRANSVERS ELEVATION**



**LONGITUDINAL ELEVATION**





## CONCLUSION

Intergenerational design offers an alternative to age segregated communities, while still providing the needs of those who are aging. The design offers diversity for neighborhoods and allows for an intergeneration connection. Intergenerational residential design solutions solve many of the social, economical, psychological, and health concerns of an aging generation while also providing a support system.

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